Comprehensive Flood Gauge Analysis Report

Gauge ID: GAUGE-be1dd686

Report Date: 2025-06-19

Gauge Overview

Gauge Information	Value
Gauge ID	GAUGE-be1dd686
Gauge Name	Thames Tower Hamlets Gauge 37

Gauge Summary

Key Attribute	Value
Gauge Type	Shaft encoder
Gauge Owner	Environment Agency
Manufacturer	Campbell Scientific
Status	Fully operational
Certification	Fully certified
Historical High (m)	7.58
Flood Alert Level (m)	4.548 m
Flood Warning Level (m)	6.064 m
Gauge Age	7 years

Sensor Details and Hardware Specifications

Gauge ID: GAUGE-be1dd686

Gauge Information

Gauge Specification	Value
Data Source Type	SensorGauge
Gauge Owner	Environment Agency
Gauge Type	Shaft encoder
Manufacturer Name	Campbell Scientific
Installation Date	2018-06-21
Last Inspection Date	2024-11-12
Maintenance Schedule	Bi-annual
Operational Status	Fully operational
Certification Status	Fully certified

Location Information

Location Attribute	Value
Latitude	51.460000
Longitude	0.160000
Ground Level (m)	5.010 m

Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	30 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	British Hydrological Society
Data Access Method	PublicAPI

Historical Sensor Statistics

Statistical Measure	Value

Historical High Level (m)	7.580 m
Date of Historical High	2022-05-30
Last Severe Level Exceeded	2022-01-14
Frequency of Severe Level Exceedance	2 times

Geographic Location and Context

Gauge ID: GAUGE-be1dd686

Geographic Coordinates

Geographic Parameter	Value
Latitude	51.460000°
Longitude	0.160000°
Ground Level Elevation	5.010 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	7/10
Risk Category	High
Last Assessment Date	2024-09-11

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	30 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	British Hydrological Society
Data Access Method	PublicAPI

Gauge Operational Status

Status Parameter	Current State
Operational Status	Fully operational
Certification Status	Fully certified
Last Inspection	2024-11-12
Maintenance Schedule	Bi-annual

Historical Measurement Statistics

Statistical Measure	Value
Historical High Level	7.580 m
Date of Historical High	2022-05-30
Last Severe Level Exceeded	2022-01-14
Severe Level Exceedance Frequency	2.000 m

Current Readings

No current timeseries data available for real-time readings.

Flood Stages and Alert Thresholds

Gauge ID: GAUGE-be1dd686

UK Flood Stage Thresholds

Alert Level	Threshold (m)	Authority
Flood Alert	4.548 m	Environment Agency
Flood Warning	6.064 m	Environment Agency
Severe Flood Warning	7.201 m	Environment Agency

Threshold Analysis

Analysis Parameter	Value
Alert to Warning Range	1.516 m
Warning to Severe Range	1.137 m
Total Alert Range	2.653 m
Decision Authority	Environment Agency

Historical Threshold Exceedance

Exceedance Parameter	Historical Data
Historical High Level	7.580 m
Date of Historical High	2022-05-30
Last Severe Level Exceeded	2022-01-14
Severe Level Exceedance Count	2.000 m

Current Status vs Thresholds

No current timeseries data available for threshold comparison.

Flood Risk Assessment and Analysis

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Overall Risk Profile

Risk Parameter	Assessment
Flood Risk Score	7/10 (High Risk)
Risk Category	High
Last Assessment Date	2024-09-11
Location Risk Factor	On Thames River (Highest Risk)

Historical Risk Patterns

Historical Pattern	Analysis
Severe Level Frequency	2 severe level exceedances (Moderate frequency)
Historical High Level	7.580m (Exceeded severe warning level)
Recent Activity	Moderate recent activity (3 years ago)

Threshold Risk Analysis

Threshold Analysis	Risk Assessment
Alert Range Analysis	Moderate alert range (1.516m) - Standard escalation
Historical vs Threshold	Historical high exceeds severe level by 0.379m (Elevated risk)

Current Risk Status

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

Comprehensive Data Summary

Thames Tower Hamlets Gauge 37 (GAUGE-be1dd686)

Gauge Overview Summary

Summary Parameter	Value
Gauge Type	Shaft encoder
Manufacturer	Campbell Scientific
Operational Status	Fully operational
Installation Date	2018-06-21
Latitude	51.460000°
Longitude	0.160000°

Key Metrics Summary

Key Metric	Value	Significance
Historical High Level	7.580 m	Exceeds severe warning
Flood Alert Level	4.548 m	Initial warning threshold
Severe Warning Level	7.201 m	Critical action required
Flood Risk Assessment	7/10 (High)	Overall location risk
Severe Level Exceedances	2 times	Low frequency events

Operational Status Summary

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

Report Conclusions

- Gauge is fully operational and providing reliable data
- Location presents high flood risk requiring close monitoring
- Limited historical severe flood events indicate stable conditions

- Gauge meets certification standards for reliable flood monitoring

Report completed: 2025-06-19 13:31 - MKM Research Labs