

SITE NAME: Mogden STW
DATE: 17/11/2023

ODOUR RISK ASSESSMENT

Process Stage	Process Unit	Applicable Legislation	Normal		Abnormal		Length of Time of Release	Nearest Receiver	Offence/risk (RQ)	Likelihood of Impact (R)	Odour Risk (L=Low, M=Medium, H=High)	Odour Impact	Mitigation Measures	Residual Odour Impact (L=Low, M=Medium, H=High)	Responsibility for Mitigation Measures	Control of Contamination Needed?	Notes
			Odour Description	Control/Intermittent/Occasional Rate	Event Description	Likelihood of Event/Process/Event Planned											
ADD EXTRA ROWS BELOW THIS ROW IF REQUIRED											0						
Works Inlet	East side inlet - Main pumping station including culvert	UWWTd	Sewage	C				Waters Class 4 DNR Inlet 1 & Oak Lane	3	1	3	Low	Enclosure of building at the deployment of Odour Suppression Units	-	-	-	Enclosed building
Works Inlet	East side inlet - Main pumping station including culvert	UWWTd	Sewage		Flooding of the structure and associated pumping capacity	R	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	4	3	12	Medium	Over pumping and backing	L	Event Controller	Y	Partial flooding of Dry Well has occurred in previous Storm Conditions. Routine works to Main Pump Station as part of J10 programme are ongoing to reduce risk.
Works Inlet	East side inlet - Main pumping station including culvert	UWWTd	Raw sewage and H2S		OCU Mechanical Clearance failure	R	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	3	2	6	Medium	Use standby fan and repair the faulty one	L	Operational Head Losses	Y	
Works Inlet	East side inlet - Main pumping station including culvert	UWWTd	Raw sewage and H2S		Planned Preventive Maintenance of OCU	P	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	3	1	3	Low	Planned	L	Technical Coordinator/Plant Manager	N	Monthly servicing undertaken by specialist contractor resource (details available upon request)
Works Inlet	East side - Cass report facility	EPN & UWWTd	Class	I				Waters Class 4 DNR Inlet 1 & Oak Lane	3	1	3	Low	Availability of Wash-down hose and Cass Report driven braked. Available to implement emergency response to mitigate closure of report facility	-	-	-	Numerous breakdowns of stop-coaster observed through summer 2023. Braking issued by Mogden COP as to expect procedural standards in September 2023.
Works Inlet	East side - Cass report facility	EPN & UWWTd	Class		Unbraked vehicle from inlet	R	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	3	1	3	Low	Availability of Wash-down hose and Cass Report driven braked. Available to implement emergency response to mitigate closure of report facility	L	Tech 1	N	Numerous breakdowns of stop-coaster observed through summer 2023. Braking issued by Mogden COP as to expect procedural standards in September 2023.
Works Inlet	West side inlet - Lutter's Cocks & High level flow soft chamber	UWWTd	Sewage	C				Waters Class 4 DNR Inlet 1 & Oak Lane	3	0	0	Low		-	-	-	
Works Inlet	West side inlet - Lutter's Cocks & High level flow soft chamber	UWWTd	Sludge		Flooding of high level flow soft chamber	R	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	3	3	9	Medium	Over pumping and backing	L	Event Controller	Y	The controlled parabolic in the area can be manually operated and additional flow can be treated on the west side of the inlet. Local flow control can be administered to flow from the parabolic inlet.
Storm Separation	Storm Tanks - Feed Channel	UWWTd	Sewage	I				Lutter's Cocks, Borehole Class 4 & Hilary Drive	3	1	3	Low		-	-	-	Local control provided below daily area check sheets.
Storm Separation	Storm Tanks - Feed Channel	UWWTd	Sewage, sludge, H ₂ S		Accumulation of H ₂ S and volatile sludge	R	Hours	Lutter's Cocks, Borehole Class 4 & Hilary Drive	4	2	8	Medium	No longer permitted to flush with first effluent under EA Permit. Summer cleaning regime requires to ensure performance of Manager Tanks, ensure safe and standardised with potable water. Reactive Maintenance on AMAs to ensure good asset availability	L	Effluent Performance Management/Process Manager	N	Local control provided below daily area check sheets.
Storm Separation	Storm Tanks	UWWTd	None								0	Low		-	-	-	
Storm Separation	Uncovered Storm Tanks	UWWTd	Sewage		High ammonia	R	Days	Lutter's Cocks, Borehole Class 4 & Hilary Drive	3	3	9	Medium	Daily area checks during plant in operation	L	Process Controller	M	Use of storm tanks is dependent on flow into site.
Storm Separation	Uncovered Storm Tanks	UWWTd	Strong sewage		Unable to return storm tanks	R	Days	Lutter's Cocks, Borehole Class 4 & Hilary Drive	4	3	12	Medium	Over pumping and backing	M	Effluent Performance Manager	N	A failure would likely occur on a single wet weather accumulation impact.
Storm Separation	Uncovered Storm Tanks	UWWTd	Raw sludge, sewage		Jumping failure	R	Hours	Lutter's Cocks, Borehole Class 4 & Hilary Drive	4	3	12	Medium	No longer permitted to flush with first effluent under EA Permit. Summer cleaning regime requires to ensure performance of Manager Tanks, ensure safe and standardised with potable water. Reactive Maintenance on AMAs to ensure good asset availability	M	Effluent Performance Management/Process Manager	Y	Regular Customer Communication as to AMAs maintenance plans and Summer Cleaning Plans.
Storm Separation	East Side Storm Overflow	UWWTd	Sewage	R				Waters Class 4	3	0	0	Low		-	-	-	Covered and odour controlled.
Preliminary Treatment	East Side Screening Handling Plant - Screens	UWWTd	Sewage	C				Waters Class 4 Flaring Way, Oak Lane	3	0	0	Low		-	-	-	Covered and odour controlled.
Preliminary Treatment	East Side Screening Handling Plant - Screens and conveyor	UWWTd	Sewage	C				Waters Class 4 Flaring Way, Oak Lane	3	0	0	Low		-	-	-	Covered and odour controlled.
Preliminary Treatment	East Side Screening Handling Plant - Screens and conveyor	UWWTd	Sewage		Spillage	R	Hours	Waters Class 4 Flaring Way, Oak Lane	3	2	6	Medium	Hoisting area down and clear up	L	Effluent Performance Manager	N	
Preliminary Treatment	East Side Screening Handling Plant - Slips	UWWTd	Sewage / Rag	C				Waters Class 4 Flaring Way, Oak Lane	2	0	0	Low		-	-	-	Enclosed slips and odour control plant.
Preliminary Treatment	East Side Screening Handling Plant - Slips	UWWTd	Sewage / Rag		Changing slips	P	Hours	Waters Class 4 Flaring Way, Oak Lane	2	1	2	Low	Clearing during slip change. Utilise Odour Suppression Units in event of significant spillage	L	Effluent Performance Manager	N	Slip change will be completed within minutes. The rag present would have been disposed.
Preliminary Treatment	West Side Screening Handling Plant - Screens	UWWTd	Sewage	C				Waters Class 4 DNR Inlet 1 & Oak Lane	3	0	0	Low		-	-	-	Covered and odour controlled.
Preliminary Treatment	West Side Screening Handling Plant - Screens	UWWTd	Sewage & Rag		Rejection of slips due to high water content. Manual degradation of performance of wastewater	R	Hours	Waters Class 4 DNR Inlet 1 & Oak Lane	3	4	12	High	Slips drain slip to reduce water content	M	Effluent Performance Manager	N	

Preliminary Treatment	West Side Screening Handing Plant - Washpans	UWWT	Sewage		Slippage	R	Hours	Waters Road, O&R Isobath & Oak Lane	3	2	0	Low	Shoring area down and clear up	Utilise O&R Suppressant Units in event of repeat slip	L	Effluent Performance Manager	N				
Preliminary Treatment	West Side Domestic Handing Plant - Slips	UWWT	Rag	C				Waters Road, O&R Isobath & Oak Lane	2	0	0	Low							Enclosed slips and odour control plant		
Preliminary Treatment	West Side Screening Handing Plant - Slips	UWWT	Rag		Changing slips	P	Hours	Waters Road, O&R Isobath & Oak Lane	2	1	2	Low	Clear rag during slip change	Utilise O&R Suppressant Units in event of repeat slip	L	Effluent Performance Manager	N		Slip storage will be completed within 15mins. The rag present would have been disposed.		
Preliminary Treatment	East Side Screenings Handing - Conveyor stone trap	UWWT	Sewage	C				Waters Road, O&R Isobath & Oak Lane	1	0	0	Low							Dry stones from the screen process.		
Preliminary Treatment	West Side Screenings Handing - Screen under stone trap	UWWT	Sewage	C				Waters Road, O&R Isobath & Oak Lane	2	1	2	Low									
Preliminary Treatment	East Side Grit Removal - Grit Channels	UWWT	Sewage, grit	C				Waters Road & O&R Isobath & Oak Lane	3	0	0	Low								Covered and odour controlled.	
Preliminary Treatment	East Side Grit Removal - Grit Channels	UWWT	Sewage, grit		Channel out of service	P	Days	Waters Road & O&R Isobath & Oak Lane	3	0	0	Low	Empty and clean channel		L	Plant Performance Manager	N			Covered and odour controlled.	
Preliminary Treatment	East Side Grit Removal - Dredger	UWWT	Sewage, grit		Failure	R	Days	Waters Road & O&R Isobath & Oak Lane	3	0	0	Low	Use tanker to empty channel		L	Plant Performance Manager	N				
Preliminary Treatment	East Side Grit Removal - Dredger	UWWT	Sewage, grit		Maintenance	P	Hours	Waters Road & O&R Isobath & Oak Lane	3	0	0	Low	East OCU in operation	Utilise O&R Suppressant Units.	L	Plant Performance Manager	N				
Preliminary Treatment	East Side Grit Removal - Grit Channels (including return square)	UWWT	Sewage, grit	C				Waters Road & O&R Isobath & Oak Lane	3	1	3	Low									
Preliminary Treatment	East Side Grit Removal - Grit Channels (including return square)	UWWT	Sewage, grit		Failure	R	Weeks	Waters Road & O&R Isobath & Oak Lane	3	1	3	Low	Use one of the other two available classifiers. Maintenance resources to fix the other.		L	Maintenance Manager	N				
Preliminary Treatment	East Side Grit Removal - Grit Channels (including return square)	UWWT	Sewage, grit		Maintenance	P	Hours	Waters Road & O&R Isobath & Oak Lane	3	1	3	Low	Use one of the other two available classifiers. Maintenance resources to fix the other.		L	Maintenance Manager	N				
Preliminary Treatment	East Side Grit Removal - Grit Slips	UWWT	Grit	C				Waters Road & O&R Isobath & Oak Lane	2	0	0	Low								Covered and odour controlled.	
Preliminary Treatment	East Side Grit Removal - Grit Slips	UWWT	Grit		Slip change	P	Hours	Waters Road & O&R Isobath & Oak Lane	2	1	2	Low	Clear and wash down area		L	Effluent Performance Manager	N				
Preliminary Treatment	West Side Grit Removal - Directors / Conflow grit trap	UWWT	Sewage, grit	C				Waters Road & Oak Lane	2	1	2	Low		N							
Preliminary Treatment	West Side Grit Removal - Directors / Conflow grit trap	UWWT	Sewage, grit		Failure	R	Weeks	Waters Road & Oak Lane	2	1	2	Low	Use one of the other two available Directors. Maintenance resources to fix the other.		L	Maintenance Manager	N				
Preliminary Treatment	West Side Grit Removal - Directors / Conflow grit trap	UWWT	Sewage, grit		Maintenance	P	Hours	Waters Road & Oak Lane	2	1	2	Low	Use one of the other two available Directors. Maintenance resources to fix the other.		L	Maintenance Manager	N				
Preliminary Treatment	West Side Grit Removal - Slips	UWWT	Grit	C				Waters Road & Oak Lane	2	0	0	Low								Covered and odour controlled.	
Preliminary Treatment	West Side Grit Removal - Slips	UWWT	Grit		Slip change	P	Hours	Waters Road & Oak Lane	2	1	2	Low	Clear and wash down area		L	Effluent Performance Manager	N				
Preliminary Treatment	East and West individual Slips for housewiring	UWWT	Rag, grit	I				Waters Road, Oak Lane, Waters Road, O&R Isobath & Oak Lane	2	1	2	Low								Slips are covered.	
Crude Sewage Transfer	West Side screw pumps	UWWT	Sewage	C				Waters Road & Oak Lane	3	0	0	Low									Covered and odour controlled.
Crude Sewage Transfer	West Side screw pumps	UWWT	Sewage		Failure	R	Weeks	Waters Road & Oak Lane	3	0	0	Low	Utilise the other available Screw Pumps	Utilise Overpumping to Screen Screw Pumps	L	M&E	N				
Primary Settlement	East Side - Primary Settlement Tanks	UWWT	Settled sewage	C				Oak Lane, Waters Road, Flamingo Way, Lynton Close	3	0	0	Low									Covered and odour controlled.
Primary Settlement	East Side - Primary Settlement Tanks	UWWT	Settled sewage		Roof / panel storage through impact or weather	R	Days	Oak Lane, Waters Road, Flamingo Way, Lynton Close	3	2	0	Medium	Chasing down and clearing of affected area while repair are undertaken		L	Technical Coordinator	Y			Highly unlikely to occur	

Primary Settlement	East Side - Primary Settlement Tanks	UWWTd	Settled sewage / Raw sludge		Tank drained down for maintenance	P	Days	Old Lane, Womersley Close, Fleming Way, Lynton Close	3	0	0	Low	Wash out tank as soon as needed down to remove sludge deposits	L	Tank 1 / 12	N	
Primary Settlement	West Side - Circular Primary Settlement Tanks (9 - 12)	UWWTd	Settled sewage	C				Half Road, Womersley Close, Womersley Hall, Oak Lane	3	1	3	Low		-	-	-	Uncovered tanks.
Primary Settlement	West Side - Circular Primary Settlement Tanks (9 - 12)	UWWTd	Settled sewage / Raw sludge		Inability to discharge tanks due to pump failure	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	3	2	6	Medium	Replace pumps	L	Plant Performance Manager	N	
Primary Settlement	West Side - Circular Primary Settlement Tanks (9 - 12)	UWWTd	Settled sewage / Raw sludge		Bridge / Scupper failure	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	3	2	6	Medium	Check and repair of the float will take longer than 48 hours, when after float tank down	L	Plant Performance Manager	N	
Primary Settlement	West Side - Circular Primary Settlement Tanks (9 - 12)	UWWTd	Settled sewage / Raw sludge		Tank drained down as tank level discharge valve	P	Hours	Half Road, Womersley Close, Womersley Hall, Oak Lane	3	2	6	Medium	Wash out tank as soon as needed down to remove sludge deposits	L	Plant Performance Manager	N	
Primary Settlement	West Side - Circular Primary Settlement Tanks (9 - 12)	UWWTd	Settled sewage / Raw sludge		Low level discharge valve failure when draining tank down	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	3	2	6	Medium	Overhauling of tank contents, clean down and clean tank	L	Plant Performance Manager	N	
Primary Settlement	West Side Circular Primary Settlement Tanks (9-12) - Sluam Removal System	UWWTd	Fat	C				Old Lane, Womersley Close, Fleming Way, Lynton Close	2	1	2	Low		-	-	-	
Primary Settlement	West Side Circular Primary Settlement Tanks (9-12) - Sluam Removal System	UWWTd	Fat		Failure of sluam removal system	R	Hours	Half Road, Womersley Close, Womersley Hall, Oak Lane	2	2	4	Low	Repair and flush down surface if required	L	Effluent Performance Manager	N	
Primary Settlement	West Side - Primary Settlement Tanks (13-21)	UWWTd	Settled sewage	C				Half Road, Womersley Close, Womersley Hall, Oak Lane, Womersley Close	3	0	0	Low		-	-	-	Covered and odour controlled
Primary Settlement	West Side - Primary Settlement Tanks (13-21)	UWWTd	Settled sewage / Raw sludge		Roof panel damage through impact or weather	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	3	2	6	Medium	Chasing down and clearing of affected tank while repairs are undertaken	L	Effluent Performance Manager	Y	Very unlikely to occur
Primary Settlement	West Side - Primary Settlement Tanks (13-21)	UWWTd	Settled sewage / Raw sludge		Tank drained down for maintenance	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane, Womersley Close	3	0	0	Low	Wash out tank as soon as needed down to remove sludge deposits	L	Plant Performance Manager	N	
Primary Settlement	West Side Primary Settlement Tanks (13-21) - Sluam Removal System	UWWTd	Fat	C				Half Road, Womersley Close, Womersley Hall, Oak Lane, Womersley Close	2	1	2	Low		-	-	-	
Primary Settlement	West Side Primary Settlement Tanks (13-21) - Sluam Removal System	UWWTd	Fat		Failure of sluam removal system	R	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane, Womersley Close	2	2	4	Low	Repair and flush down surface if required	L	Effluent Performance Manager	N	
Settled Sewage Transfer	East Side - Flow & Distribution to Secondary Treatment	UWWTd	Settled sewage	C				Old Lane, Womersley Close, Fleming Way, Lynton Close	3	0	0	Low		-	-	-	Underground channels.
Settled Sewage Transfer	West Side Primary Settlement Tanks (9-12) - Flow & Distribution to Secondary Treatment	UWWTd	Settled sewage	C				Half Road, Womersley Close, Womersley Hall, Oak Lane	3	0	0	Low		-	-	-	Underground channels.
Settled Sewage Transfer	West Side Primary Settlement Tanks (13-21) - Flow & Distribution to Secondary Treatment	UWWTd	Settled sewage	C				Half Road, Womersley Close, Womersley Hall, Oak Lane, Womersley Close	3	0	0	Low		-	-	-	Covered / Odour controlled
Secondary Treatment	East Side - Activated Sludge Plant Lanes & Zones	UWWTd	Early	C				Lynton Close, Bardsley Close, Hilary Drive	2	1	2	Low		-	-	-	
Secondary Treatment	West Side - Activated Sludge Plant Lanes & Zones	UWWTd	Early	C	Lane drained down	P	Days	Lynton Close, Bardsley Close, Hilary Drive	2	2	4	Low	Have down tanks immediately after drain down	L	Plant Performance Manager	N	
Secondary Treatment	West Side - Activated Sludge Plant Lanes & Zones	UWWTd	Early	C	Lane drained down	P	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	2	1	2	Low		-	-	-	
Secondary Treatment	West Side - Activated Sludge Plant Lanes & Zones	UWWTd	Early	C	Lane drained down	P	Days	Half Road, Womersley Close, Womersley Hall, Oak Lane	2	2	4	Low	Have down tanks immediately after drain down	L	Plant Performance Manager	N	
Secondary Treatment	East Side - Flow & Distribution to Secondary Settlement (PST)	UWWTd	Early	C				Lynton Close, Bardsley Close, Hilary Drive	2	1	2	Low		-	-	-	
Secondary Treatment	East Side - Flow & Distribution to Secondary Settlement (PST)	UWWTd	Early	C	Surface slum accumulation	P	Weeks	Lynton Close, Bardsley Close, Hilary Drive	2	1	2	Low	Have down surface	L	Effluent Performance Manager	N	
Secondary Treatment	West Side - Flow & Distribution to Secondary Settlement (PST)	UWWTd	Early	C				Half Road, Womersley Close, Womersley Hall, Oak Lane	2	1	2	Low		-	-	-	
Secondary Treatment	West Side - Flow & Distribution to Secondary Settlement (PST)	UWWTd	Early	C	Surface slum accumulation	P	Weeks	Half Road, Womersley Close, Womersley Hall, Oak Lane	2	1	2	Low	Have down surface	L	Effluent Performance Manager	N	
Secondary Settlement	East Side - Final Settlement Tanks	UWWTd	Final effluent	C				Moghan Lane, Beaumont Close, Hilary Drive, Bardsley Close and Womersley Close	0	0	0	Low		-	-	-	
Secondary Settlement	East Side - Final Settlement Tanks	UWWTd	Early	C	Drained down and not washed out	P	Hours	Moghan Lane, Beaumont Close, Hilary Drive, Fleming Way, Bardsley Close and Womersley Close	2	1	2	Low	Have down tanks immediately after drain down	L	Effluent Performance Manager	N	

Secondary Settlement	East Side - Final Settlement Tanks	UWWTd	Earthy		Scummers failure leading to build up of sludge on the surface	R	Hours	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court and Havers Close	2	1	2	Low	Drain down tanks and hose down sludge	L	Effluent Performance Manager	N	
Secondary Settlement	West Side - Final Settlement Tanks	UWWTd	Final effluent	C					0	0	0	Low		-	-	-	
Secondary Settlement	West Side - Final Settlement Tanks	UWWTd	Earthy		Channelled down and not washed out	P	Hours	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court and Havers Close	2	1	2	Low	Flow down tanks and wash out after drain down	L	Effluent Performance Manager	N	
Secondary Settlement	West Side - Final Settlement Tanks	UWWTd	Earthy		Scummers failure leading to build up of sludge on the surface	R	Hours	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court and Havers Close	2	1	2	Low	Drain down tanks and hose down sludge	L	Effluent Performance Manager	N	
Secondary Settlement	R40 Chambers & Pumping	UWWTd	Earthy	C				Half Road, Beckenham, Clive, Warrington Close	2	1	2	Low		-	-	-	
Secondary Settlement	R40 Chambers & Pumping	UWWTd	Earthy		Crust due to air being sucked before	R	Hours	Half Road, Beckenham, Clive, Warrington Close	2	1	2	Low	Flow down to break the crust	L	Effluent Performance Manager	N	
Secondary Settlement	S40 Chambers & Pumping	UWWTd	Earthy	C				Half Road, Beckenham, Clive, Warrington Close	2	1	2	Low		-	-	-	
Secondary Settlement	S40 Chambers & Pumping	UWWTd	Earthy		Crust due to air being sucked before	R	Hours	Half Road, Beckenham, Clive, Warrington Close	2	1	2	Low	Flow down to break the crust	L	Effluent Performance Manager	N	
Final Effluent		UWWTd	None						0	0	0	Low		-	-	-	
Sludge Imports	Sludge Import Reception Tank	EPN	Raw sludge	I				Whitton Dams, Beckenham, Clive	4	0	0	Low		-	-	-	Covered and odour controlled
Sludge Imports	Sludge Import Reception Tank	EPN	Raw sludge		Spillages	R	Hours	Whitton Dams, Beckenham, Clive	4	1	4	Low	Availability of Wash down hose and Cast Iron door covers installed Availability to replacement straps to mitigate source of import facility	L	Plant Manager Sludge Unit	Y	Conduct EHO and issue email notification
Sludge Imports	Sludge Import Screening facility	EPN	Raw sludge	I				Whitton Dams, Beckenham, Clive	4	0	0	Low		-	-	-	Covered and odour controlled
Sludge Imports	Sludge Import Screening facility	EPN	Raw sludge		Blockages	R	Hours	Whitton Dams, Beckenham, Clive	4	1	4	Low	SCADA monitoring of screens Unblock screens	L	Plant Manager Sludge Unit	N	Screens currently not in use (Nov 2023) as most screenings. Screens likely does not have impact on odour produced. Sludge being removed to recondition and bring back into service.
Sludge Imports	Sludge Import Screening facility	EPN	Raw sludge		Maintenance	P	Hours	Whitton Dams, Beckenham, Clive	4	1	4	Low	Around of time during which screens to open to be kept to a minimum	L	Technical Coordinator	N	
Sludge Imports	Slip Management	EPN	Sludge and rag	I				Whitton Dams, Beckenham, Clive	4	1	4	Low		-	-	-	Covered but odour controlled
Sludge Imports	Slip Management	EPN	Sludge and rag		Overflowing	R	Days	Whitton Dams, Beckenham, Clive	4	1	4	Low	Transfer spilled rag into another slip and cover	L	Sludge/Screening Manager	N	
Sludge Conditioning (Indigenous)	Primary sludge buffer tanks	EPN	Raw sludge	C				Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court	4	0	0	Low	Odour controlled via OCU	-	-	-	Covered and odour controlled
Sludge Conditioning (Indigenous)	Primary sludge buffer tanks	EPN	Raw sludge		Overflowing of tank due to probe failure	R	Hours	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court	4	2	8	Medium	Wash down sludge to avoid overflow	L	Team Manager	Y	Conduct EHO and issue email notification
Sludge Conditioning (Indigenous)	Primary sludge buffer tanks	EPN	Raw sludge		Watch left open	R	Hours	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court	4	1	4	Low	Close hatch	L	Plant Manager Sludge Unit	N	
Sludge Conditioning (Indigenous)	Sludge Thickening & Pumping - Thickened sludge buffer tank	EPN	Thickened sludge	C				Whitton Dams and Beckenham, Clive	4	0	0	Low		-	-	-	Covered and odour controlled
Sludge Conditioning (Indigenous)	Sludge Thickening & Pumping - Thickened sludge buffer tank	EPN	Thickened sludge		Spillages	R	Hours	Whitton Dams and Beckenham, Clive	4	1	4	Low	Wash down area	L	Sludge/Screening Manager / Sludge Unit	N	
Sludge Conditioning (Indigenous)	Sludge Thickening & Pumping - Thickened sludge buffer tank	EPN	Thickened sludge		Watch left open	R	Hours	Whitton Dams and Beckenham, Clive	4	1	4	Low	Close hatch	L	Plant Manager Sludge Unit	N	
Sludge Conditioning (Indigenous)	Return Liquors	EPN	Subphuric	C				Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court	4	0	0	Low		-	-	-	Underground pipe.
Sludge Conditioning (Indigenous)	Return Liquors	EPN	Subphuric		PE 16 not in operation	P	Months	Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court	4	1	4	Low	None	L	-	N	The return liquors go back to the PST1 to the site change instead of the return pipe. Requires additional site investigation by Operational Support Liaison to verify drainage routes.
Sludge Treatment	Pasteurisation units	EPN	Hot thickened sludge	C				Whitton Dams and Beckenham, Clive	5	0	0	Low		-	-	-	Covered and vented via an OCU.
Sludge Treatment	Pasteurisation units	EPN	Hot thickened sludge		Overflowing (subphuric) when	R	Hours	Whitton Dams and Beckenham, Clive	5	2	10	Medium	Sludge level sensors and hose down local drainage	L	Sludge/Screening Manager / Sludge Unit	Y	
Sludge Treatment	Pasteurisation units	EPN	Hot thickened sludge		Planned Preventive Maintenance	P	Hours	Whitton Dams and Beckenham, Clive	5	0	0	Low	Odour controlled via OCU	-	-	N	
Sludge Treatment	Pasteurisation units	EPN	Hot thickened sludge		Drain down of all pasteurisation units	P	Hours	Whitton Dams and Beckenham, Clive	5	2	10	Medium	Flush gutters and monitor area	L	Sludge/Screening Manager / Sludge Unit	Y	
Sludge Treatment	Pasteurised sludge buffer tanks	EPN	Hot thickened sludge	C				Whitton Dams, Beckenham, Clive, Glen Walk, Amers Court and Rugby Road	3	0	0	Low		-	-	-	Covered and vented via OCU.

Sludge Treatment	Primary Digestion	EPH	Digested sludge	C						White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	3	0	Medium	Enclosed process. Area well fenced and general maintenance/hauling required.					24h management of the area and of the CHP engines to maintain fuel heights to accessible levels. Weekly housekeeping with undertaken by Operational Impact Liaison and Council Enforcement Officer to advise Digester Staff.
Sludge Treatment	Primary Digestion	EPH	Biogas, H2S		Release of biogas from Digester tanks	R	Hours			White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	3	0	Medium	Turn area CHP on to blow down the gas filter and seal beam digester	M	Bofficecum Manager / Sludge unit	N	24h management of the area and of the CHP engines to maintain fuel heights to accessible levels. Weekly housekeeping with undertaken by Operational Impact Liaison and Council Enforcement Officer to advise Digester Staff.	
Sludge Treatment	Primary Digestion	EPH	Digested sludge		Spillages	R	Hours			White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	3	0	Medium	Turn area CHP on to blow down the gas filter and seal beam digester	M	Bofficecum Manager / Sludge unit	N	Consider EPH notification if spillage is of large quantity	
Sludge Treatment	Primary Digestion	EPH	Digested sludge		Effluent valve failure leading to release of biogas from vessels	R	Hours			White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	3	0	Medium	Isolate the digester / Turn area CHP on to blow down the gas filter and seal beam digester	M	Bofficecum Manager / Sludge unit	N	Consider EPH notification if gas releases is of large quantity	
Sludge Treatment	Primary Digestion	EPH	Digested sludge		Flaring unit digester	P	Hours			White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	3	0	Medium	Direct flow to other digester	M	Bofficecum Manager / Sludge unit	N		
Sludge Treatment	Digested Sludge Buffer Tank	EPH	Digested sludge	C						Havelock, Class, Glen Walk, Ansett, Coopers, White Deer and Havelock Close	3	0	0	Low					Covered and vented on OCU	
Sludge Treatment	Digested Sludge Buffer Tank	EPH	Digested sludge		Checkling leading to spillages	R	Hours			Havelock, Class, Glen Walk, Ansett, Coopers, White Deer and Havelock Close	3	1	3	Low	Clean up area / First clean and receive	L	Bofficecum Manager / Sludge unit	N	Consider EPH notification if spillage is of large quantity	
Sludge Treatment	Contingency storage tank	EPH	None	C						Havelock, Class, Glen Walk and Warrington Close	0	0	0	Low						
Sludge Treatment	Contingency storage tank	EPH	Digested sludge		See South IDC pumping failure	R	Days			White Deer, Class, Glen Walk and Warrington Close	3	5	10	High	See emergency holding tank and repair team	M	Control of Plantroom	Y	EPH to be contacted. Significant Tankering Operation would be required	
Sludge Dewatering	Sludge Activated Sludge Thickening & Pumping - Gravity Belt Thickener (SSTF)	EPH	SAS	C						White Deer and Havelock Close	3	0	0	Low					GSF's located in indoor controlled building	
Sludge Dewatering	Sludge Activated Sludge Thickening & Pumping - Gravity Belt Thickener (SSTF)	EPH	SAS	C	Spillages					White Deer and Havelock Close	3	0	0	Low	Clean up area / First cause and receive	L	Bofficecum Manager / Sludge unit	N	In indoor controlled building and drum trimmers are indoor controlled	
Sludge Dewatering	Primary Raw Sludge Thickening & Pumping - Drum Thickeners	EPH	Raw sludge	C						White Deer and Havelock Close	4	0	0	Low					In indoor controlled building and drum trimmers are indoor controlled	
Sludge Dewatering	Liquor Return	EPH	Centrate	C						Localised on site	4	0	0	Low					Underground pipes	
Sludge Dewatering	See South Main	EPH	Digested sludge	I						Hill Road	3	0	0	Low					Underground pipes	
Sludge Dewatering	See South Main	EPH	Digested sludge		Pipe burst	R	Days			Hill Road	3	5	10	High	Stop pumping sludge to see South IDC and clean up area	L	Control of Plantroom	Y	EPH to be contacted. Significant Tankering Operation would be required	
Biogas Systems	Biogas Compressor	EPH	Biogas	C						Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	5	0	0	Low					Enclosed in hoods.	
Biogas Systems	Biogas Compressor	EPH	Biogas		Biogas leak	R	Hours			Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	5	2	10	Medium	Shut down affected compressor and test standby unit leak test	L	Bofficecum Manager / Sludge unit	N		
Biogas Systems	CHP	EPH	None							Localised on site			0	Low					Enclosed in power house.	
Biogas Systems	Flare stack	EPH	None	R						White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	0	0	0	Low						
Biogas Systems	Flare stack	EPH	Biogas		Failure to ignite	R	Hours			White Deer, Havelock, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	5	5	20	High	Immediately engage suppliers daily sufficient level of alternative "Waste" Gas Burner	L	Control of Plantroom	Y	Contact EA and issue email notification	
Biogas Systems	Boilers	EPH	None	C						Localised on site	0	0	0	Low					Enclosed in boiler house.	
Power Generation	Standby Generator	EPH	None	D						None	0	0	0	Low					Planned Preventive Maintenance carried out monthly.	
Power Generation	Power Management System (PMS/SCADA)	EPH	None	C						None	0	0	0	Low						
Power Generation	Power Management System (PMS/SCADA) use of Standby Generators	EPH	Various		Failure	R	Days			None	40	2	3	0	Medium	Use temporary generators	L	Control of Plantroom	Y	Manual Calculation Permitting work to be installed of extensive use of generators. Customers only to be contacted where use of standby generators in "Normal Mode" is unapproved.
Other Control Packages	Main pumping station OCU (Boilers)	UWWTD	None	C						Oak Lane, Woburns, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	1	1	1	Low						
Other Control Packages	Main pumping station OCU (Boilers)	UWWTD	H2S		Electrical / Mechanical fault	R	Hours			Oak Lane, Woburns, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	3	1	3	Low	Use standby for and repair the faulty one	L	Operational Impact Liaison	Y	An vented out of the pumping station and well. If a full shut down is required email notification will be sent to customers.	
Other Control Packages	Main pumping station OCU (Boilers)	UWWTD	H2S		Deamination of media	R	Months			Oak Lane, Woburns, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	4	3	12	Medium	Replace media	L	Operational Impact Liaison	N		
Other Control Packages	Main pumping station OCU (Boilers)	UWWTD	None		Planned Preventive Maintenance	P	Hours			Oak Lane, Woburns, Class, Glen Walk, Ansett, Coopers, Magpie Lane and Ruggly Road	0	0	0	Low	Use standby stream	L	Operational Impact Liaison	N	An vented from pumping station and well. If a full shut down is required email notification will be sent to customers.	

Odour Control Packages	OCU 12 (Chemical scrubber) - Sludge Handling	EPH	None	C				Whitin Dens and Packages - Close	1	1	1	Low							
Odour Control Packages	OCU 12 (Chemical scrubber) - Sludge Handling	EPH	HDS		Electrical / Mechanical Issues	R	Hours	Whitin Dens and Packages - Close	3	2	6	Medium	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			All would still vent out of the Odour Control Unit. If a full shut down is required email notification will be sent to customers.
Odour Control Packages	OCU 12 (Chemical scrubber) - Sludge Handling	EPH	HDS		Chemical dosing pump failure	R	Hours	Whitin Dens and Packages - Close	3	2	6	Medium	Switch over to the standby Odour Control Unit	L	Operational Impact Lateral	N			No full shut down required. No email notification will be sent to customers.
Odour Control Packages	OCU 12 (Chemical scrubber) - Sludge Handling	EPH	HDS		Distribution of media	R	Months	Whitin Dens and Packages - Close	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	OCU 12 (Chemical scrubber) - Sludge Handling	EPH	None		Planned Preventive Maintenance	P	Hours	Whitin Dens and Packages - Close	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	East Side OCU (Chemical scrubber)	LWWTd	None	C				Whitens Cloak, Flaming Wing and Whorls - Close	1	1	1	Low							
Odour Control Packages	East Side OCU (Chemical scrubber)	LWWTd	HDS		Electrical / Mechanical Issues	R	Hours	Whitens Cloak, Flaming Wing and Whorls - Close	2	1	2	Low	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	East Side OCU (Chemical scrubber)	LWWTd	HDS		Chemical dosing pump failure	R	Hours	Whitens Cloak, Flaming Wing and Whorls - Close	2	1	2	Low	Switch over to the standby Odour Control stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	East Side OCU (Chemical scrubber)	LWWTd	HDS		Distribution of media	R	Months	Whitens Cloak, Flaming Wing and Whorls - Close	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	East Side OCU (Chemical scrubber)	LWWTd	None		Planned Preventive Maintenance	P	Hours	Whitens Cloak, Flaming Wing and Whorls - Close	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	Transfer Pumping Station OCU (Belljar)	EPH	None	C				Harvesters Cloak, Goss Dink, Arrol, Clack, Whitin Dens and Packages - Close	1	1	1	Low							
Odour Control Packages	Transfer Pumping Station OCU (Belljar)	EPH	HDS		Electrical / Mechanical Issues	R	Hours	Harvesters Cloak, Goss Dink, Arrol, Clack, Whitin Dens and Packages - Close	1	1	1	Low	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	Transfer Pumping Station OCU (Belljar)	EPH	HDS		Distribution of media	R	Months	Harvesters Cloak, Goss Dink, Arrol, Clack, Whitin Dens and Packages - Close	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	Transfer Pumping Station OCU (Belljar)	EPH	None		Planned Preventive Maintenance	P	Hours	Harvesters Cloak, Goss Dink, Arrol, Clack, Whitin Dens and Packages - Close	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	West Side OCU PST	LWWTd	None	C				Whorls - Close	1	1	1	Low							
Odour Control Packages	West Side OCU PST	LWWTd	HDS		Electrical / Mechanical Issues	R	Hours	Whorls - Close	1	1	1	Low	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	West Side OCU PST	LWWTd	HDS		Distribution of media	R	Months	Whorls - Close	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	West Side OCU PST	LWWTd	HDS		Planned Preventive Maintenance	P	Hours	Whorls - Close	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	OCU 11 (West Chemical scrubber)	LWWTd	None	C				Whorls and Tail Road	1	1	1	Low							
Odour Control Packages	OCU 11 (West Chemical scrubber)	LWWTd	HDS		Electrical / Mechanical Issues	R	Hours	Whorls and Tail Road	2	1	2	Low	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	OCU 11 (West Chemical scrubber)	LWWTd	HDS		Chemical dosing pump failure	R	Hours	Whorls and Tail Road	2	1	2	Low	Switch over to the standby Odour Control stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	OCU 11 (West Chemical scrubber)	LWWTd	HDS		Distribution of media	R	Months	Whorls and Tail Road	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	OCU 11 (West Chemical scrubber)	LWWTd	HDS		Planned Preventive Maintenance	P	Hours	Whorls and Tail Road	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	Thickening OCU (Belljar)	EPH	None	C				Whitin Dens and Packages - Close	1	1	1	Low							
Odour Control Packages	Thickening OCU (Belljar)	EPH	HDS		Electrical / Mechanical Issues	R	Hours	Whitin Dens and Packages - Close	3	1	3	Low	Use standby fan and repair the faulty one	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.
Odour Control Packages	Thickening OCU (Belljar)	EPH	HDS		Distribution of media	R	Months	Whitin Dens and Packages - Close	4	3	12	Medium	Replace media	L	Operational Impact Lateral	N			
Odour Control Packages	Thickening OCU (Belljar)	EPH	None		Planned Preventive Maintenance	P	Hours	Whitin Dens and Packages - Close	1	1	1	Low	Use standby stream	L	Operational Impact Lateral	N			If a full shut down is required email notification will be sent to customers.