



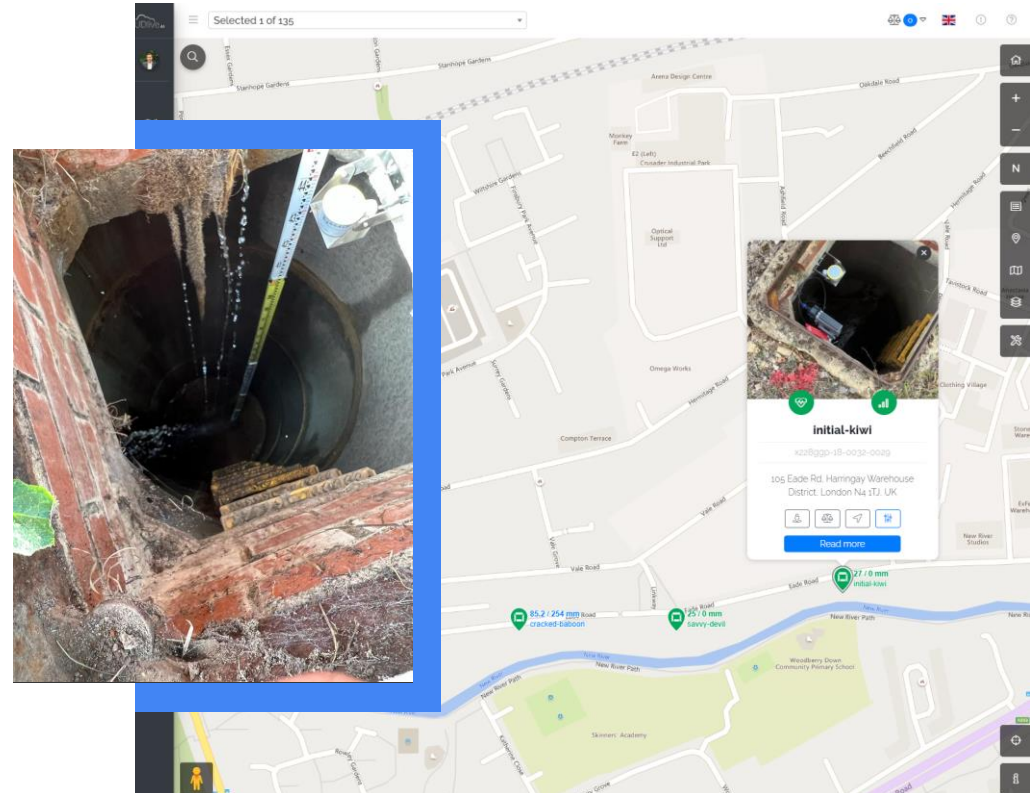
Eade Road | New River Leakage

Background

Flood/Drainage issues in area of Eade Road proximate to New River have been alleviated by the addition of drains in the river embankment whereby drained water enters the combined sewer, however these drains have shown signs of constant flow, during dry weather.

This suggests some 'leakage' or permeation of the embankment. Thames and Barhale have commissioned a survey of this flow to better understand the source and scale of these flows.

Constant drainage into the wastewater network reduces capacity, wastes resources and needs to be addressed where possible.



The Area

The embankment drainage capacity has been created by adding a drainage conduit in the embankment parallel to Eade Road in the grassy embankment.

The sites of interest are centered along Eade Road East and West of the linkway to Vale Road.

The EA does consider this as a low-risk area for surface flooding arising from rainfall, river or groundwater. Historic flood mapping.

There is no obvious media or social media reporting of flooding in the area.



Site observations



- The West end of the embankment, nearest to 66 Eade Road has a constant significant flow in dry conditions (no recent rainfall).
- Central of the embankment opposite the linkway to Vale, there is evidence of flows with sediment visible in the drain.
- At the East end of the embankment there is slight flow in dry conditions (no recent rainfall) with evidence of sediment.



Use of flow measurement

- Establish flows through the drains to assess:
 - Volumes
 - Patterns
- Relationship with:
 - Rainfall
 - Daily Usage Patterns
 - Pumping Patterns
- Long term changes
- Likely Source of water



Findings (West Embankment)

Installed on 11th Sept: Early Indications.

- Flow is constant and does not vary with:
 - Rainfall (12/09 - c. 19:00)
 - Common daily usage patterns
- No evidence of pumping pattern.
- Flow measured at **15 l/ps or 1290 M3 day.**
- Likely range is 850 - 1290 M3 day.
- Stability of flow suggests substantial leakage from New River.
- Keen to understand impact of cleaning / sustained rainfall.



Findings (Centre/East Embankment)

Installed on 11th Sept: Early Indications.

Centre

- Sedimented, no water.
- Keen to understand impact of cleaning / sustained rainfall.

East

- Constant flow, no level change.
- I/ps not measured due to sediment.
- Keen to understand impact of cleaning / sustained rainfall.



Initial Findings

- Constant flow and evidence of sediment show new drainage conduit is well used.
- Lack of indication of other sources of water including rainfall, wastewater network or historic issues.
- **Whilst further monitoring will be useful, initial indication suggest leakage from New River.**

