

**3RWW/ALCOSAN Rain Gauge Summit**

A Forum for Potential Improvements and Updates

January 16, 2019

9 am – 11 am

ALCOSAN O & M Building Auditorium

**Invited Participants:** Jake Bajek (Lennon, Smith, Souleret Engineering), Tom Batroney (Mott MacDonald), Jerry Brown (Municipal Authority Township of South Fayette), John Buck (CEC), Lou Casadei (GreenTree), Don Colton (DataWise Environmental Monitoring, Inc.), Beth Dutton (3RWW), Katie Farnsworth (Indiana University of Pennsylvania), Joe Fedor (ALCOSAN), Jordan Fischbach (RAND), Christian Gass (CivicMapper), Marc Glowczewski (ACE), Bill Hixson (3RWW), Ajay Kochhar (RAND), Fritz Law (OneRain), Mark Loehlein (CDM Smith), Fred McMullen (or another rep from NOAA), Terry Meeneghan (CDM Smith), Matt Mercurio (CivicMapper), Brian Moore (Mott MacDonald), Tim Prevost (ALCOSAN), Ryan Quinn (PWSA), Sara Rectenwald (3RWW), Costas Samaras (CMU), John Schombert (former Executive Director, 3RWW), Sam Shamsi (Allegheny County Health Department), Jason Stanton (Lennon, Smith, Souleret Engineering ), Jordan Tsvetkoff (Teragon Corporation), Baxter Vieux (Vieux and Associates), Jean Vieux (Vieux and Associates), and Mark Wolinsky (3RWW)

1. **Welcome and overview of 3RWW/ALCOSAN Rainfall Data Flow Schematic – 3RWW (5 min)**
2. **Radar rainfall-time series - Jean Vieux (20 min)**
   1. Capturing high intensity rainfall events - What can GARR do for you?
      1. Hydraulic/Hydrologic Model Inputs
      2. RDII
      3. Stormwater Sampling
      4. Rainfall Recurrence Intervals
      5. Urgent Storm Reports
      6. Flash Flood Forecasting
      7. Flood Emergency Management
3. **OneRain Data Collection Platform – Fritz Law (10 min)**
   1. A new family of companies- Advanced Environmental Monitoring Data Collection Platform- 200 implementations
   2. Rain Gauge Data Quality
   3. Highwater detection system
4. **Comments from users – Jean Vieux, 3RWW (20 min)**
   1. GARR 5-min or 15-min timesteps, advantages and disadvantages
   2. Data sometimes missing for periods of time for some or all gauges (August 21, 2018, Sept 10-13, 2018 examples). (Sometimes noted in the data sheet)
   3. Prior to using rain gauge data in API format, need to scrub data to be useful because format is cumulative. Also data contains some anomalies (random spikes and drop-offs).
   4. Consider reporting air temperatures with rainfall and noting whether gauges have working heaters.
5. **Potential Regional Rainfall Data Analysis – 3RWW, CivicMapper, Jean Vieux (30 min)**
6. Rainfall visualization – CivicMapper demo
7. Historical patterns and trends of geographical locations, etc. of high rainfall events
8. Predictive flooding warning for first responders based on rain gauge data and flood maps (Vieux and Mobility Data Analytics Center is evaluating this as a potential project)
9. **Draft 3RWW Rain Gauge Website User’s Guide – 3RWW (5 min)**
10. **Potential Detailed 3RWW Rain Gauge Workshop – 3RWW (10 min)**
    1. Audience - Municipal Engineers and other stormwater professionals
    2. General overview/review of the system
    3. API request
    4. Downloading data
    5. Vieux & Associates Presentation
    6. Other topics?
11. **Discussion – (20 min)**

**Handouts:**

* Draft Rainfall Data Flow Schematic
* Draft 3RWW Rain Gauge Website User’s Guide
* Survey Comments