

June 1, 2020

Mr. Wade Crowfoot
Secretary for Natural Resources
Ocean Protection Council Chair
1416 Ninth Street, Suite 1311
Sacramento CA 95814

Reference/Subject: SCCWRP-SFEI project entitled "*Characterizing the Removal of Microplastics by California Wastewater Treatment Plants: Implications for Management Strategies*"

Dear Mr. Crowfoot,

Please accept this letter of support for the Southern California Coastal Water Research Project (SCCWRP)-San Francisco Estuarine Institute (SFEI) project entitled "*Characterizing the Removal of Microplastics by California Wastewater Treatment Plants: Implications for Management Strategies.*"

The proposed work will quantify statewide trends in the levels of microplastic contaminants that enter and leave California's wastewater treatment facilities. It will also evaluate how various treatment technologies in California's wastewater plants eliminate microplastics from water streams. Addressing these information data gaps is important for developing solutions to reduce microplastic pollution, and we are happy to contribute to this goal.

Beyond this letter of support for the project, we will be pleased to work with SCCWRP to provide samples of wastewater and biosolids from two of our facilities, the Point Loma Wastewater Treatment Plant (PLWTP) and South Bay Water Reclamation Plant (SCWRP). These systems have different catchment systems, as well as different treatment trains, which should provide a nice contrast of conditions. We are happy to provide those samples in ways that also allow us to determine how levels and composition of microplastics changes over wet and dry seasons.

Please feel free to contact me if you would like to hear more about our interest in this project.

Sincerely,



Peter S. Vroom, PhD
Deputy Public Utilities Director



REGIONAL
WATER QUALITY
CONTROL PLANT

2501 EMBARCADERO WAY · PALO ALTO · CA 94303

TEL: 650.329.2122 FAX: 650.494.3531

WWW.CLEANBAY.ORG

June 4, 2020

Wade Crowfoot
Secretary for Natural Resources
Ocean Protection Council Chair
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Wade Crowfoot,

The City of Palo Alto is pleased to work with SFEI on their proposal with Southern California Coastal Water Research Project (SCCWRP) on characterizing the removal of microplastics by California wastewater treatment plants. This is an important topic to understand how much microplastics enter treatment plants, how much is discharged, and how much is removed by various treatment projects. We would like to provide wastewater samples and biosolid samples from the various points in our treatment plant for two sampling events: once in wet weather, once in dry weather.

Sincerely,

DocuSigned by:

76FABE928D6F4FD...

Karin North
Watershed Protection Manager
City of Palo Alto

Cc Dr. Rebecca Sutton



June 16, 2020

Wade Crowfoot, Secretary for Natural Resources
Chair, California Ocean Protection Council
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Sent via: COPCpublic@resources.ca.gov.

RE: Item 9 – Consideration of Authorization to Disperse Funds to Address Microplastics in Coastal and Marine Ecosystems

Dear Secretary Crowfoot and members of the Ocean Protection Council:

The California Coastkeeper Alliance (CCKA) represents local California Waterkeeper organizations working to protect water quality throughout the state and along California’s coast for the benefit of California communities and ecosystems. On behalf of local California Waterkeepers, we write in support of the Ocean Protection Council (OPC)’s proposed disbursement of funds for two projects (“Identification of sources and pathways for microplastics in stormwater” and “Efficacy of microplastic removal from various wastewater treatment methods”) to address microplastics in coastal and marine ecosystems.

Microplastics are increasingly found in ocean fish and wildlife, causing starvation and reproductive consequences, with unknown impacts to the communities who depend on the ocean for sustenance. Microplastics also pose a significant threat to water quality and drinking water supplies. Microplastics in drinking water first gained attention in 2017 with the release of a global report¹ that found that 83 percent of water samples worldwide contain microplastics, and a concerning 94 percent of samples taken in the United States contain microplastics. Since the release of these findings, other peer-reviewed studies have consistently shown the presence of microplastics in bottled water, freshwater, wells, and treatment plant water.

Though data is limited, microplastics are now ubiquitous in the environment and have been detected in a broad range of marine water, wastewater, fresh water and drinking water. In the Bay Area alone, seven trillion tiny pieces of plastic – equivalent to about a million pieces each for every man, woman, and child in the Bay Area – flow into San Francisco Bay annually. The tiny particles make their way into the ocean, into the stomachs of marine animals, and ultimately become part of the food and water people consume. Despite the profound impacts of microplastics, the issue has a relatively low profile, with few solutions currently on the table.

Critically, a recent study by the San Francisco Estuary Institute (SFEI)² found that stormwater is the primary source of microplastics in California’s coastal waters, with microplastics 300 times more likely to come from storm drains than any other sources. Synthetic clothing and textiles also release plastic microfibers with every wash that cannot be filtered out by traditional wastewater facilities. In the Bay Area, researchers have determined that billions of microplastics also flow through the region’s 40 wastewater treatment facilities annually.

¹ Mary Kosuth, Elizabeth V. Wattenberg, Sherri A., SYNTHETIC POLYMER CONTAMINATION IN GLOBAL DRINKING WATER. FINAL REPORT: May 16, 2017.

² Sutton, R.; Lin, D.; Sedlak, M.; Box, C.; Gilbreath, A.; Holleman, R.; Miller, L.; Wong, A.; Munno, K.; Zhu, X.; et al UNDERSTANDING MICROPLASTIC LEVELS, PATHWAYS, AND TRANSPORT IN THE SAN FRANCISCO REGION. SFEI Contribution No. 950. San Francisco Estuary Institute. 2019.

The two studies proposed by the OPC are critical to meet Objective 3.4.4. of the OPC’s Strategic Plan and to ultimately inform a statewide microplastics strategy and establish a program of implementation that manages and prevents microplastic pollution from entering California’s waterways. Funding SFEI to conduct a follow-up study to identify the sources and pathways of microplastics in stormwater will advance our understanding of this prevalent source of microplastic pollution, and ultimately identify solutions to this flow of micro-pollution into our bays, estuaries, and streams.

It is important to note that the State Water Board’s Trash Amendments - intended to prevent plastic pollution from reaching our waterways - are primarily focused on plastic pollution larger than 5mm. However, the state should be aware that the Trash Amendments’ definition of “full capture devices” includes low impact development (LID) stormwater capture BMPs (ex: bioswales). This is important because LID BMPs – used as full capture devices to comply with the Trash Amendments – provides the additional benefit of capturing plastic particles less than 5mm. We urge the OPC, either in this study or a future study, to analyze the efficacy of LID stormwater capture BMPs as a strategy to prevent microplastics from entering our waterways. The study should analyze both the effectiveness of LID BMPs to control microplastics, but also the *potential* unintended consequences of diverting stormwater laden with microplastics into LID. Unintended consequences could include potential reduction of a LID’s infiltration rate and/or the potential human health impacts from tainting drinking water.

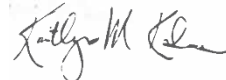
We also support studying the efficacy of microplastic removal using a variety of wastewater treatment methods is critical to remove microplastics from wastewater effluent, and ultimately support statewide efforts to increase water recycling. Here, it is critical to understand the different efficacy rates of removal from secondary, tertiary, and potable reuse treatment standards. It is also important to understand whether microplastics, once removed during the treatment process, are truly disposed of properly or whether they ultimately are discharged into a waterway through the brine disposal process. Any wastewater and/or water recycling treatment that filters microplastics but ultimately discharges them into a waterway through brine disposal should not be considered microplastic removal.

Together, these two studies will improve our understanding of the sources and pathways of microplastics into the environment and identify much-needed solutions to prevent microplastic pollution. We applaud the OPC for investing in these projects to inform a statewide microplastic strategy and to both identify and implement solutions that will provide tangible benefits to water quality and our health.

Sincerely,



Sean Bothwell
Executive Director
California Coastkeeper Alliance



Kaitlyn Kalua
Policy Analyst
California Coastkeeper Alliance