689. Sustainability & Climate Action - Carbon, Energy & Resources - Water Consumption & Efficiency Monitoring

Category:	Sustainability & Climate Action
Subcategory:	Carbon, Energy & Resources
Status:	**Best Practice**
Type:	Competent Person
Priority:	Recommended
Commonality:	Common

Note: This document provides guidance to support compliance but is not a substitute for professional advice.

Why This Task Matters

Your attentive monitoring of water consumption directly safeguards pupil and staff wellbeing by ensuring clean, reliable water supplies while reducing environmental impact and operational costs. By identifying leaks and inefficiencies early, you demonstrate responsible resource stewardship that builds confidence in the organisation's environmental commitment and recognises the vital role facilities staff play in maintaining sustainable, healthy learning environments that protect both people and the planet.

Task Summary

Best Practice: This task requires quarterly monitoring of water use across the estate to identify leaks, over-consumption, or inefficiencies. The process involves collecting meter readings, analysing consumption patterns, inspecting for visible leaks, and preparing reports for management review. Staff should ensure systematic coverage of all water-using areas including toilets, kitchens, laboratories, and outdoor spaces. The monitoring should include verification of billing data, assessment of seasonal variations, and identification of unusual consumption patterns that may indicate leaks or misuse. Data should inform the Climate Action Plan and support water conservation initiatives. This regular

monitoring helps maintain efficient water use, reduces costs, and supports environmental objectives while ensuring reliable supplies for essential educational activities.

Relevant Legislation & Guidance

- **Climate Change Act 2008**: Supports water efficiency as part of resource management strategies.
- **Water Industry Act 1991**: Establishes framework for water supply and efficiency.
- **DfE guidance on water management in schools**: Recommends monitoring and conservation measures.
- **Water Resources Act 1991**: Includes provisions for water efficiency and leak detection.
- **Environment Agency guidance on water efficiency**: Provides best practice for monitoring and conservation.

Typical Frequency

This task should be completed quarterly, aligned with billing cycles and seasonal variations in water use. The frequency could vary if leaks are suspected or if more frequent monitoring is needed during dry periods. In education settings, quarterly monitoring captures term-time usage patterns while allowing sufficient time between inspections for meaningful trend analysis.

Applicability

This task is recommended and common, applying to most schools and colleges as part of responsible resource management. It is particularly important for establishments with large water-using facilities like science laboratories, sports facilities, or boarding accommodation. The task applies regardless of water supply arrangements (mains or borehole), though metered supplies allow for more detailed monitoring. Schools and colleges should consider this essential for environmental responsibility and cost management.

Responsible Persons

- **Task Type**: This is a Competent Person task that can be carried out by facilities staff or maintenance personnel.
- **Contractor Requirements**: Not applicable as this is a Competent Person task.
- **In-House Requirements**: Staff should have basic training in water systems and leak detection. Familiarity with the building's water distribution and metering systems is essential.

- **Permit to Work**: No permit to work is normally required for this task.

- **Delivery Model**: This task is normally completed in-house by trained staff, making it cost-effective for regular monitoring.

Key Considerations

Important factors include ensuring access to water meters, coordinating with peak usage times for accurate readings, and having immediate access to basic leak detection tools. The task should be planned to avoid disrupting normal building operations. Consider seasonal variations and occupancy levels when analysing consumption data. Risk assessment should focus on identifying potential water damage from undetected leaks.

Task Instructions

Prerequisites & Safety

- Access to all water meters and billing systems
- Understanding of water consumption patterns and leak indicators
- Basic leak detection skills and tools
- Knowledge of building water systems

Tools & Materials

- Water meter reading sheets
- Leak detection tools (listening sticks, moisture meters)
- Camera for photographic evidence
- Water monitoring spreadsheet
- Billing records and usage history

Method (Step-by-Step)

1. **Meter Reading**: Collect readings from all water meters and sub-meters.

2. **Data Collection**: Gather water bills and usage data from all sources.

3. **Consumption Analysis**: Calculate total water consumption and analyse usage patterns.

4. **Leak Inspection**: Conduct visual inspection for signs of leaks in accessible areas.

5. **Trend Analysis**: Compare current consumption with previous periods and benchmarks.

6. **Report Preparation**: Prepare quarterly monitoring report with findings and recommendations.

Measurements & Acceptance Criteria

Water consumption should be measured in cubic meters with clear identification of unusual usage patterns. Leak detection should identify visible or audible signs of water loss.

If Results Fail

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. If monitoring identifies potential leaks, immediate actions should include isolating affected areas and arranging repairs.

Reinstatement & Housekeeping

No reinstatement required. Ensure meters are left secure and any accessed areas are properly secured.

Completion Checks

Confirm that all meters have been read, inspections completed, data analysed, and evidence uploaded to Compliance Pod.

Record-Keeping & Evidence

- **Upload Process**: Upload any required statutory or supporting evidence to the corresponding task form in Compliance Pod.
- **Statutory Evidence**: No statutory evidence is required for this task.
- **Supporting/Good Practice Evidence**: Meter readings, water bills, monitoring spreadsheets, and inspection photos.

Common Pitfalls & Best Practice Tips

Common mistakes include not accounting for seasonal variations, missing sub-meter readings, or failing to investigate unusual consumption patterns. Best practices include establishing fixed reading schedules, maintaining historical data for comparison, and combining monitoring with routine maintenance activities. In educational settings, use monitoring data to educate pupils about water conservation. Warning signs include sudden increases in consumption or persistent high usage in unoccupied areas.

Quick Reference Checklist

- [ ] Collect readings from all water meters
- [ ] Gather current water bills and usage data
- [ ] Conduct visual inspection for leaks
- [ ] Analyse consumption patterns and trends
- [ ] Identify unusual usage or potential issues
- [ ] Prepare monitoring report
- [ ] Upload evidence to Compliance Pod

Grouped Tasks

Grouping is feasible; align with related tasks of the same frequency and contractor visit.

Related Tasks

- Sustainability & Climate Action - Carbon, Energy & Resources - Carbon Emissions & Energy Use Monitoring
- Sustainability & Climate Action - Carbon, Energy & Resources - Waste Generation & Recycling Monitoring
- Sustainability & Climate Action - Carbon, Energy & Resources - Energy Efficiency Visual Check

Disclaimer