



**P4** INFRASTRUCTURE



2020 FWWA Watershed Conference

Bubolz Nature Preserve | Appleton, WI

March 3, 2020

## Data-Powered Civil Infrastructure

Joseph A. Diekfuss, PhD, PE (*presenting*)

Christopher M. Foley, PhD, PE

Nicholas J. Hornyak, PhD, PE

Todd B. Weik, PLA, CPESC (*CBC Engineers*)

**P4 Infrastructure, Inc.**

622 N. Water Street, Suite 406

Milwaukee, WI 53202

info@p4i.io | 414-877-0620



# Today's Discussion

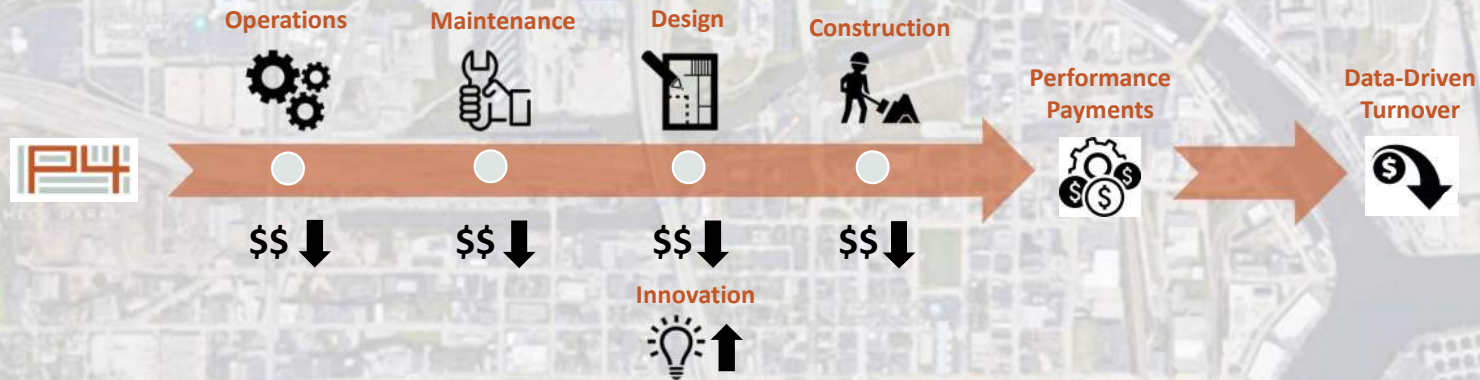
- P4 Background and Intro
- P4 Products: INFIL-Tracker | LIQUA-Level | Rain-mX
- Data Viewing and Dashboards
- Regulatory Compliance and Strategic Planning
- Questions

# Products for Public Private Partnerships

*P4 lives at the intersection of innovation and technology*



*P4 creates products that address the elephant in the room*

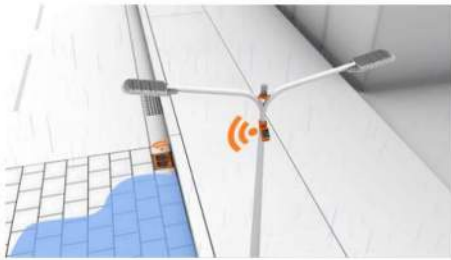


*P4 is building products that connect people with infrastructure.*

*P4 is building the Internet of Infrastructure to make civil infrastructure as a service a reality.*



# P4 Stormwater Product Suite



## INFIL-Tracker

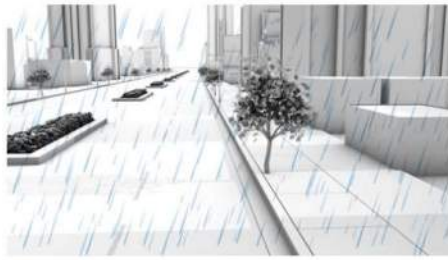
### IoT Solutions for Stormwater Management

INFIL-Tracker is an IoT-enabled monitoring system for the management of stormwater infrastructure like permeable pavement and bioswales.

[PRODUCT DETAILS >](#)



Designed and assembled in the USA



## LIQUA-Level

### IoT solutions for stormwater management

LIQUA-Level is an IoT-enabled monitoring system for the management of stormwater infrastructure like underground detention cisterns.

[PRODUCT DETAILS >](#)



Designed and assembled in the USA



## Rain mX

### Rainfall and Environmental Monitoring

Rain mX is an IoT-enabled rainfall and environmental monitoring system. It is available as part of our LIQUA-Level and INFIL-Tracker systems or as a singular component.

[PRODUCT DETAILS >](#)



Designed and assembled in the USA

**INFIL-Tracker + Rain-mX  
or  
LIQUA-Level + Rain-mX**

monitor and quantify:

**health  
performance**

**maintenance need**

**infiltration/exfiltration**

**drawdown**

**stormwater volume captured**

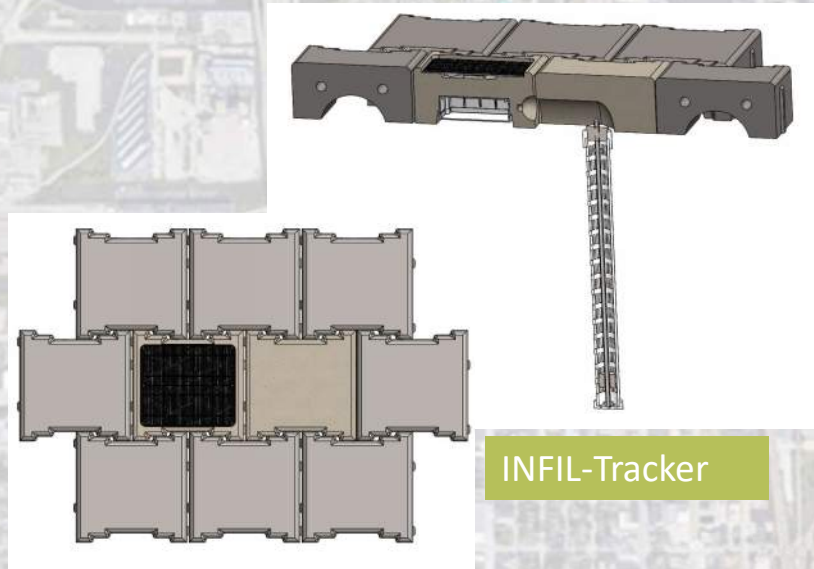
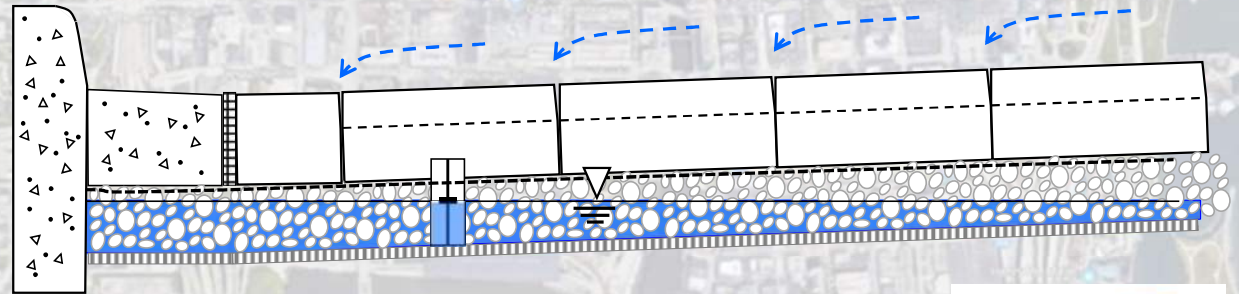
**suspended solids captured**

**phosphorus solids captured**

INFIL-Tracker

+

Rain-mX



INFIL-Tracker



Rain-mX



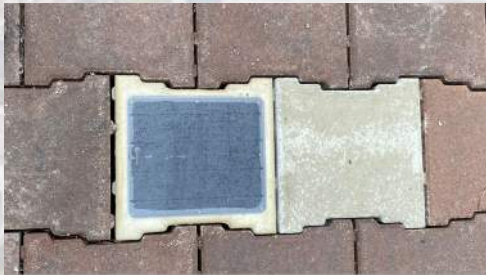
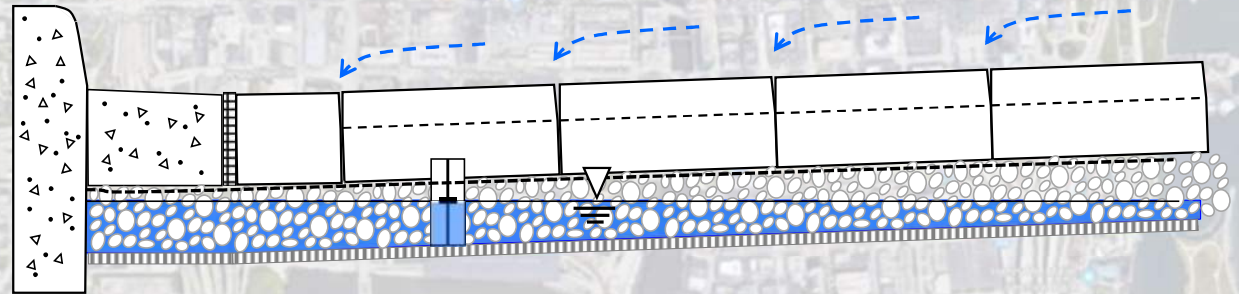




INFIL-Tracker

+

Rain-mX





## Sensor Installation



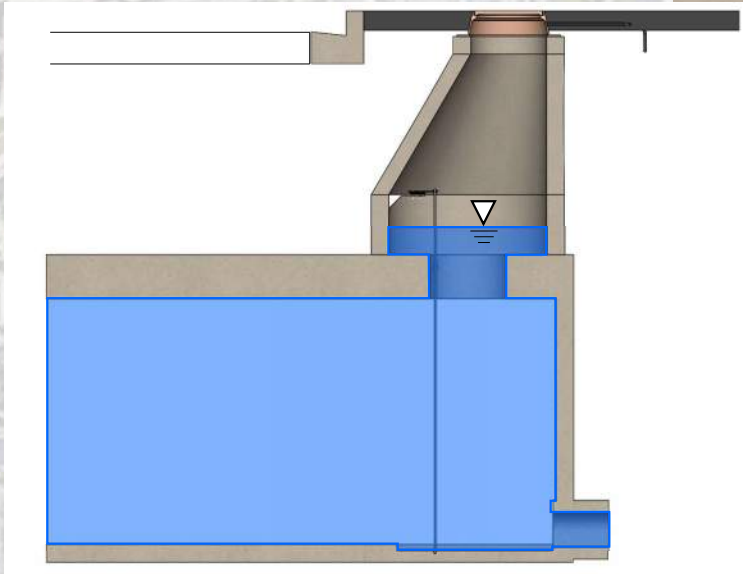
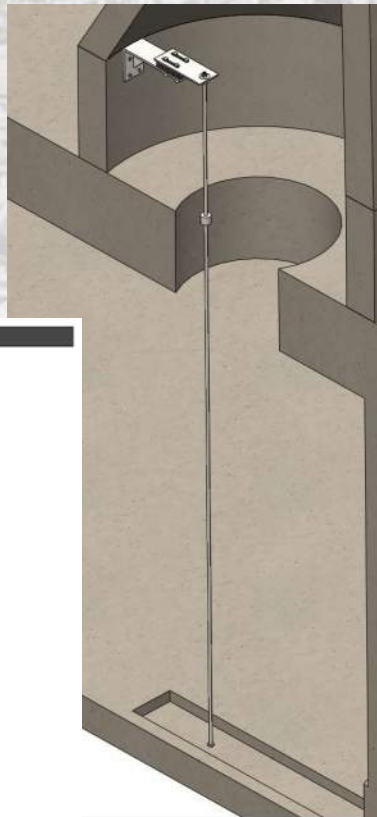
## P4 Sensors are Appliances



LIQUA-Level

+

Rain-mX



LIQUA-Level

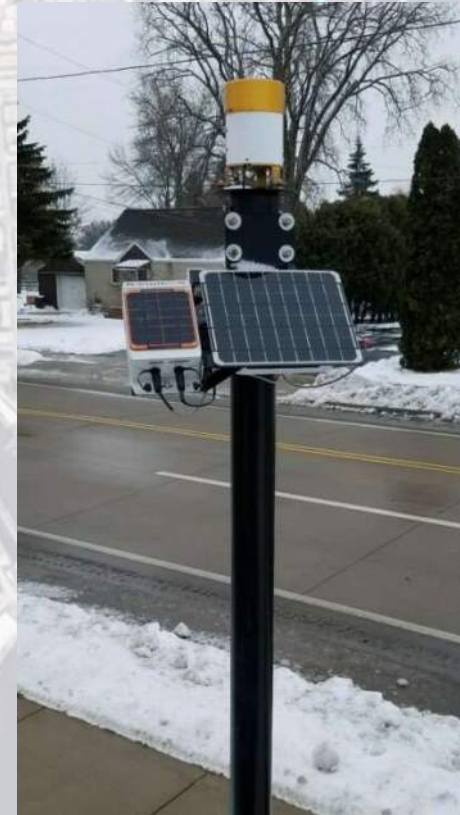
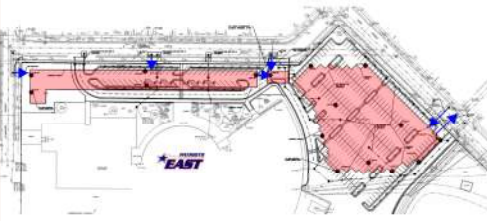
+

Rain-mX



Design

14.1 acre-feet, 4.5 total acres, 1.9 StormTrap acres





# Data Viewing and Dashboards



# Regulatory Compliance

Measured Volume



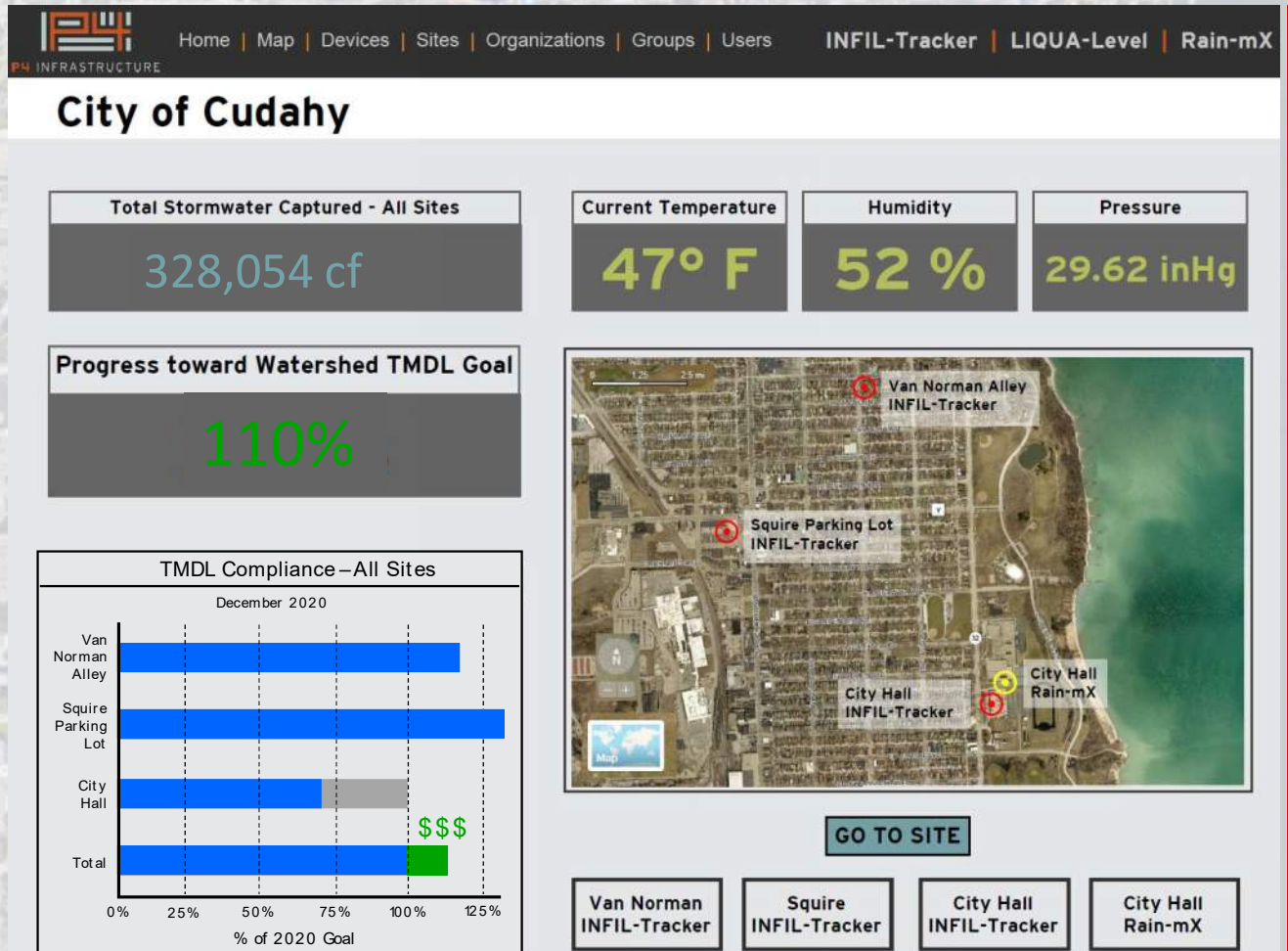
Pollutant Removed  
Proof of Compliance  
Reduced Stormwater Fees

Construct only what's needed

Save \$\$\$\$

Excess capacity = revenue

Create \$\$\$\$

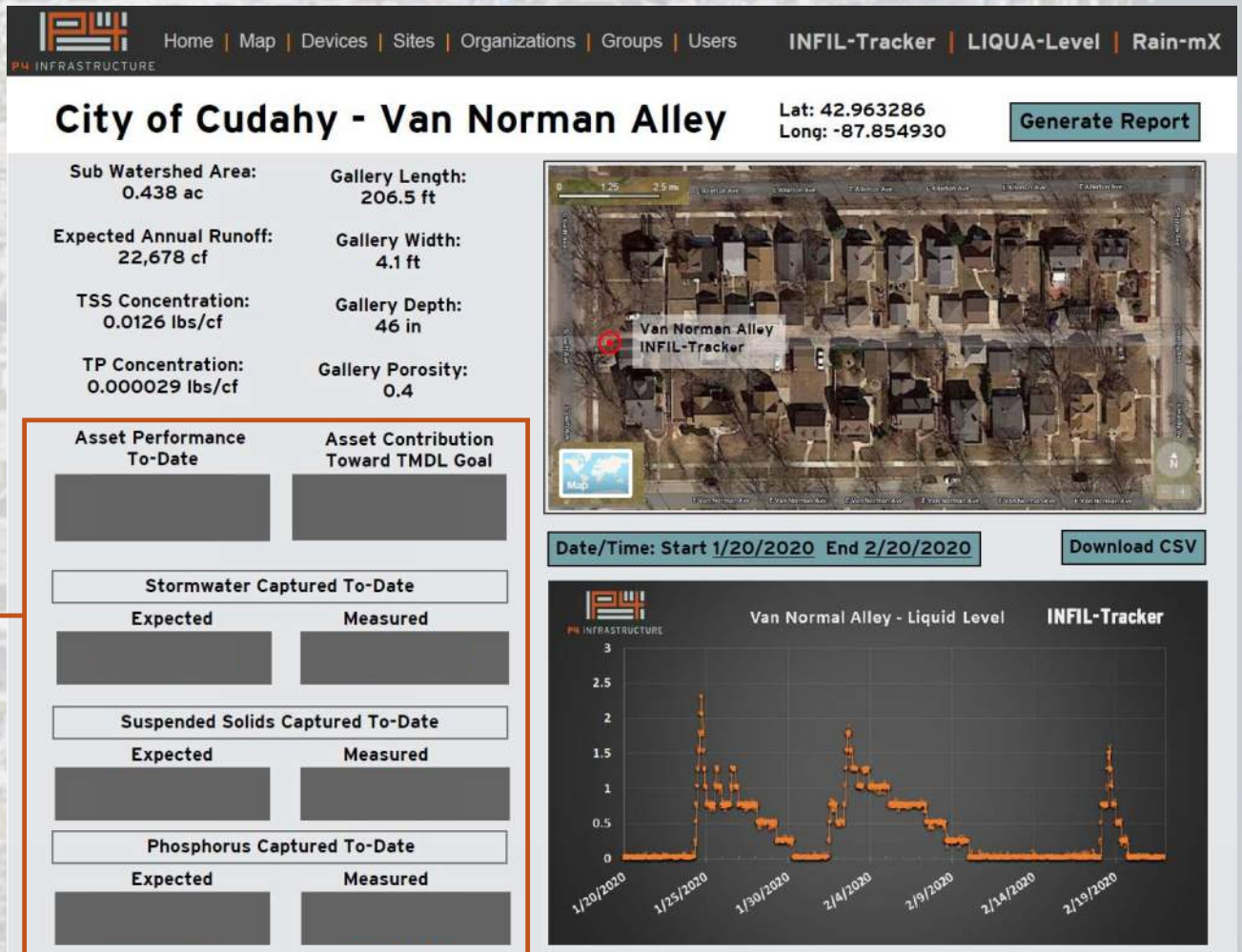


EXAMPLE DASHBOARD



## Regulatory Compliance

Data being collected as we speak to populate these fields.





**P4** INFRASTRUCTURE

[www.p4i.io](http://www.p4i.io)

*Revolutionizing  
the way we address  
civil infrastructure*

622 N. Water Street, Suite 406  
Milwaukee, WI 53202



