

# flowview®

FlowView® is a web application that puts flow monitor, level monitor, and rainfall monitor data at your fingertips to support management, engineering, and operational decisions within your wastewater collection system.

FlowView connects clients to an ADS® monitoring network, delivering near real-time operational intelligence on the status of the wastewater collection system. It is the fastest and easiest way to visualize the condition of your collection system monitored by ADS sensing technology. This state-of-the-art system provides knowledge and early detection of potential problems. It offers dynamic analytical functions for fueling discoveries that will lead to enhanced management of the sewer collection system. FlowView performs data retrieval, storage, alarm management, and information presentation functions.

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## Icon Tabs



The **Icon** tabs can be seen in the top right corner of the FlowView interface, regardless of which page is open. The Icon tabs include the **Contact Us**, **Notifications**, **Alarms**, and **User** icons, shown in order above.

Clicking the Contact Us icon will open the Contact Us page, where all of the methods for contacting ADS are displayed.

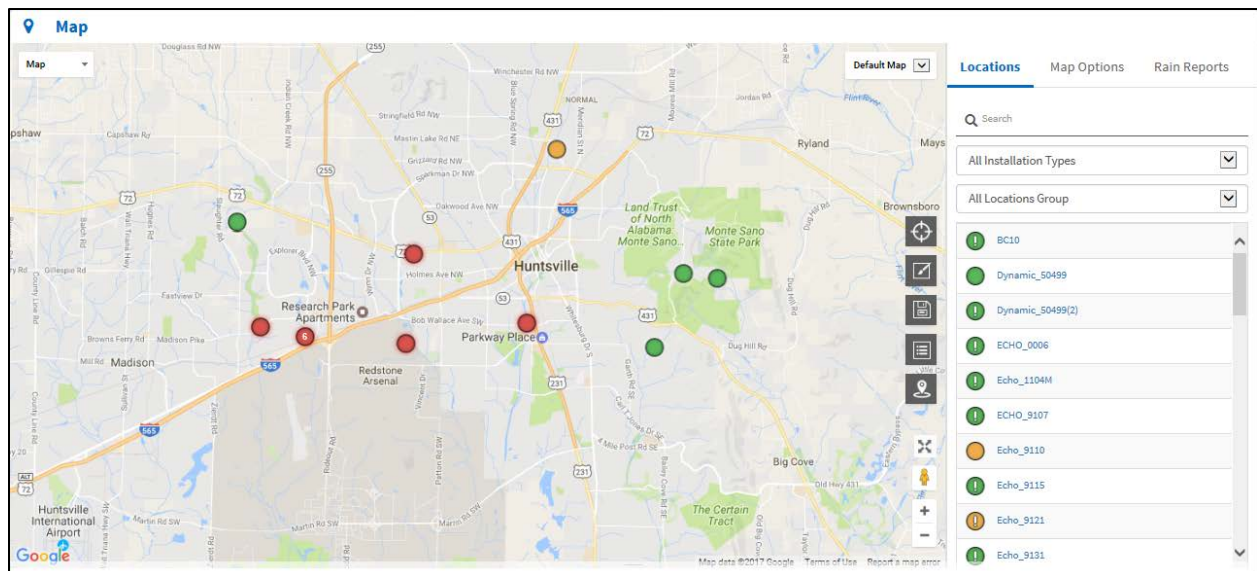
If Notifications or Alarms occur while the user is in FlowView, the Notifications or Alarms icons will display the number of new events in that category. Clicking the icons will display the recent events.

Clicking the User tab allows the user to navigate to **Account** or **Preferences** settings, or Log off of FlowView. Account information includes User and Contact information and Account information (such as user name and password). Users can add or change this information from this screen. The Preferences information allows the user to set email notification preferences and location preferences, including the option to display inactive locations.

## Dashboard

The **Dashboard** is the main screen for FlowView. It consists of the **Map** and the **Alarms**, **Battery Status**, **Collect Status**, and **Notifications** tools, detailed below.

### *Map*



The **Map**, shown above, is located at the top of the Dashboard and displays a map view of monitor and/or rain gauge locations for the project. Each location is represented by a color-coded location marker that indicates the current alarm status. An information pane is included to the right side of the map, with further options for locations, map options, and rain reports.

## **Map Display**

Within the map display itself, users have the capability to change the view of the display, navigate between saved map views, select individual locations for further information on the installation at that location, and employ the use of the map tools.

### **Changing the View of the Display**

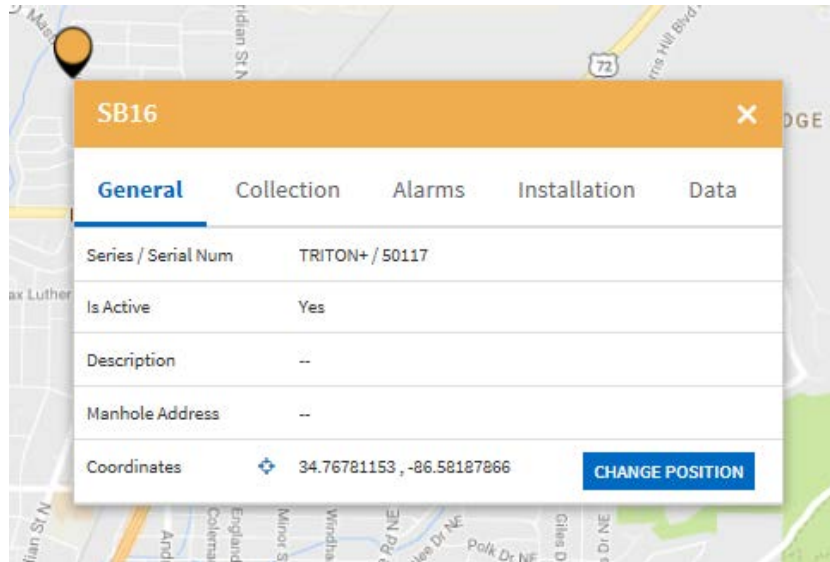


A drop-down menu in the top left of the Map feature allows the user to change the view of the display. Users can toggle between map or satellite view, white or dark style, and whether or not to include terrain on the display.

### **Navigating Between Saved Map Views**

A drop-down menu in the top right of the Map feature allows the user to navigate between saved map views. Map views can be saved using the map tools, discussed in the *Using the Map Tool* section below.


### **Selecting Individual Locations for Further Information**





Clicking on an individual location marker from the map or the location listing highlights the marker and allows the user to view the **Location Inset** which gives further information for the installation(s) at that location through the **General**, **Collection**, **Alarms**, **Installation**, and **Data** tabs. The color of the header bar indicates the alarm status of the location.

The **General** tab provides: the equipment series and serial number; whether or not the unit is active; a description; the closest available address to where the manhole is located; and the geographical coordinates of the location.

The **Collection** tab provides: the connection type; the IP address; the next scheduled collect time; the time between collects; the status of whether or not a collect is in progress. The **Collection** tab also has a **Collect** button to manually initialize a collect.

General	Collection	Alarms	Installation	Data
Type	TCPIP			
Address	166.219.171.191			
Next Collect Time	03/07/2017 18:00			
Time Between Collects	1 day			
In Progress	No			
				 <b>COLLECT</b>

The **Alarms** tab displays a table showing up to four (4) active alarms. The following is included in the table: the capability for the user to manually acknowledge or clear alarms; a color-coded indicator of the alarm status; the event type that triggered the alarm; the time stamp of the alarm; and a description of the alarm and status. This tab also includes a *View alarm log* link that will allow the user to open and view the Alarm Log for a complete listing of alarms.


General	Collection	Alarms	Installation	Data
Action	Event Type	Date/Time	Description	
	 Dry Overflow	07/15/2016 09:15	Dry Overflow detected.	
Showing 1 of 1				
<a href="#">View alarm log</a>				

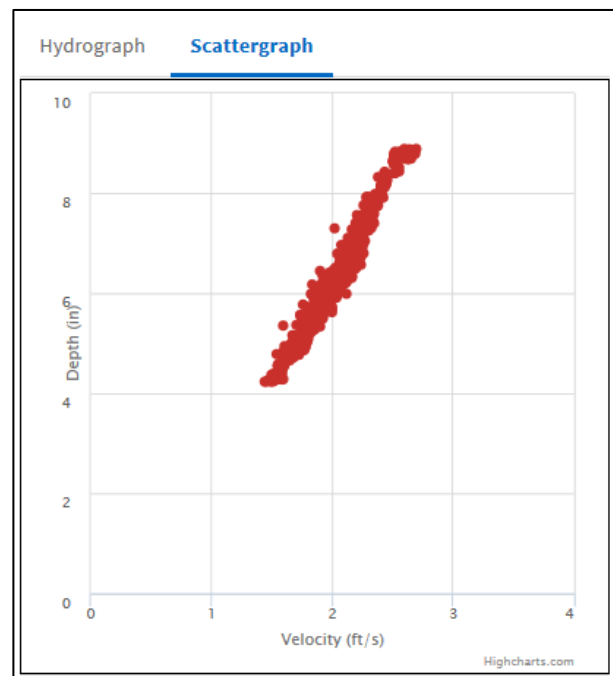
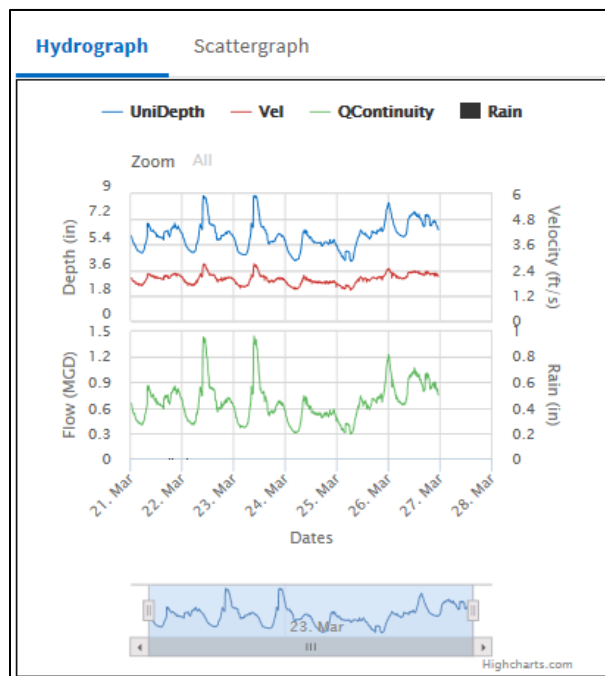
The **Installation** tab displays the following information regarding the installation: the installation type; the installation shape; the nominal diameter; and the assigned rain gauge, if applicable.

General	Collection	Alarms	Installation	Data
Installation Type	Pipe			
Installation Shape	Pipe Round			
Nominal Diameter	15.98 in			
Assigned Rain Gauge	RA3_9001_NEW			

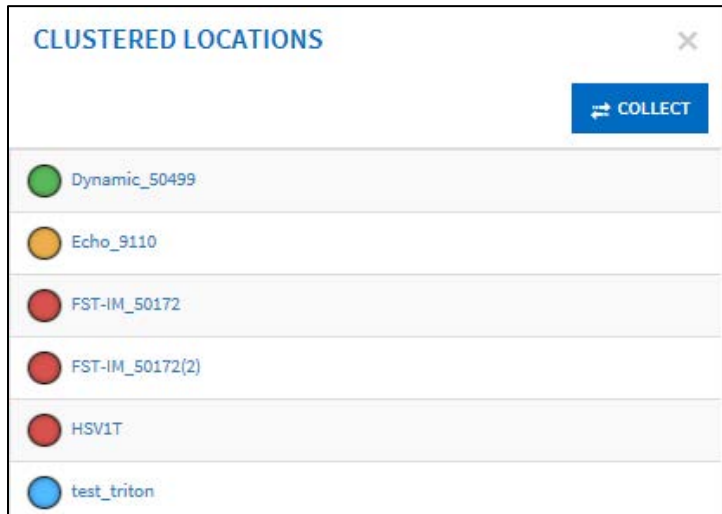
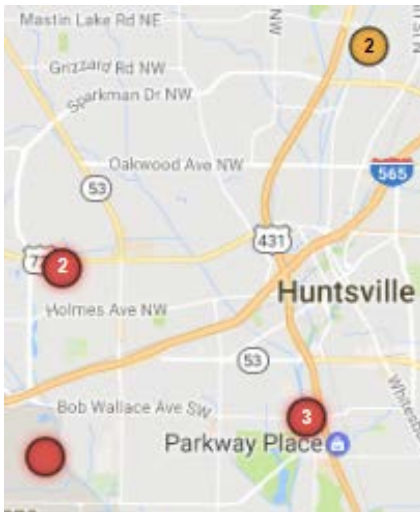
The **Data** tab provides the following data: the last stored applicable reading of *UNIDDEPTH*, *Velocity*, *QContinuity*, and *Rain* entities, as well as the time stamped range that the entity data exists between. Users also have the capability of loading graphical displays of the data using the *Generate graph* icon. It will open a hydrograph of the last seven (7) days of data, including the current day. Once opened, the user can also select a scattergraph view of the data. The hydrograph shows *UNIDDEPTH*, *Vel* (Velocity), and *QContinuity* data over the current week. Users can move their cursor over the data to view data values over the length of time. Users can also adjust the date/time range over which they are viewing the data by adjusting the end bars of the lower graph to the left or right. Users

can then scroll through the data in that zoomed view. The scattergraph shows the UNIDEPTH and Velocity data, with the min/max values for depth on the y-axis, and velocity on the x-axis. Users can move their cursor over individual points to view the specific values. Clicking the **X** in the top right corner will close the graphs and return the user to the **Data** tab.

General	Collection	Alarms	Installation	Data
Unidepth	5.67 in	03/07/2017 12:55		
Velocity	1.94 ft/s	03/07/2017 12:55		
Q Continuity	0.574 MGD	03/07/2017 12:55		
Rain	0 in	03/07/2017 12:10		
Entity Data Exists Between			08/11/2014 16:42 - 03/07/2017 12:55	




## Clustered Locations





If a number is inscribed within a location marker, this indicates a **Cluster** location. Clicking a **Cluster** location will open a **Cluster Location Inset**, which will show each of the locations included in the cluster and allow the user to select an individual location to view or initiate a collect for all locations within the cluster.

## Using the Map Tools

The available map tool buttons are located on the right side of the map display. These tools include: **Recenter**, **Draw**, **Save View**, **Legend**, and **Zoom Fit** and the other map sizing tools.

Clicking the **Recenter** button  allows the user to recenter the map based on the current selected view at the current zoom level.

Clicking the **Draw** button  opens the **Draw** toolbar  at the top of the Map display. The hand icon will allow the user to switch to the default mouse functionality in the map, and click and drag to change the map view. Selecting *Draw a shape* or *Draw a rectangle* will allow the user to draw on the map to select certain locations. To *Draw a shape*, the user will click on the map to begin the first line of the shape. The next click will finish the first line of the shape and begin the second line of the shape. Continue this process to include all desired locations. End the shape by clicking back onto the beginning of the first line. To *Draw a rectangle*, click on the map to begin the rectangle. Move the cursor around to enclose all desired locations. Once the shape has been drawn, clicking within the shape will open the “Locations within Shape” display. This display shows the locations selected, allows the user to create a **Location Group** of the locations selected, or initiate a collect of the selected locations. Clicking the **Draw** button again will close the tool and associated toolbar.



LOCATIONS WITHIN SHAPE

CREATE GROUP

COLLECT

	Echo_1104M
	Echo_SB15_9105
	Echo_SB16_9101
	SB15
	SB16
	Test_SFTriton_1104M



Clicking the **Save View** button will allow the user to save the current map view for convenience and ease of use. The user can input a **View Name** and **View Description**, as well as see the coordinates of the center of the view and the level of zoom. If a **Map View** is added, it will be available for selection in the Map View drop-down menu in the top right of the map display.

Add Map View

View Name

View Description


Map Center

Latitude: 34.69022300413423, Longitude: -86.6716251423465

Map Zoom: 12

CREATE



Clicking the **Legend** button  opens the map legend, which displays the meaning of each color-coded location marker that may be present in the map display. Clicking the **Legend** tool again will close the tool.

Legend

- Normal

- Manual Collect


- Alarming

- Acknowledged

- Inactive

- Composite

- Invalid Coordinates

Clicking the **Zoom Fit** button  will zoom to the central view to display all project locations.

Further zooming and display tools are located at the bottom right of the map display.

The **Resize Map** tool will allow the user to make the map display full screen. The button with the yellow Pegman icon will allow the user to drag the icon over a portion of the map and opening the street view. The **Plus** and **Minus** buttons allow the user to increase or decrease the zoom level.

## Map Information Pane

The **Map Information Pane** is located to the right of the Map Display and consists of the **Locations**, **Map Options**, and **Rain Reports** tabs.

### Locations

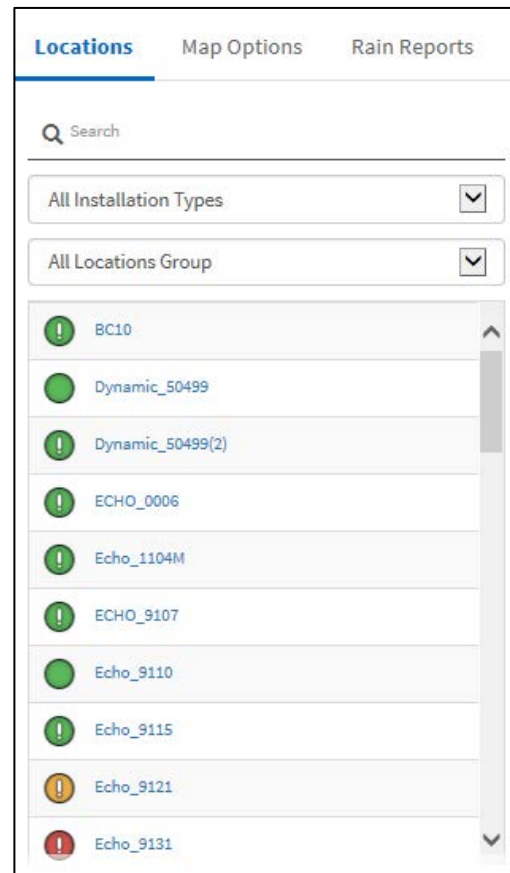
The **Locations** tab provides search functionality for viewing information for specific locations. The *Search* field can be used to search for a location by its name or scroll through the alphabetized list of locations. The user can also narrow search parameters by selecting options from the **Installation Types** or **Locations Group** drop-down menus. Clicking a location in the list will bring up its **Location Inset** information in the Map Display.

### Map Options

The **Map Options** tab allows the user to toggle effects or settings that will change how the Map Display is presented.

### **Layers**

Users can select pre-defined Layers to display further information to the map. Layers allow the addition of map overlays, which can be used to highlight areas of interest on the map. For example, a layer can be created to show city or county boundaries or sewer lines.

The screenshot shows the 'Locations' tab of the Map Information Pane. It features a search bar at the top with a magnifying glass icon and the word 'Search'. Below the search bar are two dropdown menus: 'All Installation Types' and 'All Locations Group'. A list of locations follows, each with a colored circular icon (green, yellow, or red) and a text label. The labels include 'BC10', 'Dynamic\_50499', 'Dynamic\_50499(2)', 'ECHO\_0006', 'Echo\_1104M', 'ECHO\_9107', 'Echo\_9110', 'Echo\_9115', 'Echo\_9121', and 'Echo\_9131'. A vertical scrollbar is on the right side of the list.

Note that not all projects will have layers. The layers are generated from files provided by the customer, specific for the project view. The layers must be added by an ADS administrator.

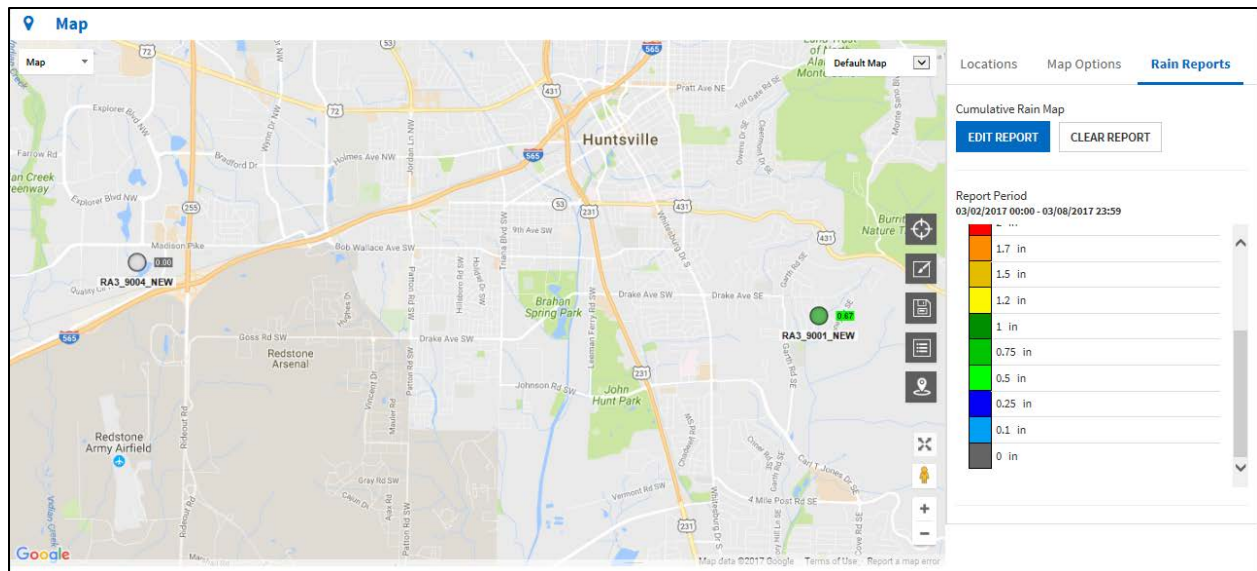
### **Settings**

The **Settings** section allows users to control whether or not *Location Name Labels* are viewed on the Map Display and at what level of zoom these labels are shown. Users can also toggle whether or not locations that are located in similar geographical areas are shown as clustered locations at certain levels of zoom. Cluster locations are displayed in the same manner as other locations, but show a number in the location marker that signifies the number of locations that are included in the cluster location.

### Rain Reports

The **Rain Reports** tab allows users to quickly generate either a **Cumulative Rain Map** or a **Rainfall Frequency Map** for any or all of the rain gauge locations within the current project. Clicking the **Generate Report** button will open the respective window where any or all rain gauge locations can be included, as well as a Date/Time over which to view rain data. After generating a report, clicking the **Edit Report** button will reopen the **Generate Report** window and allows the user to edit the report parameters. Clicking **Clear Report** will close the current report and return to the default map view.

**Cumulative Rain Maps** display system-wide rain totals for a selected rain event on the map.



**Rainfall Frequency Maps** evaluate data to determine the storm return frequency of a storm event and provide the results graphically on the map. Clicking the **Load Storms** button will prompt FlowView to evaluate the rain data for the selected rain gauges and timespan and provide a list of qualifying storm events in the drop-down list. Users can then select the storm they wish to review from the list and generate the report. Note that a geographic Rain Frequency table must be uploaded for the project by an ADS administrator prior to the generation of Rain Reports. The data is also presented as a tabular report, located below the map.



































[DATA TABLE](#)

[Download](#)

Location ▲	Start Date	End Date	Hours	Minutes	Total Rain (in)	Average Intensity (in/hr)	2 Year (in/hr)	5 Year (in/hr)	10 Year (in/hr)	25 Year (in/hr)	50 Year (in/hr)	100 Year (in/hr)	Return Frequency
RA3_9001_NEW	02/28/2017 09:05	02/28/2017 15:45	6:40	400	1.63	0.24	0.19	0.28	0.33	0.39	0.46	0.51	2yr to 5yr

## Alarms Tool

 Alarms					
<div>All Locations Group </div>					
Action	Status ▲	Event Type	Date/Time	Location	Graph
		SB10 Below Minimum Threshold (4 MGD)	02/15/2017 17:50	SB10	
		Dry Overflow	02/15/2017 11:25	FST-IM_50172(2)	
		Dry Overflow	02/15/2017 11:25	FST-IM_50172	
		High Level	02/15/2017 11:25	FST-IM_50172	
		Dry Overflow	02/15/2017 05:35	IC01	
		Dry Overflow	02/14/2017 07:35	SB10	
		High Level	02/14/2017 07:35	SB10	
		Dry Overflow	02/14/2017 07:35	IC01	
		Dry Overflow	02/13/2017 17:00	IC01	
		Dry Overflow	02/13/2017 07:40	IC01	
<a href="#">View all</a>					

The **Alarms** tool of the Dashboard displays a table of the ten (10) most recent alarms in the project. The **Locations Group** drop-down menu allows the list to be narrowed by specific **Location Groups**. The user has the option to view all Active alarms in the system by selecting the *View All* link at the bottom of the Alarms dashboard tool and viewing the **Alarm Logs** page.

The Alarms tool on the Dashboard displays the following columns: Action, Status, Event Type, Date/Time, Location, and Graph. The table can be sorted using the Status, Event Type, Date/Time, and Location. Clicking a sortable heading three times will return the table to the default sorting method.

### Action

The **Action** column of the table allows the user to manually take action to acknowledge or clear an alarm.

### Status

The **Status** column displays a color-coded bell that corresponds to the current status of the alarm. A red bell signifies that there is an active, unacknowledged alarm, while a yellow bell signifies that the alarm has been acknowledged, but is still in the active state.

### Event Type

The **Event Type** column displays the type of event that triggered the current alarm.

### Date/Time

The **Date/Time** column displays the time stamp of when the alarm was triggered.

**Location**

The **Location** column displays the location name where the alarm was triggered. Clicking the location name will navigate away from the Dashboard to the Locations screen, and display all available information for that particular location.

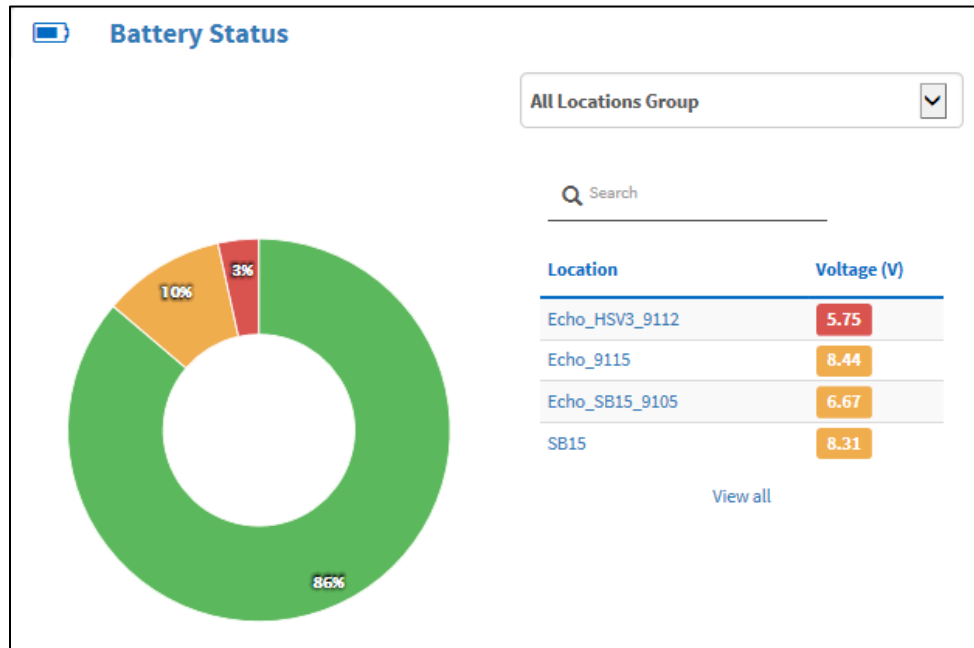
**Graph**

The **Graph** column consists of the *Graph* buttons that open a graph containing seven days of data, with the graph centered on the date/time of the alarm. This will open a hydrograph display, showing UNIDEPth, Velocity, and QContinuity, with markers of where alarm thresholds were crossed. The user can move their cursor along the data to view the specific date/time and data values. Users can also adjust the date/time range over which they are viewing the data by clicking and dragging the highlighted region at the bottom of the graph to the left or right, or can narrow the view to one day of data by clicking **1d**.



The left side of the Graph display shows the pipe size and shape, the time period of the data displayed, and a legend.

## Battery Status Tool



The **Battery Status** tool of the dashboard displays the collective battery status of the entire project. The pie chart can display up to three colors, representing the current status of the batteries. Green signifies that the battery voltages are greater than 1V above the battery alarm threshold for that monitor model, yellow signifies the voltages are less than 1V above the above the battery alarm threshold, and red signifies that the battery voltage is at or below the battery alarm threshold and should be replaced.

The table to the right side of the Battery Status tool shows the voltages of monitors in the low or critical state. The list is sorted such that those monitors with battery voltages in the critical (red) state appear at the top of the list, followed by those in the low (yellow) state. The most recent battery voltage available in the database is displayed next to the location name. If all locations on the project have battery voltages in the acceptable (green) state, no locations will appear in the list. Clicking *View all* under the table will open the **Battery Status** Report page to provide further information.

## Collect Status Tool



The **Collect Status** tool displays a bar graph and table representing the communication success rate. The only locations displayed in the table are those which have not collected in the past 48 hours. Users can also initiate a collect on the locations in the table by using the **Collect** button.

The bars in the graph are color coded, depending on the success rate of the daily collect status measured for the entire group (selected from the drop down menu at the top right of the tool). If the success rate is between 90-100% the bar is green, if it is between 80-90% the bar is yellow, and if it is below 80% the bar is red. At least one successful collect (either system initiated or through data delivery) is required to count as a success for a day.

The table shows the collect status for each individual location within the selected location group, and contains the Location, Last Collected, and Success Rate columns.


The **Location** column displays the location name and allows users to click the location name to open the specified location's Location Details page.

The **Last Collected** column displays the most recent data collection time stamp.

The **Success Rate** column displays the percent success for the date range.

Clicking *View all* at the bottom of the tool will open the **Collect Status** Report page to provide further information.

## Notifications Tool

 Notifications				
Status	Percent Complete	Type	Name	Completed Date ▼
Completed	100%	Collect	Echo_1104M Collect	02/23/2017 13:51
Completed	100%	Collect	ECHO_9107 Collect	02/23/2017 13:51
Completed	100%	Collect	Bad Status Collect	02/17/2017 12:06
Scheduled	0%	Collect	Dynamic_50499 Collect	--
Scheduled	0%	Collect	Echo_9121 Collect	--
Running	50%	Collect	SB16 Collect	--
<a href="#">View all</a>				

The **Notifications** tool displays information on recent on-demand collects or data exports. The table displays the following columns: Status, Percent Complete, Type, Name, and Completed Date. The table can be sorted using any of these columns.

The **Status** column displays the status of the on-demand collect or data export action, whether it has been completed, scheduled, running, aborted, or failed.

The **Percent Complete** column displays the percentage of the action that has been completed.

The **Type** column signifies whether the action was a data collect or data export.

The **Name** column gives the name of the instance of the task type, and if applicable, gives the name of the location from which the action was initiated. From the above example, *Echo\_1104M Collect* is a collection of data from the Echo\_1104M monitor.

The **Completed Date** column gives the time stamp of when the action was completed.

Clicking *View All* will take the user to the *Reports – User Tasks* tab and will allow the user to generate a report and view past data collects and data exports.



















































# Events

 Dashboard	 Events	 Locations	 Reports	 Vault	 Manage
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The **Events** screen is accessed through the **Events** tab in the top left of the FlowView interface. It functions similarly to the Alarms tool of the Dashboard, but with more robust functionality.

There are two tabs within the Events screen, the **Alarms** tab and the **Events** tab. The Alarms tab generates an Alarms Log of the active alarms for all project locations or a subset of locations chosen by the user. The Events tab generates the Events Log for all project locations or a subset of locations chosen by the user.

## Alarms Log

Action	Event ID	Status ▲	Event Type	Date/Time	Location	Installation Type	Graph	Description	Acknowledged By
		112965	 Dry Overflow	02/22/2017 07:55	IC01	Pipe		Dry Overflow detected.	--
		112964	 High Level	02/22/2017 07:55	IC01	Pipe		High Level detected at 02/22/2017 07:55:00 . Event processed at 02/22/2017 07:56:56 .	--
		112947	 Dry Overflow	02/22/2017 07:35	IC01	Pipe		Dry Overflow detected.	--
		112952	 PROD Custom Unidepth PeakVel	02/22/2017 06:55	SB15	Pipe		PROD Custom Unidepth PeakVel detected at 02/22/2017 06:55:00 . Event processed at 02/22/2017 07:41:00 .	--
		112862	 Dry Overflow	02/21/2017 18:50	IC01	Pipe		Dry Overflow detected.	--
		112893	 Dry Overflow	02/21/2017 09:25	HSV1T	Pipe		Dry Overflow detected.	--
		112882	 High Level	02/21/2017 09:25	HSV1T	Pipe		High Level detected at 02/21/2017 09:25:00 . Event processed at 02/21/2017 19:03:38 .	--
		112813	 Dry Overflow	02/21/2017 08:05	IC01	Pipe		Dry Overflow detected.	--
		112916	 Dry Overflow	02/21/2017 07:55	SB10	Pipe		Dry Overflow detected.	--
		112908	 High Level	02/21/2017 07:55	SB10	Pipe		High Level detected at 02/21/2017 07:55:00 . Event processed at 02/21/2017 19:04:28 .	--
		112715	 Dry Overflow	02/20/2017 16:05	IC01	Pipe		Dry Overflow detected.	--
		112914	 SB10 Below Minimum Threshold (4 MGD)	02/20/2017 15:40	SB10	Pipe		SB10 Below Minimum Threshold (4 MGD) detected at 02/20/2017 15:40:00 . Event processed at 02/21/2017 19:05:09 .	--

The **Alarms Log** feature enables the user to view a table containing all (unacknowledged and acknowledged) alarms occurring in the currently selected project.

The table of the **Alarms Log** displays the following columns: Action, Event ID, Status, Event Type, Date/Time, Location, Installation Type, Graph, Description, and Acknowledged By. The table can be sorted using the Event ID, Status, Event Type, Date/Time, Location, Installation Type, Description, and Acknowledged By. Clicking a sortable heading three times will return the table to the default sorting method. Clicking the “+” button on the left side of the table will provide information regarding Events associated with that particular alarm, such as notification emails.

The drop-down menu at the top of the Alarms tab allows the user to choose from the default template or different saved report templates. After selecting a template, clicking the **Generate Report** button will populate the table with the template’s parameters.

Clicking *View Parameters* allows the user to modify the alarm log parameters for the Locations displayed, the Date/Time range, the Event Types displayed, the Alarm Status types displayed, the Users, and the Max Records displayed. When changing these parameters, a new template can be saved for easy access to an Alarms log using the same parameters in the future.

Users can click the **Acknowledge Page** and **Clear Page** buttons to acknowledge and clear all alarms displayed on the page, respectively.

Users also have the option to download the Alarm Log information in a CSV file.

For further information on the Action, Status, Event Type, Date/Time, Location, and Graph column descriptions, see the *Alarms* section above.

### **Event ID**

The **Event ID** number is the record number associated with the event in the FlowView system.

### **Installation Type**

The **Installation Type** column provides information on the type of installation where the alarm was triggered. Installation Types can include: Channel, Flume, Pipe, Weir, and Rain Gauge.





### **Description**

The **Description** column displays a description of the type of alarm, the time stamp of the alarm, and, if applicable, the time stamp of when the event was processed.

### **Acknowledged By**

If the Alarm has been acknowledged, the **Acknowledged By** column displays whether the alarm was acknowledged by the system or a user.

## ***Events Log***

Event ID	Status	Event Type	Date/Time	Location	Installation Type	Graph	Description	User
113050	Complete	Monitor Cryout	02/22/2017 11:13	<a href="#">Echo_9115</a>	Pipe		Success	--
113049	Complete	System Cleared Alarm	02/22/2017 11:02	<a href="#">Echo_9131</a>	Pipe		Clear High Level detected at 02/22/2017 11:02:38 . Event processed at 02/22/2017 11:02:38 .	--
113048	Complete	System Acknowledge Alarm	02/22/2017 11:02	<a href="#">Echo_9131</a>	Pipe		Acknowledge High Level detected at 02/22/2017 11:02:38 . Event processed at 02/22/2017 11:02:38 .	--
113047	Complete	High Level	02/22/2017 10:55	<a href="#">Echo_9131</a>	Pipe		High Level returned to normal at 02/22/2017 10:55:00 . Event processed at 02/22/2017 11:02:37 .	--
113046	Complete	Monitor Cryout	02/22/2017 11:02	<a href="#">Echo_9131</a>	Pipe		Success	--
113045	Complete	Monitor Cryout	02/22/2017 11:01	<a href="#">Echo_HSV1T_9103</a>	Pipe		Success	--
113044	Complete	Monitor Cryout	02/22/2017 10:58	<a href="#">Echo_1104M</a>	Pipe		Success	--
113043	Complete	Monitor Cryout	02/22/2017 10:51	<a href="#">Echo_SB16_9101</a>	Pipe		Success	--
113042	Complete	Monitor Cryout	02/22/2017 10:41	<a href="#">Echo_SB15_9105</a>	Pipe		Success	--
113041	Complete	User Login	02/22/2017 10:24	--	--		gholmes has logged in.	--
113040		High Level	02/21/2017 11:40	<a href="#">Echo_9131</a>	Pipe		High Level detected at 02/21/2017 11:40:00 . Event processed at 02/22/2017 10:02:45 .	--
113039	Complete	System Cleared Alarm	02/22/2017 10:02	<a href="#">Echo_9131</a>	Pipe		Clear High Level detected at 02/22/2017 10:02:44 . Event processed at 02/22/2017 10:02:44 .	--
113038	Complete	System Acknowledge Alarm	02/22/2017 10:02	<a href="#">Echo_9131</a>	Pipe		Acknowledge High Level detected at 02/22/2017 10:02:44 . Event processed at 02/22/2017 10:02:44 .	--
113037	Complete	High Level	02/21/2017 11:35	<a href="#">Echo_9131</a>	Pipe		High Level returned to normal at 02/21/2017 11:35:00 . Event processed at 02/22/2017 10:02:44 .	--

The **Events Log** feature enables the user to view a table containing all or a subset of the events that are occurring or past events that have occurred within the context of the currently selected project.

The table of the **Events Log** displays the following Columns: Event ID, Status, Event Type, Date/Time, Location, Installation Type, Graph, Description, and User.

Similar to the Alarms tab, the Events tab provides the user the ability to: modify the parameters of reports, save report templates, generate new reports, and download the reports in CSV format.

The Event ID, Date/Time, Location, Installation Type, and Graph columns are the same as those described above in the Alarms Log.

### **Status**

The **Status** column displays the status of the particular event, either in-progress or complete.

### **Event Type**

The **Event Type** column provides a short description of the type of event.

### **Description**

The **Description** column provides further information on the type of event or alarm, and provides information on which user was involved in the event or notified of the event.

### **User**

The **User** column contains the name of the user who performed the action which caused the event to be recorded.

# Locations

 Dashboard	 Events	 Locations	 Reports	 Vault	 Manage
---	--	---	---	---	--

The **Locations** screen is accessed through the Locations tab in the top left of the FlowView interface. It provides further access to **Location Details**, **Location Groups**, and **Composite Locations** screens.

## Location Details

The initial **Location Details** screen displays a drop-down list of Location Groups and a complete and searchable list of locations. Clicking on one of these locations will open that location's Location Details page. For each individual page, users can choose between viewing the hydrograph or scattergraph. Users can also easily navigate between locations by clicking the desired location.

Beneath the graph, the Location Details page provides similar, but more in-depth, information details like those found by clicking location markers in the Map.

## Location Groups

The **Location Groups** page displays a table containing all location groups within the project.

Clicking the **New Location Group** button allows the user to create a new location group by checking the box on the left side of the pop-up window for each location that will be in the group.

Location Groups

NEW LOCATION GROUP

Search

Group Name ▲

Description

Count

Action

Collect

Demo Group

--

5/45

East Huntsville

--

8/45

ECHO Monitors

--

5/45

Search

Location ▲

Installation Type

Description

Echo\_1104M

Pipe

--

Echo\_HSV1T\_9103

Pipe

--

Echo\_HSV3\_9112

Pipe

--

Echo\_SB15\_9105

Pipe

--

Echo\_SB16\_9101

Pipe

--

Showing 5 of 5 records

The + button on the left side of the table will expand the information to display each location that is in that location group. The Group Name and Description columns provide information on the location group. The Count column displays how many locations are in the location group compared to the total number of locations in the project. The Action column allows the user to delete or edit location groups, and the Collect Column allows the user to initiate a collect for the entire location group.

## ***Composite Locations***

The **Composite Locations** screen's functionality is very similar to the Location Group screen. Users can create **New Composite Locations** by clicking the button and adding in the desired locations. Clicking the + button on the left side of the table expands the information on the composite location, and the **Location** and **Description** columns provide brief descriptions about the composite location. The **Active** column displays whether or not the location is active, the **Action** column allows the user to edit the composite location, and the **Collect** column allows the user to initiate a collect of the composite location.

# Reports



The **Reports** screen is accessed through the Reports tab in the top left of the FlowView interface. It allows users to generate **Events**, **Monitor**, **Flow Data**, and **Administrative** reports. Users can also modify the parameters of each report type, and save the new parameters as a report template. The usable report templates can be selected from the drop-down list at the top left of the reporting category. The reports can be scheduled and set to email selected recipients when creating the template or an on-demand report can be generated by clicking the **Generate Report** button, which will create a report using the selected parameters.

*Note that the availability of different reports is dependent upon user permission levels.*

Most reports allow the user to modify certain report parameters, such as Locations, Date/Time, etc., by clicking the *View Parameters* button at the top of the report screen. An example from the **Alarms** report parameters is shown below. The Locations parameter allows the user to select either a location group or manually select the locations to be included in the report. The Date/Time parameter allows the user to select a particular time frame (such as week to date, month to date, past 7 days, etc.) or to create a custom range.

A screenshot of the 'Alarms' report parameter configuration interface. At the top, there is a link 'Expand all / Collapse all'. Below it are six panels arranged in a 2x3 grid. Each panel has a title in blue, a selection area, and a blue arrow at the bottom to expand options. The panels are: 1. 'LOCATIONS' with a dropdown 'All Locations Group' showing '44 of 44 selected' and a 'Select All Locations' checkbox. 2. 'DATE/TIME' with a dropdown 'Week to Date' showing a date range '03/04/2017 00:00 - 03/10/2017 23:59'. 3. 'EVENT TYPES' with a 'Select All' checkbox showing '20 of 20 selected'. 4. 'ALARM STATUS' with checkboxes for 'Alarming', 'Acknowledged', and 'Cleared'. 5. 'USERS' with a 'Select All' checkbox showing '40 of 40 selected'. 6. 'LOG OPTIONS' with a 'Show Supporting Events' checkbox.

Clicking the arrows at the bottom of the parameter box will open further options. An expansion of the Event Types parameter is shown below. The list shows the types of events that the user can choose to display in the report. All event types are selected by default.

### EVENT TYPES

☒ Select All
 ☐ Include Obsolete

20 of 20 selected

Search

☒ Complex Test - PRODUCTION

☒ Dry Overflow

☒ Flow Loss

☒ Full Pipe

☒ High High

☒ High Level

☒ Low Level

☒ Overflow

☒ PROD Custom Almost High Level

## Events Reports

**Events** reports include: **Alarms**, **Events**, and **Event Summary** reports. **Events** reports can be downloaded in either PDF or CSV format by clicking the *Download* drop-down menu and selecting the appropriate option.

Reports in the **Events** category allow the following parameters to be modified: Locations, Date/Time, and Event Types. **Alarms** reports additionally allow the user to modify the Alarm Status, Users, and Log Options parameters.

## Alarms Reports

The **Alarms** report generates a tabular report containing the alarms, or a subset of alarms, and supporting events for the specified time period.

**Report - Alarms**

Default

GENERATE REPORT

View Parameters

Download

Search

Alarm ID	Status	Date/Time	Location	Installation Type	Alarm Type	User	Description
114259	Alarming	02/28/2017 08:25	FST-IM_50172	Pipe	Dry Overflow	--	Dry Overflow detected at 02/28/2017 08:25:00
114273	--	02/28/2017 18:12	FST-IM_50172	Pipe	Notification Email	System	Notified jwright via JWright@idexcorp.com of Dry Overflow detected. Event ID: [114259].
114248	Alarming	02/28/2017 15:00	FST-IM_50172	Pipe	High Level	--	High Level detected at 02/28/2017 15:00:00
114269	--	02/28/2017 18:12	FST-IM_50172	Pipe	Notification Email	System	Notified jwright via JWright@idexcorp.com of High Level detected at 02/28/2017 15:00:00 . Event processed at 02/28/2017 18:12:12 . Event ID: [114248].
114265	Alarming	02/28/2017 15:00	FST-IM_50172	Pipe	Dry Overflow	--	Dry Overflow detected at 02/28/2017 15:00:00

## Events Reports

The **Events** report generates a tabular report containing the events, or a subset of events, that have been logged during the specified time period.

Report - Events

Default

GENERATE REPORT

View Parameters

Download

Search

Event ID	Location	Event Type	Date/Time ▲	Value	Limit	Description
113140	--	Notification Email	02/23/2017 03:00	--	--	Notified Jwright via Jwright@idexcorp.com of report BatterySummary_088533cc.pdf generation.
113145	SB15	Location Flow Data	02/23/2017 03:10	UniDepth = 6.89 in PEAKVEL_1 = 3.10 ft/s	--	PROD Custom UniDepth PeakVel returned to normal at 02/23/2017 03:10:00
113142	IC01	Location Flow Data	02/23/2017 03:10	HighLevel = 0.0000	--	High Level returned to normal at 02/23/2017 03:10:00
113144	IC01	Cleared By System	02/23/2017 03:12	--	0	Clear High Level detected at 02/22/2017 07:55:00 . Event ID: [112964].
113143	IC01	Acknowledge By System	02/23/2017 03:12	--	0	Acknowledge High Level detected at 02/22/2017 07:55:00 . Event ID: [112964].

## Event Summary Reports

The **Event Summary** report generates a tabular report containing statistical data for each location about events that have been generated.

Report - Event Summary

Default

GENERATE REPORT

View Parameters

Download

Q Search

Location ▲	Dry Overflow	FTP Export	High High	High Level	LIF Export	Low Level	Monitor Cryout	Monitor Data Collect Failure	Monitor Data Collect Success	Notification Email
<TOTALS>	41	40	9	85	2	2	213	119	133	113
BC10	0	0	0	0	0	0	0	0	0	0
Echo_1104M	0	0	0	0	0	0	26	0	7	0
ECHO_9107	0	0	0	0	0	0	0	0	0	0
Echo_9115	0	0	0	2	0	2	28	0	0	0

## Monitor Reports

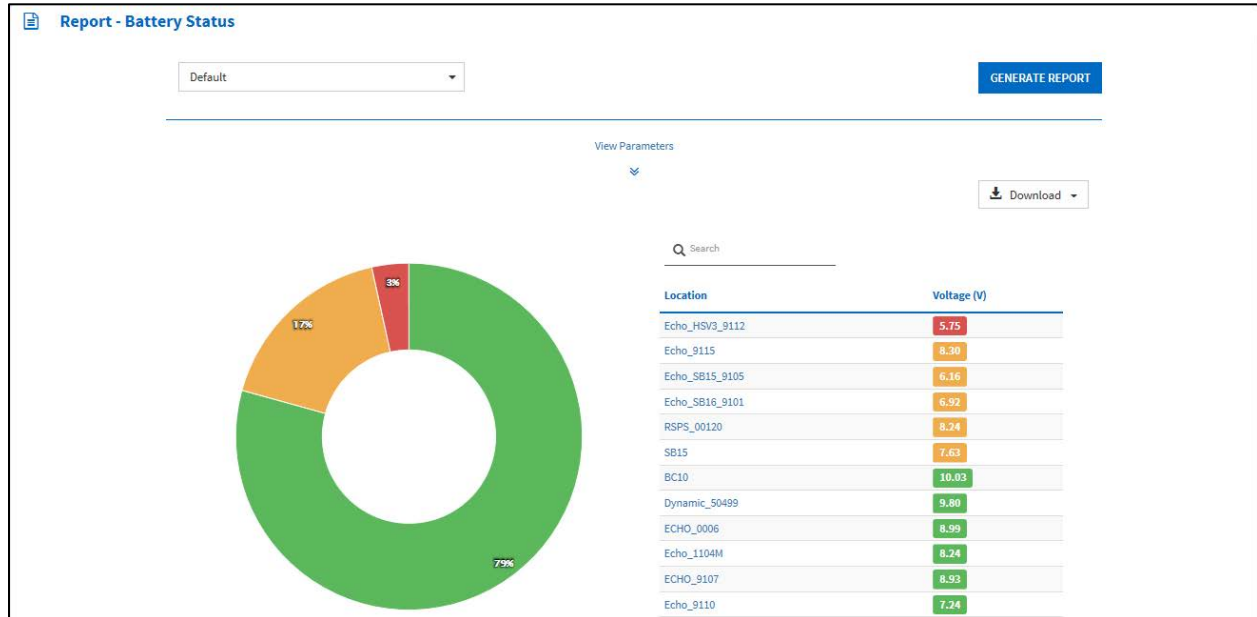
**Monitor** reports include: **Battery Status**, **Battery Summary**, **Collect Progress**, **Collect Status**, and **Collect Summary** reports.

Reports of the **Monitor** type allow the Locations parameter to be modified. The **Collect Summary** report additionally allows the Date/Time parameter to be modified, while the **Collect Progress** report has no parameters that can be modified.



## **Battery Status Reports**

The **Battery Status** report generates a graphical and tabular report concerning the voltage levels of each location. It is similar to the **Battery Status** Tool above, but it contains all sites within the project or location group. The data can be downloaded in CSV format.



## **Battery Summary Reports**

The **Battery Summary** report provides a table of project locations and summary information about the installation type and battery voltage at the last reading. The data can be downloaded in PDF or CSV format.

**Report - Battery Summary**

Default GENERATE REPORT

View Parameters

Download

Q Search

Location ▲	Installation Type	Last Data Collected	Monitor Voltage	Monitor Battery Status	Modem Voltage	Modem Battery Status
BC10	Pipe	02/28/2017 00:00	10.03 V	OK	N/A	N/A
Dynamic_50499	Pipe	12/07/2016 00:00	9.80 V	OK	N/A	N/A
ECHO_0006	Pipe	02/17/2017 00:00	8.99 V	OK	N/A	N/A
Echo_1104M	Pipe	03/01/2017 00:00	8.24 V	OK	N/A	N/A
ECHO_9107	Pipe	03/01/2017 00:00	8.93 V	OK	N/A	N/A

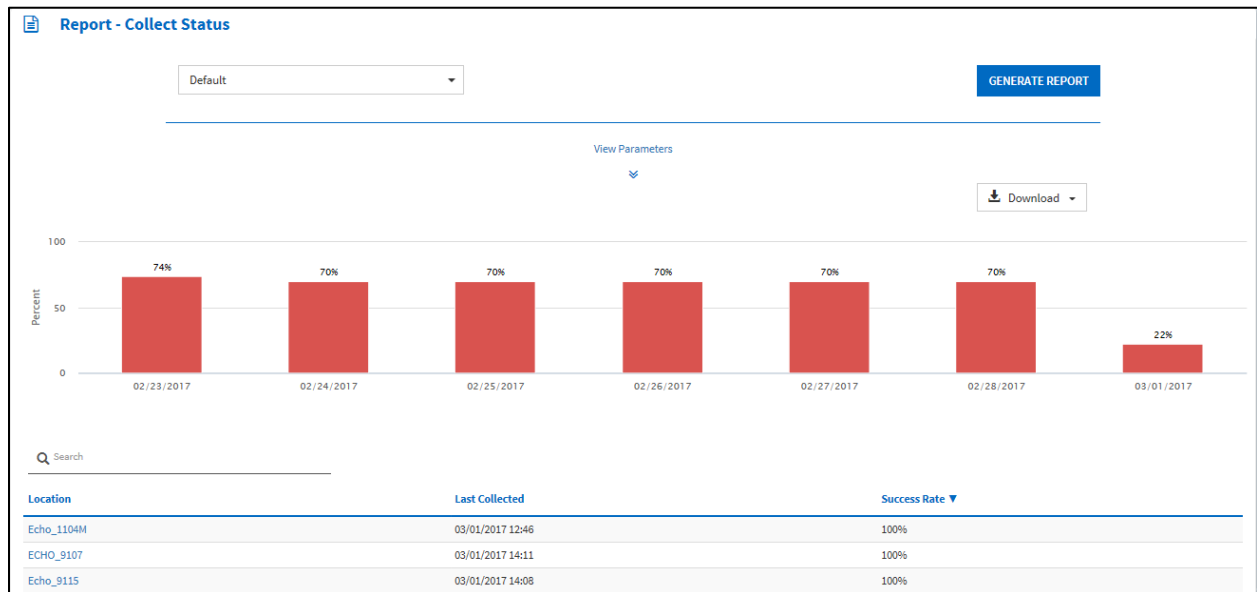
## Collect Progress Reports

The **Collect Progress** report displays the status of any in-progress data collections. It also gives the user the ability to cancel the collection with the *Abort* button.

Report - Collect Progress					
<div>Q Search</div>					
Location ▲	Start Time	User Name	Percent Complete	Process Status	Action
Echo_1104M	03/08/2017 15:16	gholmes	0%	Scheduled	ABORT
Showing 1 of 1 records					

## Collect Status Reports

The **Collect Status** report generates a bar graph and table representing the communication success rate. It is similar to the **Collect Status** Tool above, but contains all sites within the project or location group. The data can be downloaded in CSV format.



## **Collect Summary Reports**

The **Collect Summary** report generates a tabular report indicating the data collection success and failure totals as well as the percentage of successful collects for each location over the specified period of time. The data can be downloaded in PDF or CSV format.

Report - Collect Summary

Default

GENERATE REPORT

View Parameters

Download

Search

Location ▲	Installation Type	Data Collect Successes	Data Collect Failures	Percent Data Collect Success
BC10	Pipe	6	0	100
Dynamic_50499	Pipe	0	21	0
ECHO_0006	Pipe	0	0	0
Echo_1104M	Pipe	7	0	100
ECHO_9107	Pipe	7	0	100

## **Flow Data Reports**

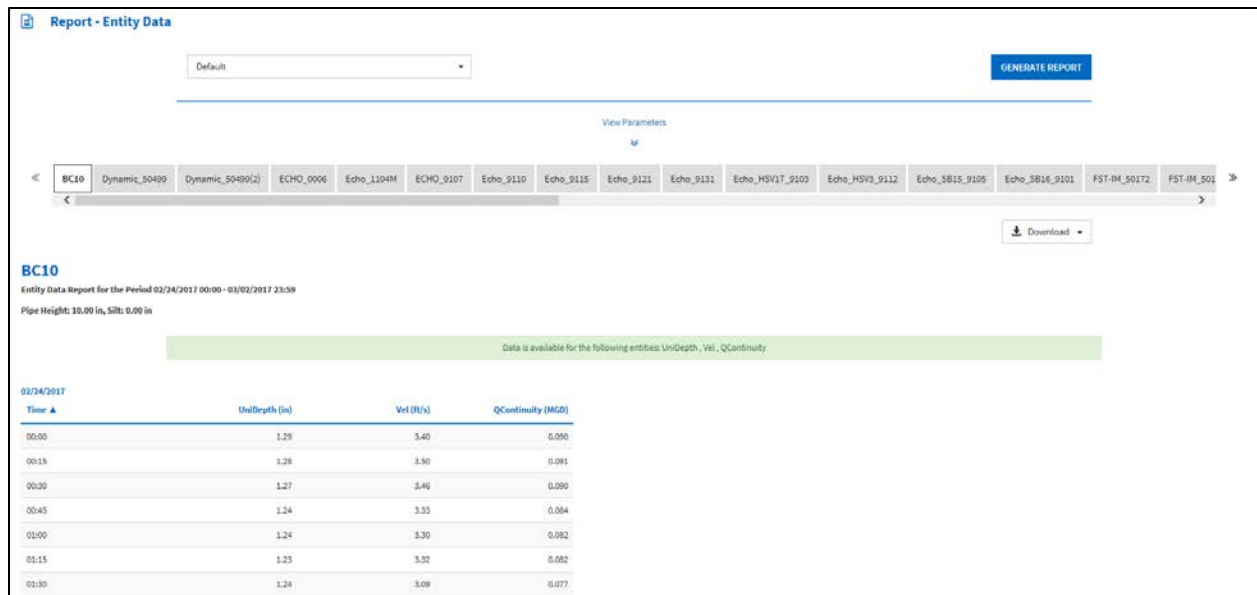
**Flow Data** reports include: **Daily Summary**, **Data Export**, **Entity Data**, **Hydrograph**, **Percent Full**, **Scattergraph**, **Uptime**, **Weekly Detail**, and **Weekly Summary** reports.

Reports in the **Flow Data** category allow the following parameters to be modified: Locations, Date/Time, and Entities. Most reports in this category also allow for certain Report Options to be modified. Additional parameters specific to the report type are available in the **Data Export**, **Hydrograph**, and **Scattergraph** reports.

## **Daily Summary Reports**

The **Daily Summary** report displays daily minimum, maximum, average, and total values for the user-selected entities. The default entities are *UNIDDEPTH*, *Vel* (Velocity), *QContinuity*, and *Rain* data (if applicable) for each location. The data can be downloaded into CSV (Daily Summary or Report Summary) or PDF format.






## Hydrograph Reports

The **Hydrograph** report has more robust functionality than the hydrograph available in other parts of the FlowView interface and provides the user with the flexibility to modify **Hydrograph**-specific parameters such as the Graph Layout, Annotation, and other Report Options. Note that in the Graph Layout parameters, the Formal graph displays the location information, pipe size and shape, report period, and legend to the left side (shown below). The Informal graph removes these displays.

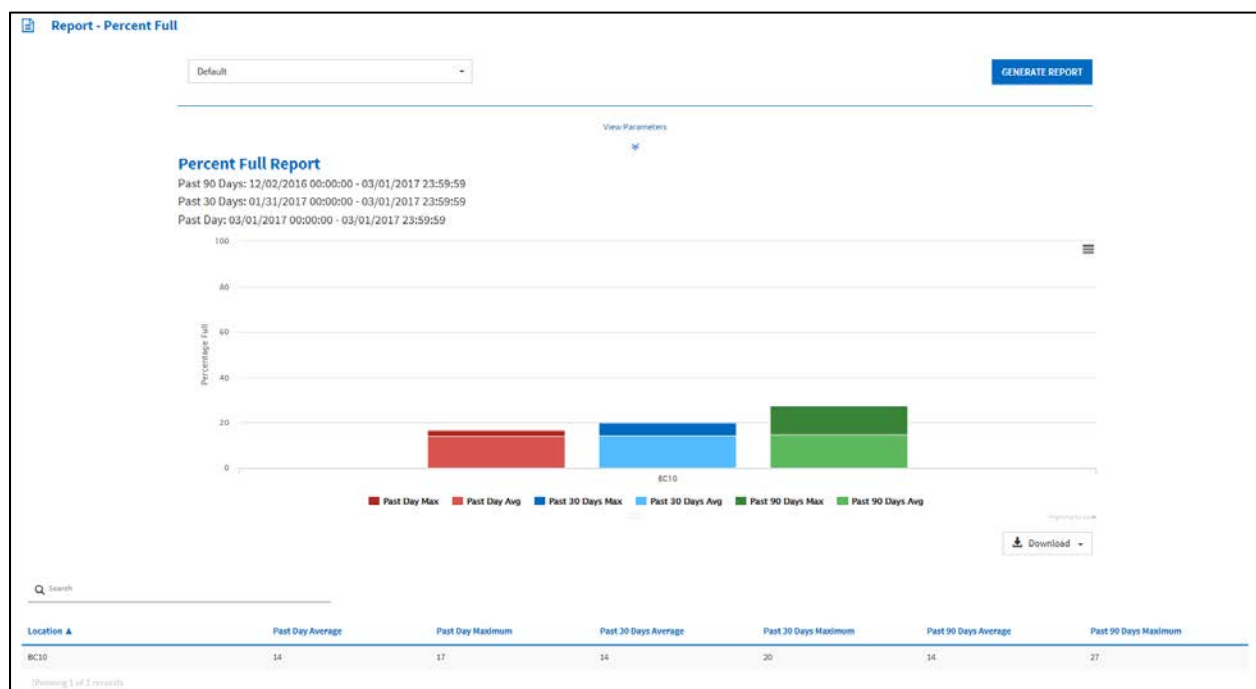


The print  icon, located in the upper right of the graph, provides the user with the **Print Graph** option. This functionality is also present in Scattergraph reports. All internet browsers have the capability to print the graph to a user-configured printer, and the following table describes each browser's Print to PDF capabilities.

Browser	Print to PDF
Chrome	Choose <b>Print Graph</b> to access <b>Chrome</b> supported PDF print option.
Edge	Choose <b>Print Graph</b> to access Windows 10 native PDF print option.
Firefox	Firefox users running Windows 10 choose <b>Print Graph</b> to use native PDF print option.  Firefox users running on other operating systems must manually download a PDF printer driver prior to being able to print a graph to PDF.
IE11	Users must download a PDF printer driver prior to printing a graph to PDF.
Safari	PDF printing not supported.

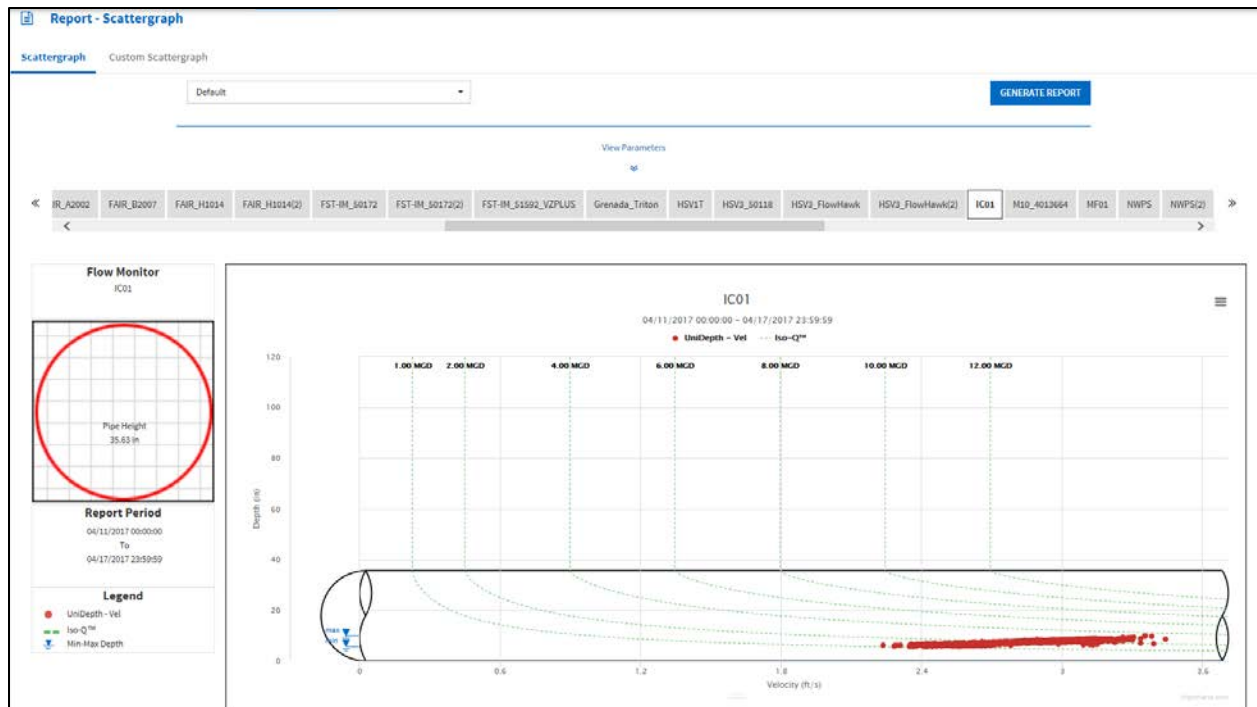
## **Percent Full Reports**

The **Percent Full** report indicates the average and/or maximum percentage of the Depth/Diameter of the pipe for each location over designated time periods. The data can be downloaded in CSV or PDF format, and the graph can be downloaded in PNG, JPEG, PDF, and SVG vector image format.

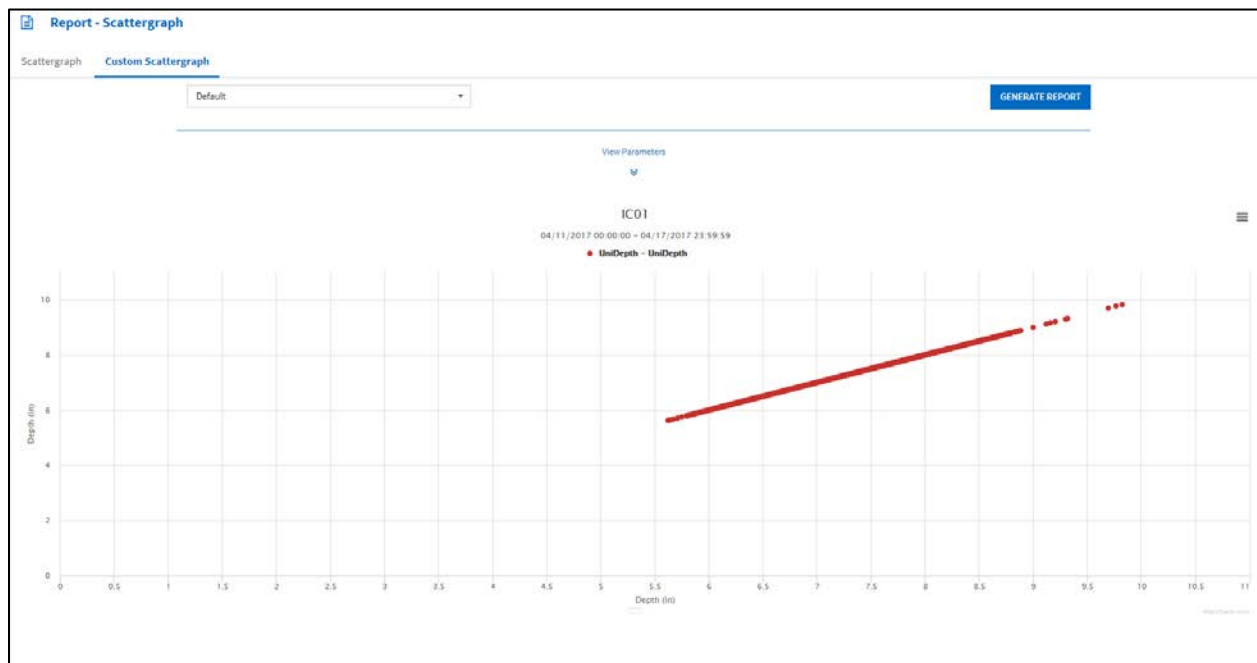


## **Scattergraph Reports**

The **Scattergraph** report has more robust functionality than the scattergraph available in other parts of the FlowView interface and provides the user with the flexibility to modify **Scattergraph**-specific parameters such as the Graph Layout, Engineering Curves, and other Report Options. Note that in the Graph Layout parameters, the Formal graph displays the location information, pipe size and shape, report period, and legend to the left side (shown below). The Informal graph removes these displays.

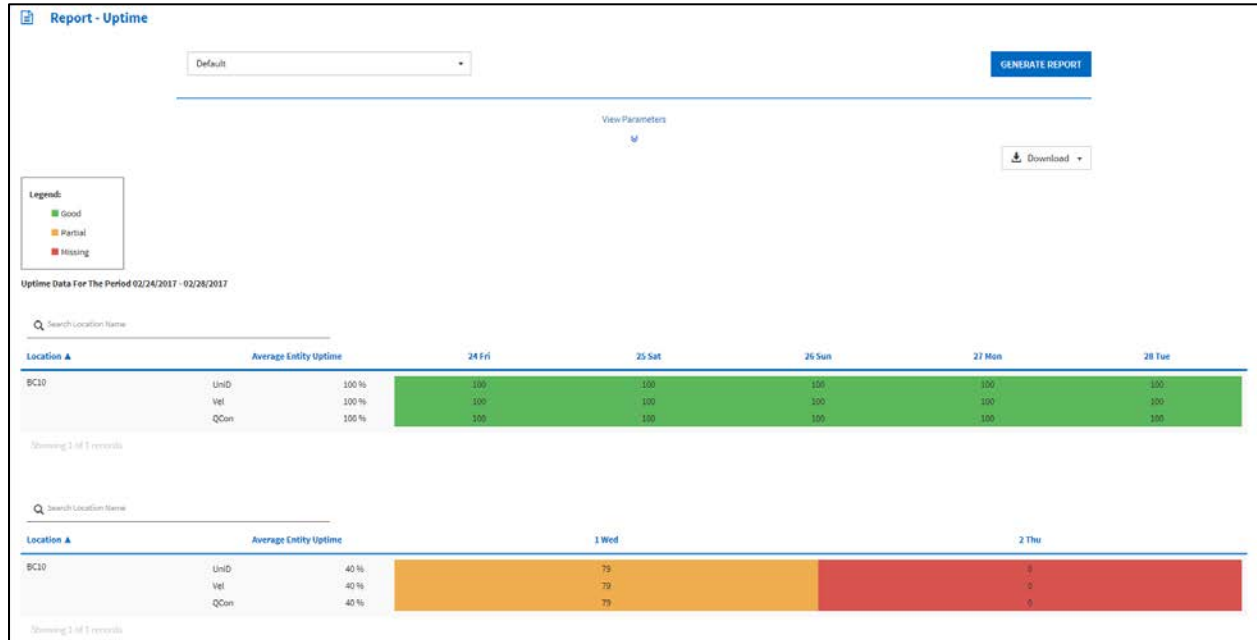


Users also have access to the **Custom Scattergraph** tab at the top of the report. With a **Custom Scattergraph**, the user can define the parameters of the Location used for the X-axis, the Location used for the Y-axis, the X and Y entities, and the Date/Time parameter.



## **Uptime Reports**

The **Uptime** report displays the data availability for the selected entities and provides an average and a daily percentage of the amount available based on the criteria set in the parameters section, shown below. The data can be downloaded in CSV or PDF format.



The Report Options parameters provide specific **Uptime** report parameters that impact the percentage calculations. The **Set Percent** option allows the user to change the percentage at which the data will display as green or good, with the default set to 80%. The drop-down menu allows the user to select the average interval, with the default set as One Hour. The Quality Flagged Data and Manually Modified Data checkboxes are not selected by default. Clicking to include Quality Flagged data will include data that has been flagged as potentially inaccurate in the uptime percentage calculations. Clicking to include Manually Modified data will include data that has been modified by the user in the uptime percentage calculations.

**REPORT OPTIONS**

**Set Percent**

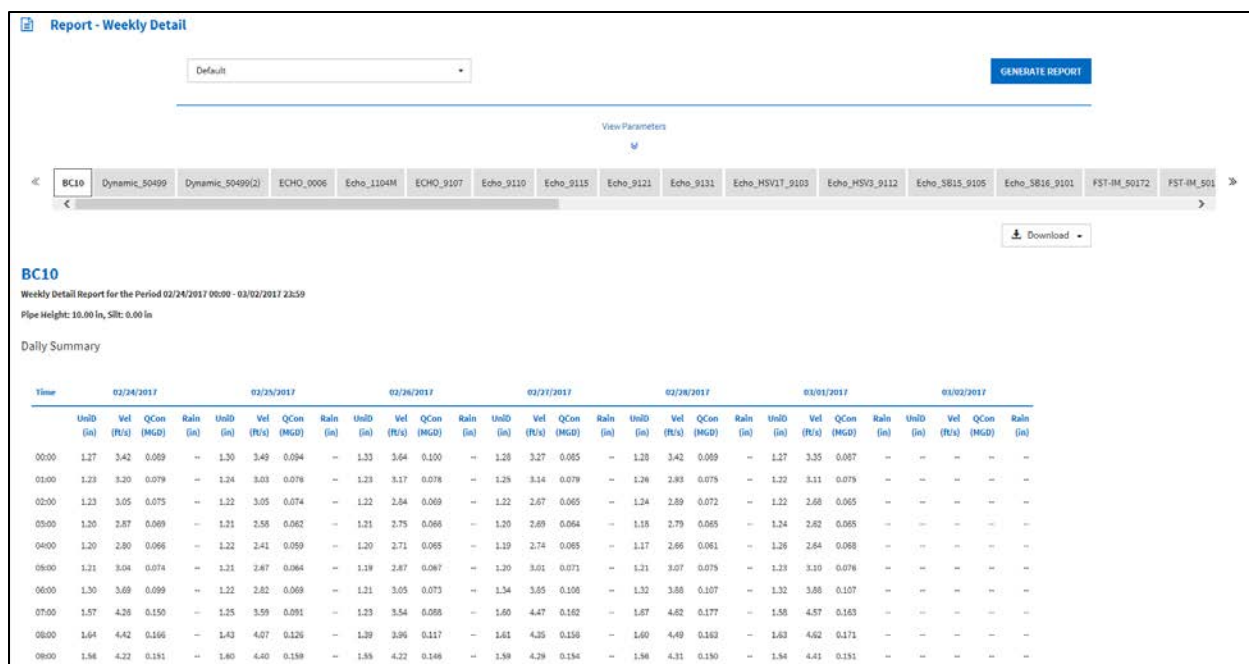
☐ Quality Flagged Data

☐ Manually Modified Data

## **Weekly Detail Reports**

The **Weekly Detail** report gives *UNIDEPth*, *Vel* (Velocity), *QContinuity*, and *Rain* data over time for each day in the week. It also provides totals, averages, minimum values, and maximum values of the entities for each day, as well as entity totals and averages for the week.





## Weekly Summary

The **Weekly Summary** report gives totals, averages, minimum values, and maximum values of *UNIDEPATH*, *Vel* (Velocity), *QContinuity* and *Rain* data collected for the week. It also provides entity totals and averages for the week.

Report - Weekly Summary

Default

GENERATE REPORT

View Parameters

BC10

Dynamic\_50499

Dynamic\_50499(2)

ECHO\_0006

Echo\_1104M

ECHO\_9107

Echo\_9110

Echo\_9115

Echo\_9121

Echo\_9131

Echo\_HSV17\_9103

Echo\_HSV3\_9112

Echo\_SB15\_9105

Echo\_SB16\_9101

FST-IM\_50172

FST-IM\_501

Download

BC10

Weekly Summary Report for the Period 02/24/2017 00:00 - 03/02/2017 23:59

Pipe Height: 10.00 In, Silt: 0.00 In

Report Summary

	UstID (in)	Vel (ft/s)	QCon (MGD)
Total	--	--	0.683
Avg	1.42	3.78	0.118

Daily Summary

	02/24/2017				02/25/2017				02/26/2017				02/27/2017				02/28/2017				03/01/2017				03/02/2017			
	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)
Total	--	--	0.115	--	--	--	0.119	--	--	--	0.124	--	--	--	0.119	--	--	--	0.116	--	--	--	0.089	--	--	--	--	--
Avg	1.41	3.74	0.115	--	1.43	3.76	0.119	--	1.45	3.83	0.124	--	1.44	3.77	0.119	--	1.40	3.82	0.116	--	1.37	3.78	0.112	--	--	--	--	--
Time	03:45	03:45	03:45	--	02:45	04:45	04:45	--	09:15	04:15	04:15	--	03:45	03:00	03:00	--	03:15	04:15	04:15	--	01:30	04:00	04:00	--	--	--	--	--
Min	1.19	2.73	0.064	--	1.19	2.09	0.053	--	1.16	2.61	0.062	--	1.18	2.52	0.061	--	1.18	2.62	0.060	--	1.21	2.25	0.058	--	--	--	--	--
Time	09:00	09:00	09:00	--	11:30	11:30	11:30	--	20:30	20:30	20:30	--	19:45	07:45	19:45	--	07:15	19:15	07:15	--	08:00	08:00	08:00	--	--	--	--	--
Max	1.67	4.45	0.172	--	1.74	4.57	0.187	--	1.78	4.68	0.194	--	1.64	4.31	0.188	--	1.72	4.66	0.187	--	1.66	4.73	0.180	--	--	--	--	--

Weekly Summary

	UstID (in)	Vel (ft/s)	QCon (MGD)	Rain (in)
Total	--	--	0.683	--
Avg	1.42	3.78	0.118	--

## Administrative Reports

**Administrative** reports include: **Location Configuration**, **Location Event Configuration**, **Location Notification Configuration**, **Monitor Configuration**, **Notification Configuration**, and **User Tasks** reports. Report availability is based on user permission levels.

All **Administrative** type reports can be downloaded in CSV format, and all except for the **User Tasks** report can be downloaded in PDF format.

### Location Configuration Report

The **Location Configuration** report displays detailed configuration information for each location. The user can modify the Location and Report Options parameters.

Report - Location Configuration

Default

GENERATE REPORT

View Parameters

Download

Search

Location

BC10	Monitoring Point Number	Location Type	Location Shape	Silt (in)	Hydraulic Coefficient	WGain	Height (in)
	1	Pipe	Pipe Round	--	--	0.95	9.55
	Width (in)	Capacity (MGD)	Associated Rain Gauge	Latitude	Longitude	Elevation (ft)	
	9.55	--	--	--	--	--	
	Overflow	Analysis Triggering Event	Analysis Rain Gauges	High Depth Threshold Activation Date	High Depth Threshold (in)	High High Threshold Activation Date	High High Threshold (in)
	No	--	--	--	--	--	--
	Low Depth Threshold Activation Date	Low Depth Threshold (in)					
--	--						

Showing 1 of 1 records

## **Location Event Configuration Reports**

The **Location Event Configuration** report identifies the locations for which events have been configured and includes the name of the location, type of event, and name and a brief description of the notification group, when applicable. An option is available to display only those events to which notification groups have not been designated. The standard report includes only those events to which a notification group has been assigned. The user can modify the Location, Event Types, and Report Options parameters.

Report - Location Event Configuration		
Default		GENERATE REPORT
View Parameters		
Download		
Search		
Location	Event Type	Raise Alarm
BC10	High High	Yes
BC10	High Level	Yes
Showing 2 of 2 records		

## **Location Notification Configuration Reports**

The **Location Notification Configuration** report indicates the locations about which FlowView has been configured to provide notification to a group when an event or an associated alarm or return to normal occurs. It includes the name of the location, type of event, name and a brief description of the notification group, and whether notification will occur in the case of an alarm or an event or when conditions return to normal following an event. An option is available to display the locations associated with events for which a notification group has not been designated. The user can modify Location, Event Types, Report Options, and Notification Groups parameters.

Report - Location Notification Configuration

Default

GENERATE REPORT

View Parameters

Download

Q Search

Location ▲	Event Type	Notification Group	Notification Group Description	Active Event	Return To Normal Event
Dynamic_50499	High Level	QC Test Notification Group	Janice	Yes	No
Dynamic_50499(2)	High Level	QC Test Notification Group	Janice	Yes	No
echo_9121	High Level	QC Test SDM	--	Yes	No
FST-IM_50172	High Level	QC Test Notification Group	Janice	Yes	No
FST-IM_50172	Dry Overflow	QC Test Notification Group	Janice	Yes	No

## Monitor Configuration Reports

The **Monitor Configuration** report offers detailed configuration information for each location, including the location type, monitor series and serial number, active status, name of LIF, geographical coordinates, elevation, manhole depth, pipe type and dimensions, label on map, installation address, communication type and IP address/phone number, data and time for next scheduled collect, and the interval at which scheduled data collections occur. The user can modify the Locations and Report Options Parameters.

Report - Monitor Configuration

Default

GENERATE REPORT

View Parameters

Download

Search

Location

BC10	Location Type	Monitor Series	Serial Number	Is Active	LIF File Name			
	Physical	Triton	20354	Yes	--			
	Latitude	Longitude	Elevation	Manhole Depth	Description	Map Display Label		
	--	--	--	--	Circular (9.88 in H)	BAKERC01		
	Street Address	City	State	Zip				
	--	--	--	--				
	Communication Type	Communication Address						
	TCP/IP	166.219.19.192						
	Next Data Collect	Schedule Interval						
	03/02/2017 18:00	1 day						

Showing 1 of 1 records

## Notification Configuration Reports

The **Notification Configuration** report identifies the groups that are assigned to receive notification when an alarm or an event occurs or when conditions return to normal following an even at any of the locations in the currently selected database. It includes the name and a brief description of the group, and, as an option, the specific contacts within the notification group and their individual contact information (i.e. email addresses). The user can modify the Notification Groups and Report Options parameters.

Report - Notification Configuration

Default

GENERATE REPORT

View Parameters

Download

Search

Group Name	Group Description
QC Test Notification Group	Janice
QC Test SDM	

Showing 2 of 2 records

## User Tasks Reports

The **User Tasks** report lists user initiated on-demand data collects and data exports. The user can modify the Task Type, Date/Time, and Task Status parameters.

Report - User Tasks


Default

GENERATE REPORT

View Parameters

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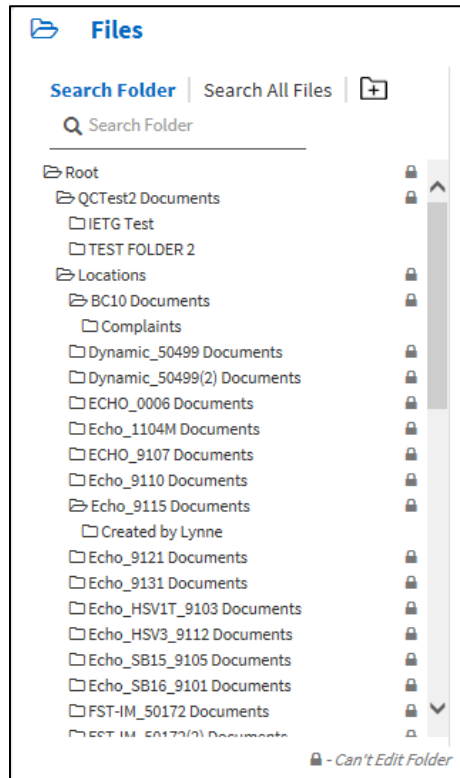
Status	Percentage Complete	Type	Name	Start Date	Completed Date	Completion Status
 Completed	100	Data Export	Export	03/02/2017 09:21	03/02/2017 09:21	Complete No Errors
Completed	100	--	Export	--	03/02/2017 23:59	Complete No Errors

Showing 1 of 1 records

# Vault



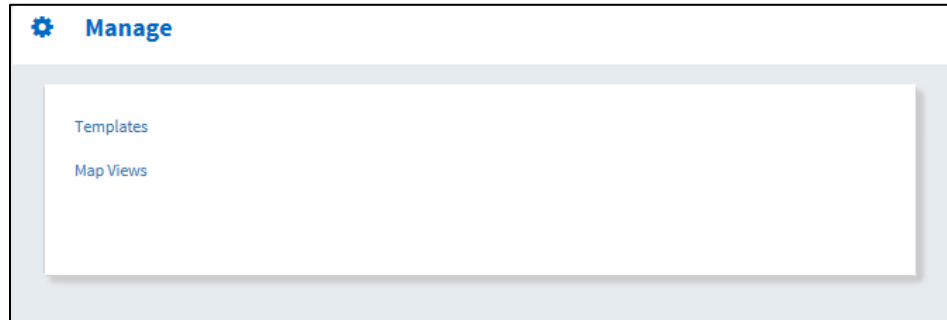
The **Vault** screen is accessed through the **Vault** tab in the top left of the FlowView interface. The **Vault** provides the capability for documents to be stored at the project and location level, and provides easy search functionality. The **Vault** supports the upload of files up to 100 MB in size.





















# Manage



The **Manage** screen is accessed through the **Manage** tab at the top of the FlowView Interface. It allows users, based on user permission levels, to edit or delete **Templates** and **Map Views** for the project.





## Templates

Manage - Templates								
Q Search								
Template Name ▲	Report Type	Accessibility	Description	Subscribed	Next Generation Date	Interval	Creator	Action
Battery Summary	Battery Summary	Shared	—		03/02/2017 11:25	1 Day	Lynne Reynolds	 
Build 2418 Fully Loaded Hydrograph	Hydrograph	Shared	—		—	—	Janice Wright	 
Collect Summary Report	Collect Summary	Shared	—		03/02/2017 04:00	1 Day	Lynne Reynolds	 
H annotation and UpDepth, Mo to Date	Hydrograph	Shared	—		—	—	Janice Wright	 
Informal	Hydrograph	Shared	—		—	—	Carol Luciano	 
PRODUCTION - Battery Summary-jw test	Battery Summary	Shared	—		03/02/2017 03:00	1 Day	Janice Wright	 
RAIN Only Data Export	Data Export	Shared	—		—	—	Janice Wright	 
Template test with UpDepth1 and rawvel	Hydrograph	Shared	past 30, updepth, rawvel		—	—	Janice Wright	 
Updepth and rawvel	Hydrograph	Shared	—		—	—	Janice Wright	 

Navigating to the **Manage – Templates** page opens the table shown above. It displays the templates that have been created for the project, and provides information such as **Report Type** associated with the template, **Accessibility**, **Description**, whether or not the template has been **Subscribed** to, **Next Generation Date** (if applicable), **Interval**, **Creator**, and **Action**. The **Action** column allows users with the appropriate privileges to edit or delete templates.

# Map Views

Manage - Map Views					
<div>Search</div>					
Map View Name ▲	Description	Coordinates	Zoom	Default	Action
Default Map	--	34.71750788, -86.61287917	12	Yes	
Demo Sites	Default	34.70395659, -86.6376257	12	No	 
Lynne's Map View	--	34.71750788, -86.61287917	12	No	 
QC Test Locs	Default Map	34.74205572, -86.5861	14	No	 
stlouis	--	38.64196657, -90.18068923	11	No	 
Showing 5 of 5 records					

Navigating to the **Manage – Map Views** page opens the table shown above. It displays the map views that have been created for the project, and provides information such as **Description**, **Coordinates**, **Zoom** level, whether or not the view is set to the **Default**, and **Action**. The **Action** column allows users with the appropriate privileges to edit or delete templates.



# Glossary

<b>Acknowledged Alarm</b>	An acknowledged alarm is an escalated event to which an operator has responded, but the alarm has not yet cleared.
<b>AIRTEMP_3</b>	Air temperature measured by the Surface Combo or Smart Depth sensor of the <b>TRITON+</b> .
<b>Alarm</b>	An alarm represents an escalated event. An alarm can exist in one of three states: alarming, acknowledged, or cleared.
<b>BIN File Export</b>	This event indicates that a user has exported a BIN file for a location. A BIN file is the raw data file collected from an ADS monitor.
<b>BIN File Import</b>	This event indicates that a user has imported a BIN file for a location. A BIN file is the raw data file collected from an ADS monitor.
<b>BTYVOLT</b>	Monitor battery voltage recorded at midnight or during a monitor activation.
<b>CHECK_PD</b>	This is an MLI generated entity. CHECK_PD indicates a potential problem with the pressure sensor based on the difference between pressure depth and either <i>UpDEPTH</i> or <i>SDEPTH</i> . "1" indicates that there is a problem. "0" indicates the problem no longer exists.
<b>CHECK_UD</b>	This is an MLI generated entity. CHECK_UD indicates a potential problem with the ultrasonic sensor ( <i>UpDEPTH</i> or <i>SDEPTH</i> depending on MLI configuration) based on signal strength. "1" indicates there is a problem. "0" indicates the problem no longer exists.
<b>CHECK_UT</b>	This is an MLI generated entity. CHECK_UT indicates a potential problem with the ultrasonic temperature sensor in the Peak Combo or the Surface Combo ( <i>WATERTEMP</i> or <i>AIRTEMP</i> depending on MLI configuration). It is either reading extremely high or low. "1" indicates there is a problem. "0" indicates the problem no longer exists.
<b>CHECK_V</b>	This is an MLI generated entity. CHECK_V indicates a potential problem with the velocity sensor ( <i>PEAKVEL</i> or <i>SURFACEVEL</i> depending on the MLI configuration) based signal strength, the number of repeat sensor firings, or a diversion from expected daily flow patterns. "1" indicates there is a problem. "0" indicates the problem no longer exists.
<b>Cleared Alarm</b>	A cleared alarm is an event that has returned to a normal status or has been manually cleared by a user.
<b>Composite Location</b>	A composite location totals the flow data for two or more monitoring points. The composite location is not a physical location within the collection system, but rather a mathematical totaling of multiple monitoring locations to obtain the desired flow information. Composite locations are often defined when multiple monitored lines enter a wastewater treatment plant, and a total flow into the plant is needed. Composite locations are defined in the system by users with appropriate permissions.
<b>CROSS_VELOCITY</b>	This entity logs an event when the difference between at least two of the velocity readings at the monitoring point exceeds the corresponding tolerance configured in MLI under the <b>Cross Check Combo Sensors</b> section.
<b>CROSS_DEPTH</b>	This entity logs an event when the different between at least two of the depth readings at the monitoring point exceeds the corresponding tolerance configured in MLI under the <b>Cross Check Combo Sensors</b> section.
<b>Cryout</b>	A cryout occurs when a flow, level, or rain gauge monitor calls (unsolicited) into the FlowView system to report an event that is occurring at the location.
<b>Data Collect</b>	A data collect refers to the process of retrieving data readings from flow monitors and rain gauges and storing the data in the FlowView database. FlowView allows both on-demand and scheduled data collects.
<b>DEPTH_A1</b>	Depth data recorded by the Analog Input 1 device.

<b>DEPTH_A2</b>	Depth data recorded by the Analog Input 2 device.
<b>DFINAL</b>	Finalized depth data imported from an ADS Profile database.
<b>DMLI_AVG</b>	Averaged <i>UNIDEPTH</i> data recorded by the monitor based on the number of readings to average as defined on the MLI device.
<b>DThreshold</b>	The daily depth threshold established by MLI and recorded in the monitor. It is configured by the user as flows x% below the expected flow depth at the monitoring point. When flows fall below <i>DTHRESHOLD</i> , a <b>Low Flow</b> alarm will be generated. "1" indicates there is a problem. "0" indicates the problem no longer exists.
<b>Entity</b>	An entity is a data type representing a measurement, condition, or event corresponding to flow conditions, hardware status, or other performance information involving the flow monitoring network. FlowView collects this data from the flow monitors and rain gauges and logs and stores this information to the database for processing, viewing, and analysis.
<b>Escalation Chain</b>	An escalation chain is an ordered list of escalation groups to receive notification of an alarm generated by a particular location or location group. Each group in the chain receives notification of an alarm after a user-specified time interval passes if the alarm remains unacknowledged.
<b>Escalation Group</b>	An escalation group consists of a collection of contacts to receive notification (via email, text message, etc.) if an alarm is not acknowledged within a specific period of time. Contacts are not required to be registered users.
<b>Escalation Interval</b>	An escalation interval refers to the number of minutes that an alarm must remain unacknowledged in order for the next escalation group in a chain to receive notification.
<b>Event</b>	Events occur when measurements or data exceed specific thresholds or when special conditions are present or occur.
<b>FLOW1</b>	Flow rate calculated and stored at the monitor level measured by the sensors designated in the <b>FLOW1</b> device.
<b>FLOW2</b>	Flow rate calculated and stored at the monitor level measured by the sensors designated in the <b>FLOW2</b> device.
<b>Flow Loss</b>	This event indicates that the flow expected at the monitor is below historically expected flow rates ( <i>QTHRESHOLD</i> ) or flow depth ( <i>DTHRESHOLD</i> ).
<b>Flow Monitor</b>	A flow monitor measures open-channel flow in sanitary sewers, stormsewers, and other environments using sensor devices installed in a monitoring point in a pipe or manhole. One flow monitor can support up to two monitoring points.
<b>FTP Export</b>	This event indicates that FlowView has exported data to an FTP server.
<b>FULL_PIPE</b>	Alarm issued by a Long Range Depth sensor when flow levels reach the configured pipe height.
<b>HC</b>	The <b>Hydraulic Coefficient</b> ( $\frac{\sqrt{s}}{n}$ ) used in the Manning equation to calculate flow rates and volume.
<b>HIGH_HIGH</b>	This is an MLI generated event when <i>UNIDEPTH</i> exceeds the <b>HIGH HIGH</b> threshold configured in <i>Qstart</i> . "1" is recorded when the user-defined threshold is exceeded. "0" is recorded for the <b>TRITON+</b> when the flow depths drop 9.1% below the threshold and for the <b>ECHO</b> when flow depth is 2" below the threshold.
<b>HIGH_LEVEL</b>	This is an MLI generated event when <i>UNIDEPTH</i> exceeds the <b>HIGH</b> threshold configured in <i>Qstart</i> . "1" is recorded when the user-defined threshold is exceeded. "0" is recorded for the <b>TRITON+</b> when the flow depths drop 9.1% below the threshold and for the <b>ECHO</b> when the flow depth is 2" below the threshold.
<b>Hydrograph</b>	A hydrograph is a graph that displays one or more data entities over a specified time period.

<b>INTTEMP</b>	This is the temperature of the <b>ECHO</b> monitor. Users have the option to store or not store this entity.
<b>LIF Export</b>	This event indicates a user has exported a Location Information File (LIF) for a location.
<b>LIF Import</b>	This event indicates a user has imported a LIF for a location.
<b>Limit (Event)</b>	An event limit refers to the threshold value that triggers an event or alarm.
<b>Location</b>	A location represents a monitor installed over a flume, in a manhole, in a pump station, or over a stream/riverbed to measure flow depth, velocity, and quantity, depending on the type of monitor installed. A location can also represent a rain gauge installation.
<b>Location Group</b>	A location group is a user-defined grouping of locations. The groups allow data collection to be performed and reports to be organized for similar locations.
<b>LOW_BT</b>	This is an MLI generated event. "1" is recorded when the battery voltage drops below the low battery threshold of the monitor. "0" is recorded once the low battery has been replaced with a new battery.
<b>Low_Flow</b>	This is an alarm representing that a <b>Flow Loss</b> has been detected based on either a decrease in flow rate or flow depth. It is an MLI generated alarm based on an analysis of expected flow or depth patterns at the installed location. "1" is recorded when the <b>Flow Loss</b> alarm is active. "0" is recorded when flows rise above the flow loss threshold ( <i>DTHRESHOLD</i> or <i>QTHRESHOLD</i> ).
<b>LOW_LEVEL</b>	This is an alarm generated when flow levels drop below the user-defined <b>Low Level</b> threshold defined in the <b>Alarms</b> device. The <b>Low Level</b> Alarm is supported by <b>ECHO</b> monitors. "1" is recorded when a <i>Low Level</i> event has occurred. A "0" is recorded when flow levels rise above the threshold by 2".
<b>LRDEPTH</b>	This is the depth reading from the Long Range Depth Sensor.
<b>Monitor – Collect Failed</b>	This event indicates a failure occurred when an attempt was made to collect data from a monitor.
<b>Monitor – Collect Successful</b>	This event indicates that data has been collected successfully from a monitor by FlowView.
<b>Monitoring Point</b>	A monitoring point represents the physical location at which the sensors are installed in a sewer pipe to measure the flow, or where rain gauges are installed for measuring rainfall amounts.
<b>Notification Email</b>	This event indicates a notification email has been sent to the selected user(s).
<b>Notification SMS Text</b>	This event indicates a notification SMS text message has been sent by FlowView to the selected user(s).
<b>OVERFLOW</b>	An alarm that is generated when an <b>ECHO</b> monitor detects that flow level has exceeded the manhole depth. "1" is recorded when the manhole depth has been exceeded. "0" is recorded when flow levels are 2" below the manhole depth.
<b>Overflow – Dry Dry Overflow</b>	This indicates that a cryout has been received by FlowView indicating that a defined threshold at an overflow location has been exceeded. Collected rain data indicates that no significant rainfall has been measured, and therefore the overflow has been designated a dry-weather overflow.
<b>Overflow – Wet Wet Overflow</b>	This indicates that a cryout has been received by FlowView indicating that a defined threshold at an overflow location has been exceeded. Collected rain data indicates that sufficient rainfall has been measured, meeting the criteria set for wet-weather, and therefore the overflow has been designated a wet-weather overflow.
<b>Overflow Monitoring Point</b>	An overflow monitoring point measures flow transferring from one sewerage basin to another or exiting the collection system completely.
<b>PDEPTH_1</b>	Flow depth measured by the Peak Combo 1 sensor's pressure sensor configured on.

<b>PDEPTH_2</b>	Generated when a Peak Combo 2 sensor's pressure sensor is configured.
<b>PDEPTH_3</b>	Surcharge depth measured by the Surface Combo Sensor's pressure sensor.
<b>PEAKVEL_1</b>	Peak Velocity measured by the Peak Combo 1 sensor.
<b>PEAKVEL_2</b>	Peak Velocity measured by the Peak Combo 2 sensor.
<b>PEAKVEL_3</b>	Peak Velocity measured by the Surface Combo Sensor during surcharged conditions.
<b>PRESSK</b>	This represents the value applied automatically to the pressure depth reading to compensate for differences between the pressure depth and ultrasonic depth measurements taken at the same monitoring point.
<b>Profile Export</b>	This event indicates that a Profile has been exported.
<b>Profile Import</b>	This event indicates that a Profile has been imported.
<b>Q_A1</b>	Flow rate (quantity) recorded by the <b>Analog Input 1</b> device as configured in <b>Qstart</b> .
<b>Q_A2</b>	Flow rate (quantity) recorded by the <b>Analog Input 2</b> device as configured in <b>Qstart</b> .
<b>QCOLEBROOK</b>	Flow rate (quantity) generated using the Colebrook-White equation.
<b>QCONTINUITY</b>	Flow rate (quantity) generated using the continuity equation.
<b>QFINAL</b>	Finalized flow rate (quantity) data imported from a Profile database.
<b>QFLUME</b>	Flow rate (quantity) generated when the monitor's depth device is installed in a flume installation type.
<b>QLOOKUP</b>	Flow rate (quantity) generated when the installation is using a depth-to-discharge table to calculate flow rates.
<b>QMANNING</b>	Flow rate (quantity) generated using the Manning equation.
<b>QMLI_AVG</b>	Flow rate (quantity) calculated and stored in the monitor using flows averaged based on the <b>Readings to Average</b> field in the <b>Low Flow Alarm</b> section of the MLI device.
<b>QTHRESHOLD</b>	The daily flow threshold established by MLI and recorded in the monitor. It is configured by the user as flows x% below the expected flow rate at the monitoring point. When flows fall below <b>QTHRESHOLD</b> , a <b>Low Flow</b> alarm will be generated. "1" indicates there is a problem. "0" indicates the problem no longer exists.
<b>QWEIR</b>	Flow rate (quantity) based on the specified weir equation for the monitoring point.
<b>RAIN</b>	Represents the total amount of rain recorded by the rain gauge during the sampling interval of the monitor.
<b>Rain Exceeding Threshold</b>	The event that is logged in FlowView when a rain gauge records/reports <b>Rain_Alert</b> alarm.
<b>RAIN_ALERT</b>	An alarm generated by a rain gauge when rain intensities have exceeded a user-defined threshold defined in <b>Qstart</b> on the <b>Rain</b> device screen.
<b>Rain Gauge</b>	Rain gauges record the amount of rainfall that occurs over a specific rain event using a collection device called a tipping bucket. The tipping bucket contains a calibrated rainfall collection mechanism that tips once it receives a user-defined quantity of rainfall. The number of tips recorded throughout a given interval provides the total rainfall for the rain event. This data can be used in inflow and infiltration calculations to measure rainfall intensity.
<b>RAINI</b>	Represents the amount of rain fallen during a user-defined <b>Rain Intensity Interval</b> in <b>Qstart</b> on the <b>Rain</b> device screen. It is a rolling rain total based on the <b>Rain Intensity Interval</b> .
<b>RAINI_UK</b>	The intensity of rainfall that occurs over the time period specified in <b>Rain Intensity Interval</b> based on the standards identified in the United Kingdom.
<b>RAINTIPS</b>	Records the time a <b>RainAlert III</b> recorded a tip of the tipping bucket.

<b>RAWVEL</b>	Peak Velocity recorded by the sensor selected in the “Combo Sensor to Use” field on the MLI device. This is used to calculate average velocity for flow quantification.
<b>ROUGHNESS</b>	Represents the roughness of the pipe at the monitoring point. Roughness is used in the Manning and Colebrook-White equations to calculate flow rate.
<b>SAMPLES</b>	Represents the number of triggers to a water quality sampler during the monitor sampling (recording) interval.
<b>Scattergraph</b>	A scattergraph is a type of graph that shows a depth data type in relation to a velocity data type.
<b>Scheduled Data Collect</b>	This represents the number of days, hours, or minutes the system waits before automatically collecting data from a configured flow monitor or rain gauge and storing the data in the database.
<b>SDEPTH_3</b>	Flow depth measured by the Surface Combo or Smart Depth sensor.
<b>SILT</b>	Silt refers to dirt and debris that may collect at the bottom of a pipe over time. This value is entered manually in <b>Qstart</b> .
<b>SLOPE</b>	The slope of the pipe where the sensors are installed (Monitoring Point).
<b>SUBMERGED</b>	An entity that is created when Submersion Sensor goes under water, indicating that the manhole may be overtopping. “1” is recorded when active, and “0” when not active.
<b>System Acknowledge Alarm</b>	This event indicates that the FlowView system has acknowledged an alarm.
<b>System Cleared Alarm</b>	This event indicates that the FlowView system has cleared an alarm.
<b>SURFACEVEL_3</b>	Velocity of the surface of the flow measured by the Surface Combo Sensor.
<b>TEMP</b>	Reports of the temperature of the Long Range Depth 1 Sensor.
<b>TEMP2</b>	Reports of the temperature of the Long Range Depth 2 Sensor.
<b>TILT</b>	An alarm generated when an <b>ECHO</b> monitor is no longer level. “1” represents that the alarm condition is active; “0” represents that the <b>ECHO</b> has returned to a level installation. When the <b>ECHO</b> is in TILT depth readings will hold on the last pre-tilt reading and no <b>High</b> , <b>High High</b> , or <b>Low Level</b> alarms will be generated. Monitor service is required.
<b>TOTFLOW1</b>	Total Flow registered on Monitoring Point 1 since monitor activation. Values will run from 0 to 100,000 and rollover to 0 when 100,000 is reached.
<b>TOTFLOW2</b>	Total Flow registered on Monitoring Point 2 since monitor activation. Values will run from 0 to 100,000 and rollover to 0 when 100,000 is reached.
<b>Unacknowledged Alarm</b>	An unacknowledged alarm represents an active alarm that has not been acknowledged. It is displayed in the interface in a “red” state.
<b>UNIDEPATH</b>	This is an MLI generated entity and represents the depth of flow measured by the sensor selected in the “Combo Sensor to Use” field on the MLI device. This is used to calculate the wetted area for flow quantification.
<b>UpDEPTH_1</b>	This is the depth of flow measured by the Peak Combo 1 sensor upward ultrasonic sensor.
<b>UpDEPTH_2</b>	This is the depth of flow measured by the Peak Combo 2 sensor upward ultrasonic sensor.
<b>User Acknowledge Alarm</b>	This event indicates that a user has acknowledged an alarm.
<b>User Cleared Alarm</b>	This event indicates that a user has manually cleared an alarm.
<b>User Group</b>	A user group is a defined set of users to which permissions are assigned. The groups allow permissions to be set up easily for a number of users who perform similar functions.
<b>User Login</b>	This event indicates a user has logged into FlowView.
<b>User Logoff</b>	This event indicates a user has logged out of FlowView.
<b>VEL_A1</b>	Represents the velocity recorded by the <b>Analog Input 1</b> device if configured to measure velocity.

<b>VEL_A2</b>	Represents the velocity recorded by the <b>Analog Input 2</b> device if configured to measure velocity.
<b>VELOCITY</b>	Average velocity calculated by multiplying <i>RAWVEL</i> times <i>VGain</i> .
<b>VFINAL</b>	Finalized velocity data imported from a Profile database.
<b>VGAIN</b>	The factor set in <b>Qstart</b> and applied to <i>RAWVEL</i> to calculate average velocity.
<b>Voltage – Low Battery</b>	This even indicates that the battery voltage has fallen below an acceptable level.
<b>Voltage – Low Wireless Battery</b>	This event indicates that the battery voltage in the device used for wireless communication with the monitor or rain gauge has fallen below the specified threshold.
<b>WATERTEMP_1</b>	This is the temperature measured by the Peak Combo 1 sensor.
<b>WATERTEMP_2</b>	This is the temperature measured by the Peak Combo 2 sensor.