

November 14, 2023

Ryan Zajda – Director of Facilities and Sustainability **Laguna Beach** Unified School District

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RE: Laguna Beach Unified School District Organic Landscape Management

Dear Ryan

This letter presents an overview of the "organic" IPM program utilized by Mariposa Landscapes during our daily activities within the Laguna Beach Unified School District. Integrated Pest Management (IPM) is the science-based decision process that defines strategies to identify and manage pests. It is a sustainable approach to managing pests based on biological, cultural, physical, and chemical control to minimize aesthetic, economic, health and environmental conditions.

We use a combination of the management tactics listed above in our approach to minimize and/or eliminate pest problems.

Pest control and pest management are often considered synonymous. There is however a difference between the two.

Pest control has traditionally relied on chemical remedies for pest problems. Pest management involves an evaluation process taking into consideration pest population levels and the best solution for their control.

Biological control is the use of natural enemies – predators, parasites, pathogens, and competitors – to control pests and their damage. Though Mariposa does not currently introduce any beneficial organisms into the environment, we do identify and encourage their presence.

Cultural controls are the practices that reduce pest establishment, reproduction, dispersal, and survival. For example, changing irrigation practices can reduce pest problems, since too much water can increase root diseases and weeds. The recommendation of planting bare soil areas

will be made as well as a mulch application suggested for weed control. Bare turf areas will be sodded or overseeded to reduce weed populations.

Mechanical and physical controls kill a pest directly or make the environment unsuitable. Traps for gophers are examples of mechanical control. Physical controls include mulch for weed management, steam sterilization of the soil for root disease management, and / or barriers such as screens to keep birds or insects out.

Chemical control is the use of pesticides and is always our last solution for any pest. Mariposa Landscapes uses pesticides only when needed and in combination with other approaches for more effective, long-term control. Additionally, pesticides are selected and applied in a way that minimizes their possible harm to people and the environment. Within our IPM program we use the most selective pesticide that will provide the desired control and to be the safest for other organisms as air, soil, and water quality.

Based on current products available the following will be used only as a last resort when all other control measures fail to provide the desired results.

Avenger is a contact organic-herbicide d-limonene, citrus based and OMRI certified for use in organic farming. It is not translocated in the soil and does not provide residual weed control after the initial application. Continual applications are needed to provide moderate weed control.

Fiesta an optional turf bio-herbicide, will be used only after all cultural and manual controls fail to provide the desired results. Applications are made to actively growing weeds when temperatures are cool. Treatments are reapplied 4 weeks after the initial application with up to 4 applications per year.

WEED CONTROL in planter beds and bare soil conditions present a visually unpleasant result. Weeds germinate throughout Southern California all year long if not controlled. Within our IPM program we will start with the cultural, mechanical, and physical control methods with chemical applications as the final control.

WEED CONTROL in turf grass areas is reduced by properly maintained, irrigated, and fertilized management. Worn or bare areas should be sodded or over seeded as needed to reduce weed growth. Sustainable fertilizers will be used to provide a thick actively growing turf grass further prohibiting weed growth.



MULCH is a wood product placed on top of any bare soil area. It reduced annual weed growth by limiting light required for plant establishment. Perennial weeds manually controlled often have sufficient root systems to allow their regrowth through a mulched area. Bare soil areas should receive 2-3 inches of ½ to 1½ inch size of mulch to reduce weed growth. Mulch does by nature break down and should be reapplied often.

TERMS TO CONSIDER

CalEPA, the California Environmental Protection Agency defines anything that kills any kind of pest as a pesticide. Simply put, an insecticide kills insects and a herbicide kills plants. It is important to note that the term "non- toxic organic "cannot be used in a legal pest control Management Plan as regulated by the California Healthy Schools Act (HSA). Pest Control management plans must also comply with the California Department Pesticide Regulation. (DPR)

Respectfully submitted,

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