



January 13, 2020

Jeff Walker
Texas Water Development Board
1700 North Congress Avenue
Austin, TX 78701

Dear Mr. Walker,

Thank you for your work to keep Texans safe from the dangers of flooding. As we wrote in our comment letter last August, one in every ten Texans faces moderate or high risk from riverine floods¹. Your recognition in the flood financial assistance rules that nature-based infrastructure is an essential part of this work is a major step forward in Texas' fight against flooding. We urge you to make sure Texans can appreciate the full benefits of nature-based solutions by guaranteeing that at least 20% of the funds will go to nature-based projects.

While traditional infrastructure can divert large volumes of stormwater, diverted water is still a flood risk: streams swollen from the discharges of pipe and channel systems can flood communities downstream. Nature-based infrastructure can store that stormwater in the ground, recharging aquifers, and easing the cycle of flooding and drought. Rain gardens, green roofs, urban forests, riparian restoration and other nature-based strategies can absorb up to 90% of rainwater,² allowing stormwater to absorb directly into soil and preventing it from endangering communities downstream. We know these techniques work: during Hurricane Harvey, the only bayou that avoided flooding was Sims Bayou, where a nature-based project had been completed in 2015.³

Senate Bill 7, which created the Flood Infrastructure Fund, acknowledged how well nature-based techniques work, calling on the TWDB to "encourage the development of non-structural and structural flood mitigation" techniques including nature-based infrastructure like rain gardens, green roofs, and urban space.⁴ The proposed flood financial assistance rules allow funds to be used for nature-based projects, but unfortunately, simply allowing its use will

¹ Texas Water Development Board, State Flood Assessment: Report to the 86th Texas Legislature, January 2019, archived at web.archive.org/web/20190828160358/http://www.texasfloodassessment.com/doc/State-Flood-Assessment-report-86th-Legislation.pdf

² William J. Taylor, Taylor Aquatic Science and Policy, White Paper for Stormwater Management Program Effectiveness Literature Review: Low Impact Development Techniques, April 2013, archived at web.archive.org/web/20170110230133/http://www.ecy.wa.gov/programs/wq/psmonitoring/ps_monitoring_docs/SWworkgroupDOCS/LIDWhitePaperFinalApril2013.pdf

³ Christof Spieler, To fight flooding in Houston, we have to think big, November 2017, archived at web.archive.org/save/https://www.houstonchronicle.com/local/gray-matters/article/To-fight-flooding-in-Houston-we-have-to-think-big-12362463.php

⁴ <https://legiscan.com/TX/bill/SB7/2019>



not be enough. Because traditional grey infrastructure is more well known, many communities turn to it automatically. Ensuring that Texans can appreciate the benefits of nature-based techniques will require a proactive effort by the Water Development Board to support nature-based infrastructure. The best way to do so would be to guarantee that at least 20% of the flood infrastructure fund is set aside for nature-based projects.

This follows precedents set by both the State Water Implementation Fund for Texas (SWIFT), and the Clean Water State Revolving Fund (CWSRF), which currently set aside 20% and 10% respectively of their revenue for green projects.^{5,6} Around the state, green infrastructure projects help to mitigate the risk of floods, prevent water pollution, and keep our cities cool and beautiful.

Thank you for the opportunity to submit comments on the flood financial assistance rules. We are excited to see the expansion of nature-based infrastructure in Texas and support the work of the Water Development Board moving forward.

Sincerely,

Anna Farrell-Sherman

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⁵ Shannon Harris, What the Minimum 20 Percent Conservation and Reuse Mandate in the SWIFT Process in Texas Means for Sustainably Designed Water Methods, https://web.archive.org/web/20190828214536/https://sustainability.utexas.edu/sites/sustainability.utexas.edu/files/SWIFT_Shannon_Harris.pdf

⁶ George Ames, Change to the Clean Water State Revolving Fund Green Project Reserve Guidance, February 2017, https://web.archive.org/web/20190828214939/https://www.epa.gov/sites/production/files/2019-05/documents/gpr_guidance_change_memo_2-21-17.pdf