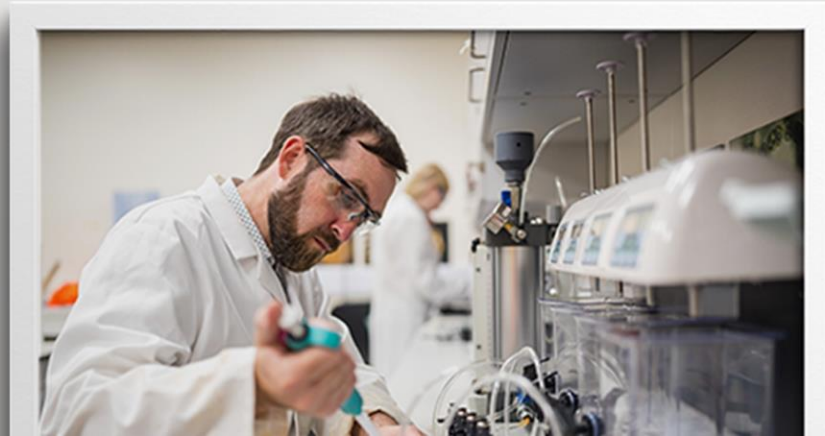
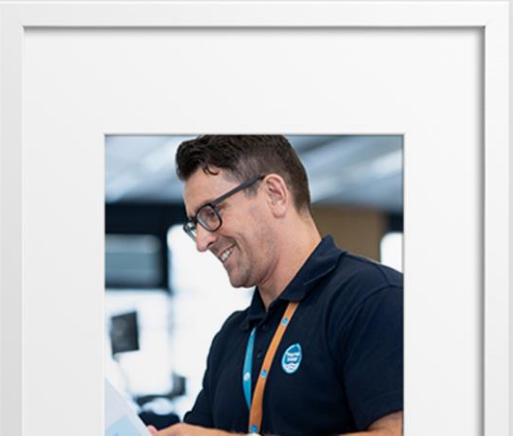
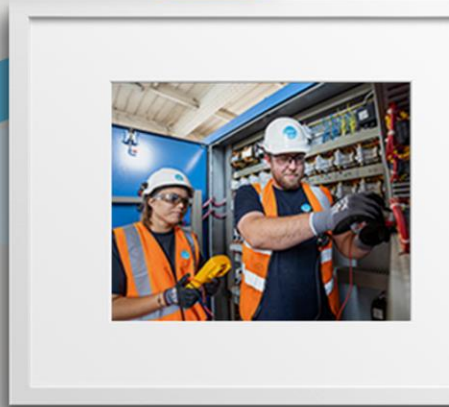
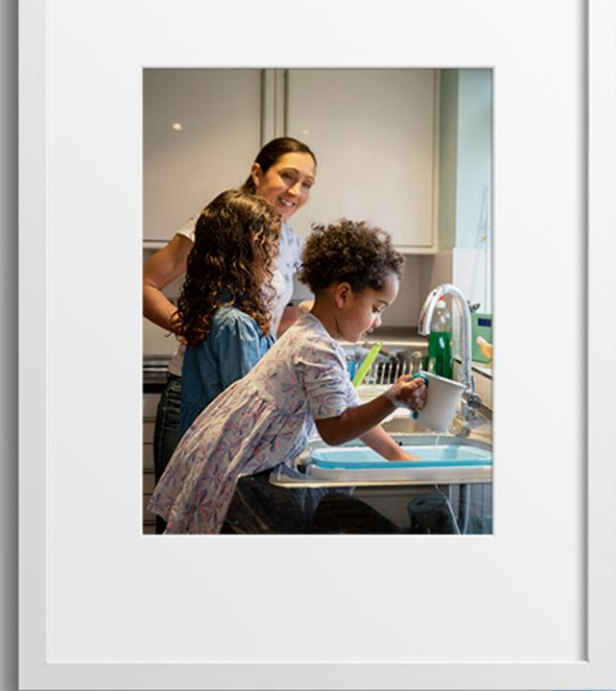
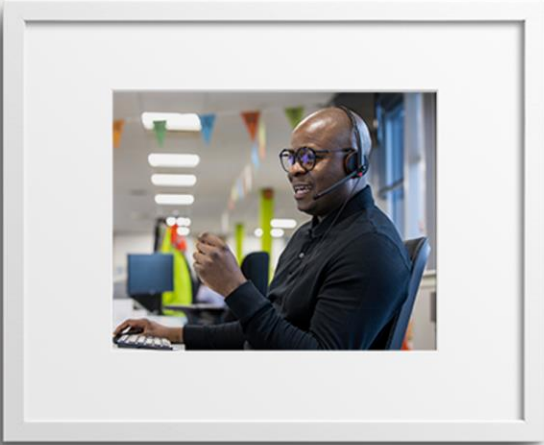
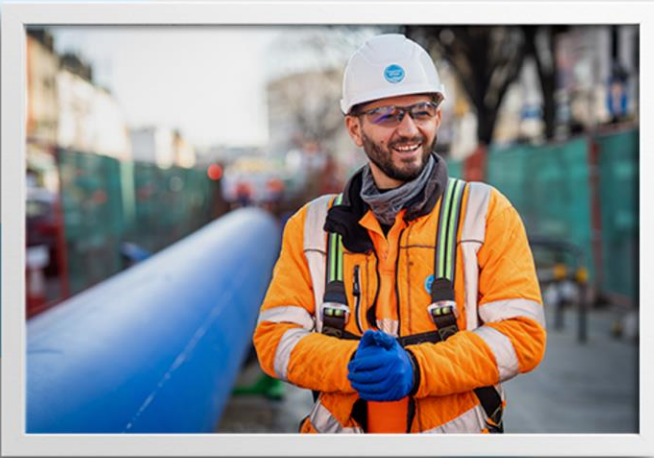


Mogden Catchment

Mogden Residents Meeting
25th July 2024



Agenda

Item	Description
1	Welcome & Introduction
2	Action Review
3	Mogden Pump Out Shaft Project – Manira & Andrei
5	Major Project Update – Parm & Dave
6	Operational Updates – Josh / Chantelle / Lena
7	Teddington Update
8	AOB/Close



Operational update – Glossary and Jargon Buster



Zero incidents
Zero harm
Zero compromise
 Keeping you healthy and safe, every day at work.

Acronym	Full Title	Explanation
STW	Sewage Treatment Works	The entire area and process of a Treatment Facility, for example Mogden STW.
FtFT	Flow to Full Treatment	The maximum flow that Mogden STW can process, it is measured at 1,064,000,000 litres per day
PST	Primary Settlement Tanks	Tanks that sewage is retained in to allow Raw Sludge to 'settle' in, to be taken away for processing.
ASP	Activated Sludge Process	The bubbling, fermentation part of the Treatment process which removes Ammonia and Phosphorus
OCU	Odour Control Unit	A chemical or biological scrubbing machine designed to reduce the presence of odorous gases (Hydrogen Sulphide) from sewage gas.
OMAC	Odour Management Assessment Check	Pre-emptive checks undertaken at Mogden STW by our team to assess the odour impact of any critical works.
CPAC	Compliance Process Assessment Check	Pre-emptive checks undertaken at Mogden STW by our team to assess the environmental compliance impact of any critical works.
FST	Final Settlement Tank	Also known as a 'Clarifier', these characteristic circular tanks provide a final polish by removing residual organics after Aeration.
PAS	Pasteurisation Plant	An industrial process which heats sludge (organic matter taken from the PSTs and FSTs) to kill off any pathogens prior to Digestion.
---	Biogas	The calorific byproduct of digesting Sewage Sludge. At Mogden STW, we use this in engines and recently in our Gas-to-Grid facility

Acronym	Full Title	Explanation
G2G	Gas-to-Grid	A new facility, commissioned in December 2023, which 'uprates' our BioGas into Natural Gas to be exported directly into the Gas Grid
MCC	Motor Control Cabinet	Automation machines that convert electrical power into controllable electricity for the site
COMAH	Control of Major Accident Hazards	Safety Legislation which governs how we mitigate Dangerous Substances at Mogden, and how we prepare for potential emergency
CHP	Combined Heat and Power Engine	Combustion Engines that are fed with BioGas to produce electricity. We have 3 at Mogden that created the equivalent to 15,000 homes' worth of power in 2023!
-	Consented Discharge	A legally-permitted discharge of sewage to river that occurs in high rainfall and when the Works has reached its FtFT
-	Storm Effluent	The sewage that is discharged into the River Thames during a Consented Discharge – please see photo below



'Storm Effluent' sampled during a 'Consented Discharge' on 20th September 2023

Note that this 'sewage' has been heavily diluted by significant rainfall.

Welcome & Introductions

Action Review

Mogden Residents Meeting Actions: July 2024

Raised by	Action Detail	Due Date	Action Owner	Update	Closed?
Barry Edwards	WHO H2S Guidelines	Jul-24	LBH		
All	To be kept up to dates with developments on the Teddington DRA consultations	On-going	Lena Wallin		
Barry Edwards	Technical Working Group	Jul-24	Lena Wallin	Discussed with Graeme - Looking to be early October 2024.	
Barry Edwards	Recent STW procedural failures / BS EN 14001:2015 Conformity and compliance	Jul-24	Barry Edwards	To discuss in meeting on the 25th July 2024.	
Cllr Katie Mansfield	Share contacts for Richmond council to Murray Edwards	Jul-24	Cllr K Mansfield	Completed	Y

Mogden POS Project Update

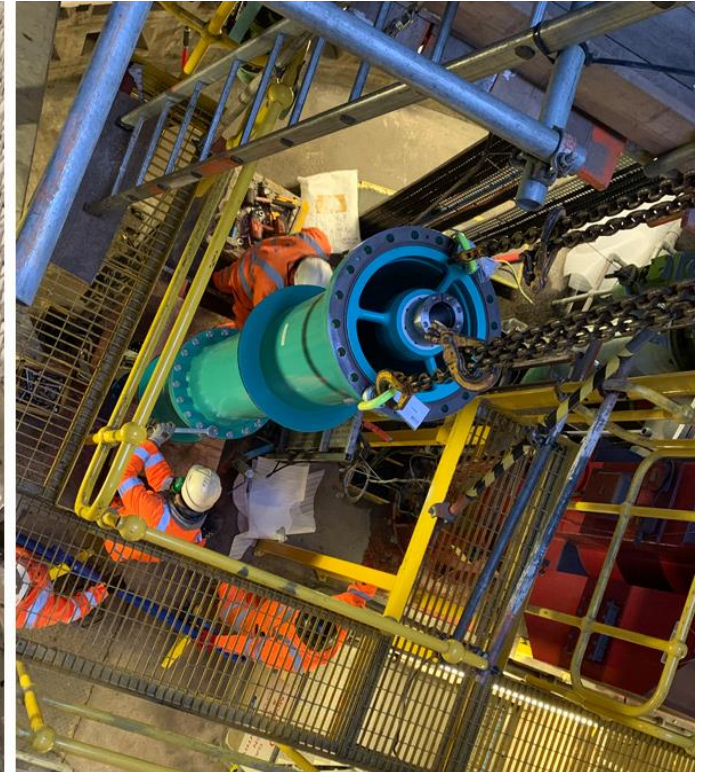
Background



- Thames Water supplies water via shafts, these allow us to transfer and distribute drinking water
- This is a drinking water related project rather than sewage work related
- The water site only happens to occupy land north of STW

What & Why...

- Hampton Pump Out Shaft has had 3 major power outages (means it can't pump)
- This has affected around 94,000 properties
- The Mogden Pump Out Shaft project aims to resolve this issue.
- Tunnelling underground to connect current shaft to another water main.
- *Benefit* – customers will continue to receive water to their home
- *If we do nothing* – there will be no backup for Hampton Pump Out Shaft



Project Timelines

- Start on site – June 2024
- End of construction – December 2027
- Most of our works are on site and within the Shaft compound deep underground
- Some works will be in Worton Industrial Car Park



Lookahead of works

- Inspection to chambers on Whitton High Street
 - Period of inspection: 8th – 9th August
 - Time of works: 10pm – 5am
 - Impact to local residents: No noise associated with these works, temporary traffic lights in place during inspection
- Surveys on Worton Road - locating & test condition of water main.
 - Period of surveys: 12th – 21st August
 - Time of works: 8am – 6pm
 - Impact to local residents: 3-way traffic lights at Worton Rd junction with Farnell Rd. Some noise associated with these works
- Continued investigation works on our site post this
- Next works to take place outside of compound to be in 2025

Major Projects



Main Pumping Station



View of Battery C

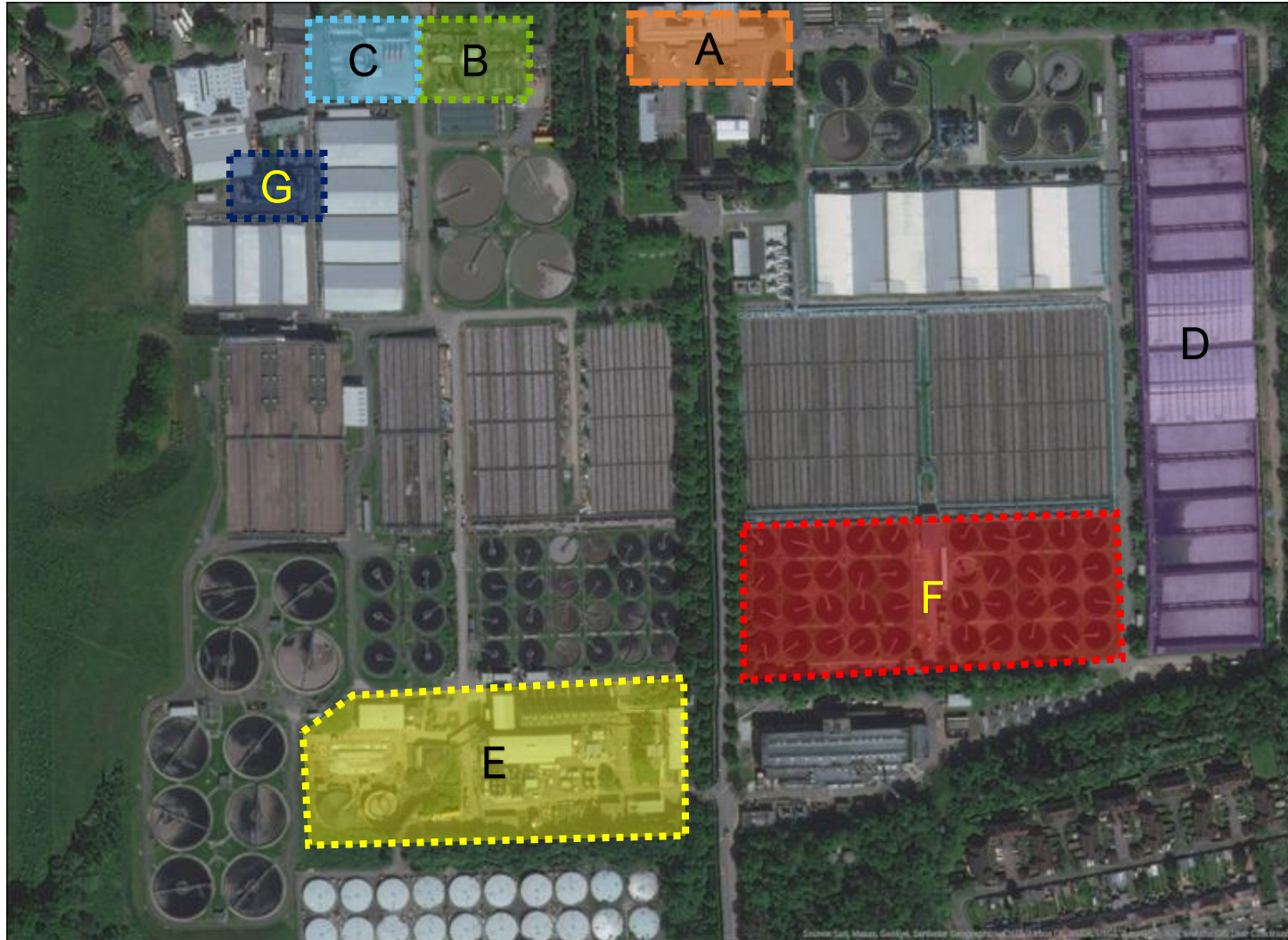


View of Digester Works

View of Sludge Area

Ops Large - Capital Investment

Mogden STW - Fix the Basics – Funding Obtained



A	Main Pumping Station	
	Continuation of refurbishment	
	C&D Preliminary Works	
B	Penstock & flow meter install	
	Screw PS upgrades & refurb	
	E Preliminary Works	
C	Inlet screening refurb	
	Grit removal refurbishment	
D	Storm Tank Mixing	
	Mixing control upgrade	
	Sludge Stream	
	Sludge poly system replacement	
E	Drum thickener No. 1 replacement	
	PAS refurbishment	
	Boiler replacement + hot water	
	PS14 pump replacement	
F	A & B FSTs	
	FST penstock refurbishment	
G	Odour	
	OCU 11 refurbishment	
H	Iver South	
	Replace poly mixing silo	

Mogden Fix the Basics - Programme

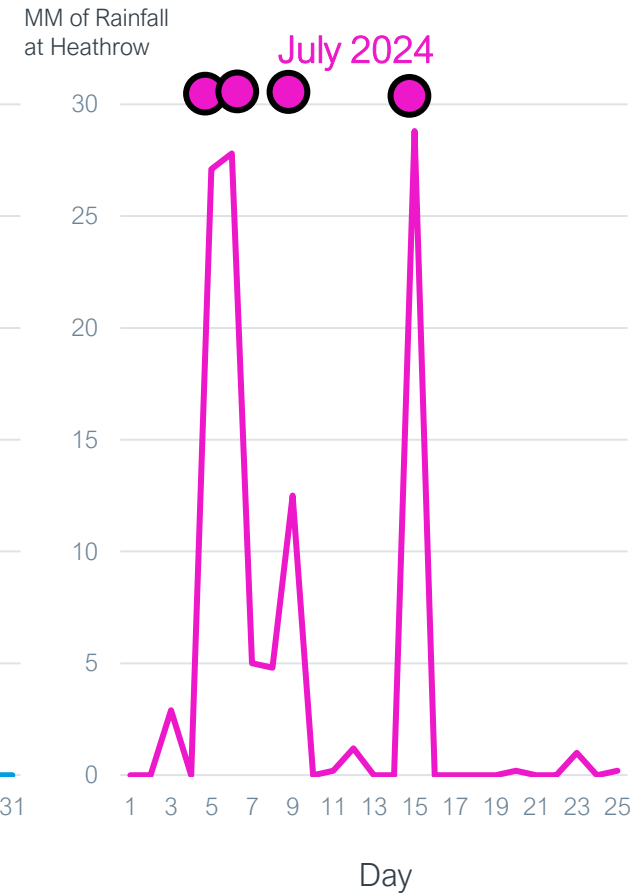
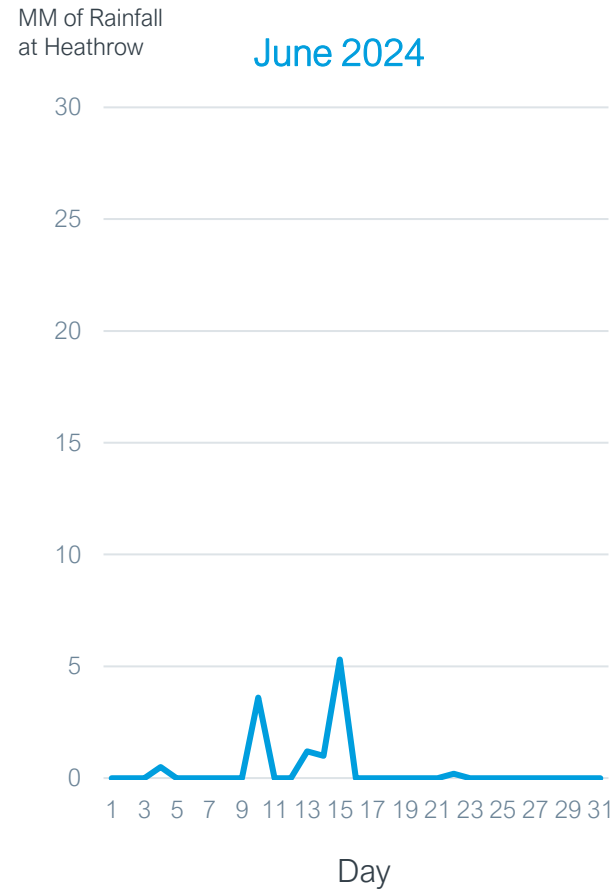
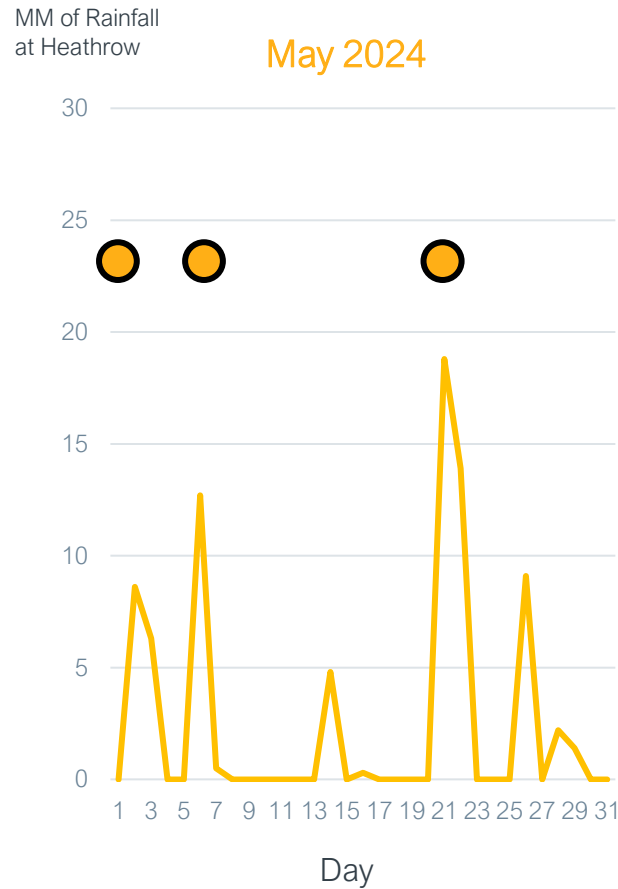
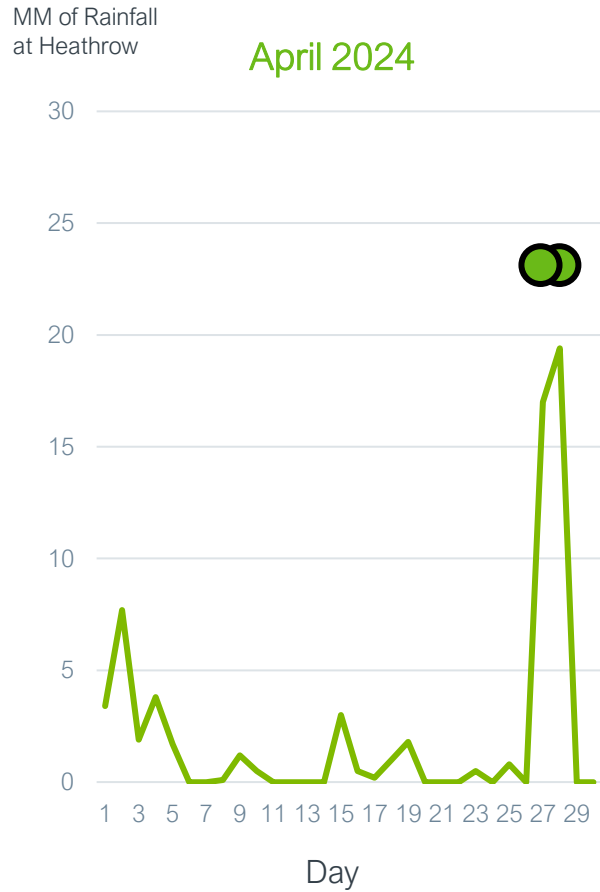
Title	Planned Start	Planned Finish	Percent Complete
Mogden STW - OCU 11 Refurbishment	08/11/2023	31/07/2024	75%
Mogden STW - Storm tank Amajets and control panel refurbishment	18/12/2023	31/03/2025	30%
Mogden STW - Raw Sludge Drum Thickener Replacement	01/11/2023	29/11/2024	80%
Mogden STW - Archimedes Screw Pump Upgrade	07/11/2023	30/10/2024	27%
Mogden STW - Drum Thickening Poly Make up Control Panel	01/01/2024	31/04/2025	20%
Mogden STW - D & E Battery Inlet Screens Proactive Refurbishment	03/10/2023	31/10/2024	100%
Mogden STW - Battery D Settled Sewage Inlet penstock	26/11/2023	15/09/2024	73%
Mogden STW – PAS Stream Refurbishment	25/24/2024	15/10/2024	50%
Mogden STW - West Side Grit Removal Enhancement	30/11/2023	31/03/2025	10%
Mogden STW - A&B Battery Penstock Refurb	01/11/2023	30/11/2026	0%
Mogden STW - MRP - Main Pumping Station Refurbishment	01/11/2023	01/01/2025	27%
Mogden STW - Pumping Station 14 Pump 4 Replacement Bare Shaft Pump	03/10/2023	31/03/2024	100%
Mogden STW - Odour Suppression Units	03/10/2023	31/03/2024	100%
Mogden STW - PAS 4 Heat exchanger coil failure and reactor stirrer failure	24/01/2024	30/08/2024	94%
Mogden STW - Year 4 & 5 Ops Investment Proposal - Boilers and Hot Water System - Replacement	01/08/2024	01/08/2025	0%
Mogden STW - Main SPS - Incoming Power Supply Upgrade	15/01/2024	20/03/2024	100%




Operational Updates

Operational update – Consented Discharge Vs. Rainfall Data



Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.



 }
 }
 }

Consented Discharge to River Thames with STW at Flow to Full Treatment

	April		May		June		July	
Month Total	64.5mm	154%	78.6mm	171%	11.8mm	25%	111.7mm	243%
Year Cum.		145%		151%		129%		145%

Statistics from the last year



Mogden STW has processed over **225,000,000,000 litres of Raw Sewage** from a West London Catchment of 2.15 million people.

Over **71,000 Tons** of Sludge Processed, Pasteurised, Digested and Dewatered.

c. **7,300 tons** of Screenings (Wet Wipes, RAG etc..) removed from the process

Focusses of the past 3 months

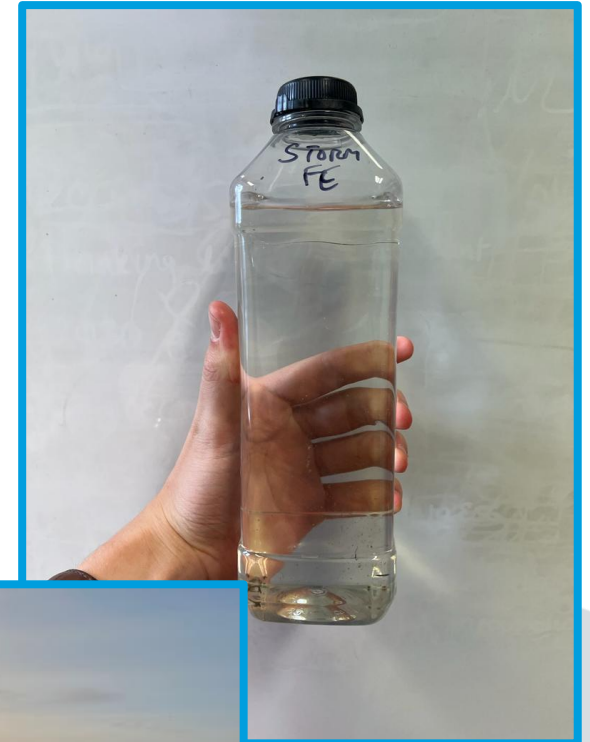


Stabilise and control the site after an exceptionally wet winter (Focus on MLSS control, Thickening Availability and PST Refurbishments).

Interface with the sharp-end of **Capital Projects**

Prepare and Provide Resilience

Storm Effluent collected from Final Effluent Discharge Point in Early July 2024



Looking South-East from the Mogden STW Tower in February 2024

The 'Operational Reality' from the coal face



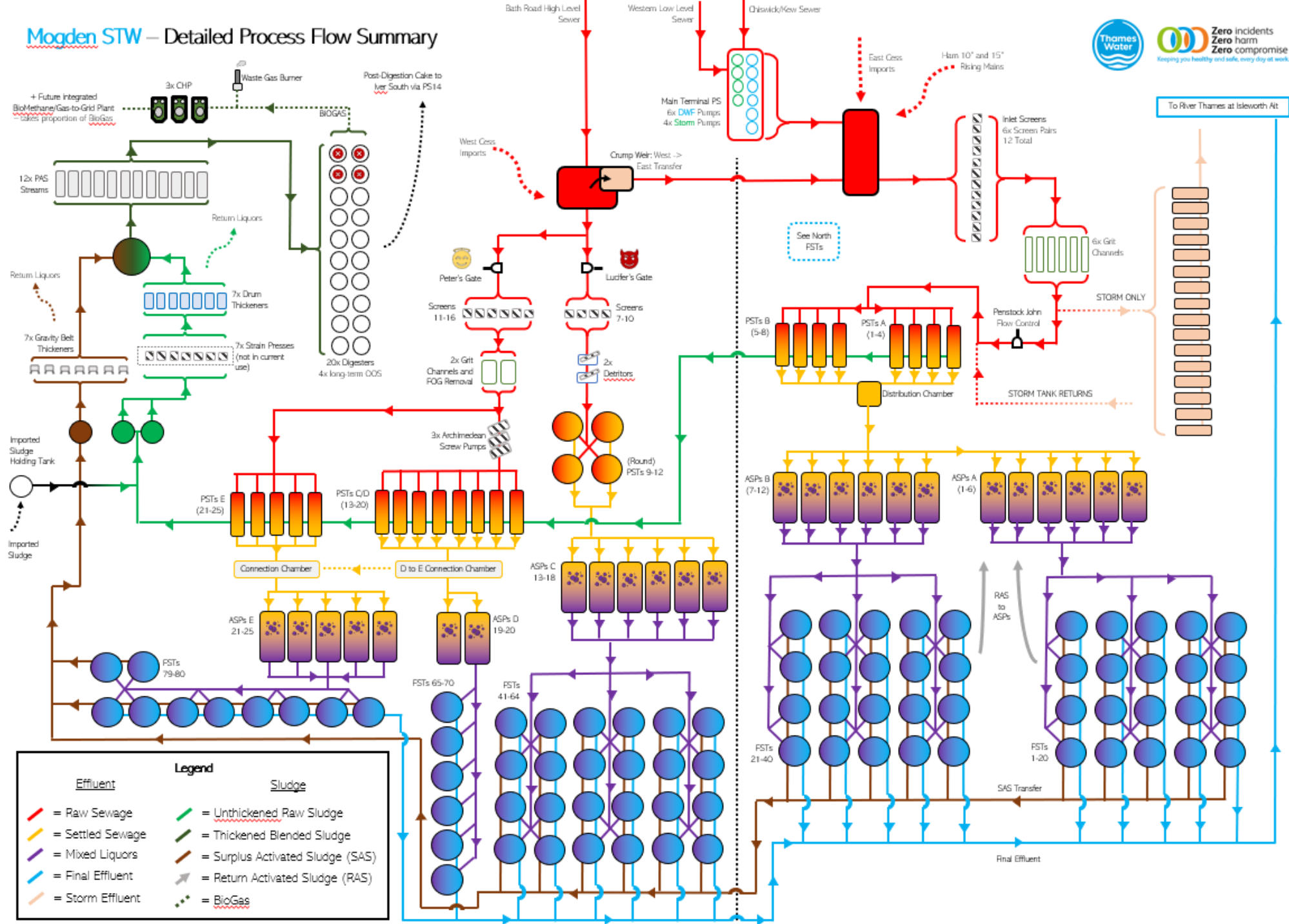
Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.



Moojen STW – Detailed Process Flow Summary



Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.



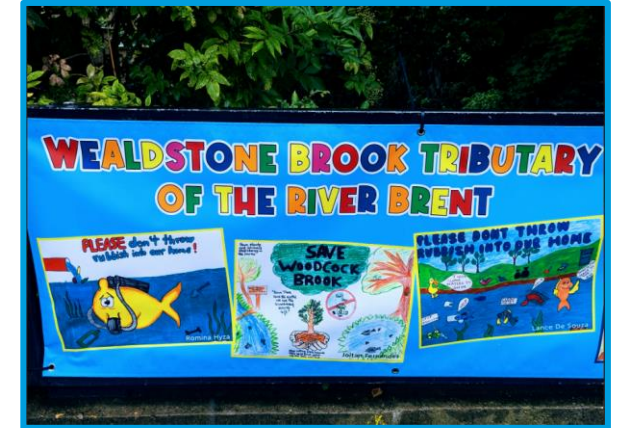
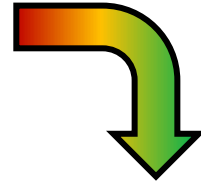
Operational update – Grounds Maintenance



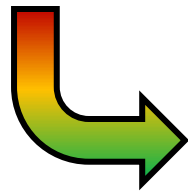
Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.



Graffiti Removal along Duke of Northumberland Pathway



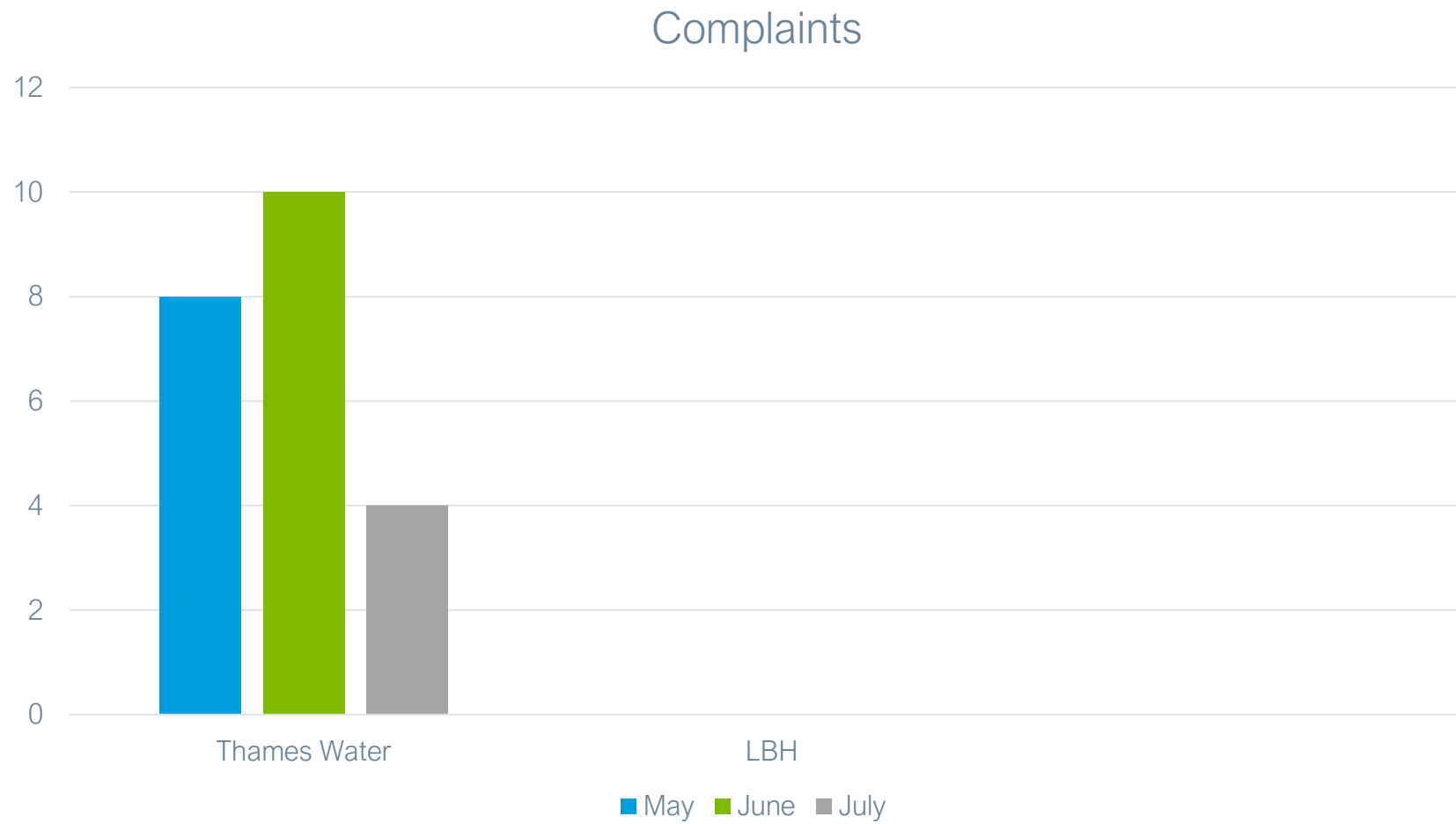
Mogden in the community – Education Event at Wealdstone Brook



July 2024 – cutback to Glen Walk



Complaints





East Inlet Works

- Significant Strain on our Inlet Works.
- Full Refurbishment of 12x 6mm Fine Screens.
- 10 of 12 Screens now complete.

Primary Settlement Tanks (PSTs) 9-12

- 4x PSTs drained down and flushed in preparation for Refurbishment Works.
- Flushing could not be continued for Confined Space Entry Requirements.
- Works concluded and all 4 tanks returned to service

C Battery Final Settlement Tanks (FSTs)

- Still struggling with crusts on FSTs for C Battery – presence of 'Filamentus' Bacteria in ASP Lanes.

Pasteurisation and Thickening Area

- OCU12 issues now concluded – new pipework, civils and louvers installed.
- NEW OCU15 commissioning phase commenced.

Teddington DRA



It's everyone's water

Teddington Direct River Abstraction

Project Update



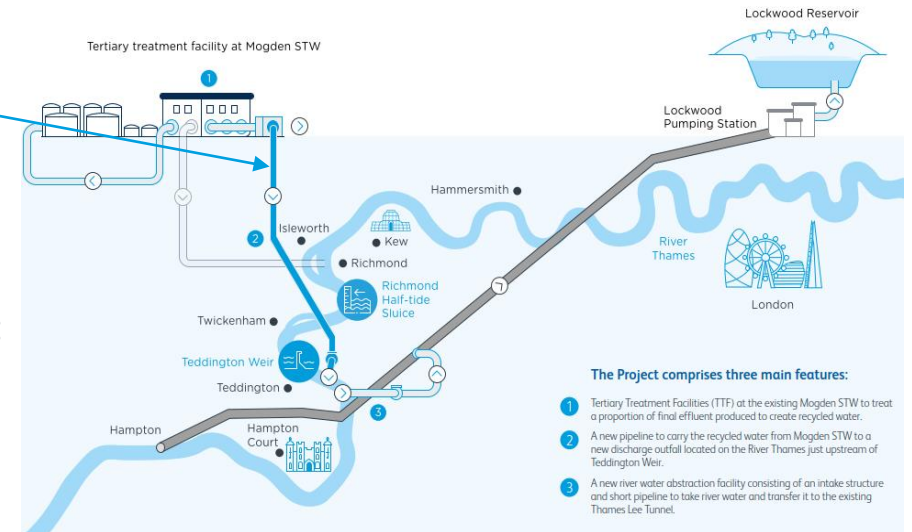
Progress since Autumn 2023 consultation

- Consideration of consultation responses
- Preparation of Statement of Response and supporting materials (ongoing)
- Ongoing engagement with LPAs and regulators
- Review of design
- Preparation of Environmental Impact Assessment scoping report (ongoing)

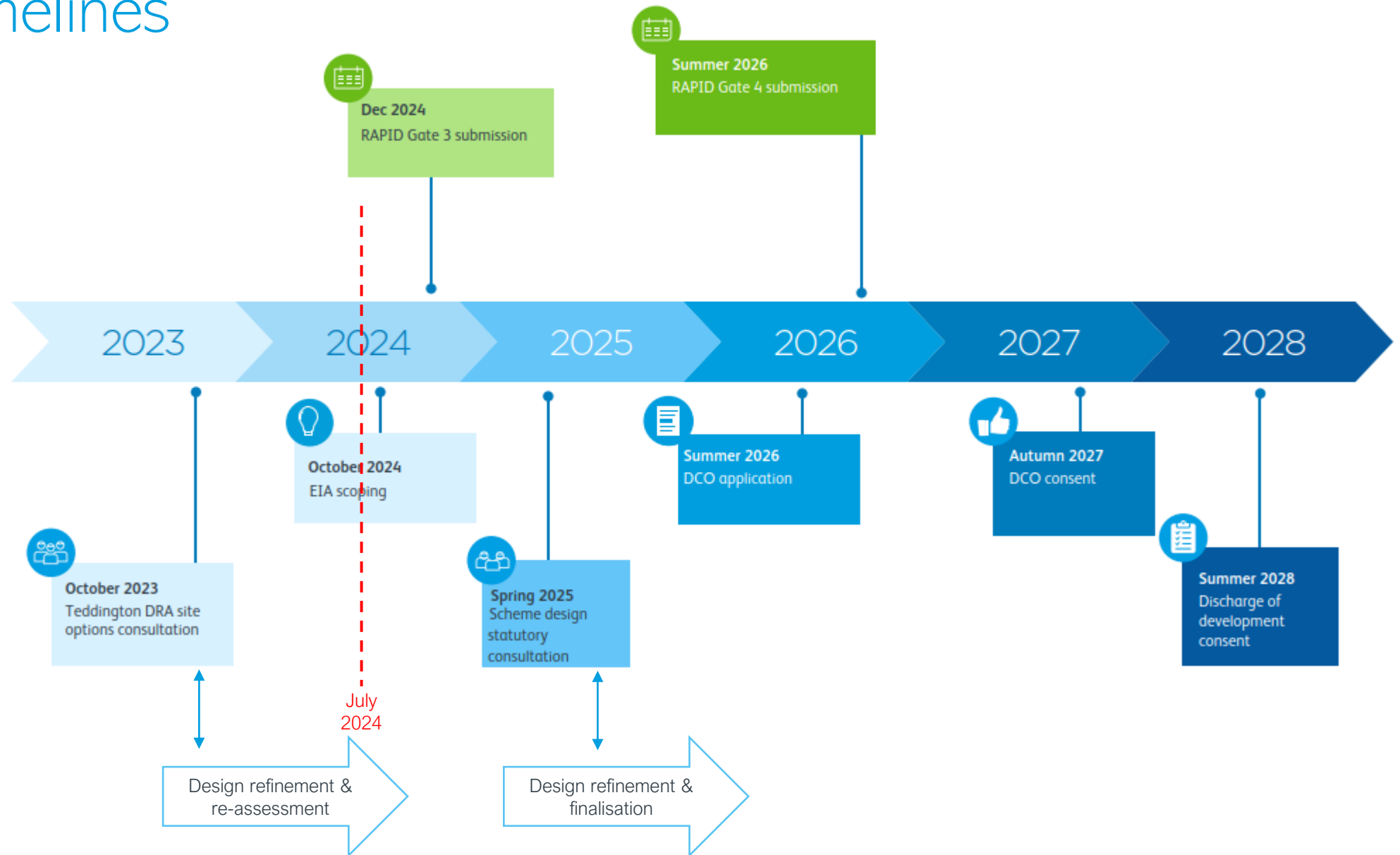


Teddington DRA – Design Changes-

- Non-statutory consultation and stakeholder engagement feedback has led to a re-evaluation of our design and an investigation into the feasibility of alternative ways to construct TDRA to help address key concerns around potential construction impacts on local communities.
- Key changes are to the recycled water conveyance which includes:
 - constructing a 3.5m ID tunnel rather than a 1.8m ID pipeline
 - using a Tunnel Boring Machine rather than pipejacking methods
- These changes mean:
 - A slightly shorter tunnel from Mogden to the River Thames
 - Removal of four intermediate shafts and construction compounds from the project at:
 - Ivybridge Retail Park Car Park - within Hounslow
 - Moormead and Bandy Recreation Ground - within Richmond
 - Land to the west of Riverside Drive Playground - within Richmond
 - Ham Lands, west of Riverside Drive - within Richmond
 - Removal means no above ground construction within these areas impacting on local communities.
 - A single intermediate shaft is still required – preferred location is on 'Land at Ham Playing Fields' off Ham Street – within Richmond
 - All tunnel material would be handled and removed from Mogden STW rather than from any shaft along the conveyance route.
 - Although the conveyance is larger, it will **not mean** we are discharging more recycled water into the river; it remains 75 MI/d



Project timelines



Wider communication of these changes

How will our customers learn of these changes?

- A newsletter has been published
- An email to those who signed up to the TDRA mailing list during the consultation was sent
- A copy of the newsletter has been shared with Local Authority (LA) comms depts.
- Hard copies of the newsletter will be distributed to local community centres and libraries – available at the **Bridgelink Community Centre**
- We have written to other key stakeholders
- Letter from Chris Weston to MPs

- A reminder: Autumn Public Information Events to follow- these will include further details and explanation to the changes
- Communications with new and existing residents



NEWSLETTER

TEDDINGTON DIRECT RIVER
ABSTRACTION PROJECT UPDATE

SUMMER
2024

ISSUE 1



Conor.Loughney@thameswater.co.uk

AOB & Close