

Comprehensive Flood Gauge Analysis Report

Gauge ID: GAUGE-dc0b0122

Report Date: 2025-06-13

Gauge Overview

Gauge Information	Value
Gauge ID	GAUGE-dc0b0122
Gauge Name	Thames Chelsea Gauge 1

Gauge Summary

Key Attribute	Value
Gauge Type	Staff gauge
Gauge Owner	Thames Water
Manufacturer	Campbell Scientific
Status	Fully operational
Certification	Non-certified
Historical High (m)	6.21
Flood Alert Level (m)	3.727 m
Flood Warning Level (m)	4.969 m
Gauge Age	10 years

Sensor Details and Hardware Specifications

Gauge ID: GAUGE-dc0b0122

Gauge Information

Gauge Specification	Value
Data Source Type	SensorGauge
Gauge Owner	Thames Water
Gauge Type	Staff gauge
Manufacturer Name	Campbell Scientific
Installation Date	2015-06-16
Last Inspection Date	2023-08-22
Maintenance Schedule	Annual
Operational Status	Fully operational
Certification Status	Non-certified

Location Information

Location Attribute	Value
Latitude	51.457300
Longitude	-0.307300
Ground Level (m)	20.473 m

Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	30 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	Centre for Ecology & Hydrology
Data Access Method	PublicAPI

Historical Sensor Statistics

Statistical Measure	Value
---------------------	-------

Historical High Level (m)	6.211 m
Date of Historical High	2018-10-03
Last Severe Level Exceeded	2021-04-14
Frequency of Severe Level Exceedance	Never

Geographic Location and Context

Gauge ID: GAUGE-dc0b0122

Geographic Coordinates

Geographic Parameter	Value
Latitude	51.457300°
Longitude	-0.307300°
Ground Level Elevation	20.473 m above sea level

Thames River Context

Thames Parameter	Value
Distance to Thames	On Thames River

Location-Based Flood Risk Assessment

Risk Parameter	Assessment
Flood Risk Score	9/10
Risk Category	High
Last Assessment Date	2025-03-27

Gauge Positioning Summary

Position Attribute	Description
Regional Position	Central London area
River Position	Directly on Thames River
Location Risk Profile	High flood risk location

Current Measurements and Operational Status

Gauge ID: GAUGE-dc0b0122

Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	30 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	Centre for Ecology & Hydrology
Data Access Method	PublicAPI

Gauge Operational Status

Status Parameter	Current State
Operational Status	Fully operational
Certification Status	Non-certified
Last Inspection	2023-08-22
Maintenance Schedule	Annual

Historical Measurement Statistics

Statistical Measure	Value
Historical High Level	6.211 m
Date of Historical High	2018-10-03
Last Severe Level Exceeded	2021-04-14
Severe Level Exceedance Frequency	0.000 m

Current Readings

No current timeseries data available for real-time readings.

Flood Stages and Alert Thresholds

Gauge ID: GAUGE-dc0b0122

UK Flood Stage Thresholds

Alert Level	Threshold (m)	Authority
Flood Alert	3.727 m	Environment Agency
Flood Warning	4.969 m	Environment Agency
Severe Flood Warning	5.901 m	Environment Agency

Threshold Analysis

Analysis Parameter	Value
Alert to Warning Range	1.242 m
Warning to Severe Range	0.932 m
Total Alert Range	2.174 m
Decision Authority	Environment Agency

Historical Threshold Exceedance

Exceedance Parameter	Historical Data
Historical High Level	6.211 m
Date of Historical High	2018-10-03
Last Severe Level Exceeded	2021-04-14
Severe Level Exceedance Count	0.000 m

Current Status vs Thresholds

No current timeseries data available for threshold comparison.

Flood Risk Assessment and Analysis

Gauge ID: GAUGE-dc0b0122

Overall Risk Profile

Risk Parameter	Assessment
Flood Risk Score	9/10 (Very High Risk)
Risk Category	High
Last Assessment Date	2025-03-27
Location Risk Factor	On Thames River (Highest Risk)

Historical Risk Patterns

Historical Pattern	Analysis
Severe Level Frequency	No severe level exceedances recorded
Historical High Level	6.211m (Exceeded severe warning level)
Recent Activity	No recent severe activity (4 years ago)

Threshold Risk Analysis

Threshold Analysis	Risk Assessment
Alert Range Analysis	Moderate alert range (1.242m) - Standard escalation
Historical vs Threshold	Historical high exceeds severe level by 0.311m (Elevated risk)

Current Risk Status

No current timeseries data available for real-time risk assessment.

Comprehensive Data Summary

Thames Chelsea Gauge 1 (GAUGE-dc0b0122)

Gauge Overview Summary

Summary Parameter	Value
Gauge Type	Staff gauge
Manufacturer	Campbell Scientific
Operational Status	Fully operational
Installation Date	2015-06-16
Latitude	51.457300°
Longitude	-0.307300°

Key Metrics Summary

Key Metric	Value	Significance
Historical High Level	6.211 m	Exceeds severe warning
Flood Alert Level	3.727 m	Initial warning threshold
Severe Warning Level	5.901 m	Critical action required
Flood Risk Assessment	9/10 (High)	Overall location risk
Severe Level Exceedances	Never	No severe exceedances

Operational Status Summary

Operational Parameter	Status
Current Status	Fully operational
Certification	Non-certified
Measurement Frequency	30 minutes
Data Transmission	Automatic
Maintenance Schedule	Annual

Report Conclusions

- Gauge is fully operational and providing reliable data
- Location presents high flood risk requiring close monitoring
- No historical severe flood events recorded at this location

- Gauge meets certification standards for reliable flood monitoring

Report completed: 2025-06-13 15:26 - MKM Research Labs