

Control Room Operations Competence Framework

STATEMENTS	BRONZE	SILVER	GOLD
COMPLY WITH REGULATIONS AND LEGISLATION			
1) INTRODUCTION TO THE LAW	1.1 Work in accordance with the Water Act to ensure compliance. Understand the importance of compliance and report issues of non-compliance	1.1 Know the water act, the reason it exists and the importance of compliance for water utility companies	1.1 Communicate, implement, monitor and review operations to comply with the Water Act
	1.2 Work in compliance with the Data Protection Act (DPA) and understand how it influences how data is stored and protected	1.2 Ensure work is carried out in accordance with the DPA, reporting issues of non-compliance	1.2 Manage control room company data systems
	1.3 Know the company systems that hold sensitive data and the importance of maintaining accurate and controlled data	1.3 Know the company systems that hold sensitive data and the importance of maintaining accurate and controlled data Implement company systems	1.3 Know when and where to seek support and/or expert/legal advice and how is this information is cascaded to the appropriate person
	1.4 Know when and where to seek support and/or expert/legal advice	1.4 Communicate to others the working time directive procedure	1.4 Apply knowledge of how to prepare information in case of prosecution
	1.5 Understand the implications of the working time directive on your working hours		1.5 Manage a breach in data handling including communications to ensure minimum impact on reputation
			1.6 Review, highlight and cascade improvements, updates or mitigation for data protection procedures
2) INTRODUCTION TO THE REGULATORS	2.1 Know who the key regulators are and how they influence the work of the water companies	2.1 Ensure reportable supply demand outage incidents are reported accurately and within agreed timescales	2.1 Maintain robust, productive working relationships with key contacts
	2.2 Identify reportable supply demand balance outage incidents and regulatory bodies who require notification	2.2 Monitor for non-compliance and resolve where possible or ensure issues are appropriately reported	2.2 Review all regulation and regulatory changes and communicate all changes
	2.3 Work in accordance with the key regulations to ensure compliance	2.3 Ensure data remains valid, up to date and in accordance with regulatory and company requirements	2.3 Identify which processes under the regulatory requirements, for both domestic and commercial compensation standards, should be followed
	2.4 Report non-compliance issues within area of responsibility to appropriate person	2.4 Be able to communicate relevant aspects of the regulatory requirements and ensure work is carried out to the required standard	2.4 Communicate, implement, monitor and review operations to comply with the regulatory requirements of DWI/DWQR and EA/SEPA
	2.5 Identify and understand the corporate definition of domestic and commercial compensation standards and their relation to the regulatory requirements	2.5 Understand and communicate the impact on alerts received in the control centre	2.5 Assess and manage the operational response to a quality event to minimise stakeholder impact and protect company reputation
	2.6 Understand the corporate definition of both domestic and commercial compensation standards and how these link into the regulatory requirements	2.6 Monitor for non-compliance or any environmental issues and resolve where possible or ensure issues are appropriately reported	2.6 Manage the working relationship with stakeholders ensure effective and efficient completion of joint ventures
	2.7 Know the compensation payments for service failures relating to loss of supply and sewerage flooding	2.7 Communicate to others the importance of professional working relationships with stakeholders	
	2.8 Understand who the DWI/DWQR are and the EA/SEPA are and how water companies interface with them		
	2.9 Carry out all work in compliance with DWI/DWQR and EA/SEPA		
	2.10 Report non-compliance issues within area of responsibility to appropriate person		
	2.11 Understand the relationship between the water company and Stake holders		
3) COMPLIANCE AND CONSENT	3.1 Awareness of the compliance and consent arrangements for water supply and waste treatment in your organisation. Understand the implications and consequences of non-compliance	3.1 Understand the implications and consequences of non compliance of the consent arrangements for water supply and waste treatment for your organisation	3.1 Communicate, implement, monitor and review the compliance and consent arrangements for water supply and waste treatment within your organisation and implement remedial action where required
	3.2 Utilise approved supply and waste compliance monitoring methods. Understand the functions they perform and consequences of failure	3.2 Ensure approved supply and waste compliance monitoring methods are used. Understand the functions they perform and consequences of failure	3.2 Manage and respond to issues arising due to non-compliance, including making recommendations and ensure details are recorded in full, in line with protocols and procedures
	3.3 Report non-compliance issues within area of responsibility to appropriate person	3.3 Know how compliance and consent monitoring tools work and how they fit together, the mitigation routes that can be taken and the impact of consent failure	3.3 Manage internal and external stakeholder relationships
		3.4 Respond to a breach of a consent. Take appropriate steps to ensure a robust escalation and response	3.4 Implement compliance and consent monitoring tools and take appropriate mitigation routes to minimise the impact
		3.5 Monitor for non-compliance or any environmental issues and resolve where possible or ensure issues are appropriately reported	3.5 Plan, communicate, implement, monitor and review a strategic response to a breach of a consent. Evaluate and implement a robust escalation and response process, and management of stakeholder impact
			3.6 Manage and resolve non-compliance /environmental issues
4) SECURITY AND EMERGENCY MEASURES DIRECTION (SEMD)	4.1 Understand the drivers for SEMD, government threat levels and their meaning for both the water industry and the UK.	4.1 Ensure approved supply and waste compliance monitoring methods are used. Understand the functions they perform and consequences of failure	4.1 Communicate, implement, monitor and review the SEMD threat levels, responding appropriately and swiftly to any changes in threat level
	4.2 Know what the CNI/Water framework is and how they are impacted on	4.2 Ensure emergency and escalation procedures are carried out in accordance with approved procedures	4.2 Ensure all work is carried out in line with regulatory requirements, managing and reporting any issues of non-compliance
	4.3 Understand the purpose of the regulatory requirements for the construction standards of alarm monitoring centre (AMC) and other security mitigation and carry out all work in line with regulatory requirements, reporting any issues of non-compliance within area of responsibility and to the appropriate person		4.3 Manage the emergency and escalation procedure, ensuring they are carried out in accordance with approved procedures
	4.4 Understand the possible impacts to water supplies and demand balance following a third party action		
	4.5 Know the emergency procedures and escalation procedures relating to all SEMD incidents including those affecting all key supply and demand sites		
REMOTE ASSET MONITORING AND CONTROL			

5) SCADA, TELEMETRY AND ALARM MANAGEMENT	5.1 Understand the purpose and principles of SCADA and telemetry systems. work supervised in line with company procedures and service level agreements	5.1 Understand the purpose and principles of SCADA and telemetry systems including: the process of changing alarm levels; the purpose for alarm priorities, set points and when and how they need to be changed simple triage and maintenance; the impact on the business and the stakeholders of any change	5.1 Communicate, implement, manage, monitor and review the remote operation of assets in line with company procedures and service level agreements. Understand the business and regulatory impact and risk of not meeting telemetry alarm service level agreements. Be aware of the configuration of the telemetry system between site and the control room
	5.2 Gather alarm data and history and triage telemetry alarms in line with level of expertise/responsibility. Seek advice when unable to carry out triage successfully. Implement curative actions based on analysis of data	5.2 Resolve issues where possible and escalate within the 'control room' environment when the problem cannot be resolved	5.2 Carry out a detailed analysis of a variety of data sources on alarms that are triggering operational issues and make decisions following review to manage the issues. Understand how waste low flow and supply and demand balance alarm are triaged
	5.3 Be able to identify and allocate an alarm to the appropriate person and confirm details of the situation indicated by the alarm conditions	5.3 Carry out trend analysis and historic data analysis in order to provide solutions	5.3 Understand the criteria of an emergency supply or waste situation presented via the telemetry system, its escalation and corrective actions
	5.4 Understand and carry out when necessary the telemetry escalation process	5.4 Ensure curative work is carried out in accordance with approved procedures and confirm curative action has had desired effect	5.4 Understand the causes, impact and risks in the event of the loss of telemetry and carry out mitigation measures in the event of a loss
	5.5 Carry out curative work to approved standards and confirm action has had required effect	5.5 Understand staff availability impact when attending high level alarms	5.5 Make, communicate and provide a variety of solutions on escalated issues
	5.6 Understand staff availability impact when attending high level alarms	5.6 Configure alarm view lists appropriate to the needs of the control room user	5.6 Carry out a detailed analysis of alarm data and make decisions following review on alarm history, trend, previous issues
	5.7 Define security action alarms and their purpose	5.7 Define security action alarms and their purpose and likely causes	5.7 Make decisions associated with all data streams including stakeholder, weather, incidents
6) PROACTIVE NETWORK AND REMOTE MONITORING	6.1 Understand the principles of network monitoring for water supply and waste water in own area of work	6.1 Understand the principles of network monitoring for water supply and waste water in own area of work including why and how the network is monitored	6.1 Understand the methodology and business process network monitoring for water supply and waste water and how changes can impact on the stakeholder
	6.2 Action alarms, alerts and tasks based on predetermined priorities/procedures and service level agreements	6.2 Understand and communicate the risks associated with the work and the escalation process to others	6.2 Communicate, implement, manage, monitor and review network and remote monitoring in line with company procedures and service level agreements
	6.3 Understand the risks associated with the work being undertaken and the escalation process	6.3 Carry out a hydraulic assessment in order to provide outcomes and/or solutions	6.3 Communicate decisions on escalation issues, provide solution for escalation scenarios
		6.4 Understand and work within service level agreements	6.4 Make changes to set points, understanding the impact on the business and stakeholders
		6.5 Assess risk based on hydraulic/WQ/ customer parameters, understanding consequences	6.5 Carry out a detailed analysis of a variety of data sources, stakeholder contact/WQ and make decisions following review on history, trend, previous issues to contain incidents
		6.6 Carry out trend analysis and historic data analysis and provide solutions to deliver best outcomes	6.6 Understand and carry out hydraulic modeling
			5.9 Define security action alarms, their purpose, likely causes and escalation procedure
7) NETWORK MONITORING CRITICAL PRESSURE POINTS (CPPs)	7.1 Understand CPPs and their functional purpose	7.1 Understand CPPs and their functional purpose, the types of signals and data expected from this type of asset	7.1 Communicate, implement, manage, monitor and review network monitoring CPPs in line with company procedures and service level agreements
	7.2 Know the company procedures for asset excursion management	7.2 Understand and communicate the contingency measures for operations outside GSS	7.2 Communicate the company procedures for asset management
		7.3 Make recommendations to ensure the business approach to issues with CPPs remains appropriate and robust	7.3 Communicate, implement, monitor and review contingency plans
			7.4 Ensure the business approach to issues with CPPs remains appropriate and robust. Understand the factors that have to be taken into account and the physical and geographical constraints
8) REMOTE OPERATION OF ASSETS	8.1 Understand the remote operation of pumps, valves and treatment processes	8.1 Monitor the remote operation of pumps, valves and treatment processes	8.1 Communicate, implement, manage, and review the remote operation of assets in line with company procedures and service level agreements
	8.2 Carry out all work in line with company procedures and service level agreements	8.2 Communicate the company procedures and service level agreements for the remote operation of pumps, valves and treatment processes	
	8.3 Understand the escalation procedures	8.3 Understand and activate the contingency measures for operations outside the company procedures and service level agreement	
DEVIATION FROM NORMAL OPERATIONS			
9) INCIDENT MANAGEMENT - GENERAL	9.1 Understanding your companies incident categorisation. And how they are implemented	9.1 Understand and communicate the escalation procedures within your team and organisation	9.1 Communicate, implement, manage, monitor and review the continuity and incident plans for the business - including escalation, teams, stakeholder communications, customers, interruption to supply, alternative water supply, waste tankering
	9.2 Understand the purpose of continuity and emergency planning in the water industry	9.2 Monitor the escalation levels within your team and organisation	9.2 Communicate, invoke and manage a business continuity plan and ensure copies are available
	9.3 Know where to access business continuity documentation and identify contingency measures and resources	9.3 Understand your role requirements in providing information and data to the incident team	9.3 Communicate, implement, manage, monitor and review the continuity and incident plans for the business - including escalation, teams, stakeholder communications, customers, interruption to supply, alternative water supply, waste tankering
	9.4 Know the escalation levels and procedures within your team and organisation	9.4 Understand the relationship with key regulatory stakeholders and how an activation of an incident can affect the business. Liaise and manage relationships with key stakeholders including emergency services	9.4 Support, review or manage an incident management team
	9.5 Understand when an incident management team would be formed	9.5 Understand the importance of timescales and trigger points during an incident and the importance of collating data, information and situation reports	9.5 Develop, manage and maintain effective relationships with regulatory stakeholders
	9.6 Work within the incident management team when required	9.6 Understand the relationship between asset failure and stakeholder impact and operational control and call centre	9.6 Communicate, implement, monitor and review contingency plans
	9.7 Understand the relationship with key regulatory stakeholders and how an activation of an incident can affect the business	9.7 Manage information being fed back to call taking staff	9.7 Know the external stakeholders to contact regarding weather events which may have a negative impact on the business and stakeholders including the reasons they would be contacted
	9.8 Understand the importance of timescales and trigger points during an incident and the importance of collating data, information and situation reports	9.8 Know the governance that is in place to ensure adequate risk management for all supply and waste networks	9.8 Know when contingency measures/resources need to be implemented due to the identification of an impact of the weather
	9.9 Understand the relationship between asset failure and stakeholders impact and operational control and call centre	9.9 Communicate the relevant elements of the procedures and the consequences of not adhering to them	9.9 Communicate, implement and review available options to mitigate risk of stakeholder impact in the event of a high risk asset failure
	9.10 Know the governance that is in place to ensure adequate risk management for all supply and waste networks	9.10 Know where to source and access information to determine the root cause of asset failure	9.10 Ensure appropriate information is being fed back to call taking staff
	9.11 Understand the relevant elements of the procedures and the consequences of not adhering to them	9.11 Ensure lessons learned, captured and implemented are feedback to relevant parties	9.11 Communicate company line and ensure understanding of PR repercussions
	9.12 Understand your role and responsibilities in the event of an emergency in the workplace including evacuation and technology system failure	9.12 Understand and communicate roles and responsibilities in the event of an emergency in the workplace including evacuation and technology system failure	9.12 Communicate, implement and review risk management processes and procedures
	9.13 Know when it is possible for the business to deviate from normal operation and the possible resolutions	9.13 Understand the strategic thinking behind contingency and emergency plans	9.13 Communicate, implement, monitor and review contingency and emergency response procedures

		9.14 Understand the possibilities of deviation from normal operations and how these can be resolved	9.14 Understand the possibilities of deviation from normal operations and how these can be resolved
10) INCIDENT MANAGEMENT - WATER SUPPLY	10.1 Know what planned and unplanned interruptions to supply are	10.1 Know the different ways to manage supply interruptions and the risks associated with them	10.1 Communicate, implement, monitor and review plans for interruptions to the supply
	10.2 Know the impact of poor planning of a planned or unplanned event	10.2 Identify key site information that would indicate an interruption to supply	10.2 Manage supply interruptions and the risks associated with them
	10.3 Know the indicators and risks of supply interruption	10.3 Understand the trigger points for the provision of alternative water	10.3 Understand the trigger points for the provision of alternative water and the options to maintain supplies and the associated risks
	10.4 Understand the trigger points for the provision of alternative water and the option to maintain supplies and the associated risks	10.4 Understand the different types of alternative water supplies and their suitability for deployment to different stakeholders	10.4 Know the different types of alternative water supplies and their suitability for deployment to stakeholders
	10.5 Know the different types of alternative water supplies and their suitability for deployment to stakeholders	10.5 Understand and communicate the regulatory requirements for alternative water supplies	10.5 Manage and communicate risks associated with alternative water supplies in line with regulatory requirements and company procedures
	10.6 Understand the regulatory requirements for alternative water supplies		
11) INCIDENT MANAGEMENT - WASTE	11.1 Know what planned and unplanned events can impact the waste water network	11.1 Understand the reasons for waste tankering and why and when it would be used	11.1 Manage and communicate the use of waste tankering
	11.2 Know the impact of poor planning of a planned or unplanned event	11.2 Know what information in the control centre would indicate a need for waste tankering	11.2 Understand and communicate to others the licensing and regulatory requirements around waste tankering
	11.3 Know why and when waste tankering would be used	11.3 Understand and communicate the licensing and regulatory requirements around waste tankering	
12) POLLUTION MANAGEMENT	12.1 Know the impact of a water supply and waste pollution	12.1 Understand the impact of waste pollution on customer contact level	12.1 Understand the regulators categorisation for pollutions eg cat 1,2, 3
	12.2 Know the company procedures/licensing/ regulatory requirements relating to pollution, control and management	12.2 Understand the company procedures/licensing/ regulatory requirements relating to pollution, control and management	12.2 Understand and communicate the company procedures/licensing/ regulatory requirements relating to pollution, control and management
ASSET SECURITY			
13) SECURITY MEASURES, IMPACT AND CONTROL OF INFORMATION	13.1 Know the nationally recognised threat levels and the impact they can have on the water company	13.1 Understand the source and meaning of threat levels and the associated impact on the water industry and the UK	13.1 Understand the source and meaning of threat levels and the associated impact on the water industry and the UK
	13.2 Know how and why recording devices are used in the Control Room or Incident Centres	13.2 Ensure all work is carried out in compliance with required security measures	13.2 Communicate, implement, monitor and review the company's required compliance with required security measures
	13.3 Be able to identify controlled/sensitive data/information in a control room and understand why it is controlled	13.3 Understand the need to review recording (audio and/or visual) from the control room in case of a breach of security and how to ensure that sensitive data is not at risk	
	13.4 Know what the data protection act is and how it impacts on your role and carry out all work in line with data protection requirements	13.4 Be able to identify controlled/sensitive data/information in a control room and understand why it is controlled	
		13.5 Ensure all work is carried out in line with data protection requirements	
		13.6 Understand and utilise control measures that are in place to control sensitive data	
		13.7 Understand and carry out all work in line with company policies regarding data protection and know what measures are in place to manage and control the data	
14) SECURITY ALARM MANAGEMENT - ALARM TRIAGE	14.1 Know the Standard Operating Procedures and understand how they impact on your role	14.1 Be able to identify and understand the suite of security Standard Operating Procedures in your company and the impact they have on your role	14.1 Communicate, implement, monitor and review the company's security Standard Operating Procedures and service level agreements
	14.2 Know the different types of security alarms and their associated target for response	14.2 Understand and monitor service level agreements, addressing any excursions	14.2 Ensure that security alarm categorisation is consistent and appropriate
	14.3 Understand the general escalation routes and the conditions that allow for an alarm to be "parked" and monitored	14.3 Understand how to recognise, escalate and resolve repeat alarms and raise asset security faults	14.3 Communicate, implement, monitor and review efficient alarm management methods for dealing with alarm "floods"
	14.4 Be able to identify potential causes of repeat security alarms	14.4 Ensure relevant information is communicated to all interested parties whether internal or external accurately and within agreed timescales	
	14.5 Be able to identify faults that may be found on security equipment	14.5 Take action to address communication issues where there are limitations of poor telecommunications	
	14.6 Communicate information accurately and within agreed timescales, giving due regard to its priority and sensitivity using different but appropriate methods of communication where required		
	14.7 identify limitations of poor telecommunications reception areas and actions to address communications issues		
15) SECURITY ALARM MANAGEMENT - ACCESS CONTROL	15.1 Understand the importance of controlling access to a site or asset and the implications of not doing so	15.1 Understand the importance of controlling access to a site or asset and the implications to the business of not doing so	15.1 Communicate, implement, monitor and review the company's control of access and information gathering regarding threats
	15.2 Know what information to get from a caller making a bomb threat or the finding of a suspicious package	15.2 Identify methods of access control for asset and sites	
	15.3 Know what and how to safely gather information regarding a suspicious package		
16) SECURITY ALARM MANAGEMENT - FIELD RESPONSE	16.1 Clarify and prioritise details of the work to be undertaken and allocate field workers, identifying any authorisations required	16.1 Clarify and prioritise details of the work to be undertaken and allocate field workers, identifying any authorisations required	16.1 Plan, communicate, manage, monitor and review approved procedures for the allocation of field workers ensuring all required authorisations are in place
	16.2 Confirm with the appropriate people that field workers have been dispatched and record and report in line with agreed procedures	16.2 Identify security risks that should be taken into account when a site is being risk assessed, where this information is held within the business and how is the information used	16.2 Know the key regulators governing security risk and manage the relationships in your company. Ensure that all policies, procedures and regulations are being met
	16.3 Identify security risks that should be taken into account when a site is being risk assessed	16.3 Identify records detailing high risk sites. Understand and follow the standard operating procedures that deal with alarm response from these sites	
	16.4 Monitor work progress of field workers, informing relevant parties where the work they are doing impacts on others and confirming stages which have been completed	16.4 Identifying work progress of field workers, informing relevant parties where the work they are doing impacts on others and confirming stages which have been completed	

	16.5 Update and complete all records in line with agreed procedures	16.5 Update and complete all records in line with agreed procedures	
17) CCTV - POLICE RESPONSE	17.1 Understand the types of information the police would require to attend a verified/confirmed alarm	17.1 Respond to the types of information the police would require to attend a verified/confirmed alarm	17.1 Communicate, implement and monitor the company procedures for reacting to a verified/confirmed alarm
		17.2 Respond to the steps to be taken in order to verify the need for a police response to a security alarm	17.2 Monitor for due diligence when verifying the need for a police response to a security alarm
18) CCTV CPNI - COUNTER TERRORISM	18.1 Understand the CTSA and their role		18.1 Communicate, implement and monitor the company procedures for liaising and working with the CTSA/internal company liaison
			18.2 Communicate what advice notes are and how they impact on the business
CORE SKILLS			
19) BASIC BIOLOGY AND CHEMISTRY	19.1 Know how biology and chemistry is used in the water industry	19.1 Carry out your duties using the principles of biology and chemistry where required	
20) BASIC OPERATIONAL MATHS	20.1 Understand and calculate percentages when relating to your work	20.1 Use calculations of percentages, as part of analysing information, to make informed decisions	
	20.2 Understand and calculate time differentials relating to your work	20.2 Use calculations of time differentials, as part of analysing information, to make informed decisions	
	20.3 Convert numbers to words in relation to your work	20.3 Understand and calculate fractions	
		20.4 Convert time differences into seconds	
		20.5 Understand and use calculations of flow rates and use them to access sites	
21) COMPANY SPECIFIC IT SYSTEMS	21.1 Know the functionality of the control room systems and operate systems effectively	21.1 Operate systems effectively and understand interfaces between control room systems	21.1 Manage the operation of the IT systems and interfaces effectively
		21.2 Understand the causes of IT system failures and the impact it could have on the stake holders, following your company procedures	21.2 Know and demonstrate the ability to carry out mitigation of IT systems failure and the ability to escalate to appropriate personnel for system resolution
			21.3 Understand IT system limitations and possible risk and impact to business and stakeholders
22) RISK ASSESSMENTS AND METHOD STATEMENTS	22.1 Understand the purpose of risk assessments/method statement their health and safety implications and effect on site staff	22.1 Understand the difference between risk assessment and method statement and how the two interlink	22.1 Communicate, implement, monitor, review and manage the risk assessments and method statements and their relationship
	22.2 Know how occupational, environmental, and human factors can impact the level of risk	22.2 Identify risk assessments/method statement and the impact to the network	22.2 Review method statements and risk assessments, with the knowledge and confidence to question and refuse applications where applicable
	22.3 Understand the requirements and importance of risk assessment. Know how to carry out a dynamic risk assessment, your own responsibilities and those of the organisation	22.3 Interpret and understand how the method statement and associated risk assessments are developed	22.3 Understand the risk and the business to authorise medium to high risk assessments/method statement
	22.4 Know how to identify a hazard, how to assess and control risks	22.4 Understand the risk and the business and authorise lower risk assessments/method statement	22.4 Understand risk assessment/method statement regulatory requirements and the impact on the business and stakeholders
	22.5 Assess the level of risk and eliminate where possible, prioritising hazards which could result in serious harm	22.5 Understand the requirements, importance, purpose, legal implications of carrying out risk assessments, including own responsibilities and those of the organisation	22.5 Understand all statutory legislation, codes of practice etc. relating to health and safety and in particular risk assessments in the workplace
	22.6 Identify and report those hazards that cannot be eliminated to the appropriate person	22.6 Ensure all risk assessments are carried out and recorded within own area of responsibility	22.6 Develop, implement, communicate and review risk assessment documentation and policies and procedures
		22.7 Ensure that all risks are communicated to others	22.7 Manage recording and reporting procedures for risk assessments
		22.8 Understand the risk assessment procedure and recording and reporting procedure	
23) PERMIT TO WORK	23.1 Understand the reasons for the permit to work and the implications of not complying	23.1 Understand and implement the reasons for the permit to work and the implications of not complying	23.1 Communicate, implement, monitor and review the compliance and consent arrangements for permit to work within your organisation and implement remedial action where required
	23.2 Carry out all work in compliance with the permit to work	23.2 Ensure all work is carried out in compliance with the permit to work	23.2 Manage and respond to issues arising due to non-compliance, including making recommendations and recording details in full in line with protocols and procedures
	23.3 Identify how non-compliance issues are reported within area of responsibility to appropriate person	23.3 Highlight how non-compliance is monitored and how issues are resolved and reported	
24) PROBLEM SOLVING	24.1 Know how to ability, to identify problem	24.1 Highlight method for problem solving resolution	24.1 Problem solving method communicating
25) COMMUNICATION AND CUSTOMER SERVICE SKILLS	25.1 Show locations of control room communication strategies, customer service policies and procedures and service level agreements including escalation policies and communication methods	25.1 Understand the control room communication strategy, company customer services policies and procedures and service level agreements and ensure they are being implemented	25.1 Communicate, implement, manage, monitor and review customer service policies and procedures in line with the control room communications strategy, company procedures and service level agreements
	25.2 Know and use different methods of internal and external communication and understand the variances and factors can affect the urgency and importance of information	25.2 Use effective internal communications at all levels of the business and understand the variances and factors can affect the urgency and importance of information	25.2 Manage the shift changeover process
	25.3 Receive and communicate information at the appropriate pace, level, security, sensitivity, clearly, concisely, accurately in a professional timely calm manner, to the appropriate staff and to check for understanding	25.3 Effectively communicate information at the appropriate pace, level, security, sensitivity, clearly, concisely, accurately in a professional timely calm manner, to the appropriate staff and check for understanding	25.3 Communicate effectively with internal and external stakeholders and evaluate at what level, should the information be provided
	25.4 Provide information and advice to internal and external customers	25.4 Ensure handing over and providing operational information at personnel changeover, is done accurately	25.4 Collaborate with appropriate managers to review and update the customer service strategy and the impact on the organisation
	25.5 Handover and provide operational information at personnel changeover	25.5 Communicate to others the purpose of the Wholesale service desk and the impact on the organisation	
	25.6 Use the appropriate questioning to gather information about the callers problem. Take ownership of a customer call and in resolving the callers problem. Implement processes to resolve the callers issues accurately and quickly		
	25.7 Record customer details and query in line with corporate procedures		
	25.8 Work within own levels of responsibility and understand when and how to implement silver level call escalation		
	25.9 Understand the purpose of the Wholesale service desk and the impact on the organisation		
26) CORPORATE PROCEDURES	26.1 Understand the types of procedures used in the control room in relation to different 'control room functions/elements/mechanisms' in the business	26.1 Monitor the adherence of the procedures used in the control room in relation to different 'control room functions/elements/mechanisms' in the business	26.1 Review and update the types of procedures used in the control room in relation to different 'control room functions/elements/mechanisms' in the business

	26.2 Locate and follow procedures for the control room activities	26.2 Locate and follow different types of procedures used in the control room in relation to the different functions of a control room	26.2 Communicate, implement, monitor and review procedures used in the control room for the different functions
		26.3 Understand and maintain confidentiality of certain procedures and documentation which are held in the control room	26.3 Ensure confidentiality is maintained when required
		26.4 Understand the process undertaken for review of existing procedures and who is responsible	26.4 Implement and action the updating/changing/creating and implementation for a new procedure
27) DATA ANALYSIS AND DIAGNOSTIC METHODS	27.1 Locate, understand and utilise the suite of standard operating procedures and other documents as appropriate and provide support for problem resolution	27.1 Identify problems and locate, understand and use the suite of standard operating procedures and other documents as appropriate to support problem resolution	27.1 Ensure availability of the suite of standard operating procedures and other documents as appropriate to support problem resolution
	27.2 Identify and interpret trends and calculate a rate of change	27.2 Identify the likely consequences of a problem and extent or likely impact on the business of that problem.	27.2 Identify low to medium risk and medium to high risk issues and instigate problem resolutions
	27.3 Calculate a time point on a trend which would identify stakeholder impact	27.3 Identify low to medium risk issues and instigate problem resolutions	27.3 Identify the likely consequences of a problem and extent or likely impact on the business, stakeholders and regulatory requirements
	27.4 Understand the relationship between metres head and pressure.	27.4 Analyse and interpret multiple trends and be able to identify anomalies and develop a course of action to address any issues	27.4 Understand and apply a time to travel model in both water and wastewater and manage the recovery process. Understand and apply a time to travel model in both water and wastewater and manage the recovery process
	27.5 Understand different measures of volume	27.5 Understand the factors and calculations you would make when using a time to travel model and what would prompt you to escalate the results of your findings	
		27.6 Using a hydraulic gradient, identify the timeline of properties affected during an event and the opportunities that you would have to reduce this	
28) WEATHER IMPACT	28.1 How the weather affects the business	28.1 Interpret weather forecasting and identify possible impacts on the business	28.1 Interpret weather forecasting and identify possible impacts on the business and communicate to others
	28.2 Understand and follow approved escalation/communication procedures and contingency plans in the event of adverse weather conditions	28.2 Interpret, understand and assist in the preparation for adverse weather event plans to reduce the impact on the business	28.2 Understand, activate and monitor the implementation of adverse weather event plans during severe weather events
	28.3 Understand seasonal demand balancing periods to keep the appropriate water pressure	28.3 Ensure the escalation/communication procedures and contingency plans are followed in the event of adverse weather conditions	28.3 Understand seasonal demand balancing periods to keep the appropriate water pressure
		28.4 Know who and why external stakeholders (including stakeholders) are contacted regarding weather events which may have a negative impact on the business	28.4 Participate in FASTCON during weather events and cascade the information to the relevant business areas
			28.5 Manage the escalation/communication channels and identify the key roles and responsibilities in the process
			28.6 Ensure key roles and responsibilities in the process are contacted (including stakeholders) regarding weather events which may have a negative impact on the business and know why they need to be contacted
29) ENERGY MANAGEMENT	29.1 Understand tariffs, the different charges/times of energy supply and impact and how tariffs can be influenced	29.1 Understand and follow contingency measures for emergency generator provisions. Know who the stakeholders are for emergency generator provisions and where to find your corporate business processes for emergency generator provisions	29.1 Evaluate and identify best practice in energy sources and sustainable provisions. Many process requirements with financial savings
	29.2 Work in line with the approved processes in relation to energy management	29.2 Adhere to the triad process within the control room and know how to mitigate when this goes wrong. Know how your company could/does feed energy back into the grid	29.2 Collaborate with appropriate managers to ensure the processes are correct. Capture and implement lessons learnt, providing feedback to ensure current strategy is improved
	29.3 Understand what is meant by an energy Triad what the impact could be		
30) LONE WORKER	30.1 Understand the importance of lone worker monitoring, the functionality of your corporate system and also the standard operating procedure that governs the response. Carry out all work in compliance with the lone worker policies and procedures	30.1 Ensure all lone worker policies and procedures are in place and followed through	30.1 Communicate, implement, manage, monitor and review company lone worker policies and procedures
	30.2 Understand the arrangements for manual work around in your company should a failure of your corporate lone worker system occur		30.2 Manage and respond to issues arising due to non-compliance, including making recommendations and recording details in full in line with protocols and procedures
	30.3 Understand the management of escalation process and how accurate records are kept		
31) HEALTH AND SAFETY AT WORK	31.1 Be trained to corporate H&S competence	31.1 Comply and implement corporate H&S requirements	31.1 Implement H&S requirements within the control room
NETWORK STRUCTURE AND MANAGEMENT			
32) WATER AND WASTE WATER NETWORK STRUCTURE	32.1 Understand the hierarchy /structure of the water supply network and the waste water network	32.1 Understand the hierarchy /structure of the water supply network and waste water network, the typical water supply network structure problems and resolution methods	32.1 Review and implement typical water supply network structure/waste water network problems and resolution methods
	32.2 Know the key components of a water distribution system and their purpose	32.2 Understand key components of a water distribution system and / or waste water network their purpose	32.2 Manage the key components of a water distribution system and / or waste water network and their purpose
	32.3 Know how the component parts of the network function	32.3 Understand and carry out hydraulic operations Diagnose hydraulic issues & irregularities on the network	32.3 Identify and manage strategic methods of improving the component parts of the network function
	32.4 Know what constitutes an asset failure and the impact it may cause stakeholders	32.4 Identify and communicate any problems found within the component parts of the network function	32.4 Review and implement resolution methods for network structure problems
		32.5 Understand network structure problems and methods of resolution	32.5 Collaborate with appropriate managers to review methods for improvement to key components of the water distribution system / or waste
		32.6 Identify and make improvement recommendations for a key component of the water distribution system	32.6 Collaborate with appropriate managers to review strategic methods of network improvements, and how AMP periods relate to this
33) REGULATORY AND OPERATIONAL REQUIREMENTS OF ABSTRACTION	33.1 Know and follow business and regulatory requirements for monitoring and reporting intakes/abstractions and the systems and data in place in the control room to support these	33.1 Ensure the business and regulatory requirements for monitoring and reporting intakes/abstractions and the systems and data in place in the control room to support these are followed	33.1 Communicate, monitor, review and manage regulatory requirements for reporting intakes/abstractions
	33.2 Know the types of abstraction in your business and the risks associated with it	33.2 Understand the types of abstraction in your business and the risks associated with it	33.2 Communicate, monitor, manage and participate in contingency review for total loss of abstraction due to drought or pollution
	33.3 Know and follow precautions to protect raw water supplies	33.3 Ensure precautions to protect raw water supplies are understood and followed	
	33.4 Know what contingencies are in place in the event of a total loss of abstraction due to drought or pollution	33.4 Know what contingencies are in place in the event of a total loss of abstraction due to drought or pollution	
34) WORKING ON THE NETWORK (PLANNED AND UNPLANNED WORKS)	34.1 Know and follow approved procedures for planned and unplanned works and understand the consequences of not adhering to these procedures. Know where and how to access information relating to the procedures	34.1 Monitor whether approved procedures are being followed for planned and unplanned works and liaise with appropriate stakeholders. Know where and how to access information relating to the procedures	34.1 Communicate, implement and review approved procedures for planned and unplanned works
	34.2 Know the differences between planned and unplanned works, resources required and the impact they can have on the supply/demand balance and the sewer network	34.2 Understand the differences between planned and unplanned works, resources required and the impact they can have on the supply/demand balance and the sewer network	34.2 Manage the impact of planned and unplanned works on the supply/demand balance and the sewer network
		34.3 Know and follow the approved control room process for determining the degree of urgency of approved work which affect supply and demand balance or waste water treatment process	34.3 Know and ensure the approved control room process for determining the degree of urgency of work which affect supply and demand balance or waste water treatment process is followed

35) PROBLEM SOLVING ON THE NETWORK	35.1 Be able to identify issues, communicate the problem and follow approved recording and reporting procedures	35.1 Be able to identify issues, understand everyone's interests, consider, evaluate and make recommendations for solutions, complete appropriate documentation	35.1 Be able to identify issues, understand everyone's interests, consider, evaluate and select and communicate options for solutions, ensure appropriate documentation is completed and develop and agree contingency plans
36) PUMP EFFICIENCY AND OPTIMISATION	36.1 Understand the role of pumps in our water the network	36.1 Understand and appreciate optimisation	36.1 Be able to derive pump regimes to optimal working conditions including a) most efficient b) Miser super user
	36.2 Understand pump function and operations, including a) the pump build b) impact of wear and tear c) types of pumps d) affects of operation e) terminology		
	36.3 Maintain up to date knowledge of optimiser and software technology		
WATER SUPPLY AND WASTE TREATMENT			
37) PRINCIPLES OF WATER TREATMENT	37.1 Understand the hydrological cycle	37.1 Water Treatment: Identify several abstraction Sources	37.1 Collaborate with appropriate managers to mitigate infiltration issues
	37.2 Identify water resources	37.2 Understand infiltration, the consequences, challenges and governance	37.2 Identify reportable supply demand balance outage incidents and notify appropriate regulatory bodies
	37.3 Know the cycle and impact of water company treatment	37.3 Understand the deviation from normal operational practices on water treatment facilities. Identify such issues and make recommendations	37.3 Communicate, monitor and review plans for asset location/relocation overriding basic operating principles when required, managing consent constraints
	37.4 Water Treatment: Identify several abstraction Sources	37.4 Identify and report problems that cannot be resolved	37.4 Communicate, monitor and review plans for asset removal/retention
	37.5 Identify and report problems that cannot be resolved	37.5 know the water treatment fundamentals including, types of source water, clarification, disinfection, retention times and water quality monitoring	37.5 Identify internal and external stakeholders and build and maintain positive working relationships
	37.6 Identify the water treatment fundamentals including, types of source water, clarification, disinfection, retention times and water quality monitoring	37.6 Monitor the consequence of infiltration	37.6 Support of the root cause problems analysis and ensure lessons are learnt, captured and implemented
	37.7 Understand the consequence of infiltration	37.7 Know what governs these sources and the challenges using these sources	37.7 Know and communicate with internal and external stakeholders when a water quality issue in a service reservoir is identified
	37.8 Know what governs these sources and the challenges using these sources		
38) PRINCIPLES OF WASTE TREATMENT	38.1 Awareness of waste treatment process	38.1 Identify the different processes in waste treatment	38.1 Explain the different process in waste treatment
	38.2 Awareness of different waste treatment sites	38.2 Explain the limitations of different types of waste treatment sites	38.2 Explain the importance of monitoring the output of a waste treatment works and the impact of monitoring failure
	38.3 Awareness of the waste water treatment fundamentals including, types of source water, clarification, disinfection, retention times and water quality monitoring	38.3 Know the waste water treatment fundamentals including, types of source water, clarification, disinfection, retention times and water quality monitoring	38.3 Understand the impact of process failures at each of the treatment stages
39) WATER TRANSMISSION	39.1 Understand the principles of having a integrated water supply network	39.1 Monitor the principles of having a integrated water supply network	39.1 Manage the principles of having a integrated water supply network
	39.2 Know different pipework materials that have been used in the supply network	39.2 Know the limitations of pipework material used in the supply network	39.2 Know the appropriate response, when issues occur with pipework materials, on the supply network
	39.3 Understand the impact of flow reversals on the external domestic and commercial stakeholders	39.3 Monitor the impact of flow reversals on the external domestic and commercial stakeholders	39.3 Manage the impact of flow reversals on the external domestic and commercial stakeholders
	39.4 Understand water quality threshold requirements within the distribution network	39.4 Explain the need for water quality threshold requirements within the distribution network	39.4 Respond to, and mitigate, water quality incidents within the distribution network
40) SUPPLY INTERRUPTIONS	40.1 Identify problems during a supply outage and follow the approved method of escalation for resolution	40.1 Monitor and data gather information relating to problems during a supply outage and follow the correct method of escalation for resolution	40.1 Communicate, implement, manage, monitor and review the Water Treatment work supply/demand balance in the control room
	40.2 Know and apply appropriate temporary solutions for supply restoration	40.2 Apply appropriate temporary solutions for supply restoration	40.2 Ensure solutions for supply restoration are implemented
	40.3 Understand and monitor the impact on service reservoirs water storage in the event of a supply interruption	40.3 Monitor the impact on service reservoirs water storage in the event of a supply interruption	40.3 Mitigate the impact on service reservoirs water storage in the event of a supply interruption
	40.4 Follow approved reporting and recording procedures	40.4 Ensure approved reporting and recording procedures are being followed	40.4 Oversee and quality assure the approved reporting and recording procedures, so that they are being followed correctly
	40.5 Know and apply appropriate methods of Water Treatment Work supply demand balance in the event of a loss of supply	40.5 Understand and apply methods of Water Treatment Work supply demand balance in the event of a loss of supply	40.5 Collaborate with appropriate managers to review supply demand balance, in the event of a loss of supply
41) SUPPLY AND WASTE (PLANNED AND UNPLANNED WORKS)	41.1 Understand the differences of reactive and planned works, the typical work activities and predicted resources required	41.1 Understand the differences of reactive and planned works, the typical work activities and predicted resources required	41.1 Communicate, implement, monitor and review control room procedures and activities relating to planned and unplanned works, including managing customers and stakeholders
	41.2 Know the considerations for prioritising planned and reactive work	41.2 Know the considerations for prioritising planned and reactive work	41.2 Ensure all required authorisations are processed accurately prior to completion of works
	41.3 Understand the control room process for determining the degree of urgency of work which affect the optimisation of the network	41.3 Ensure the control room process for determining the degree of urgency of work which affect the optimisation of the network	41.3 Manage the control room process for determining the degree of urgency of work which affect the optimisation of the network
	41.4 Know the work activities that require an authorisation process to be completed	41.4 Know the work activities that require an authorisation process to be completed	41.4 Know the work activities that require an authorisation process to be completed
	41.5 Know the different types of actions required when work activities impact on external residential and commercial stakeholders	41.5 Know the different types of actions required when work activities impact on external residential and commercial stakeholders	41.5 Monitor the different types of actions required when work activities impact on external residential and commercial stakeholders
	41.6 Know which planned and unplanned jobs have an impact on the asset and service to stakeholder	41.6 Know which planned and unplanned jobs have an impact on the asset and service to stakeholder	41.6 Manage commercial, domestic and those stakeholders requiring additional assistance in line with approved procedures
	41.7 Know commercial, domestic and those stakeholders requiring additional assistance in line with approved procedures	41.7 Know commercial, domestic and those stakeholders requiring additional assistance are managed in line with approved procedures	41.7 Monitor the agreed process for dealing with a third party supplier issue which has impacted on an asset or service to a stakeholder is followed
	41.8 Understand and follow the agreed process for dealing with a third party supplier issue which has impacted on an asset or service to a stakeholder	41.8 Ensure the agreed process for dealing with a third party supplier issue which has impacted on an asset or service to a stakeholder is followed	41.8 Be able to monitor/record and report procedures are followed when planning field workers activities
	41.9 Follow approved monitoring, recording and reporting procedures when planning field workers activities	41.9 Ensure approved monitoring, recording and reporting procedures are followed when planning field workers activities	
42) THE INTERACTIONS BETWEEN WATER SUPPLY FLOW AND PRESSURE	42.1 Know the causes of low flow and low pressure	42.1 Proactively reduce the causes of low flow and low pressure, and demonstrate methods for network flow management to prevent stakeholders loss of supply	42.1 Implement, authorise and oversee network flow management to prevent stakeholders loss of supply
	42.2 Identify if there is a relationship between seasonal demands and impact on water supply pressure		
43) WATER QUALITY (SUPPLY)	43.1 Identify causes which can affect the water quality of a service reservoir	43.1 Investigate causes of water quality issues in the event of an incident and follow corrective actions	43.1 Mitigate causes which can affect the water quality and implement corrective actions
	43.2 Know the methods of monitoring of water quality at a water treatment works and in the distribution network and the key risks for water quality	43.2 Understand the methods of monitoring of water quality at a water treatment works and in the distribution network.	43.2 Be able to identify risks to the water quality at a water treatment works and in the distribution network, and implement mitigating measures
	43.3 Identify the appropriate methods for managing Water Quality on a water treatment works	43.3 Understand and ensure work is carried out to the recognised disinfection policy at a water treatment works and explain how the disinfection process is monitored and maintained	43.3 Understand the issues that can affect water quality, the possible implications and ensure the company policies and procedures are followed

	43.4 Know and work to the recognised disinfection policy at a water treatment works	43.4 Understand the issues that can affect water quality and the company policies and procedures that must be followed.	43.4 Collaborate with other stakeholders on implementing methods of improving water quality
	43.5 Know the issues that can affect water quality and the recognised methods of resolution	43.5 Know the methods of improving water quality and how to promote this suggestion for strategic consideration	43.5 Understand and implement company policies and procedures for ensuring satisfactory quality water is delivered to stakeholders
	43.6 Carry out all work in line with approved regulations and company policies and procedures	43.6 Ensure all work is carried out in line with approved regulations and company policies and procedures	43.6 Understand the escalation process for a significant water quality incident, the external agencies who would be involved in an investigation and the roles they would play
	43.7 Identify different causes of discolorations and the information required from the external stakeholders during discoloration water investigations	43.7 Identify different causes of discolorations and the information required from the external stakeholders during discoloration water investigations	43.7 Ensure all work is carried out in line with approved regulations and company policies and procedures
	43.8 Be able to identify if the problem is internal to the stakeholders property or water utility	43.8 Be able to identify if the problem is internal to the stakeholders property or water utility	43.8 Identify different causes of discolorations and the information required from the external stakeholders during discoloration water investigations
	43.9 Follow company recording and reporting procedures	43.9 Ensure company recording and reporting procedures are followed	43.9 Be able to identify if the problem is internal to the stakeholders property or water utility
	43.10 Know and implement the appropriate methods for resolving discoloured water issues taking into account the needs of the water utility and the stakeholder	43.10 Know and implement the appropriate methods for resolving discoloured water issues taking into account the needs of the water utility and the stakeholder	43.10 Ensure company recording and reporting procedures are followed
			43.11 Understand and ensure the appropriate methods for resolving discoloured water issues are implemented taking into account the needs of the water utility and the stakeholder

Control Room Operations Competence Framework

COMPLY WITH REGULATIONS AND LEGISLATION	REMOTE ASSET MONITORING AND CONTROL	DEVIATION FROM NORMAL OPERATIONS	ASSET SECURITY	CORE SKILLS	NETWORK STRUCTURE AND MANAGEMENT	WATER SUPPLY AND WASTE TREATMENT
INTRODUCTION TO THE LAW	SCADA, TELEMETRY AND ALARM MANAGEMENT	INCIDENT MANAGEMENT - GENERAL	SECURITY MEASURES, IMPACT & CONTROL OF INFORMATION	BASIC BIOLOGY AND CHEMISTRY	WATER AND WASTE WATER NETWORK STRUCTURE	PRINCIPLES OF WATER TREATMENT
INTRODUCTION TO THE REGULATORS	PROACTIVE NETWORK AND REMOTE MONITORING	INCIDENT MANAGEMENT - WATER SUPPLY	SECURITY ALARM MANAGEMENT - ALARM TRIAGE	BASIC OPERATIONAL MATHS	REGULATORY AND OPERATIONAL REQUIREMENTS OF ABSTRACTION	PRINCIPLES OF WASTE TREATMENT
COMPLIANCE AND CONSENT	NETWORK MONITORING CRITICAL PRESSURE POINTS (CPPs)	INCIDENT MANAGEMENT - WASTE	SECURITY ALARM MANAGEMENT - ACCESS CONTROL	COMPANY SPECIFIC IT SYSTEMS	WORKING ON THE NETWORK (PLANNED AND UNPLANNED WORKS)	WATER TRANSMISSION
SECURITY AND EMERGENCY MEASURES DIRECTION (SEMD)	REMOTE OPERATION OF ASSETS	POLLUTION MANAGEMENT	SECURITY ALARM MANAGEMENT - FIELD RESPONSE	RISK ASSESSMENTS AND METHOD STATEMENTS	PROBLEM SOLVING ON THE NETWORK	SUPPLY INTERRUPTION
			CCTV - POLICE RESPONSE	PERMIT TO WORK	PUMP EFFICIENCY AND OPTIMISATION	SUPPLY AND WASTE PLANNED AND UNPLANNED WORKS
			CCTV CPNI - COUNTER TERRORISM	PROBLEM SOLVING		THE INTERACTIONS BETWEEN WATER SUPPLY FLOW AND PRESSURE
				COMMUNICATION AND CUSTOMER SERVICE SKILLS		WATER QUALITY
				CORPORATE PROCEDURES		
				DATA ANALYSING AND DIAGNOSTIC METHODS		
				WEATHER IMPACT		
				ENERGY MANAGEMENT		
				LONE WORKER		
				HEALTH AND SAFETY AT WORK		