



# Level 5 Award in Understanding the Management of Physical and Cyber Asset Security in the Water & Environmental Industries

- Understand the legal and regulatory requirements and limitations of asset security
- Understand the principles of asset security
- Be able to define the range of potential risks associated with water and environmental industry assets
- Understand the requirement for risk assessment in relation to asset security
- Understand the requirement for effective risk management
- Understand appropriate escalation processes specific to risk management
- Understand the principles of physical asset security
- Understand the principles of cyber asset security
- Understand how to engage with stakeholders to support and improve asset security



# Level 5 Award in Understanding Demand Management and Leakage in the Water Industry

- Understand the role demand management plays in the water industry sustainability plan
- Understand the range of demand management tools available and their effectiveness
- Understand the application of leakage strategies, the economic value and the
- external influences
- Understand data handling, meaningful leakage calculations and the interpretation of leakage data
- Understand various leakage control methods used and their respective effectiveness and economic cost benefit
- Understand network repair and maintenance methods and the provision of these services



# Level 5 Award in Managing Reservoir Safety in the Water and Other Industries

- Understand the regulatory requirements of reservoir safety
- Understand reservoir types, construction details and respective safety requirements
- Understand monitoring and maintenance procedures to ensure reservoir safety
- Understand risks and hazards associated with reservoirs
- Understand the requirements and procedures for Reservoir Safety supervision, inspections and Certificates



A new strategic approach in the Water Industry to technical competence.

A suite of focused Level 5 national qualifications bespoke to the Water Asset Owners and the Supply Chain.

Designed to advance the competence of the Water Industry specifically targeting the learning needs of Managers to enable them to demonstrate their own competence and provide the platform to drive up skilling throughout their organisation

The ultimate aim being to foster confidence and raise the technical competence of the industry to the next level, to meet and exceed the requirements of PR19 and to ensure demonstrable Manager competence complying with the emerging requirements of the Regulators.



## **Learning & Development Associates**

Advancing the Competence of the Water Industry

For more information on our qualifications

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# Advancing the Competence of the Water Industry





## **Level 5 Certificates**



#### Level 5 Certificate in Management of Water Production

- Understand regulatory Licence compliance requirements and Water Quality standards applicable to water production
- Understand best practice for abstraction of raw water
- Understand best practice for clarification of water
- Understand best practice for filtration of water
- Understand best practice for disinfection of water
- Understand best practice for ancillary treatment and waste treatment
- Understand best practice for process control of water treatment
- Understand best practice for chemical storage
- Understand hydraulic principles in relation to clean water treatment
- Understand engineering principles in relation to clean water treatment
- Understand best practice for dealing with failures or problems arising with treatment processes
- Understand the compilation of compliance reports intended for regulatory reporting



#### Level 5 Certificate in Management of Water Networks

- Understand the regulatory and legislative framework in which the water industry operates, with particular emphasis on the impact of the framework on the operation and maintenance of the water network
- Understand the implications of water treatment on the water quality aspects of water networks
- Understand the impact of major components of water network on water quality and resilience of the water network
- Understand the water company's clean water delivery systems for effective operational management of the water network
- Understand hydraulic principles in relation to the water network
- Understand best practice for leakage and demand management
- Understand best practice for management of water network assets
- Understand the importance and application of innovation within the Water Sector
- Understand the importance and application of resilience within the Water Sector
- Understand the management of the customer experience within water networks



### Level 5 Certificate in Management of Waste Water Treatment

- Understand regulatory License compliance requirements and Water Quality standards applicable to waste water treatment
- Understand best practice for preliminary treatment of waste water
- Understand best practice for primary treatment of waste water
- Understand best practice for fixed film biological treatment
- Understand best practice for Suspended-growth processes (Activated sludge) treatment
- Understand best practice processing of Trade Effluent in line with Regulatory requirements
- Understand best practice for tertiary wastewater treatment
- Understand best practice for sludge collection and treatment
- Understand best practice for chemical storage
- Understand best practice for odour control
- Understand hydraulics for wastewater treatment processes
- Understand engineering principles in relation to waste water treatment
- Understand best practice for process control of water treatment
- Understand best practice for dealing with failures or problems arising with treatment processes
- Understand the importance and application of innovation within the Water Sector
- Understand the importance and application of resilience within the Water Sector
- Understand the compilation of compliance reports intended for regulatory reporting

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#### Level 5 Certificate in Management of Waste Water Networks

- Understand the regulatory and legislative framework in which the water industry operates, with particular emphasis on the impact of the framework on the operation and maintenance of the waste water network
- Understand the implications of the waste water network on waste water treatment
- Understand the impact of major components of the waste water network on waste water quality and resilience of the waste water network
- Understand the impact of new developments on the waste water network
- Understand the water company's waste water collection systems for effective operational management of the waste water network
- Understand hydraulic principles in relation to the waste water network
- Understand best practice for the operation and maintenance of waste water networks attenuation (detention) tanks
- Understand engineering principles in relation to waste water networks
- Understand best practice in in relation to waste water network and the processing of Trade
   Effluent in line with Regulatory requirements
- Understand best practice for management of waste water network assets
- Understand best practice for dealing with public health nuisance
- Understand best practice for dealing with failures or problems arising within the operations of the waste water network
- Understanding best practice for dealing with waste water network flooding
- Describe the process for managing waste water network flooding including regulatory
  reporting
- Understand best practice for dealing with waste water network pollution
- Understand the importance and application of innovation within the Water Sector pertaining to waste water network
- Understand the importance and application of resilience within the Water Sector
- Understand the management of the customer experience within waste water networks

## **Level 5 Awards**



# Level 5 Award in Leading Innovation in the Water & Environmental Industries

- Understand Innovation and its purpose within their organisation
- Understand the stages of the innovation process
- Understand how personal skills and behaviours can promote innovation
- Apply the principles and processes of innovation within their own role



# Level 5 Award in understanding Project & Change Management in the Water & Environmental Industries

- Understand the principles and key processes of effective project management
- Understand the principles to undertake an effective work-based project
- Understand how to show effective and beneficial use of a work-based project proposal to stakeholders.
- Understand the principles and key processes of effective change management
- Understand the importance of data, information, research and evidence in preparing project proposals.



# Level 5 Award in Understanding Hydraulic Principles in the Water Industry

- Understand hydraulic principles in relation to the water industry
- Understand the hydraulic principles of open channel flow and its application in the water industry



# Level 5 Award in the Management of Risk & Resilience in the Water & Environmental Industries

- Understand the principles and objectives of risk and resilience management
- Understand the legal and regulatory requirements and the role of the regulators in respect of risk and resilience
- Understand the interconnected impacts that changes in risk and resilience make
- Understand the effect of climate change on risk and resilience strategy
- Understand the objective and purposes of a Company's risk and resilience strategy and management structure
- Understand where risk and resilience management sits in the company organisational structure
- Understand the decision-making process in terms of risk and resilience management
- Understand the role of risk financing and the nature of risk financing and the variables that influence the process
- Understand the benefits and practical problems of insuring assets
- Understand the principles of risk and resilience and its relationship to contingency
  planning
- Understand the use and merits of quantitative and qualitative techniques in risk and resilience management
- Understand how to reduce risks to business continuity in the emergency planning and business continuity process
- Understand how to measure individuals' behaviour to risk
- Understand factors which influence group attitudes to risk-taking
- Understand the practical meaning of business resilience and its role in disaster recovery
- Understand the range of technologies and the techniques for gathering data available to assist the management of risk and resilience
- Understand the use of probability theory and the use of normal and binomial distribution numerical methods in risk and resilience management
- Understand the principles of scenario planning in relation to risk and resilience
- Understand the principles of risk, resilience and contingency planning in commissioning assets
- Understand the principles of inventory management in relation to risk and resilience
- Understand the role of logistics in relation to risk & resilience
- Understand how to reduce risks to business continuity in the emergency planning and business continuity process
- Understand how to prepare the business for pre and post emergency situations



# Level 5 Award in Understanding Event & Incident Response Management in the Water & Environmental Industries

- Understand the differences of local national and international levels of major incidents and what is meant by these terms
- Understand how data can be collated and evaluated in respect of current legislation in relation to events and incidents
- Understand when planning work on a live asset some of the risks and factors to consider
- Understand the nature of events and incidents, how they can originate and what can trigger them
- Understand how events can be prevented and some of the processes that can help mitigate their impact
- Understand the management of major incidents
- Understand the process of event recognition, the information necessary to determine the scale, scope and key timings of event management
- Understand the methods used in the effective management of resources in relation to events an incidents
- Understand the key factors to consider in event management
- Understand the reasons for information gathering during an event, the types of information to record and retain in an event log and the information's uses
- Understand how evidence-based methods of prioritisation are used in major incidents
- Understand the importance that key factors play within limited timescales to assist in problem solving in relation to events and incidents