

March 20, 2024

Gus Mattammal, Chair
Midcoast Community Council
Sent via email: midcoastgus@gmail.com

RE: Response to the Midcoast Community Council's December 13, 2023 Letter Requesting Information Regarding Pesticide Use in San Mateo County

Chair Mattammal:

I write in response to the Midcoast Community Council's (the "MCC") letter dated December 13, 2023, in which you request information regarding pesticide use in San Mateo County (the "Letter"). Please note, some information requested in the Letter, specifically by way of the El Granada Advocate's November 26, 2023 ASKS Letter (the "ASKS Letter"), is outside of the purview of the San Mateo County Parks Department, and therefore is not addressed in this response.

Introduction

Prior to considering the content of the ASKS Letter and this response, I strongly urge you to watch the Department's [Achieving Healthy Ecosystems forum](#) from January 31, 2024. The forum focused on the Department's Integrated Pest Management program—more commonly referred to as IPM—which is an ecosystem and science-based stewardship strategy that focuses on the efficient and long-term prevention of pests or their degradation of ecosystems through a combination of control methods including biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Judicious use of herbicide only occurs if the above control methods are found to be ineffective or infeasible. All treatment materials and methods are selected and implemented in a manner that minimizes risks to human health, beneficial and non-targeted species, and the environment.

Invasive species present a direct threat to local ecosystems and the biodiversity within the County parks system. Perhaps the most obvious and significant impact of invasive species on the native plant community is through competition for resources (physical space, sunlight, water, nutrients, etc.). Invasive species are typically aggressive competitors that can grow and propagate quickly, as well as survive in a variety of landscapes including degraded or resource-limited habitats. While not all non-native

plants become invasive or warrant active management by the Department, those that do can displace native plant species and harm the wildlife that depend upon them. If left unmanaged, the resulting reduction in local biodiversity may trigger a foundational impact on ecosystems and permanently transform park landscapes.

The Department acknowledges that the subject of herbicide use is one filled with passion and varying perspectives. To understand the viewpoint of many leading subject-matter experts and conservationists, I encourage you to watch the Wildlife Conservation Board's [September 30, 2022 Board meeting](#). During public comment, which starts at 2:05, representatives from various conservation organizations and resource agencies—including the California Natural Resources Agency, California Native Plant Society, California Department of Fish and Wildlife, The Nature Conservancy, and California Invasive Plant Council—speak to the importance of being able to judiciously use herbicide in habitat restoration efforts. The first speaker, Dr. Jennifer Norris, [Fmr.] Deputy Secretary for Biodiversity and Habitat at the California Natural Resources Agency (now Executive Director of the Wildlife Conservation Board), stated "...invasive species are a direct driver of biodiversity loss across the globe, so the removal of invasive plants is a critical element of successful habitat restoration and protection and unfortunately many invasive plants are difficult to remove without the use of targeted chemical applications. I urge you to recognize that an integrated pest management toolbox that includes judicious use of herbicides is critically necessary to conserving California's biodiversity."

Management of Invasive Species in County Parks

The Department's IPM work is science-backed, relying on experiments and expertise from a wide range of land managers, scientific consultants, and expert staff. Herbicide is just one treatment method utilized by the Department. Other treatment methods utilized by the Department, and on a more frequent basis, include using hand tools (i.e. string trimmers, Mcleods, hedge clippers, and weed wrenches), hand pulling, mulching, masticating, re-vegetating with competitive native species, installing weed suppression fabric, and mowing. The Department also regularly field tests new treatment methods to identify innovative and effective strategies for controlling invasive species, including hydromechanical pulverization, flaming, steaming, tarping, burying and compaction, and cutting below the soil line. When a treatment approach is proven (1) to be effective at controlling targeted species without having long-term impacts on native vegetation and soil health and (2) is scalable, it is added to the Department's list of treatment approaches considered for future projects. Each of the aforementioned treatment approaches serve as a testament to the Department's commitment to expand its methodology.

Through the technical knowledge gained from managing habitat restoration/preservation and fire fuel reduction projects, performing field studies, consulting with subject-matter experts and other land managers, and conducting literature reviews, the Department's Natural Resource Management Division has determined there are circumstances in which herbicide application is the most appropriate treatment method for controlling invasive species and protecting and preserving native habitat. For example, no other

treatment approach has been found to be as effective at controlling species that have underground reproductive parts or species where all or most of the root crown must be removed for effective management. This includes species such as oxalis (*Oxalis pes-caprae*) and large jubatagrass plants (*Cortaderia jubata*). Without effectively controlling these species, they will spread rapidly, encroaching on native landscapes, and ultimately reduce habitat quality to the detriment of local ecosystems.

It has also been determined that herbicide application is the most effective treatment method for controlling vigorously re-sprouting tree species such as eucalyptus (*Eucalyptus spp.*). Currently, applying herbicide to a freshly cut eucalyptus tree is widely regarded as the most effective method for suppressing regrowth at a large scale. Without properly treating freshly cut eucalyptus trees, the trees will resprout at a rate of approximately four to six feet per year. This would quickly render the Department's fuel reduction efforts, especially at Quarry Park, ineffective and the wildfire threat to neighboring communities would persist or worsen. Absent an effective and feasible alternative for preventing re-growth, large-scale eucalyptus removal throughout the County parks system, including at Quarry Park, would be significantly limited. Instead, the Department would focus its resources on reducing fire fuels in segments of the County parks system that can be properly maintained in a feasible manner.

Other circumstances in which herbicide application is the most appropriate treatment method include:

- when working in sites with high ecological sensitivity which limits ground disturbance (for example, when working in grasslands where federally listed butterfly larvae go into diapause at the base of native host plants and mowing could cause severe harm and/or death),
- when a treatment area is on steep terrain where ground disturbance from manual removal could lead to erosion or even slope failure and other non-chemical management options are less effective, and
- when an infestation is large enough that hand pulling is infeasible or disruptive to soil health and ecology and other non-chemical management options are less effective.

Decision Making Process

When an invasive species is discovered in a County park, the Department's Natural Resource Management Division conducts a detailed evaluation process to determine if control is required, and if it is, what treatment method/s is/are most appropriate. Please see the attached flowchart which details the Department's decision-making process (Attachment 1). Staff from the Department's Natural Resource Management Division have dedicated their careers to understanding the local ecology and regularly attend and participate in Weed Management Area meetings, the California Invasive Plant Council's (Cal-IPC) yearly symposium, Ecological Society of America and California Native Plant Society's meetings, and regional working groups related to fire fuel reduction and rangeland management to stay informed of the best science-based treatment approaches available. Outside subject-matter experts and literature are also

often consulted to ensure responsible actions are taken to preserve and protect native habitat and support the rich biodiversity found within the County parks system.

When selecting a treatment approach, the Department only uses control methods approved by the appropriate regulatory bodies, including the U.S. Environmental Protection Agency (EPA), California Department of Pesticide Regulation (DPR), U.S. Department of Agriculture (USDA), California Department of Forestry and Fire Protection (CalFire), local fire protection districts, the San Mateo County Agricultural Commissioner's Office, U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW). Before selecting herbicide as a treatment method, staff evaluate all non-chemical treatment options available. If non-chemical treatment methods are available and more effective at eliminating the target species within a reasonable management timeframe, the Department will select a non-chemical treatment method. Even when a non-chemical treatment method is only moderately less effective than chemical methods, the Department will select a non-chemical treatment method.

There is no "one-size fits all" formula to managing invasive species. Treatment and control methods require adaptation depending on the species, site, duration, and unique circumstances. During efforts to control invasive species, the Department will utilize a combination of treatment methods based on the changing needs of the project location and population of species desired for control.

Transition to Regenerative Land Management (RLM)

While there is no single or shared definition of regenerative land management, the strategy generally focuses on protecting soils, increasing biodiversity, improving the water cycle, and enhancing ecosystem function. It is generally used in agriculture, with a particular emphasis on minimal soil disturbance (e.g. reduced tillage) and building soil health through compost, mulch, crop rotation and cover cropping. While individual practices may be more or less relevant or feasible in park settings, many are currently being implemented by the Department as it actively works to restore and protect ecosystems and eradicate weeds that damage soil health, interrupt a healthy water cycle, and jeopardize biodiversity. Regenerative land management often involves making decisions that are specific to individual locations and species, including considerations such as whether mechanical or hand pulling of weeds is more or less disruptive to soils than other methods in specific conditions.

The section below includes direct responses to the questions and comments posed in the ASKS Letter.

I. NOTIFICATION

Under current practice, prior to herbicide being applied in a County park, the Department posts an advisory on its website and in the respective park notifying park visitors that herbicide will be applied in the park. Recreational facilities in immediate proximity of the treatment area(s) are closed to the public during application and until

the required re-entry period expires. The Department's Notice of Herbicide Application (Attachment 2) details the herbicide product being used, its active ingredient, targeted pest(s), area(s) to be treated, application date ranges, signal word, EPA/CA Registration Number, and the re-entry period. The notice is accompanied by a map showing the area(s) of the park where trails or facilities may be temporarily closed during treatment. The advisory is posted on the Department website, in the park, and at all closure points while treatment occurs. If treatment activities are occurring in areas of a park that are not open to the public (i.e. the interior of a park where no recreational facilities are located), no notice is given as herbicides are not being applied in proximity to the public.

In response to the El Granada Advocates' ASKS Letter, the Department has made several changes to its noticing process. First, the Notice of Herbicide Application will be revised to include: (1) the application method that will be used when applying the herbicide and (2) the treatment goal(s) for herbicide application. Second, the Department will post the advisory on its website and on the respective park's kiosk at least three calendar days in advance of scheduled work. It is important to note that in order to apply herbicide, weather conditions must meet specific requirements as determined by the Department's state-licensed pest control advisor and the product label. Therefore, it is not uncommon for scheduled treatment dates to be delayed until weather conditions allow for the prescribed work. Under these situations, the advisory will be updated accordingly to provide the public with the most accurate information possible. The notice will not be left in place after the re-entry period has expired (except when additional time is needed for staff to remove signs) as there is no science indicating a risk to people entering the treatment area after the re-entry period expires.

II. TRANSPARENCY

As stated at the December 13, 2023 MCC meeting and during the Department's January 31, 2024 Achieving Healthy Ecosystems forum, the Department will start publishing an Integrated Pest Management Report annually. This is a direct result of the El Granada Advocate's ASKS Letter. This report will document the actions taken by the Department to manage invasive species, including species targeted for control, utilized treatment approaches (i.e. hand pulling, masticating, hydromechanical pulverization, herbicide application, etc.), the desired ecological outcomes, and estimated total area treated. The IPM report will include a chapter on herbicide use in County parks that shows the dates of application, locations of application, application methods, names of herbicide applied, EPA registration numbers, quantity used, species treated for control, and approximate area treated. This report will increase transparency by documenting the Department's IPM efforts in one, easily digestible report. Because this document covers all IPM efforts, it will include herbicide use in County parks as well as other information.

Given the amount of data to be collected and compiled, and the time it will take to prepare the report, the Department intends to release the report in June of every year. For example, the 2023 IPM Report will be released in June 2024.

III. ACCOUNTABILITY

This is not within the purview of the San Mateo County Parks Department.

IV. START AN ALTERNATIVES TO PESTICIDE PILOT WITH THE GUIDANCE OF NON-TOXIC NEIGHBORHOODS

As stated in the Introduction section, the San Mateo County Parks Department regularly field tests new and innovative treatment approaches to controlling invasive species. Treatment approaches field tested by the Department include, but are not limited to, hydromechanical pulverization, flaming, steaming, tarping, burying and compaction, and cutting below the soil line. To advance our understanding of different treatment methods, the Department is partnering with others to field test organic herbicides with a particular focus on its efficacy and impact on non-target species and soil health. The Department is committed to field testing and studying new treatment methods and will continue to explore additional strategies as they are developed. Please note, many neighboring and partnering agencies field test new and innovative treatment methods on a regular basis as well, and the Department frequently engages with these agencies to understand the findings of their field studies. This sharing of information is already common practice and allows for a more robust understanding of alternative strategies.

V. IMPLEMENT A STAFF, LANDSCAPER AND 3rd PARTY CONTRACT TO PREVENT THEM FROM BENEFITING FROM FINANCIAL INCENTIVES OR USING VENDOR REWARDS PROGRAMS (Bayer Rewards Program that rewards personal visa gift cards based on level of purchase) THAT MOTIVATE THE PURCHASE OF PESTICIDES

This is not within the purview of the San Mateo County Parks Department.

SMC RESOLUTION: #071857

On March 13, 2012, the Board of Supervisors approved the following motion: "The County of San Mateo eliminate all broadcast spraying with the exception of the two airports and use spot spraying for invasives only". In the ASKS Letter, the El Granada Advocates ask "It [the resolution] specifies no broadcast spraying on County highways or County Parks. Why is there still spraying in parks?" The Department does not broadcast spray herbicide or allow broadcast spraying of herbicide to occur in County parks. With regards to herbicide, broadcast spraying is the indiscriminate application of herbicide to a large area. When herbicide is applied in a County park, it is judiciously used and applied in a targeted manner. Therefore, the Department's practices are consistent with the Board's 2012 directive.

Thank you for the opportunity to respond to your letter, and I would be happy to attend an MCC meeting to answer any questions the council may have.

Respectfully,

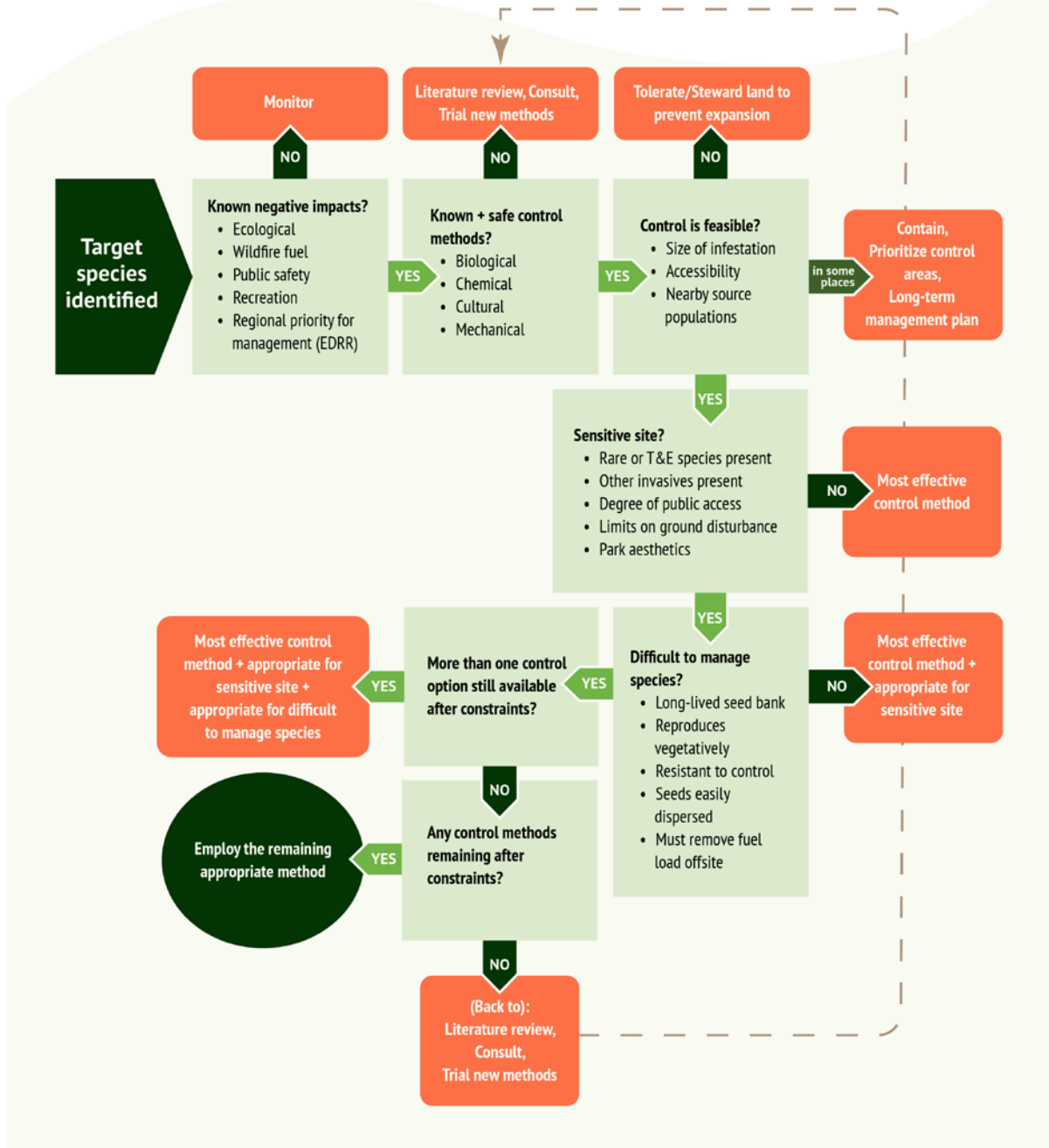
A handwritten signature in blue ink, appearing to read "N.J.C.", with a horizontal line extending to the right.

Nicholas J. Calderon
Parks Director

Attachment 1



San Mateo County Parks INTEGRATED PEST MANAGEMENT Decision Flow Chart



Attachment 2

NOTICE OF HERBICIDE APPLICATION



Herbicide Name(s): _____

Active Ingredient(s): _____

Target Pest: _____

Area to Be Treated: _____

Application Dates: _____

Signal Word: _____

EPA/CA Reg #: _____

Re-Entry Period: _____

More Information: Contact _____ or smcoparks.org

Herbicide are applied in accordance with State and Federal regulations.]