

# All-Wales Summary Report Estates Assurance – Water Management

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NWSSP Audit and Assurance Services



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## 1. Introduction

During the last four financial years (2017/18 – 2020/21), audits were completed assessing the arrangements in place for the management and control of water safety at the following NHS Wales organisations:

- Aneurin Bevan University Health Board
- Betsi Cadwaladr University Health Board
- Cardiff and Vale University Health Board
- Cwm Taf Morgannwg University Health Board
- Hywel Dda University Health Board
- Powys Teaching Health Board
- Swansea Bay University Health Board
- Velindre University NHS Trust.

The key objective of the reviews was to assess compliance with the requirements of Welsh Health Technical Memorandum (WHTM) 04-01: '*Safe water in Healthcare Premises*', which was produced to promote good practice in the design, installation, commissioning, operation and maintenance of water services in healthcare premises.

The scope and remit of the reviews was directed to the following areas:

- **Governance** - That adequate arrangements were in place to support the implementation of the approved code of practice. Also, that an appropriate policy was in place to address water safety issues, there were defined allocation of responsibilities, clear lines of communication and reporting and approval processes.
- **Procedures** - To ensure that management were implementing applicable procedures – both internal and external requirements.
- **Monitoring and Reporting** - To ensure that the estate was appropriately monitored and that effective monitoring procedures were operating e.g. the establishment of appropriate Water Safety Groups (WSGs). Assurance that there was appropriate record retention and dissemination of information through to the Executive team and Board.
- **Management** - Assurance that relevant staff received appropriate training, and appropriate resources were allocated. Assurance that appropriate inspection / detection regimes were operated.
- **Risk Management** - Assurance that suitable and sufficient assessments of risks were performed and that identified risks were appropriately managed.

Each organisation received an assurance report which contained considerations for the future specific to its circumstances. This summary report seeks to identify common themes and development areas.





Following an initial Limited Assurance report, management at one of the organisations requested that further audits be undertaken at all of their remaining acute sites. Accordingly, the data/issues arising from these two additional reviews are included within this summary paper for completeness (i.e. ten reports issued at eight organisations).

## 2. Summary of Consistent Messages

### 2.1 Overall Position

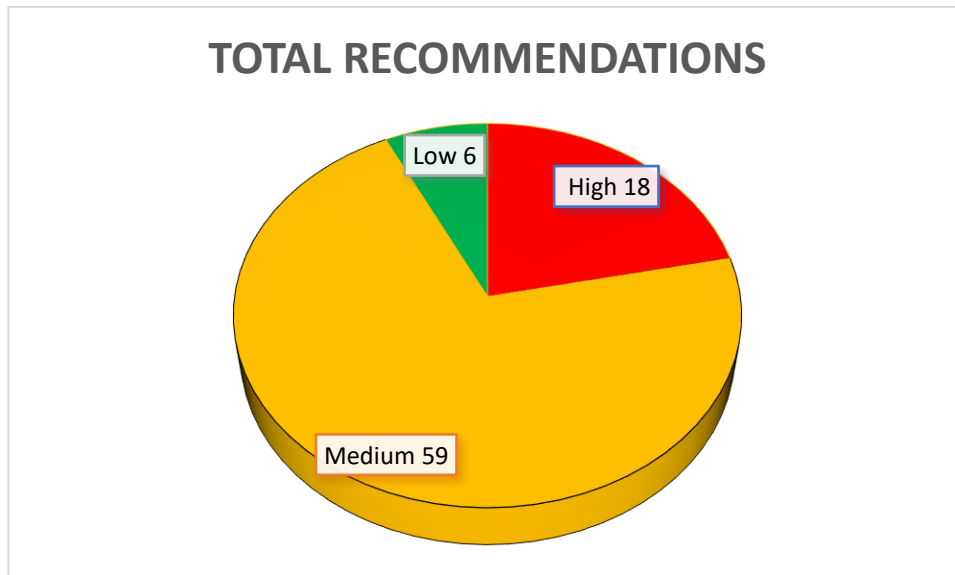
In line with our agreed audit approach, each objective area was assessed in relation to the adequacy and effectiveness of the system of internal control under review. An overall assurance rating, along with individual assurance ratings for each objective area, were determined (see **Appendix A** for a description of the assurance ratings applied).

These anonymised ratings are provided below to illustrate the strengths and potential for improvement in the organisations’ management of water safety, with an overall limited assurance determined at five of the ten audits undertaken.

	Number of organisations receiving each assurance rating <sup>1</sup>			
				
<b>Overall assurance rating</b>	-	5	5	-
Governance	-	4	4	2
Policy & Procedures	-	3	4	3
Monitoring & Reporting	-	3	7	-
Management	-	6	4	-
Risk Management <sup>1</sup>	-	5	4	-

<sup>1</sup>one report did not determine an assurance rating in respect of risk management.

A total of 83 audit recommendations were raised, these are summarised by priority below:



Follow up reviews have since been undertaken in some organisations, with positive action noted in respect of actions taken to address the agreed recommendations.

## 2.2 Governance

All organisations had defined an appropriate governance structure, including the establishment of a Water Safety Group and associated sub-groups (in accordance with WHTM 04-01); with clear reporting lines to the relevant Board-level Committee. Responsibilities, including at Executive level, had also been clearly assigned.

Responsible and Deputy Responsible Persons, with specific responsibilities for water safety, had been formally assigned at most organisations in line with WHTM 04-01 requirements. However, not all organisations had sufficient coverage of officers across the estate. Improved arrangements were observed where follow up exercises were subsequently undertaken.

All organisations had appointed an external Authorising Engineer, as required by WHTM 04-01, in most cases via NWSSP: SES. The Authorising Engineer makes recommendations for improvement in the issue of annual reports and more detailed tri-annual site-specific reports. However, not all organisations had sufficient mechanisms in place for monitoring the actions taken to address the recommendations or adequate reporting of progress to appropriate forums ensuring identified issues were rectified in a timely manner.

We consistently identified the following areas for improvement:

- Ensuring sufficient coverage of Responsible and Deputy Responsible Persons; and

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- Formal monitoring of progress towards implementation of recommendations from external assurance providers (e.g. NWSSP:SES).

### **2.3 Policy & Procedures**

WHTM 04-01 outlines the importance of organisations having an appropriate Water Management Policy and Water Safety Plan. The Water Safety Plan should assist with understanding and mitigating risks associated with waterborne hazards in distribution and supply systems and associated equipment, and should provide a risk-management approach to the safety of water.

Four of the organisations reviewed had up to date policies and procedures in line with the requirements of WHTM 04-01. However, at the other four, both of the key documents required updating.

We consistently identified the following areas for improvement:

- The need for up to date policies reflecting current guidance; and
- More frequently updated Water Safety Plans providing 'live' guidance for staff.

Where follow up exercises have been undertaken, the required policies and procedures had been updated in line with agreed recommendations.

### **2.4 Monitoring & Reporting**

All organisations had established a Water Safety Group, with appropriate remit and memberships determined in line with the requirements of WHTM 04-01.

However, attendance levels were insufficient in nearly all cases particularly in respect of designated clinical representatives and a microbiologist; with meeting held insufficiently frequent.

Areas of good practice were noted in some organisations, with designated Compliance Managers appointed to enable robust monitoring and reporting of performance against agreed Key Performance Indicators and the requirements of the Water Safety Plan.

Where monitoring and reporting was identified as poor, concerns were identified in respect of the adequacy, accuracy and reliability of testing/monitoring records maintained for the sites examined.

We consistently identified the following areas for improvement:

- Improvements in the attendance of agreed members at the Water Safety Group; and
- The need for enhanced monitoring and reporting of compliance with the Water Safety Plan including for example, exception reporting, escalation

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of identified issues, planned works against targets, results of routine spot checks etc. The same would facilitate effective control by the (responsible) Water Safety Groups

## **2.5 Management**

Most organisations maintained at least some paper-based records, such as log books to record water management activities.

One organisation had procured specialist water management software to facilitate the planning, delivery and recording of Estates water activities (testing and inspection).

Issues were noted in the completeness and retention of these records to provide a robust audit trail of activities undertaken.

### *Pre-Planned Maintenance System (PPMs):*

In most organisations, audit testing of a sample of PPMs found some activities (including associated remedial works) not completed as required. It was noted, however, that where omissions were significant, the organisations had attributed the same to insufficient staff resource and formally reported the same to an Executive level.

WHTM 04-01 requires 'accurate as-fitted drawings' to be available to facilitate the identification of poor water circulation and "dead-legs". The absence of up-to-date record drawings resulted in reduced assurance opinions at a number of organisations.

A number of the organisations had reported insufficient staff resource within their Estates departments to deliver the agreed plan for water-related estates activities.

Where electronic systems were introduced this also presented difficulties in the level of resource required to ensure the system was accurately populated and operated effectively to maximise the possible benefits.

In a number of organisations there was the potential for a case to be for additional staffing to deliver improvements, but this had generally not been pursued.

Regular flushing (of the systems), is a key control in managing underutilised water outlets and pipework (as required by WHTM 04-01). Procedures/protocols, including record keeping requirements, had generally been appropriately defined within the Water Safety Plans and associated procedural documentation. In most organisations, the responsibility for flushing of infrequently used outlets in clinical areas was assigned to ward staff.

However, issues were identified in most organisations in the consistent application of agreed procedures, coupled with insufficient monitoring of testing compliance to provide assurance to the Water Safety Groups.

Training for key staff with assigned water safety responsibilities was up to date in all but two of the organisations. Enhanced training records, to facilitate proactive monitoring of training requirements, were required in a number of the instances.

Where follow up exercises have been undertaken, it was noted that training had been updated for key staff.

We consistently identified the following areas for improvement:

- The completeness and adequacy of water management activities (incl. Pre-planned and unplanned maintenance, flushing records etc.).
- The adequacy of record drawings retained;
- Insufficient resource in some organisations to deliver the required level of water safety activities set out in the Water Safety Plans;
- The need for enhanced training records, to facilitate proactive management of training requirements; and
- The need for improved compliance and monitoring of flushing activities.

## **2.6 Risk Management**

Corporate and operational risk management processes were found to be robust in most of the organisations reviewed, facilitating the identification, monitoring and escalation of water-related risks.

Additionally, in line with best practice, water infrastructure risk assessments were up to date in the majority of organisations; having been refreshed within the prior three years.

However, issues with the quality of assessments undertaken by the appointed external consultants had been experienced in two organisations, reducing the ability to place reliance on the reported findings.

In some organisations, there was also insufficient evidence of progress towards implementing the issues identified at the infrastructure risk assessments (in some instances priority one/high risk issues remained unaddressed for a number of years).

We consistently identified the following areas for improvement:

- The quality of infrastructure risk assessments undertaken by external parties;
- The time taken to address identified water related risks (arising from infrastructure risk assessments); and
- The associated reporting of progress to address identified risks.

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### 3. Good Practice Examples

This section provides some examples of good practice based upon our work across the organisations. Please note that this is not an exhaustive list of good practice across the eight organisations.

- Well defined governance arrangements had been developed within most organisations in accordance with WHTM 04-01.
- Comprehensive Water Safety Plans operating at sites, including e.g.
  - defined roles and responsibilities;
  - temperature testing expectations;
  - definition of elevated levels of bacteria;
  - definition of infrequently used outlets;
  - response times for infrastructure works;
  - clarification of durations of flushing; and
  - approach to pipework labelling.
- The allocation of the “Responsible Persons” role (at each key site within organisations) - a key role having the responsibility for routinely monitoring and testing compliance for water safety.
- Clear reporting lines from Water Groups (and sub-groups), through to the Health and Safety Committee and Executive Board (where required). Reports including clearly established performance data, test results, exception reporting and appropriate management/mitigating actions with defined timescales.
- The appointment of external consultants to facilitate key management tasks such as updating of the Water Safety Plan, delivery of training and undertaking of risk assessments.
- Where resourcing was seen to impact specifically on water management at key audits, mitigating measures to address the issues identified.
- Dedicated compliance monitoring teams enabling robust monitoring and reporting of performance including against agreed KPIs.
- Procurement of specialist water management software; but recognising this comes with resource / training implications to ensure the system is operated correctly to provide the best value.
- The replacement and recycling of shower heads, removing the need for cleaning/maintenance.

- Assignment of flushing responsibilities to Hotel Services to facilitate daily attention.
- Implementation of an electronic flushing management system to coordinate ward activities and facilitate central monitoring.

## Appendix A: Audit Assurance Ratings



### **Substantial assurance**

The Board can take **substantial assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Few matters require attention and are compliance or advisory in nature with **low impact on residual risk** exposure.



### **Reasonable assurance**

The Board can take **reasonable assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Some matters require management attention in control design or compliance with low to **moderate impact on residual risk** exposure until resolved.



### **Limited assurance**

The Board can take **limited assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. More significant matters require management attention with **moderate impact on residual risk** exposure until resolved.



### **No assurance**

The Board can take **no assurance** that arrangements in place to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Action is required to address the whole control framework in this area with **high impact on residual risk** exposure until resolved.



### **Assurance not applicable**

Given to reviews and support provided to management which form part of the internal audit plan, to which the assurance definitions are **not appropriate** but which are relevant to the evidence base upon which the overall opinion is formed.

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