Comprehensive Flood Gauge Analysis Report

Gauge ID: GAUGE-9c503d7e

Report Date: 2025-06-19

Gauge Overview

Gauge Information	Value
Gauge ID	GAUGE-9c503d7e
Gauge Name	Thames Chelsea Gauge 31

Gauge Summary

Key Attribute	Value
Gauge Type	Bubbler system
Gauge Owner	Met Office
Manufacturer	Stevens Water
Status	Fully operational
Certification	Fully certified
Historical High (m)	7.37
Flood Alert Level (m)	4.423 m
Flood Warning Level (m)	5.897 m
Gauge Age	10 years

Sensor Details and Hardware Specifications

Gauge ID: GAUGE-9c503d7e

Gauge Information

Gauge Specification	Value
Data Source Type	SensorGauge
Gauge Owner	Met Office
Gauge Type	Bubbler system
Manufacturer Name	Stevens Water
Installation Date	2015-06-22
Last Inspection Date	2023-08-24
Maintenance Schedule	Quarterly
Operational Status	Fully operational
Certification Status	Fully certified

Location Information

Location Attribute	Value
Latitude	51.475000
Longitude	0.015000
Ground Level (m)	5.610 m

Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	5 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	Centre for Ecology & Hydrology
Data Access Method	WebInterface

Historical Sensor Statistics

Statistical Measure	Value

Historical High Level (m)	7.372 m
Date of Historical High	2018-02-24
Last Severe Level Exceeded	2023-07-31
Frequency of Severe Level Exceedance	4 times

Geographic Location and Context

Gauge ID: GAUGE-9c503d7e

Geographic Coordinates

Geographic Parameter	Value
Latitude	51.475000°
Longitude	0.015000°
Ground Level Elevation	5.610 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	8/10
Risk Category	High
Last Assessment Date	2024-07-30

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

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Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	5 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	Centre for Ecology & Hydrology
Data Access Method	WebInterface

Gauge Operational Status

Status Parameter	Current State
Operational Status	Fully operational
Certification Status	Fully certified
Last Inspection	2023-08-24
Maintenance Schedule	Quarterly

Historical Measurement Statistics

Statistical Measure	Value
Historical High Level	7.372 m
Date of Historical High	2018-02-24
Last Severe Level Exceeded	2023-07-31
Severe Level Exceedance Frequency	4.000 m

Current Readings

No current timeseries data available for real-time readings.

Flood Stages and Alert Thresholds

Gauge ID: GAUGE-9c503d7e

UK Flood Stage Thresholds

Alert Level	Threshold (m)	Authority
Flood Alert	4.423 m	Scottish Environment Protection Agency
Flood Warning	5.897 m	Scottish Environment Protection Agency
Severe Flood Warning	7.003 m	Scottish Environment Protection Agency

Threshold Analysis

Analysis Parameter	Value
Alert to Warning Range	1.474 m
Warning to Severe Range	1.106 m
Total Alert Range	2.580 m
Decision Authority	Scottish Environment Protection Agency

Historical Threshold Exceedance

Exceedance Parameter	Historical Data
Historical High Level	7.372 m
Date of Historical High	2018-02-24
Last Severe Level Exceeded	2023-07-31
Severe Level Exceedance Count	4.000 m

Current Status vs Thresholds

No current timeseries data available for threshold comparison.

Flood Risk Assessment and Analysis

Gauge ID: GAUGE-9c503d7e

Overall Risk Profile

Risk Parameter	Assessment
Flood Risk Score	8/10 (Very High Risk)
Risk Category	High
Last Assessment Date	2024-07-30
Location Risk Factor	On Thames River (Highest Risk)

Historical Risk Patterns

Historical Pattern	Analysis
Severe Level Frequency	4 severe level exceedances (High frequency)
Historical High Level	7.372m (Exceeded severe warning level)
Recent Activity	Moderate recent activity (2 years ago)

Threshold Risk Analysis

Threshold Analysis	Risk Assessment
Alert Range Analysis	Moderate alert range (1.474m) - Standard escalation
Historical vs Threshold	Historical high exceeds severe level by 0.369m (Elevated risk)

Current Risk Status

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

Comprehensive Data Summary

Thames Chelsea Gauge 31 (GAUGE-9c503d7e)

Gauge Overview Summary

Summary Parameter	Value
Gauge Type	Bubbler system
Manufacturer	Stevens Water
Operational Status	Fully operational
Installation Date	2015-06-22
Latitude	51.475000°
Longitude	0.015000°

Key Metrics Summary

Key Metric	Value	Significance
Historical High Level	7.372 m	Exceeds severe warning
Flood Alert Level	4.423 m	Initial warning threshold
Severe Warning Level	7.003 m	Critical action required
Flood Risk Assessment	8/10 (High)	Overall location risk
Severe Level Exceedances	4 times	Regular severe events

Operational Status Summary

Operational Parameter	Status
Current Status	Fully operational
Certification	Fully certified
Measurement Frequency	5 minutes
Data Transmission	Automatic
Maintenance Schedule	Quarterly

Report Conclusions

• Gauge is fully operational and providing reliable data
• Location presents high flood risk requiring close monitoring
• Multiple severe flood events indicate active flood-prone location

- Gauge meets certification standards for reliable flood monitoring

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