MEMORANDUM

Date: October 29, 2020

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: **Per- and Polyfluoroalkyl Substances and Agricultural Land Application of Biosolids**

On February 5, 2020, I provided you with a memorandum regarding Per- and Polyfluoroalkyl Substances (PFAS) received and conveyed by the Pima County sanitary sewer system. The review outlined the proactive measures undertaken by the Regional Wastewater Reclamation Department (RWRD) to limit the environmental spread of PFAS. One of these measures was to suspend agricultural land application of biosolids in December 31, 2019, pending obtaining a better understanding of how PFAS present in biosolids may disperse through soils into groundwater or fugitive dust. All biosolids are currently disposed in lined landfills at considerably greater cost than land disposal.

In order to understand the effects of PFAS in land application of biosolids, RWRD partnered with the University of Arizona, Jacobs Engineers and the National Science Foundation. This collaboration produced *PFAS in Biosolids–A Southern Arizona Case Study*, one of the largest studies of its kind ever undertaken.

The results of this study are summarized in the attached report and demonstrate very low concentrations of PFAS in agricultural lands receiving biosolids, with minimal accumulation of PFAS in soils after 20+ years of application. Also of note is that PFAS compounds are attenuated almost entirely within the top 6 feet of soil.

This study aligns with other published modeling efforts and together demonstrate that PFAS impacts from land application of biosolids in Pima County are unlikely to impact groundwater and air sources. The extended depth to groundwater in the agricultural areas for which biosolids are applied range between 150' - 400' below ground surface, making even minute concentration of groundwater contamination highly improbable.

Based on this outcome, I have requested the RWRD Director reestablish a master agreement for the land application of biosolids. Resumption of beneficial use of biosolids will improve soil health, minimize topsoil erosion, reduce biosolids transportation emissions, reduce landfill loading and improve fiscal responsibility.

Upon conclusion of a biosolids land application procurement effort, a new master agreement will be submitted for your consideration.

Please contact me if you have any questions or comments.

Attachment

c: Jan Lesher, Chief Deputy County Administrator
Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Francisco Garcia, MD, MPH, Deputy County Administrator and Chief Medical Officer, Health and Community Services
Yves Khawam, PhD., Assistant County Administrator for Public Works
Jackson Jenkins, Director, Regional Wastewater Reclamation Department
Terry Cullen, MD, MS, Director, Pima County Health Department
Ursula Nelson, Director, Environmental Quality Department
Mary Jo Furphy, Director, Procurement Department