

Integrated Pest Management Report for 2009

Parks & Landscape Staff Services

Highlights of Projects and Strategies

IPM has been a primary focus this year for the Department of Parks and Open Space and its staff. Special effort has been made to expand our cultural practices and use of Organic Materials Research Institute (OMRI) and Eco-Exempt products. The Board of Supervisors approved additional funding for fiscal year 2008-09 and those funds were used to accomplish a number of improvements at the Marin Civic Center complex. For fiscal year 2009-10 funds have been provided to help implement and administer the new IPM Ordinance and Policy. Since the passage of the updated IPM Ordinance and Policy, staff has worked hard to meet those goals. Listed below is a summary of projects and strategies implemented during 2009.

- All sites where rats have been an issue have had bait stations changed from 'bait blocks' to traps. The contractor and staff check the traps 2-3 times per week depending on rodent activity. Rat baits are no longer used and only trapping is allowed
- The trees and shrubs have been pruned at the Civic Center that were encroaching on the building and providing shelter and access to both ants and rodents. Several days and almost 100 crew hours were needed
- Over 300 yards of redwood bark spread in combination with our "sheet mulching" projects.
- Landscapes at Creekside Park (excluding the marsh), the Corte Madera Bike Path, the Health Dept., 120 N. Redwood and the Health and Wellness Center Campus were all maintained with ECO-Exempt and OMRI products only
- The marsh area at Creekside Park had over 800 hours of volunteer labor to hand remove Invasive Spartina to reduce the need for herbicide applications. The students who volunteer end up very muddy and but satisfied. The labor has come from various volunteer groups and schools. The latest approach is to have "Green Birthday Parties" where people are organizing plantings and weed pulling as part of a birthday celebration to give back to the community
- Nearly 25,000 square feet of sheet mulch was installed to reduce weed infestation: this work was completed at the Civic Center Lagoon Park, Paradise Park and the Lucas Valley Field office. The work was performed by staff and volunteers participants and represents over 200 man-hours. We hope that these areas will not need weed control applications for up to 3 years.
- 15 different releases of predatory and parasitic insects were made in the interior of the Civic Center to reduce the populations of whitefly, mealy bug, scale and red-spider mites. The releases include Encarsia, Cryptolamus, Lace wing larva, Delphastus insects and Neoseiulus predatory mites. These beneficial insects have helped to keep the plant damaging insects in check and reduce the materials applied. This approach reduced hours dedicated to hand removing and cleaning of the interior plants. The releases take a fair amount of time to do properly and effectively.
- 200 pounds of earthworm castings were added as top dressing to the soils at the Civic Center interior planters to increase the soil microorganisms and improve nutrient uptake by the plants. This has been reported to improve resistance to various insects and plant diseases and generally improve the plant's overall health. Staff will be monitoring to assess the benefits in plant health

- 13 Tupidanthus trees on the interiorscape of the Civic Center were removed and replaced. These original plantings made in the 1970's had become infested with insects and were difficult to treat. The new plants cost over \$ 4000 and had to be brought up through the service elevators. The new trees were in 24" boxes and barely fit in the elevators. They were replaced on two weekends to reduce disturbance to employees in the building. They were constantly infested with mealy bugs and were the source for re-infesting many other plants in the rest of the interior. The new planting have had some problems with whitefly and mealy bugs but are responding to the releases and organic products. Over 80 man/hours were needed for this project.
- Over 50 other plants have also been replaced in the interior to reduce the spread of mealy bugs at the source and reduce the need to make additional chemical applications
- We have been monitoring of insects on the interior with yellow sticky traps to check pest levels. The stick traps are periodically checked and replaced every other month or more often depending on the insect populations
- The cascades fountains in Lagoon Park had the motor replaced and the intake line extended. This has increased circulation and aeration of the Lagoon and has helped reduced the risk of algae bloom and the need for chemical treatment
- Over 50 gophers were trapped at Lagoon Park and the surrounding turfs to improve turf quality and user safety
- The county fairgrounds were maintained with a baseball field drag instead of using chemical applications
- Staging Coyote Decoys at the Marin Center and Lagoon Park to reduce the numbers of Canada Geese. The decoys are moved 2-3 time a week to improve the desired response from the geese. Aside from improving health conditions on the pathways it also reduces the nitrogen load in the lagoon and subsequent surge in algae bloom.
- Insulation foam has been used in an attempt to seal several yellow jacket nests to reduce the use of pesticides. This has not been completely effective but is being used to further reduce risk
- Court referral works have provided over 3500 man hours for weeding and litter pick up to reduce herbicide applications and reduce food for rodents.
- Flaming trials were conducted on weeds at the Civic Center
- Matran (an organic product) was applied at the Health and Wellness Center with some success. Most of the organic herbicides are temperature sensitive and perform their best with very small seedlings, and when the temperature is over 80 degrees F. Staffing and timing is critical to achieving good results.