

# Stokeinteignhead Flood Alleviation

Location: - Forches Hill, Ivy Tree Hill & Church Lane to Stoke Cross

## Source and location of flooding

The study has looked at the catchment areas uphill of Stoke Cross in Forches Hill as far north as Butterfly Lane Ivy Tree Hill as far north as Ashbury and Church Lane as far west as Ridge Road. Stoke Cross is also included in the two other areas south and east of the village centre.

It has identified that flooding of property in Stoke Road, Church Lane and Stoke Cross occurs. Up to 15 properties are at risk from the flows that run down Forches Hill, Ivy Tree Hill and Church Lane.

If flows can be captured further up Forches Hill or directed into new pipes that connect into the large culvert under Stoke Cross the flood frequency can be reduced. Church Lane is similar except there are very few opportunities to capture flows upstream. Ivy Tree Hill already has a small pipe system which could be extended. These improvements would be supported by other works further upstream of the village centre in Deane Road and Pools Weir / Lower Gabwell.

## Potential flood alleviation measures

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

### a) Interception of flows at Teign Harvey Road

The topography of this area does not lend itself to creating a dam or pond. Instead it would be possible to use linear ditches that run along a contour. If a small amount of water is diverted off Forches Hill it would fill one ditch. If larger volumes are diverted they would initially fill the first ditch and then spill over into the next one. A cascading system which would also catch the silt and stones that area washed down the road. The ditch(s) could overflow to the brook via a further section of ditch around the field perimeter to the west.

### b) Additional pipes and connections in Church Lane and Forces Hill

A significant number of property roofs and paving areas drain directly onto the highway in these two roads. These flows run into Stoke Cross and compete with flows running off the road for entry into the gullies and culvert. Two short length of pipe, one in each road connected to the main culvert with additional gullies and connections to property rainwater pipes would remove a significant flow before it runs downstream and floods properties at Victoria Farm, The Grange, The Mews and The Lodge.

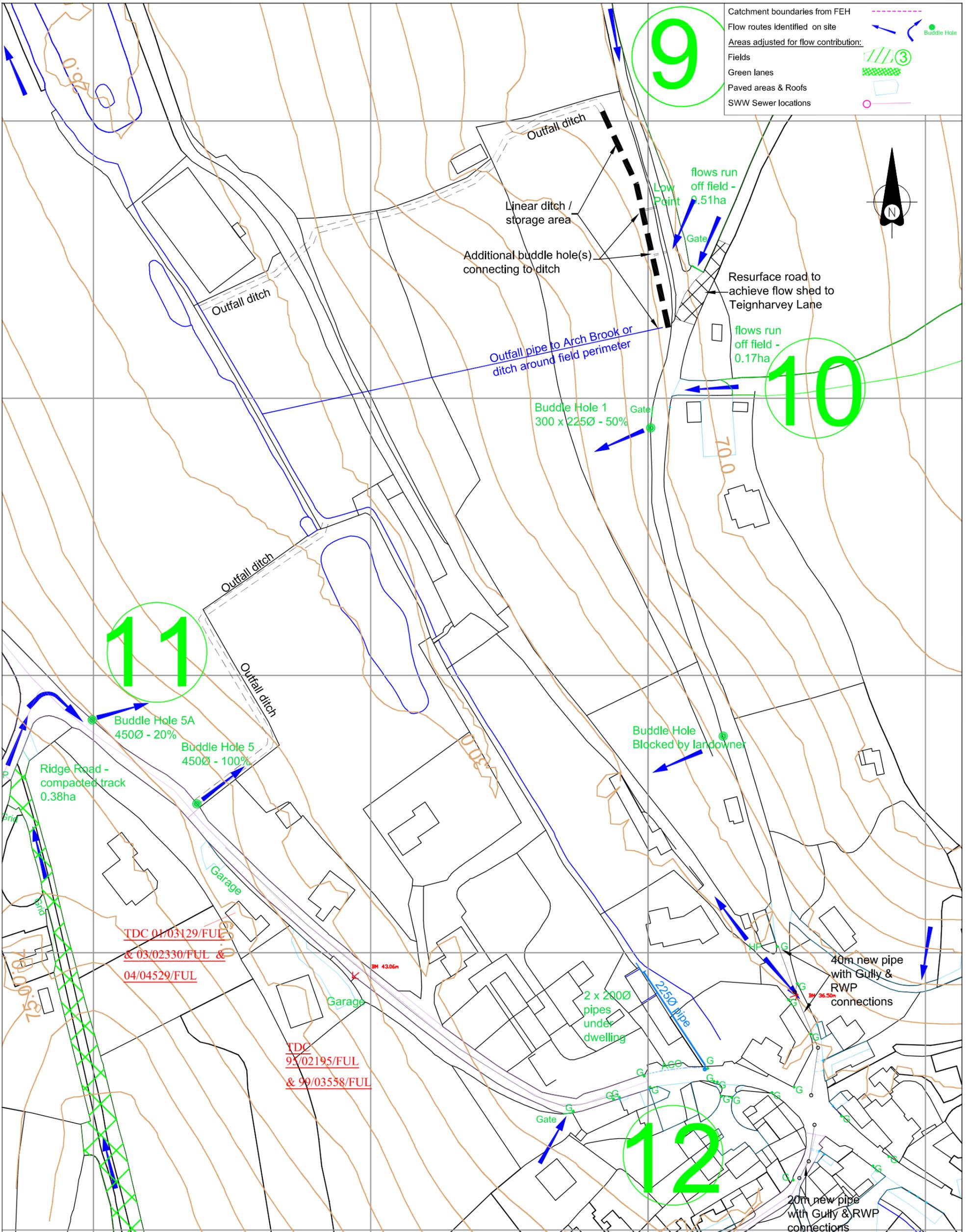
### c) Larger and longer pipes for Ivy Tree Hill

This option has also been considered for Ivy Tree Hill to help remove the flows that bypass the buddle holes. If larger pipes are considered the level at which they could outfall becomes an issue. Any pipes would have to continue down through Victoria Farm into Five Blades before the brook was low enough for them to empty. Longer pipes would provide some extra storage but only 150mm or 225mm pipes would work without a similar problem to using larger pipes. To provide 1m<sup>3</sup> of storage would require 56m of 150mm pipe or 25m of 225mm pipe. Any pipe constructed in the highway would cost £220-250/metre to construct due to the resurfacing of the road.

### d) 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 SV7 shows one of the potential locations for ditches in Forches Hill.



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Project  
**Stokeinteignhead  
 Catchment Areas - North**  
 Subject  
**Forches Hill / Ivy Tree Hill / Stoke Cross  
 Flood Alleviation Options**

Client  
 Devon County Council

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