April 22, 2024

Gus Mattammal, Chair and MCC Members Midcoast Community Council

RE: Response to Nicholas Calderon's letter to the MCC regarding our ASKS pertaining to pesticide use in the Parks.

Dear Chair Mattammal and Midcoast Community Council Members:

Our behalf of our community, please see <u>responses in blue</u> from El Granada Advocates, Non-Toxic Neighborhoods, and Protect Our Watershed SMC. We hope you will consider sending a letter of support for our community ASKS to Supervisor Mueller's office and the County Executive Officer. We have recently collected 119 signatures to add to our letter of ASKS which includes San Mateo County citizens and several community organizations. We hope the MCC will represent the community's concerns with this topic.

March 20, 2024

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. It is crucial to emphasize that constituents have every right to understand the use of pesticides within their community and how public funds are allocated for their purchase. Transparency regarding pesticide use and the allocation of public funds is essential for protecting public health and safety, addressing environmental concerns, ensuring accountability, and fostering community engagement. For this reason it's important for MCC to uphold the principles of good governance and serve the best interests of the constituents.

Yes, our ASKS address the entire public lands of the County including the Parks. Thank you for addressing the public rights. With that, <u>please note this County organizational chart</u> and who sits at the top.

How public funds are allocated for pesticides is unclear and therefore, it is very important we specify those funds are not to be allocated directly or indirectly to Pesticide rewards programs that provide untraceable Visa gift cards or other "prizes" to staff, or 3rd parties, to incentivize pesticide purchase. Non-Toxic Neighborhoods has evidence of this happening worldwide with pesticide distributors. We are grateful Supervisor Mueller is working on contract amendments with County Council.

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.

The original definition of IPM was intended to protect the public and ecosystems from harm, by asserting all other methods including organic herbicides be used first. Over the years, IPM policy definition has been co-opted by the chemical industry to become protective of pesticide use. IPM is now a marketing tool that maintains the use of pesticides under the guise of environmental stewardship. It is effectively promoting and protecting continued pesticide use rather than its original intent of minimizing risks to human health and the environment. IPM ignores the current science which proves pesticides are causing direct harm to humans and ecosystems and pesticides are likely part of the reason for the mass extinction of species we are seeing.

Example research links: <u>Increase Risk for Cancer</u>, <u>Low levels of Pesticide Cause Harm</u>, <u>Childhood Exposure</u>, <u>Harm to Children</u>, <u>Multigeneration Harm to Bees</u>.

PFAS (forever chemicals) have been <u>found in 1400 pesticides</u> and often are not required to be listed because they are considered inert ingredients.

It's time to confront the fallacy that vegetation management using pesticides is more effective than non-pesticide methods. While pesticides may offer quick and temporary fixes, they exact a chronic devastating toll on our environment, biodiversity, and health. The widespread use of ecocides like glyphosate based products wreaks havoc on soil health and ecosystems, disrupting fragile balances and decimating endangered species and their fragile and protected habitats. The EPA's own data reveal that these chemicals are likely to injure or kill a staggering 93% of listed endangered plants and animals. It's time for land managers to recognize the stark reality: continuing down the path of pesticide reliance jeopardizes the ecosystems that they strive to protect.

Compliance with a policy that does not protect public health is not relevant to human health. Rather, it is intended to protect the County from legal liability by using guidelines promoted by the EPA, which itself has been heavily influenced by the industries it regulates. The transcript from county staff who participated in the County Department's Achieving Healthy Ecosystems forum from January 31, 2024 - shows that they are not following the basic principles of IPM. Pesticides are used as a first GO-TO for specific plants, and organic herbicides have not been used as a method before implementing synthetics.

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.

"Invasive species present a direct threat to local ecosystems and the biodiversity" is a pesticide industry talking point. Scientists have known since "Silent Spring" that pesticides and herbicides are a proven direct threat to ecosystems and biodiversity. Non-Toxic Neighborhoods regularly hears pesticide industry talking points such as we only use a "judicious" quantity of pesticides as a "tool" in our "tool box". Making it sound like just a 'pinch' is used rarely. Yet, the truth is these poisons are used continuously...monthly, quarterly and in some places, daily. Pesticide distributers have trained their Pesticide Control Advisors (PCA) with these talking points. As the PCAs make recommendations to landscapers and County staff, this language gets passed on. Please see here the irony of the validity of a PCA. They are paid by Pesticide companies.

County staff have a legal and moral obligation to acknowledge and act upon the mounting scientific evidence provided by federal and state agencies, including

the EPA. Ignoring this evidence in favor of protecting the use of harmful chemicals is unacceptable and runs counter to the principles of environmental sustainability and stewardship. It is time for County staff to prioritize evidence-based, sustainable solutions that promote the health and resilience of local ecosystems without compromising public health or the environment. Anything less is a disservice to our communities and future generations.

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 iudicious use of herbicides is critically necessary to conserving California's biodiversity."

It's concerning that County staff would reference an outdated quote that Dr. Jennifer Norris, made in 2022, prior to EPA's final report on glyphosate impacts to endangered species. While Dr. Norris highlighted the importance of invasive species removal in habitat restoration, it's essential to recognize that her statement predates comprehensive research on the specific impacts of glyphosate on endangered species plants and animals. Referencing outdated statements without considering the latest scientific evidence can mislead decision-making efforts. It's crucial to prioritize up-to-date, evidence-based information when making decisions about the use of herbicides and other chemical applications in habitat restoration.

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, revegetating 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.

Yes, the County speaks to using alternative methods. We are grateful for their use of these methods. Yet, they are not always using these methods FIRST. The Parks webinar shows they continue to regularly apply pesticides on specific plants first before using alternative methods. An example from the Parks presentation is spraying Clearcast herbicide on Oxalis first before using alternative methods to save butterfly larvae. And spraying chemicals on butterfly larvae saves them? A tool that could be used here is a product called Root Wave. It kills the plant at the root when touching it to the stem. Another example described by Parks landscapers is the GO-TO application of glyphosate on Jubata grass and broom as standard practice without effort to remove them mechanically first and without trying organic herbicides afterwards. There are volunteers in Pescadero that are experienced at mechanically removing Jubata grass regularly. The Parks could utilize this group to train many volunteers to do this work. We can see in the public records that glyphosate is used in the Parks and on other County public lands. For transparency reasons, it is concerning that glyphosate use was not mentioned in the Parks webinar.

It's essential to address the disconnect between County staff's claims of science-backed integrated pest management (IPM) and their failure to consider the latest scientific findings, such as the EPA's new final report on glyphosate's impacts on endangered species. While County staff may assert that their IPM strategies are science-backed, it's clear that they are overlooking critical evidence that directly contradicts the safety and efficacy of glyphosate. The EPA's report highlights the alarming reality that glyphosate injures or kills 93% of the total list of endangered species, and that it destroys 96% of their protected habitats. Ignoring this substantial body of evidence not only undermines the integrity of county staff's IPM approach but also jeopardizes the health and well-being of endangered species and their habitats.

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 is important to note that the most effective treatment approach, may not be the best one if it adds poison to ecosystems. And pesticides do not protect habitat, they destroy it.

The Parks state, they have not ruled out organic herbicides as an effective approach. Thank you for being willing to try it.

There are volunteers in Pescadero, La Honda, and San Gregario who regularly mechanically/manually remove Jubata grass and can train others to do it too.

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.

It's crucial to call out the hypocrisy of claiming to prioritize ecological sensitivity of a federally listed butterfly larvae while disregarding the consequences of spraying a pesticide directly on the area where the larvae exist.

Drones can be used to spray organic herbicides on steep terrain.

Pesticides are disruptive to soil microbiology which is essential to plant health and soil hydration.

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.

This highlights the influence of special interests and their now-confirmed role in staff decisions. We must denounce County staff's use of groups heavily funded by the pesticide industry when considering herbicide use. Relying on such biased sources undermines the integrity of decision-making processes and raises serious concerns about conflicts of interest.

County staff must prioritize the well-being of residents and the environment, yet their reliance on industry-backed groups suggests a prioritization of corporate interests over public health and scientific integrity. This is unacceptable and compromises the county's obligation to act in the best interests of its constituents. County staff must adhere to evidence-based practices and prioritize the best available science when determining treatment approaches for herbicide use. Ignoring authoritative scientific findings, such as the EPA's final report on the negative impacts of herbicides on endangered species and protected habitats, is reckless and negligent.

The county has a responsibility to advocate for transparency, accountability, and adherence to sound scientific principles in all aspects of pesticide management.

County staff must be held accountable for their decisions and urged to prioritize independent, peer-reviewed research over industry influence. Anything less is a betrayal of the public trust and a disservice to the community.

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.

Thank you to the County for using some Regenerative Land Management Practices focused around weeds and soil. Expansion of this practice could include some of the most important aspects that apply everywhere such as:

- 1. covering soil with organic matter to protect it to prevent water evaporation,
- 2. replanting and re-seeding soil with plants to encourage beneficial microbe and fungi growth/health and to protect soil from water evaporation which will also help protect the land from fire, drought, flooding, and erosion

3. reduction and transitioning off of chemical inputs that dry out the soil and disrupt soil ecosystem and watershed health

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.

We appreciate the County's willingness to make changes to notifications and we would appreciate it if notifications will be posted for all locations of pesticide application in the park, not just near trails. Pesticide drift happens.

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.

We are grateful the County is willing to produce an annual IPM report with all of the listed information above. We look forward to reviewing the information.

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.

Yes, we are grateful Supervisor Mueller is working on these contract amendments for all of the County.

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, Nicholas J. Calderon Parks Director

It's imperative to challenge the assertion that nonchemical management methods are less effective without substantiated evidence and to address the industry talking points in this letter. The tactic concerning invasive control to justify the continued use of herbicides is concerning. While county staff profess to prioritize the protection and preservation of native habitat, their reliance on herbicide applications directly contradicts this assertion. Pesticides are a direct threat to biodiversity, soil health, water quality, and their indiscriminate use can harm non-target species and disrupt ecosystem balance.

By perpetuating the fallacy around invasive species control to justify herbicide use, staff are prioritizing convenience over ecological integrity. This approach not only fails to address the root causes of habitat degradation but also perpetuates a cycle of chemical dependency that undermines genuine conservation efforts. This approach is shortsighted and undermines the integrity of habitat restoration efforts, perpetuating a cycle of chemical dependency that compromises biodiversity and ecosystem resilience. Chemical interventions only offer short-term and temporary control, they come at a significant cost to the environment, biodiversity, and human health. These interventions are being used regularly and chronically on the land creating chemical accumulation that passes into our watershed, air, food, and the ecosystem services humans rely upon for

survival. Some chemicals degrade, but forever chemicals that are present in many pesticides do not.

This widespread use of ecocides like glyphosate poses severe risks to soil health and ecosystem integrity. These chemicals can disrupt delicate soil microbiomes, leading to long-term degradation and loss of fertility. Furthermore, glyphosate has been linked to detrimental impacts on pollinators, wildlife, and aquatic ecosystems, exacerbating the decline of endangered species and disrupting fragile habitats. By first leveraging new mechanical technology, nonchemical restoration with natural predators, habitat modification, cultural practices, and organic herbicides, land managers can effectively manage pests while minimizing harm to non-target species and ecosystems, and reduced reliance on external inputs.

We are grateful that the Parks are willing to improve transparency, notifications, and implement organic herbicides. We are also grateful that supervisor Mueller has been willing to amend contracts. We plan to continue to press these issues with the County to bring more awareness to the importance of making it a goal for San Mateo County to transition off pesticide use.

Thank you to the MCC for holding space for our community concerns and we hope the MCC will represent the community's concerns with this topic. Please let us know if you want to see more research references or have questions for us on this issue.

Respectfully,

- -Melinda MacNaughton, El Granada Advocates
- -Patty Mayall, Protect Our Watershed SMC

(On Behalf of concerned citizens of the Coastside Community)

-Kim Konte, CEO of Non-Toxic Neighborhoods