

changes, are considered when preparing development plans and deciding planning applications. While the protection of the landscape and natural heritage may sometimes impose constraints on development, with careful planning and design the potential for conflict can be minimised and the potential for enhancement maximised. However there will be occasions where the sensitivity of the site or the nature or scale of the proposed development is such that the development should not be permitted. Statutory natural heritage designations are important considerations where they are directly or indirectly affected by a development proposal. However, designation does not necessarily imply a prohibition on development.

132. Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence for believing that significant irreversible damage could occur. Where the precautionary principle is justified, modifications to the proposal which would eliminate the risk of irreversible damage should be considered. The precautionary principle should not be used to impede development unnecessarily. Where development is constrained on the grounds of uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered.
133. The disturbance of some soils, particularly peat, may lead to the release of stored carbon, contributing to greenhouse gas emissions. Where peat and other carbon rich soils are present, applicants should assess the likely effects associated with any development work.

### **International Designations**

134. Sites classified as Special Protection Areas (SPA) under the Birds Directive<sup>19</sup> and designated as Special Areas of Conservation (SAC) under the Habitats Directive<sup>20</sup> form an EU-wide network of protected areas known as Natura 2000. Any development plan or development proposal which is likely to have a significant effect on a Natura site and is not directly connected with or necessary to the conservation management of that site must be subject to an appropriate assessment by the planning authority of the implications for the site's conservation objectives. Development which could have a significant effect on a Natura site can only be permitted where:
  - an appropriate assessment has demonstrated that it will not adversely affect the integrity of the site, or
  - there are no alternative solutions, and
  - there are imperative reasons of overriding public interest, including those of a social or economic nature.
135. Where, in the absence of any alternatives, an authority proposes to approve a plan or project which could adversely affect the integrity of a Natura site for reasons of overriding public interest, Scottish Ministers must be notified and compensatory measures necessary to ensure the overall coherence of the Natura network is protected must be provided. For plans or projects affecting a Natura site where a priority habitat or species (as defined in Article 1 of the Habitats Directive) would be affected, prior consultation with the European Commission via Scottish Ministers is required unless the proposal is necessary for public health or safety reasons or will have beneficial consequences of primary importance to the environment. The Scottish Government accords the same level of protection to proposed SACs and SPAs which have been approved by Scottish Ministers for formal consultation.
136. Ramsar sites are wetlands designated under the Ramsar Convention on Wetlands of International Importance, especially as waterfowl habitat. All Ramsar sites are also Natura sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes.

<sup>19</sup> Directive 79/409/EEC on the conservation of wild birds

<sup>20</sup> Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

### National Designations

137. A National Scenic Areas (NSA) is an area which is nationally important for its scenic quality. A Site of Special Scientific Interest (SSSI) is notified for the special interest of its flora, fauna, geology or geomorphological features. A National Nature Reserve (NNR) is an area considered to be of national importance for its nature conservation interests. Development that affects a NSA, SSSI or NNR should only be permitted where:

- it will not adversely affect the integrity of the area or the qualities for which it has been designated, or
- any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

138. National parks are designated under the National Parks (Scotland) Act 2000 because they are areas of national importance for their natural and cultural heritage. The four aims of national parks are to:

- conserve and enhance the natural and cultural heritage of the area,
- promote sustainable use of the natural resources of the area,
- promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public, and
- promote sustainable economic and social development of the area's communities.

In circumstances where conflict between the objectives arises and cannot be resolved, the 2000 Act requires that the conservation of the natural and cultural heritage should take precedence. The management strategy for each park is set out in the National Park Plan. Development plans within park areas should be consistent with the National Park Plan.

### Local Designations

139. International and national designations can be complemented by local designations which protect, enhance and encourage the enjoyment and understanding of locally important landscapes and natural heritage. Local designations should be clearly identified and protected through the development plan. The reasons for designation should be clearly explained and the on-going relevance and function of local designations should be considered when development plans are prepared. Some local designations, such as Local Nature Reserves, are a statutory designation. Other local designations are non-statutory. Planning authorities are encouraged to limit non-statutory designations to two types - local landscape areas and local nature conservation sites. Both statutory and non-statutory local designations should be identified and protected in the development plan and the factors which will be taken into account in development management decision making should be set out. The level of protection given to local designations through the development plan should not be as high as the level of protection given to international or national designations.

140. The purpose of designating a local landscape area in the development plan should be to:

- safeguard and enhance the character and quality of landscapes which are important or particularly valued locally or regionally, or
- promote understanding and awareness of the distinctive character and special qualities of local landscapes, or
- safeguard and promote important settings for outdoor recreation and tourism locally.

141. When considering whether to designate new local nature conservation sites for their biodiversity or when reviewing existing designations, planning authorities should assess sites against the following factors:

- species diversity, species or habitat rarity, naturalness and extent of habitat,

- contribution to national and local biodiversity objectives,
- potential contribution to the protection or enhancement of connectivity between habitats or the development of green networks, and
- the potential to facilitate enjoyment and understanding of the natural heritage.

Local nature conservation sites designated for their geodiversity should be selected for their value for scientific study and education, their historical significance and other cultural and aesthetic value, particularly for their potential for promoting public awareness and enjoyment.

### **Protected Species**

142. Many species are legally protected and their presence or potential presence is an important consideration in decisions on planning applications. Although their presence rarely imposes an absolute block on development, mitigation measures are often needed and the layout, design and timing of works may be affected. If there is evidence to suggest that a protected species is present on site or may be affected by a proposed development, their presence must be established, the requirements of the species factored into the planning and design of the development and any likely impact on the species fully considered prior to the determination of the planning application.
143. Planning permission must not be granted for development that would be likely to have an adverse effect on a European protected species<sup>21</sup> unless the planning authority is satisfied that:
- there is no satisfactory alternative, and
  - the development is required for preserving public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

In no circumstances can development be approved which would be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its natural range.

144. Planning permission must not be granted for development that would be likely to have an adverse effect on a species protected under the Wildlife and Countryside Act 1981 unless the development is required for preserving public health or public safety. For development affecting a species of bird protected under the 1981 Act there must also be no other satisfactory solution.
145. Applicants should submit supporting evidence for any development meeting these tests, demonstrating both the need for the development and that a full range of possible alternative courses of action have been properly examined and none found to acceptably meet the need identified.

### **Trees and Woodland**

146. Ancient and semi-natural woodland is an important and irreplaceable national resource that should be protected and enhanced, as should other native and long established woodlands with high nature conservation value. The Scottish Forestry Strategy identifies the protection of woodlands of high biodiversity value as an important consideration in the development management process. Woodland of high nature conservation value should be identified in development plans along with relevant policies for its protection and enhancement. Planning authorities should consider preparing woodland strategies as supplementary guidance to inform the future development of woodland and forestry in their area. Advice on planning for forestry and woodlands will be issued by the Forestry Commission Scotland in early 2010.

<sup>21</sup> European protected species are species listed in Annex IV of the Habitats Directive (Directive 92/43/EEC)

147. Other woodlands, hedgerows and individual trees, especially veteran trees, may also have significant biodiversity value and make a significant contribution to landscape character and quality so should be protected from adverse impacts resulting from development. If a development would result in the severing or impairment of connectivity between important woodland habitats, workable mitigation measures should be identified and implemented, potentially linked to the creation of green networks. Where appropriate planning authorities should seek opportunities for new woodland creation and planting of native species in connection with development schemes. Tree Preservation Orders can be used to protect individual and groups of trees considered important for amenity or because of their cultural or historic interest.
148. The Scottish Government's control of woodland removal policy includes a presumption in favour of protecting woodland resources. Woodland removal should only be allowed where it would achieve significant and clearly defined additional public benefits. In appropriate cases compensatory planting may form part of the balance. The criteria for determining the acceptability of woodland removal and further information on the implementation of the policy is explained in the Control of Woodland Removal Policy<sup>22</sup> and this should be taken into account when preparing development plans and deciding planning applications

## **OPEN SPACE AND PHYSICAL ACTIVITY**

149. Access to good quality open spaces and opportunities for sport and recreation make important contributions to a healthier Scotland. The planning system has a role in helping to create an environment where physical wellbeing is improved and activity made easier. Providing play space and other opportunities for children and young people to play freely, explore, discover and initiate their own activities can support their development. Access to good quality open spaces can encourage people to be physically active and aid health and wellbeing. In settlements, networks of linked, good quality open space are important for their contribution to amenity and their role in nature conservation, biodiversity, recreation and physical activity. Rural areas provide a wide range of outdoor recreation opportunities, many of which are closely linked to the quality of the environment. Planning authorities should support, protect and enhance open space and opportunities for sport and recreation.
150. Statutory access rights under the Land Reform (Scotland) Act 2003 apply to most land and inland water in Scotland, underpinning opportunities for outdoor recreation. Planning authorities should consider access issues and should protect core and other important routes and access rights when preparing development plans and making decisions on planning applications. Authorities should ensure that there is consistency between the development plan, open space strategy, core paths plan<sup>23</sup>, local transport strategy and outdoor access strategy. Where relevant, access rights and core path plans should be considered when determining planning applications. New development should incorporate new and enhanced access opportunities, linked to wider access networks. Green networks which provide opportunities for physical activity and access to the outdoors, and increase accessibility within settlements and to the surrounding countryside, should be promoted and safeguarded through the development plan. Regional parks and country parks have a statutory basis and have been designated by local authorities to provide recreational access to the countryside close to centres of population. Planning authorities should take this purpose into account when making decisions that affect them.

### **Open Space Audits and Strategies**

151. Planning authorities should take a strategic and long term approach to managing the open space in their area, assessing both current and future needs and protecting all spaces which can help to meet them. Authorities should undertake an audit of the open space resource in their area and how well it meets the needs of the community. The audit should cover all types of open space,

<sup>22</sup> Forestry Commission Scotland [http://www.forestry.gov.uk/pdf/fcfc125.pdf/\\$FILE/fcfc125.pdf](http://www.forestry.gov.uk/pdf/fcfc125.pdf/$FILE/fcfc125.pdf)

<sup>23</sup> Prepared under the Land Reform (Scotland) Act 2003

public and privately owned, including spaces owned by schools and voluntary clubs. Informal open space should be assessed as well as parks and formal facilities. The audit should take account of the quality, community value, accessibility and use of existing open space, not just the quantity.

152. Using the information from the audit, authorities should prepare an open space strategy which sets out the vision for new and improved open space and addresses any deficiencies identified. The open space strategy should provide the justification for seeking contributions from developers, and should be taken into account when preparing development plans and deciding planning applications. Open space audits and strategies should be reviewed regularly, linked to development plan preparation. More information on open space audits and strategies and on the role of the planning system in protecting and enhancing open spaces is provided in PAN 65 *Planning and Open Space*.
153. Open spaces which are identified in the open space audit and strategy as valued and functional, or which are capable of being brought into functional use to meet a need identified in the open space strategy, should be identified and protected in the development plan. There is a presumption against development of these open spaces. Open space which is not identified in the strategy but which is valued and functional or contributes to local amenity or biodiversity should also be protected. Only where there is strong justification should open space be developed either partly or fully for a purpose unrelated to use as open space. Justification should include evidence from the open space audit that the development will not result in a deficit of open space provision of that type within the local area and that alternative sites have been considered. Proposals for new open spaces or alterations to open spaces to address deficits or surpluses should be included in the development plan. When a planning authority grants permission for development which would result in or exacerbate a deficit, replacement open space of appropriate type, quantity, accessibility and quality should be provided. Poor maintenance and neglect should not be used to justify development of open space which may otherwise be potentially functional and valued. Local authorities should protect and enhance open space in their ownership. Local authorities have a statutory duty to provide allotments where there is proven demand. Existing, and where relevant potential, allotment sites should be safeguarded in the development plan.
154. Local development plans or supplementary guidance should set out specific requirements for the provision of open space as part of new development and make clear how much, of what type and quality and what the accessibility requirements are. On and off site provision should be considered, depending on the specific site circumstances. Planning authorities and developers should aim to create new open spaces which are fit for purpose, maintained and sustainable over the long term. They should be well designed, built to a high standard and capable of adaptation to reflect changes in the needs and requirements of users. Wherever possible, planning authorities and developers should identify opportunities to create and enhance networks between open spaces and avoid fragmentation. Planning authorities and developers should work together to ensure that proper arrangements are in place for the long term management of any proposed open space, landscaping and other common facilities.
155. Open spaces should be accessible, safe, welcoming, appealing, distinctive and well connected. Within settlements there should be spaces that can be used by everyone regardless of age, gender or disability. Statutory equal opportunities obligations should be taken into account when planning for open space and physical activity. There are two main constraints on accessibility – physical constraints such as distance, degree of personal mobility and severance by roads, railways or other barriers, and social and cultural constraints such as fear of crime and other concerns over personal safety. These issues should be considered in the siting and design of open space. New open space and other facilities should be accessible on foot and bicycle and located where they can be served by public transport. Authorities are encouraged to improve access to existing areas of open space via green networks and paths.

### **Playing Fields**

156. Playing fields are an important resource for sport and should be provided in sufficient quantity, quality and accessibility to satisfy current and likely future community demand. Local authorities are expected to develop a playing fields strategy in consultation with sportscotland as part of the wider open space strategy. Playing fields, including those within educational establishments, which are required to meet existing or future needs should be identified in the local development plan. Playing fields and sports pitches should not be redeveloped except where:
- the proposed development is ancillary to the principal use of the site as a playing field,
  - the proposed development involves a minor part of the playing field which would not affect its use and potential for sport and training,
  - the playing field which would be lost would be replaced by a new playing field of comparable or greater benefit for sport and in a location which is convenient for its users, or by the upgrading of an existing playing field to provide a better quality facility either within the same site or at another location which is convenient for its users and which maintains or improves the overall playing capacity in the area, or
  - a playing field strategy prepared in consultation with sportscotland has demonstrated that there is a clear excess of sports pitches to meet current and anticipated future demand in the area, and that the site could be developed without detriment to the overall quality of provision.
157. Where a playing field is no longer required for formal sports use, planning authorities should consider whether the site has other recreational, amenity, landscape or biodiversity value which would warrant its retention as open space. Circular 7/2007 sets out the circumstances under which SportScotland should be consulted on planning applications.
158. Where, through a local facility strategy or playing field strategy, a need has been identified for new indoor or outdoor sports or recreation facilities in an area, the local development plan should identify sites where they can be located. For many sports and recreation developments locations within or close to residential areas will be the most appropriate.

### **GREEN BELTS**

159. The purpose of green belt designation in the development plan as part of the settlement strategy for an area is to:
- direct planned growth to the most appropriate locations and support regeneration,
  - protect and enhance the quality, character, landscape setting and identity of towns and cities, and
  - protect and give access to open space within and around towns and cities.
- Green belt designation should provide clarity and certainty on where development will and will not take place, and can have particular benefit where a co-ordinated approach to settlement planning is required across local authority boundaries. Green belt designation should be used to direct development to suitable locations, not to prevent development from happening. For towns and cities with a distinct character and identity that could be harmed by unplanned growth, the use of green belt designation and relevant policies may help to manage that growth more effectively.
160. Green belts can encircle settlements but can also take other forms including buffers, corridors, coastal strips or wedges. Land should only be designated by a planning authority as green belt where it will contribute to the settlement strategy for an area. Not all greenfield land will be designated as green belt. Most settlements do not have or need green belts because other policies or designations, such as countryside policies, provide an appropriate context for decision making. Green belt designation can be used to prevent the coalescence of settlements;

however there may be circumstances where coalescence would create a more sustainable settlement pattern. Careful consideration should be given to the impact of a green belt on settlements beyond its boundaries as designation may have the effect of transferring pressure for development to locations which may be less sustainable. Green belt designation is not intended to be used to protect natural heritage or safeguard land for major uses such as airports.

161. In city regions, the strategic development plan should establish the need for a green belt, identify its broad area and set the policy for future development within it. Local development plans should establish the detailed boundaries of the green belt and identify types of development which are appropriate within the green belt. Outwith the city regions, the local development plan should establish the need for a green belt, identify specific boundaries and set out the policy for future development within it including the identification of appropriate uses. Where it is considered necessary, the proposed release of land previously designated as green belt should be identified as part of the settlement strategy set out in the development plan.
162. Green belt boundaries identified in local development plans should reflect the long term settlement strategy and ensure that settlements are able to accommodate planned growth. Inner boundaries should not be drawn too tightly around the urban edge, but where appropriate should create an area suitable for planned development between the existing settlement edge and green belt boundary. Boundaries should also take into account the need for development in smaller settlements within the green belt, and where appropriate leave room for expansion. Green belt boundaries should be clearly identifiable on the ground, using strong visual or physical landscape features such as rivers, tree belts, railways or main roads. Hedges and field enclosures will rarely provide a sufficiently robust boundary. Existing settlements should be excluded from green belt designations in development plans, as should existing major educational and research uses, major business and industrial operations, airports and Ministry of Defence establishments.
163. Certain types and scales of development may be appropriate within a green belt, particularly where it will support diversification of the rural economy. These may include:
  - development associated with agriculture, including the re-use of historic agricultural buildings,
  - woodland and forestry, including community woodlands,
  - horticulture, including market gardening and directly connected retailing,
  - recreational uses that are compatible with an agricultural or natural setting, and
  - essential infrastructure such as electronic communications infrastructure and electricity grid connections.

Where a proposal would not normally be consistent with green belt policy, it may still be considered appropriate either as a national priority or to meet an established need if no other suitable site is available. Development in a designated green belt should be of a high design quality and a suitable scale and form. Intensification of established uses may be appropriate subject to new development being of a suitable scale and form. Many uses will only be appropriate at a low intensity and where any built elements are ancillary to the main use. Public transport and access by walking and cycling will be required for uses that will attract a significant number of visitors. The cumulative erosion of a green belt's integrity through the granting of individual planning permissions should be avoided.

164. In addition to supporting the management of the long term growth of a settlement, an effectively managed green belt can be an important resource for access to the countryside, providing a range of opportunities for outdoor recreation, education and tourism, and for protecting and enhancing biodiversity, the landscape and the historic environment. However, it is not a designation designed to safeguard natural heritage resources. Wherever possible, green networks within settlements should extend into the green belt.



## TRANSPORT

165. Reducing emissions from transport sources as a contribution to achieving Scottish Government greenhouses gas emission targets requires a shift to more sustainable modes of transport. For people this means a shift from car-based travel to walking, cycling and public transport. For goods it means a shift from road to rail and water based transport wherever possible. Tackling congestion will also support sustainable economic growth and reduce emissions. The planning system should support a pattern of development which reduces the need to travel, facilitates travel by public transport and freight movement by rail or water, and provides safe and convenient opportunities for walking and cycling. Reductions in emissions will also be achieved through changes in vehicle technology. The planning system should support the installation of infrastructure to support new technologies, such as charging points for electric vehicles.
166. The relationship between transport and land use has a strong influence on sustainable economic growth, and this should be taken into account when preparing development plans and in development management decisions. Authorities should ensure that the local transport strategy and development plan are complementary, and should work with Regional Transport Partnerships to ensure consistency between the development plan and regional transport strategy.
167. The existing transport network, environmental and operational constraints, proposed or committed transport projects and demand management schemes should be taken into account in development plans and development management decisions. When preparing a development plan, planning authorities should appraise the pattern of land allocation, including previously allocated sites, in relation to transport opportunities and constraints based on the current or programmed capacity of the transport network and sustainable transport objectives. Development should be supported in locations that are accessible by walking, cycling and public transport, making best use of or adding to existing networks and creating new networks. Significant travel-generating uses should be in locations which are well served by public transport and the amount of associated car parking permitted should be controlled to encourage more sustainable travel choices. A travel plan is a package of measures aimed at promoting more sustainable travel choices and reducing reliance on the car, and should be encouraged for all significant travel generating developments. Development plans or supplementary guidance should explain when a travel plan will be required in support of an application for planning permission.
168. A transport assessment should be carried out where a change of use or new development is likely to result in a significant increase in the number of trips. The output from transport assessments can also identify potential cumulative effects of development which need to be addressed. Planning permission should not be granted for significant travel generating uses in locations which would encourage reliance on the private car and where:
- direct links to walking and cycling networks are not available or cannot be made available,
  - access to public transport networks would involve walking more than 400m,
  - it would have a detrimental effect on the capacity of the strategic road and/or rail network, or
  - the transport assessment does not identify satisfactory mechanisms for meeting sustainable transport requirements.

Recent developments, sites allocated for development in existing plans and unimplemented planning permissions should not set a precedent for the allocation of development sites in unsustainable locations.

169. Opportunities for personal travel should be prioritised by mode in the following order – walking, cycling, public transport, car and other motorised vehicles. Buildings and facilities should be accessible on foot and by cycle. Improvements to active transport networks, such as paths and cycle routes, in urban and rural areas will support more sustainable travel choices. The aim is for



urban areas to be made more attractive and safer for pedestrians and cyclists, including people with mobility difficulties. Cycle routes and, where relevant, cycle parking and storage should be safeguarded and enhanced wherever possible. Statutory equal opportunities obligations relating to accessibility to different users of different means of transport should be taken into account in development plans and development proposals. Accessibility issues and street layout and design should be part of the design and planning processes from the outset.

170. Development plans should identify required new transport infrastructure, including cycle and pedestrian routes. New development areas should be served by public transport accessing a range of potential destinations, or proposals should be put in place to provide public transport. Where enhancement of public transport services or infrastructure is required to serve a new development but would not be provided commercially, a contribution from the developer towards an agreed level of service may be appropriate. The intended approach to developer contributions linked to the transport implications of a proposed development should be set out in the development plan. Disused railways with a reasonable prospect of re-use for rail, tram or active transport should be safeguarded in the development plan. Planning authorities should be realistic about the likely availability of public transport services in rural areas and innovative solutions such as demand responsive public transport and small scale park and ride facilities at nodes on rural bus corridors should be promoted.

### **Parking Policies**

171. The availability of parking can have an important influence in reducing reliance on the car. Planning authorities should apply maximum parking standards to on-site parking at new development to encourage modal shift. Parking restraint policies should be supported by measures to promote the availability of high quality public transport services. Authorities should also consider promoting park and ride schemes on commuter routes. Appropriate car and cycle parking should be provided at rail stations to encourage onward travel by rail.
172. In order to provide consistency in the level of maximum parking standard applied to specific types and scales of development, the following national standards have been set:
  - Retail (food) (Use Class 1) 1000m<sup>2</sup> and above – 1 space per 14m<sup>2</sup>
  - Retail (non-food) (Use Class 1) 1000m<sup>2</sup> and above – 1 space per 20m<sup>2</sup>
  - Business (Use Class 4) 2500m<sup>2</sup> and above – 1 space per 30m<sup>2</sup>
  - Cinemas (Use Class 11a) 1000m<sup>2</sup> and above – 1 space per 5 seats
  - Conference Facilities 1000m<sup>2</sup> and above – 1 space per 5 seats
  - Stadia 1500 seats and above – 1 space per 15 seats
  - Leisure (other than cinemas and stadia) 1000m<sup>2</sup> and above – 1 space per 22m<sup>2</sup>
  - High and Further Education (non-residential elements) 2500m<sup>2</sup> and above – 1 space per 2 staff plus 1 space per 15 students

Where an area is well served by sustainable transport modes, more restrictive standards may be appropriate. In rural areas where public transport is scarce, less restrictive standards may be appropriate. Local standards should support the viability of town centres. Developers of individual sites within town centres may be required to contribute to the overall parking requirement for the centre in lieu of individual parking provision.

173. Specific provisions should be made for parking for disabled people in addition to general parking. In retail, recreation and leisure developments, the minimum number of car parking spaces for disabled people should be:
  - 3 spaces or 6% (whichever is greater) in car parks up to 200 spaces, or
  - 4 spaces plus 4% in car parks over 200 spaces.

Employers have a duty under employment law to consider the disabilities of their employees and visitors to their premises. The minimum number of car parking spaces for disabled people at places of employment should be:

- 1 space per disabled employee plus 2 spaces or 5% (whichever is greater) in car parks up to 200 spaces, or
- 6 spaces plus 2% in car parks over 200 spaces.

### **Strategic Transport Network**

174. The strategic transport network, which includes the trunk road, motorway and rail networks, is critical in supporting a level of national connectivity that facilitates sustainable economic growth. The primary purpose of the strategic transport network is to provide for the safe and efficient movement of strategic long distance traffic between major centres, although in rural areas it also performs important local functions. Development proposals that have the potential to affect the performance or safety of the strategic transport network need to be appraised to determine their effects. If required, mitigation measures should be agreed with Transport Scotland that would, where practicable, achieve no net detriment to safety or in overall performance, including journey times and connections, emissions reduction and accessibility.
175. Providing for the safe and efficient movement of traffic on the strategic road network requires the implications of development proposals on traffic and road safety to be taken into account in development plans and development management decisions. New junctions onto the motorway and trunk road network are not normally acceptable, but the case for such junctions will be considered where significant economic growth or regeneration benefits can be demonstrated. Direct access onto any strategic road should be avoided as far as practicable. Access should be from a secondary road unless there is no alternative.
176. Making best use of current rail services and stations to achieve optimum utilisation of the existing rail network should be considered before new services or stations are considered. The case for a new station will be considered where the needs of local communities, workers or visitors are sufficient to generate a high level of demand, and it will be served by feeder rather than existing inter-urban services.

### **Airports and Seaports**

177. Ports and airports are important economic generators. Scotland's airports, as well as being important transport nodes and supporting wider economic growth, provide a significant number and variety of jobs. Planning authorities and airport operators should work together to address airport masterplan and other planning and transport issues relating to airports. Relevant issues include public safety zone safeguarding, surface transport access for supplies, air freight, staff and passengers, related on- and off-site development such as transport interchanges, offices, hotels, car parking, warehousing and distribution services, and other development benefiting from easy access to the airport.
178. Coastal shipping can provide an environmentally friendly means of moving bulk freight. This requires wharves and harbour facilities able to handle and distribute goods. Planning authorities and port operators should work together to address the planning and transport issues arising from port operations. Opportunities for rail access should be safeguarded in development plans. Island and some coastal communities are dependent on ferry services. Planning authorities should ensure that there is appropriate road access to ferry terminals for cars and freight, and promote interchange with bus and train services.

### **Freight**

179. Efficient freight movement and storage is of significant economic importance. Development plans should allocate sites for manufacturing, processing, distribution or warehousing which are readily accessible to the strategic road network or suitable railheads, wharves and harbours. Development which attracts significant movements of road freight such as large scale

warehousing and distribution depots and some forms of manufacturing should be located away from congested inner urban and residential areas.

180. Planning authorities should consider the need for improved and additional freight transfer facilities, including rail freight interchanges, when preparing development plans. Strategic freight sites are designated by Network Rail and have statutory protection. They should be safeguarded in development plans. Where appropriate, development plans should also identify suitable locations for new or expanded rail freight interchanges to support increased movement of freight by rail, including facilities allowing road to rail or water transfer. Access for service vehicles should be taken into account in the design and planning process.

### **Roadside Facilities**

181. Roadside facilities range from lay-bys through to comprehensive service areas. Planning authorities should support the provision of a range of roadside facilities. Existing lorry park facilities should be safeguarded and, if required, development plans should provide for additional overnight lorry parking related to the trunk road network and at other locations where there is a high volume of lorry traffic. Off road lorry parking provision should include provision of refreshment, WC and shower facilities and should be covered by CCTV.

### **RENEWABLE ENERGY**

182. The commitment to increase the amount of electricity generated from renewable sources is a vital part of the response to climate change. Renewable energy generation will contribute to more secure and diverse energy supplies and support sustainable economic growth. The current target is for 50% of Scotland's electricity to be generated from renewable sources by 2020 and 11% of heat demand to be met from renewable sources. These targets are not a cap. Hydro-electric and onshore wind power are currently the main sources of renewable energy supplies. This is expected to continue but will increasingly be part of a wider renewables mix as other technologies become commercially viable. Other technologies which may contribute include biomass, solar, energy from waste and landfill gas and offshore wind, wave and tidal power generation. Production of heat and electricity from renewable sources will also make an important contribution both at a domestic scale and through decentralised energy and heat supply systems including district heating and biomass heating plants for businesses, public buildings and community/housing schemes.
183. There is potential for communities and small businesses in urban and rural areas to invest in ownership of renewable energy projects or to develop their own projects for local benefit. Planning authorities should support communities and small businesses in developing such initiatives in an environmentally acceptable way.
184. Planning authorities should support the development of a diverse range of renewable energy technologies, guide development to appropriate locations and provide clarity on the issues that will be taken into account when specific proposals are assessed. Development plans should support all scales of development associated with the generation of energy and heat from renewable sources, ensuring that an area's renewable energy potential is realised and optimised in a way that takes account of relevant economic, social, environmental and transport issues and maximises benefits. Development plans should support the wider application of medium and smaller scale renewable technologies such as decentralised energy supply systems, community and household projects. Development plans should also encourage microgeneration projects including those associated with or fitted to existing buildings.
185. Planning authorities should ensure that the development plan or supplementary guidance clearly explain the factors that will be taken into account in decision making on all renewable energy generation developments. Factors relevant to the consideration of applications will depend on the scale of the development and its relationship with the surrounding area, but are likely to include impact on the landscape, historic environment, natural heritage and water environment, amenity and communities, and any cumulative impacts that are likely to arise.

186. When granting planning permission, authorities should include conditions for the decommissioning of developments, including their ancillary infrastructure, and for site restoration. Authorities should also ensure that sufficient finance is set aside to enable operators to meet their restoration obligations, and should consider financial guarantees through a section 75 agreement. A range of benefits are often voluntarily provided by developers to communities in the vicinity of renewable energy developments. These can include community trust funds. Such benefit should not be treated as a material consideration unless it meets the tests set out in Circular 1/2010 *Planning Agreements*.

### Wind Farms

187. Planning authorities should support the development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. Development plans should provide a clear indication of the potential for development of wind farms of all scales, and should set out the criteria that will be considered in deciding applications for all wind farm developments including extensions. The criteria will vary depending on the scale of development and its relationship to the characteristics of the surrounding area, but are likely to include:

- landscape and visual impact,
- effects on the natural heritage and historic environment,
- contribution of the development to renewable energy generation targets,
- effect on the local and national economy and tourism and recreation interests,
- benefits and disbenefits for communities,
- aviation and telecommunications,
- noise and shadow flicker, and
- cumulative impact.

The design and location of any wind farm development should reflect the scale and character of the landscape. The location of turbines should be considered carefully to ensure that the landscape and visual impact is minimised.

188. When considering cumulative impact, planning authorities should take account of existing wind farms, those which have permission and valid applications for wind farms which have not been determined. Decisions should not be unreasonably delayed because other schemes in the area are at a less advanced stage in the application process. The weight that planning authorities attach to undetermined applications should reflect their position in the application process. Cumulative impact will largely relate to the scale and proximity of further development. The factors that will be taken into account when considering cumulative impact should be set out in the development plan or supplementary guidance.
189. Planning authorities should set out in the development plan a spatial framework for onshore wind farms of over 20 megawatts generating capacity. Authorities may incorporate wind farms of less than 20 megawatts generating capacity in their spatial framework if considered appropriate. Planning authorities should continue to determine applications for wind farms while local policies are being updated. The spatial framework should identify:
- areas requiring significant protection because they are designated for their national or international landscape or natural heritage value, are designated as green belt or are areas where the cumulative impact of existing and consented wind farms limits further development,
  - areas with potential constraints where proposals will be considered on their individual merits against identified criteria, and

- areas of search where appropriate proposals are likely to be supported subject to detailed consideration against identified criteria.

Spatial frameworks should not be used to put in place a sequential approach to determining applications which requires applicants proposing development outwith an area of search to show that there is no capacity within areas of search.

190. When identifying areas with potential constraints on wind farm development, planning authorities should consider the following:

- the historic environment,
- areas designated for their regional and local landscape or natural heritage value,
- tourism and recreation interests,
- likely impacts on communities, including long term and significant impact on amenity,
- impact on aviation and defence interests, particularly airport and aerodrome operation, flight activity, tactical training areas, aviation and defence radar and seismological recording, and
- impact on broadcasting installations, particularly maintaining transmission links.

A separation distance of up to 2km between areas of search and the edge of cities, towns and villages is recommended to guide developments to the most appropriate sites and to reduce visual impact, but decisions on individual developments should take into account specific local circumstances and geography. Development plans should recognise that the existence of these constraints on wind farm development does not impose a blanket restriction on development, and should be clear on the extent of constraints and the factors that should be satisfactorily addressed to enable development to take place. Planning authorities should not impose additional zones of protection around areas designated for their landscape or natural heritage value.

191. Having identified areas requiring significant protection and other potential constraints on wind farm development, planning authorities should identify areas of search where there are no significant constraints on development. Within these areas of search, sites may be constrained by:

- other natural heritage interests, including habitats of high nature conservation value,
- project viability, including wind speed, site access, ground suitability and other environmental factors, and
- grid capacity.

Existing and approved grid capacity should be maximised wherever possible. However, grid constraints should not be used as a development constraint where renewable energy potential exists.

### **Off-shore Renewable Energy Generation**

192. Off-shore renewable energy generation presents significant opportunities to contribute to the achievement of Government targets. Although the planning system does not regulate off-shore development, it is essential that development plans take into account the infrastructure and grid connection needs of the off-shore renewable energy generation industry. Development plans should identify appropriate locations for facilities linked to the manufacture, installation, operation and maintenance of off-shore wind farms and wave and tidal devices.

### **Other Renewable Energy Sources**

193. The location of large scale biomass plants will be determined by a number of factors including the economic costs of transporting fuel materials from source, the availability of feedstock during the year, the location of the end user and the scale of the plant. In some locations there

will already be an adequate supply of feedstock from managed woodlands and secondary sawmill products which can be accessed immediately. Further options could be provided by growing energy crops and expanding woodland types in other areas. Development plans should identify sites with the potential to accommodate biomass plants which can be supplied from locally available resources, and should identify the factors that will be considered when making decisions on planning applications, including amenity, air quality and transport issues.

194. The scope for major new hydro-electric schemes is likely to be limited but there may be an increasing number of proposals for small run-of-river projects. Development plans should identify the issues which will be taken into account in decision making on hydro-electric schemes such as impacts on the natural and cultural heritage, water environment, fisheries, aquatic habitats and amenity, and relevant environmental and transport issues. Hydro-electric schemes are covered by the Water Environment (Controlled Activity) Regulations 2005 and therefore require consent from SEPA before work can commence.
195. A variety of technologies can generate energy from waste directly or indirectly through incineration or processing waste into a fuel which can be used elsewhere. Industrial sites with the potential for connection to the electricity grid or other possible users are likely to be suitable locations for energy from waste plants. Location will also be influenced by the source of the waste used. Development plans should identify appropriate sites and the factors that will be taken into account when making decisions on planning applications.

## **FLOODING AND DRAINAGE**

196. Flooding is a natural process which cannot be prevented entirely, but it can be managed to reduce its social and economic consequences and to safeguard the continued functioning of services and infrastructure. Some locations are already susceptible to intermittent flooding and climate change is expected to worsen the situation. Inadequate drainage infrastructure also increases the risk of flooding. Planning authorities must take the probability of flooding from all sources – (coastal, fluvial (water course), pluvial (surface water), groundwater, sewers and blocked culverts) and the risks involved into account when preparing development plans and determining planning applications.
197. Development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere should not be permitted. Alterations and small scale extensions are generally outwith the scope of this policy, provided they are unlikely to have a significant effect on the storage capacity of the functional flood plain or affect local flooding problems. The area of impermeable surface should be kept to a minimum in all new developments.
198. Prospective developers should take flood risk into account before committing themselves to a site or project. The responsibility of the planning authority is to have regard to the risk of flooding when preparing development plans and determining the planning applications, but this does not affect the liability position of applicants and occupiers who have responsibilities for safeguarding their property. Planning authorities should avoid any indication that a grant of planning permission implies the absence of flood risk.

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

199. The Flood Risk Management (Scotland) Act 2009 sets in place a statutory framework for delivering a sustainable and risk-based approach to managing flooding. This includes the preparation of assessments of the likelihood and impacts of flooding, and catchment focused plans to address these impacts. By 2015 flood risk management plans will be in place across Scotland which should then be taken into account when development plans are prepared.
200. Although ultimate responsibility for avoiding or managing flood risk still lies with land and property owners, certain public bodies are expected to take a proactive role in managing and,

where achievable, lowering overall flood risk. The Flood Risk Management (Scotland) Act 2009 places a duty on Scottish Ministers, SEPA, local authorities, Scottish Water and other responsible authorities to exercise their functions with a view to managing and reducing flood risk and to promote sustainable flood risk management. The main elements of flood risk management relevant to the planning system are assessing flood risks and undertaking structural and non-structural flood management measures.

201. Section 42 of the Flood Risk Management (Scotland) Act 2009 will, once commenced, amend the Town and Country Planning (Development Management Procedure) Regulations (Scotland) 2009 so that planning authorities will require applicants to provide an assessment of flood risk where a development is likely to result in a material increase in the number of buildings at risk of being damaged by flooding.

### **Flood Risk**

202. All land is to some degree susceptible to flooding. The likelihood of a site being flooded is measured in terms of probabilities per annum, which range from very low (close to 0% probability) to very high (up to 100% probability). Even in areas generally free from flooding, local conditions and exceptional rainfall can lead to flooding. It is therefore not possible to set planning policy and determine applications solely according to the calculated probability of flooding. Developers and planning authorities should take a precautionary approach in taking decisions when flood risk is an issue. SEPA currently provides indicative flood risk maps as a basis for identifying some flood risk areas arising from fluvial and tidal sources. Flood risk from other sources such as rising groundwater, surface water and drainage systems should also be considered.
203. Functional flood plains store and convey flood water during times of flood. These functions are important in the wider flood management system. For planning purposes the functional flood plain will generally have a greater than 0.5% (1:200) probability of flooding in any year. Development on the functional flood plain will not only be at risk itself, but will add to the risk elsewhere. Built development should only take place on functional flood plains where it will not affect the ability of the flood plain to store and convey water, where the development will not be at risk of flooding and where the development will not increase the risk of flooding elsewhere. Piecemeal reduction of the flood plain should be avoided because of the cumulative effects of reducing storage capacity. There may be exceptions for infrastructure if a specific location is essential for operational reasons or it cannot be located elsewhere. In such cases, the development should be designed to remain operational in times of flood and not impede water flow, and the effect on the flood water storage capacity should be kept to a minimum. Development should not take place on land that could otherwise contribute to managing flood risk, for instance through managed coastal realignment, washland creation or as part of a scheme to manage flood risk.

### **Risk Framework**

204. To provide a basis for planning decision making relating to flood risk, the following risk framework divides flood risk into three categories and outlines an appropriate planning response. The calculated probability of a flood occurring should be regarded as a best estimate and not a precise forecast. The annual probabilities referred to in the framework below relate to the land at the time a planning application is made or a development plan is prepared. In applying the risk framework, developers and planning authorities should also take into account:
  - the characteristics of the site,
  - the use and design of the proposed development,
  - the size of the area likely to flood,
  - depth of water, likely flow rate and path, rate of rise and duration,
  - existing flood prevention measures – extent, standard and maintenance regime,
  - the allowance for freeboard,



- cumulative effects of development, especially the loss of flood storage capacity,
- cross boundary effects and the need for consultation with adjacent authorities,
- effects of a flood on access including by emergency services,
- effects of a flood on proposed open spaces including gardens, and
- the extent to which the development, its materials and construction are designed to be water resistant.

### RISK FRAMEWORK

**Little or No Risk** – annual probability of watercourse, tidal or coastal flooding is less than 0.1% (1:1000)

- No constraints due to watercourse, tidal or coastal flooding.

**Low to Medium Risk Area** – annual probability of watercourse, tidal or coastal flooding in the range 0.1% - 0.5% (1:1000 – 1:200)

- These areas will be suitable for most development. A flood risk assessment may be required at the upper end of the probability range (i.e. close to 0.5%) or where the nature of the development or local circumstances indicate heightened risk. Water resistant materials and construction may be required depending on the flood risk assessment. Subject to operational requirements, including response times, these areas are generally not suitable for essential civil infrastructure such as hospitals, fire stations, emergency depots etc. Where such infrastructure must be located in these areas or is being substantially extended it should be capable of remaining operational and accessible during extreme flooding events.

**Medium to High Risk** – annual probability of watercourse, tidal or coastal flooding greater than 0.5% (1:200)

- Generally not suitable for essential civil infrastructure such as hospitals, fire stations, emergency depots etc., schools, care homes, ground-based electrical and telecommunications equipment unless subject to an appropriate long term flood risk management strategy. The policy for development on functional flood plains applies. Land raising may be acceptable.
- If built development is permitted, appropriate measures to manage flood risk will be required and the loss of flood storage capacity mitigated to produce a neutral or better outcome.
- Within built up areas, medium to high risk areas may be suitable for residential, institutional, commercial and industrial development provided flood prevention measures to the appropriate standard already exist, are under construction or are planned as part of a long term development strategy. In allocating sites, preference should be given to those areas already defended to required standards. Water resistant materials and construction should be used where appropriate.
- In undeveloped and sparsely developed areas, medium to high risk areas are generally not suitable for additional development. Exceptions may arise if a location is essential for operational reasons, e.g. for navigation and water based recreation uses, agriculture, transport or some utilities infrastructure and an alternative lower risk location is not achievable. Such infrastructure should be designed and constructed to remain operational during floods. These areas may also be suitable for some recreation, sport, amenity and nature conservation uses provided adequate evacuation procedures are in place. Job-related accommodation (e.g. caretakers and operational staff) may be acceptable. New caravan and camping sites should not be located in these areas. If built development is permitted, measures to manage flood risk are likely to be required and the loss of flood storage capacity minimised. Water resistant materials and construction should be used where appropriate.

205. The settlement strategy set out in the development plans should take account of the potential risks from flooding. Local development plans should:

- identify sites or areas constrained by flood risk on the basis of the risk framework,
- safeguard the flood storage and conveyancing capacity of functional flood plains,
- indicate circumstances where a freeboard allowance<sup>24</sup> should apply,
- indicate when a drainage assessment will be required because of flood risk, and
- indicate when water resistant materials and forms of construction will be appropriate.

If relevant, local development plans could also identify where the promotion of managed coastal realignment or other measures could contribute to more a sustainable approach to flood management. Strategic development plans should, where appropriate, identify the major areas of the flood plain and storage capacity which should be protected from inappropriate development, major flood protection scheme requirements or proposals and relevant drainage capacity issues.

### **Flood Protection and Flood Risk Management Measures**

206. Flood protection measures are designed to protect against a specified height of flood water. The measures can reduce the probability of flooding but cannot eliminate it entirely. In areas protected by existing flood protection measures, brownfield development will generally be acceptable provided the defences are adequate and properly maintained. A development which requires additional flood protection measures will normally only be acceptable outside or adjoining the boundary of medium to high risk areas. Where flood protection measures will be necessary to enable a development to proceed, a thorough justification including an examination of alternative options should be provided. Elevated buildings on structures such as stilts are unlikely to be acceptable.

207. Flood risk management measures should target the sources and pathways of flood waters and the impacts of flooding. Where possible, natural features and characteristics of catchments should be restored so as to slow, reduce or otherwise manage flood waters. Flood risk management measures should avoid or minimise detrimental effects on the ecological status of the water environment. In all cases opportunities for habitat restoration or enhancement should be sought. Proposals for development which would require new flood risk management measures should only be promoted through the development plan.

### **Landraising**

208. Landraising, which involves permanently elevating a site above the functional flood plain, may have a role in some circumstances. Proposals for landraising should:

- be linked to the provision and maintenance of compensatory flood water storage to replace the lost capacity of the functional flood plain,
- have a neutral or better effect on the probability of flooding elsewhere, including existing properties,
- not create a need for flood prevention measures elsewhere,
- not create islands of development but should adjoin developed areas outwith the functional flood plain, and
- be set back from the bank of the watercourse.

Major proposals for landraising should be promoted through the development plan. Once complete, the land created by landraising will no longer be part of the functional flood plain. Engineering operations for landraising are a controlled activity under the Water Environment and Water Services (Scotland) Act 2003 and approval is required from SEPA before works can commence.

<sup>24</sup> Freeboard allowance is a height added to the predicted level of a flood to take account of the height of any waves or turbulence and the uncertainty in estimating the probability of flooding

### Drainage and Culverts

209. The Water Environment (Controlled Activities) (Scotland) Regulations 2005 require all surface water from new development to be treated by a sustainable drainage system (SUDS) before it is discharged into the water environment, except for single houses or where the discharge will be into coastal water. The aim of SUDS is to mimic natural drainage, encourage infiltration and attenuate both hydraulic and pollutant impacts to minimal adverse impacts on people and the environment. Surface water drainage measures proposed as part of a planning application should have a neutral or better effect on the risk of flooding both on and off the site. Where flooding is an issue, SUDS should be designed to mitigate the adverse effects of a storm inflow into the watercourse or sewer. Local development plans should incorporate the legal requirement for SUDS, promote a coordinated approach to SUDS between new developments and set out expectations in relation to the long term maintenance of SUDS. Planning permission should not be granted unless the proposed arrangements for surface water drainage are adequate and appropriate long term maintenance arrangements will be in place.
210. Sites identified as appropriate for development can sometimes be constrained by a lack of water supply or waste water infrastructure capacity. If a proposed development is considered acceptable in a location where the current water or drainage infrastructure would be insufficient, stakeholders should work together to identify the best practicable option to accommodate the development. For large scale development proposals in areas where drainage is already constrained or otherwise problematic or if there would be off-site effects, a comprehensive drainage assessment will be required. Drainage assessments cover both surface and foul water.
211. Culverts are a frequent cause of local flooding, particularly if design or maintenance is inadequate. Watercourses should not be culverted as part of a new development unless there is no practical alternative, and existing culverts should be opened whenever possible. If culverts are unavoidable, they should be designed to maintain or improve existing flow conditions and aquatic life. A culvert may be acceptable as part of a scheme to manage flood risk or where it is used to carry a watercourse under a road or railway.

### WASTE MANAGEMENT

212. The Scottish Government has adopted Zero Waste as a goal. This means eliminating the unnecessary use of raw materials, sustainable design, resource efficiency and waste prevention, reusing products wherever possible, and recovering value from products when they reach the end of their lives either through recycling, composting or energy recovery, in accordance with the waste hierarchy. Policy on waste management is driven by European and national legislation including the EU Waste Framework Directive<sup>25</sup> and the Landfill (Scotland) Regulations (2003). The Scottish Government has targets for municipal waste including:

- increasing the proportion recycled or composted to 40% by 2010, 50% by 2020 and 70% by 2025,
- a 5% limit on landfill of municipal waste by 2025,
- to stop the growth in municipal waste by 2010, and
- 25% limit on energy from mixed municipal waste.

Achieving these targets will require a reduction in the amount of waste produced and a significant increase in waste management infrastructure. Additional capacity will also be required to treat commercial and industrial waste. The planning system has a crucial role in ensuring that installations are delivered in time to allow waste management targets to be met. A significant commitment to enabling the development of new waste management infrastructure through the planning system is required.

<sup>25</sup> Directive 2008/98/EC

213. A sustainable approach to waste management planning relies on a number of objectives including those reflected in the Zero Waste Plan and the waste hierarchy, reduced reliance on landfill and the precautionary and proximity principles. The waste hierarchy favours prevention over reuse, recycling, recovery then disposal. The proximity principle requires waste to be dealt with as close as possible to where it is produced. This means taking local responsibility for the treatment and disposal of waste. Planning for waste management infrastructure to meet all waste needs within each local authority area is a key part of fulfilling this responsibility. An authority may also fulfil this responsibility by working with other authorities to develop shared strategic waste infrastructure.
214. A significant increase in the number, range and type of waste management installation is needed to manage municipal, commercial and industrial waste. Composting facilities, transfer stations, materials recycling facilities, and anaerobic digestion, mechanical, biological and thermal treatment plants are the main types of installation that are required. From 2010, the need for and required capacity of facilities will be established in the Zero Waste Plan<sup>26</sup>. Until then, capacity requirements should be informed by the National Waste Plan, Area Waste Plans, the objectives of the Business Waste Framework and information held by SEPA, including quarterly local authority and operators' returns and the annual Waste Data Digest. Authorities should also take into account potential future capacity requirements.
215. All development plans must identify appropriate locations for required waste management facilities, where possible allocating specific sites, and provide a policy framework which facilitates the development of these facilities. Advice on identifying sites and assessing suitability is provided in PAN 63 *Waste Management Planning*. Detailed information on types of waste management facilities is available in *Planning for Waste Management Facilities*<sup>27</sup>. Authorities within area waste plan areas should coordinate their approach to waste management planning policy and land allocations. Residential, commercial and industrial properties should be designed to provide for waste separation and collection. Waste management should be incorporated into masterplans or development briefs guiding the development of major sites.

### **Locations for New Facilities**

216. Modern waste management infrastructure is designed and regulated to high standards and is similar to other industrial processes. Locations which are appropriate for industrial or storage and distribution uses are therefore also appropriate for many waste management installations. Other locations should also be considered when allocating sites in the development plan for specific waste management facilities, for example former mineral workings. In keeping with the proximity principle, towns and cities will often be the best locations for new waste transfer, separation and handling installations. Accessibility is a key consideration for all waste management facilities. Locations for new installations, for community composting and bring facilities should be identified in development plans or supplementary guidance. Where facilities of more than local importance are required, taking account of economies of scale, authorities should work together to identify appropriate locations. Existing waste handling installations should be safeguarded in development plans and allocations on adjacent sites should not compromise waste handling operations, which may operate 24 hours a day and partly outside buildings.
217. Planning authorities should consider the need for buffer zones between sensitive receptors (for example, houses) and some waste management facilities. A 250m buffer may be appropriate for operations such as outdoor composting, anaerobic digestion, mixed waste processing, thermal treatment or landfill gas plant. 100m may be appropriate for recycling facilities, small scale thermal treatment or leachate treatment plant. Greater separation distance may be appropriate for landfill sites. Appropriate buffer zones will depend on the specific characteristics of individual sites.

<sup>26</sup> The Zero Waste Plan will be published in 2010. Until then the National Waste Plan and Area Waste Plans provide information on need for a required capacity of facilities

<sup>27</sup> *Planning for Waste Management Facilities Research Study*, ODPM, 2004

Appropriately located, well run and well regulated waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health. Further advice on health impacts is available from SEPA and in the Review of the Environmental and Health Effects of Waste Management (DEFRA). Where large scale waste management facilities are proposed close to communities, planning authorities and developers should work closely with communities to identify and address their concerns.

218. Development plans should also identify suitable sites for the processing of construction and demolition wastes. Suitable sites could include existing minerals workings or industrial sites. The Site Waste Management Plan voluntary code of practice aims to minimise waste at source on construction sites. Planning authorities should consider requiring the preparation of SWMPs as a condition of planning permission.
219. When locations for thermal treatment plants are being considered, the sensitivity of surrounding uses should be taken into account. Thermal treatment technology is more beneficial if it delivers both heat and power. Siting of plant close to energy grids or users of heat is an important factor in determining appropriate locations for installations capable of being run as combined heat and power (CHP) plants. More information on thermal treatment plants is provided by SEPA in *Thermal Treatment of Waste Guidelines 2009*.
220. With operational control regulated by SEPA, development plans and consideration of applications for planning permission relating to waste management facilities should:
  - focus on whether the development itself is acceptable rather than on control of the processes or waste streams involved,
  - consider only the aspects of operations enforceable under planning control to minimise impacts on the environment, transport network and local communities, and
  - secure decommissioning or restoration to agreed standards.

Operational impact and transport are important considerations when considering proposals for new waste management facilities. Depending on the facility, noise, effect on water resources, landscape and visual impact and the impact on the natural and historic environment may also be relevant considerations.

## Landfill

221. Landfill will continue to be required for residual waste and planning authorities must safeguard potential landfill sites in the development plan. The Landfill (Scotland) Regulations 2003 state that planning permission may be granted for a landfill only if the following locational requirements have been considered:
  - the distances from the boundary of the site to residential and recreational areas, waterways, water bodies and other agricultural or urban sites,
  - the existence of groundwater, coastal water or nature protection zones<sup>28</sup> in the area,
  - the risk of flooding, subsidence, landslides or avalanches on the site, and
  - the protection of the natural or cultural heritage in the area.
222. Planning authorities should ensure that new landfill sites or extensions to existing landfill sites do not lead to a disproportionate burden of negative environmental impacts on nearby settlements or other sensitive receptors such as the landscape. This will be particularly important if there are already two or more operational or consented sites that could raise similar impacts within 5km of a nearby settlement. Such sites could include minerals or opencast coal sites. Applicants should assess the likely cumulative impacts of additional landfill, including

<sup>28</sup> Nature protection zone means land which has been notified under section 28 of the Wildlife and Countryside Act 1981 or a European site within the meaning of Regulation 10(1) of the Conservation (Natural Habitats &c) Regulations 1984

consideration of site design, increases in road traffic, period and intensity of disturbance to settlements and the length of time and level of landscape impact. Developers should indicate what measures will be taken to mitigate likely cumulative impacts, and if adverse cumulative impacts cannot be mitigated adequately, permission should be refused. This policy on cumulative impact also applies to mineral extraction sites and opencast coal sites.

223. Once landfill working has ceased, the site should be restored at the earliest opportunity. After-uses that result in environmental improvement rather than simply restoring land to its previous state or which add to the cultural, recreational or environmental assets of an area are encouraged. Restoration should be designed and implemented to the highest standards. The need to avoid creating new or increased bird strike hazards should be considered in statutory bird strike safeguarding zones. For more information see Circular 2/2003 *Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas*. Planning authorities should ensure that consents are associated with an appropriate financial bond unless the operator can satisfactorily demonstrate that their programme of restoration, including the necessary financing, phasing and aftercare of sites, is sufficient.
224. Land raising has a permanent effect on the landscape and may therefore be most suited to derelict or otherwise degraded sites as a means of rehabilitation. Otherwise, and especially in areas designated for their landscape qualities, it is unlikely to be acceptable unless there are no suitable alternatives. Structural landscaping and planting are likely to be essential components of land raising, together with the use of existing landscape features. The flood management implications of land raising should be taken into account.

## MINERALS

225. An adequate and steady supply of minerals is essential to support sustainable economic growth. The minerals industry provides raw material for construction, manufacturing, agriculture and other sectors. Continuity of supply to meet demand depends on the availability of land with workable deposits having planning permission for extraction.
226. Planning authorities should have regard to the availability, quality, accessibility and requirement for mineral resources in their area when preparing development plans. Authorities should liaise with operators and neighbouring planning authorities and use verifiable sources of information to identify appropriate search areas. These search areas, or where appropriate specific sites, should be identified and safeguarded in development plans and the criteria to be satisfied by development proposals set out. The same safeguarding principles should apply to land allocated for development which is underlain by minerals and where prior extraction of the mineral would be beneficial. When preparing development plans, authorities should consider the appropriateness of existing search areas. Where there is no developer interest, planning authorities should modify or delete the search area from the plan, taking into account possible long term requirements, the need to avoid sterilisation of resources and the views of the industry. Where there is a concentration of mineral resources, a minerals subject local development plan may be the appropriate means of setting out relevant policies, proposals and opportunities.
227. Planning authorities should ensure a landbank of permitted reserves for construction aggregates of a minimum 10 years extraction is available at all times in all market areas. Where market areas for construction aggregates extend across local authority boundaries, authorities should work together to ensure an adequate supply of minerals can be provided. This is particularly important in the city regions.
228. Scotland contains a number of non-aggregate construction, industrial and metalliferous minerals including limestone, clay, dimension stone, slate and silica sands. Planning authorities should safeguard these resources and provide for their working. Limestone resources at Beith should continue to be safeguarded. Dimension stone and slate are important for repair of existing buildings and as a new building material. The demand for and scarcity of consented reserves of

building stone means that reserves should be safeguarded in development plans. Reopening dormant and securing active sites is important in providing for future supply. As building stone reserves are often worked on small sites, in limited quantities and intermittently, planning authorities should ensure that conditions do not impose undue restrictions on such operations. Where brick clay and fireclay is associated with coal-bearing strata, the policy on opencast coal applies. Policy on mineral extraction should be applied to proposals for deep coal mining. Planning authorities should decide, in consultation with local communities, whether they intend to identify locations for coastal exporting quarries in the development plan. Planning authorities should also facilitate the recycling and re-use of material in waste tips and construction and demolition wastes at appropriate general industrial locations or minerals sites.

229. Small workings, sometimes called borrow pits, commonly associated with roads and wind farm construction, forestry or agriculture, allow for the extraction of minerals near to or on the site of the associated development. Applicants will need to demonstrate the particular operational, community or environmental benefits of such proposals. They should be time-limited consents, tied to a particular project and accompanied by full restoration proposals.
230. Commercial peat cutting raises particular environmental concerns, and will only be acceptable in areas of degraded peatland which has been significantly damaged by human activity and where the conservation value is low and restoration is not possible. All areas of peatland that retain a high level of natural heritage conservation interest, archaeological interest or are of value as carbon stores should be protected through development plans and development management decisions.
231. Development plans and development management decisions should aim to minimise significant negative impacts from minerals extraction on the amenity of local communities, the natural heritage and historic environment and other economic sectors important to the local economy, and should encourage sensitive working practices during extraction. Extraction should only be permitted where impacts on local communities and the environment can be adequately controlled or mitigated. Wherever possible, haulage should be by rail, or coastal or inland shipping, rather than by road. Where there are significant transport impacts on local communities, routes which avoid settlements as far as possible should be identified. Advice on mineral workings is provided in PAN 50 *Controlling the Environmental Effects of Surface Mineral Workings*, PAN 50 Annexes A-D and PAN 64 *Reclamation of Surface Mineral Workings*.
232. Operators should provide sufficient information to enable a full assessment to be made of the likely effects of development together with proposals for appropriate control, mitigation and monitoring. When deciding planning applications for extraction, planning authorities should consider:
  - disturbance and disruption from noise, blasting and vibration, and potential pollution of land, air and water,
  - effect on communities,
  - effect on the local and national economy,
  - cumulative impact (see paragraph 222),
  - impact on the natural heritage and historic environment, including landscape and/or habitats benefits associated with the restoration and aftercare proposals,
  - landscape and visual impact,
  - the benefits of restoration proposals which remediate areas of dereliction or land instability,
  - transport impacts, and
  - restoration and aftercare proposals.
233. Authorities should not impose standard buffer zones between sites and settlements since distances will need to take account of the specific circumstances of individual proposals including size, duration, location, method of working, topography and the characteristics of the various environmental effects likely to arise and the mitigation that can be implemented.



Planning authorities should ensure that arrangements are in place to monitor the conditions attached to planning permissions. Authorities are required to review the conditions attached to mineral permissions every 15 years, providing an opportunity to ensure that up-to-date operating and environmental standards are put in place. Guidance is provided in Circular 34/1996 *Environment Act 1995 Section 96* and Circular 1/2003 *The Environmental Impact Assessment (Scotland) Amendment Regulations 2002 Review of Old Mineral Permissions*.

234. To offset impact on local communities, benefits in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. Such benefits should only be treated as a material consideration if they meet the tests set out in Circular 1/2010 *Planning Agreements*. Attempts to secure unreasonable provision not directly related to the proposed development or securing general benefits for the wider community should not be taken into account in decision making on planning applications.
235. Planning authorities should require operators to incorporate proposals for phased working and if applicable progressive restoration in planning applications. Proposals should also address visual impact during the life of the site, the locational impact of operations, design, layout and phasing and the appropriate management of extractive waste. Once mineral working has ceased, the land should be reinstated at the earliest opportunity. Operators are encouraged to consider after uses that result in environmental improvement rather than simply restoring land to its previous state. Planning authorities should encourage after uses which add to the cultural, recreational or environmental assets of an area. Restoration should be designed and implemented to the highest standards. The need to avoid creating new or increased bird strike hazards should be considered in statutory bird strike safeguarding zones. For more information see Circular 2/2003 *Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas*. Planning authorities should ensure that consents are associated with an appropriate financial bond unless the operator can satisfactorily demonstrate that their programme of restoration, including the necessary financing, phasing and aftercare of sites, is sufficient. This could include reliance on an established and properly funded industry guarantee scheme. Financial guarantees need to reflect the scale and type of mineral extraction proposed and avoid imposing costs on operators beyond that necessary.

## **ON-SHORE OIL AND GAS EXTRACTION**

236. Secure energy supplies are an important objective of the Scottish Government, and whilst there is a clear need for a reduction in emissions associated with the use of fossil fuels, oil and gas are expected to have a role in achieving diverse and sustainable supplies of energy. The oil and gas industry is one of Scotland's biggest employers and a significant contributor to the Scottish economy and, in addition to off-shore extraction, there is potential for on-shore oil and gas extraction in some areas. The aim is to maximise the potential of Scotland's oil and gas reserves in an environmentally acceptable manner as part of a strategy for achieving safe, secure and indigenous energy supply. On-shore oil and gas extraction is licensed by the UK Government through Petroleum Exploration and Development Licences (PEDL)<sup>29</sup>. Licences have been granted for several areas in central Scotland. The methods of on-shore oil and gas extraction covered by this policy are:
  - conventional on-shore oil and gas development – extraction of petroleum or hydrocarbon oils and gases by drilling and pumping,
  - coal bed methane – extraction by drilling into un-mined coal seams to release methane,
  - capture of methane that has accumulated in coal mine workings, and
  - gas derived from shale reservoirs.

<sup>29</sup> Information about PEDL licenses can be found on the UK Government's Department of Energy & Climate Change website - [www.og.decc.gov.uk](http://www.og.decc.gov.uk)

237. Planning authorities and licensed operators should work together to ensure that operational requirements and likely environmental impacts of development associated with extraction are understood. Development plans for areas covered by PEDL licences should identify the factors that will be taken into account when deciding planning applications for wellheads and transmission infrastructure. Relevant factors may include disturbance and disruption from noise, potential pollution of land, air and water, impact on communities and the economy, cumulative impact, impact on the natural heritage and historic environment, landscape and visual impact and transport impacts. Where PEDL licences extend across local authority boundaries, planning authorities should work together to ensure a consistent approach to on-shore oil and gas extraction, including the consideration of cumulative effects.
238. Where possible, transport of the end product from the extraction point should be via pipeline, rail or water transport rather than by road. Planning authorities should ensure that conditions requiring the removal of equipment and full restoration of sites following completion of exploration and extraction are attached to any planning consents granted. When identifying drilling locations, operators should take into account the potential effects on neighbouring uses and use directional drilling wherever feasible. Drilling operations should not be permitted close to houses and other noise-sensitive properties unless noise from drilling and associated operations would fall within acceptable levels.

## **SURFACE COAL MINING**

239. Scottish coal output is likely to continue to play a significant role in ensuring diverse and sustainable supplies of energy at competitive prices. Although development can raise significant environmental issues, extraction is necessary and important in the national interest. Operators are responsible for determining the level of output from their sites whilst planning authorities are responsible for determining the acceptability of individual development proposals. A contract between a surface coal mine operator and any of the electricity generators is not a material consideration in planning decisions, nor is the quality of coal.
240. Development plans should identify broad areas where surface coal extraction may be acceptable, and set out the criteria to be addressed when assessing individual proposals including mitigation of cumulative impacts. Within areas identified for possible future working, individual proposals will still need to be judged on their merits, taking into account all relevant considerations. There is a general presumption against extraction outwith areas of search identified in the development plan. When reviewing plans, authorities should reconsider identified search areas and consider new search areas, taking into account any new information on coal reserves and the views of the Coal Authority and the industry. If it is clear that future applications are unlikely, authorities should modify or delete existing search areas, and identify new search areas if appropriate. It is essential that areas of search provide realistic opportunities for surface coal extraction, providing communities with an appropriate level of certainty and the industry with reasonable access to available coal resources.
241. Deposits of coal and related minerals capable of being extracted should not be sterilised unnecessarily. If extraction is not possible because of other ongoing developments that raise similar issues in the area then planning authorities should take a long term view on the potential for extraction and incorporate possible extraction timescales into the development plan. Where practicable it is desirable to secure extraction prior to permanent development above workable coal reserves.
242. Development plans and development management decisions should aim to minimise any significant negative impacts from surface coal extraction on the amenity of local communities, the built and natural heritage and other economic sectors important to the local economy. Extraction should only be permitted where impacts on local communities and the environment can be adequately controlled or mitigated. Wherever possible, haulage should be by rail or coastal or inland shipping rather than by road. Where there are significant transport impacts on

local communities, routes which avoid settlements as far as possible should be identified. Operators should provide sufficient information to enable a full assessment to be made of the likely effects of development together with proposals for appropriate control, mitigation and monitoring. When deciding planning applications for surface coal extraction, planning authorities should consider:

- disturbance and disruption from noise, blasting and vibration, and potential pollution of land, air and water,
- benefits and disbenefits for communities,
- effect on the local and national economy,
- cumulative impact (see paragraph 222),
- benefits of removing derelict or unstable land and avoiding sterilisation,
- impact on the natural heritage and historic environment, including landscape and/or habitats benefits associated with the restoration and aftercare proposals,
- landscape and visual impact,
- transport impacts, and
- restoration and aftercare proposals.

When submitting planning applications operators should indicate their understanding of the location of coal reserves in surrounding land and their likely future plans relating to future extensions (vertical and lateral) and their interest in adjacent sites.

243. Within areas of search, there is a presumption against surface coal extraction unless the proposed development meets one of the following tests:

- the proposal is environmentally acceptable, or can be made so by planning conditions and/or agreements, or
- the proposal provides local or community benefits which clearly outweigh the likely impacts of the extraction.

Local or community benefits will only arise where extraction generates employment which is particularly beneficial in the area and jobs are genuinely available to local communities and the proposal safeguards the interests of impacted communities, or where there is improvement of local amenity or future development opportunities arising from the clearance of a substantial area of derelict or despoiled land, the stabilisation of a previously undermined site or other similar benefits.

244. Surface coal extraction is unlikely to be environmentally acceptable if:

- proposed site boundaries are within 500m of the edge of a community,
- it would have unacceptable impacts on individual dwellinghouses or sensitive establishments outwith communities and effects cannot be mitigated satisfactorily,
- the proposal is for an extension to an existing site where the intention was known but not made explicit when the original application was approved,
- it will result in a period of disturbance to communities for more than 10 years,
- it is in an area already subject to other developments that also have negative environmental effects and the simultaneous or sequential working will result in an unacceptable cumulative impact on a local community,
- haulage will be solely on roads which pass directly through communities, particularly if rail based transport is a viable option, or
- it will adversely affect any natural heritage or historic environment designation or site.

245. Although site boundaries within 500m of the edge of a community are unlikely to be acceptable, this should not prevent non-engineering works such as tree planting or other mitigation measures such as visual screening mounds and noise attenuation barriers to reduce the landscape and visual impact of the development. Site boundaries within 500m of the edge of a community may be acceptable where it would result in improvement of local amenity or future development opportunities by clearing a substantial area of derelict or despoiled land, the stabilisation of a previously undermined site or other similar benefit. Topography, the nature of the landscape, visibility and prevailing wind directions may result in a greater or lesser distance being required, depending on specific local circumstances. In this context, a community is a city, town or village, but can also include small clusters of housing. Planning authorities should decide what constitutes a community when applying this policy.
246. Operators should work closely with communities from the early stages of developing specific proposals and throughout the application, operational and restoration phases. Benefits in the forms of new community facilities or community trust funds may be proposed by the developer but such benefits should not be treated as a material consideration unless they meet the tests set out in Circular 1/2010 Planning Agreements. Attempts to secure unreasonable provision not directly related to the proposed development or securing general benefits for the wider community should not be taken into account in decision making on planning applications. Planning authorities should ensure that arrangements are in place to monitor the conditions attached to planning permissions, and should agree these arrangements with the operator.
247. Proposals for the restoration and aftercare of a site should be submitted with the planning application and provide enough detail to enable the planning authority to take a realistic view of the intended after-use. This should include information on the phasing of progressive restoration, the final landform and landscape and monitoring procedures. Operators are encouraged to consider after uses that result in environmental improvement rather than simply restoring land to its previous state. Planning authorities should encourage after uses which add to the cultural, recreational or environmental assets of an area. Restoration should be designed and implemented to the highest standards to avoid the occurrence of future public safety and environmental hazards, such as land instability and emissions of gas or water. Planning authorities should require a financial guarantee to ensure adequate restoration and aftercare unless the operator can adequately demonstrate that their programme of restoration, including the arrangements for financing, phasing and aftercare of the site is sufficient. This could include reliance on an established and properly funded industry guarantee scheme.

## COMMUNICATIONS INFRASTRUCTURE

248. Advanced, high quality electronic communications infrastructure is an essential component of economic growth across Scotland. It also has a role in reducing the need to travel, particularly the need for commuting and other business travel by enabling alternative working patterns, therefore contributing to reduce emissions. Electronic communications legislation and regulation is a matter reserved to the UK Government but the physical development of networks, particularly the siting and design of equipment, is a matter for the planning system in Scotland. Planning authorities should support the expansion of the electronic communications network, including telecommunications, broadband and digital infrastructure, through the development plan and development management decisions, taking into account the economic and social implications of not having full coverage or capacity in an area. The Government's objective is to ensure that everyone can enjoy the same degree of access to high quality electronic communication opportunities. This should be achieved in a way that keeps the environmental impact of communications infrastructure to a minimum.
249. The siting and design of electronic communications infrastructure, such as base stations for mobile phone networks, are the key issues to be addressed through the planning system. All components of the equipment should be considered together, including antennas, any supporting structure, equipment housing, cable runs, fencing, planting, landscaping, access,

power supply and land lines. The following series of options should be considered when selecting sites and designing base stations:

- installation of smallest suitable equipment,
- concealing and disguising masts, antennas, equipment housing and cable runs using design and camouflage techniques,
- mast or site sharing,
- installations on buildings and existing structures, and
- installation of ground based masts.

250. Equipment should be designed and positioned as sensitively as possible, though technical requirements and constraints may limit the possibilities. Planning authorities should take the cumulative visual effects of equipment into account when assessing new proposals. Planning Advice Note 62 *Radio Telecommunications* provides advice on siting and design. Communications infrastructure should not cause physical obstructions to aerodrome operations and other transmitter/receiver facilities. More information can be found in Circular 2/2003 *Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas*.

251. Local development plans and supplementary guidance should give a consistent basis for decisions on communications infrastructure by setting out the matters that will be taken into account in decision making. Operators should discuss network roll-out plans with planning authorities during the preparation of development plans or supplementary guidance.

252. Planning applications for communications equipment should be accompanied by the following supporting material:

- a description of how the proposed equipment fits into the wider network,
- a description of the siting and design options which satisfy the operational requirements, alternatives that were considered, and the reasons for the chosen solution,
- details of the design, including height, materials and all components of the proposal,
- details of any proposed landscaping and screen planting,
- a description of how the cumulative effects of the proposed and existing equipment in the area were considered,
- a declaration that the equipment and installation is designed to be in full compliance with the appropriate ICNIRP guidelines<sup>30</sup>, and
- information on visual impact, if relevant.

253. Planning authorities should not question whether the service to be provided is needed nor seek to prevent competition between operators, but must determine applications on planning grounds. The planning system should not be used to secure objectives that are more properly achieved under other legislation. Emissions of radiofrequency radiation are controlled and regulated under other legislation and it is therefore not necessary for planning authorities to treat radiofrequency radiation as a material consideration. To demonstrate to planning authorities that the known health effects have been properly addressed, applications for planning permission involving antennas to be employed in an electronic communications network should be accompanied by a declaration that the equipment and installation is designed to be in full compliance with the appropriate ICNIRP guidelines for public exposure to radiofrequency radiation.

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<sup>30</sup> The radiofrequency public exposure guidelines of the International Commission on Non-Ionising Radiation Protection, as expressed in EU Council recommendation 1999/519/EC on the limitation of exposure of the general public to electromagnetic fields

254. In response to the report in 2000 by the Independent Expert Group on Mobile Phones (the Stewart Report<sup>31</sup>) a number of precautionary measures relating to mobile phone masts were put in place outwith the planning process. These measures include the auditing of mobile phone mast emissions and the creation of a publicly accessible database of base stations and their principal characteristics. Ofcom carries out these duties on behalf of the UK Government. UK mobile network operators have also agreed to provide information on radiofrequency emissions from mobile phone masts located near to sites such as schools, nurseries and hospitals if requested to do so.

## OUTCOMES

255. The planning system should be outcome focused, supporting the creation of high quality, accessible and sustainable places through new development, regeneration and the protection and enhancement of natural heritage and historic environment assets. The planning system has a significant role in promoting a pattern of development which helps to reduce Scotland's carbon footprint and facilitates adaptation to climate change, in facilitating the generation of power and heat from low carbon sources and in the achievement of waste management targets. When conflicts between objectives arise, decisions should be made in line with local priorities and needs as identified in the development plan.
256. Planning authorities should be clear about the standard of development that is required. These expectations should be informed by an understanding of the qualities of their places and the underlying economics of development. This principle applies from major urban expansion and regeneration through to the design of individual houses and other minor developments. Quality of place is not just determined by buildings, but by how they work together and how the streets and spaces between buildings work. Through development plans, supplementary guidance and engagement with applicants, agents and communities on individual proposals, planning authorities should be clear about their expectations on quality and standards early in the planning process. Local design policies should enable informed judgements on development proposals, but should not create a rigid or formulaic approach to decision making. Design is an important consideration and planning permission may be refused, and the refusal defended at appeal or local review, solely on design grounds. The Scottish Government's policy on design is explained in *Designing Places* and in *Designing Streets*.
257. The planning system should be judged by the extent to which it maintains and creates places where people want to live, work and spend time. This is a major challenge which will require permission for inappropriate development to be refused, conditions imposed to regulate development and agreements reached on actions to mitigate impacts on amenity, natural heritage, historic environment and communities. Efficient and inclusive planning are important elements of the modernised planning system, but it is through the maintenance and creation of high quality sustainable places that the most significant contribution to increasing sustainable economic growth can be made.

<sup>31</sup> *Mobile Phones and Health* – Independent Expert Group on Mobile Phones ([www.iegmp.org.uk](http://www.iegmp.org.uk))

## GLOSSARY

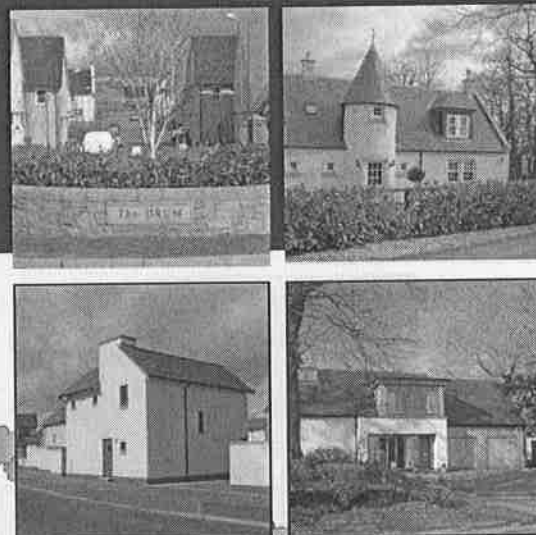
Article 4 direction	article 4 of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 gives the Scottish Government and planning authorities the power to remove permitted development rights by issuing a direction
Biodiversity	the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems (UN Convention on Biological Diversity, 1992)
Brownfield land	land which has previously been developed. The term may cover vacant or derelict land, land occupied by redundant or unused building and developed land within the settlement boundary where further intensification of use is considered acceptable
Culvert	a structure with integral sides, soffit and invert, including a pipe that contains a watercourse as it passes through or beneath a road, railway, building, embankment etc. or below ground.
Community	the term community includes individuals and groups, and can be based on location (for example people who live, work or use an area) or common interest (for example the business community, sports or heritage groups).
Effective housing land supply	effective housing land supply is the part of the established housing land supply which is free or expected to be free of development constraints in the period under consideration, and will therefore be available for the construction of housing
Flood	the temporary covering by water from any source of land not normally covered by water, but does not include a flood solely from a sewerage system
Flood prevention measures	works including walls, new channels, embankments and flood water storage areas
Flood risk	the combination of the probability of a flood and of the potential adverse consequences, associated with a flood, for human health, the environment, cultural heritage and economic activity
Housing requirement	housing requirement is the total amount and type of housing necessary to accommodate a given or projected population at appropriate minimum standards. This includes both housing need and demand
Open space	open space includes greenspace consisting of any vegetated land or structure, water or geological feature within and on the edges of settlements, including allotments, trees, woodland, paths and civic space consisting of squares, market places and other paved or hard landscaped area with a civic function
Physical activity	incorporates a number of overlapping activities and refers to all types of formal and informal physical recreation, exercise, sports, dance, play, cycling, walking and activities such as gardening
Prime quality agricultural land	prime agricultural land is agricultural land identified as being of Class 1, 2 or 3.1 in the land capability classification for agriculture as developed by the Macaulay Land Use Research Institute
Recreation	includes many types of physical activity as well as passive enjoyment of open spaces and the countryside
Town centre	the term town centre is used to cover city, town and district centres, irrespective of size, that provide a diverse and sustainable mix of activities and land uses which create an identity that signals the function and wider role
Watercourse	all means of conveying water except a water main or sewer (see Flood Prevention (Scotland) Act 1961)





# Housing Layout and Design

## Supplementary Planning Guidance Note



**Falkirk Council**  
Development Services

A faint, stylized illustration of a town or village, showing various buildings, houses, and trees, serving as a background for the text.

*David Alexander*

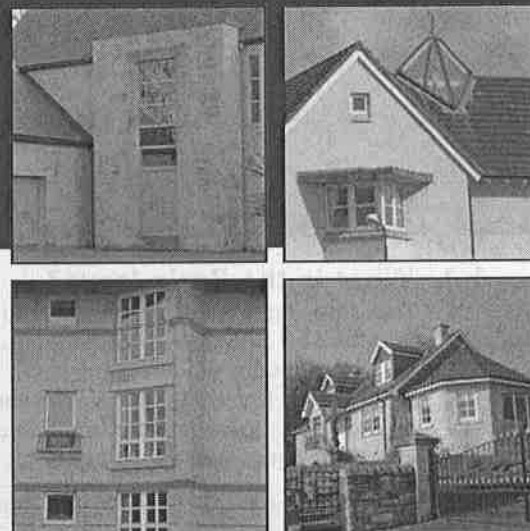
Welcome to this supplementary planning guidance note on Housing Layout and Design. It is one of a suite of such guides promoting development quality in the built environment and taking forward the Council's commitment to sustainable development as set out in the Development Plan.

Falkirk Council has set ambitious targets for continued sustainable housing growth. If well designed, new housing can be more sustainable, make a substantial contribution to a sense of place and improve the visual image of towns and settlements within the Falkirk area.

Although the guide will be of interest to all house builders, it is primarily intended to assist volume house builders achieve the necessary high standards of design acceptable to Falkirk Council. The advice addresses the architectural treatment of house design but, importantly, focuses on layout and the spaces between buildings to ensure the creation of quality urban settings for all our communities.

The Council commends the advice set out in this guide.

February 2007



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### 1.1 What is the Basic Issue?

New housing is much in demand today. This is driven by a number of factors e.g. size of accommodation, modern amenities, detachment from neighbours, closeness to countryside, distance from urban squalor and changing family and social patterns.

Areas of new housing are a very prominent form of current urban development. The quality of design applied to such development therefore requires to be of a very high standard in order to enhance the good character and appearance of our towns and villages.

The Guidance Note aims to provide advice on how a high standard of design can be achieved in estate layout and house architecture. Ultimately the quality resulting will be reflected in house sale prices. Other means of measuring design quality would be whether a housing estate might merit statutory protection in the future, the "conservation area test", or whether it would be attractive to visitors, the "postcard test".

Within the Falkirk and surrounding area new housing developments are generally taking place within two classic location types i.e. URBAN and SUB-URBAN sites.

#### URBAN:

town centre infill sites or "brownfield" land, perhaps where a former industrial use once operated, sometimes further out but still surrounded by the existing town.

Within a town centre, conservation concerns and greater civic pride tend to ensure that housing infill solutions are more one-off, appropriately more dense and engaging of better designers.

Outwith a town centre, however, there can be a greater tendency for volume house builders to apply the same layout principles to larger brownfield or redevelopment sites as to new suburban sites. Whereas the introduction of more affluent lifestyles into modest, perhaps run-down areas may have benefits, the townscape and social cohesion of an area can be prejudiced where an open suburban image is imposed. It is therefore important that housing development in such areas is designed to fit as seamlessly as possible into the existing urban "grain". This Guidance Note provides design conventions, patterns and models to assist in achieving this.

#### SUB-URBAN:

greenfield sites at the edge of a town traditionally characterised by dormitory developments of detached and semi detached housing with limited public facilities.

The design of sub-urban housing is probably the greatest concern to central and local government (see para.1.5) and especially informs this Guidance Note. Although it would appear to meet the demand criteria noted at the start of this section, the resulting housing estate designs generally fail either the "postcard" or "conservation area" tests. Despite the use of many different house types and changes in materials the image of "sameness" remains. Similarly, although detachment of one house from another characterises suburbia, there is the continuing impression that many of them are too close to one another.

Whereas this Guidance Note is predominantly concerned about the design of housing estates, it does not ignore the fact that the absence of shops and community facilities is partly responsible for the poor image of suburbia. Concerns about the commercial viability of and the potential source of nuisance from sometimes isolated amenities can discourage their inclusion in a housing area where not part of an appropriately scaled urban centre designed in from the start. The need for mixed-use development appropriately located in relation to natural focal points and primary road edges, is therefore noted.

#### Sustainability

It is important that the layout and design of public open space, together with the buildings set within or around it, support a sustainable environment i.e. the earth's resources protected and a healthy environment enhanced to ensure the continuity of life. Para.2.9 sets out the contribution of the Guidance Note to this. Specifically the advice will be applied in conjunction with the council's adopted **Sustainable Falkirk Strategy** and the **Supplementary Planning Guidance Note on Sustainable Design** currently in preparation.



## 1.2 Who is the guidance for?

This Guidance Note is primarily intended to assist volume house builders and their design agents although guidance on plotted, backland and infill development may be of interest to smaller builders, architects and private individuals who may also wish to appraise a neighbouring proposal.

## 1.3 What general planning advice can be found pre-application?

House builders should seek the advice of the Development Management Officer for the local area for information on planning and other permissions, neighbour notification, fees, timescale and any further queries relating to this Guidance Note (see USEFUL CONTACTS). The submission of preliminary sketches would be useful to forestall any major redesign at a future date, with its consequences for wasted time and money.

## 1.4 Where will the guidance be most strictly applied?

This Guidance Note will be applied generally to all housing proposals seeking Planning Permission but especially to development relating to the following:

- Conservation Areas and the setting of Listed Buildings
- Areas of Townscape Value: as identified in Local Plan policy EQ13
- Major road edges: buildings should create frontage with no screen fencing
- Major urban edges: views of any development from the countryside should be attractive
- Canalside, riverbank, waterside or foreshore edges
- Countryside sites
- Sites requiring a Design Statement as per the Council's **Supplementary Planning Guidance Note on Design Statements**.

## 1.5 What is the National and Local Plan policy background?

The current quality of housing design is a matter of concern to central and local government from the cultural, economic and environmental point of view as well as the merely aesthetic.

Following the earlier Planning Advice Note 44 (Fitting New Housing into the Landscape) and 46 (Planning for Crime Prevention) the Scottish Executive published its key design document 'Designing Places' in 2001 dealing with all aspects of urban design. There then followed further design PANs i.e.

PAN 67	Housing Quality
PAN 65	Planning & Open Space
PAN 68	Design Statements
PAN 76	New Residential Streets
PAN 77	Designing Safer Places
PAN 78	Inclusive Design

Current local authority policy documents also place strong emphasis on design quality and the need to raise standards i.e.

### Structure Plan

- Policy ENV 7 - Quality of Development

### Local Plan

- EQ3 Townscape Design
- EQ4 Landscape Design
- EQ5 Design & Community Safety
- SC 6 Housing Density and Amenity
- SC13 Open Space and Play Provision in New Residential Development

### Other

- Sustainable Falkirk Strategy
- Supplementary Planning Guidance Note on Design Statements
- Biodiversity and Development
- Trees and Development \*
- Public Open Space and New Development \*
- Sustainable Design \*

\* in preparation

## 1.6 Will the guidance interfere with the Housing Market?

There is no doubt that central and local government planning policies already impact on the freedom of the housing market, for reasons of good town planning and the protection of the environment e.g. restricting development within the most lucrative rural areas outwith the urban limit. However, in the main, housebuilders have adapted to such policies and the profitable redevelopment of degraded brownfield sites within towns is testament to this. It would therefore be reasonable to assume that developers could be similarly flexible and innovative in response to the setting of design standards on housing layout for similar planning reasons.

Most current housing estates consist of uniformly detached and minimally spaced houses. Maximising the number of houses on the site on this basis would appear to be the accepted market approach today. Whilst this guide does not dispute that a site should be developed to its full capacity it considers that the most appropriate form and configuration of development will emerge from a careful urban design analysis of any site rather than from standardised marketing and house spacing factors. Accordingly, joined street enclosure will be promoted in combination and contrasting with truly detached, landscape dominated Arcadian-type houses all as an alternative to the sameness of the suburban model. These of course are the models which created our best traditional town and village settings which the volume builder aspires to emulate and where a strong housing market clearly continues to exist.

The guidance provided should bring to a developer a number of areas where specific savings can be made. The concern with well organised public space to avoid wastage may allow the prudent housebuilder to achieve a denser development where appropriate. The emphasis on grouping and patterning of housing to create character, rather than deriving this from contrasting house designs and finishes, should simplify the building production process. Finally the architectural style promoted, whilst honouring traditional principles of form, composition, vertical proportions and the balance of solid-to-void, seeks a contemporary interpretation of these free from over expensive elaboration. Fussy period imitations will not be generally welcomed.

## 1.7 How is the design guidance set out?

The design guidance progresses from the broad principles of estate layout to the more detailed aspects of architectural form and aesthetics.

The section on Estate Layout sets down the elements of the public space framework; primary edges, building heights and focal points being the additional urban design aspects relating to this.

The guidance then identifies two alternative house grouping models i.e.

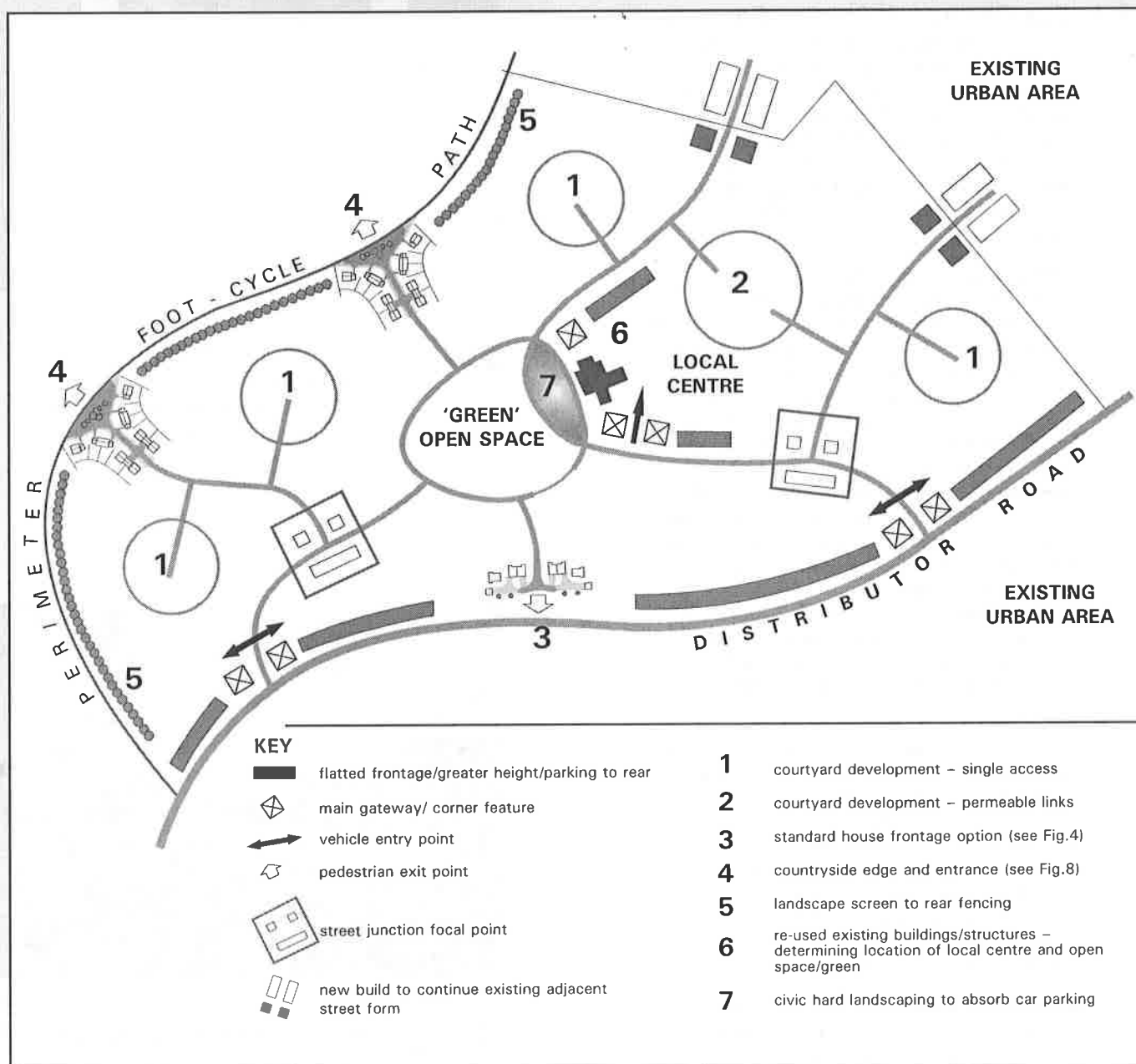
- (i) joined housing enclosing space and
- (ii) detached housing enclosed by space.

This then leads to guidance on appropriate locations for these different models with building height and focal points as associated drivers.

The latter part of the section on Estate Layout section deals with more technical aspects e.g. road design, sloping land, security for public places and individual properties and energy efficiency and climate considerations. Since the guide is aimed at estate layout it only touches incidentally on housing forms at a town scale. However it does incorporate advice on minor developments in backland and gap sites.

Para. 3.1/2 **Architectural Form and Aesthetics** provides a brief discussion of design principles followed by a simple checklist of design conventions based on the traditional principles of building composition.





**Figure 1 : CONTEXT AND PLANNING - TOWN EXTENSION SITE**

Feature retention, physical constraints, framework of route linkages and open space, entrances, built edges, corners and focal points.

Building frontages, with direct pedestrian entrance, preferred alongside all public streets and spaces.

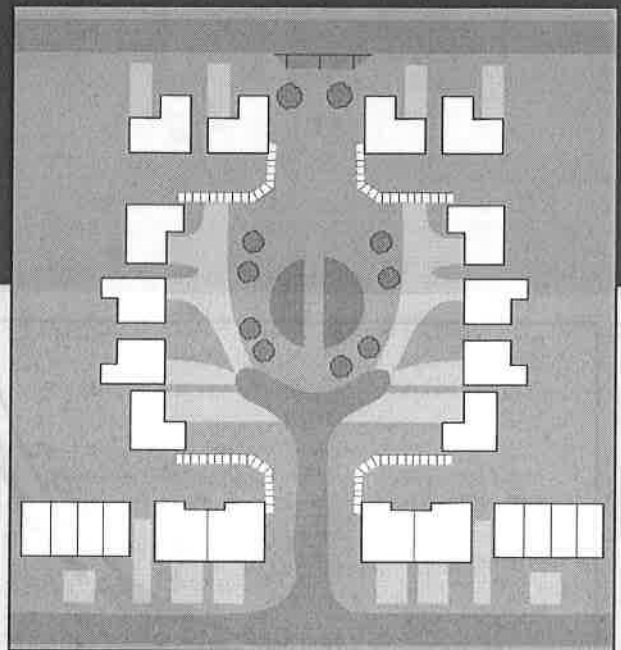
## 2.1 Site Characteristics and Constraints

The essential uniqueness of any new housing development will emerge in the first place from its relationship to and retention of its immediate context, both the physical and the visual elements. This immediate quality may also be critical to the marketing of the development where real heritage and amenity are considered more desirable than imported versions.

**Physical:** elements will include existing landform and landscape, especially tree groupings. Water courses, streams, ponds or canals have in the past been considered a source of danger or problem, covered over or fenced off. Today they are accepted as a potential amenity to any development and should be acknowledged as such from the start. These water elements will set the framework for the addition of sustainable drainage (SUDS) ponds at the site planning stage and be the key to the location of public open space and biodiversity provision. Man-made structures on the site should also be appraised for retention and restoration as they can assist in giving a new development a unique identity, e.g. stone walls, industrial archaeology, vernacular farm buildings.

**Visual:** Whilst clearly, by its very nature, building development will reduce the extent of openness and views into and out of the site, especially attractive spaces and vistas should be identified at the outset for protection and enhancement. The visual character of structures and buildings within and adjacent to the site should be noted for the new architectural character to relate to. Adjacent street forms should be continued into the new site to create natural visual linkages.

**Utilities and ground conditions:** A utility wayleave across the site which cannot be moved should be identified to ensure that it will lie within new public areas, avoiding private gardens and backland areas. Similarly poor ground conditions, whether for reasons of mineral subsidence or water logging, should create open space features e.g. village greens and community wetlands in any new development.



**Figure 2 : STREET AND COURTYARD SPACE**

Contained and symmetrical space, unified frontage design, surveillance, integrated and discreet road geometry



**Figure 3 : HOUSING AROUND PICTURESQUE OPEN SPACE**



## 2.2 Public Space Framework

It is important that the design of a housing layout should be based around a unified framework of public open spaces linked by streets or footpaths with main entrances on the outside. This structure should result from a linkage of the entrance points across the site following existing routes where possible. The most important open spaces are best located at junctions of such routes. This public space framework will also include the retained elements identified in the previous section i.e. landform and landscape, water courses, wayleaves etc. It is important that the principles of good public space should apply equally to street spaces as to designated "greens" or landscaped areas of civic or special community status.

**New Entrances:** Whilst access points into any site should be located to continue existing public routes from shops, bus stops and other local facilities, some new entrance locations may be required. The actual location of an entry along a frontage is very important. Where junction standards allow, an entrance should avoid being located at either end of a street frontage i.e. immediately adjacent to the adjoining site, because of the following disadvantages:

- (i) a proper gateway design is not achieved, denying the benefits of natural surveillance and legibility.
- (ii) the exposed side boundary to the site is more difficult to soften visually, or maintain in the future and will create an unattractive outlook for the housing.

In the case of a site with a countryside edge access points should be provided at appropriate points (see para 2.3 **Countryside Edges**).

**Routes:** The Council's road guidelines identify a road hierarchy consisting of main distributor roads, general and minor access loops and cul-de-sacs which this Guidance Note requires to be limited in length i.e. "short".

Internal linkages should be as direct as possible, not tortuous or circuitous. There should be no barriers between adjacent public spaces.

However a gentle curving of the roadway may be allowed to give a continuous closure of space and create visual interest.

As a general rule a new footpath or cycleway must not be located to the rear of the houses and should instead form a component part of the roadway hierarchy referred to. This should ensure best natural surveillance and use of public space, discourage nuisance activities and avoid the poor appearance and maintenance problems associated with exposed rear screen fencing.

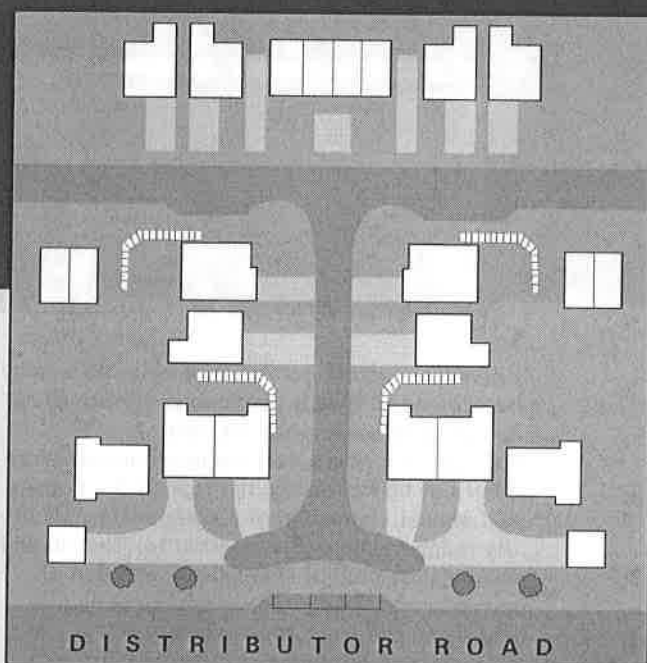
Clearly there will be instances where such "remote" footpaths or cycleways already exist along the perimeter of a site. Advice on the treatment of such in terms of access and frontage is provided under para 2.3 **Built Edges**.

**Public Open Space:** All new housing proposals over 10 units should consider the provision of amenity public open space within the development, located to take account of existing site characteristics e.g. vista opportunities, existing landscaped areas of quality, water courses and utility wayleaves and proposed junctions of throughroutes.

The well appointed open space area, taking the form of a "village green", accessible from an enclosing housing frontage, is generally preferred to the "gap site" set between buildings on a street frontage. This is to ensure that pressure to develop the site for building development in the future is minimised. Such a principle should apply even where purpose designed open space activity areas or facilities are planned, the area being sufficiently large to absorb high fences etc. within a landscape framework.

Where possible, roadways should not be continuous around public open spaces to allow at least one point of car free access from the housing opposite. The design of any planting should avoid creating screened areas which might conceal criminal or anti-social behaviour.

Dimensional standards for passive and active open space are set out in para. 2.7. **Other Planning Considerations.**



**Figure 4 : DISTRIBUTOR ROAD FRONTAGE OPTION**

6 house "terrace" served from rear access  
cul-de-sac and regulation 2 house driveways



**Figure 5 : UNSATISFACTORY MAIN ROAD FRONTAGE**

Screen fencing and bland rear elevations

## 2.3 Built Edges

**General Edges:** The edges of all public streets and landscaped amenity areas should preferably be defined by continuous building frontages with main door entrances. This will improve the appearance, surveillance and use of public space as well as avoiding the problem relating to exposed fencing, referred to above.

Narrowing the gap between the street edges will provide an interesting visual contrast with the more open greens or squares.

**Corners:** these should preferably be closed off by building to create visual focal points and enhanced surveillance at the junction. Special corner house units will be encouraged with formal front elevations onto both streets, thus ensuring a minimum of exposed high garden enclosure.

**Distributor Road Edges:** A formal frontage of typical house and garage units is more difficult to achieve alongside a distributor road because road standards do not permit individual direct vehicular access from it. This means that a standard housing development will tend to turn its back to the road behind a stockade fence. The following are options for achieving an acceptable frontage configuration on a distributor road:

- a parallel secondary road giving direct vehicle access to the housing frontage.
- parallel driveways served off both sides of a cul-de-sac turning head connecting back to the internal loop road, in the normal way capable of providing a 6-house frontage, but less visually intrusive and wasteful of space than a full width secondary road.
- flatted development with front doors onto the roadway and parking concealed to the rear.

Where front gardens line a distributor road, the heel of the pavement should be defined by a low robust enclosure (e.g. a plinth and/or a railing), preferably reinforced by avenue planting.

This convention should be applied to a flatted frontage in any location except where the urban design context requires the building itself to be on the heel of the pavement.