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From: Dr. Hugo A. Loaiciga, P.E., P.H., BC WRE
Distinguished Professor
Director Hydrology Laboratory
Department of Geography
University of California Santa Barbara

To: Santa Clara River (SCR) Watershed Area Steering Committee

Dear Members of the SCR Watershed Area Steering Committee,

I am Dr. Hugo A. Loaiciga, Distinguished Professor of Geography at the University of California Santa Barbara, and I am writing this letter in support of the Scientific Study entitled "Identifying Best Practices for Maintaining Stormwater Drywells" led by Cal Poly Pomona.

My research focuses on Hydrology, especially in the subjects of groundwater hydrology, hydrogeology, water resources systems, and applied mathematics. I apply numerical, statistical, and field methods to answer complex problems involving the interactions between surface water, groundwater, and human activities. As an academic specializing in groundwater hydrology, I write to emphasize the critical importance of stormwater management in your watershed. Our region faces significant challenges related to flood risks and groundwater depletion, necessitating proactive measures to safeguard both our communities and our vital water resources.

Stormwater management plays a pivotal role in mitigating flood risks within a watershed basin. As urbanization and land development continue to alter natural landscapes, the capacity of our soil and vegetation to absorb and retain stormwater diminishes. Consequently, we witness increased surface runoff, exacerbating flood events and posing threats to infrastructure and human safety.

Implementing effective stormwater management strategies, such as the construction of green infrastructure, deep infiltration infrastructure, and permeable surfaces, can help attenuate peak flows during storm events. By decelerating and capturing stormwater runoff these measures reduce the

burden on our drainage systems and alleviate the potential for flooding downstream. Additionally, such practices promote infiltration, allowing for the replenishment of groundwater aquifers.

The significance of recharging groundwater resources cannot be overstated. Groundwater serves as a vital component of our hydrological cycle, sustaining ecosystems, agricultural activities, and human consumption. However, human activities and development have significantly altered the natural processes of groundwater infiltration, leading to depletion and degradation of aquifers.

The integration of stormwater management practices that prioritizes groundwater recharge mitigate floods risks and preserves the Water Cycle. Enhanced infiltration through deep infiltration infrastructure replenishes groundwater reservoirs, restoring balance to our hydrological systems and supporting sustainable water availability for future generations.

I urge the Watershed Area Steering Committee to prioritize scientific studies such as the one proposed by Cal Poly Pomona. The proposed study would encourage the adoption of comprehensive strategies that integrate green infrastructure and sustainable development practices would safeguard our communities and preserve our water resources.

Thank you for your attention to this matter.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Hugo A. Loaiciga". The signature is fluid and cursive, with the first name being the most prominent.

Dr. Hugo A. Loaiciga, P.E., BC.WRE, P.H.
Director, Hydrology Laboratory
Distinguished Professor
University of California, Santa Barbara