

White Paper
Flood Control Zone 3
Flood Management Practices within the City of Mill Valley
August 21, 2006

Introduction

Flood Control Zone 3 was established in July of 1956 to address flooding problems in the Richardson Bay Watershed. Zone 3 is one of eight geographically distinct zones in the countywide Marin County Flood Control and Water Conservation District. The Zone includes both the unincorporated county areas and the City of Mill Valley. This White Paper presents an overview of the Zone 3 flood management practices in the City of Mill Valley; areas of responsibility, the cooperative relationship with the City of Mill Valley, current planning studies and on-going maintenance programs.

An Advisory Board consisting of residents of the Zone is appointed by the Board of Supervisors. The Advisory Board provides recommendations to the Board on major projects, flood control programs and policy issues affecting the Zone.

Areas of Responsibility

The Zone's primary responsibility is to improve and maintain major drainage ways to reduce widespread flooding.¹ Within the City of Mill Valley these drainage ways include:

- Arroyo Corte Madera Del Presidio
- Cascade Creek
- Old Mill Creek
- Sutton Manor Branch
- Reed Creek
- Ryan Creek
- Warner Creek

Most local drainage facilities such as catch basins, storm drains, and appurtenant storm water pumping facilities are owned and maintained by the agency with road right-of-way responsibility. Because Zone 3 includes areas within both city and county jurisdiction, the County maintains facilities in the unincorporated areas and the City is responsible for facilities within the city limits.

¹ In 1971, the County of Marin Board of Supervisors adopted a resolution that identified the drainage systems to direct the Zone's primary efforts and resources.

Cooperative relationship with the City of Mill Valley

Since the formation of Zone 3, the Zone and the City of Mill Valley have optimized their jurisdictional responsibilities by executing joint-powers agreements to conduct flood control studies, design and construct capital projects and provide maintenance programs. These activities were the most active during the mid 70's and 80's when a substantial amount of flood control infrastructure was built. Some of the major facilities cooperatively constructed at that time include Ryan Creek Pump Station & Tide Gate, Camino Alto Bridge, Warner Creek Erosion Protection, Scott Valley Bypass, Patricia Lane Box Culvert, Old Mill Creek Erosion Protection and East Blithedale/Mesa Storm Drain. The Zone continues to work cooperatively with the City to identify, construct, and maintain improvements.

Current Planning Studies

Arroyo Corte Madera del Presidio Appraisal-Level flood Study

The Zone and the City are currently participating in a flood assessment engineering study. This study was initiated in response to the flooding in the Sycamore Park neighborhood on December 31, 2005 and will describe the hydrology, hydraulics, and conceptual alternatives for reducing flooding within the study reach. The City hired Stetson Engineers to conduct the study and the Zone is providing complete hydrology model and a topographic survey of the creek, to be used as the basis of Stetson's analysis.

At the request of the Zone 3 Advisory Board the City has added the following items to the study:

- analyze the Willow Street and Valley Circle Bridges for clearance and the Locust Street and Egger Plaza Bridges for capacity
- analyze the Sycamore Park Pump Station
- analyze the use of cisterns
- analyze the diversion of storm flows to Terwilliger Marsh for detention/retention
- evaluate the impact of additional development on storm water runoff

A draft report will be available in November of 2006.

Richardson Bay Tidal Study

The Zone retained Winzler & Kelly Consulting Engineers to develop conceptual alternatives to address the tidal flooding on Miller Avenue between Camino Alto and Almonte Boulevard. The final report is scheduled for completion in the April 2007.

Ongoing Maintenance Activities

Routine Maintenance

The Zone reimburses the City for the maintenance of the major natural creeks within the City. The work is performed under the direction of the City of Mill Valley and includes the removal of obstructions and vegetation to maintain the flood flow capacity.

The Zone operates and maintains the Ryan Creek pump station; this pump station is operated in conjunction with the Ryan Creek tide gate to provide flood protection in a manner consistent with the maintaining the health of Terwilliger Marsh and providing flood protection from tidal inundation and winter storms.

Major Maintenance

Zone staff monitors sediment accumulation in the following major bay outfalls within city limits; Ashford/T-Ditch System, Roque Moraes Ditch, Miller Avenue Ditch and the Almonte/Bothin Channel. When accumulation exceeds flood flow design limits; the sediment must be removed. These outfalls are located in areas regulated by USACE, BCDC, CDFG and the RWQCB. Zone staff must complete a multi-step CEQA and regulatory permit compliance process before work can be performed in these areas. Once permits are obtained, the Zone hires contractors or uses Road Department Crews to remove sediment.

Storm Inspection

During major storm events County Road crew and Flood Control staff inspects various problematic areas in the storm drainage system. In Mill Valley these include:

- Vasco Court Inlet (Sutton Manor)
- Edna Maguire School Outfall
- 84 Lomita Drive Inlet
- Ryan Creek trash rack
- Ethyl Avenue-Reed Creek Bridge