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What's next for WIMS

- A brief history of water quality data
- The future of data
- Solutions Workshop

HACH®

Be Right™

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A brief history of water treatment technology and data

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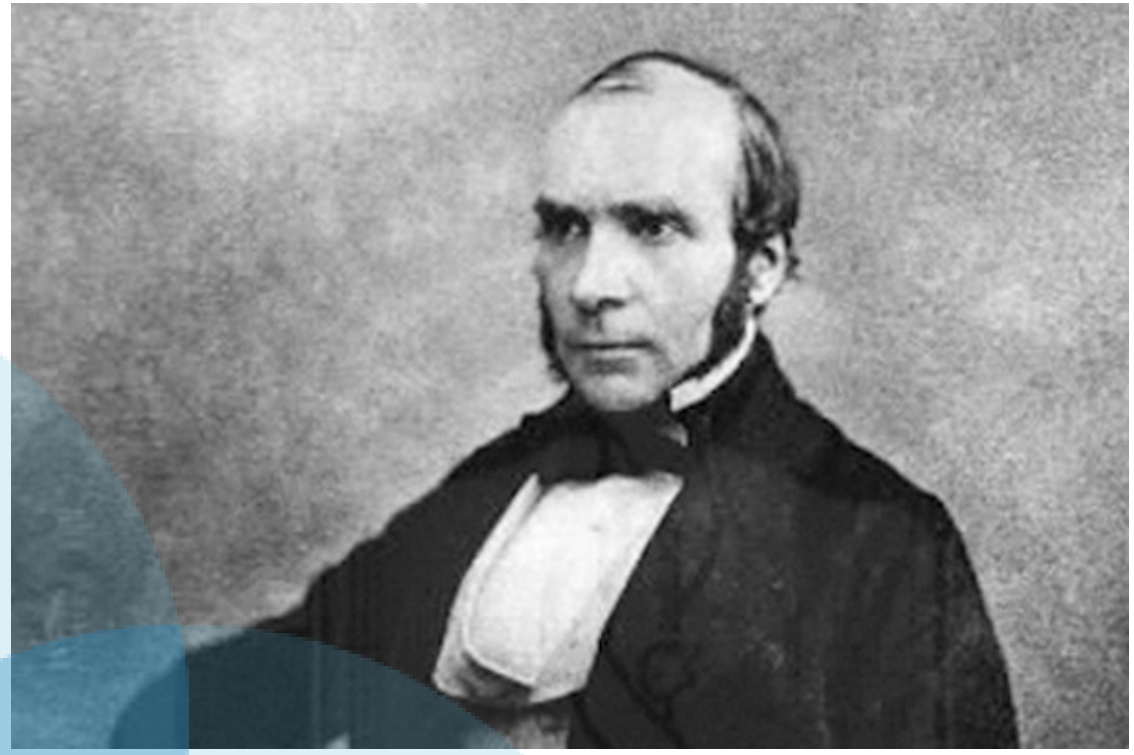
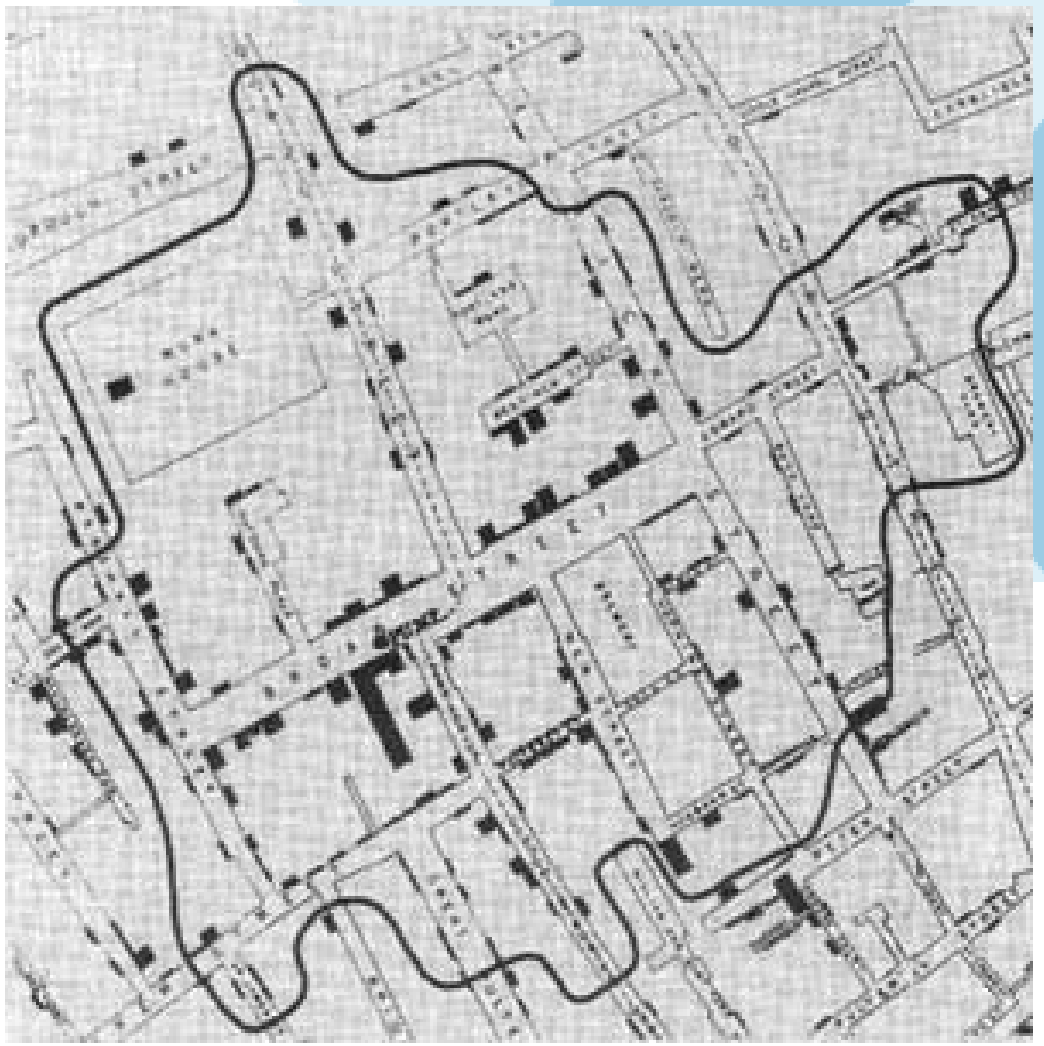
John Snow



- 19th Century English physician
- Traced the source of a cholera outbreak in Soho
- Considered a father of Epidemiology
- Led to huge changes to water and waste water treatment.
- Probably not as attractive as Kit Harington

Broad Street Pump

- Left - John Snow's map. Each bar represents a death at an address. The curve marks points at equal distance from the Broad Street pump and another pump.



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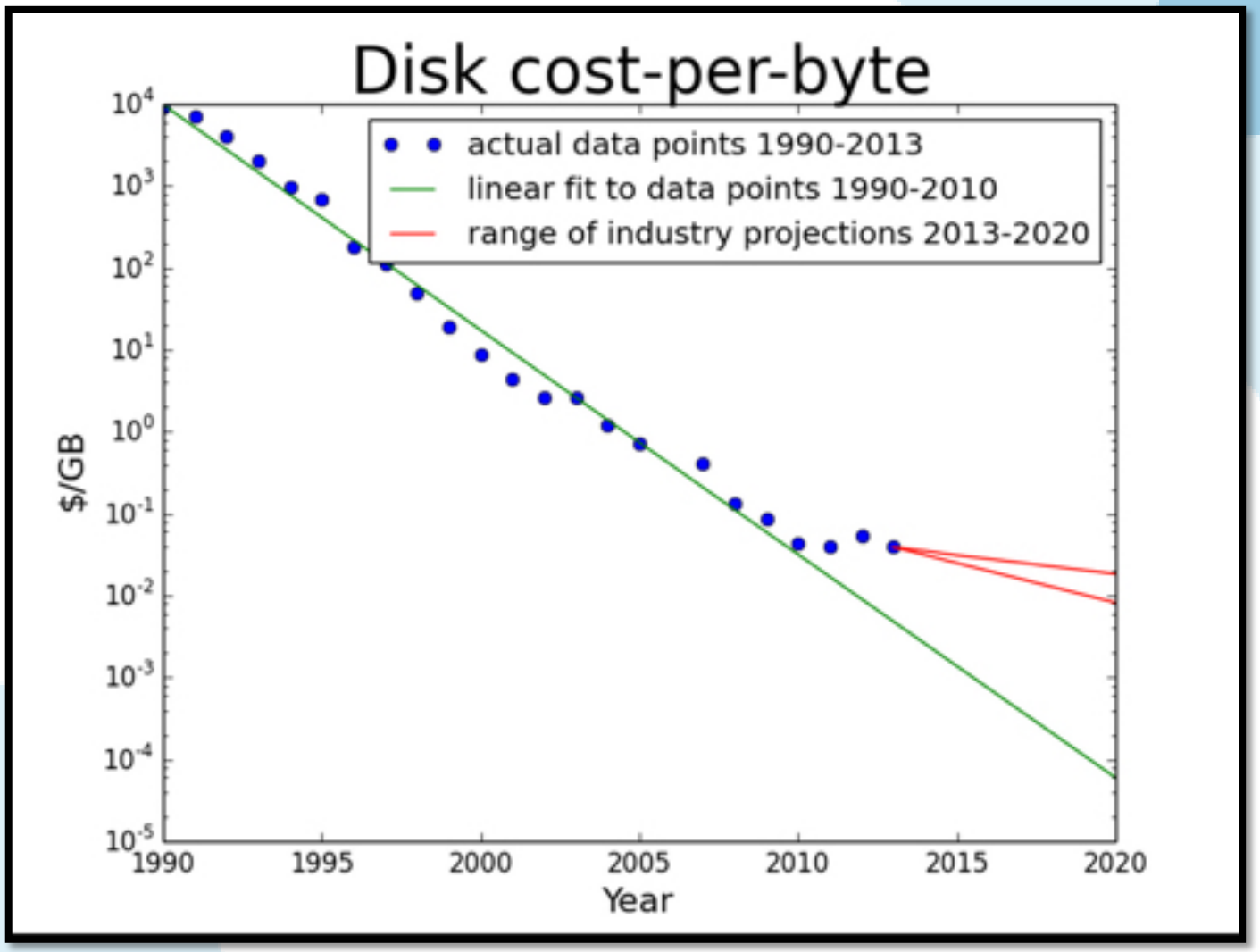
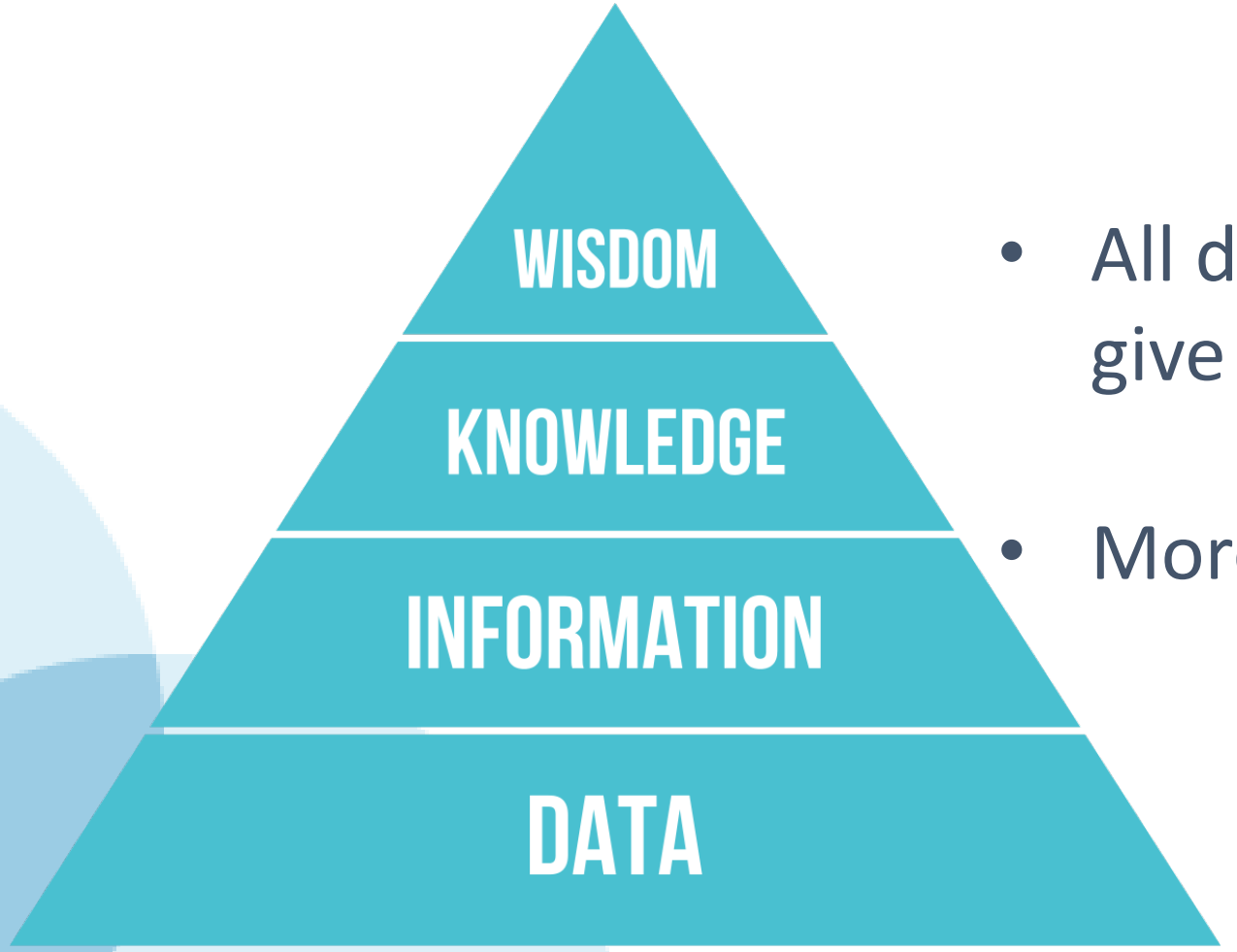
Computers & Automation

A Data Explosion



A Data Explosion



- All data needs to be processed to give actual value
- More data ≈ More data processing

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Work continues to change and evolve

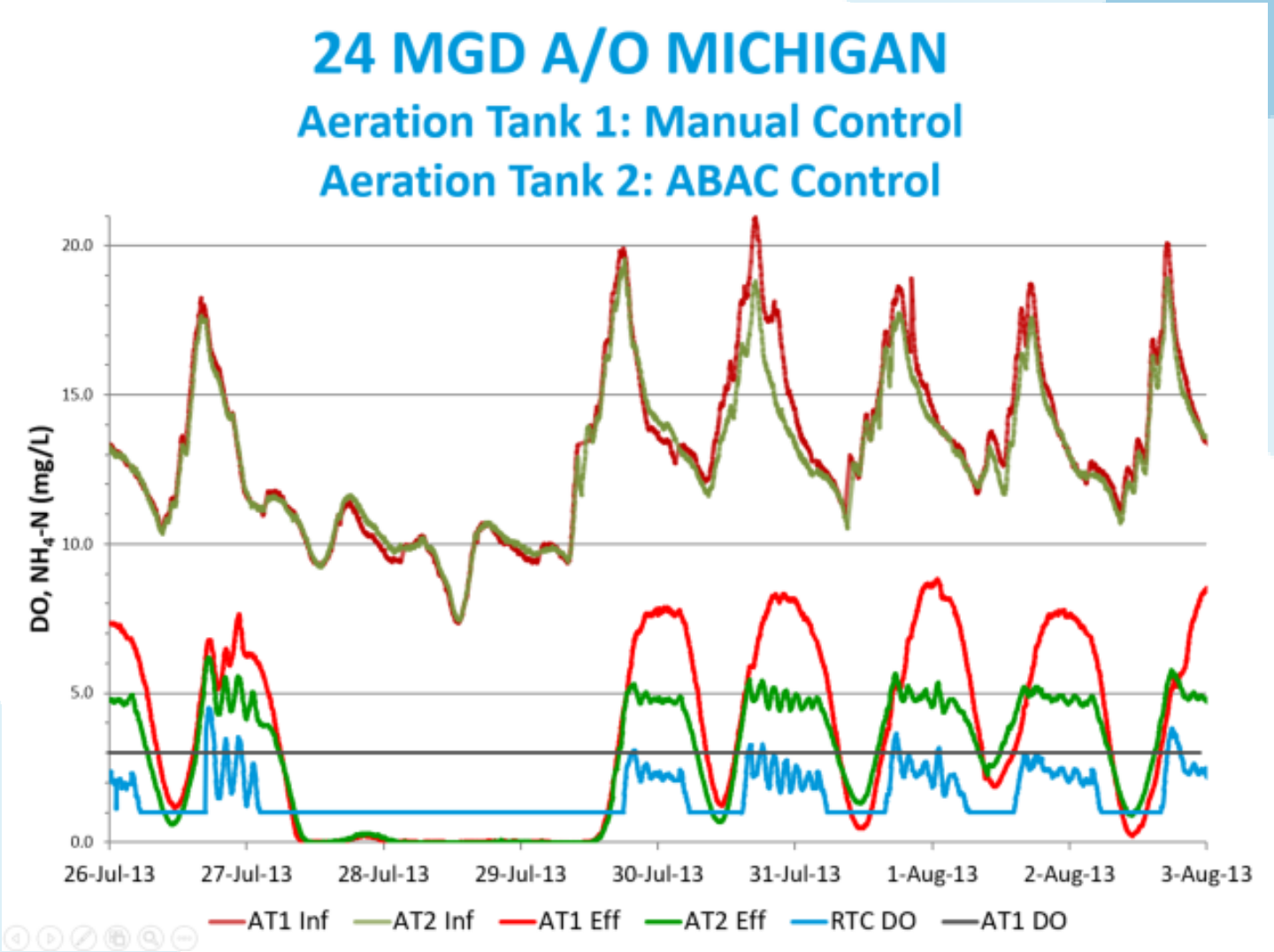
- Automation for analysis and reporting
- Positions and graduates focussing more on technology solutions
- Access to latest technology and greater processing power through Cloud technology

The challenge.....

To give power back to water professionals:

- Where are you spending all your time?
- Are your workflows inefficient or non-existent.
- What processes could be improved by better analysing your data?

What can WIMS do?



What can WIMS do?

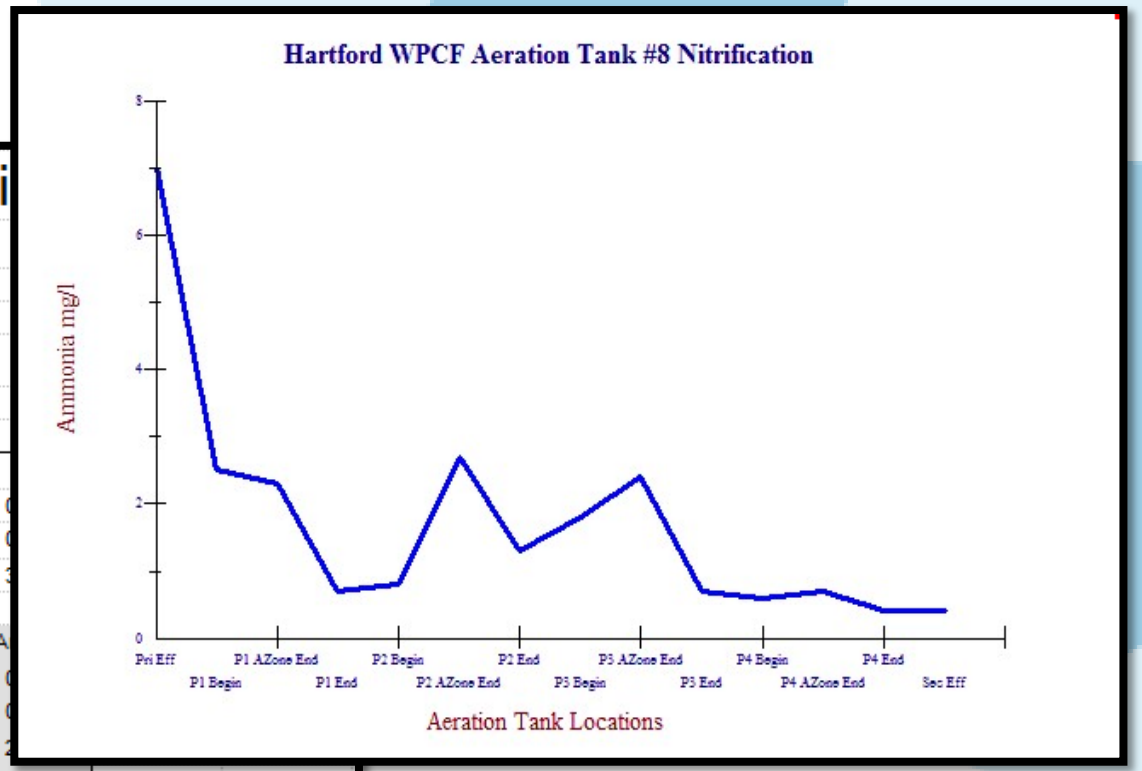
Hartford Water Pollution Control Faci

Aeration Tank Nitrogen Sampling and Analysis

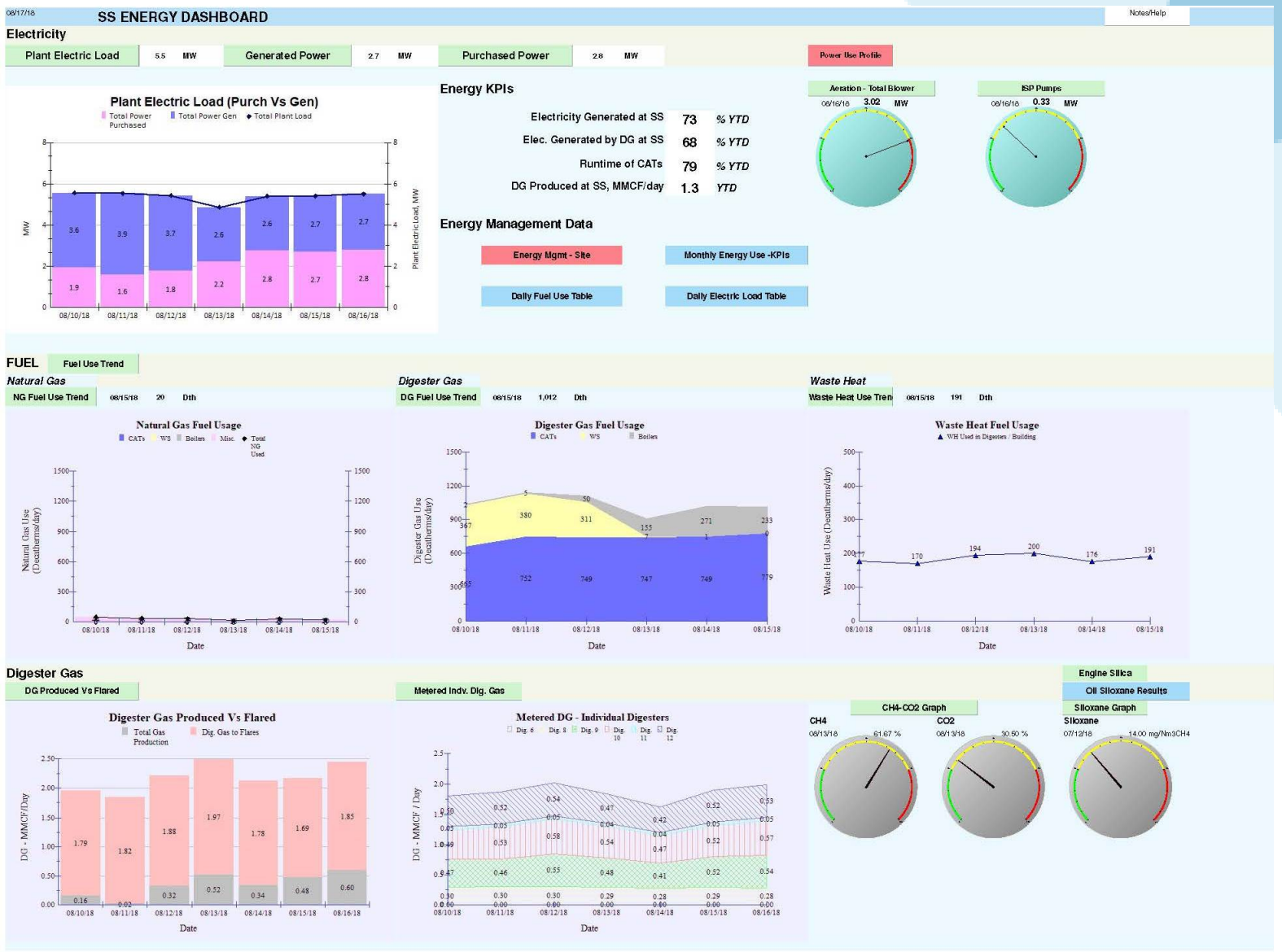
DATE: 07/25/18
MODE: Full Step Feed

Aeration Tank # 8

PRI EFF		Anoxic	Anoxic							
7.00	NH3	2.50	2.30							
0.09	NO2	0.01	0.05		PASS 1					
0.60	NO3	0.30	0.80							
								Anoxic	A	
	NH3	1.30						2.70		
	NO2	0.03			PASS 2			0.01		
	NO3	1.50						0.50		
PRI EFF		Anoxic	Anoxic							
7.00	NH3	1.80	2.40						0.70	NH3
0.09	NO2	0.04	0.01		PASS 3				0.07	NO2
0.60	NO3	1.40	0.40						2.20	NO3
SEC EFF								Anoxic	Anoxic		PRI EFF
<0.40	NH3	<0.40						0.70	0.60	NH3	7.00
0.09	NO2	0.03			PASS 4			0.04	0.08	NO2	0.09
1.60	NO3	2.60						1.90	2.30	NO3	0.60



What can WIMS do?



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What are YOUR biggest problems?

Take a post-it and write down any problems you have

Power consumption on blowers

Coagulant usage and cost

Time organising sampling schedules

Quarterly board can take a week to produce

Select a Problem – 2 mins

Look at all problems with your team and **select one** to look more deeply at

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Immersion – 5 mins

Start by reviewing all the information you have about the problem at hand, and taking notes (ideally on sticky notes so you can work with them in a minute).

- Where are you now?
- What do you know about what people want or what could be improved?
- What are other people doing that you like?

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Insights – 5 mins

Next, you want to review your notes and look for connections within them.

- Are there common threads that stand out?
- Ideas you can group together into a bigger concept?
- What surprising things stand out to you?

This is where the sticky notes really come in handy, as you can start to move and group similar ideas to help you draw those connections.

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Strategy – 10 mins

Now, with all of this data, it’s time to brainstorm ways to address your problem. You want to come up with a lot of ideas, and—this is the best part—not be held back by anything that sounds “too crazy.”

Depending on the size of the original question you walked in with, you may need to hone it in a little at this point.

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Design – 10 mins

Now, it’s time to get your hands dirty! You’ll pick one of the strategies you find most interesting and start the initial design.