

POST

Flood?

September 21, 2020

I've offered \$750,000 ...

---“I've offered \$750,000
to build a flood
intelligence system to
help protect my
community.”

- Jed Anderson, Creator, EnviroAI





TEXAS HOUSE OF REPRESENTATIVES
DAN HUBERTY

February 13, 2020

Bob Harvey
President and Chief Executive Office
Greater Houston Partnership
701 Avenida De Las Americas #900
Houston, TX 77010

Dear Bob,

I am writing to ask you to lead the development of a Flood Intelligence System for the Greater Houston Area.

Artificial intelligence, IoT, and remote-sensing technologies are advancing. The business community has unique knowledge and access to these leading-edge technologies. The business community also has unique abilities in helping bring together various private sector and diverse governmental interests around technological innovation—especially where time is of the essence.

Attached is a proposal that was recently presented to me by Steve Reeves and Jed Anderson. Google and other AI-based companies have similar flood applications in development or deployed in other parts of the world ([see https://www.blog.google/products/search/helping-keep-people-safe-ai-enabled-flood-forecasting/](https://www.blog.google/products/search/helping-keep-people-safe-ai-enabled-flood-forecasting/)).

Thank you for your review and consideration.

Sincerely,

A handwritten signature in black ink that reads "Dan Huberty".

Representative Dan Huberty

cc: Chase Kronzer, Director, Public Policy, Greater Houston Partnership

Attachment

DISTRICT OFFICE:
4501 MAGNOLIA COVE, SUITE 201 A
KINGWOOD, TEXAS 77345
281-360-9410

CAPITOL OFFICE:
P.O. Box 2910
AUSTIN, TEXAS 78768-2910
512-463-0520



DAVE MARTIN
Council Member
District E

March 16, 2020

Bob Harvey
President and Chief Executive Officer
Greater Houston Partnership
701 Avenida de las Americas #900
Houston, TX 77010

Dear Mr. Harvey,

I am writing to encourage you to pursue the development of a Flood Intelligence System for the Greater Houston Area.

Artificial intelligence and remote-sensing technologies are constantly evolving and advancing. It's my belief that taking advantage of these evolving technologies is a logical investment for the benefit of the greater Houston area.

The business community has unique insight and access to these leading-edge technologies and the capability to bring together various private sector and diverse governmental interests around technological innovation.

Attached is a proposal that was recently presented to me by Steve Reeves and Jed Anderson. I encourage you to take this information into consideration.

Should you have any questions, please contact my office at 832-393-3008.

Sincerely,

A handwritten signature in cursive script that reads "Dave".

Dave Martin
Mayor Pro Tem
Council Member
District E

Diluvia

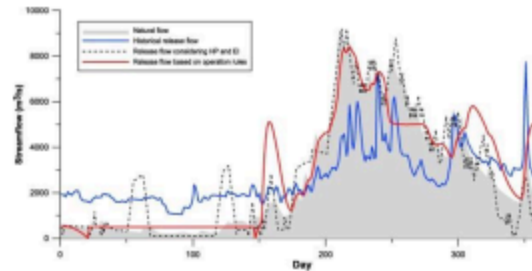
A Flood AI project for Houston, by CERES Environmental AI

Overview. This document is a description of Diluvia, a new product by CERES Environmental AI designed to use AI to prevent flooding and optimize water management in southeast Texas.

Dynamic Predictive Modeling

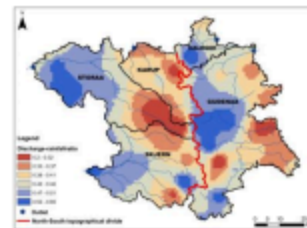
We'll make more accurate predictions than have ever been possible before, using state-of-the-art AI forecasting tools.

Our flood forecasts are based on a distributed hydrologic model, which is physics-based and event-driven, and proven to outperform other commonly used runoff prediction models. We update the forecasts in real-time based on the latest conditions. We also make a variety of related forecasts, of weather events, crowd conditions, traffic flow, and property damage.



Flow Optimization

We'll consider the greater Houston area holistically, and design and manage optimal water flow and storage based on local regulations, intentions, and conditions. Our optimization process will include recommendations for flow control, preventive maintenance, and infrastructure development, as well as real-time emergency protocol recommendations. We'll think long-term, preparing for population growth and water use trends, and also short-term, quickly making the right decisions in the minutes and seconds when they're most needed.



Crisis Simulation and Planning

We'll use agent-based modeling to simulate actions and responses of chaotic systems under crisis conditions, to create intelligent, evidence-based crisis plans. Our tools will enable the optimal design of evacuation routes and protocols, and give an understanding of the range of possible outcomes and their likelihood. We'll use the latest computational models of autonomous agents, incorporating AI to simulate the behavior of people and groups and prevent irrationality.



Information Sharing and Multiparty Coordination

We'll make information sharing and coordination easy with interactive visualizations, central data repositories, facilitated open communication, and real-time alerts. Our web applications will be easy for planners and local administrators to access to get the latest crucial information about current conditions and forecasts. By gathering decision-makers to a centralized, user-friendly app, we'll create a hub that enables better coordination and communication.





The first day of Harvey . . . getting other families out of the flood.

The next day . . . getting my own family out of the flood.

EnviroAITM
Environmental Intelligence

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Original source: Constant Contact campaign

Markdown source: <https://jedanderson.org/posts/flood.md> (<https://jedanderson.org/posts/flood.md>)

Source on GitHub: [/src/content/posts/flood.md](https://github.com/jedanderson432/jedanderson-site/blob/main/src/content/posts/flood.md) (<https://github.com/jedanderson432/jedanderson-site/blob/main/src/content/posts/flood.md>).