Tools and Techniques for Stormwater System Mapping

CITY OF MANCHESTER
NEW ENGLAND GEOSYSTEMS
CITY OF STAMFORD
ME (UCONN CLEAR)
CT DOT
Reminder of MS4 System Mapping Requirements

- Outfalls and receiving waters
  *Town wide by July 2019 (2020 for new MS4s)*

In Priority Areas *by July 2020 (2022 for new MS4s)*

- Catch basins
- Manholes
- Pipes and open channel conveyances
- Interconnections with other MS4s and storm water systems
- Municipally-owned stormwater treatment structures
- Catchment delineations (DEEP basins)
- Impaired waterbodies (completed for you)
- Municipal sanitary sewer system & municipal combined sewer system (where applicable)
Tools, Tips & Tricks for Stormwater System Mapping

- City of Manchester Stormwater Infrastructure Mapping
  Rich Gallacher & Liz DaRos, City of Manchester

- Mapping Stormwater Infrastructure with Collector and iForms
  Kristen LaBrie, New England Geosystems

LUNCH BREAK

- City of Stamford Stormwater Infrastructure Mapping
  Tyler Theder, Regulatory Compliance and Administrative Officer for City of Stamford

- DIY Stormwater System Mapping on the Cheap
  Cary Chadwick, UConn CLEAR

- Mapping CT DOT’s Stormwater System & Interconnections
  Jeremy Willcox and Kevin Carifa, CT DOT
DIY System Mapping on the Cheap (the “Good Enough” method)

CARY CHADWICK, UCONN CLEAR

CLEAR  NEMO
Outfalls and receiving waters (town wide)
Catch basins
Manholes
Pipes and open channel conveyances (in priority areas)
Interconnections with other MS4s and storm water systems
Municipally-owned stormwater treatment structures
PM4 System Mapping Requirements

- Outfalls and receiving waters (town wide)
- Catch basins
- Manholes
- Pipes and open channel conveyances (in priority areas)
- Interconnections with other MS4s and storm water systems
- Municipally-owned stormwater treatment structures
- Water quality monitoring requirements
For the Low-Budget Adventurous Types

EpiCollect5

- Free mobile app (iOS and Android)
- Intuitive web-based form builder
- Spatially referenced form responses (points only)
- Cellular not required
- Unlimited online storage
- Export to spatial formats
- Sharing is caring
- Easy-peasy.
Giving You a Head Start

- UConn CLEAR published forms for:
  - Outfalls
  - Catch Basins
- Duplicate, replicate, edit
- Public or private
- Multi-user roles
- Free and Forever Online storage
- Visualization tools
- Export .csv or json
- API for developers
EpiCollect5 Field Forms

https://five.epicollect.net
EpiCollect FormBuilder – MS4 Outfalls Form

Outfall Attributes

- Unique Identifier
- Receiving water body
- Type
- Material
- Size
- Location
- Condition
- Indicators of non-stormwater discharge
- Maintenance requirements
What Then? The EpiCollect5 Mobile App

- Search & Add Projects
- Option to download responses
- Stored on device
- Form-based entry
- Built in AGPS or external receiver
- Offline data entry
- Freaking easy.
Viewing Field Data on the EpiCollect Website
Export to GIS

- Download .csv or json file
- Easy import to GIS
Easy-Peasy.

EpiCollect5

- [https://five.epicollect.net](https://five.epicollect.net), search for MS4
- For iOS and Android
- FREE!
- Excellent user guide & community forum
- [http://nemo.uconn.edu/ms4](http://nemo.uconn.edu/ms4), Tasks > Mapping
- Call Dave with questions.
  - cary.chadwick@uconn.edu
  - david.dickson@uconn.edu

Thank you!