



# NBTC – ITU Training on Building IoT solutions for e-applications



## Session 2: The Internet of Things and the Water Supply Chain

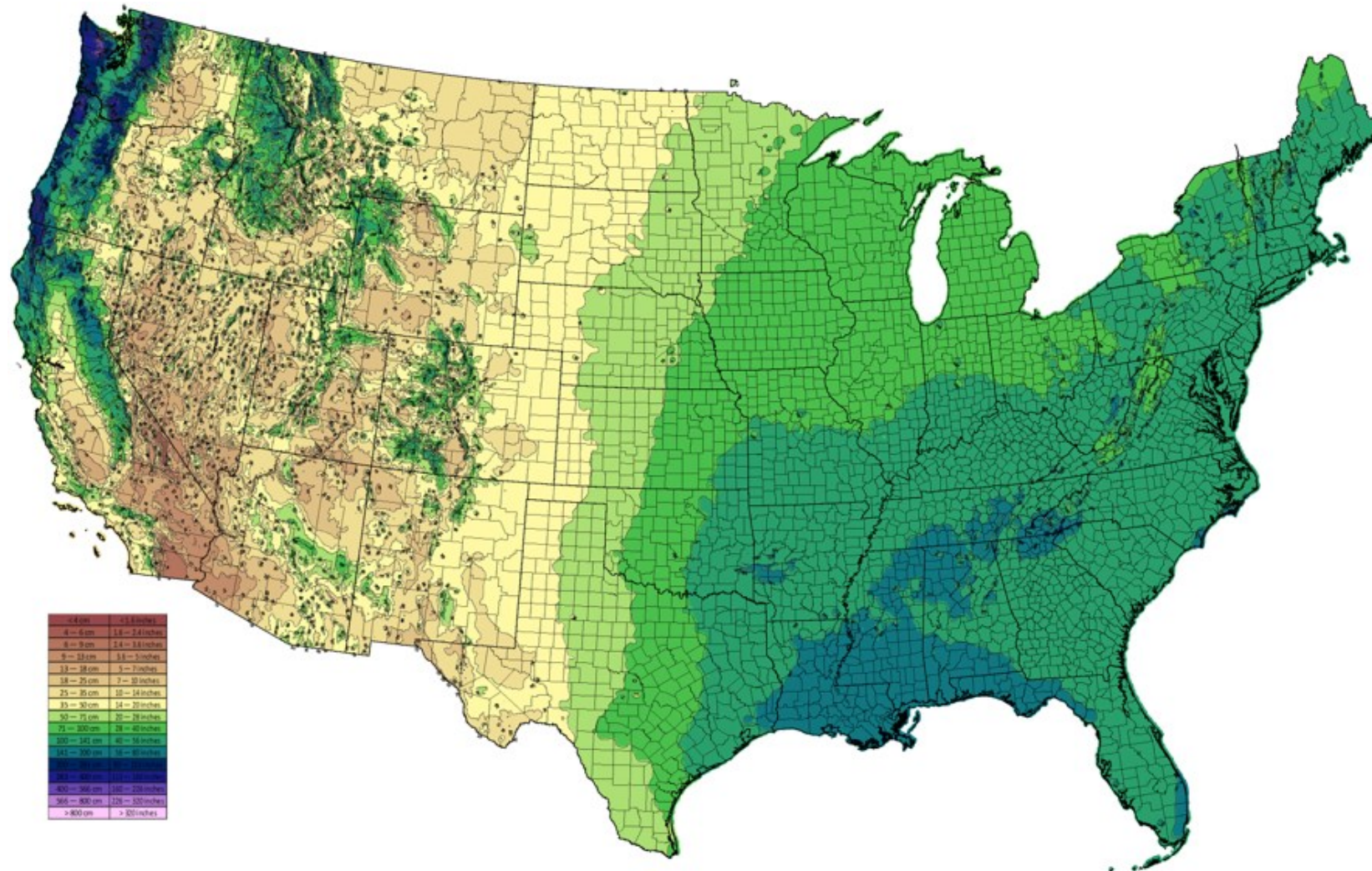






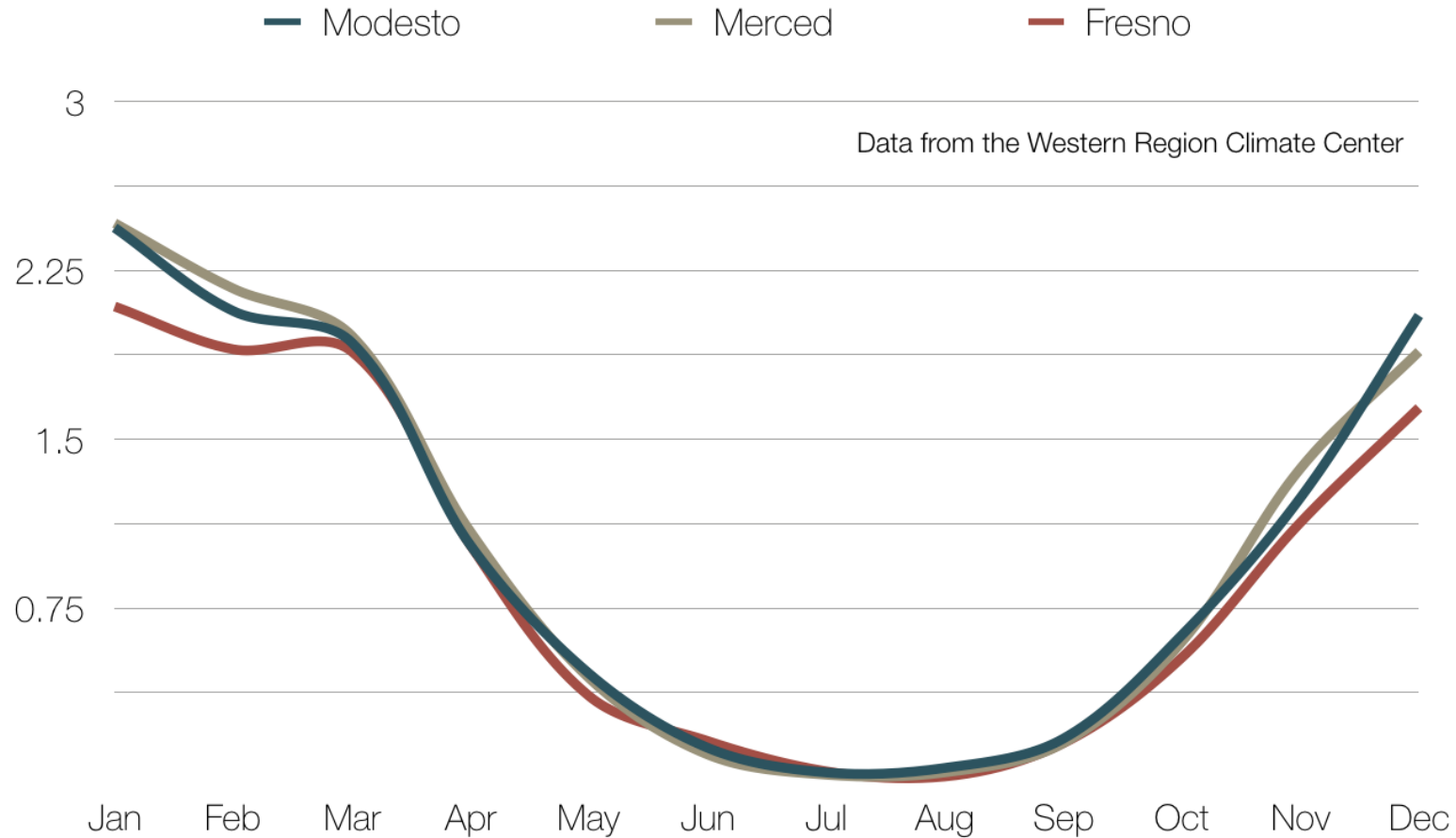


# Geographic Variability in Rainfall is Expected



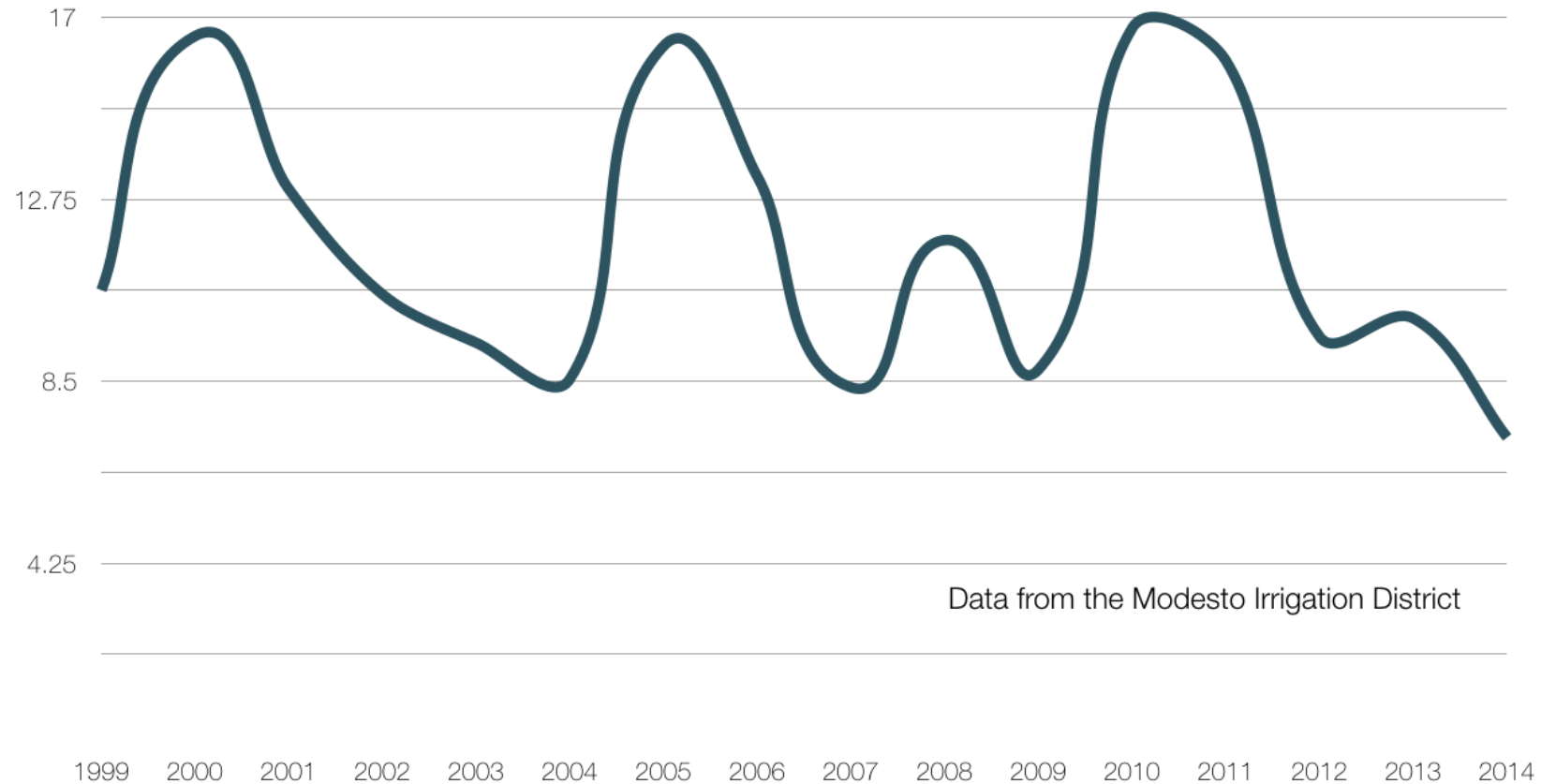


# Seasonal Variability in Rainfall is Expected





# Year on Year Variability in Rainfall is Expected





























## Water Technologies

- Supply: Aquifer & River Management
- Storage: Dams, Cisterns, Tanks
- Deliver: Pumps, Pipes, Trucks
- Safety: Testing, Filtration, Purification

# IoT for Water Supply



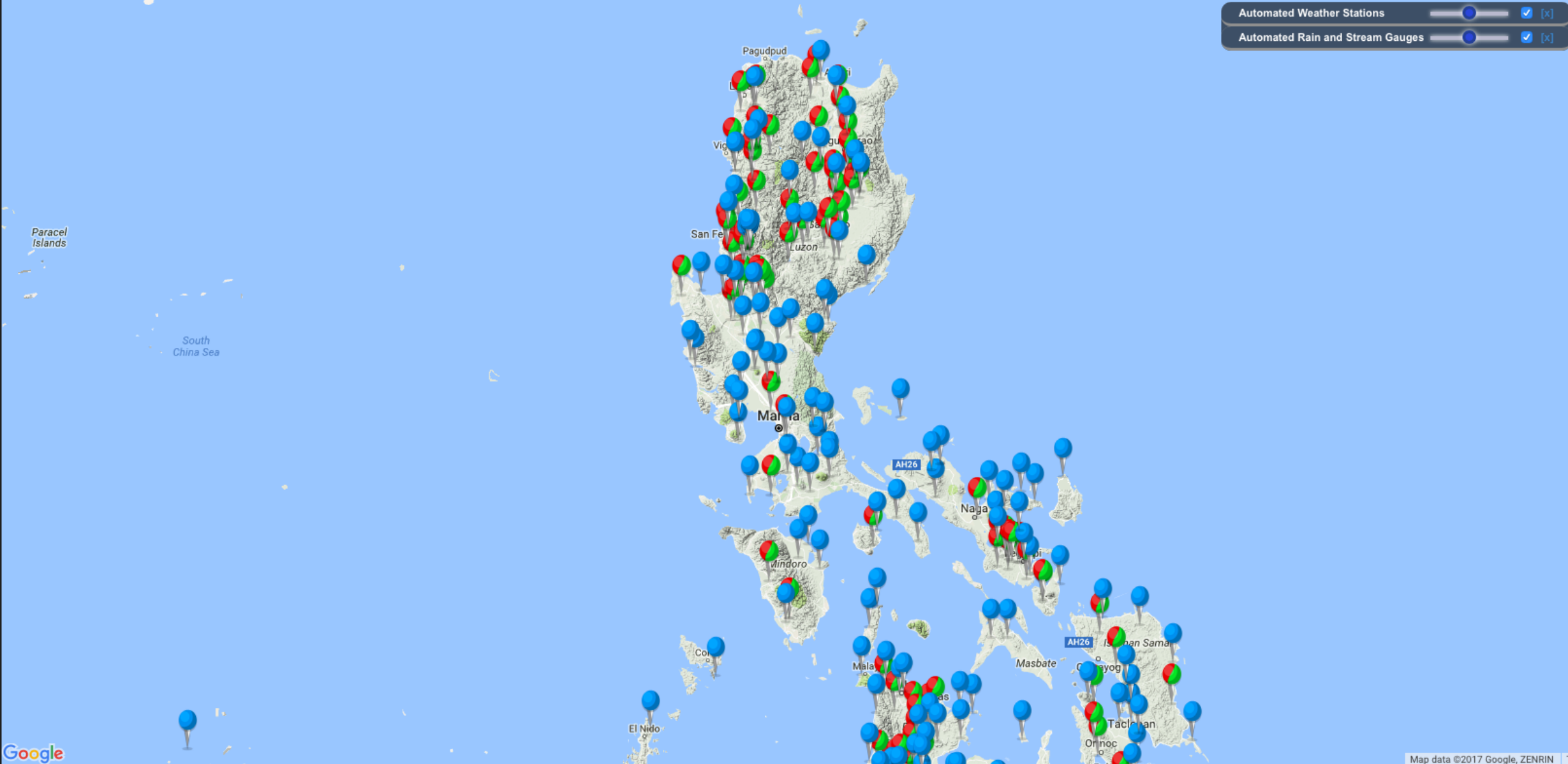
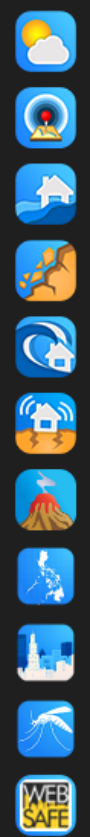


Find a place...

Google Maps Terrain + -

Automated Weather Stations  [x]

Automated Rain and Stream Gauges  [x]



Find a place...

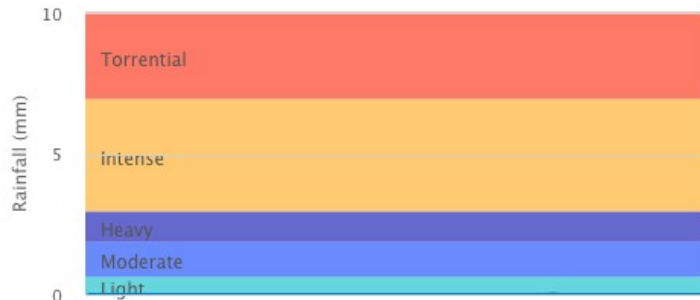
Google Maps Hybrid

Automated Weather Stations

# Dost Bicutan, Taguig City, Metro Manila

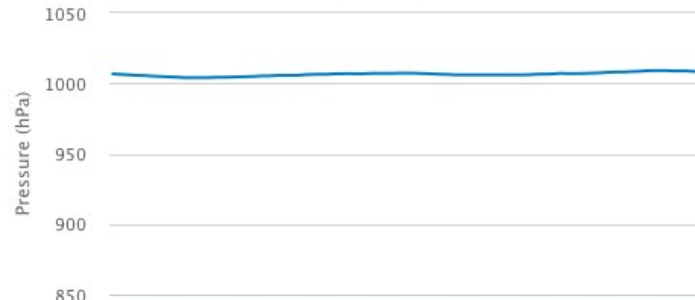
### Rainfall

in the last 24 hours



### Pressure

in the last 24 hours



### Humidity

in the last 24 hours



### Temperature

in the last 24 hours





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## Water Level Loggers, Level Meters & Monitoring Systems **PRODUCTS**

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In-Situ offers a variety of accurate, reliable water level loggers and meters for any project or budget. Whether you need long-term monitoring or instant results, our easy-to-use water level loggers are built to last, saving you time and money in the field.

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## Digi Connect Tank

Fully Integrated Cellular-Enabled Tank Monitoring Solution



- Remote access to tanks located virtually anywhere
- Fully integrated sensor/long life-battery/ global cellular in NEMA 4X enclosure for broad tank application support
- Tank location and level provides logistical and operational optimization
- Reduced transportation/fuel costs via efficient routing of fleet and personnel
- Predictable and efficient supply chain management
- Integrated ultrasonic sensor for non-contact liquid level measurements
- Includes temp/sound speed compensation

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HAVE A QUESTION?



Data Streams Data Files

[Add](#) [Delete](#) [Properties](#) [Preferences](#)

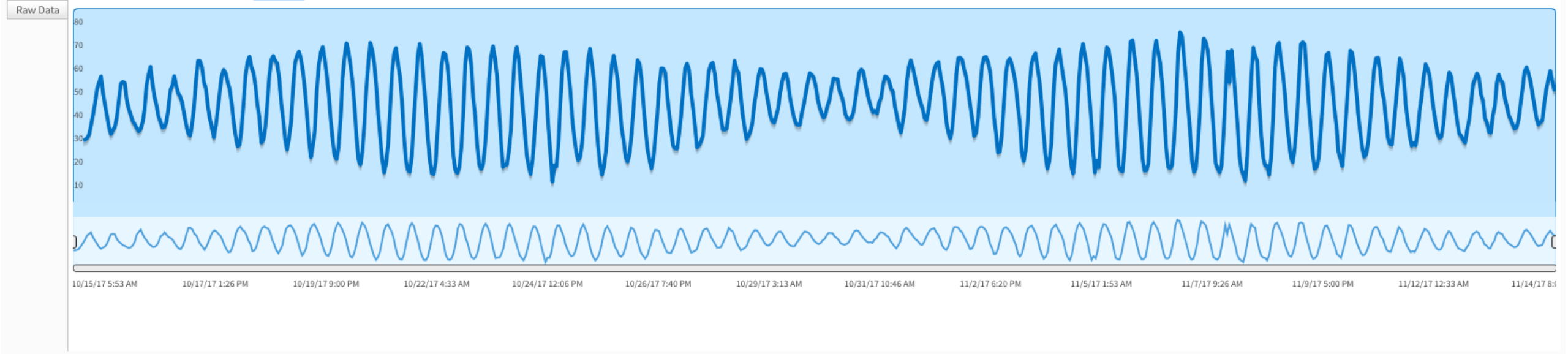
All Streams

Stream	Last Updated	Current Value	Current Location	Units	Data Type	Description
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dia/channel/00010000-00000000-03564230-44003850/ts1/tmp	11/14/17 02:02:20 PM	16.47136		cel	DOUBLE	
dia/channel/00010000-00000000-03564230-44003850/ts1/ser	11/14/17 02:02:20 PM	1			LONG	
dia/channel/00010000-00000000-03564230-44003850/ts1/rsi	11/14/17 02:02:20 PM	88		dbm	LONG	
dia/channel/00010000-00000000-03564230-44003850/ts1/dwt	11/14/17 02:02:20 PM	2			LONG	
dia/channel/00010000-00000000-03564230-44003850/ts1/bat	11/14/17 02:02:20 PM	100		per	LONG	
dia/channel/00010000-00000000-03564230-44003850/ts1/arm	01/04/17 08:19:15 PM	32			LONG	
00010000-00000000-03564230-44003850/management/connections	11/14/17 02:02:54 PM	{"connectTime": "201			JSON	

dia/channel/00010000-00000000-03564230-44003850/ts1/val

Charts Show Last: [1 Hour](#) [1 Day](#) [7 Days](#) [1 Month](#) [6 Months](#) [1 Year](#)

Average











# IoT for Water Safety



image: @marcozennaro



image: @less\_sebastian



Machen Sie ein Foto innerhalb des blauen Rahmens  
damit Sie sich, dass Sie die beste Aufnahme erhalten

Kleiner Wassersensor









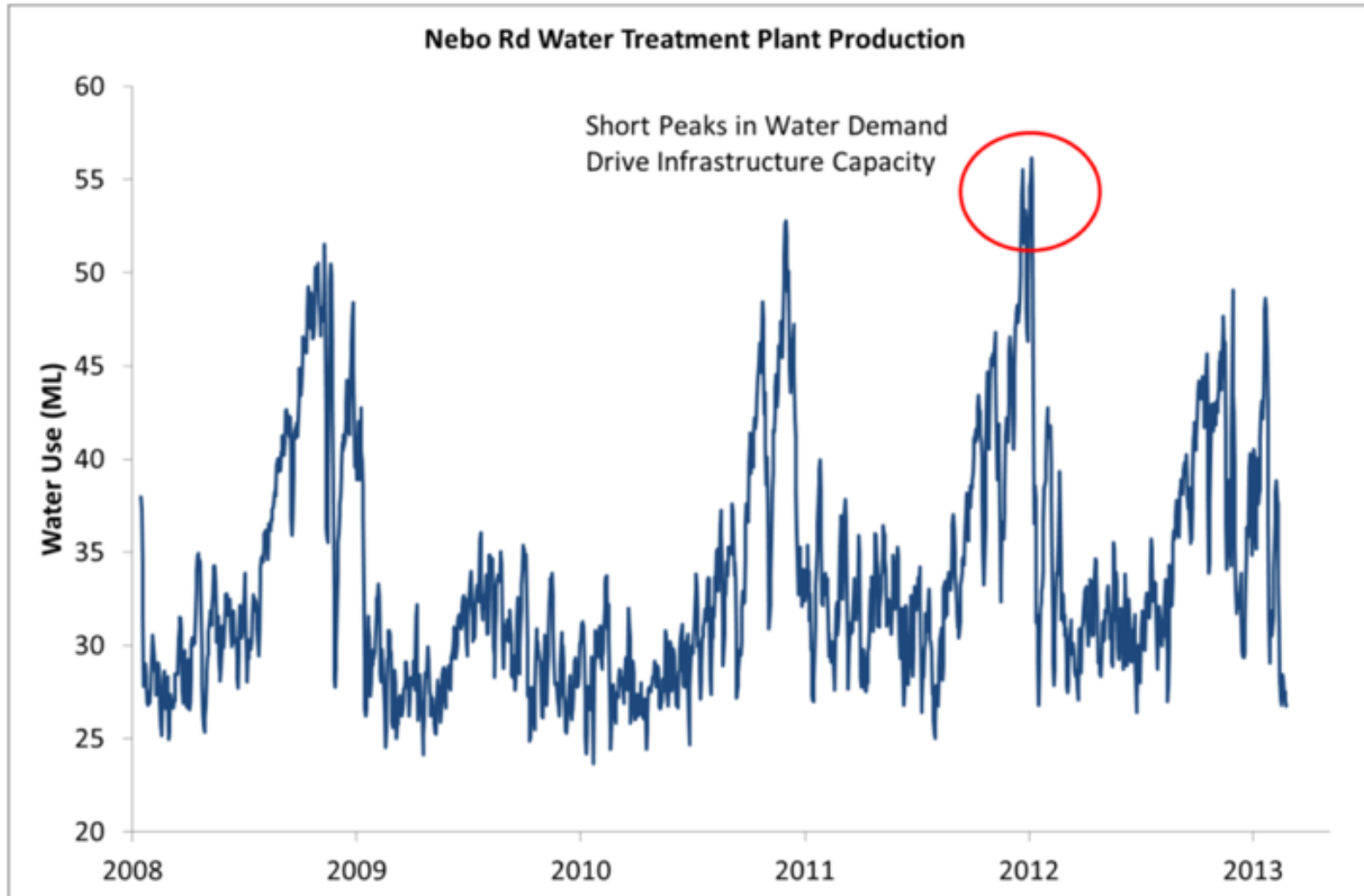


# IoT for Water Delivery Networks



images: taggle.com.au

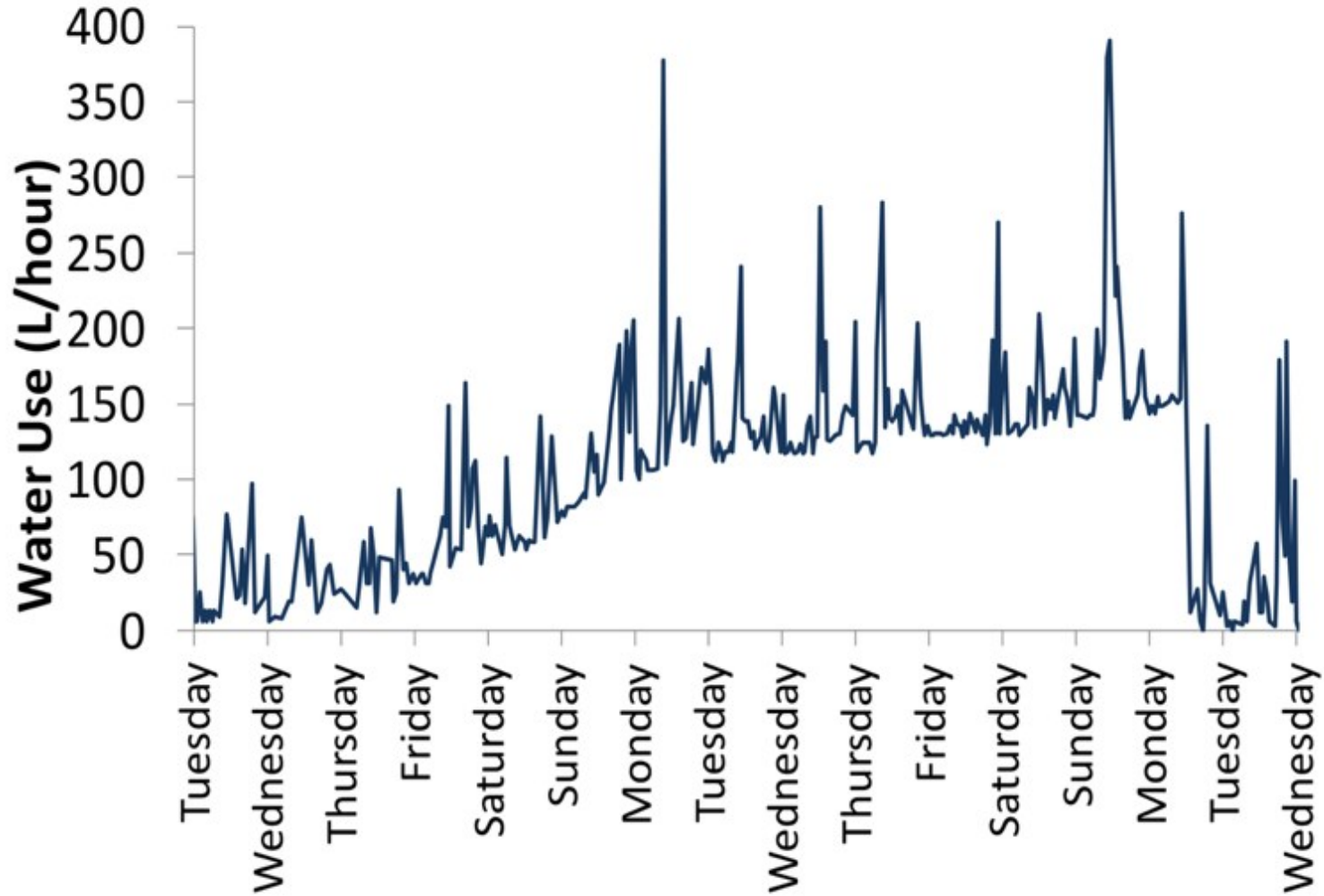




**Figure 1: Nebo Road Water Treatment Plant production.**

Data: Taggle Whitepaper on Mackay Regional Council Water Network





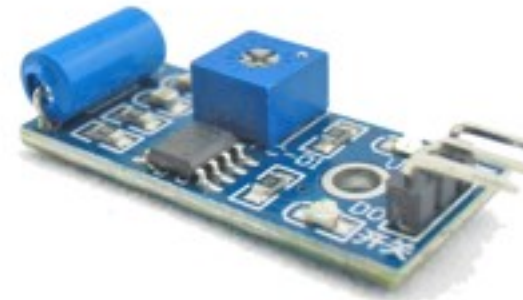
Data: Taggle Whitepaper on Mackay Regional Council Water Network













# Thank You

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