

# Stokeinteignhead Flood Alleviation

Location: - Deane Road – Stoke Cross

## Source and location of flooding

The study has looked at the catchment area uphill of Deane Road as far east as the A379 and Commons Lane.

It has identified that flooding of property in Deane Road occurs. Up to 25 properties are at risk from the watercourse in Deane Road and Stoke Cross. Flooding of roads and fields also occurs in the area.

Flows continue downstream past the village store and enter Stoke Cross flooding properties at that location as well. Therefore any improvements upstream of the village centre will benefit many more properties further downstream.

## Potential flood alleviation measures

Using the Environment Agency flows we have calculated the peak flow and volume of water for various rainstorms up to the 1 in 100 year event.

### a) Ponds

Using the capacity of the existing pipes we have worked out a volume of water that would need to be stored in ponds or behind dams so that flooding was not experienced in Deane Rd / Stoke Cross and further downstream. The volume is 18,620m<sup>3</sup> in the 100 year storm.

Using the contour information we have looked for natural valleys and worked out the potential volumes that could be stored if the valley was reshaped or dammed. The initial drawing included in the report shows the most economic location identified in terms of earthworks required. Other locations have been identified but they will require more engineering and will ultimately cost more to deliver. The other locations have not been ruled out completely and are being revisited now that more detailed survey is available.

The valley location investigated initially can deliver about 60% of the total volume required if no other improvements are carried out. The location near Deane House is the most economically viable. A further area upstream near the stables and splitting the single preliminary design into two smaller areas is being looked at. This option will require some flow control ditches around Deane House orchard to collect the flows that run off Millen Lane.

### b) Larger pipes

This option has also been considered for Deane Road to see what impact they would have on the size of any upstream storage. The pipe needed to do this would be 900mm in diameter which would conflict with existing utility cables under Deane Road. A smaller new pipe that misses the utilities would not solve the flooding in Deane Rd on its own but would require smaller storage areas and volumes. Financially the larger pipes would not deliver as much benefit as a scheme which consists of mainly earthworks.

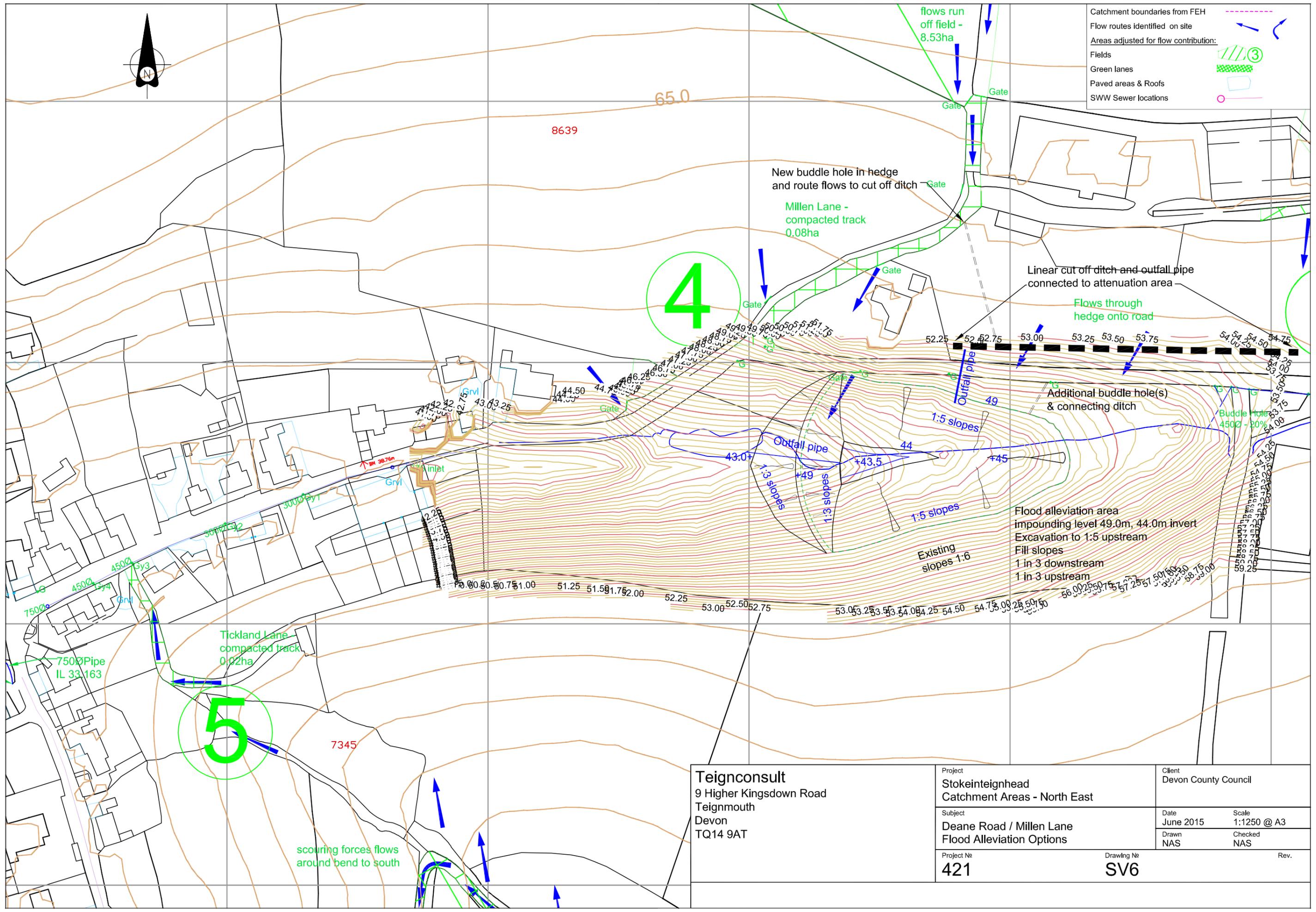
### c) Property protection

This option would entail providing flood protection measures to the houses themselves. This could be flood boards across doors, air brick covers and additional small diameter pipes or gratings.

Drawing SV6 shows one of the potential locations for storage.



Catchment boundaries from FEH	
Flow routes identified on site	
Areas adjusted for flow contribution:	
Fields	
Green lanes	
Paved areas & Roofs	
SWW Sewer locations	



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