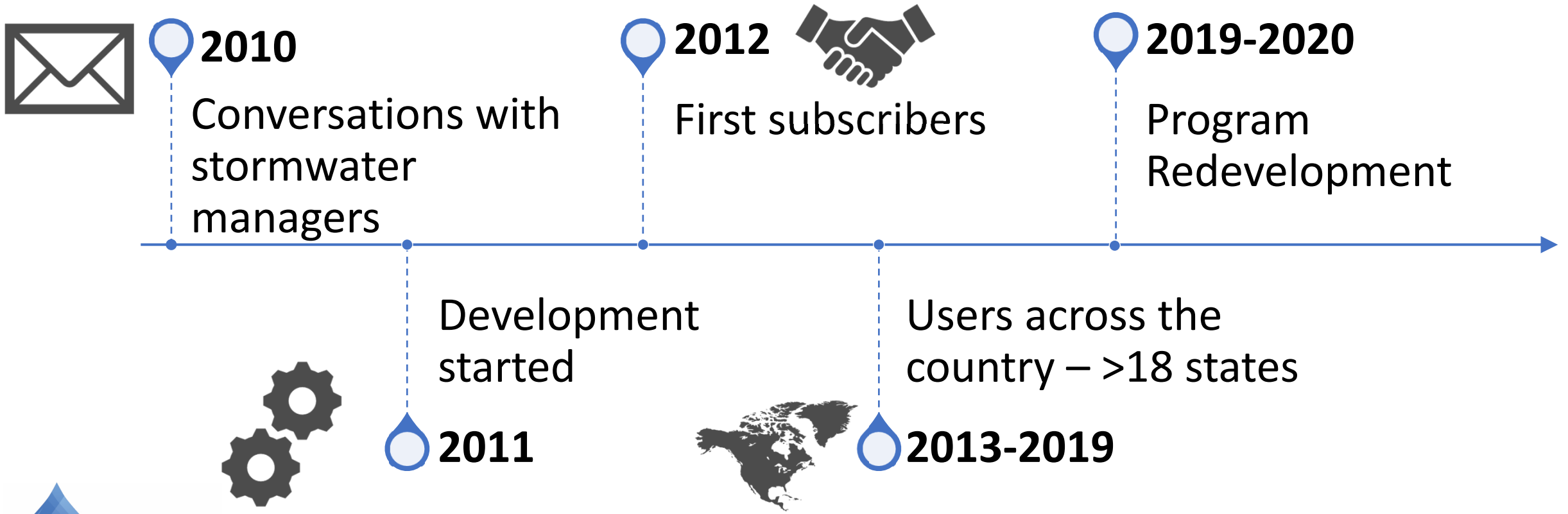




A Stormwater Data
Software Solution
for MS4 Permittees

Joe Lewis, Houston Engineering, Inc.

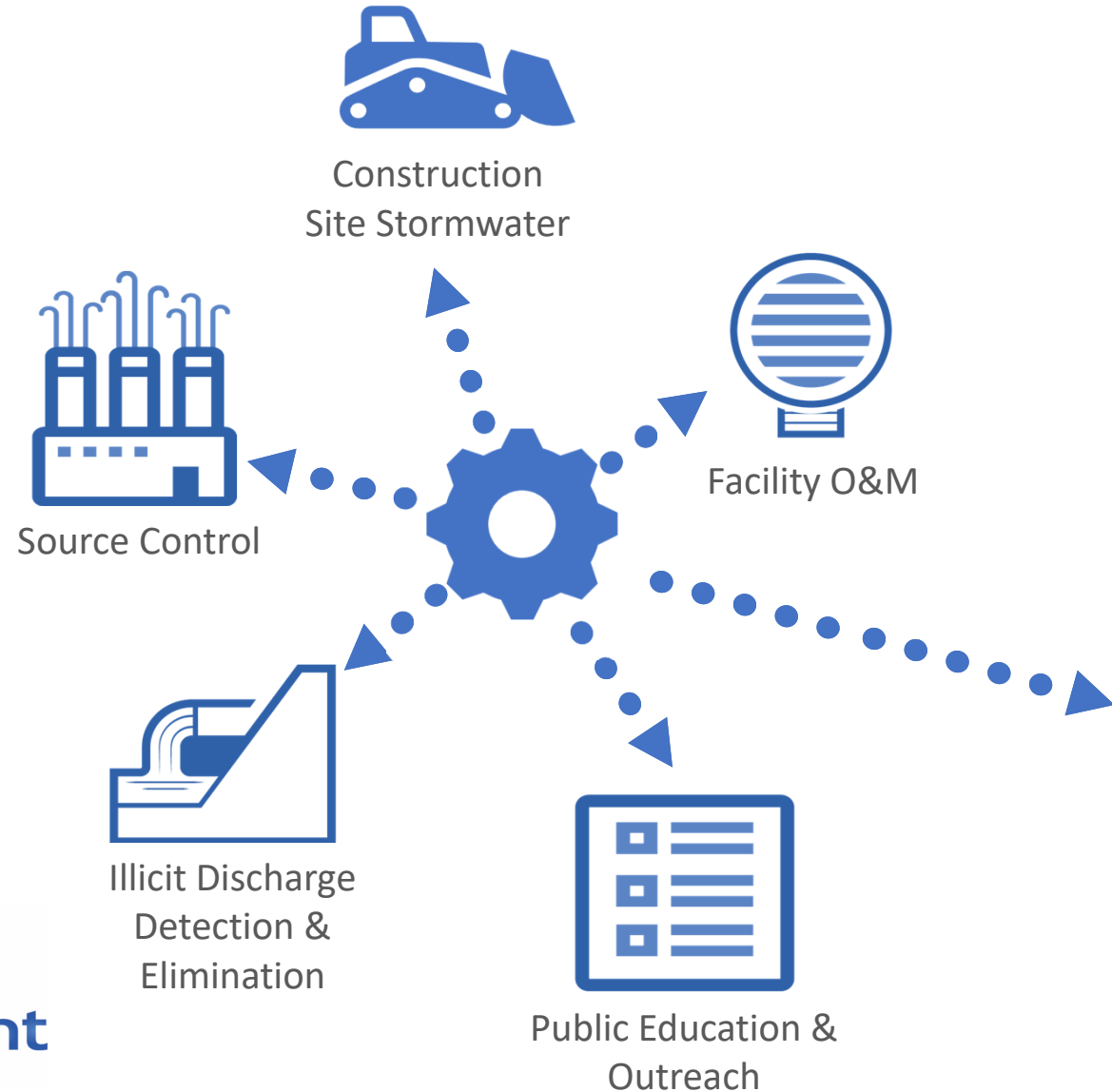
MS4Front's History



What is MS4Front?



MS4Front – A Configurable Off-the-Shelf Application



Choose and build each
“SWMP Component”
based on your needs

- Public Involvement and Participation
- Controlling Runoff from New Development and Redevelopment
- Stormwater Planning
-

Some Western WA Phase II Permit Requirements and MS4Front Capabilities

Control Measure	MS4Front Capability Description
S5.A.2 - SWMP	Identify planned and completed activities and associated schedules
S5.C.2 - Public Education and Outreach	Identify planned and track completed PEO activities over permit duration.
S5.C.3 - Public Involvement and Participation	Track ongoing opportunities
S5.C.4 - MS4 Mapping and Documentation	Through built-in mapping capabilities and integration with external GIS systems, MS4Front supports mapping and documentation requirements.
S5.C.5 – IDDE	Track the reporting and correction/removing of illicit connections, spills, etc. during the permit duration. Export data directly to Appendix 12 specifications.
S5.C.6 - Controlling Runoff form New Development, Redevelopment and Construction Sites	<ul style="list-style-type: none"> • Document inventory, plan review, inspections and enforcements (Warnings, NOVs, etc.) for construction sites. • Document adequacy of permanent treatment facility design and proper installation and ongoing maintenance.
S5.C.7 - Operations and Maintenance (MS4 Owned & Regulated by the MS4)	<ul style="list-style-type: none"> • Document inspection and maintenance activities that follow standard • Track inspections, warning letters, NOV's, etc. on facilities regulated by the MS4
S5.C.8 - Source Control Program for Existing Development	<ul style="list-style-type: none"> • Develop and maintain list of Sources • Track education efforts • Track normal and complaint inspections and enforcement actions

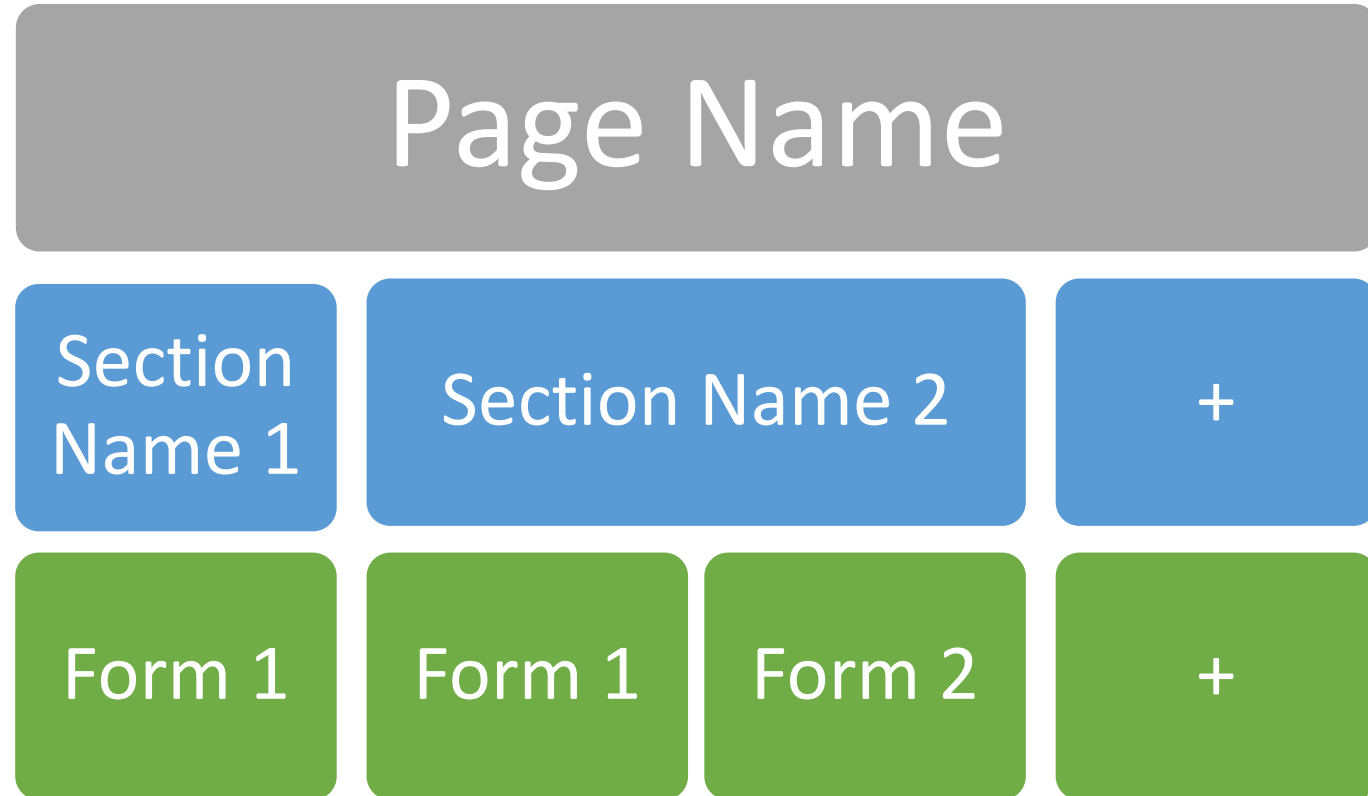
MS4Front – Architecture

A '**Page**' in MS4Front defines a collection of data records often to directly meet a specific requirement.

Parent Section - A 'Parent Section' is the first dataset defined within a Page.

Child Section - 'Child Sections' are datasets related to the Parent Section records on a Page.

Forms - A 'Form' is a list of database fields that define the data stored in each section.



S5.C.6 - Controlling Runoff from New Development, Redevelopment and Constructions

Construction Stormwater

Sites*

Contacts

Plan Reviews

Inspections

Enforcements

Permanent
BMPs

Site Details

Contact
Details

Review
Checklist

Active

Final

Details

Details

- Site ID
- Site Name
- Address
- Type
- Status
- Etc.

- Contact Name
- Phone
- Email
- Address
- Etc.

- Date
- Etc.

- Date
- Inspector
- Condition
- Documentation
Posted
- Correction
Actions Req'd

- Date
- Inspector
- Stabilized?

- Date
- Type
- Etc

- Type
- Size
- Etc.

S5.C.5 - Typical Configuration for IDDE Program

Illicit Discharge Detection and Elimination

IDDE Records

IDDE Details

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none">• Permit Number• Incident ID• Date Reported• Date Beginning Response• Date End Response• How was it reported? | <ul style="list-style-type: none">• Discharge to MS4?• Address/Intersection• City• Zip• Pollutants Identified• Source or Cause | <ul style="list-style-type: none">• Responsible Party• Source Tracing Approach• Correction/elimination methods• Filed Notes• Follow Up Description | <ul style="list-style-type: none">• Follow Up Completed• Follow Up Notes• Follow Up Action• Follow Up Type• Follow Up Schedule• Follow Up Time |
|--|---|--|---|

Source Control

Enforcements

History

-
-
-
-
-

Mobile Data Collection

Collector and Survey123 for ArcGIS Integration:

1. MS4Front data is synced with a Feature Service in ArcGIS Online
2. Field inspections launched from Collector for ArcGIS
3. Data input into a Survey123 Form
4. Data is saved to MS4Front



Beyond a Mobile App

Convenient Search and Query Tools

General Washington

Welcome - General Washington

IDDE - Advanced Search

Search Name: Pending IDDE Follow Ups

Section to Search: IDDE Records

And

Field

Would you like to sched...

Filter Type

Contains

☒ Yes ☐ No

Field

Follow Up Completed (I...

Filter Type

Contains

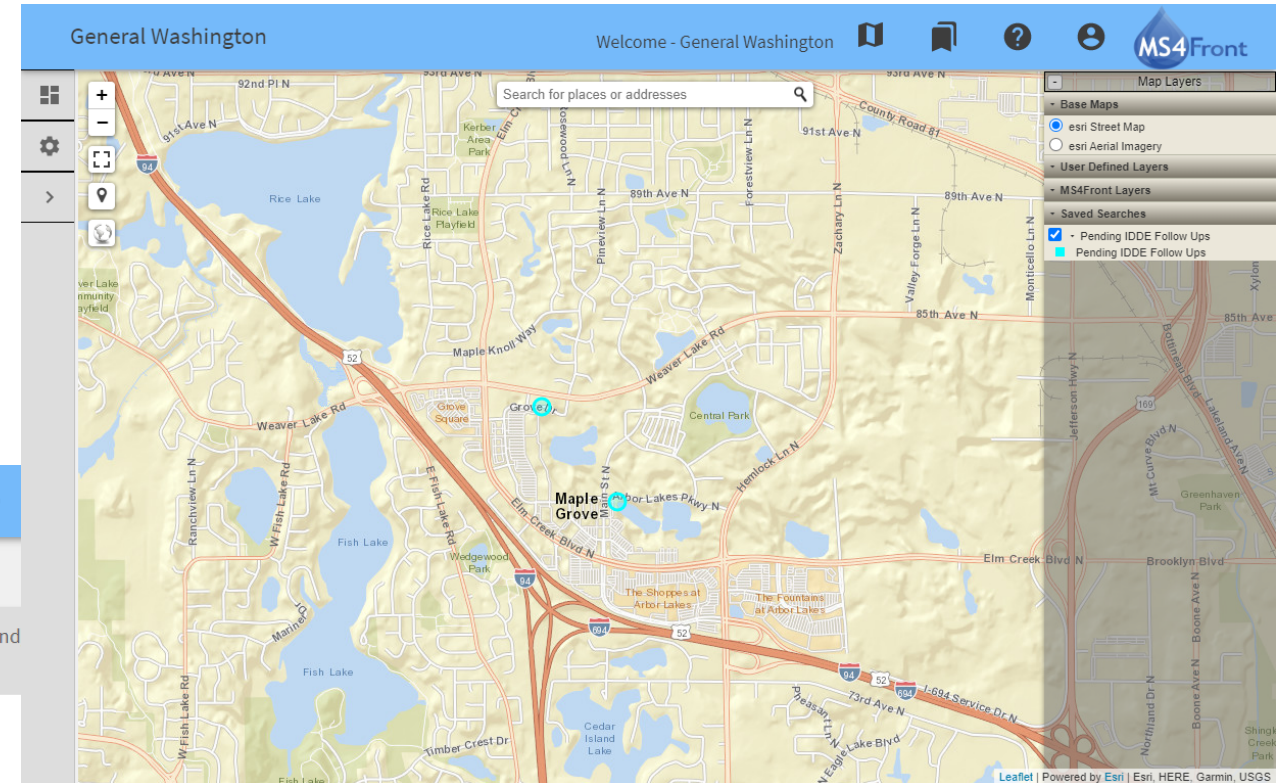
☐ Yes ☒ No

+ Add New Filter

Search

Results - 'setup' a filter above and click 'search' to populate the result table

Incident ID assigned by jurisdiction	Date incident discovered or reported to you	Follow Up Type	Follow Up Schedule
<div><div></div><div>2019-013</div></div>	02/18/2019	Re-inspection	-
<div><div></div><div>2019-014</div></div>	02/25/2019	Re-inspection	-



Display Results in Map or Table Views

Custom Reports

NPDES

National Pollutant Discharge Elimination System

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION INSPECTION FORM

--- has been permitted by the State of ----- through the Federal Clean Water Act to monitor and govern all discharges to surface water Municipal Separate Storm Sewer System (MS4), including stopping pollution from industrial and construction activities.

Site Name: _____

AKA: _____ Inspection Date: _____ Site Number: FN- _____

Operator Name: _____ Responsible Authority Name: _____

Project Contact Name: _____ FDEP Permit Number _____

Property Owner Name: _____ Start Time: _____ End Time: _____

Address: _____ Municipality: _____ Zip Code _____

Latitude/Longitude (DD): _____ Parcel ID (STR): _____

Last 24 hrs. Weather: _____ Inspection Type: _____

Receiving Water Name: _____ Receiving Water Type: _____

Current Phase(s) of Construction

1. Has coverage been obtained under NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) and is the Notice of Intent posed on site?

(Permit coverage is required for disturbances of one or more acres of land, or sites that disturb less than one acre of land but are part of a common plan of development for sale. Refer to 62-621.300(4)(a), ----- Administrative Code (X.A.C.))

Comments:

FIELD WARNING

Incident Number:		Permit Number:		Date:	
Property Address: (Site of Violation)					
Property Owner(s):					

YOU MAY BE IN VIOLATION OF THE FOLLOWING ORANGE COUNTY ORDINANCE:

- _____ Chapter 15, Article III, Air Quality Control
- _____ Chapter 15, Article IV, Water Quality
- _____ Chapter 15, Article V, Noise Pollution Control
- _____ Chapter 15, Article VI, Dredging/Filling in Surface Waters/Seawall Construction
- _____ Chapter 15, Article VII, Lakeshore Vegetation Clearing
- _____ Chapter 15, Article IX, Dock Construction
- _____ Chapter 15, Article X, Conservation Area Impact
- _____ Chapter 15, Article XI, Econlockhatchee River Protection
- _____ Chapter 15, Article XIII, Wekiva River Protection
- _____ Chapter 15, Article XV, Boat Ramp Construction
- _____ Chapter 15, Article XVII, Fertilizer Management Ordinance
- _____ Chapter 32, Article V, Solid Waste
- _____ Chapter 33, Article II, Sections 33-37
- _____ Chapter 33, Article IV, Sections 33-129
- _____ Other (see below) _____ No Permit/Not available on site _____ Work not in accordance with approved permit

Remarks: _____

Next Steps

1. Questions
2. Detailed Demonstration
3. Trial Account
4. Quote



Joe Lewis

MS4Front Product Manager

jlewis@houstoneng.com

763.793.6673

