

Digitalization of Stormwater Infrastructure

CamVIEW, VELO, and LIQUA-Level Application
Stormwater Trash Collection
Parks New York, Hempstead Lake Park



P4 INFRASTRUCTURE

Christopher M. Foley, PhD, PE, FASCE
President

Joseph A. Diekfuss, PhD, PE
Vice President – Engineered Systems

Nicholas J. Hornyak, PhD, PE
Vice President – Sensor Technology

November 16, 2023

Introduction

Background
Customer Needs
P4 Solution



Background:

- Large surface retention basin served through concrete-lined channel from upstream watershed.
- Flow velocities difficult to predict.
- Trash collection maintenance frequency is difficult to predict.

Customer Need – Maintenance Requirements:

- Photographic record of trash accumulation correlated with rainfall event.
- Documentation of open channel flow characteristics during large trash accumulation events.
- Trash bag maintenance triggers.

P4 Solution

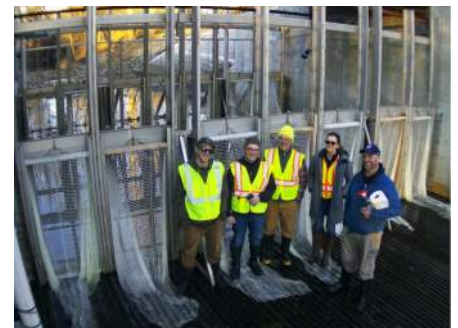
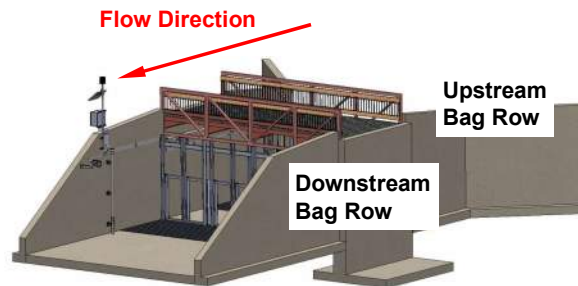
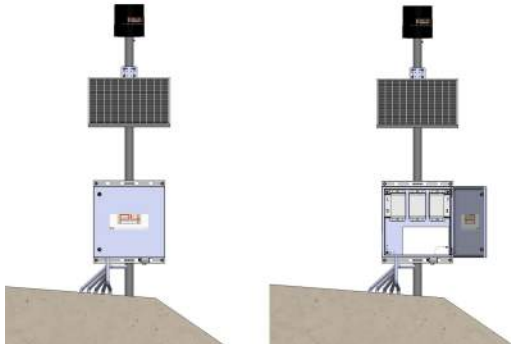
CamVIEW



VELO



LIQUA-Level



Measured Data

Operations & Maintenance
System Performance
Trash Collection Forecasting

Upstream Bag Row Images

3/3/2023



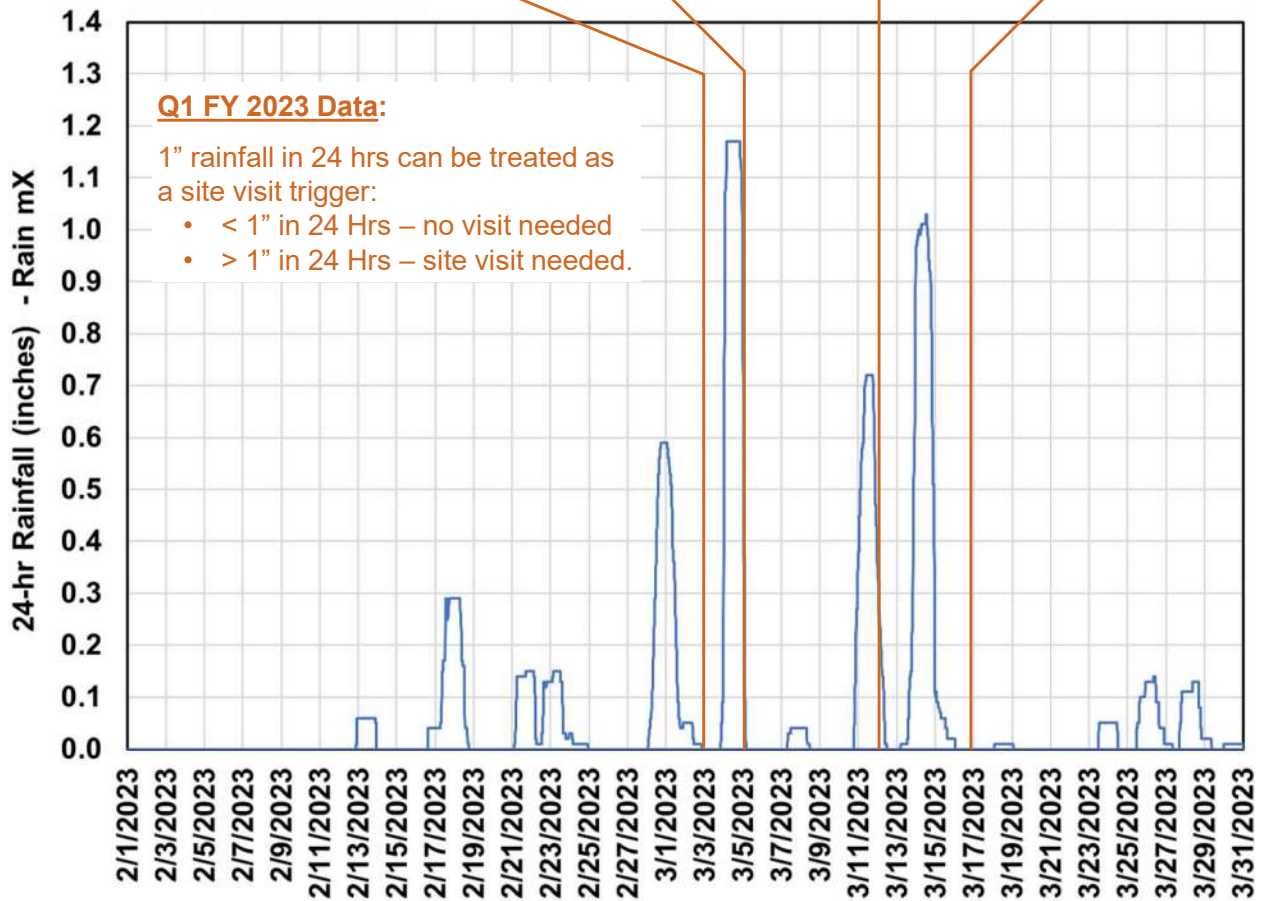
3/5/2023



3/12/2023



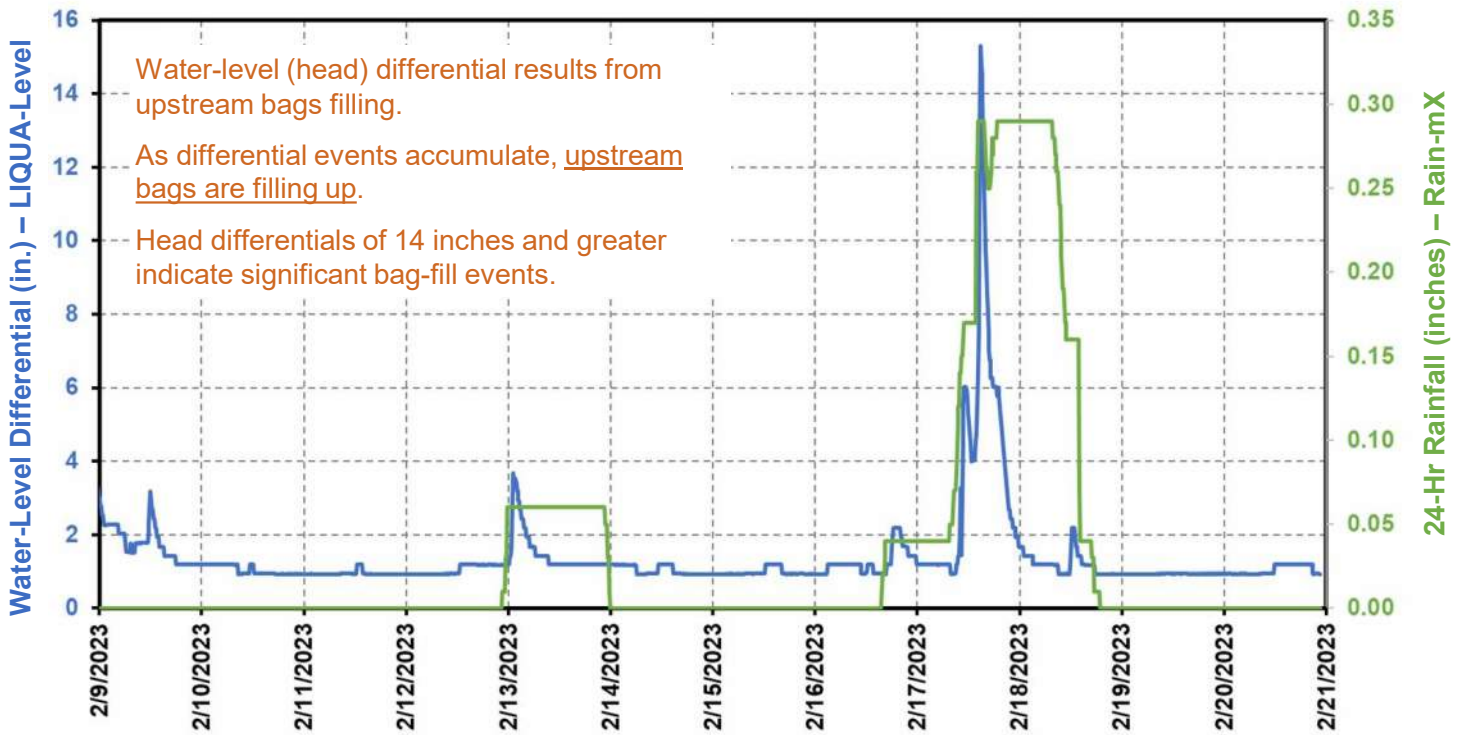
3/17/2023



Upstream Bag Row
2/18/2023 – 8:15 AM



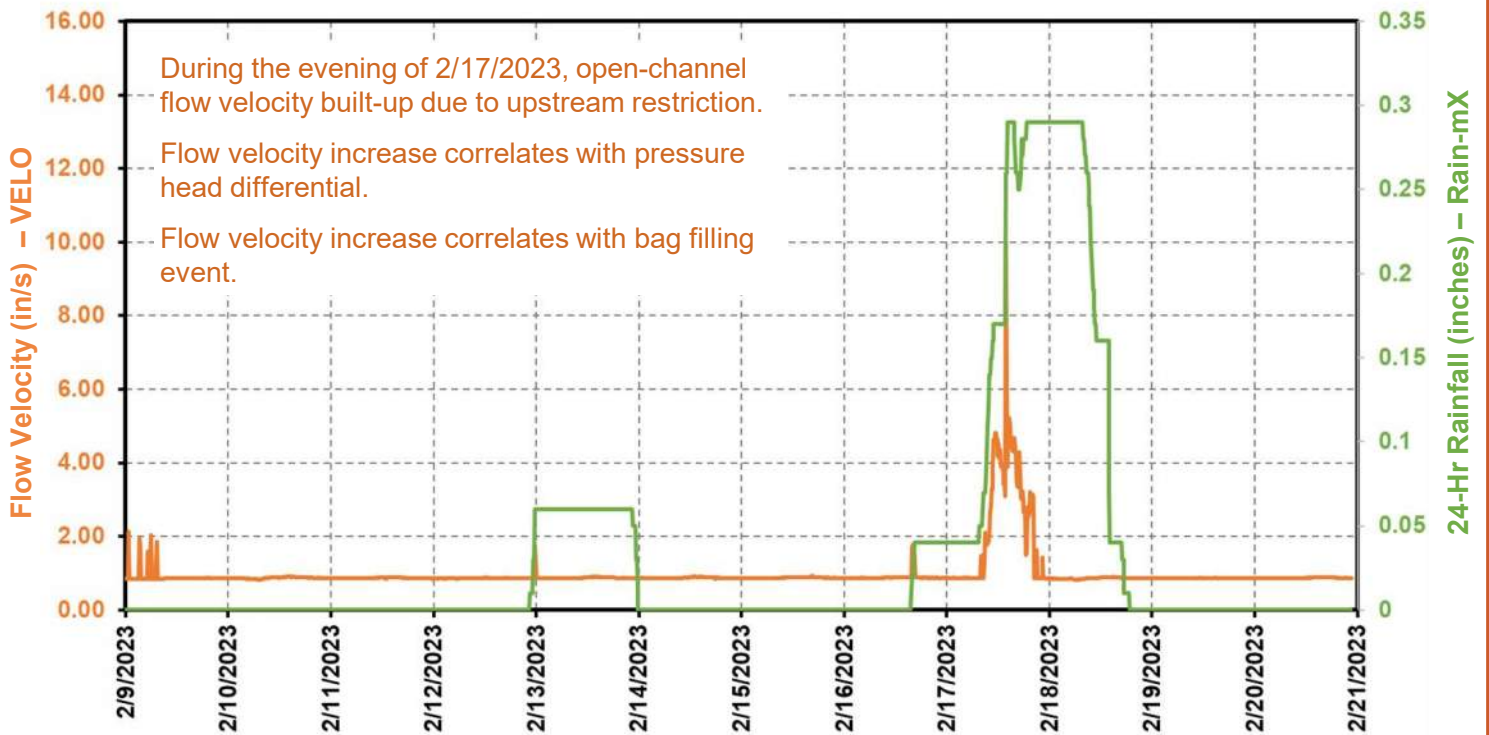
Downstream Bag Row
2/18/2023 – 8:15 AM



Upstream Bag Row
2/18/2023 – 8:15 AM



Downstream Bag Row
2/18/2023 – 8:15 AM



The End

Let P4 show you how digitalization of stormwater infrastructure can change the game.



P4 INFRASTRUCTURE