

SURREY COUNTY COUNCIL

LOCAL COMMITTEE (TANDRIDGE)

DATE: 12 DECEMBER 2014



LEAD OFFICER: MARK BORLAND, GROUP MANAGER – WORKS DELIVERY

SUBJECT: INFRASTRUCTURE RESILIENCE WORKS UPDATE - A22 AND CATERHAM BOURNE

DIVISION: ALL

SUMMARY OF ISSUE:

The extreme and lengthy period of rainfall last winter resulted in groundwater flooding from the Caterham Bourne, and long term saturation of the ground, in the Valleys of the A22 and Whyteleafe/Woldingham area. This resulted in the A22 being closed for 4 weeks, homes and businesses being flooded, with an overall huge impact on the local community.

This report is an update for members on the infrastructure resilience works that have already been constructed, and the proposed major investment plans to address the longer term resilience issues for the Caterham Bourne and the A22 network.

RECOMMENDATIONS:

The Local Committee (Tandridge) is asked to note the report.

REASONS FOR RECOMMENDATIONS:

This item is for information only.

1. INTRODUCTION AND BACKGROUND:

- 1.1 The Caterham Bourne, an ephemeral watercourse which feeds into the Beddington Branch of the River Wandle, flows on average every seven years in response to high groundwater. It emerges in Caterham and Woldingham in Surrey, and flows across the border into the London Borough of Croydon. Due to urban development, large parts of the Bourne have been culverted over the years with varying size pipes which don't have the capacity to cope with large flow events, leading to flooding of properties and essential infrastructure including main roads, railway line and a water treatment works.
- 1.2 The extreme and lengthy period of rainfall last winter resulted in groundwater flooding from the Caterham Bourne, and long term saturation of the ground, in the Valleys of the A22 and Whyteleafe/Woldingham area. This resulted in the

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A22 being closed for 4 weeks, homes and businesses being flooded, with an overall huge impact on the local community.

- 1.3 Two off-road water storage areas, controlled by sluice gates, have been installed on Woldingham Road to control Caterham Bourne flood water. A third water storage area, and new drainage system under the viaduct, is proposed but subject to approvals and Thames Regional Flood Committee funding.
- 1.4 Surrey County Council and Tandridge District Council are leading on a £5.9m investment plan, within Surrey, upstream of Croydon. This is to improve infrastructure, and provide water management, to mitigate the effects of major flooding events from the Caterham Bourne in the future.
- 1.5 The London Borough of Croydon is leading on an investment plan to mitigate downstream risks and agree an enhanced Business Continuity Plan with Kenley Water Works. Also, Croydon and Surrey Council's are working with Thames Water to investigate solutions to the flood surcharge to the sewer network.
- 1.6 The final option is expected to be combination of measures including formalised attenuation, diversion channels and improved management of the Bourne in the future. The project is currently at the planning stage with the construction start forecast in 2016/17.
- 1.7 In the meantime, the local councils are carrying out essential maintenance and improvement works along the Bourne in preparation for the coming winter and developing a protocol to instigate the Flood Management Plan for the area. The Environment Agency has installed water level monitoring at Woldingham Road and, in partnership, developing the system for operating the sluice gates on the off-road water storage areas.

2. ANALYSIS:

- 2.1 The Caterham Bourne is susceptible to groundwater flooding when there are long periods of rainfall and the ground is saturated. This has traditionally occurred approximately every seven years.
- 2.2 In the long term, and subject to successful bidding for funding, it is proposed to improve infrastructure, and provide water management, to mitigate the effects of major flooding events from the Caterham Bourne in the future.

3. OPTIONS:

- 3.1 It is proposed to further increase off-road water storage capacity by building a third water storage area, with sluice gate control, between Stuart Road and Bug Hill, subject to permissions.
- 3.2 Subject to a successful joint bid to the Coast to Capital Local Enterprise Partnership, and agreed match funding, it is proposed to deliver four critical improvements:
 - (1) New rural drainage system from M25 (J6) to Wapses Lodge Roundabout.

(2) New Urban drainage system from Wapses Lodge Roundabout to the Croydon border, via Whyteleafe.

(3) Resurface A22 between Oxted Road to Wapses Lodge Roundabout (Via M25 Junction).

(4) Resurface footpaths and wider improvements from Wapses Lodge Roundabout to New Barn Lane.

3.3 Overall, the proposed scheme will deliver new fit for purpose drainage, and resurface the main arterial roads, to improve flood resilience. It will also ensure surface and underground water is diverted away from households and the carriageway.

3.4 The bid process result is anticipated to be confirmed in February 2015 and, if successful, the scheme would be delivered from summer 2015.

4. CONSULTATIONS:

4.1 Consultations will take place as part of the detailed feasibility study, Defra funded flood study, and design development.

4.2 It is anticipated that community engagement meetings will be held.

5. FINANCIAL AND VALUE FOR MONEY IMPLICATIONS:

5.1 The costs of the immediate flood repairs, off road water storage areas and carriageway improvements have been funded from Surrey County Council.

5.2 Approximately £0.5m of works remain, and this is subject to a funding bid to the Defra Thames Regional Flood Committee.

5.3 The joint £4.2m bid to the Coast to Capital Local Enterprise Partnership requires £700k of match funding that has been approved from Surrey County Council. This gives a total funding bid of £4.9m to deliver four critical improvements that provide a new fit for purpose drainage system and resurface main arterial routes to improve overall flood resilience.

6. EQUALITIES AND DIVERSITY IMPLICATIONS:

6.1 The detailed feasibility and development of the design for the flood resilience works will ensure better access and connectivity for pedestrians, wheelchairs and pushchairs across Wapses Lodge Roundabout. An equalities Impact Analysis will be carried out as part of this design development process.

7. LOCALISM:

7.1 The Wapses Lodge Roundabout provides connectivity between the communities of Whyteleafe, Woldingham and Caterham. This connection was unavailable for vulnerable road users during the flooding of the Caterham Bourne. Other crossings of the main strategic economic route of the A22 are also vulnerable to being impassable during flooding.

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- 7.2 Greater resilience to flooding will support connections to several local schools, businesses and collaboration with Tandridge District Council and the London Borough of Croydon.

8. OTHER IMPLICATIONS:

Area assessed:	Direct Implications:
Crime and Disorder	No significant implications arising from this report.
Sustainability (including Climate Change and Carbon Emissions)	Set out below.
Corporate Parenting/Looked After Children	No significant implications arising from this report.
Safeguarding responsibilities for vulnerable children and adults	No significant implications arising from this report.
Public Health	No significant implications arising from this report.

8.1 Sustainability implications

The detailed feasibility and design development of the flood resilience works will take sustainability in to account.

9. CONCLUSION AND RECOMMENDATIONS:

- 9.1 This item is for information only.

10. WHAT HAPPENS NEXT:

- 10.1 The Committee will be informed when the result of the bid process for funding of the flood resilience scheme has been given.
- 10.2 The Committee will be informed when the detailed feasibility, community engagement timetable and design development has been determined.

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Consulted:

The local Elected Members, and Parish Council have been kept informed on the flood alleviation works. Broader community engagement is planned.

Annexes:

None.

Sources/background papers:

None