



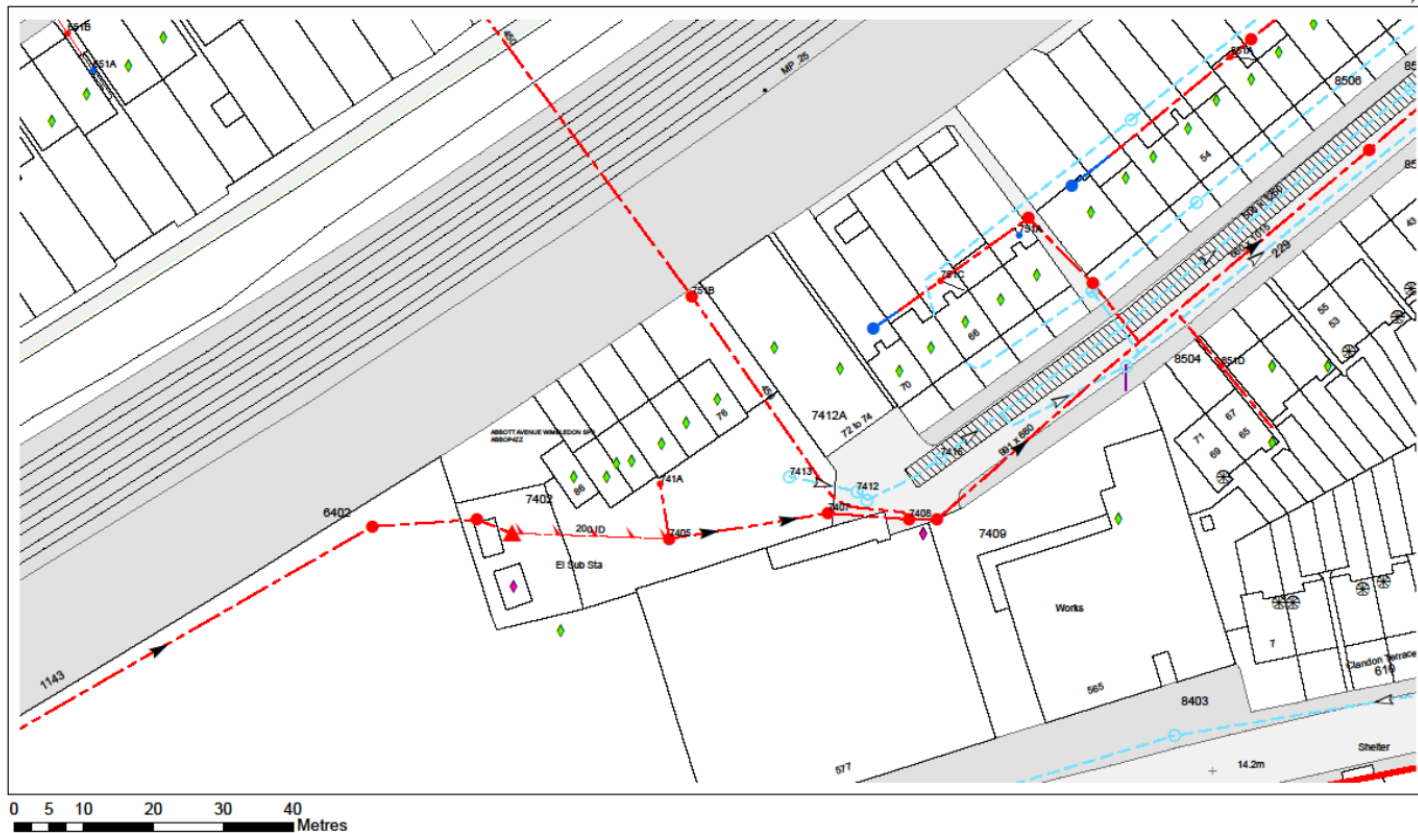
Raynes Park

Local Flooding Update

Carl Leadbeater

Flooding

- In 2006 we undertook a Flood Investigation at Kingston Road following flood incidents reported as **surface water flooding** on Abbott Avenue and the surrounding properties. A 60m³ surface water storage tank was installed in Abbotts Avenue to alleviate surface water flooding.
- The foul sewer on Abbott Avenue backs up with rainwater and surcharges at Abbott Avenue, as this is the lowest point in the catchment. The **foul sewer flooding** which has been reported only occurs during rainfall events, indicating rainwater is wrongly entering the foul sewer.



Historic and recent flooding

2006 – Surface Water Flooding

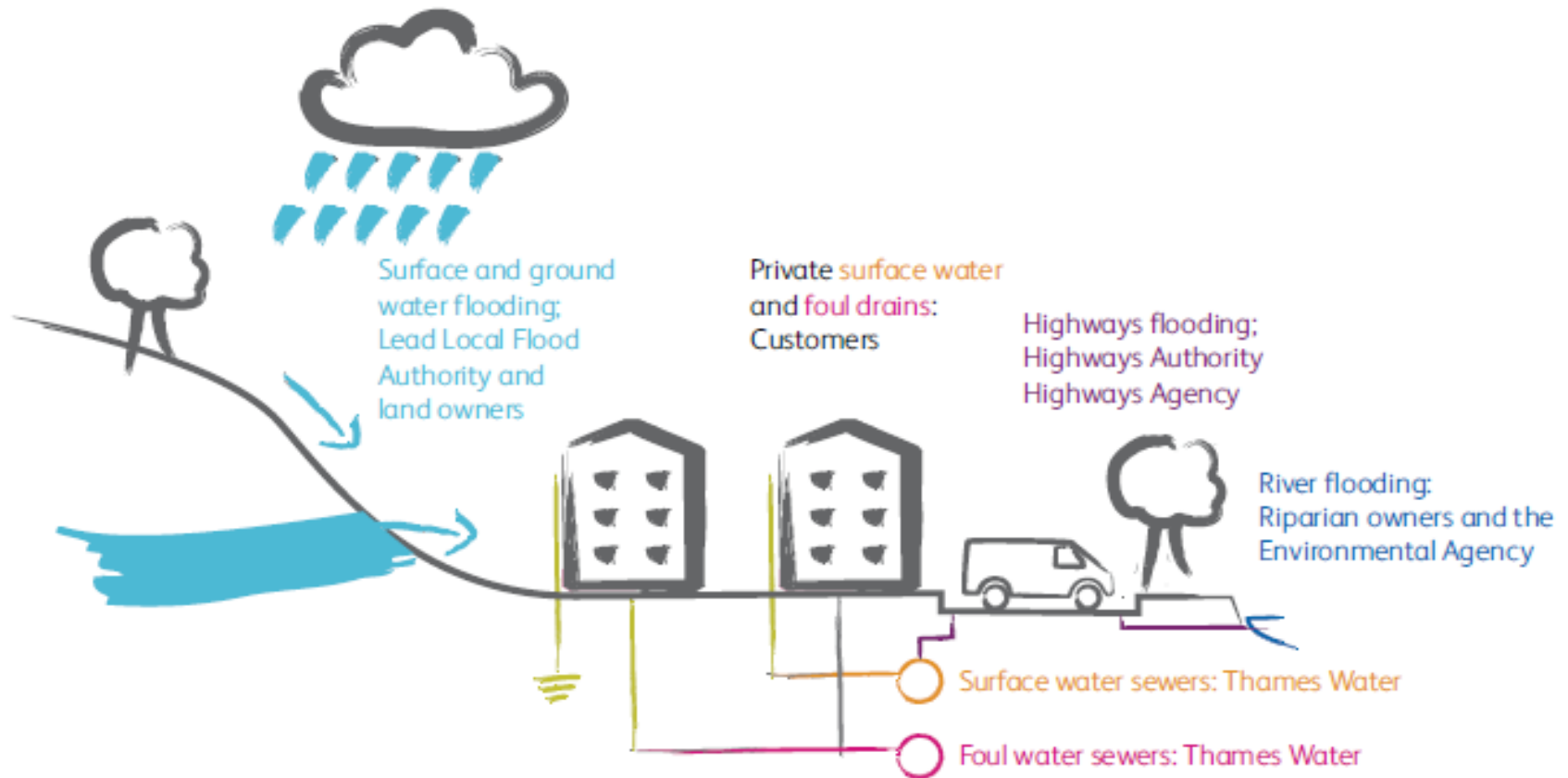
- We undertook a Flood Investigation at Kingston Road following flood incidents reported as **surface water flooding** on Abbott Avenue and nearby properties.
- Investigation found flooding was caused by insufficient capacity of the **surface water sewer network** in the area.
- In 2008 we installed a 60m³ surface water storage tank in Abbotts Avenue to provide capacity and alleviate the surface water flooding.

Last 3 years – Foul Flooding

- Reported **foul water flooding** at Abbott Avenue and nearby properties.
- Flooding occurs during/after a rainfall event in the area.
- The **foul sewer network** backs up with rainwater and surcharges at Abbott Avenue (topographic low point in the catchment).
- Rainwater is wrongly entering the foul sewer network, overloading the sewer and causing **foul sewer flooding** to occur.



Responsibilities for Drainage



Actions completed since previous Community Forum

- Network investigations, including a CCTV survey and manhole 'lift and look'.
- Review and confirmation of pump station arrangement.
- Sewer cleaning on Abbott Avenue.
- Desktop study – analysis of pumping station data, rainfall data and historic network information for June 2016 and July 2017 flood events.
- Network modelling – to verify the performance of the network and pump station during the July 2017 flood event.





Catchment update and future actions

Craig Boorman

Background - The Sewer Catchment

- There are two types of public sewer network in the Raynes Park, Cottenham Park and Copse Hill area.

Sewer system	Disposes of:	Transferred to:
Foul water	Toilet, bath, shower, kitchen sink, washing machine, dishwasher, etc	Local sewage treatment works
Surface water	Rainwater from roof, driveway, patio, roads, etc	Local watercourse

- Foul sewers are not designed to convey rainwater/surface water.
- Thames Water owns and is responsible for the maintenance of both the public sewer systems and the foul pumping station at Abbott Avenue.
- There are two foul sewers which join at Abbott Avenue, one which receives pumped flows from the Abbott Avenue pumping station (457mm diameter), and one which flows under gravity from Stanton Road under the railway (450mm diameter).
- Both foul sewers connect into a large rectangular brick sewer (660mm x 1015mm) which flows north east along Abbott Avenue.
- A surface water sewer (229mm diameter) and storage tank (500mm x 1250mm) flow north east along Abbott Avenue before flowing south into Kingston Road along the footpath between No. 39 and 41.



Operational Activity

Network and Abbott Avenue Pump Station



Abbott Avenue Sewage Pumping Station

- Abbot Avenue SPS underwent an electrical upgrade in August 2017 due to obsolete internal components.
- The upgrade will increase the resilience of the pumping station by keeping downtime for repairs to a minimum as replacement parts will be more readily available.
- The pump station is now fully commissioned and tested to operate as per design specification electrically and mechanically.



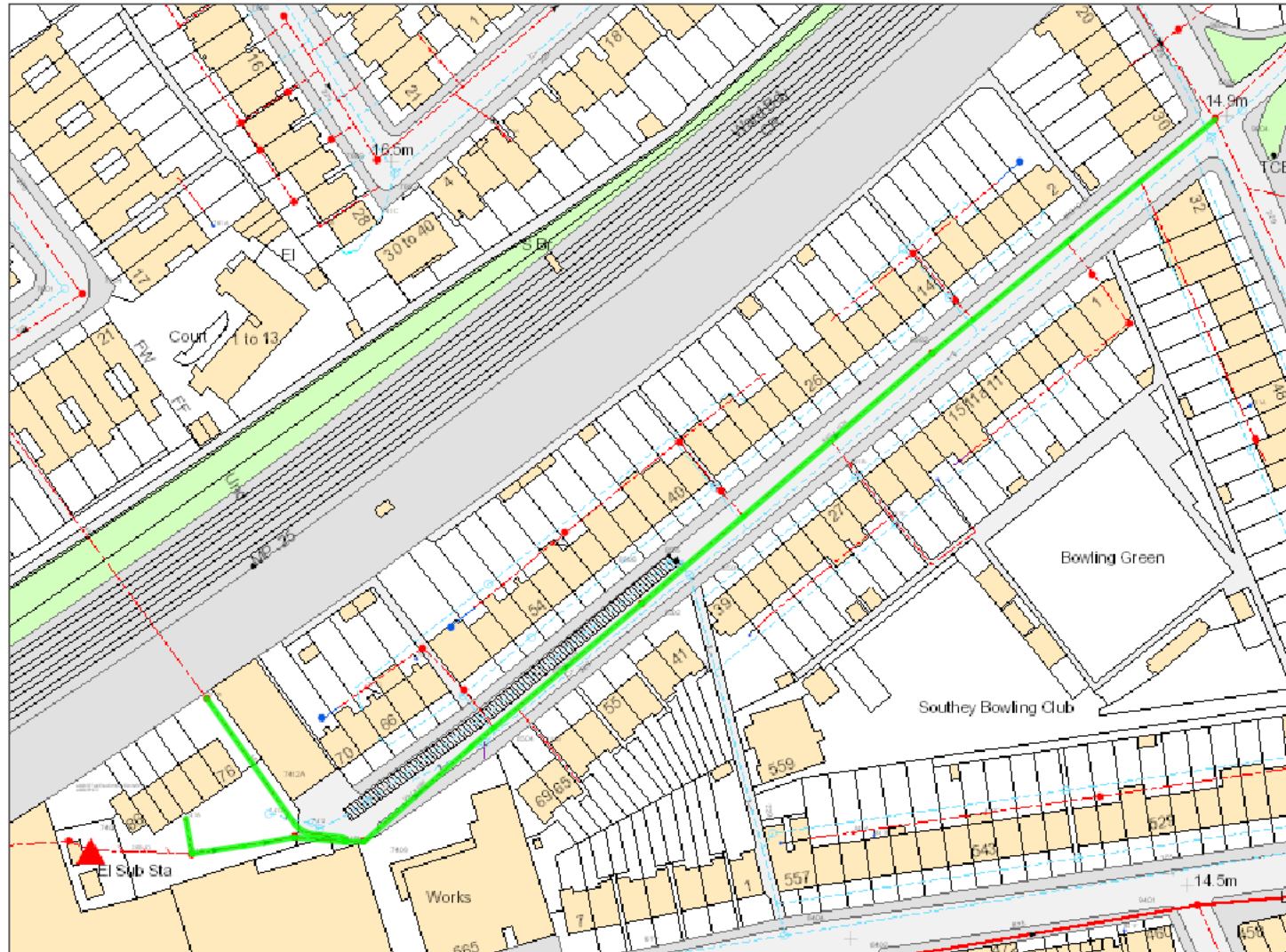
Old electrical panel



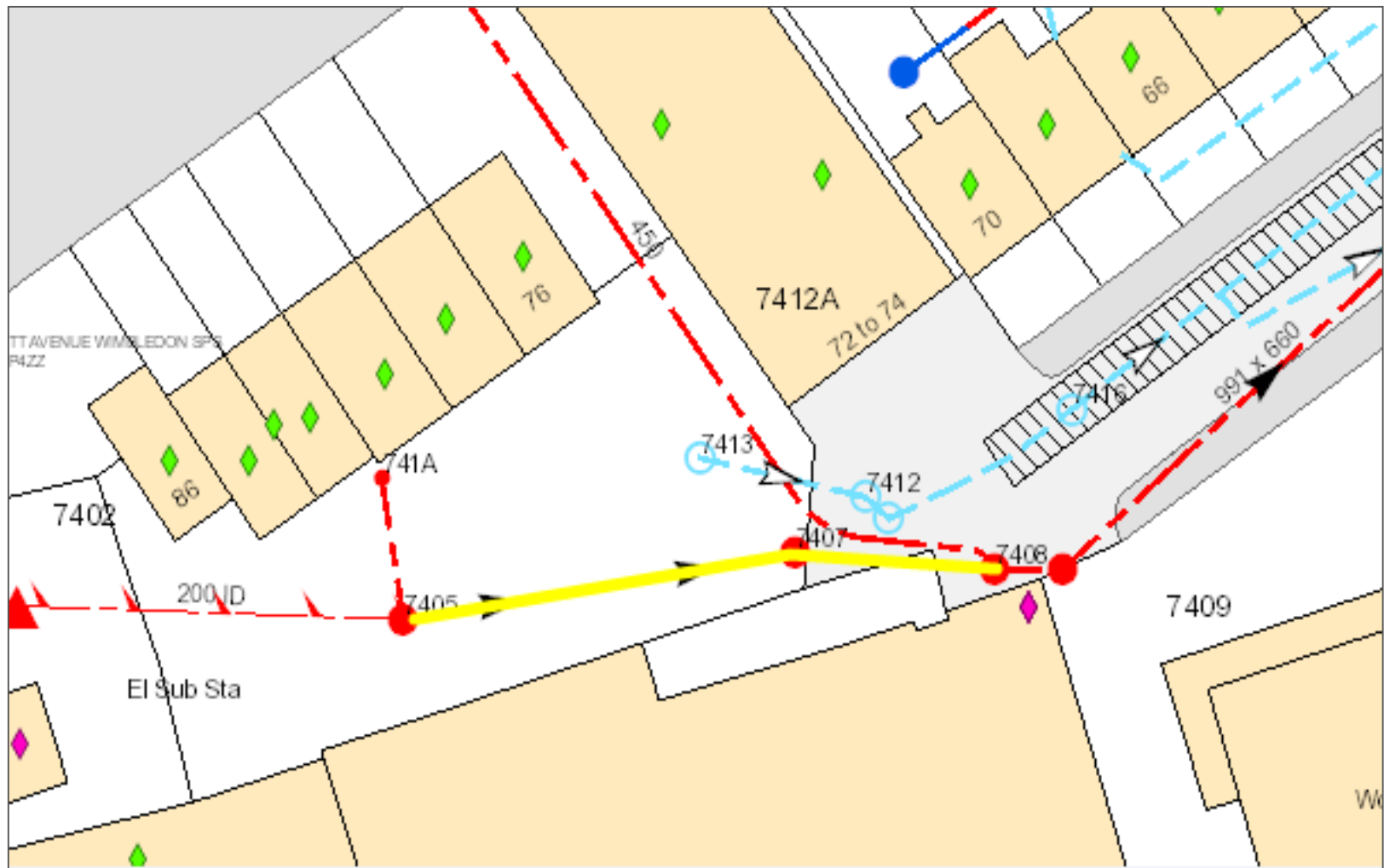
New electrical panel



CCTV survey (August 2017)



Sewer cleaning





Developments

Local Development Sites

Thames Water is not a statutory consultee, but we may be requested to provide comment on certain planning applications by Merton Borough Council, or we can request to be formally consulted.

579-589 Kingston Road (Former Manoplastics Site)

- Thames Water was consulted in November 2017 and a desktop assessment was carried out.
- The development will have no impact on the foul sewer in Abbott Avenue as the development will not connect into this part of the foul sewer network.
- The development will reduce the impact on the surface water sewer by providing a betterment from the existing site through the installation of sustainable drainage.

559 Kingston Road (Southey Bowls Club)

- Thames Water has not been formally consulted on the development proposals
- The developer must apply for consent to connect under Section 106 of the Water Industry Act 1991
- Development consists of 9 dwellings. Foul discharge estimated to be 0.08 l/s which equates to <0.01% of the capacity of the foul sewer in Abbott Avenue.





Actions

Actions completed

1. Investigations (Network and pump station)
2. Sewer cleaning
3. Desktop study
4. Network modelling

Next Steps

5. Wider catchment investigations – to check all network assets further upstream and downstream are operating as they should.
6. Partnership working with Merton Borough Council – identify where surface water is infiltrating the foul sewer and how it can be prevented.

Longer term

7. Sustainable Drainage Strategy (2020-2025) – Our 5 year business plan will include funding for Sustainable Drainage across London.



Thank you

