



West Lothian  
Council

# Supplementary Guidance: Flooding and the Water Environment



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## **1.0 Introduction**

- 1.1** The United Kingdom is experiencing the effects of a changing climate. Flood events continue to have a detrimental effect on social, economic and environmental wellbeing. West Lothian is no different. A number of communities here have been affected severely by flooding. For more than a decade, the Council has been proactive in its approach to minimise the risk of flooding and the effects of severely impaired drainage through effective development planning practices, investment in a series of measures to reduce flood risk in our communities and through an effective response before, during and in the aftermath of severe weather.
- 1.2** All forms of flooding and their potential impacts on the natural and built environment are “material considerations” to be taken into account in the development planning process. The Council, as local planning authority, expects developers to adopt a precautionary approach to the management of flood risk and ensure that development is safe from the effects of flooding and will not result in an increase in flood risk elsewhere. It is also expected that measures to mitigate the effects of flooding and the impact of development on the water environment are sustainable and maximise social, economic and environmental benefits.
- 1.3** This Supplementary Guidance aims to assist developers in making better planning applications to aid infrastructure delivery and help stakeholders gain a better understanding of the Council’s commitment to minimising the risk of flooding across West Lothian. This Supplementary Guidance should be read in conjunction with a number of national and local planning policies and guidance contained within the Local Development Plan.
- 1.4** West Lothian Council’s Local Development Plan sets out land use planning policies and proposals that will play an important role in improving the quality of life for local people as well as those that work and or do business in West Lothian, helping adapt to our changing climate, protecting valuable resources, including the built and natural environment and developing more sustainable communities. The decisions that the Council makes about the quality, location and resilience of new development will be key to maximising quality of life, reducing social inequality and optimising the benefits that can be derived from investment.
- 1.5** This guidance is one of a number prepared to support the Local Development Plan. Its purpose is to assist developers and their agents by providing context and an overview of issues that the Council has to have regard to when producing and implementing a land use development plan, highlighting the matters that will need to be considered and the information that will need to be brought forward by developers when submitting a planning application to ensure that new development is not at risk of flooding, that the risk of flooding is not increased elsewhere and that the water environment is protected and, where necessary, restored to a more natural, resilient condition.

## 2.0 Our changing climate

- 2.1 The Foresight Future Flooding Study 2004 E. Evans, provided an assessment of flood risk in the UK over a 30-100-year timescale. The key message is that the effects of climate change may be more extreme than had previously been estimated. In particular, the potential increase in rainfall volume, intensity and temperature are each greater. The update also highlighted the increased risk that we will face from surface water flooding. With the uncertainty associated with a changing climate, the update recommended that strong governance and investment would be required to tackle the increased risks. The study was updated in 2008.
- 2.2 A handbook of climate trends across Scotland (2006) Barnett, C. J. Hossell, M. Perry, C. Proctor & G. Hughes, paints a bleak picture showing an increase in the number of days of heavy rain, a steady decrease in the consecutive number of dry days each year, an increase in the level of rainfall intensity and an increase in the maximum five-day precipitation total.

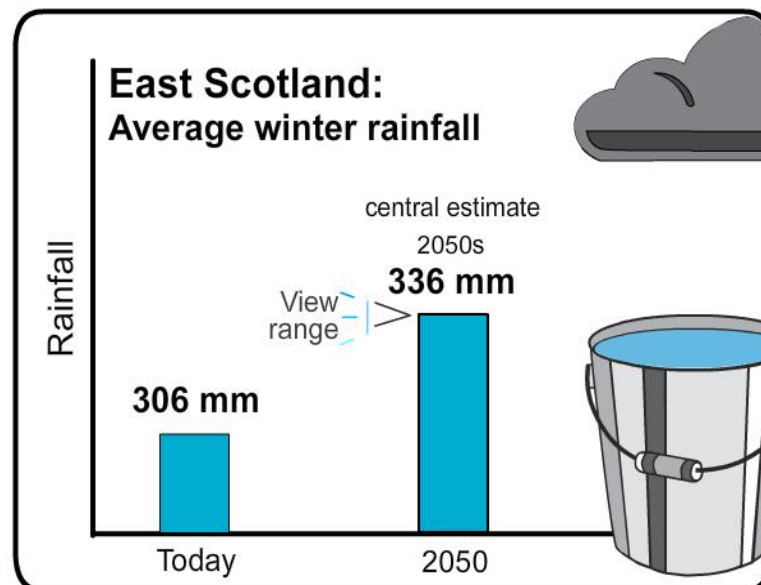
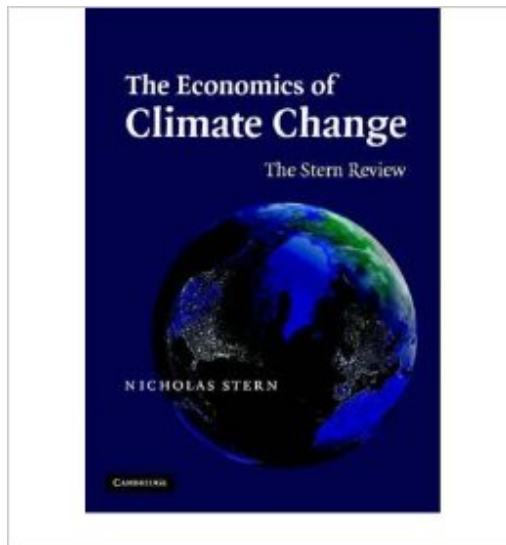


Fig. 1 The Met Office (2010) predicts an increase in average winter rainfall of 9% between now and 2050 Courtesy of the Met Office, 2010

### 3.0 Adapting to a changing climate

#### 3.1

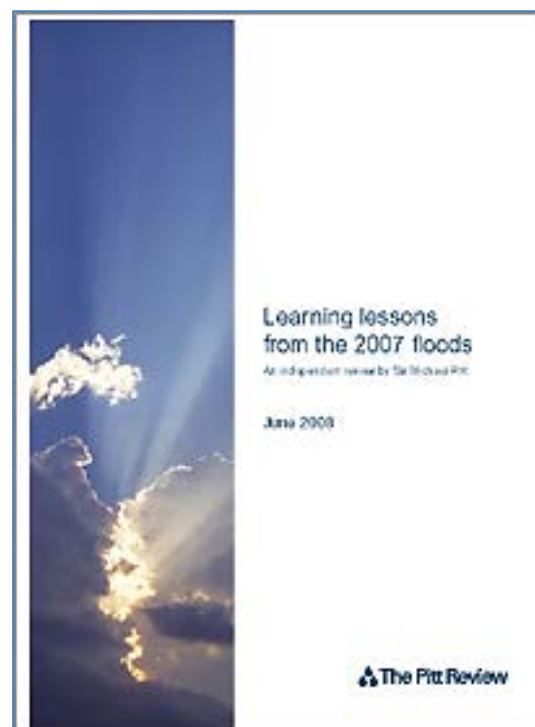


In his **Review of the Economics of Climate Change (2006)**, Sir Nicholas Stern said, “Given that climate change is happening, measures to help people adapt to it are essential and the less mitigation that we do now the greater the difficulty of continuing to adapt in future”.

3.2 The UK Climate Impacts Programme (2009) has formulated scenarios to look at possible future climate change, dependent on predicted future global greenhouse gas emissions. This research provides Scotland with the best available information on predicted changes in climate and indicates that, over the coming decades, Scotland will experience more severe rainfall events in winter, particularly in the east of the country.

3.3 Following a request to conduct an independent review of the flooding emergency that took place in England in Summer 2007, Sir Michael Pitt published his final report **The Pitt Review: Lessons learned from the 2007 floods**. Among the recommendations arising from his report, four were particularly relevant to local authorities:

- Given the predicted increase in the range of future extremes of weather, the government should give priority to both adaptation and mitigation in its programmes to help society cope with climate change.
- Local authorities should lead on the management of local flood risk, with the support of relevant organisations.
- Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility.



- Local authorities should assess and, if appropriate, enhance their technical capabilities to deliver a wide range of responsibilities in relation to local flood risk management.

**3.4** It is in this context that we have seen the introduction of more robust legislation in Scotland which requires a number of responsible public sector bodies to take firm action to avoid flood risk, protect against the risk of flooding and prepare for flooding. Local authorities are now proactive in ensuring that the number of properties at risk in their respective administrative area is not increasing and that measures are being put in place that, in time, will reduce the number of susceptible properties.

## **4.0 Legal Context**

### **4.1 The European Water Framework Directive**

The Water Framework Directive – 2000/60/EC (WFD) requires member states to make plans to protect and improve the water environment. In summary, the Directive aims to protect and prevent the deterioration of aquatic ecosystems; conserve habitats and species that depend directly on water; reduce the release of individual pollutants that present a significant threat to the aquatic environment; reduce the pollution of groundwater and prevent or limit the entry of pollutants; and help reduce the effects of floods and droughts.

### **4.2 The European Floods Directive**

The Directive, 2007/60/EC on the assessment and management of flood risk came into force on 26 November 2007. Its aim was to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive requires Member States to first carry out a preliminary assessment by 2011 to identify the river basins and associated coastal areas at risk from flooding and then draw up flood risk maps by 2013 and establish flood risk management plans focused on prevention, protection and preparedness by 2015. The Directive applies to inland waters as well as all coastal waters across the European Union.

The Directive is to be executed in coordination with the Water Framework Directive, notably through flood risk management plans and river basin management plans being coordinated, and through public participation in the preparation of these plans. All assessments, maps and plans prepared are to be made available to the public.

Member States are also expected to coordinate their flood risk management practices in shared river basins and must take into consideration long-term developments, including climate change, as well as sustainable land use practices in the flood risk management cycle addressed in the Directive.

### **4.3 Water Environment & Water Services (Scotland) Act 2003**

The European Water Framework Directive was transposed into Scots law through the Water Environment & Water Services (Scotland) Act 2003. The Act sets out arrangements for the protection of the water environment in Scotland and changes how new connections to the public water and sewerage infrastructure are to be funded.

Responsible authorities must exercise their designated functions so as to secure compliance with the requirements of the Water Framework Directive. Responsible authorities, in exercising their designated functions, must:

- (a) have regard to the social and economic impact of such exercise of those functions; so far as is consistent with the purposes of the relevant enactment or designated function in question;
- (b) promote sustainable flood risk management;
- (c) act in the way best calculated to contribute to the achievement of sustainable development; and
- (d) so far as practicable, adopt an integrated approach by co-operating with each other with a view to coordinating the exercise of their respective functions.

Section 16 of the Act requires every public body and office-holder, including the local authorities, in exercising any functions to have regard to the River Basin Management Plan.

The Scottish Ministers and every public body and office-holder must also, in exercising any functions, have regard to the desirability of protecting the water environment.

#### **4.4 The Climate Change (Scotland) Act 2009**

Part 1 of the Act creates the statutory framework for greenhouse gas emissions reductions in Scotland by setting an interim 42 per cent reduction target for 2020, with the power for this to be varied based on expert advice, and an 80 per cent reduction target for 2050. To help ensure the delivery of these targets, this part of the Act also requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

The Act includes other provisions on climate change in Part 5, including adaptation, forestry, energy efficiency and waste reduction. Public engagement is a significant feature of Part 6 of the Act, which also includes provision on carbon assessment.

Measures which reduce the risk of flooding or mitigate its effects are included in the adaptation submission made to the Scottish Government.

#### **4.5 The Flood Risk Management (Scotland) Act 2009**

The Flood Risk Management (Scotland) Act 2009 transposed the EU Floods Directive into Scots law. It introduced a proactive, plan-led, catchment-wide and risk-based approach to manage the risk of flooding across Scotland. Land and property owners, however, continue to be responsible for their own assets and for avoiding damages where possible.

So far as is consistent with flood risk functions, local authorities must also:

- act with a view to reducing overall flood risk;
- act to secure compliance with the European Floods Directive;
- act with a view to achieving the objectives set out in the flood risk management plans;
- have regard to the social, environmental and economic impact of carrying out those functions;
- prepare flood risk management plans and local flood risk management plans;
- prepare maps of bodies of water;
- prepare a schedule of clearance and repair works;
- assess bodies of water;
- obtain information;
- act in the way best calculated to manage flood risk in a sustainable way and co-operate with all responsible authorities;
- promote sustainable flood management;
- act with a view to raising awareness of flood risk and;
- act in the way best calculated to contribute to the achievement of sustainable development.



Local authorities, the Scottish Environment Protection Agency (SEPA) and Scottish Water have a legal duty to co-operate to produce the National Flood Risk Assessment, flood hazard maps, Flood Risk Management Strategies and Local Flood Risk Management Plans. The process of risk assessment, mapping and planning is to be repeated every six years. The six year periods are referred to as cycles. The Forth Estuary Flood Risk Management Strategy can be located on SEPAS website - <http://apps.sepa.org.uk/FRMStrategies/forth-estuary.html>

For the purposes of managing flood risk, Scotland has been divided into 14 Local Plan Districts (LPDs). Each LPD has a partnership and a lead local authority. SEPA has produced a Flood Risk Management Strategy for each LPD and the lead local authority has produced a Local Flood Risk Management Plan in liaison with member authorities. Officers from West Lothian continue to work closely with representatives from ten other local authorities, Scottish Water and SEPA as part of a local statutory framework known as the Forth Estuary Local Plan District; a partnership to develop a Local Flood Risk Management Plan for the area, which was published in June 2016

[http://www.edinburgh.gov.uk/info/20006/emergencies\\_safety\\_and\\_crime/1433/flood\\_risk\\_management\\_plan](http://www.edinburgh.gov.uk/info/20006/emergencies_safety_and_crime/1433/flood_risk_management_plan)

Flood Risk Management  
(Scotland) Act 2009:

Local Flood Risk Management Plan  
Forth Estuary Local Plan District



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The Flood Risk Management Strategies produced by SEPA identify the main flood hazards and impacts, setting out objectives for reducing the risk of flooding and identifying the best combination of actions to achieve this. The Local Flood Risk Management Plan published by the Lead Local Authority on behalf of the Local Plan District takes these objectives and explains what actions will be taken to deliver them within the respective six-year planning cycle.

Together with partners, West Lothian Council is developing a better understanding of the extents, causes and impacts of flooding in West Lothian. In the past, investment has tended to be reactive rather than pre-emptive. The new approach is more long-term and sustainable and anticipates future flood risk.

For the first time, plans will be in place to manage the risk from all sources of flooding affecting an area, whether from rivers, overwhelmed drainage networks, groundwater or from the sea.

#### **4.6 The Roads (Scotland) Act 1984**

The Council as roads authority has a duty to provide drainage for public roads and for road safety;

Section 21 refers to the requirement of consent for new roads built other than by a roads authority. Where a developer is seeking to submit a new road to be adopted by the roads authority it is necessary for the layout and construction of roads, including road and surface water drainage to satisfy the current design standards;

Section 31 provides powers to the roads authority to drain a public road or proposed public road or otherwise prevent surface water from flowing onto it; and

Section 99 allows roads authorities to carry out works to prevent flows of water onto roads and to serve notice on others or to carry out works to prevent flows of water onto roads, where the owner or occupier of any land has failed to prevent the flow of water or of filth, dirt or other offensive matter from, or any percolation of water through, the land onto the road.

#### **4.7 Sewerage (Scotland) Act 1968 (as amended)**

Part 1 of the Act details the duties and powers of Scottish Water in terms of the provision and maintenance of public sewerage. It also provides details regarding vesting of public sewerage.

Section 7 allows roads authorities (including Local Authorities) and Scottish Water to enter into agreements as to the provision, management, maintenance and use of their sewers or drains for the conveyance of water from the surface of a road or surface water from premises.

Part 2 of the Act details the requirements relating to Trade Effluent.

#### **4.8 The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR)**

Section 20 of the Water Environment and Water Services Act (Scotland) 2003 gave Ministers power to introduce regulatory controls over activities in order to protect and improve the water environment. The WEWS Act defines the purpose of the regimes and therefore provides the basis of interpreting the powers in CAR.

The regulations are built upon a requirement for controlled activities to be authorised. The controlled activities are defined within the WEWS Act but are modified by CAR to include activities which will directly or indirectly cause an impact upon the water environment.

Under CAR, SEPA assess proposed activities before granting an authorisation. There are three types of authorisation and the type of authorisation depends on the environmental risk of the proposed activity:

- (a) General Binding Rules (GBRs) – for certain low risk activities.
- (b) Registration – low risk activities which can cumulatively pose a risk to the water environment.
- (c) Licence – is needed if site-specific controls are required.

#### **4.9 Planning etc. (Scotland) Act 2006**

The Act gives planning authorities the powers to grant or refuse planning applications.

Part 2 requires the planning authority to exercise the planning function with the objective of contributing to sustainable development;

Part 2 states that, a strategic development plan should set out the infrastructure of that area (including communications, transport and drainage system and systems for the supply of water and energy); and

Part 2 states that where land is not within a strategic development plan area, a local development plan should set out the infrastructure of that area (including communications, transport and drainage system and systems for the supply of water and energy).

#### **4.10 Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008**

Regulation 25 and Schedule 5 requires that planning authorities must consult with SEPA where the development is likely to result in a material increase in the number of buildings at risk of being damaged by flooding. Planning authorities must take SEPA's advice into account alongside the development plan and other material considerations in the determination of planning applications involving flood risk;

Requires key agencies, including SEPA, to co-operate with strategic development plan authorities and planning authorities during the compilation of main issues reports, the preparation of proposed strategic development plans and local development plans.

#### **4.11 Town and Country Planning (Miscellaneous Amendments) (Scotland) Regulations 2011**

These regulations amend The Town and Country Planning (Development Planning) (Scotland) Regulations 2008 to include reference to flood risk management plans and local flood risk management plans. Planning authorities, when preparing strategic development plans and local development plans, must have regard to any approved flood risk management plan or finalised local flood risk management plan relating to the strategic development plan and local development plan area.

#### **4.12 The Town and Country Planning (Notification of Applications) (Scotland) Direction 2009**

Requires planning authorities to notify Scottish Ministers of any application where SEPA has advised against the granting of planning permission or has recommended conditions relating to flood risk which the planning authority do not propose to attach to the planning permission.

#### **4.13 Building (Scotland) Act 2003**

Section 8 refers to the issuing of Building Warrants for construction work and Part 3 cover compliance and enforcement;

Mandatory Building Standard 3.6 requires every building and hard surface within the curtilage of a building, to be designed and constructed with a surface water drainage system that will:

- ensure the disposal of surface water without threatening the building and the health and safety of the people in and around the building; and
- have facilities for the separation and removal of silt, grit and pollutants.

## 5.0 Policy Context

### 5.1 National Planning Framework (NPF) and Scottish Planning Policy

*Scotland's Third National Planning Framework* (Scottish Government, 2014) (NPF3) sets the context for development planning in Scotland and provides a framework for the spatial development of Scotland as a whole. It sets out the Government's development priorities over the next 20-30 years and identifies national developments which support the development strategy. In conjunction with the NPF3, *Scottish Planning Policy* (Scottish Government, 2014) (SPP) sets out national planning policies reflecting the priorities of Scottish Ministers. The SPP promotes national consistency in the planning process while still providing a degree of flexibility for planning authorities to take due recognition of local circumstances. The requirements for development to consider flooding, including surface water and the provision of drainage, are presented in paragraph 254 to 268.

The SPP is intended to promote:

- A precautionary approach to flood risk from all sources, including coastal, watercourse, surface water, groundwater, reservoirs and drainage systems, taking account of the predicted effects of climate change;
- flood avoidance: by safeguarding flood storage and conveyance capacity, and locating development away from functional flood plains and medium to high risk areas;
- flood reduction: assessing flood risk and, where appropriate, undertaking natural and structural flood management measures, including flood protection, restoring natural features and characteristics, enhancing flood storage capacity, avoiding the construction of new culverts and opening existing culverts where possible; and
- avoidance of increased surface water flooding through requirements for Sustainable Drainage Systems (SuDS) and minimising the area of impermeable surface;

Local development plans should use the flood risk framework set out in the planning policy document to guide development. This sets out three categories of coastal and watercourse flood risk, together with guidance on surface water flooding, and the appropriate planning approach for each.

### 5.2 Local Planning Policy

The *West Lothian Local Plan* (West Lothian Council, 2009) provides the current statutory planning framework for guiding the location and quality of development in West Lothian. Chapter 12 of the Local Plan provides a clear and concise description of the requirements for developments, via policies IMP4, IMP5, IMP6 and IMP7, in relation to:

- the provision of water and sewerage;
- surface water run-off; and
- flooding.

The adopted 2009 Local Plan is being replaced by the emerging Local Development Plan (2015) and informed by this *Supplementary Guidance*. The supporting guidance document sets out the requirements for all new development within West Lothian in relation to flood risk and the provision of drainage and the management of surface water run-off.

The *Main Issues Report* (West Lothian Council, 2014) contains a number of supporting documents including the *Strategic Flood Risk Assessment (SFRA) background paper* (West Lothian Council, 2014). This provides information on flood risk that will facilitate the Council's understanding of existing and potential flood risk to development located within the Local Development Plan (2015). Currently the objections to the LDP are with the Scottish Government Reporter's Unit for consideration. The *West Lothian Local Plan* will be superseded in 2017/18 by the *West Lothian Local Development Plan (LDP)*.

Ensuring developers manage flood risk from all sources in a proactive and sustainable manner will remain the underlying principle. The Local Development Plan will represent a material consideration for future developments in the run up to the adoption of the plan. Policies EMG1, EMG2 and EMG3 in the Local Development Plan include details in relation to Water Environment Improvement, Flooding and Sustainable Drainage, albeit they may change pending the outcome of the examination of the LDP by Scottish Government Reporters.

It is anticipated that future development may have a significant role to play in the management of existing and future surface water flooding issues in West Lothian.

#### Local Biodiversity Action Plan

The second Local Biodiversity Action Plan (LBAP) for West Lothian is the Local Biodiversity Action Plan: Planning for Biodiversity Action 2005-2009 (West Lothian Council, 2005). The principles relating to the protection of species and habitats remain current. There is currently no intention to update the Plan.

The LBAP identified a range of strategic habitat types which could align with the principles of managing surface water run-off at source, these include farmland, woodland and lowland raised bogs.

The following actions have been identified for rivers and streams and present potential opportunities for the sustainable management of flooding:

- through planning controls, ensure the inclusion of effective sustainable drainage systems for all development;
- implement retrofit SUDs to mitigate the effects of run-off from industrial sites;
- improve the geomorphology of our rivers and streams to reduce flood risk, improve riparian and riverine habitats, restore natural processes; and
- identify a river Local Geodiversity Site (LGS) to demonstrate active geomorphological processes.

### **5.3 River Basin Management Plan**

River Basin Management Plans are generated on behalf of the Scottish Government to meet the requirements of the European Water Framework Directive (WFD). West Lothian is located within the "Forth Area Advisory Group" in the Forth Area of the "Scotland River Basin District". The first plan was published in 2009 *The River basin management plan for the Scotland river basin district 2009-2015: Summary* (Scottish Government, 2009) and has since been replaced by the second plan in December 2015.

The major watercourses of the River Almond and Water of Leith have been classified as being of "Poor" status for all reaches. The status of the River Avon varies with the main

stem being classified as “Moderate” and its tributaries being “Good”, “Moderate” and “Bad”.

Ambitious targets have been set for rivers, with an objective for 96% to be at good or high status by 2027.

The Water Environment Fund provides a potential funding mechanism for works which will bring about an improvement in WFD status and will alleviate some of the pressures identified in the Basin Management Plan.

#### **5.4 Climate Change Adaption Plan**

As a local authority, WLC is bound by the Public Bodies Climate Change Duties to monitor and reduce greenhouse gas emissions. To achieve these targets, climate change and sustainability drivers are embedded within the governance structure of the Council, driven by the Council’s Climate Change and Sustainability Working Group and the Environment Forum.

Further to this, there are a wide range of climate change-related projects underway, some highlights of which are listed below:

- Reducing corporate emissions:
  - Development of the council's renewable energy capacity;
  - promoting sustainable transport guidance for staff;
  - provision of waste education, minimisation and recycling resources for students, teachers, staff and Facilities Management at schools;
  - sustainable procurement project plan; and
  - sustainable behaviour change project (Green Impact).
- Reducing area-wide emissions:
  - Provision of energy efficiency support and advice for communities;
  - development and implementation of active travel projects (e.g. bicycle recycling scheme), Green Travel Plans and sustainable transport infrastructure;
  - improved management and regeneration of parks and play areas;
  - air quality monitoring and the Switch-Off campaign for vehicles emissions;
  - promoting recycling, in particular food waste recycling across our communities;
  - and
  - new glass recycling and improved waste segregation facilities also being rolled out.

In addition to the efforts to reduce emissions, there are a number of climate change adaptation projects underway in order to ensure that the natural, built and social environments of West Lothian are better equipped to withstand the effects of a changing climate.

Some highlights include:

- Severe Weather Plan (2014)
- Local Flood Risk Management Plan (2016);
- peatland restoration projects;
- woodland expansion projects; and
- meadow management and wildflower planting.

A report on the activities the Council is undertaking to mitigate and adapt to climate change is published annually within the Council’s Scottish Climate Change Declaration

Report on the Sustainable Scotland Network website.

## 6.0 Roles and responsibilities

6.1 A number of different organisations, with different roles and responsibilities, work together to **manage** flood risk in West Lothian. Some of these organisations have a legal duty to work together to reduce overall flood risk.

### 6.2 Scottish Government

- Sets National Policy on Flood Risk Management and Flood Warning;
- Sets Scottish Planning Policy; and provide resources to enable authorities to address flood risk.



### 6.3



#### SEPA

- Provides a flood warning service for Scotland and operates 'Floodline';
- Provides advice to local authorities on flood risk and planning; and co-ordination of flood risk management policy and activities across Scotland.

### 6.4

#### West Lothian Council

- Manages water-related assets owned by the Council;
- investigates flooding and severely impaired drainage;
- prepares maps of water bodies and sustainable drainage systems;
- assesses bodies of water ;
- maintains watercourses;
- maintains existing flood protection schemes;
- maintains road drainage systems;
- Develops and implements effective policy on flood risk management and drainage as planning authority;
- provides an effective response before, during and in the aftermath of flood events and provides support to emergency responders;
- provides reception centres for people evacuated from their homes in the aftermath of a flood and coordinates the provision of temporary accommodation for Council tenants;
- provides road closures on the local road network; and
- prepares Surface Water Management Plans and contributes to the preparation of the Local Flood Risk Management Plan.



West Lothian  
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### 6.5



#### Scottish Water

- Maintains water supply and drainage infrastructure;
- Manages the discharge of surface water that enters the public drainage system;
- Works in partnership with the local authority and emergency services;
- Deals with flood-damaged mains and flooding caused by bursts;
- liaises with other stakeholders during flood



events to alleviate any flooding from public sewers; and reduces the risk of flooding from public drainage infrastructure associated with weather-related peak flows.

- Is responsible for the provision and maintenance of public sewerage.

#### 6.6 Police Scotland

- Co-ordinate the actions of all agencies during the course of a major flood;
- Controls the scene at its outer limits by setting up cordons; and
- Saves lives and co-ordinates evacuation and the provision of public information.



POLICE SCOTLAND

#### 6.7

#### Scottish Fire and Rescue Service

- Saves lives in the event of serious flooding; and protects property.



#### 6.8 The Met Office

- Produces weather forecasts;
- Warns people of extreme weather conditions; and provide dedicated forecasting support to SEPA and local authorities and other category one and two responders such as Fire and Ambulance Services.



#### 6.9 Scottish Flood Forum

- Provides support and advice to those that have been flooded or those living with the risk of flooding.



#### 6.10 Landowners

- Maintain watercourses, bodies of water, flood defences and drainage systems in their ownership.

#### 6.11 Home owners

- Protect their homes from flooding;
- Adequately insure the buildings and contents of properties in their ownership;
- Prepare for the possibility of flooding; and
- Maintain drainage systems serving the property and shared access roads, courtyards etc.

#### 7.0 Development & flood risk

- 7.1** In order to ensure that new development is not at risk of flooding and that the risk of flooding is not increased elsewhere, the risk of flooding to a development site must be assessed from the outset before the potential effect of development of the site can be considered.

Developers are strongly advised to take flood risk into account before committing to a site or project as often, development is often incompatible with the risk of flooding.

**SEPA's Flood Hazard Maps** are available online and may provide a high-level indication of risk. The maps are prepared using only coarse data and are not suitable for accurately determining the extent of risk at development site or property level. Use of the maps is conditional.

<https://www.sepa.org.uk/environment/water/flooding/flood-maps/>

The Construction Industry Research and Information Association (CIRIA) has prepared excellent guidance in the form of **CIRIA 624 'Development & Flood Risk- Guidance for the Construction Industry'**, CIRIA 2004, ISBN 0-86017-624-X.

<http://www.ciria.org/ItemDetail?iProductCode=C624&Category=BOOK>

## **7.2 Flood Risk Assessment**

Currently a flood risk assessment report has to be submitted along with any type of planning application depending on the location, size and type of development. **The Council now requires a flood risk assessment for any residential development comprising of more than five dwellings and for industrial, retail or commercial developments of more than 250m<sup>2</sup>.** Any other development deemed by the Council to be in a sensitive location will also require a flood risk assessment.

A key requirement for a flood risk assessment is that it must consider all sources of flooding and demonstrate how, through mitigation, potential risk will be managed taking into account the effects of climate change and illustrate that the development will not increase the risk of flooding elsewhere. The assessment should be produced under the direction of a relevant chartered professional with demonstrable up to date experience of preparing flood risk assessments.

- 7.3** A Flood Risk Assessment (FRA) is supplied in support of an application for development to the Council as Planning Authority. Where the Council considers that there might be a risk of flooding to a development site it has a statutory duty to consult SEPA for advice and guidance on flood risk. The SEPA – **Planning Authority Protocol (Policy No. 41)** between both SEPA and the Council sets out the respective roles and responsibilities.

<http://www.sepa.org.uk/media/136143/sepa-planning-authority-protocol-41.pdf>

- 7.4** Flood Risk Assessments being prepared for West Lothian Council must accord with the most up to date version of **SEPA's Technical Flood Risk Guidance for Stakeholders (Reference: SS-NFR-P-002) Version 9.1 (June 2015)** or later.

<http://www.sepa.org.uk/media/162602/ss-nfr-p-002-technical-flood-risk-guidance-for-stakeholders.pdf>

Given that consultants are employed by developers to undertake Flood Risk Assessments, there is scope for different corporate styles and formats although there is core data and

information that must be clearly presented to facilitate the rapid review and audit of reports.

- 7.5** To further facilitate a timely review of FRAs, SEPA has developed a Consultant Flood Risk Assessment checklist to be completed as an *aide memoir* to ensure key aspects have been considered and included in the report.

<https://www.sepa.org.uk/media/159170/flood-risk-assessment-checklist.xls>

- 7.5** On receipt of completed flood risk assessments, the Planning Authority will seek the views of the Council's Flood Risk Management team who will evaluate the report based on its experience and local knowledge. A further copy will be forwarded to SEPA, for a competence check and to ensure that the assessment has been prepared in accord with guidance.

- 7.6** The Council requires the applicant, or their agent, to certify that the Flood Risk Assessment has been carried out by a fully qualified and competent person(s) and that the assessment complies with current best practice, guidance and standards. **Refer to section 14 for more details on this requirement.**

#### **7.7 Development Behind Flood Protection Schemes**

Flood protection schemes can reduce flood risk but cannot eliminate it entirely. Their primary purpose is to protect existing development from flood risk rather than to facilitate new development. For this reason the Council will support the policy principle of avoidance for any proposed development behind flood protection schemes.

A precautionary approach will be taken to proposed development behind any existing or planned flood protection scheme, even those designed to the appropriate standard.

- 7.8** The Council will support SEPA's position on development behind formal or informal flood protection schemes. This will include the recommendations that the development is built to a water resilient design and has adequate evacuation procedures in place. It will also require that the development that is proposed is of a relevant category in terms of the minimum appropriate standard that the scheme has been built to meet.

## **8.0 Culverts, culverting and the restoration of open watercourses**

**8.1** A culvert is a structure that allows water to flow beneath a road, railway, trail, field, housing estate or similar obstruction from one side to the other. Typically embedded so as to be surrounded by soil, a culvert may be formed from a pipe, reinforced concrete, stone or other material. In Scotland the word can also be used to describe longer, artificially buried watercourses. They can be bridge-like structures designed to allow vehicle or pedestrian traffic to cross over the waterway while allowing the conveyance of water.

Culverts come in many sizes and shapes including round, elliptical, flat-bottomed, pear-shaped, and box-like construction. Unfortunately, they have a range of harmful local and system-wide impacts on the water environment.

**8.2** Planning applications which include proposals to culvert watercourses will be resisted for the following reasons:

- To protect existing local, open water habitat;
- to conserve valuable open water habitat from piecemeal cumulative loss;
- to protect the physical character, habitat, transport of sediment, free passage of fauna, establishment of other ecology, access to light, and chemical quality in small and urban watercourses;
- to retain the amenity value afforded by open water;
- to protect the potential of previously modified watercourses to be restored;
- to ensure that room is made for open watercourses in new developments;
- to reduce flood risk as they increase the risk of flooding and represent the single biggest cause of flooding in West Lothian; and
- they are expensive to maintain. Roads authorities prefer not to have culverts beneath public roads and it is generally unacceptable to pass responsibility for culverts to private householders, residents groups or factors.

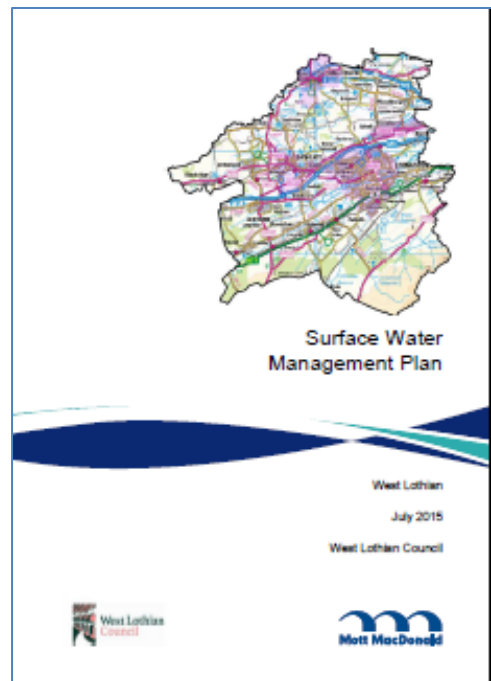
**8.3** Developers will be encouraged to open up or daylight existing culverted watercourses into newly restored, natural meandering channels through their development sites.

**8.4** SEPA's position statement and supporting guidance (WAT-PS-06-02) on the culverting of watercourses provides information and details on SEPA's objectives under the Controlled Activity Regulations (CAR) regarding culverts. The Council will actively support this position statement.

[https://www.sepa.org.uk/media/150919/wat\\_ps\\_06\\_02.pdf](https://www.sepa.org.uk/media/150919/wat_ps_06_02.pdf)

## 9.0 Surface Water Management Planning

- 9.1 Ministerial guidance on delivering sustainable flood risk management in Scotland states that surface water flooding will be addressed through Surface Water Management Plans and that local authorities will lead on the preparation of these plans, which will be co-ordinated within the flood risk management planning process. Surface Water Management Plans are not a legal requirement. Ministerial guidance however identifies the production of Surface Water Management Plans (SWMPs) as a measure to manage the risk of surface water flooding in our communities.



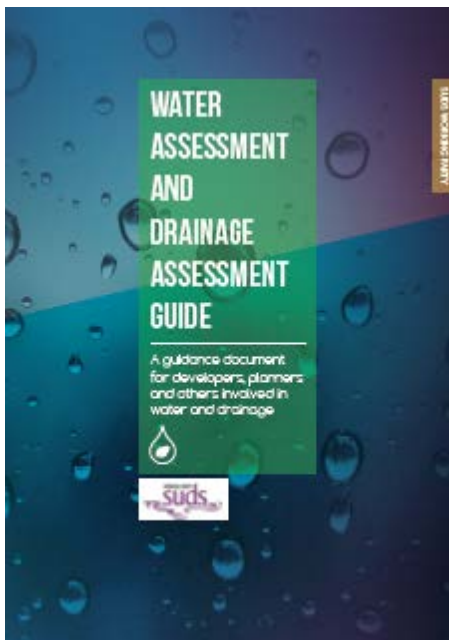
- 9.2 Four surface water management plan priority areas have been identified in SEPA's catchment characterisation reports in West Lothian. This is based on the number of residential and business properties estimated at risk of flooding. The four priority areas are Bathgate, Broxburn, Linlithgow and Livingston.

Surface water flooding is a significant problem in West Lothian. Based on pluvial (surface water) flood hazard data provided by SEPA, it is estimated that approximately 1500 properties may be at risk of flooding from the 1:200-year, three-hour duration storm event.

- 9.3 On completion of the SWMP covering the priority areas, actions have been identified to manage and reduce surface water flood risk in these areas. New developments within WLC area will require to take cognisance of any perceived surface water flood risk to the development and ensure that this is reduced and managed effectively. Development will not be approved which is likely to increase surface water flood risk elsewhere.

## 10.0 Drainage and the Management of Surface Water

- 10.1 The Council requires applications for planning permission to be accompanied by sufficient detail to prove that the proposed development can be effectively drained in accordance with current guidance and legislation. The level and amount of detail that is to be submitted will be dependent on the type of planning permission applied for along with the scale and type of development that is proposed. For guidance please contact the Council's Planning Services. <https://www.westlothian.gov.uk/article/10809/How-is-a-planning-application-processed>
- 10.2 For Planning Applications (greater than 5 houses for residential or for greater than 250m<sup>2</sup> for non-domestic) a Drainage Assessment should be submitted for approval to the Planning Authority as part of the application process. The Drainage Assessment should cover all aspects of the drainage strategy for the development including waste water, surface water including SUDS, drainage of landscaped and garden areas and proposals for management of run-off during construction.



The Drainage Assessment should be carried out in accordance with the current **Water Assessment and Drainage Assessment Guidance** document produced by the Sustainable Urban Drainage Scottish Working Party (SUDSWP). This document is available online and is also available via the SEPA website. The Council requires the applicant, or their agent, to certify that the assessment and/or designs have been carried out by a fully qualified and competent person(s) and that the assessment complies with current best practice, guidance and standards. **Refer to section 14 for more details on this requirement.**

<https://www.sepa.org.uk/media/163472/water-assessment-and-drainage-assessment-guide.pdf>

- 10.2 The following information should be clearly detailed in the Drainage Assessment –

### Waste Water

It is expected that waste water from all new developments will discharge to the public sewer network if possible. For rural developments, or where there is no possibility of connection to the public sewer, satisfactory details of how waste water will be managed will require to be submitted as part of the assessment. Reference should be made to section 6 of the Water Assessment and Drainage Assessment Guide.

It is expected that all waste water sewerage will be designed and constructed in accordance with the current version of **Sewers for Scotland** and vest in Scottish Water on completion of the development.

<http://www.scottishwater.co.uk/assets/business/files/connections%20documents/sfsv4may2015pdf.pdf>

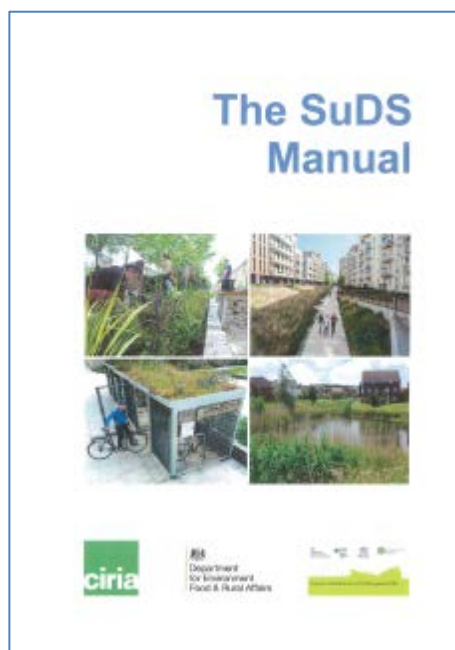
### Surface Water

The assessment will clearly outline how surface water, both statutory and roads run-off, from the proposed development will be managed on site. The surface water system will be designed and constructed such that it deals with all aspects of surface water run-off as outlined in the Water and Drainage Assessment document and CIRIA SUDS manual C753 - [http://www.ciria.org/Resources/Free\\_publications/SuDS\\_manual\\_C753.aspx](http://www.ciria.org/Resources/Free_publications/SuDS_manual_C753.aspx)

- Water quality – manage the quality of the surface water run-off to minimise and prevent pollution of the water environment.
- Water quantity – control the quantity of run-off to support management of flood risk and maintain the natural water cycle.
- Amenity – create and sustain better places for people.
- Biodiversity – create and sustain better places for nature.

Reference should be made to sections 7 and 8 of the Water Assessment and Drainage Assessment Guidance document along with CIRIA SUDS Manual C753 chapters 3 to 6 and particular details should be provided in relation to the following –

- Interception storage – what consideration has been given to capture the first 5mm of rainfall for the proposed development?
- Usage of surface water run-off as a resource – what consideration has been given to a proportion of the run-off being harvested for re-use?
- Support flood risk and protect ecology in the receiving catchment – the rates and volumes of run-off for all high and low return period events are controlled in accordance with water quantity standards as set out in the Water and Drainage Assessment document chapter 8. Calculations should be provided to confirm that post development run-off flows and volumes do not exceed pre-development or green field run-off figures.
- Manage on-site flood risk – run-off from rainfall events that exceed the capacity of the sewerage system is managed in identified exceedance routes and storage areas. The routes and areas identified should ensure that no properties are affected either on site or off-site.
- Flexibility – the SUDS design includes for climate change and urban creep.
- Support the management of water quality – provision of interception and treatment of both roads run-off and statutory run-off to meet the standards set out by SEPA and in accordance with CIRIA SUDS Manual C753 chapter 4.
- The use of the Simple Index Approach (SIA) to assessing water quality management requirements in accordance with CIRIA C753 and to meet SEPA standards. A summary output from the SIA Tool should be included in the Drainage Assessment - [SIA Excel tool](#).



- Source Control features – the use of various types of features to treat and attenuate roads run-off at source should be agreed with the Council but will generally be as per SUDS for Roads and as chapter 9 of CIRIA SUDS Manual C753.
- Public SUDS features – the use of various types of SUDS features to treat and attenuate statutory run-off (possibly along with roads run-off) will be to Scottish Water requirements as the current version of Sewers for Scotland.
- Maximise amenity and biodiversity values – what considerations have been taken into account to meet amenity and biodiversity objectives?

**10.3** The Council expects that all shared surface water drainage systems (those that deal with both statutory run-off and roads run-off) will be designed and constructed in accordance with the current version of Sewers for Scotland and vest in Scottish Water on completion of the development and before the development roads are adopted.

**10.4** The assessment should clearly identify, on a suitably scaled plan, which parts of the system are to vest in Scottish Water as drainage authority, which parts will become road drainage under the Roads Construction Consent and which parts, if any, will be subject to maintenance agreements under section 7 of the Sewerage (Scotland) Act 1968 between Scottish Water and West Lothian Council. The assessment should also clearly identify which part of the system will be private. **Refer to section 14 for more details on this requirement.**

**10.5 Surface Water from Landscaped / Public Open Space Areas and Garden Ground**

It is accepted that run-off from permeable areas such as public open spaces and garden ground will not be able to drain to the public sewer network. The assessment should detail what works or measures will be put in place to ensure that these permeable areas are as free draining as possible and do not cause future issues of run-off flowing onto public footpaths and roads. These measures should also help to preserve and protect the natural drainage systems on the site.



## **10.6 The Management of Surface Water During Construction**

Although the construction phase of the development is short compared to the length of time the permanent works will be in place, the risk of pollution and contamination during this period is particularly high. The completed sewerage system including SUDS measures can be adversely affected by construction run-off and measures must be put in place by the developer during construction to protect and maintain its effectiveness during this period and on completion.

The assessment should detail what works and measures will be used to manage construction run-off and to ensure that the sewerage system and all SUDS measures will be fit for adoption by the relevant authorities on completion of the development.

## **11.0 Site Completion and Sewerage Adoption Process**

11.1 It is essential that the development be completed in accordance with the Planning Permission and all other approvals such as Scottish Water technical approval, the Roads Construction Consent and Building Warrant. The Developer will require to liaise with the relevant authorities as part of the site completion process ensuring that all completed infrastructure is vested or adopted by the relevant authority.

Developers should note that, where road drainage discharges to sewers and SUDS which are to be vested in Scottish Water, the road drainage systems and roads served by that drainage system will not be adopted by the Council until the sewers are vested in Scottish Water. It will not generally be acceptable for road drainage to discharge into private sewers or SUDS and where this is proposed it may be that the roads will not be adopted by the Council. This should be agreed during the approval process.

### **11.2 Inspection Process**

The Developer and Contractor should ensure that the relevant inspection processes take place during construction and completion of all parts of the sewerage system.

This will include the Council's Building Standards Service for all drainage within the curtilage of premises which will become the responsibility of the owner of the premises.

For those parts of the sewerage system, including sustainable drainage systems (SuDS), which are to be vested by Scottish Water as public sewers it should also be deemed to include Scottish Water, as drainage authority.

It will also include the Council's Roads Development Management team as part of the inspection process for parts of the system which will be adopted as road drainage under the Road Construction Consent. This will also apply to roads source control measures and may also apply to shared public SUDS which deal with both road run-off and statutory surface water run-off.

### **11.3 Completion and Vesting of Sewerage Infrastructure**

The Developer and Contractor should ensure that the sewerage system where relevant, including road drainage and all source and public SUDS features, is constructed in accordance with the approved plans and consents. The completed sewerage, road drainage and sustainable drainage systems will require to be vested or adopted by the relevant authority on completion of the development in accordance with the approved assessment and the relevant completion processes.

11.4 Where drainage infrastructure is located within the private curtilage beyond the public road and footpath, the Developer must complete necessary Deeds of Servitude and Land Transfers to enable the sewerage infrastructure to be vested. This will also include all public SUDS and pumping stations that are to vest in Scottish Water.

11.5 The Council requires the Developer to complete the vesting and adoption processes within a reasonable timescale following completion of site works.

## **12.0 Brownfield development & change of use**

- 12.1** The Council actively supports the development of brownfield land and the redevelopment and expansion of existing and previously-developed sites. Development in these circumstances can have many benefits. It helps lessen the requirement for green field land, sites often provide development and regeneration opportunities within the settlement boundary and larger-scale development can secure important physical and environmental improvements through, for example, the remediation of spoiled and contaminated land, bringing sites back into active use.
- 12.2** Although these sites have often previously been used and drainage systems established, they were developed in less enlightened times, before the need for surface run-off to be attenuated and treated. For the purposes of draining these sites and reducing the risk of flooding, the Council does not differentiate between brownfield and greenfield development and therefore expects that sites or parts of sites that are being redeveloped or expanded as appropriate must include drainage systems and sustainable drainage systems that meet current standards, including the need for sustainable drainage measures where these are appropriate to the scale and nature of the development. For clarity, the Council requires developers to provide sufficient on-site storage to satisfy greenfield run-off characteristics.



## **13.0 Linlithgow & Linlithgow Loch Catchment - Area of Water Control**

**13.1** There are severe drainage constraints and a significant risk of surface water and fluvial flooding in Linlithgow and Linlithgow Bridge. The risk from fluvial flooding includes out of bank flows from the Bell's Burn, Mill Burn, Mains Burn and the River Avon. Studies have also brought forward evidence of risk from the localised overtopping of Linlithgow Loch linked to constraints on the discharge during and in the aftermath of heavy and prolonged rainfall.

**13.2** Linlithgow has also been identified as one of fifteen high-risk areas in Scotland and one of four so called Priority Areas within West Lothian in terms of the risk of flooding from surface water. The Council has been resisting development in the town, among other reasons, until it can accurately determine how developers can invest in solutions that not only allow their own developments to be connected to the surface and wastewater drainage networks but also how investment off site can provide betterment to address the current situation.

Forecasts suggest that the extent and severity of flood risk will be exacerbated in future as a result of urban creep, climate change and changing demographics. To manage surface water flooding and urban drainage in the long-term, it is not sustainable to continue to rely on the upgrading of traditional sewerage and surface water infrastructure. Instead, a new, integrated approach is required that takes account of all aspects of urban drainage infrastructure and identifies long-term and sustainable actions which can be implemented.

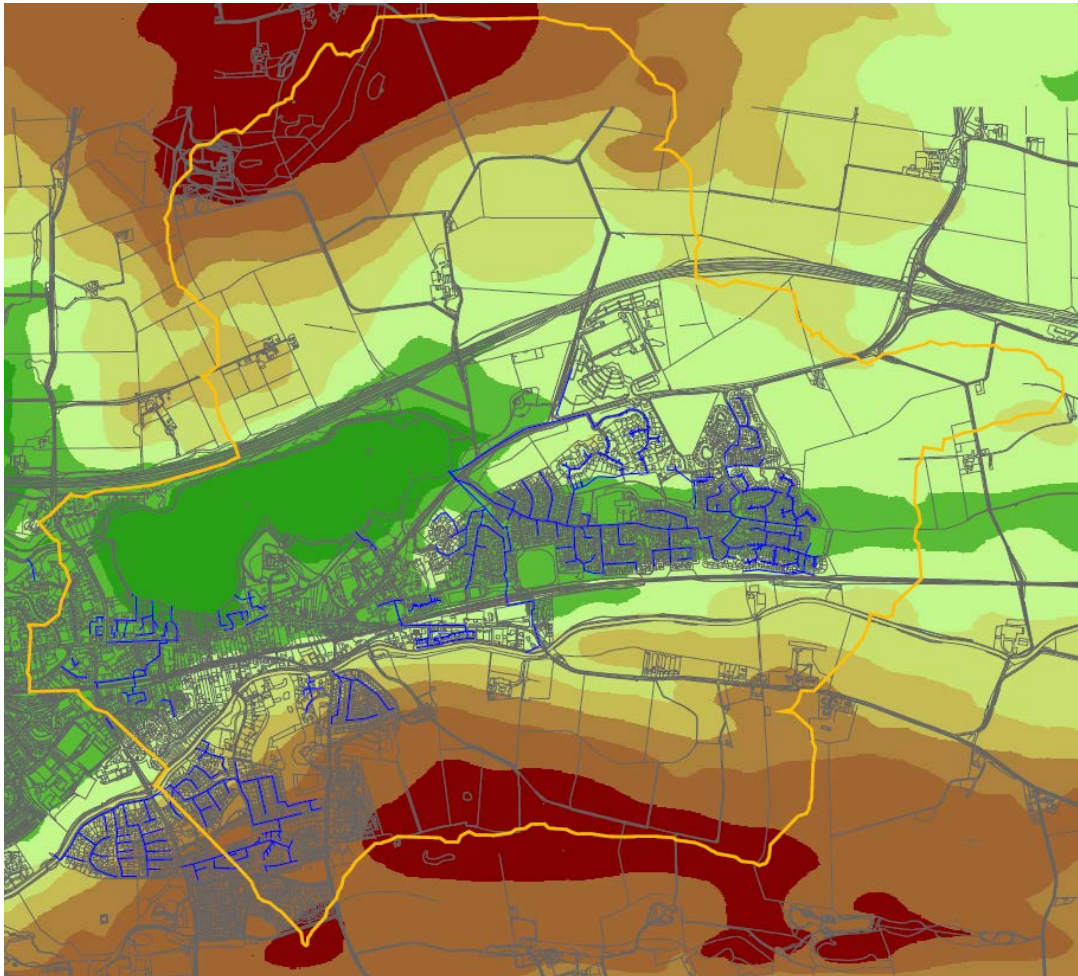
In some urban areas of Scotland surface water flooding is complicated by the interactions that occur between the ground drainage systems (including natural watercourses) and manmade, below ground drainage systems (including road drains and sewers). In these instances, an Integrated Catchment Study is deemed the most appropriate tool to provide a comprehensive understanding and the necessary information regarding flooding mechanisms on which to base future decisions.

**13.3** West Lothian Council and Scottish Water are currently working together and have commissioned specialist consultants and contractors to undertake an Integrated Catchment Study in Linlithgow in 2016. When the study has been completed and the findings available it will provide a comprehensive understanding of how existing drainage systems respond to rainfall. The data the study provides will enable the Council to determine the measures necessary to achieve the most sustainable long-term solution to manage the risk of flooding and help identify which party should be making the investment. It is inevitable that some of the investment necessary will only be delivered as an integral part of development proposals.

### **13.4 Linlithgow Loch**

Linlithgow Loch is one of the jewels in West Lothian's crown. It is one of only two remaining natural lowland lochs in the Lothians. It provides the setting for Linlithgow Palace and Peel and is integral to the town's tourist appeal. It also provides a number of land and water-based recreational and outdoor education opportunities as well as being the focal point for naturalists.

The site is a designated a Site of Special Scientific Interest (SSSI) for its botanical and ornithological interests. It was originally notified as the only example of a lowland mesotrophic (having a moderate amount of dissolved nutrients) loch in West Lothian. Site condition monitoring in 2004 concluded that the loch was in an unfavourable condition due to nutrient enrichment largely associated with land use in the catchment. Evidence now suggests that the loch is currently eutrophic (having an elevated amount of dissolved nutrient) and may soon be hyper-eutrophic.



Map showing the Linlithgow Loch Catchment

### **13.5 Linlithgow Loch Catchment**

There are currently seasonal impacts to public health and use by the public of the loch due to extensive and long-lasting seasonal toxic algal blooms. The low oxygen conditions this creates impacts on the ability of the loch to support fish. There were a number of significant fish kills during the summer of 2013. The remaining fish in the loch at that time were under significant and visible stress. There is also evidence to suggest that deteriorating water quality in the loch is adversely impacting on the quality of the designation as a Site of Special Scientific Interest (SSSI).

**13.6** The Nature Conservation (Scotland) Act 2004 places a duty on officials and public bodies to further biodiversity. The Scottish Biodiversity Strategy identifies the role of local authorities in meeting national species and habitat priorities. The public health impacts of the toxic algal blooms impact on the ability to use the loch for angling and other water-based sports and outdoor education activities and the visible scums affect its amenity and potential as a leisure destination. There are also consequences for the economy of the town.

**13.7** In an effort to turn around the fortunes for the loch, Linlithgow Loch Catchment Management Group was established in the early 2000s, which counts representatives from Historic Environment Scotland, Scottish Natural Heritage, SEPA, West Lothian Council, Scottish Water and National Farmers' Union Scotland among its membership. It commissioned two academic studies into the loch by Scottish Agricultural College (SAC) and the Centre for Ecology & Hydrology (CEH). This led to the publication of a Catchment Management Plan in 2013 which includes thirteen management recommendations to reduce the impact of diffuse pollution on the loch.



Some measures such as the installation of Drainmarkers<sup>®</sup> adjacent to road drains in the catchment and the publication of an 'Only rain down the drain' leaflet are very tangible actions largely focussed on raising local awareness of the plight of the loch helping people connect with drainage and water quality in the loch. Other actions are complex and will take time and investment to deliver.

**13.8** Historic and current land use in the loch catchment is responsible for pollution entering the loch. Amongst the factors negatively impacting on water quality are: road run-off; run-off from railway drains; overflow from the Union Canal; sediment transport from agricultural land; septic tank run-off entering via the Bell's Burn, occasional short-term spills from the combined sewer overflow and large numbers of wildfowl and uncontrolled bird feeding. Future studies may identify, in order of priority, the main sources of poor water quality.

Coupled with the serious risk of flooding in Linlithgow, impaired water quality in the loch represents a barrier to development in the catchment. Surface and waste water volumes in the combined sewer system leading to the Linlithgow Waste Water Treatment Works has the potential to increase risk to vulnerable properties in the High Street and increase the number of spills into the loch during and in the immediate aftermath of rainfall.

**13.9** The *Linlithgow Area Local Plan* of 1994 identified a number of reasons why it was considered appropriate to restrain development in Linlithgow. This general planning policy of restraint was continued in the *West Lothian Local Plan* (2009). The new *Local Development Plan* (2015) proposes that land at Linlithgow should now potentially be released for development in order to address housing needs and demand and a number of brownfield development opportunities, as well as adopting a sequential approach and which will help address current infrastructure constraints in the town, are identified. (See LDP Policies: HOU 1, HOU2, HOU3, CDA1 and HOU4).

**13.10** There are difficulties draining additional areas of surface and wastewater within the loch

catchment without compounding existing flood risk and the number of times the combined sewer overflow spills into the loch. The flooding that occurs due to the existing capacity in the combined drainage system and frequency and duration of the spills (the volume is not currently measured) means that investment is required in a range of solutions.

**13.11** The Council, as planning authority, wishes to ensure that it has the flexibility to work with Scottish Water and other partners to bring forward investment that can improve the outlook for the loch and reduce the risk of flooding in the town whilst unlocking development potential in those areas where development is deemed acceptable from other perspectives. This is necessary because of the current uncertainty about future house completion rates and the timing of developer contribution payments to fund infrastructure that mitigates run-off from existing and future development. It should be noted that the scale of requirement for measures to reduce flood risk and mitigate the quality of run-off entering the loch will be reviewed as housing developments progress.

**13.12** This Supplementary Guidance will be taken into account in the determination of all planning applications for housing within the loch catchment from the date the guidance is approved. For the avoidance of doubt, the guidance will apply to all current housing proposals which have yet to receive planning permission.

The emerging Local Development Plan (2015) sets out a development strategy for West Lothian. The success of the Local Development Plan strategy is dependent on additional measures being put in place to improve the quality and control the flow of surface water run-off into the loch along with the reduction in the frequency, duration and volume of spills into the loch from the combined sewerage system.

**13.13 The role of the Union Canal**

Discussions have taken place with Scottish Canals along with officials from Scottish Water about the potential for surface water from sites above the canal to be directed into the Union Canal that flows through Linlithgow. Any such proposal would require agreement between developers, Scottish Water and Scottish Canals. It is probable that Scottish Canals would seek additional engineering works paid for and potentially discharged by the developer. Scottish Water must, in turn, accept the principle of paying an annual subsistence to Scottish Canals for such a discharge. Whilst there is good available information about surface water flooding and events, there is less data currently available on sewer flooding in the town and the relationship between a temporary lack of capacity and spillage into Linlithgow Loch from the Combined Sewer Overflow (CSO) located at the Vennel. Work is underway to gather this information as part of the integrated catchment study for Linlithgow



## **14.0 Flood Risk Assessment / Drainage Assessment Compliance – Certificates (See Appendices)**

**14.1** The Council's requirements in relation to Flood Risk Assessments and Drainage Assessments carried out to support a planning application are that they are produced by a competent Designer / Consultant and that they are fully in accordance with current guidance, standards and legislation and the requirements of this Supplementary Guidance.

The Council has updated its requirements in this document so that it takes cognisance of current guidance and best practice all of which is publically available. Please refer to section 15.0 for a list of legislative and guidance documents which are relevant.

In addition to providing satisfactory supporting assessments and information on Flood Risk and Drainage to support a planning application, the Council requires the applicant, or their agent, to certify that the assessments and/or designs have been carried out by a fully qualified and competent person(s) and that the assessment complies with current best practice, guidance and standards. **(See below and Appendices: A, B, C, D &E)**

### **14.2 Flood Risk Assessment**

All Flood Risk Assessments that are submitted should generally be in accordance with CIRIA Manual C624 – Development and Flood Risk Guidance for the Construction Industry and SEPA's Technical Flood Risk Guidance for Stakeholders Note Reference SS-NFR-P-002 as per section 7.0 of this document.

The following documentation should therefore be provided along with any Flood Risk Assessment that is submitted –

- The Flood Risk Assessment – Compliance Certificate **(see appendix A)** – all applications.
- The Flood Risk Assessment – Independent Check Certificate **(see appendix B)** – major applications only.

### **14.3 Drainage Assessment**

All Drainage Assessments that are submitted should be in accordance with the Water Assessment and Drainage Assessment Guide published by the Sustainable Urban Drainage Scottish Working Party (SUDSWP) and will incorporate the principles of the CIRIA SUDS Manual C753 in terms of surface water management as per section 10.0 of this document.

The following documentation should therefore be provided along with any Drainage Assessment that is submitted –

- The Drainage Assessment – Compliance Certificate **(see appendix C)** – all applications.
- The Drainage Assessment – Independent Check Certificate **(see appendix D)** – major applications only.

### **14.4 Completion and Vesting of Drainage**

It is a requirement of the planning permission for a development that all public sewerage is vested in the Drainage Authority (Scottish Water) on completion of that development as outlined in section 10.0 of this document. This is especially the case where roads run-off discharges into public surface water sewers including SUDS which also convey statutory surface water run-off.



As detailed in section 10.4 it should be clearly identified in the Drainage Assessment, and on a suitably scaled plan, which parts of the sewerage system are to be vested in Scottish Water, which parts will require to be adopted by the Council as part of the road adoption under the Roads Construction Consent and which parts will be shared between the Council and Scottish Water.

The following documentation should therefore be provided along with any Drainage Assessment that is submitted –

- Confirmation of Future Maintenance of Sewerage and Road Drainage System including SUDS (**see appendix E**)
- A Maintenance Schedule for the Sustainable Drainage Apparatus should be attached to the confirmation document.

## 15.0 Guidance and Reference Documents

### Planning Policy Documents:

- Scottish Planning Policy (2014) – Managing Flood Risk and Drainage Section
- Planning Advice Note 51: Planning Environmental Protection and Regulation
- Planning Advice Note 61: Planning and Sustainable Urban Drainage Systems
- Planning Advice Note 79: Water and Drainage
- Scottish Government Online Planning Advice on Flood Risk
- SESPlan Strategic Development Plan 2015
- West Lothian Council Local Development Plan 2015

### Legislative Documents:

- Water Environment and Water Services (Scotland) Act 2003
- Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)
- Roads (Scotland) Act 1984
- Sewerage (Scotland) Act 1968 (as amended)
- Flood Risk Management (Scotland) Act 2009

### SEPA Guidance Documents

- Land Use Planning System SEPA Guidance Note 9 (version 12)
- SEPA – Planning Authority Protocol (policy 41)
- WAT-PS-06: Culverting of Watercourses – Position Statement and Guidance
- WAT-RM-08: Regulatory Method – Sustainable Urban Drainage Systems
- WAT-RM-09: Modifications to CAR Authorisations
- WAT-SG-12: Supporting Guidance – GBRs for Surface Water Drainage Systems
- WAT-SG-39: Supporting Guidance – Point Source Regime Definitions
- PPG4: Treatment and Disposal of Sewage Where no Sewerage Available
- PPG6: Working at Construction and Demolition Sites
- SS-NFR-P-002: Technical Flood Risk Guidance for Stakeholders

### CIRIA Documents

- CIRIA C624: Development and Flood Risk – Guidance for the Construction Industry
- CIRIA C689: Culvert Design and Operation Guide
- CIRIA C698: Site Handbook for the Construction of SUDS
- CIRIA C753: The SUDS Manual

### SUDSWP Documents

- Water Assessment and Drainage Assessment Guide (ISBN 978-1-901322-99-6)
- SUDS for Roads

### Scottish Water Documents

- Sewers for Scotland Current Edition: Technical Specification for the Design and Construction of Sewerage Infrastructure

### Other Documents

- Simple Index Approach (SIA) Tool for Assessing Water Quality Management Requirements (Excel document on SUSDRAIN website).

*The above list is by no means exhaustive and it should be noted that other statutory and best practice guidance documents may also be relevant.*

**APPENDIX A**

**FLOOD RISK ASSESSMENT – COMPLIANCE CERTIFICATE**

**This certificate must be completed and signed to accompany any Flood Risk Assessment that is submitted to the Council in support of a Planning Application.**

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out the Flood Risk Assessment(s) and preparing the Flood Risk Assessment Report for the development named below.

I also certify that the risk assessments and report have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C624: Development and Flood Risk – A Guidance for the Construction Industry and SEPAs Technical Flood Risk Guidance for Stakeholders Note Ref: SS-NFR-P-002.

<b>Name and Location of Development:</b>	
<b>Name of Developer:</b>	
<b>Planning Application Number:</b>	
<b>Roads Construction Consent Number:</b>	
<b>Name and Address of Organisation:</b>	
<b>Signed:</b>	
<b>Name:</b>	
<b>Position Held:</b>	
<b>Qualifications:*</b>	
<b>Date:</b>	

\* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.

**APPENDIX B**

**FLOOD RISK ASSESSMENT – INDEPENDENT CHECK CERTIFICATE**

**This certificate must be completed and signed to accompany any Flood Risk Assessment that is submitted to the Council in support of a Planning Application for major developments.**

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out an independent check of the Flood Risk Assessment(s) and the Flood Risk Assessment Report for the development named below.

I also certify that I have checked that the risk assessments and report have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C624: Development and Flood Risk – A Guidance for the Construction Industry and SEPAs Technical Flood Risk Guidance for Stakeholders Note Ref: SS-NFR-P-002.

<b>Name and Location of Development:</b>	
<b>Name of Developer:</b>	
<b>Planning Application Number:</b>	
<b>Roads Construction Consent Number:</b>	
<b>Name and Address of Organisation:**</b>	
<b>Signed:</b>	
<b>Name:</b>	
<b>Position Held:</b>	
<b>Qualifications:*</b>	
<b>Date:</b>	

\* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.

\*\* Organisation to be totally independent of original design organisation.

**APPENDIX C**

**DRAINAGE ASSESSMENT – COMPLIANCE CERTIFICATE**

**This certificate must be completed and signed to accompany any Drainage Assessment that is submitted to the Council in support of a Planning Application.**

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in preparing the Drainage Assessment and designing the foul and surface water drainage systems for the development named below.

I also certify that the assessment and designs have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C753: The SuDS Manual and the Water Assessment and Drainage Assessment Guide published by SUDSWP Ref: ISBN 978-1-901322-99-6.

<b>Name and Location of Development:</b>	
<b>Name of Developer:</b>	
<b>Planning Application Number:</b>	
<b>Roads Construction Consent Number:</b>	
<b>Name and Address of Organisation:</b>	
<b>Signed:</b>	
<b>Name:</b>	
<b>Position Held:</b>	
<b>Qualifications:*</b>	
<b>Date:</b>	

\* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.

**APPENDIX D**

**DRAINAGE ASSESSMENT – INDEPENDENT CHECK CERTIFICATE**

**This certificate must be completed and signed to accompany any Drainage Assessment that is submitted to the Council in support of a Planning Application for major developments.**

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out an independent check of the Drainage Assessment and design of the foul and surface water drainage systems for the development named below.

I also certify that I have checked that the drainage assessment and design have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C753: The SuDS Manual and the Water Assessment and Drainage Assessment Guide published by SUDSWP Ref: ISBN 978-1-901322-99-6.

<b>Name and Location of Development:</b>	
<b>Name of Developer:</b>	
<b>Planning Application Number:</b>	
<b>Roads Construction Consent Number:</b>	
<b>Name and Address of Organisation:**</b>	
<b>Signed:</b>	
<b>Name:</b>	
<b>Position Held:</b>	
<b>Qualifications:*</b>	
<b>Date:</b>	

\* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.

\*\* Organisation to be totally independent of original design organisation.

**APPENDIX E**

**CONFIRMATION OF FUTURE MAINTENANCE ARRANGEMENTS OF SEWERAGE / SuDS**

**This form must be completed and signed to accompany any Drainage Assessment that is submitted to the Council in support of a Planning Application.**

I hereby confirm that the future maintenance of the completed surface water sewerage system, including the SuDS features, as detailed below and on the approved plans will be carried out by the undernoted organisation(s) and in accordance with the attached maintenance schedule for the Sustainable Drainage apparatus.

<b>Name and Location of Development:</b>	
<b>Name of Developer:</b>	
<b>Planning Application Number:</b>	
<b>Roads Construction Consent Number:</b>	
<b>Name and Address of Maintenance Organisation (inc. contact tel. no):</b>	
<b>Details of SuDS features to be maintained:</b>	
<b>Signed:</b>	
<b>Name:</b>	
<b>Position Held:</b>	
<b>Organisation:</b>	
<b>Date:</b>	