



MEMBERS BRIEFING on

Technical Advice Note (TAN)15: Development flooding and coastal erosion

- 1.1 This is a summary of the TAN 15 January 2023 document. The full Welsh Government document can be found at:
<https://www.gov.wales/sites/default/files/consultations/2023-01/tan-15-development-flooding-and-coastal-erosion-jan-2023.pdf>

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1. TAN 15 Timeline

- i. 28/09/2021 – New TAN 15 published with intended implementation date of 1 December 2021
- ii. 15/12/2021 – WG paused the new TAN 15 until June 2023
- iii. 31/01/2022 – Deadline for when all Local Authorities had to advise WG whether they were updating or undertaking a new Strategic Flood Consequences Assessment (SFCA)
- iv. 30/11/2022 – Deadline for submitting completed SFCA to WG
- v. 23/01/2023 – WG published revised version of TAN 15 (Jan 2023 version)
- vi. 01/2023 to 17/04/2023 – WG consultation on Jan 2023 TAN 15
- vii. 30/06/2023 – Minister wants new TAN 15 to be finalised for approval
- viii. Autumn 2023 – intended implementation of new TAN 15

2. TAN 15 Overview

- i. New TAN 15 Development, flooding and coastal erosion, January 2023 version is currently out for consultation until 17 April 2023 and it is anticipated it will come into force Autumn 2023.
- ii. New TAN 15 will replace and cancel:
 - a. The existing TAN 15: development and flood risk (2004)
 - b. TAN 14: coastal planning
 - c. Development Advice Map

- iii. The objective of the new TAN 15 and Flood Map for Planning is to ensure the planning system recognises the threat of, and takes action to adapt to, the likely effects of climate change on flood risk and coastal erosion.
- iv. Minimise new development in areas at risk of flooding or coastal erosion.
- v. Insurers have had input.
- vi. The risks associated with climate change will be built into planning policies and decisions by using the new Flood Map for Planning. This new map, published by Natural Resources Wales, includes flood risk zones showing future risk under a central climate change scenario. It will be updated every six months by NRW.
- vii. TAN 15 provides advice for local planning authorities, developers and stakeholders about assessing the risk of developing in areas where different types of flooding may occur, including from rivers, the sea and surface water flooding. The advice varies according to the severity of the flood risk and the flood zone in which the development is proposed, and according to the vulnerability of the type of development proposed to flooding.
- viii. Flood risk identified as a percentage per year.
- ix. Flood risk zones are defined.
- x. Requires surface water and small watercourse consideration.
- xi. Requires new developments to be designed so that they are resilient to flood risks.
- xii. Categorises development.
- xiii. Sets justification, acceptability and assessment criteria.
- xiv. There are three categories of risk of flooding with Zone 1 being the lowest risk and Zone 3 being the highest. These zones apply to the risk of flooding from rivers, sea and surface water. There is an additional category of TAN 15 Defended Zones for rivers and sea where there is a minimum standard of protection from flooding by way of infrastructure.

3. Flood Zones for Rivers, Sea, Surface Water and Small Watercourses

3.1 Zone 1:

1 in 1000 (0.1%) (plus climate change) chance of flooding from rivers, the sea, surface water and small water courses in a given year.

3.2 Zone 2:

Risk of flooding is greater than in Zone 1. The chance of flooding from the sea is less than 1 in 200 (0.5%) and from rivers, surface water and small watercourses it is less than 1 in 100 (1%), including climate change.

3.3 Zone 3:

In a given year the chance of flooding, including climate change, from the sea is greater than 1 in 200 (0.5%) and from rivers, surface water and small watercourses it is greater than 1 in 100 (1%).

3.4 TAN 15 Defended Zone:

Areas where flood risk management infrastructure provides a minimum standard of protection. The risk of flooding from rivers is protected at a minimum standard of 1 in 100 (1%) and from the sea it is a minimum of 1 in 200 (0.5%).

4. Flood Map for Planning

- i. Flood Map for Planning is a material consideration in assessing planning applications.
- ii. It is the most up to date evidence on flood risk and includes climate change projections.
- iii. It is regularly updated with the next update being May 2023.
- iv. It accompanies the new TAN 15.
- v. It will fully replace the Development Advice Map when the new TAN 15 comes into force, anticipated Autumn 2023.

5. Categories for Development

Examples of different categories for development are listed below.

5.1 Water compatible development:

- i. Boatyards, marinas
- ii. Flood defence and management infrastructure
- iii. Hydro renewable energy generation

- iv. Open space excluding equipped play areas.

5.1.1 Acceptable, from a flooding perspective, in all flood zones.

5.1.2 Any occupied built elements of water compatible development are still subject to the acceptability test set out in TAN 15 Section 11 (See Section 12 below) and should be assessed against the criteria for less vulnerable development. This includes office spaces in boatyards, and changing rooms associated with open spaces.

5.2 Highly Vulnerable Development (HVD):

- i. All residential development, emergency services and shelters
- ii. Schools, hospitals, GP surgeries
- iii. Especially vulnerable industrial development (e.g. power stations & waste disposal sites).

5.3 Less Vulnerable Development (LVD):

- i. Transport & utilities infrastructure,
- ii. General industrial, employment, commercial & retail development
- iii. Car parks, cemeteries & equipped play areas
- iv. Public buildings including libraries, community centres and leisure centres (excluding those identified as emergency shelters)
- v. Mineral extraction sites
- vi. Renewable energy (excluding hydro).

5.4 Mixed Uses

5.4.1 Different vulnerability categories may be designated in larger mixed use schemes. This will allow flexibility and it can be considered how to best use the site that is partially in Zone 1 and partially in flood risk areas.

5.4.2 All small developments, including single dwellings, should be considered under a single vulnerability category. It is important that gardens, access paths and driveways of a residential dwelling should remain flood-free, therefore the whole area of development should be considered as highly vulnerable development.

6. Development Types referred to in TAN 15

6.1 New Development:

- i. Schemes to develop greenfield sites.
- ii. Proposals to develop vacant or unused sites. (Questions of Welsh Government are being raised as to whether these terms should be moved to the definition for redevelopment.)
- iii. Increase exposure of people, property and infrastructure to flood risk.
- iv. Are likely to adversely impact on flood storage capacity in areas at risk of flooding.
- v. Proposals for new development on undefended land should only be consented in exceptional circumstances and meet the TAN 15 Section 10.10 justifying criteria (see Section 7 below).

6.2 Redevelopment, change of use and conversions:

- i. Where buildings in flood risk areas are currently in use, there may be circumstances where redevelopment, changes of use or conversion proposals can bring clear benefits to the area and the building.
- ii. The benefits should be balanced and weighed against the flood risk considerations.
- iii. A flood consequences assessment is required in any flood risk area.
- iv. The scheme must be justifiable under TAN 15 Section 10.10 (see Section 7 below) and acceptable under TAN 15 Section 11 (see Section 12 below).

6.3 Redevelopments

- i. Redevelopments propose to replace a building with an existing use (in full or in part) with a new building.
- ii. Redevelopment schemes should be of similar scale to the existing use to avoid increasing exposure to flood risk.
- iii. Consideration of the buildings footprint, height and capacity is appropriate.
- iv. Any redevelopment must exhibit flood resilient design.
- v. Proposals for redevelopment which include residential use must ensure that such uses do not occur at ground flood level.

6.4 Change of Use or Conversions

- i. Change of use or conversion proposals seek to change how a building is used without significantly changing its appearance or footprint.
- ii. Change of use proposals that would introduce highly vulnerable development into a flood risk area, Zone 3 (Rivers and Sea) in particular, require detailed and careful scrutiny and must be resilient to flooding.

6.5 Extensions

- i. Add capacity to an existing building by extending its floorspace.

7. Flood Zones (Rivers and Seas) Justification Criteria – TAN 15 Section 10.10

7.a Any development of greenfield land in Zones other than Zone 1 have to be fully justified with an explanation on why other locations are not suitable and why previously developed land cannot be developed.

7.b The inclusion of greenfield land schemes in an adopted development plan or in a community adaptation resilience plan will strengthen their justification.

7.1 Zone 1:

- i. All types of development are acceptable in principle.
- ii. Local specific planning policies may apply.

7.2 TAN 15 Defended Zones:

- i. **All development** will be justified if it meets the acceptability criteria under TAN 15 Section 11 (see Section 12 below).
- ii. **All development** will be justified if there is an agreed Community Adaptation and Resilience Plan in place that support developments that form part of a strategic regeneration scheme.

7.3 Zone 2 (Rivers and Sea):

All development will be justified in Zone 2 if:

- i. It is part of a strategy supported in a Development Plan to regenerate an existing settlement or achieve key economic or environmental objectives; **AND**
(It is believed that there should be an 'OR' here and this is raised in the response to Welsh Government.)
- ii. It is on previously developed land; **AND**
- iii. It meets the acceptability criteria in TAN 15 Section 11 (see Section 12 below).

7.4 Zone 3 (Rivers and Sea)

7.4.1 New developments in the highly vulnerable category (e.g. homes) are not acceptable in Zone 3 except where the development:

- i. Clearly and specifically addresses the causes of climate change and cannot be located on less vulnerable land and has been designed to the highest standards of resilience.
- ii. Is for essential infrastructure which cannot be accommodated on less vulnerable land and has been designed to the highest standards of resilience.

7.4.2 New developments in the less vulnerable category (e.g. employment use) will be justified if:

- i. There are exceptional circumstances, such as in the interests of energy security or to mitigate the impacts of climate change; **AND**
- ii. It is on previously development land; **AND**
- iii. It meets the acceptability criteria in TAN 15 Section 11 (see Section 12 below).

7.4.3 Redevelopments, changes of use and conversions will be justified if:

- i. It meets the acceptability criteria in TAN 15 Section 11 (see Section 12 below); **AND**
- ii. Is designed so that the site and building are both resilient to flooding.

8. Notification Direction

8.1 If a planning authority intends to approve new highly vulnerable development in Zone 3 (Rivers and Sea) then Welsh Government have to be notified.

8.2 Welsh Ministers will have the option of calling-in the application to determine it themselves.

9. Sites in two of more flood Zones – TAN 15 Section 14

9.1 Where a site falls into two or more flood zones the planning authority must make an assessment of the proposal, taking into account each of its proposed land uses, against each of the flood zones to which it applies, in accordance with the criteria in TAN 15 Section 10 (see Section 7 above).

9.2 An assessment of flooding consequences for the proposal in accordance with TAN 15 Sections 11 and 12 will also be required (see Section 12 and 13 below).

9.3 Advice from Natural Resources Wales and the Lead Local Flood Authority should be taken into account when deciding whether the consequences of flooding are acceptable, in terms of the risks to people and property.

10. Essential Infrastructure

10.1 Local planning authorities will determine whether proposals constitute essential infrastructure, but reasons could include:

- i. Essential low carbon transport infrastructure which has to cross a high risk area.
- ii. Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; including electricity generating power stations, grid and primary substations storage; and water treatment works that need to remain operations in times of flood.
- iii. Renewable energy generating facilities which have an appropriate locational need.

11. Community Adaptation and Resilience Plans

11.1 A Community Adaptation and Resilience Plan (CARP) must be adopted where local authorities wish to promote strategic regeneration of large areas of coastal towns and cities. It should be linked to the Development Plan.

11.2 A CARP will need to clearly set out how and when they intend to defend these places from flooding and must make provision for the ongoing maintenance of any new flood defences.

11.3 CARP should include the construction of flood defences that would move any land from Zones 2 and 3 into a defended zone together with details and priorities for phasing the new measures and the appropriate regeneration activities that would be permissible under such circumstances.

11.4 CARP should also identify resilience measures that would increase flood resilience as part of regeneration schemes.

11.5 CARPs must be compatible with and support Future Wales and the Local Development Plan.

12. Acceptability Criteria – TAN 15 Section 11

12.1 To assess whether a development is acceptable a Flood Consequences Assessment will be required with sufficient information to consider flooding implications and balance them against other considerations.

12.2 A development can only proceed where the consequences of flooding can be safely managed, and the following conditions are met:

- i. There is no increase in flooding elsewhere.
- ii. Occupiers are aware of the flood risk.
- iii. There are safe escape or evacuation routes in place.
- iv. Flood emergency plans and procedures have been agreed and are in place.
- v. The development has been designed to be flood resistant and resilient (i.e. Section 13 below and TAN 15 Section 13).
- vi. The consequences for the type of use of the development are acceptable.

12.3 The design of the site and the development itself are safe and there is:

- i. Minimal risk to life.
- ii. Minimal disruption to people living and working in the area.
- iii. Minimal potential damage to property.
- iv. Minimal impact of the proposed development on flood risk generally; and
- v. Minimal disruption to the sustainable management of natural resources.

12.4 Deep water and water which moves quickly is particularly dangerous to people and must be assessed. Welsh Government have provided a flood hazard matrix to provide guidance to assess the acceptability of risk as well as technical thresholds to ensure that development area flood free.

12.5 Developments must be flood free including an allowance for climate change over the lifetime of the development in the following events:

- i. Emergency services (command centres and hubs) must be flood free during 0.1% (1 in 1000 chance of occurring in any year) of a flood from a river or the sea.
- ii. Highly vulnerable developments (homes, schools) and less vulnerable developments (employment sites) must be flood free during 1% (1 in 100 chance of occurring in any year) of a flood from a river.
- iii. Highly vulnerable developments (homes, schools) and less vulnerable developments (employment sites) must be flood free during 0.5% (1 in 200 chance of occurring in any year) of a flood from the sea.

12.6 In the most extreme flood events, it may not be possible to keep all development flood free but there should not be a risk to life and so the development must meet tolerable conditions in a 0.1% extreme flood event. The requirements are that:

- i. Highly vulnerable developments (homes, schools), less vulnerable developments (employment sites) and built elements of water compatible development must not flood deeper than 600 mm in an extreme flood event.
- ii. Highly vulnerable developments (homes, schools) must not have water moving more quickly than 0.15 metres per second in an extreme flood event.

- iii. Less vulnerable developments (employment sites) and built elements of water compatible development must not have water moving more quickly than 0.3 metres per second in an extreme flood event.

13. Resilient Design – TAN 15 Section 13

13.1 Design considerations will be a key factor when determining whether development is acceptable in flood risk areas.

13.2 The most effective solutions will combine both site-level and property-level resilience measures.

13.3 Strategic Flood Consequences Assessment (SFCAs) and Flood Consequence Assessments (FCAs) should provide advice on which measures offer the best and most appropriate protection from flooding.

13.4 Any development in Zones 2, 3 and TAN 15 Defended Zones must have resilience to flood built-in at site and property level.

- i. Minimise the amount of water that can enter a property.
- ii. Limit the damage caused if water does enter so that the building can be recovered quickly.
- iii. Reduce the amount of water that can enter the site.
- iv. Manage any water that does reach the site so that it does not impact on households and other occupiers/users.

14. Surface Water & Small Watercourses – TAN 15 Section 8

- i. Use Flood Map for Planning as a Guide
- ii. Risks should be considered in Strategic Flood Consequences Assessments (SFCA) for Development Plans and in undertaking detailed Flood Consequences Assessments (FCA) for planning applications.
- iii. FCA is required for development fully or partially in Zone 2 or 3 and where development outside these zones has the potential to affect the course of surface water and/or excess water from ordinary watercourses.
- iv. Consideration needs to be given to the impact of drainage. Built developments increase the surface area of impermeable ground and increase rapid surface run off

which result in precipitation entering the watercourse more quickly which can cause flooding at other locations. Sustainable drainage systems have an important role in managing run-off from a site and must be implemented in most new developments.

15. Sustainable Drainage Systems (SuDs) & Drainage

Statement – TAN 15 Section 8

- i. Planning and SuDs Approving Body (SAB) permission should be applied for at the same time.
- ii. Where planning permission is applied for before SAB approval a Drainage Statement is required for the planning application.
- iii. Specific requirements for Drainage Statement including how water is to be managed & discharged. Discharge methods are listed in priority and reasons have to be provided as to why a higher priority method cannot be utilised.
- iv. Planning authority and SAB have to be happy.
- v. Inadequate Drainage Statements and flawed drainage arrangements are reasons for the planning application to be refused.

16. Coastal risks – erosion and flooding – TAN 15 Section 9

16.1 Development Plans should indicate which parts of the coast can be developed, should be maintained in their current form or should be left to nature.

16.2 SFCA should include an assessment of the role and integrity of coastal defences and provide detailed understanding of the risks from flooding and coastal erosion in the plan area.

16.3 In making decisions on development proposals within coastal areas, planning authorities should fully consider whether there are risks to the development arising from coastal erosion or flooding. The Flood Map for Planning incorporates areas shown on the National Coastal Erosion Risk Map to be at risk of erosion. Development should not be permitted in these areas.

17. Flood Consequences Assessment (FCA) – TAN 15 Section 12

17.1 Objective of a Flood Consequences Assessment is to develop a full appreciation of:

- i. The risk and consequences of flooding on the development; and
- ii. The risk and consequences (i.e. the overall impacts) of the development on flood risk elsewhere.

17.2 They can also be used to establish whether appropriate avoidance or mitigation measures could be incorporated within the design of the development to ensure that over its lifetime, development minimises risk to life, damage to property and disruption to people living and working on the site and does not increase flood risk.

17.3 The assessment must allow for a range of potential flood scenarios up to and including that flood having a probability of 0.1% in any year. An allowance for climate change must be made in line with Welsh Government guidance.

17.4 There are specific components and data that should be included in an FCA.

18. Applications for extension and householder development

18.1 Applications for extensions or alterations in flood risk areas should not raise significant issues unless they:

- i. Are likely to have a direct and adverse effect on a watercourse or its flood defences;
- ii. Would impede access to flood defence and management facilities; or
- iii. Could have a cumulative impact on flood storage capacity or flood flows.

18.2 In such circumstances a Flood Consequences Assessment should be provided.

19. Public open space, recreation and agriculture

19.1 The use of land at risk of flooding for agriculture, recreation and as public open space is likely to be acceptable in most cases. However, ancillary buildings or structures required for these uses, which in some circumstances are subject to prior approval, may not be acceptable. TAN 15 Section 11 applies (See Section 12 above).

20. Caravan and camping sites

20.1 Caravan, camping and other temporary occupancy sites including any changes of use, extensions to seasonal occupancy and extensions to existing sites must not be permitted in Zone 3. They should only be considered in Zone 2 if the development satisfies the tests in TAN 15 Sections 10 and 11 (see Sections 7 and 12 above).

20.2 Where planning authorities are minded to grant permission for caravan / camping sites or other temporary holiday accommodation in Zone 2 or the TAN 15 Defended Zones, planning conditions are required. A planning condition should secure the preparation of effective warning and evacuation plans. The condition should also secure the provision and ongoing maintenance of suitable warning notices to inform people entering the site. The location of the notices must be approved, and the condition must include the requirement to keep the notices up to date with the latest warning and evacuation plan.

21. Planning Condition may be required when considering lifetime of a development

21.1 The Flood Map for Planning contains 100-year climate change scenarios but where new developments have shorter lifetimes it is reasonable for the flood consequences assessment to focus on potential risks during the development's expected lifetime. If on this basis planning permission is granted, a planning condition should be imposed to prevent use after the expected lifetime of the building.