

Water Safety

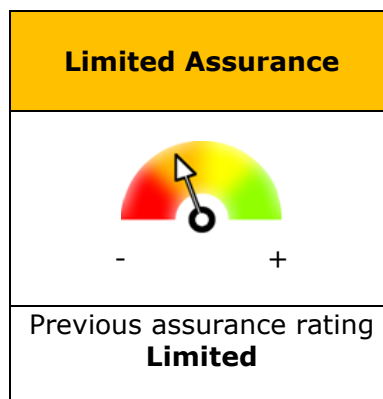
Final Internal Audit Report

2020/21

Swansea Bay University Health Board

NHS Wales Shared Services Partnership

Audit and Assurance Services



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1. Introduction and Background

An audit of Water Safety was undertaken of the University Health Board's (the UHB) acute sites in May 2019 providing a "limited" assurance. A follow-up audit was undertaken in June 2020, with the remaining agreed actions arising from the same detailed at **Appendix B**.

In addition to follow-up of outstanding actions, this audit provides a further review to assess current compliance against the processes and procedures put in place by management to satisfy statutory regulations in relation to water safety, and to determine whether practices are embedded within the organisation.

As previously, compliance was tested against the requirements of Welsh Health Technical Memorandum (WHTM) 04-01, Safe Water in Healthcare Premises and associated HSE guidance and requirements. WHTM 04-01 identifies the Duty Holder as the Employer.

The review was cognisant of the outputs from other assurance providers, such as NWSSP: Specialist Estates Services (SES).

Noting the ongoing impact of Covid-19, the delivery of this assignment included an increased element of remote working.

2. Scope and Objectives

The review was undertaken to determine the adequacy of, and operational compliance with, the systems and procedures of the UHB, taking account of relevant NHS and other supporting regulatory and procedural requirements, as appropriate.

An objective of the audit was to evaluate the systems and controls in place within the UHB, with a view to delivering reasonable assurance to the Audit Committee that risks material to the objectives of the areas of coverage were appropriately managed.

Accordingly, and in the context of compliance with WHTM 04-01, the focus of the audit included:

- **Follow Up**– review of the status of previously agreed management actions (see **Appendix B**).
- **Governance and Management** – to affirm that:
 - appropriate operation of governance and management arrangements; and
 - management has implemented appropriate procedures / protocols – meeting both internal and external requirements.
- **Monitoring and Reporting** - to ensure that appropriate monitoring was in place, including assurance that:

- an appropriate inspection / detection regime was operated;
 - there was appropriate record retention;
 - effective monitoring procedures were in place via the established Water Safety Group;
 - there was appropriate dissemination of information through to the Executive team and Board; and
 - relevant staff received appropriate training, and appropriate resources were allocated.
- **Risk Management** - assurance that the UHB performed a suitable and sufficient assessment of risks; and that appropriate risk management arrangements were implemented to ensure the risk was appropriately managed/ mitigated.

3. Associated Risks

The potential risks considered in the review were as follows:

- Patient Safety
- Prosecution / criminal negligence
- Adverse publicity
- Breach of regulations / Approved Code of Practice
- Fines and defence costs
- Ineffective / inappropriate governance arrangements
- Ineffective / ill-informed management
- Ineffective risk control

OPINION AND KEY FINDINGS

4. Overall Assurance Opinion

We are required to provide an opinion as to the adequacy and effectiveness of the system of internal control under review. The opinion is based on the work performed as set out in the scope and objectives within this report. An overall assurance rating is provided describing the effectiveness of the system of internal control in place to manage the identified risks associated with the objectives covered in this review.

Water safety was previously audited in 2018/19, with a limited assurance rating determined. Progress was reviewed at the 2019/20 Estates follow up exercise, with a number of issues remaining outstanding at that time, including four high priority issues.

At the time of the current review, further progress has been demonstrated in a number of the key areas, including improved governance arrangements, the formal reassignment of flushing responsibilities, and the recent approval of additional funding for additional Estates resource to facilitate increased testing levels.


However, recognising in part the impact in the last year of the Covid pandemic, progress in other areas has inevitably been affected. Whilst progress has been demonstrated, a number of the previously identified issues had not been fully resolved at the time of this review.

Key areas to be fully addressed include:

- Procurement of updated risk assessments, on which a robust action plan and associated water safety measures can be based;
- While recognising the Water Safety Plan incorporates water sampling and testing over and above the requirements of WHTM 04-01, the implementation of the associated contract remains to be resolved;
- While recognising the approval to provide additional Estates resource to enhance the testing and inspection regime, formal appointments have yet to be made;
- Attendance from key parties at the Water Safety Management Committee; and
- Implementation of improved assurance and reporting mechanisms specific to flushing, and non-achievement of scheduled estates activities.

A number of other enhancements have also been recommended.

Whilst recognising the efforts therefore in respect of ongoing activities to address water safety issues previously identified, these have not been fully concluded at the time of the current review. Accordingly, against this context, the level of assurance given as to the effectiveness of the system of internal control in place to manage the risks associated with the water safety remains as **Limited Assurance**. The conclusion of the above actions will provide an enhanced assurance position.

RATING	INDICATOR	DEFINITION
<p style="text-align: center;">Limited Assurance</p>		<p>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.</p>

The overall level of assurance that can be assigned to a review is dependent on the severity of the findings as applied against the specific review objectives and should therefore be considered in that context.

5. Assurance Summary

The summary of assurance given against the individual objectives is described in the table below:

Assurance Summary					
1	Follow Up		✓		
2	Governance & Management			✓	
3	Monitoring & Reporting		✓		
4	Risk Management		✓		

* The above ratings are not necessarily given equal weighting when generating the audit opinion.

Design of Systems/Controls

The findings from the audit have highlighted **no** issues that are classified as weaknesses in the system control/design for water safety.

Operation of System/Controls

The findings from the audit have highlighted **10** issues that are classified as weaknesses in the operation of the designed system/control for water safety.

6. Summary of Audit Findings

Follow Up



That previously agreed management actions had been implemented.

The status of the actions arising from prior audits was as follows:

Closed	Outstanding	Partially Implemented	Superseded	Total
1	-	1	5	7

The detail in support of the above summary is included in **Appendix B**.

Whilst recent progress has been demonstrated in some of the reported areas, it has not been sufficient to enable the closure of all the previously agreed recommendations; with new recommendations raised at this report where applicable. **Limited assurance** has therefore been determined.

Governance & Management



That governance and management arrangements were operating effectively, including the implementation of appropriate procedures and protocols.

Limited assurance was determined in respect of governance and management at the previous water safety audit report (issued April 2019). Improved controls have been evidenced at the current review, as follows:

- Board-level oversight from the Health & Safety Committee;
- A dedicated Water Safety Management Committee, chaired by the Director of Nursing & Patient Experience; and
- Operational discussions managed via the Health & Safety Operational Sub-Group (Water).

The UHB's Water Safety Policy was updated and approved by the Water Safety Management Committee during 2020; but had yet to be ratified by the Health & Safety Committee. This is currently scheduled for July 2021 (**recommendation 1**).

The Water Safety Plan had been prepared in line with the requirements of WHTM 04-01 and was considered a 'live' document - updated as required on an ongoing basis, in conjunction with the Water Safety Management Committee.

The membership and responsibilities of the Water Safety Management Committee had been appropriately defined in line with the requirements of WHTM 04-01. Meetings were reconvened in August 2020 and have subsequently been held quarterly in accordance with its terms of reference. No meetings were held between November 2019 and August 2020 (as management were reviewing the proposed governance arrangements, which were subsequently not implemented).

Whilst noting the improved arrangements, issues continue to be noted (as reported in the 2018/19 audit) in respect of membership attendance, particular from senior clinical representation (**recommendation 2**). It is recognised that this matter has been discussed at the Water Safety Management Committee and escalated to executive level, however the prioritisation of the pandemic response has prevented improved attendances to date.

Recognising the above governance arrangements in place, **reasonable assurance** has been determined.

Monitoring & Reporting



That appropriate monitoring was in place including an appropriate inspection / detection regime; monitoring at the Water Safety Group; dissemination of information to the Executive Team and Board; and appropriate training and allocation of resources.

Inspection / Detection regime

The UHB has redefined flushing responsibilities in the last year:

- Hotel Services domestic staff are required to undertake daily flushing in clinical areas as part of their routine cleaning schedules; and
- Ward staff have responsibility for the identification of infrequently used outlets and the associated flushing and record keeping of the same.

Whilst recognising the improved controls achieved through this approach, ensuring the highest risk areas receive daily flushing, improvements have been recommended in the documentation of Hotel Services responsibilities at the Water Safety Policy and Water Safety Plan (**recommendation 3**). The absence of formal assurance mechanisms to enable reporting of compliance to the Water Safety Management Committee has also been noted (**recommendation 4**).

Other inspection requirements such as water sampling, temperature checks, and maintenance are managed through the Zeta safe electronic system. Current performance data generated from Zetasafe has been presented at **Appendix C**. This reports that the Estates teams have been unable to complete all scheduled activities (with an average of 74% completion across the estate between February and April 2021, however this varies significantly between sites).

This is further supported in the results of testing undertaken at a sample of four sites – Cefn Coed Hospital, Ty Garngoch Clinic, Gorseinon Hospital and Llwyneryr Hospital. Refer to **Appendix D** for full details of testing.

Management confirmed that the failure to undertake all of the required testing was due to insufficient resource, but that a recent approval of additional funding, to appoint five Estates Assistants, should improve the completion rates going forward. It is also recognised that the UHB's current approach remained compliant with WHTM 04-01, noting this does not mandate routine legionella testing.

It is also recognised there are ongoing issues with water sample analysis, noting current laboratory restrictions due to Covid prioritisation. The

development of a tender specification for a new water sampling contract is ongoing (**Appendix B, ref 12**).

The Water Safety Plan also sets out the protocols for the management of areas under redevelopment by external contractors (including commissioning / decommissioning). The Water Safety Management Committee was reviewing methods of improving water quality in such areas at the time of the audit.

Reporting

The Health & Safety Committee routinely receives updates of water safety issues via the Health & Safety Operational Sub-Group (Water). Further, an annual report has been presented for the last two years, updating members on the UHB's progress towards addressing the 2018/19 audit recommendations.

As per the requirements of the Water Safety Plan, water safety issues are discussed at the Water Safety Management Committee. However, improvements have been recommended (**recommendations 4-6**) in the formalisation of assurances provided to the Water Safety Management Committee in key areas e.g.:

- Estates water safety performance;
- flushing compliance; and
- the monitoring of recommendations made by its external advisors (such as NWSSP:SES and Internal Audit (SSu)), to ensure key risks and identified actions are appropriately monitored and addressed.

Training & resources

The Water Safety Plan details the allocation of responsibilities across the estate e.g. Responsible and Authorised Persons. However, the formal acceptance of key roles by individuals had not been centrally retained (**recommendation 7**).

Confirmation of up to date training for the Responsible and Authorised Persons was evidenced, however water hygiene training for the assigned Competent Persons (Estates Officers) was out of date (**recommendation 8**). The impact of Covid on the ability to arrange training in this area is recognised.

Conclusion

It is recognised that management have acknowledged the issues raised at the previous audit and were seeking to address the same. However, at the time of the current review matters were not fully resolved, limiting the capacity to undertake scheduled water safety tasks. Therefore, until these issues are resolved, **limited assurance** has been determined.



Risk Management

That the UHB had performed a suitable and sufficient assessment of risks; and that risk management arrangements were implemented to ensure the risk was appropriately managed / mitigated.

There were no Corporate-level water risks reported at the time of the audit.

A review of the water safety risks recorded on the Datix risk management system identified a number of inconsistencies in the recording of risks and the reporting of the same to the Water Safety Management Committee (**recommendation 9**).

Infrastructure risk assessments were last undertaken by the appointed external organisation in the period October 2017 to May 2018. However, there were concerns raised over the quality and robustness of these assessments. The output generated has, therefore, been of limited benefit in informing the current safe water management approach.

Whilst remedial maintenance jobs were undertaken resulting from issues identified within the risk assessments, a wider action plan was not determined.

The UHB has recently tendered for external support to undertake new risk assessments, with bids being assessed at the time of the audit. It is recommended that the resulting action plans should be appropriately risk prioritised to ensure national infrastructure programme funding is allocated accordingly, with progress monitored by the Water Safety Management Committee (**recommendation 10**).

Whilst recognising recent progress in this area, i.e. the procurement exercise for new risk assessments, it is noted this matter has remained outstanding since the prior 2018/19 audit. Noting conclusion of this matter remains outstanding, **limited assurance** has again been determined in this area.

7. Summary of Recommendations

The audit findings, recommendations are detailed in **Appendix A** and **Appendix B** together with the management action plan and implementation timetable.

A summary of these recommendations by priority is outlined below.

Priority	H	M	L	Total
Number of new (and/or superseded) recommendations raised	1	9	-	10

Recommendations outstanding from the 2018/19 audit	1	0	-	1
Total recommendations to be addressed	2	9	-	11

Finding 1: Governance & Management - Policy	Risk
<p>The revised Water Safety Policy was agreed by the Water Safety Management Committee in August 2020.</p> <p>At the date of reporting, the updated Policy was awaiting approval by the Health & Safety Operational Committee prior to submission to the next Health & Safety Committee (1 July 2021) for formal ratification.</p>	<p>The UHB's agreed approach to water management has not been formally approved and publicised.</p>
Recommendation 1	Priority level
<p>The updated Water Safety Policy should be formally ratified by the Health & Safety Committee and published online (O).</p>	<p>Medium</p>
Management Response	Responsible Officer/ Deadline
<p>Agreed. The Policy is on the agenda for approval at the July 2021 Health & Safety Committee.</p>	<p>Assistant Director of Health & Safety / Assistant Director of Operations (Estates) July 2021</p>

Finding 2: Governance & Management – Water Safety Management Committee	Risk
<p>The requirements for organisations to operate a Water Safety Group are defined within the Welsh Health Technical Memorandum (WHTM) 04-01 (Part B), section 6.3.</p> <p>The UHB's Water Safety Management Committee satisfies the above requirements; and was reconvened in August 2020. No meetings were held between November 2019 and August 2020 (as management were reviewing the proposed governance arrangements, which were subsequently not implemented).</p> <p>For the period reviewed (August 2020 – February 2021), the following good practice was observed:</p> <ul style="list-style-type: none"> • The Water Safety Management Committee met on a quarterly basis, with future meetings similarly scheduled, in line with the requirements of the agreed terms of reference; • Meetings have been chaired by the Director of Nursing, providing clear executive leadership and a link to the Board; • Whilst a microbiologist was not in attendance at the meetings reviewed, management confirmed that their advice has been sought when required; and • The group reported to the Health & Safety Committee, via the Health & Safety Management Committee. 	<p>Issues within the UHB may not be appropriately escalated to the Water Safety Management Committee if suitable representation is not in attendance.</p> <p>Decisions taken / issues raised cannot be appropriately disseminated throughout the UHB.</p>

<p>Whilst the impact of Covid would have inevitably affected individuals' workloads, regular non-attendance of nominated members, in particular Unit Nursing Directors, was noted during this period.</p> <p>It is recognised that this matter was raised by the Water Safety Management Committee, and escalated by the Director of Nursing, in August 2020. However, noting the ongoing Covid pressures, improved attendance was not deemed feasible at that time. A commitment was made that attendances would be reviewed again in Spring 2021.</p> <p><i>These findings supersede the Water Safety Group issues reported in the 2018/19 audit report. The associated prior recommendation has therefore been closed at the follow up exercise (see Appendix B, ref 5).</i></p>	
<p>Recommendation 2</p>	<p>Priority level</p>
<p>Water Safety Management Committee attendance from nominated members should continue to be reviewed, with escalation where necessary (O).</p>	<p>Medium</p>
<p>Management Response</p>	<p>Responsible Officer/ Deadline</p>
<p>Agreed. The Director of Nursing has written to Service Units seeking representation from the Units. This will be monitored going forward.</p>	<p>Director of Nursing (Chair of the Water Safety Management Committee) July 2021</p>

Finding 3: Monitoring & Reporting - Flushing	Risk
<p>Since the previous Water Safety audit took place (2018/19), responsibilities for flushing have been reviewed and redefined:</p> <ul style="list-style-type: none"> • Hotel Services domestic staff undertake daily flushing in clinical areas, as part of their routine cleaning schedules. Management stated this should ensure the highest risk areas within the UHB estate receive daily flushing attention and reduce the risk in this key area of water safety management control; • Ward staff have responsibility for the identification of infrequently used outlets, notification of such to Estates, and the subsequent flushing and recording of the flushing logs [as per the UHB's Water Safety Plan – OP02-01 '<i>Infrequently Used Outlets</i>']; • Estates staff manage flushing in vacant areas (as specified in the Water Safety Plan – OP02-02 '<i>Dead Legs</i>'); and • Capital Planning staff manage flushing in areas scheduled for refurbishment in conjunction with appointed external contractors. Management confirmed that in some cases, where reported and agreed, Hotel Services have also taken over responsibility of flushing in these areas. <p>A supporting Safety Action Bulletin ('<i>Standard Operating Procedure for the Flushing of Infrequently Used Outlets</i>') had also recently been developed and was scheduled for agreement at the Water Safety Management Committee at the time of the audit. This document will reinforce the role and responsibilities of Ward staff in the management of flushing activities.</p>	<p>Water quality is not adequately controlled through an appropriate flushing regime.</p>

Whilst recognising the improved controls, the following issues were noted at the time of review:

- The Water Safety Policy and Water Safety Plan, whilst clearly defining the role and responsibility of Ward staff, Estates and Capital Planning, does not define the key role of Hotel Services.
- It is recognised that it would not be feasible (or necessary) for Hotel Services staff to maintain daily flushing logs as part of the routine cleaning regime. However, it would be beneficial for records to be maintained where additional responsibilities have been handed over e.g. infrequently used areas. Such records were not evidenced during the review.
- It is recognised that flushing has been discussed at the Water Safety Management Committee and the Health & Safety Operational Sub-Group (Water). However, it was not included as a standing agenda item at either forum. Whilst recognising that flushing discussions were recorded in the minutes of the majority of meetings reviewed, it did not receive focus at one Sub-Group meeting. Such a key issue should form part of the standing agenda for all water safety meetings.
- The Water Safety Plan references an assurance mechanism in relation to Ward activities, via the monthly Infection Control, However, at the date of the audit this was not taking place recognising the UHB's Covid priorities.

There were no alternative mechanisms operating to monitor compliance with agreed procedures and provide routine assurance to the Responsible Person/s or Water Safety Management Committee that flushing was operating as required.

<i>These findings supersede the issues reported in the 2018/19 audit report (Appendix B, ref 8).</i>	
Recommendations 3 & 4	Priority level
<p>3.</p> <p>a) The Water Safety Policy and Plan should reflect the role and responsibilities of Hotel Services in flushing activities; and</p> <p>b) Where responsibility for flushing infrequently used outlets is taken on by Hotel Services following a request from e.g. Estates / Capital Planning (i.e. outside the routine daily Hotel Services cleaning regime), this should be formally documented, and a schedule maintained of responsible areas (●).</p>	Medium
<p>4.</p> <p>a) Management should establish a mechanism for obtaining assurance of flushing compliance from the key parties of Hotel Services and Ward staff; and</p> <p>b) Flushing should be a standing agenda item at the Water Safety Management Committee and the Health & Safety Operational Sub-Group (Water), including the reporting of compliance information (●).</p>	Medium

Management Response	Responsible Officer/ Deadline
<p>3.</p> <p>a) Agreed. The Water Safety Plan has been updated as the live procedure. The Policy will not be changed at this time, as it recognises the need for flushing with the Water Safety Plan stating how this will be achieved.</p> <p>b) Agreed. An electronic register will be established within the Hotel Services shared electronic filing system, on which requests will be recorded by Domestic Managers when received from e.g. Capital Planning. Communication will be requested via email from now on to ensure the specifics of the request (location, dates etc.) can be retained alongside the register itself.</p> <p>4.</p> <p>a) Agreed. This will be discussed by WSG to consider - this will be achieved by September 21 or one month after the next WSG.</p> <p>b) Agreed.</p>	<p>3a) Actioned since fieldwork</p> <p>3b) Head of Hotel Services July 2021</p> <p>4a&b) Assistant Director of Operations (Estates) September 2021</p>

Finding 4: Monitoring & Reporting – Estates Performance	Risk
<p>The agreed frequency of Estates water safety activities (e.g. water sampling, temperature checks, equipment inspection and maintenance) are set out within the Water Safety Plan, and accord with the requirements of WHTM 04-01.</p> <p>The associated delivery of the same is managed via Planned Preventative Maintenance schedules (PPMs), initiated from the Zetasafe electronic water management system. Zetasafe retains all water activity data (tasks undertaken and associated results, measured against pre-set tolerances), and provides alerts to management where non-compliances have been identified. It also enables the production of comprehensive management performance information.</p> <p>Associated remedial actions are separately instructed via the Planet FM job system.</p> <p>Performance</p> <p>Current estates performance data, as generated from Zetasafe for the period February – April 2021, is detailed at Appendix C.</p> <p>Audit testing was additionally undertaken for a sample of scheduled PPMs, for the following sites, agreed with management:</p> <ul style="list-style-type: none"> • Singleton estate – Cefn Coed Hospital & Ty Garngoch clinic • Morriston estate -Llwyneryr Hospital & Gorseinon Hospital <p>See Appendix D for full details of the results.</p>	<p>Non-completion of scheduled PPM tasks.</p> <p>Insufficient action taken to address risks within the water systems.</p> <p>Inadequate scrutiny of PPM performance at the Water Safety Management Committee.</p>

In line with the overarching performance noted, checks had only been undertaken in line with the required frequencies for 46% of the sampled activities (where applicable at the sites reviewed).

At the time of audit fieldwork, water sampling in general had been put on hold in lower risk areas (i.e. not augmented care) during the Covid pandemic, including the sites sampled at this review (see **Appendix B, ref 12**). It was noted that all non-compliant results recorded for the Singleton estate had been acknowledged on the system, whereas for the Morriston estate all notes remained unacknowledged (see **Appendix C**).

Reporting of performance

The responsibility for monitoring of Estates performance, in discharging the requirements of the Water Safety Plan, rests with the Water Safety Management Committee.

It was reported in the 2018/19 audit that improvements in the standardisation of the performance reporting to the Water Safety Management Committee were required. At the date of this audit, management were working on development of a standard report.

Management acknowledged that non-completion of scheduled PPM activities resulted from insufficient resources within the Estates department. The escalation of this matter to both the Water Safety Management Committee and Executive Team has resulted in an additional funding allocation, with forthcoming new appointments at semi-skilled Estates Assistant level to facilitate the delivery of key tasks such as water sampling.

The new standard reporting format included a range of key performance measures, including analysis of areas with non-compliant results. However, it did

<p>not include any information in relation to the PPMs that were <u>not</u> addressed as scheduled (e.g. categorising these by site or asset type). The Water Safety Management Committee therefore may not be adequately sighted on the risks associated with these PPMs.</p> <p><i>These findings supersede the compliance reporting issues reported in the 2018/19 audit report (see Appendix B, ref 6).</i></p>	
<p>Recommendation 5</p>	<p>Priority level</p>
<p>a) Standardised Estates performance reports should be included in the agenda pack for the Water Safety Management Committee, submitted in advance of each meeting; and</p> <p>b) Estates performance reports should include information regarding the risk profile of missed PPMs (e.g. by category of asset / site etc.) (O).</p>	<p>Medium</p>
<p>Management Response</p>	<p>Responsible Officer/ Deadline</p>
<p>a) Agreed. This was a standing agenda item at the last Water Safety Management Committee and will also be a standing item on the Sub-Group agenda.</p> <p>b) Agreed. Reports have now been updated to incorporate the recommended information, with evidence provided to Audit.</p>	<p>a) Assistant Director of Operations (Estates) July 2021</p> <p>b) Actioned since fieldwork</p>

Finding 5: Monitoring & Reporting - Recommendation tracking	Risk
<p>The UHB receives periodic independent assurance reports from NWSSP: SES (in their role Authorising Engineer) and Internal Audit (SSu), in relation to water safety management.</p> <p>Annual updates have been reported to the Health & Safety Committee, providing assurance on actions taken in respect of the 2018/19 Internal Audit (SSu) Water Safety audit.</p> <p>The NWSSP:SES 2019/20 Annual Report issued in February 2020 made a number of recommendations, the majority of which have since been actioned, in respect of:</p> <ul style="list-style-type: none"> • improved appointment of Responsible / Deputy Responsible Persons; • frequency of Water Safety Management Committee meetings; and • review of the Water Safety Plan. <p>However, there was no evidence of progress towards the recommendation that there should be an action plan in place to monitor the recommendations previously made in the SES 2018 site-based audits.</p> <p>It was also noted that prior recommendations raised by Internal Audit (SSu) have not been monitored at the Water Safety Management Committee.</p> <p>It would be expected that progress towards implementation of agreed recommendations, from both NWSSP: SES and Internal Audit (SSu), be monitored at the Water Safety Management Committee, to ensure identified risks are addressed in a timely manner, in line with this forum's remit.</p>	<p>Insufficient action taken to address previously identified issues / risks.</p> <p>The Water Safety Management Committee is not provided with sufficient information with which to monitor / address inaction.</p>

Recommendation 6	Priority level
<p>The Water Safety Management Committee should monitor progress towards implementation of recommendations made by e.g. NWSSP: SES and Internal Audit (SSu) (O).</p>	<p>Medium</p>
Management Response	Responsible Officer/ Deadline
<p>Agreed. However, whilst items may not have been reported on an action plan they were detailed in the action log. They will be reported to the August 2021 Water Safety Management Committee.</p>	<p>Assistant Director of Operations (Estates) August 2021</p>

Finding 6: Monitoring & Reporting – Responsibilities & Training	Risk
<p>The Water Safety Plan documents the assignment of the formal water safety roles of Coordinating Responsible Person, site-based Responsible Persons and site-based Authorised Persons.</p> <p>However, the supporting documentation to confirm the above appointments (NWSSP: SES approval, and UHB formal offer and acceptance letters) had not been centrally retained (by the Chief Operating Officer) as required by the Water Safety Plan. At the date of reporting, evidence to support the formal assignment and acceptance of roles was not demonstrated.</p> <p>Training</p> <p>The Water Safety Plan additionally documents the training requirements for key officers, including the requirement for training to be refreshed at least every three years.</p> <p>Training was in date for the current Responsible Persons and Authorised Persons. However, training for Competent Persons (Estates Officers) was out of date with the last training recorded as February 2017.</p> <p>Management advised that the provision of the required face-to-face training had not been possible due to Covid restrictions. It is acknowledged that some Authorised Persons training has now been arranged (noting this takes place off-site); but securing on-site training (for Competent Persons) remains difficult.</p> <p>It was noted that whilst a training matrix for Estates officers was held for those working at the Singleton estate, the same was not evidenced for the Morryston estate.</p>	<p>Staff may not have the required knowledge and skills to effectively undertake their roles.</p>

<p>In addition to the above, the 2018/19 audit identified the need for formal recording of Zetasafe training requirements, and the monitoring of departmental water hygiene training. Whilst management advised that Zetasafe training had recently been delivered, the training records maintained did not reflect this.</p> <p><i>These findings supersede the training issues reported in the 2018/19 audit report (see Appendix B, ref 6).</i></p>	
<p>Recommendations 7 & 8</p>	<p>Priority level</p>
<p>7. Paperwork associated with the appointment of Responsible / Authorised Persons should be centrally retained (●).</p>	<p>Medium</p>
<p>8.</p> <p>a) Training should be updated for relevant staff as soon as possible, Covid restrictions permitting; and</p> <p>b) Training requirements and compliance should be captured in a training matrix, for all staff with water safety responsibilities (including both Estates and departmental / ward staff) (●).</p>	<p>Medium</p>
<p>Management Response</p>	<p>Responsible Officer/ Deadline</p>
<p>7. Agreed. We will ensure paperwork is centrally retained.</p> <p>8.</p> <p>a) Agreed. Training will be updated as soon as possible.</p> <p>b) Agreed. The required detail will be incorporated into the Water Safety Plan.</p>	<p>Assistant Director of Operations (Estates) July 2021</p>

Finding 7: Risk Management	Risk
<p>Water-related risks are recorded by Estates management in the Datix risk management system in line with the wider corporate risk management procedure, escalating to the Corporate Risk Register should the score be sufficiently high.</p> <p>There were no corporate-level water risks reported at the time of the audit.</p> <p>The Water Safety Management Committee’s terms of reference state that it should:</p> <ul style="list-style-type: none"> • <i>“Provide a forum in which high level Water System monitoring outcomes and risks can be reported to, evaluated, so that appropriate reduction or elimination action is agreed”</i>; and • <i>“Consider identified risks, set priorities and produce action plans for each site.”</i> <p>Whilst a number of appropriate risks were seen to be discussed at the Water Safety Management Committee, the risk register itself (as recorded in Datix) was not shared.</p> <p>On review of the current Datix recorded water-related risks, it was noted that some high-risk issues discussed at the Water Safety Management Committee had not been recorded (e.g. the absence of up to date risk assessments), whilst other risks, recorded in Datix, had not been discussed at the same (e.g. ‘provision of resilience for the [Morrison] site’.</p>	<p>Relevant risks are not appropriately captured, monitored or reported.</p> <p>Appropriate controls cannot be implemented to mitigate known risks.</p>

<p>The formal reporting of water-related risks would therefore improve consistency in this key area, and ensure risks potentially needing Corporate-level visibility have been appropriately considered and scored.</p> <p>It was also noted that management have experienced difficulties in the coding, review and extraction of Estates risks in Datix. This was being addressed in conjunction with the Corporate Risk department at the time of reporting.</p>	
<p>Recommendation 9</p>	<p>Priority level</p>
<p>a) Water safety risks captured in Datix should be routinely reported to and reviewed by the Water Safety Management Committee as a standing agenda item.</p> <p>b) Management should resolve the current Datix usability issues to ensure water-related Estates risks can be accurately captured, monitored and reported (O).</p>	<p>Medium</p>
<p>Management Response</p>	<p>Responsible Officer/ Deadline</p>
<p>a) Agreed. Moving forward risks will be noted as an agenda item for the Water Management Sub Group for review.</p> <p>b) Agreed. As explained at the time of the Audit, the Estates element of DATIX has not yet gone "live". The Governance Department are arranging for a review of the Estates Risks and have also been working with the Department to allow us to put Health Board wide risks into the database. The reason that the risk assessment having just gone out of date is not entered, is because we were having to enter it for individual buildings. We are currently in discussions with Governance about giving us the capability to enter this</p>	<p>Assistant Director of Operations (Estates) July 2021</p>

information across the Estate rather than by building. The Health Board is in the process of awarding the risk assessment contract.

Finding 8: Risk Management – Risk Assessment Action Plan	Risk
<p>Updated Water infrastructure risk assessments were primarily last undertaken by the appointed external organisation in the period October 2017 to May 2018. Management have advised that these were considered poor quality and insufficient to inform the UHB's water management approach.</p> <p>The contract for the delivery of new risk assessments was being tendered at the time of the audit. Funding of £100k has been secured from Welsh Government (as part of the national infrastructure programme) to address any actions that may arise from the same. Management advised that it is anticipated the risk assessments will be undertaken from June 2021; with remedial actions commencing from November 2021.</p> <p>To ensure appropriate prioritisation of identified actions and the associated allocation of funding, a risk assessment action plan should be maintained on completion of these new assessments. This should be routinely reported to the Water Safety Management Committee to monitor progress.</p> <p><i>These findings supersede the risk management issues reported in the 2018/19 audit report (see Appendix B, ref 14).</i></p>	<p>Insufficient action taken to address identified issues / risks.</p> <p>The Water Safety Management Committee is not provided with sufficient information with which to monitor / address inaction.</p>
Recommendation 10	Priority level
<p>Risk assessments should be undertaken as soon as possible.</p> <p>The resulting action plans should include:</p> <ul style="list-style-type: none"> • Risk prioritisation of required actions; and 	<p>High</p>

<ul style="list-style-type: none"> • Identification and allocation of required funding. <p>Routine reporting of progress should be presented to the Water Safety Management Committee (O).</p>	
<p>Management Response</p>	<p>Responsible Officer/ Deadline</p>
<p>Agreed. The Health Board has tendered for the completion of water risk assessments however the award of the contract was delayed due to the fact that following assessment the preferred bidder was more expensive. A paper detailing why the committee felt the contract should be awarded to the preferred bidder was provided following which we sent out clarifications however the advice from Procurement was that we could not appoint the preferred bidder as we needed greater clarity on the criteria for the award.</p> <p>We have redrafted the specification and it will be issued first week in July - the plan is to still complete the works early 2022.</p>	<p>Assistant Director of Operations (Estates) On completion of the new risk assessments</p>

Ref	Recommendation	Previous Responsibility & Timescale	Current Status	Updated Responsibility & Timescale
High Priority				
4	All existing equipment items, which use/supply water, should be reviewed to ensure appropriate risk assessment, monitoring/testing and maintenance regimes are applied. (D)	Assistant Director of Operations and Estates September 2020	<p>Closed</p> <p>An original deadline of July 2019 was agreed for this recommendation. The follow up audit (June 2020) determined that no progress had been made and a revised deadline of September 2020 set.</p> <p>Noting the Water Safety Management Committee only reconvened in August 2020 (see finding 2, Appendix A), action in this area only commenced at that time.</p> <p>At the time of reporting, the Water Safety Management Committee had approved a Standard Operating Procedure to provide robust controls in this area, and this had been distributed to the Hospital Directors for implementation.</p> <p>The SOP provides instruction to departments on the rules to be followed if such equipment is required (including daily cleaning and twice-yearly service). A standard make/model has also been agreed for new purchases. The SOP states that Estates will undertake spot check audits to monitor compliance.</p>	N/A
5	Committees with responsibilities for water safety oversight should: a. ensure that appropriate / periodic advisory support has been obtained from a micro-biologist; and	Assistant Director of Operations and Estates September 2020	<p>Superseded</p> <p>See Finding 2, Appendix A for detail of governance arrangements findings resulting from this year's review, with a new recommendation raised.</p>	N/A

Ref	Recommendation	Previous Responsibility & Timescale	Current Status	Updated Responsibility & Timescale
	<p>b. the Water Safety Group should:</p> <ul style="list-style-type: none"> i. meet quarterly in accordance with the Water Safety Policy; and ii. ensure required attendance (particularly by key members) unless a bona fide reason has been provided. Requirements should be reiterated to all members to ensure appropriateness of governance and be monitored and feed into the appraisal process to ensure individual accountability. (O) 			
8	<p>Water safety monitoring arrangements should be enhanced to provide greater assurance in relation to the flushing of infrequently/ unused outlets including for example:</p> <ul style="list-style-type: none"> a) a review of the assurance mechanisms e.g. initial review against the newly provided infrastructure risk assessments (which should inform current requirements). b) detailing roles and responsibilities at the internet; c) regular promotion of flushing regime requirements. (D) 	<p>Assistant Director of Operations and Estates September 2020</p>	<p>Superseded</p> <p>Recognising that responsibilities for flushing processes have changed since the prior audit, a fresh review of current procedures and controls has been undertaken.</p> <p>See Finding 3, Appendix A for detail of the flushing findings resulting from this year's review, with a new recommendation raised.</p>	N/A

Ref	Recommendation	Previous Responsibility & Timescale	Current Status	Updated Responsibility & Timescale
12	A service level agreement / contract for water testing should be appropriately concluded. (O)	Assistant Director of Operations and Estates September 2020	<p>Partially Implemented</p> <p>An original deadline of July 2019 was agreed for this recommendation. The follow up audit (June 2020) determined that no progress had been made and a revised deadline of September 2020 set.</p> <p>At the time of the audit, a draft tender specification for water testing had been developed, but not finalised and agreed.</p> <p>In the meantime, some water testing has still been undertaken, with the limited resource available (both within the UHB and at the testing laboratory); and focused on high risk areas (e.g. augmented care units). It is acknowledged that wider testing is not mandatory but is a goal for the UHB.</p> <p>It is recognised that the Covid pandemic has impacted both laboratory service delivery and availability of resources within Estates.</p>	Assistant Director of Operations and Estates July 2021
Medium Priority				
6	<p>The scope of management reports should be reviewed, including:</p> <ul style="list-style-type: none"> • achievement of test / re-test targets • achievement of scheduled water related maintenance; • exceptional data (e.g. repeat failures / problematic outlets and tasks); and 	Assistant Director of Operations and Estates September 2020	<p>Superseded</p> <p>Recognising that reporting arrangements have recently been reviewed and refreshed, an updated review of current processes has been undertaken.</p> <p>See Finding 4, Appendix A for detail of the monitoring and reporting findings resulting from this year's review, with a new recommendation raised.</p>	N/A

Ref	Recommendation	Previous Responsibility & Timescale	Current Status	Updated Responsibility & Timescale
	<ul style="list-style-type: none"> hand-over certificates. (D) 			
9	<p>Management should confirm:</p> <p>a. that there are sufficient trained officers both to operate local management systems, and address prioritised maintenance; and</p> <p>b. governance mechanisms by which wider water safety training is assured. (O)</p>	<p>Assistant Director of Operations and Estates</p> <p>September 2020</p>	<p>Superseded</p> <p>The current status regarding training provision and monitoring has been re-assessed in the current audit.</p> <p>See Finding 6, Appendix A for detail of the training findings resulting from this year's review, with a new recommendation raised.</p>	N/A
14	<p>Appropriate water management risk monitoring and reporting arrangements should be implemented. (D)</p>	<p>Assistant Director of Operations and Estates</p> <p>July 2020</p>	<p>Superseded</p> <p>The current status regarding risk management has been re-assessed in the current audit.</p> <p>See Finding 7, Appendix A for detail of the risk management findings resulting from this year's review, with new recommendations raised.</p>	

Appendix C: Estates Performance Data

At the time of the audit, performance data obtained from Zetasafe (for the last quarter, February – April 2021), showed the following:

Estates area	Completion of scheduled PPM activities ¹	Compliant results ³	Unacknowledged notes ⁴
Morrison	73%	76%	91%
Singleton	61% ²	90%	3%
Princess of Wales ⁵	87%	97%	67%
UHB average	74%	88%	54%

¹ Whilst recognising that not all scheduled PPMs have been completed in the period, management advised that none are statutory (i.e. required by law), and supervisors endeavour to allocate work on a priority basis i.e. those missed should be of lower priority. However, we did not observe any supporting assurance as to the risk profile of the missed PPMs, either in the proposed standard reporting format generated by Estates or in discussion at the Water Safety Management Committee.

² Management advised that the lower completion rate for Singleton estate is related to the way assets have been recorded in Zetasafe as opposed to an actual lower completion rate of activities. More individual assets are logged against which test results are required, compared with Morrison estate where individual assets have been grouped for ease of management. The available performance data, therefore, did not enable a like-for-like comparison of actual performance. Management advise this is a long-standing issue and cannot easily be rectified.

³ The % of total tests undertaken returning compliant results. The remainder returned non-compliant results, requiring follow up action to address the issues identified. The overall % of compliant results provides a general indicator of the level of risk identified in the water system.

⁴ Notes are generated in the system when non-compliant results are recorded. Management are required to acknowledge the note and record what remedial action has been taken (e.g. re-test / repair etc). At the Morrison estate, management advised there is

Insufficient resource within the team to operate Zetasafe in this way. Whilst management advised that the associated remedial works are instructed, this is not acknowledged within Zetasafe. This is a long-standing issue and was also noted in the 2018/19 audit report. By means of assurance that the remedial works are indeed being actioned, management advised that the overall measure of total compliance in the system provides positive assurance in this area.

⁵ The elements of the POW estate for which the UHB have retained control, following the reorganisation with Cwm Taf Morgannwg UHB.

Appendix D: Site specific testing of Estates activities

Activity	Service & Task	Frequency ¹	Singleton		Morrison	
			Cefn Coed Hospital	Ty Garngoch clinic	Gorseinon Hospital	Llwyneryr Hospital
Water Samples	Drinking water: E Coli & Coliforms	Monthly	N²	N²	N²	N²
	Cold water systems: TVC	Monthly / half yearly / yearly	N²	N²	N²	N²
Water temperature tests	Calorifiers: Calorifier flow & return temperatures	Monthly	Y	n/a	N (checks only recorded in 2 of the 3 months reviewed)	N (checks only recorded in 2 of the 3 months reviewed)
	Hot water: non-circulating systems – sentinel points	Monthly	Y	N (checks only recorded in 1 of the 3 months reviewed)	Y	N (majority of checks only recorded in 2 of the 3 months reviewed)
	Combination water heaters: outlet temperature	Monthly	n/a	N (checks only recorded in 1 of the 3 months reviewed)	n/a	n/a
	Cold water: sentinel taps	Monthly	Y	Y	Y	Y
PPMs	Showers - clean and descale	Quarterly (or as indicated by risk factors)	Y	n/a	Y	Y
	POU filters - Replace	According to manufacturer's guidelines	n/a	n/a	n/a	n/a
	Dead leg & infrequently used outlet flushing	Weekly	Y	n/a	n/a	n/a
	TMV cleaning	6 monthly	Y	N (only 1 clean recorded in the last year)	N (management advise there is insufficient resource to	N (management advise there is insufficient resource to

Activity	Service & Task	Frequency ¹	Singleton		Morrison	
			Cefn Coed Hospital	Ty Garngoch clinic	Gorseinon Hospital	Llwyneryr Hospital
					undertake this task)	undertake this task)
	Tank cleaning	As required following annual inspection	Y	n/a	Y	n/a
	AHU Trap cleaning	6 monthly	n/a	n/a	n/a	n/a

Notes

¹ Frequency as defined in the Water Safety Plan, aligning with the requirements of WHTM 04-01.

² As discussed at the Follow Up review (Appendix B, recommendation 12), water sampling has been suspended during the period reviewed, due to Covid prioritisation at the Public Health Wales laboratory. Whilst high-risk samples continue to be taken, these are at acute sites only and therefore not reflected in the sampled sites above. With regards the TVC (Total Variable Count) samples specifically, the benefits of routine sampling going forward was also being reviewed by the Water Safety Management Committee (on advice from the Authorising Engineer and noting not all Health Boards utilise these samples routinely). Noting a decision had not yet been made by the Water Safety Management Committee, the Water Safety Plan had not yet been updated to reflect the preferred approach.

Appendix E: 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 has **no assurance** that arrangements 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

Prioritisation of Recommendations

In order to assist management in using our reports, we categorise our recommendations according to their level of priority as follows.

Priority Level	Explanation	Management action
High	Poor key control design OR widespread non-compliance with key controls. PLUS Significant risk to achievement of a system objective OR evidence present of material loss, error or misstatement.	Immediate*
Medium	Minor weakness in control design OR limited non-compliance with established controls. PLUS Some risk to achievement of a system objective.	Within One Month*
Low	Potential to enhance system design to improve efficiency or effectiveness of controls. These are generally issuing of good practice for management consideration.	Within Three Months*

* Unless a more appropriate timescale is identified/agreed at the assignment