

# WeatherMation LIVE Alerts Module

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## Introduction

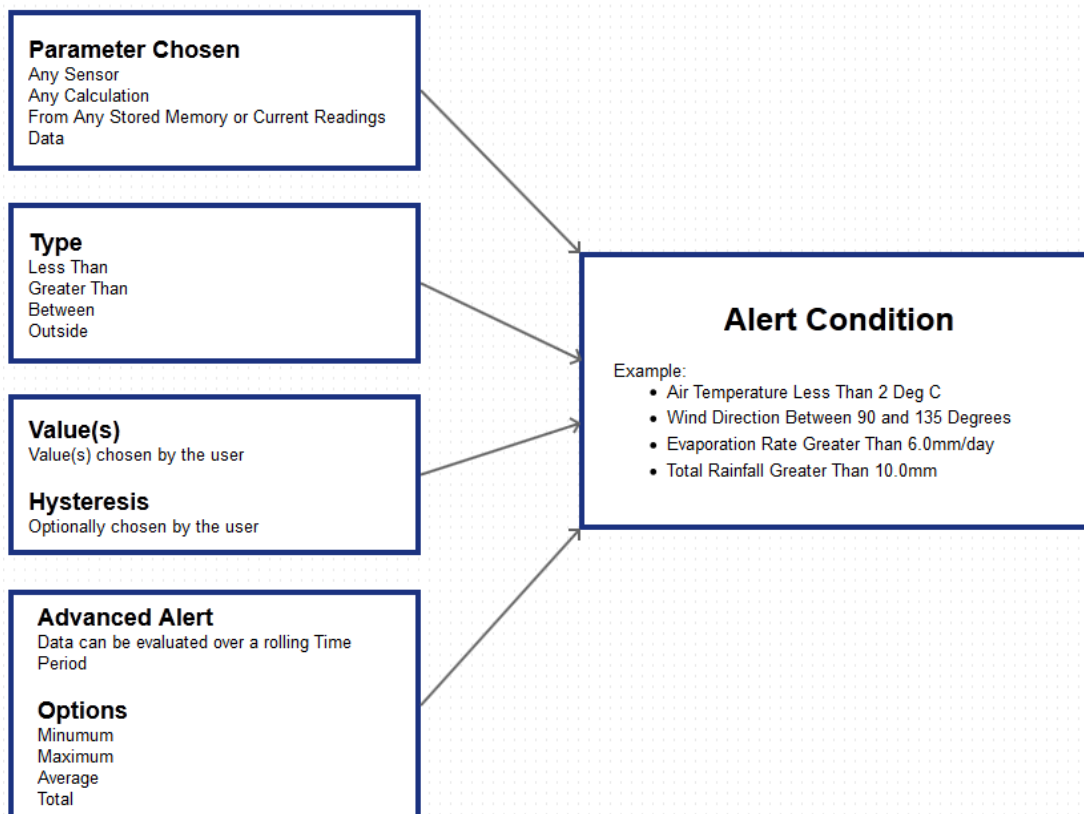
Envirodata's WeatherMation software has been developed to download, display and respond to the weather data from your weather stations, automatically.

WeatherMation's Alerts Module provides alerts based on your weather data. Alerts are sent by Email or SMS with settings that include 'Do Not Contact' times.

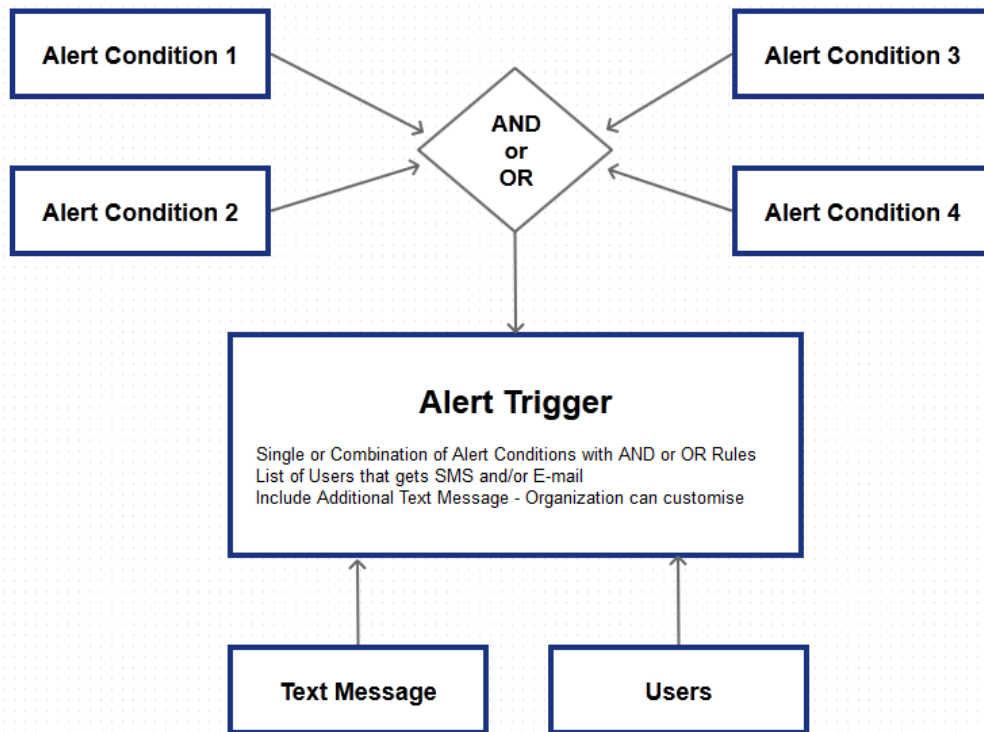
## 1.0 Overview and Definitions

Alerts can be setup in a few easy steps:

- Alert Conditions – This refers to the limit of a single sensor reading or parameter
- Alert Triggers – This allows one or more Alert Conditions to be combined
- Alert Contacts – This is defining the users receiving alerts including "Do not Contact" times
- Alert Output – How is the alert to be sent
- Messages Setup – Do you need a specific message sent with that alert?



**Diagram: Setting up an Alert Condition**



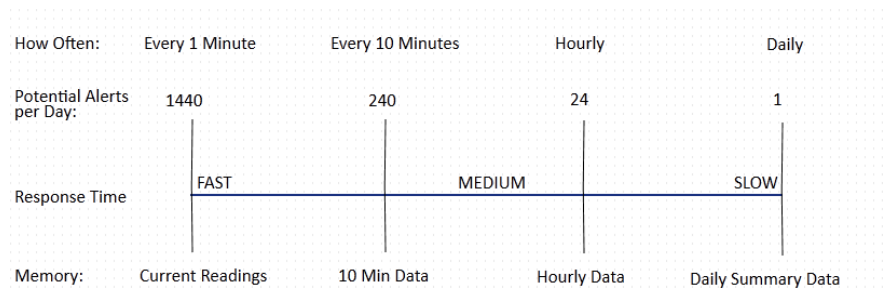
**Diagram: Setting up an Alert Trigger**

### 1.1 Alert Conditions

In the Alert Condition setup, you will enter the specific sensor, or calculated value you would like to monitor e.g. Wind Speed, Rainfall, HLI or TWL.

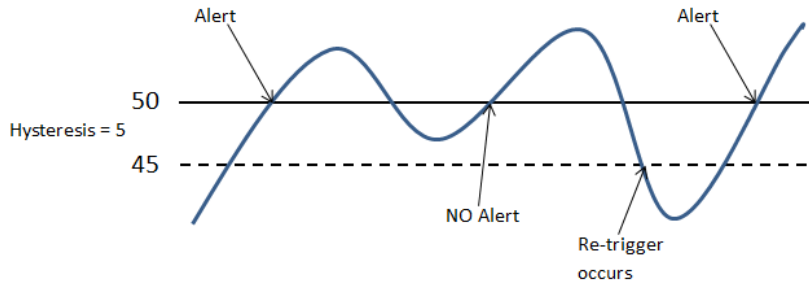
You will also decide the response time of the Alert by selecting how often you would like the system to check the data. Normally this is done by selecting the Memory that you'd like to monitor.

For example, if you want a faster response time, you can check the Current Readings data every minute. If it is less urgent, you can check the Hourly data or even the Daily Summary data once a day.



**Diagram: Alert Response Times**

You will enter the parameter values that the data will be compared against. There is also an option to enter a Hysteresis. Hysteresis is the change in value that is required before re-triggering the Alert Condition can reoccur.



**Diagram: Hysteresis**

Finally, there are 2 Alert Condition options – a Standard Alert Condition and an Advanced Alert Condition.

Standard Alert Condition – A basic setup that evaluates the last record of data downloaded from the Weather Station

Advanced Alert Condition – This setup allows you to evaluate data over a rolling period of time, thus more records are looked at and evaluated.

## **1.2 Alert Triggers**

Alert Triggers are combinations of Alert Conditions with various AND or OR rules. They use the Alert Conditions referred to in Section 1.1.

A Simple Alert Trigger might use 1 Alert Condition whereas a more complex Alert Trigger could use multiple (max of 4) Alert Conditions.

### **Simple Alert: Rainfall**

Total Rainfall Greater Than 50mm

### **Complex Alert: Wind Speed and Direction**

Wind Speed Greater Than 60km/h **AND** Wind Direction Between 90 and 180 deg

### **Complex Alert using brackets: Wind Speed and Direction**

(Wind Speed Greater Than 60km/h **AND** Wind Direction Between 90 and 180 deg) **AND**  
(Wind Speed Greater Than 40km/h **AND** Wind Direction Between 270 and 300 deg)

*Note: You can use brackets to make the Alert Triggers more complex*

Alert Notifications - This set how often the Alert Notifications are send out to the Users.

Reset and Retrigger – An Alert Notification will be send the 1<sup>st</sup> time the Alert Trigger is met. The notification will only be sent again if the value falls outside the Alert Trigger by the hysteresis amount and then re-enters the Alert Trigger Condition.

Every Time – An Alert Notification will be send every time the Alert Trigger is met. For example, it could be every minute if Current Readings are evaluated or once a day if it is based on Daily Summary data.

Interval – An Alert Notification is only send the 1<sup>st</sup> time the Alert Trigger is met and then at the regular interval of minutes AFTER assuming it is still true AND Alert Conditions are evaluated. For example if the Alert is based on 1 minute Current Readings data and the Interval is set to 30 minutes, an Alert Notification will be send every 30 minutes WHILE the Alert Trigger is met. If the Alert is based on Daily Summary data and Interval is 30 minutes, an Alert Notification will still only be send once a Day. If the Alert Trigger is still met the next day, it will send an Alert Notification again as it is after more than 30 minutes.

You can also select which Users receives this Alert, and whether by SMS and / or E-mail. In order to receive any Alert Notification, the User needs to be loaded into the WeatherMation system.

Additional Messages - You can include a special text message for E-mail Alerts. You can have a different message for each Alert Trigger, but all users linked to that Alert will get the same message.

### **1.3 Alert Contacts**

All Alert Notifications can only be sent to Users that are activated on the system.

Each User's SMS Phone number and/or E-mail address needs to be setup for them to receive an alert by that method.

The User setup includes "Do not Contact" times.

Options for "Do not Contact" times:

- Specific Times on certain days – Options are Between or Outside of certain Times and you select on which days of the Weeks these times apply.
- Specific Days of the week – notifications will not be sent from midnight to midnight on these days.
- During a specific Date Range – notifications will not be sent from midnight to midnight on these days, including the first and last days specified.

During the "Do not Contact" times:

- The User will not receive an alert (via SMS or E-mail or both, depending on the selection made) when an alert for that User occurs
- Any Alerts for that user will still be written to a log file

Once the User's "Do not Contact" time ends, there is an option to notify the User by a single sms or e-mail that alerts occurred during these times. This message does not provide details, but merely that one or more Alerts have occurred. Details would be in the system Alert Log or within e-mails if the email alert was active during this period.

## 1.4 Alert Message

Examples of E-mail and SMS outputs as shows below.

**From:** alerts@weathermation.net.au [mailto:alerts@weathermation.net.au]  
**Sent:** Thursday, 28 August 2014 11:51 AM  
**To:** Jolinda Murray  
**Subject:** Peak Wind Alert at Office

### Peak Wind **Alert** at Percy Street Warwick - Attention: Jolinda Murray

Wind Speed of 59.1 km/h

Alert: Peak Wind			28/08/2014 11:50:26 AM	
Sensor	Memory	Value	Units	Trigger Condition(s)
Wind Speed	CurrentReadings	59.1	km/h	Greater Than 50

To open WeatherMation and view your weather data go to: [www.weathermation.net.au](http://www.weathermation.net.au)



\*\*\* This is an automatically generated email, please do not reply \*\*\*

### Diagram: E-mail Output Example

Peak Wind Alert 59.1 km/h Percy Street Warwick 11:50 AM 28/08/2014
---

### Diagram: SMS Output Example

## 1.5 Messages

You can attach extra messages to your Alert Triggers. This is a text message and will be linked to an Alert Trigger, when the Alert Trigger is setup. This message will then be added to the end of the Alert E-mail Notification when it is send to the Users.

## 2.0 WeatherMation LIVE Web Setup and Reports

There are a few basic configuration tasks and reports on the WeatherMation LIVE website.

### Configuration:

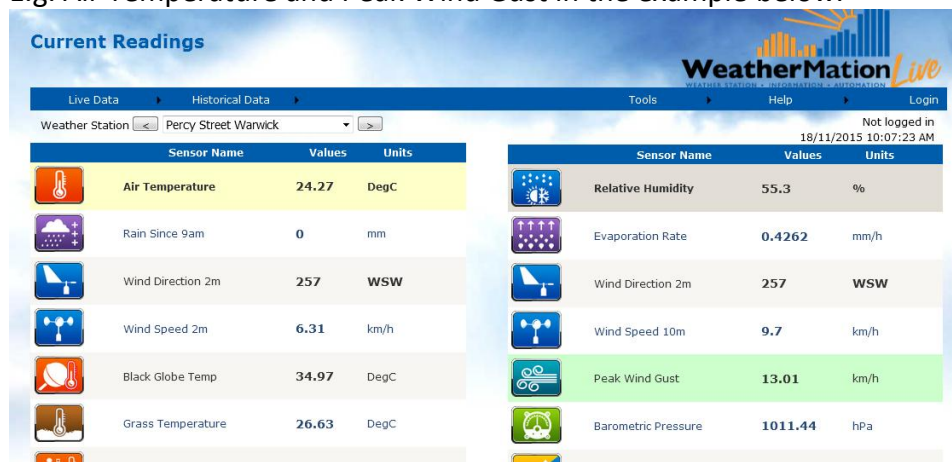
- 1) Current Readings Screen Alerts
- 2) Basic Alerts
- 3) User Details

### Reports:

- 4) Alerts and Notifications Setup Report
- 5) Alerts and Notifications Log

## 2.1 Current Readings Screen Alerts

You can highlight certain Sensors and Readings on your Current Readings Screen. E.g. Air Temperature and Peak Wind Gust in the example below.



- The User has to be LOGGED IN on the WeatherMation Website, to access the Menu Option: Current Readings Screen Alerts on the right hand side under Tools.
- Click on Tools and Current Readings Screen Alerts.
- Select your Weather Station and the Sensor you want to highlight.
- Capture the Min and Max Values and select a colour from the drop-down list.
- Click the Save Alert Details to save any changes.
- These coloured highlights will be displayed on your Current Readings Website, the Current Readings Mobile site and the Current Readings Graph reports.

## 2.2 Basic Alerts Setup

You can setup some Basic Alerts via the Website. E.g. Rainfall more than 10mm since 9am.

**Note:** For more advanced Alerts, please contact Envirodata and we can set these up for you.

- The User has to be LOGGED IN on the WeatherMation Website and have User Administration Access edit or create Basic Alerts. To access the Menu Option: Basic Alerts Setup on the right hand side under Tools.
- Click on Tools and Basic Alerts Setup.
- At the top there will be a list of all Alerts already created. You can click on it to edit the existing Alert.

**Basic Alerts Setup**

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WEATHER STATION • INFORMATION • AUTOMATION

Live Data | Historical Data | **Tools** | Help | Logout

User: Jolinda Murray

Alert Description	Weather Station	Sensor	Value	Every x Minutes
Rain more than 10 mm Since 9AM	Office Main Station	Rain Since 9am	Greater Than 10	10
Wind Direction	Office Main Station	Wind Direction 10m	Greater Than 50	20

Alert Description: Wind Direction

Weather Station: Office Main Station

Sensor: Wind Direction 10m

Greater Than 50

Resend Alert every 20 minutes \*

SMS Alerts:  Jolinda Murray,  Tom Edwards,  John Deer,  Peter Smith

E-Mail Alerts:  Jolinda Murray,  Tom Edwards,  John Deer,  Peter Smith

\* NOTE: Make sure of your resend time. You may receive an SMS every 10 minutes if you select the 10 minute resend period.

Please Contact Envirodata for Advanced Alert Configurations

Save Alert | Delete Alert

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- To create a NEW Alert, enter an Alert Description.
- Select your Station and Sensor
- Select Greater Than or Less Than and enter a value.
- Then enter how often you want to receive the Alert. Remember that Current Readings are downloaded every minute.
- Then select which users will get an SMS or E-mail of both.
- Click the Save Alert button to save this Alert.

**NOTE: Make sure of your resend time. You may receive an SMS every 10 minutes if you select the 10 minute resend period.**

## 2.3 User Details

If you have User Administration permissions, you can edit some of the User Details, like their phone number, e-mail address and Do Not Contact Times for Alerts.

- The User has to be LOGGED IN on the WeatherMation Website and have User Administration Access edit User Details. To access the Menu Option: User Details on the right hand side under Tools.
- Click on Tools and User Details.

**User Details**

Live Data | Historical Data | Tools | Help | Logout

User: Jolinda Murray

User: Jolinda Murray

**User Details**

Display Name: Jolinda Murray

User Name: JOLINDA

Password: \*\*\*\*\*

Confirm Password: \*\*\*\*\*

Active User

View Reports and Graphs

Configuration

Update Users and Passwords

View Website

Company Contact Person

SMS Number: \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Do Not Contact Details**

Do Not Contact during these Times

N/A | 10:00 AM | 12:00 PM

Sunday  Monday  Tuesday  Wednesday

Thursday  Friday  Saturday

Do not send: SMS

Do Not Contact on these Days

Sunday  Monday  Tuesday  Wednesday

Thursday  Friday  Saturday

Do not send: SMS

Do Not Contact between these Dates

dd/mm/yyyy and dd/mm/yyyy

(Including Selected Dates)

Do not send: SMS

Send: E-Mail if there were Alerts during "Do not Contact" times

Save User Details

- Select the User you'd like to view or edit.
- On the Right hand side, you can setup Do Not Contact Times for the user. During these times, the user will NOT get sms or e-mail Alerts based on the settings you enter.
- Click Save User Details to save any changes.

## 2.4 Alerts and Notifications Setup Report

The Alerts and Notifications Setup Report displays what Alerts/Notifications has been setup for a particular user.

- The User has to be LOGGED IN on the WeatherMation Website, to access the Menu Option: Alerts and Notifications Setup Report on the right hand side under Tools.
- Click on Tools and Alerts and Notifications Setup Report
- Select the User you want to view.

**Alerts and Notifications Setup Report**

WeatherMation Live

Live Data | Historical Data | Tools | Help | Logout

User: Jolinda Murray

User: Jolinda Murray  
E-mail: alerts@envirodata.com.au  
Mobile: 0401999999

**Alerts**

Alert Name	Site	Alert Type	Condition	Condition	Condition	Condition
Rainfall more than 5mm	Percy Street Warwick	SMS	Rainfall > 5			
Rainfall more than 10mm	Percy Street Warwick	SMS	Rainfall > 10			

**Notifications**

Notifications Name	Site	Schedule	Memory	Sensors	Notifications Type
HourData Daily FTP	Percy Street Warwick	Weekly at: 14:15 on W	Hourly Data	All	E-MAIL
Current Rainfall	Percy Street Warwick	Daily at: 08:55	CurrentReadings	Rain Since 9am	SMS
Rainfall and Temperature for previous day	Percy Street Warwick	Daily at: 09:15	Daily Summary	Multiple	E-MAIL

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- If you click on any of the Alerts, it will give you more detail about that Alert (see orange line below the Alerts)
- If the Notification includes Multiple Sensors, you can click on it and get a list of the sensor details (see orange line below the Notifications)

**Alerts and Notifications Setup Report**

WeatherMation Live

Live Data | Historical Data | Tools | Help | Logout

User: Jolinda Murray

User: Jolinda Murray  
E-mail: alerts@envirodata.com.au  
Mobile: 0401999999

**Alerts**

Alert Name	Site	Alert Type	Condition	Condition	Condition	Condition
Rainfall more than 5mm	Percy Street Warwick	SMS	Rainfall > 5			
Rainfall more than 10mm	Percy Street Warwick	SMS	Rainfall > 10			

Alert Condition	Sensor	Memory	Type	Value	Value
Rainfall > 10	Rain Since 9am	CurrentReadings	Greater Than	10	0

**Notifications**

Notifications Name	Site	Schedule	Memory	Sensors	Notifications Type
HourData Daily FTP	Percy Street Warwick	Weekly at: 14:15 on W	Hourly Data	All	E-MAIL
Current Rainfall	Percy Street Warwick	Daily at: 08:55	CurrentReadings	Rain Since 9am	SMS
Rainfall and Temperature for previous day	Percy Street Warwick	Daily at: 09:15	Daily Summary	Multiple	E-MAIL

Notifications Name	Sensor
Rainfall and Temperature for previous day	MAXIMUM Air Temperature
Rainfall and Temperature for previous day	MINIMUM Air Temperature
Rainfall and Temperature for previous day	TOTAL Rain Gauge
Rainfall and Temperature for previous day	AVERAGE Wind Speed 2m
Rainfall and Temperature for previous day	AVERAGE Wind Speed 10m

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## 2.5 Alerts and Notifications Log

The Alerts and Notifications Log is a complete list of all the Email and SMS Alerts/Notifications identified by the Server. It includes Alerts that were actually send AND Alerts that would have been sent, but were held back because of Do Not Contact times.

- The User has to be LOGGED IN on the WeatherMation Website, to access the Menu Option: Alerts Log on the right hand side under Tools.
- Click on Tools and Alerts Log
- This log displays all Alerts and Notifications for the specific logged on User.

Site Name	Alert Date Time	Alert Trigger	Alert Conditions	Comment
Percy Street Warwick	20/08/2015 9:15:06 AM	Rainfall and Temperature for previous day	Daily Summary at 20/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 19.9 DegC MINIMUM Air Temperature of 3.97 DegC TOTAL Rain Gauge of 0 mm	E-Mail Sent
Percy Street Warwick	19/08/2015 2:15:00 PM	HourData Daily FTP	Daily Summary since 14/08/2015 9:00:00 AM - Your HourData Daily FTP Notification is now available - file attached to e-mail	E-Mail Sent
Percy Street Warwick	19/08/2015 9:15:03 AM	Rainfall and Temperature for previous day	Daily Summary at 19/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 19.7 DegC MINIMUM Air Temperature of -0.6 DegC TOTAL Rain Gauge of 0 mm	E-Mail Sent
Percy Street Warwick	18/08/2015 9:15:02 AM	Rainfall and Temperature for previous day	Daily Summary at 18/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 19.97 DegC MINIMUM Air Temperature of -1.67 DegC TOTAL Rain Gauge of 0 mm	E-Mail Sent
Percy Street Warwick	17/08/2015 9:15:04 AM	Rainfall and Temperature for previous day	Daily Summary at 17/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 19.97 DegC MINIMUM Air Temperature of 6.76 DegC TOTAL Rain Gauge of 2.2 mm	E-Mail Sent
Percy Street Warwick	17/08/2015 8:55:02 AM	Current Rainfall	CurrentReadings at 17/08/2015 8:54:01 AM - Rain Since 9am of 2.2 mm	SMS Triggered
Percy Street Warwick	16/08/2015 9:15:01 AM	Rainfall and Temperature for previous day	Daily Summary at 16/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 20.27 DegC MINIMUM Air Temperature of 4.06 DegC TOTAL Rain Gauge of 0 mm MAXIMUM Air Temperature1 of 20.27 MINIMUM Air Temperature1 of 4.06 TOTAL Rain Gauge1 of 0	E-Mail Sent
Percy Street Warwick	15/08/2015 9:15:05 AM	Rainfall and Temperature for previous day	Daily Summary at 15/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 20 DegC MINIMUM Air Temperature of -1.73 DegC TOTAL Rain Gauge of 0 mm MAXIMUM Air Temperature1 of 20 MINIMUM Air Temperature1 of -1.73 TOTAL Rain Gauge1 of 0	E-Mail Sent
Percy Street Warwick	13/08/2015 9:15:03 AM	Rainfall and Temperature for previous day	Daily Summary at 13/08/2015 9:00:00 AM - MAXIMUM Air Temperature of 23.63 DegC MINIMUM Air Temperature of 5.9 DegC TOTAL Rain Gauge of 0 mm	E-Mail Sent

### **3.0 Examples of Advanced Alerts**

These could be setup by Environdata

3.1 Based on Current Readings, the Total Rainfall since 9:00 am is more than 7 mm

3.2 Total Rainfall in the last 24 hours more than 10mm: 10-Min Data check and Alert every 6 hours while Total Rainfall is still more than 10mm

3.3 Total Rainfall in the last hour more than 5mm: Data checked every minute and Alert every hour while Total Rainfall is still more than 5mm

3.4 Minimum Air Temperature based on Daily Summary at 9am is less than 5 DegC. This will be tested when the Daily Summary is downloaded.

3.5 Wind Direction from South West quadrant and Wind Speed more than 50 km/h. This can be done on Current Readings or any other Historical Data.