

February 3rd, 2020

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

Dear Mr. Walker,

We would like to thank the board for their work to protect Texas from flooding. The proposed regional and state flood planning rules will be essential to creating the infrastructure that will protect Texans in the years to come. Especially significant is your emphasis that these plans will make use of “nature-based features” and “consider multi-use opportunities,” opening up the possibility for large scale nature-based infrastructure in Texas. Nature-based solutions have the potential to reduce our flood risk, protect our drinking water supply, and so much more. It is essential that the TWDB proactively research these techniques and include them in their planning.

We know that nature-based infrastructure works. These features, which include rain gardens, green roofs, and the conservation of natural spaces, allow flood water to soak into the ground instead of flowing directly into waterways which can then flood communities downstream. During Hurricane Harvey, the only Bayou that avoided flooding was Sims Bayou, where a green infrastructure project had been completed in 2015.<sup>1</sup> These projects also have immeasurable co-benefits, preventing up to 90% of runoff pollution, recharging our aquifers and providing green space to communities.<sup>2</sup>

With the new flood planning rules, the TWDB has a unique opportunity to determine how these techniques can best be used to keep Texas safe. We need a statewide efficacy study to provide the data to engineers on how well nature-based techniques can work in Texas. The last legislative session included a green stormwater infrastructure study bill, 86(R) HB 1059, which would have provided the state with these resources. As a coalition of stakeholder experts on nature-based infrastructure, we recommend that the Board take this study on themselves as a piece of the regional and state flood planning rules.

The Texas Water Development Board is well placed to become a leader in nature-based infrastructure research. With research teams already working on water quality, and workshops

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<sup>1</sup> 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.p](https://www.web.archive.org/save/https://www.houstonchronicle.com/local/gray-matters/article/To-fight-flooding-in-Houston-we-have-to-think-big-12362463.p)

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<sup>2</sup> 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](http://www.web.archive.org/web/20170110230133/http://www.ecy.wa.gov/programs/wq/psmonitoring/ps_monitoring_docs/SWworkgroupDOCS/LIDWhitePaperFinalApril2013.pdf)

throughout the state already educating local municipalities on flood prevention, it is essential that the Board include the newest and most effective techniques in both their research and educational projects.

We thank you for everything you do for our state, and look forward to protecting Texans with nature-based solutions to flooding.

Sincerely,

Anna Farrell-Sherman  
Clean Water Associate  
Environment Texas

Jose Hinojosa  
Chairperson  
Lower Rio Grande Valley TPDES Stormwater Task Force  
Representing 29 Local Rio Grande Valley Governments

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