## DRAFT RESPONSE FOR BOARD CONSIDERATION

August 22, 2018

Mike Liebhold 10 Durham Road Woodside, CA 94062

RE: Glyphosate Review and Chief Scientist

Dear Mr. Liebhold,

Thank you for your continued support of the District and its mission to protect and restore ecologically diverse preserves. The concerns and suggestions you have voiced in the last few months are appreciated as the District strives to use the best science to inform its land management decisions.

As you are aware, the International Agency for Research on Cancer (IARC) listed glyphosate as probably carcinogenic to humans in 2015. This designation by IARC and the subsequent listing by California on Prop 65 raised new concerns in the scientific debate regarding glyphosate. Along with your correspondence, this prompted the District to hire an expert toxicologist to review the most recent literature on the human health effects. This review concluded with the General Manager directing staff to update the Integrated Pest Management Program's Best Management Practices per the consultant's recommendations.

The literature review also determined that the science evaluating the ecological effects of glyphosate is not yet settled, which is why our staff will continue to follow the results of new studies and published research papers. Also of note is that as of our initial review in 2014, there have not been any major shifts in the scientific literature or regulatory environment regarding the ecological effects of glyphosate that would necessitate a new review of the literature. Notwithstanding, staff will continue to monitor, evaluate, and change the IPM Program as new valid data and findings emerge to ensure that we continue to be protective of the natural environment and the people who visit and work on District lands.

As the District General Manager stated and the Board of Directors affirmed at the May 23, 2018 meeting, the District will explore high-level policy ideas during the annual Strategic Board Retreat in January. Among these ideas, the Board will consider your suggestion to expand further the use of science in our land management activities, including the formation of a scientific advisory committee or other similar expert resource. The suggestion you have raised is well suited for the high-level policy discussion that we hold at this upcoming retreat. Given the many competing and previously approved work plan priorities currently underway, District staff will explore options for bringing additional science-based expert(s) to guide our land management decisions later this fall/winter. Although we appreciate your offer to organize a blue ribbon committee, we see great value in having our staff lead this effort to evaluate options that are well suited for our organization.

Thank you again for your thoughtful suggestions and ongoing interest in the District. We encourage you to remain engaged and continue your conversations with staff on these important topics.

Kind regards,

Jed Cyr President, Board of Directors

cc: Ana Ruiz, General Manger Kirk Lenington, Natural Resources Manager Coty Sifuentes-Winter, Senior Resource Management Specialist

From:	Mike Liebhold
To:	Jennifer Woodworth
Cc:	Kirk Lenington; Coty Sifuentes-Winter; Ana Ruiz; Mike Williams; Michael Liebhold
Subject:	Thanks and follow up Re: Glyphosates & MROSD Response to Request for Chief Scientist
Date:	Thursday, July 12, 2018 1:23:08 PM

Please forward to the whole board:

Dear President Cyr, and Board of Directors,

Thanks for your thoughtful letter May 23. and many thanks, too for a few minutes at the podium to share my thanks for the districts solid support for the specific research I have requested or suggested, and for excellent continuous improvement in Integrated Pest Management environmental practices.

Thanks too, for extending me a few extra minutes to share a few thoughts on the absences of an environmental review in the glyphosate report. As I mentioned I was quite puzzled when I read the consultant's appended remark on page 22:: " ...ecological receptors were not addressed in this document ..." Then I re-read General Manager's introduction to the report, and see that there was a clear focus on human impacts of glyphosates. There's no review, at all, for impacts of glyphosates on resident species besides humans. The study is incomplete, and the resources management science of the IPM is not fully informed by relevant up to date research on environmental impacts.

As I mentioned it took me about two minutes to google a citation for recent on environmental impact of glyphosates effects at the very base of the whole ecosystem, on soil and water microbial populations (using dna analysis on cell populations) <u>Glyphosate effects on soil</u> <u>rhizosphere-associated bacterial communities</u> Besides microbes, what about native plants, insects, mice, birds, reptiles, mammals, fish? I hope the District will approve and adequately fund a second review properly focused on environmntal impact of glyphosates on populations and individuals health, across species, across the living ecologies in the District's care.

Thanks, also, for offering to seriously consider at the Board Retreat in Jan, 2019 the need for a Chief Scientist, to lead and initiate <u>proactive long term systemic research</u> programs and to report annually on the Health of Open Space Habitats . In the meantime ; to prepare for your discussion, I'm happy to offer to work with the board, pro-bono to recruit and organize a blue ribbon scientific advisory to study and recommend for Board's consideration in January, the requirements and responsibilities for an Open Space Chief Scientist, and research programs. I am offering this in my professional capacity as Senior Researcher, Distinguished Fellow at the Institute for Future, in Palo Alto. IFTF is a 50 year old not for profit (spun off RAND in 1968) helping organizations worldwide systematically engage with the long term futures. Recent related clients include the UN, Gates Foundation, UC San Francisco, Ford Foundation, and many other leading organizations companies worldwide. see: IFTF.org

Thanks again for your leadership! I hope you'll give my suggestions serious consideration.

With Best Regards,,

Michael Liebhold Senior Researcher, Distinguished Fellow Institute for the Future @mikeliebhold @iftf

## On 24/5/18 3:39 pm, Jennifer Woodworth wrote:

Good afternoon Mr. Liebhold,

Attached please find a signed copy of the Board's response to your request for creation of a chief scientist position. The original will be mailed to you. Please let me know if you have any further questions. Thank you.

Jen



Jennifer Woodworth, MMC District Clerk/ Assistant to the General Manager jwoodworth@openspace.org Midpeninsula Regional Open Space District 330 Distel Circle, Los Altos, CA 94022 P: (650) 691-1200 - F: (650) 691-0485

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