

# Comprehensive Flood Gauge Analysis Report

Gauge ID: GAUGE-6283e23b

Report Date: 2025-06-11

## Gauge Overview

Gauge Information	Value
Gauge ID	GAUGE-6283e23b
Gauge Name	Thames Richmond Gauge 1

## Gauge Summary

Key Attribute	Value
Gauge Type	Staff gauge
Gauge Owner	Local Authority
Manufacturer	YSI
Status	Fully operational
Certification	Fully certified
Historical High (m)	7.56
Flood Alert Level (m)	4.533 m
Flood Warning Level (m)	6.044 m
Gauge Age	10 years

# Sensor Details and Hardware Specifications

Gauge ID: GAUGE-6283e23b

## Gauge Information

Gauge Specification	Value
Data Source Type	SensorGauge
Gauge Owner	Local Authority
Gauge Type	Staff gauge
Manufacturer Name	YSI
Installation Date	2015-06-01
Last Inspection Date	2024-09-06
Maintenance Schedule	Quarterly
Operational Status	Fully operational
Certification Status	Fully certified

## Location Information

Location Attribute	Value
Latitude	51.461300
Longitude	-0.305600
Ground Level (m)	41.059 m

## Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	5 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	British Hydrological Society
Data Access Method	WebInterface

## Historical Sensor Statistics

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

Historical High Level (m)	7.555 m
Date of Historical High	2020-01-10
Last Severe Level Exceeded	2021-01-13
Frequency of Severe Level Exceedance	3 times

# Geographic Location and Context

Gauge ID: GAUGE-6283e23b

## Geographic Coordinates

Geographic Parameter	Value
Latitude	51.461300°
Longitude	-0.305600°
Ground Level Elevation	41.059 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	2025-05-01

## 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-6283e23b

## Measurement Configuration

Measurement Parameter	Configuration
Measurement Frequency	5 minutes
Measurement Method	Automatic
Data Transmission	Automatic
Data Curator	British Hydrological Society
Data Access Method	WebInterface

## Gauge Operational Status

Status Parameter	Current State
Operational Status	Fully operational
Certification Status	Fully certified
Last Inspection	2024-09-06
Maintenance Schedule	Quarterly

## Historical Measurement Statistics

Statistical Measure	Value
Historical High Level	7.555 m
Date of Historical High	2020-01-10
Last Severe Level Exceeded	2021-01-13
Severe Level Exceedance Frequency	3.000 m

## Current Readings

No current timeseries data available for real-time readings.

# Flood Stages and Alert Thresholds

Gauge ID: GAUGE-6283e23b

## UK Flood Stage Thresholds

Alert Level	Threshold (m)	Authority
Flood Alert	4.533 m	Natural Resources Wales
Flood Warning	6.044 m	Natural Resources Wales
Severe Flood Warning	7.178 m	Natural Resources Wales

## Threshold Analysis

Analysis Parameter	Value
Alert to Warning Range	1.511 m
Warning to Severe Range	1.133 m
Total Alert Range	2.644 m
Decision Authority	Natural Resources Wales

## Historical Threshold Exceedance

Exceedance Parameter	Historical Data
Historical High Level	7.555 m
Date of Historical High	2020-01-10
Last Severe Level Exceeded	2021-01-13
Severe Level Exceedance Count	3.000 m

## Current Status vs Thresholds

No current timeseries data available for threshold comparison.

# Flood Risk Assessment and Analysis

Gauge ID: GAUGE-6283e23b

## Overall Risk Profile

Risk Parameter	Assessment
Flood Risk Score	8/10 (Very High Risk)
Risk Category	High
Last Assessment Date	2025-05-01
Location Risk Factor	On Thames River (Highest Risk)

## Historical Risk Patterns

Historical Pattern	Analysis
Severe Level Frequency	3 severe level exceedances (Moderate frequency)
Historical High Level	7.555m (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 (1.511m) - Standard escalation
Historical vs Threshold	Historical high exceeds severe level by 0.378m (Elevated risk)

## Current Risk Status

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

# Comprehensive Data Summary

## Thames Richmond Gauge 1 (GAUGE-6283e23b)

### Gauge Overview Summary

Summary Parameter	Value
Gauge Type	Staff gauge
Manufacturer	YSI
Operational Status	Fully operational
Installation Date	2015-06-01
Latitude	51.461300°
Longitude	-0.305600°

### Key Metrics Summary

Key Metric	Value	Significance
Historical High Level	7.555 m	Exceeds severe warning
Flood Alert Level	4.533 m	Initial warning threshold
Severe Warning Level	7.178 m	Critical action required
Flood Risk Assessment	8/10 (High)	Overall location risk
Severe Level Exceedances	3 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

Report completed: 2025-06-11 14:56 - MKM Research Labs