

## **Santa Clara Valley Water District Weed Management Strategies: Got Regulations?**

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### **Introduction**

In 1989, the Santa Clara Valley Water District (District) began the process of preparing an Environmental Impact Report (EIR) for its herbicide activities. At the time, the intended outcome of the EIR was to reinstate the use of herbicides as a maintenance tool in southern Santa Clara County. Herbicide use had been discontinued on District properties south of Cochran Road in Morgan Hill fifteen years earlier.

While work progressed on the initial outcome, changes in other areas of the maintenance program mandated that a more comprehensive EIR be prepared to address all stream maintenance activities. And hence the Stream Maintenance EIR for the Santa Clara Valley Water District was born.

The content of this paper is limited to the vegetation management activities of the District's flood control work.

From a vegetation management perspective, maintenance staff was tasked with identifying the maintenance activities and their associated impacts. Once quantifying the programmatic impacts, staff began negotiating mitigation packages with regulatory staff and community groups. A key component of the success of the program approval was the involvement of these stakeholder groups from the early planning stages, into the program implementation, and routinely as the program evolves.

Twelve years later, the District kicked off its first work season under the Stream Maintenance Program EIR in 2002. The programmatic document defined an ongoing program with an initial permitting life of ten years. You may have noticed by now that it took twelve years to get a ten year permit – and yes, we are working on our next one!

### **The Vegetation Management Program Components**

The vegetation management program is an integrated program which combines a

variety of mechanical, cultural, hand removal and herbicide activities to address vegetation management needs on District streams. There are two major components of the program, with each one providing a separate outcome.

### **1. In stream vegetation control for storm water conveyance**

Aquatic herbicides, hand clearing and channel mowing are all combined to manage the District's 500 plus miles of streams throughout the county. The entire program impacts 223 acres of in stream riparian and wetland vegetation. Mitigation for these impacts includes control of invasive species (*Arundo donax* and *Spartina alterniflora*), land preservation in the upper watershed areas and wetland creation. Since the program mitigates for impacts one time, an acre of wetland or riparian vegetation can be managed in multiple years, while only mitigated for one time. This is one of the many benefits of a comprehensive program design.

To balance flood control and environmental concerns, selective removal of both riparian and wetland vegetation is performed throughout most of the channel cross section, while maintenance guidelines require the removal of all vegetation within 100' of the upstream and downstream side of bridges. Vegetative buffers are established along low flow channels of streams to minimize impacts to aquatic species

### **2. Right of way maintenance for access and fire prevention**

Short term residual pre emergence herbicides (Pendulum and Gallery) are tank mixed with Roundup Pro Concentrate to control weeds on top of bank areas such as fire breaks and maintenance access roads. Channel slopes are mowed and large open areas are mechanically disked each spring to meet local fire codes and provide maintenance access.

### **Best Management Practices and work calendar**

As a safeguard to the public and the environment, herbicide applications may only be performed by staff or contractors possessing a Qualified Applicator Certificate or Qualified Applicator License in the appropriate categories (Aquatics and Right of Way). Having this safeguard was a key component in getting regulatory agency approval of the herbicide program. The District pays for the licensing and provides a five percent differential to employees who apply herbicides in the regular course of their daily duties as an incentive. The District is tasked with performing over 500 acres of in stream work between July 1st and October 15<sup>th</sup> of each year. This is the general period between the end of bird nesting season and the beginning of anadromous fish migration. Since birds and fish do not use calendars, these dates may fluctuate depending on the species and the area of the county. This gives the herbicide crews less than a few weeks in some cases to get the areas done within the environmental window.

### **Summary and Conclusion**

In summary, the District is continually striving to meet its mission:

***“The mission of the Santa Clara Valley Water District is a healthy, safe and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner.”***

In order to achieve this mission, it is necessary to balance flood control, water supply, fire protection and environmental stewardship. To add to this balancing act, work projects need to be performed within budget in these trying fiscal times. There will always be a challenge of doing more work with fewer resources. A comprehensive maintenance EIR will have significant initial costs, but if properly prepared will pay for itself in the first few years of implementation.

This has been a brief description of a very comprehensive program. For additional information, please contact the author.