

# Cornwall Council

Preliminary Flood Risk Assessment

**ANNEX 7 – Prioritisation of communities for assessment  
within the Local Flood Risk Management Strategy**

June 2011





# 1 INTRODUCTION

This Annex provides a summary of communities within Cornwall where strategic flooding or drainage issues have been identified.

By combining the needs of other flood related strategies or constraints with the surface water risk assessments reported in Annex 6, it is possible to prioritise the Local Flood Risk Communities. This is done for the purposes of directing the Local Flood risk management Strategy for Cornwall.

## 2 Areas with Identified Flood Risks

### Critical Drainage Areas

Critical Drainage Areas (CDA) within Cornwall have been designated in consultation with the EA (Cornwall Council 2010b). These are areas identified as having particular issues regarding surface water disposal and are additionally areas which are likely to have future development pressures.

All development in such areas requires flood risk assessments, according to PPS25, and also specific criteria relating to surface water drainage requirements, particularly a need to utilise SuDS<sup>1</sup>.

There are 29 CDAs identified in Cornwall, within 17 communities:

- Communities with Critical Drainage Areas
  - Bodmin
  - Bude
  - CPIR
  - Falmouth & Penryn
  - Hayle
  - Helston
  - Launceston
  - Lostwithiel
  - Padstow
  - Penzance
  - Saltash
  - St Austell
  - St Blazey & Par
  - St Ives & Carbis Bay
  - Truro
  - Wadebridge

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<sup>1</sup> For more information on the extent, reasoning and requirements of CDAs, refer to Cornwall Council (2010) available from <http://www.cornwall.gov.uk/default.aspx?page=23707>

### **Multi-Agency high risk communities and community flood plans**

These are communities which are identified by the Local Resilience Forum as having a high risk of flooding and so require Community Flood Plans (CFP).

There are 24 Community Flood Plans currently in preparation within Cornwall:

- Multi-Agency Flood Plan: High Risk Communities requiring CFPs
  - Bodmin
  - Bude, Stratton & Flexbury
  - Camborne, Pool & Redruth
  - Flushing
  - Hayle, Lelant & St Erth
  - Helston
  - Launceston
  - Liskeard
  - Looe
  - Lostwithiel
  - Mevagissey
  - Millbrook
  - Padstow
  - Par & St Blazey
  - Penryn
  - Penzance & Newlyn
  - Perranporth & Bolingey
  - Polperro
  - Portreath
  - Rosecraddock
  - St Austell
  - St Ives
  - Truro
  - Wadebridge

## **Surface Water Management Plans**

The need to create Surface Water Management Plans (SWMP) is identified within the CFMPs.

At present three SWMPs have been produced for communities within Cornwall: Truro, Camborne-Pool-Illogan-Redruth and Bodmin. However, these existing SWMPs may need to be revamped to put them in a consistent format as their production has been driven by slightly different purposes and objectives.

The three CFMPs covering the LLFA area of Cornwall identify the following 18 communities as requiring SWMPs:

- Communities identified within CFMPs as requiring SWMPs
  - Bodmin
  - Camborne
  - Crowlas
  - Falmouth & Penryn
  - Hayle
  - Helston
  - Mevagissey
  - Mousehole
  - Newlyn
  - Padstow
  - Par & St Blazey
  - Penzance
  - Porthleven
  - Redruth
  - St Austell
  - St Ives
  - Truro
  - Wadebridge

## **Community Flood Risk Profiles/SFRA2**

The SFRA1 identified a number of communities that are likely to be the focus of the emerging Core Strategy. For each of these a SFRA2 will be required to identify local flood risk issues and to direct new development away from flood risk zones and inform the sequential test, as required by PPS25.

In order to commence this process, Community Flood Risk Profiles (CFRP), that also constitute SFRA2s, have been prepared for each community identified as being the likely recipient of future development.

There are currently 24 locations for which CFRPs (also constituting SFRA2s) are currently being developed:

- Community Flood Risk Profiles/SFRA2 :
  - Bodmin
  - Bude, Stratton & Flexbury
  - Callington
  - Camborne
  - Camelford
  - Falmouth & Penryn
  - Helston
  - Launceston
  - Looe
  - Lostwithiel
  - Newquay
  - Padstow
  - Par & St Blazey
  - Penzance & Newlyn
  - Perranporth
  - Porthleven
  - Saltash
  - St Austell
  - St Ives
  - St Columb
  - St Just
  - Torpoint
  - Truro
  - Wadebridge

### **From Grid-Based sensitivity analyses**

Annex 6 provides a sensitivity analysis on the grid based “5/9” approach employed by the EA to identify indicative flood risk areas.

The following communities were identified within Annex 6 as potentially forming flood risk areas based on this approach; the communities are ranked below in order of merit in terms of level of risk (Levels 1 – 8, Level 1 being the greatest risk. See Annex 6 for explanation).

The grid based approach has identified the following 15 locations as being potential flood risk areas based on analysis of risk from surface water flooding:

- Surface water high risk communities from grid-based approach:
  - Level 1 – Camborne, Penzance
  - Level 2 – Par, St Austell
  - Level 3 – Bodmin
  - Level 4 – Bude
  - Level 5 – Redruth
  - Level 6 – Liskeard, Truro
  - Level 7 – Hayle, Looe, Newquay, Penryn
  - Level 8 – Helston, Wadebridge

### **From community-based natural cluster approach**

Annex 6 provides an alternative to the grid-based “5/9” cluster approach, based on determination by community rather than grid square. It was felt that this provided a more robust appraisal of flood risk than the grid-based approach. This involved ranking 186 communities by flood risk using the same criteria and weightings as that employed by the EA in Table 15 of the PFRA report. The 30 highest risk communities identified from this approach are listed below, ranked with highest risk at the top of the list.

- Surface water high risk communities from community-based natural cluster approach:
  - Truro
  - Bodmin
  - Redruth
  - St Austell
  - Camborne
  - Penzance
  - Liskeard
  - St Ives
  - Hayle
  - Newquay
  - Wadebridge
  - Callington
  - Launceston
  - Helston
  - Penryn
  - Perranporth
  - Polperro
  - Bude
  - Par & Tywardreath
  - St Blazey
  - Lostwithiel
  - Looe (East)
  - Falmouth
  - Mevagissey
  - Looe (West)
  - Camelford
  - Portreath
  - Porthleven
  - St Agnes
  - Pool & Tolvaddon



### 3 Potential Priority Flood Risk Communities

The analysis conducted and reported in Annex 6 is required as it provides a quantitative assessment using a similar approach to that taken by the EA in identifying indicative flood risk areas.

However, the analysis should not ignore areas with previously identified flood risk issues. The grid-based and community-based assessments of surface water flood risk have been incorporated with the other indicators listed in Section 2 above to provide a semi-quantitative assessment and prioritisation of potential Flood Risk Communities.

The 28 communities listed in Table 16 of the PFRA Report, repeated as Table 1 below, include all of those identified from the grid-based surface water risk analysis and the top 32 from the community-based surface water risk analysis described in Annex 6.

**Table 1 Proposed Priority Flood Risk Areas based on all considerations**

Community	Surface water analysis		SFRA2 / CFRP required	CFP required	SWMP required	CDA
	Grid approach ranking	Community approach ranking				
Truro	Level 6	1	✓	✓	✓	✓
Bodmin	Level 3	2	✓	✓	✓	✓
Redruth	Level 5	3	✓	✓	✓	✓
St Austell	Level 2	4	✓	✓	✓	✓
Camborne & Pool	Level 1 / -	5 & 30	✓	✓	✓	✓
Penzance	Level 1	6	✓	✓	✓	✓
Liskeard	Level 6	7	✓	✓	x	✓
St Ives	-	8	✓	✓	✓	✓
Hayle	Level 7	9	✓	✓	✓	✓
Newquay	Level 7	10	✓	x	x	x
Bude	Level 4	18	✓	✓	x	✓
Par & St Blazey	Level 2	19 & 20	✓	✓	✓	✓
Helston	Level 8	14	✓	✓	✓	✓
Wadebridge	Level 8	11	✓	✓	✓	✓
Callington	-	12	✓	x	x	x
Launceston	-	13	✓	✓	x	✓
Penryn & Falmouth	Level 7 / -	15 & 23	✓	✓	✓	✓
Perranporth	-	16	✓	✓	x	x
Polperro	-	17	x	✓	x	x
Lostwithiel	-	21	✓	✓	x	✓
Looe (East & West)	-	22 & 25	✓	✓	x	x
Mevagissey	-	24	x	✓	✓	x
Camelford	-	26	✓	x	x	x
Portreath	-	27	x	✓	x	x
Porthleven	-	28	✓	x	✓	x
St Agnes	-	29	x	x	x	x
Padstow	-	32	✓	✓	✓	✓
Mousehole	-	31	x	x	✓	x