

- 6.1** Transport plays a significant part in our lives, and is integral to a wide range of national policy objectives in the areas of the environment, health, economic development, social inclusion and community safety. The importance of integrating transport with land use planning, as part of the drive to promote more sustainable transport, is emphasised in the SPP, the supporting PAN 75, and the Council's own Local Transport Strategy 2006-2009.
- 6.2** The Falkirk Council area benefits from good connections into the rail and trunk road network, and this is one of the potential drivers for growth in the area. However, current problems posed by increasing traffic and congestion are likely to be exacerbated by growth unless steps are taken to curb car use and provide attractive alternatives. In this context, the role of the Local Plan is to support sustainable travel through locating development where the number and length of car trips can be minimised, to identify appropriate infrastructure and traffic management schemes, and provide policies on how new development must address transport requirements.
- 6.3** As well as transport, this chapter considers a range of other forms of infrastructure such as drainage, energy, telecommunications and waste, which are essential to the growth and prosperity of the area, but whose impact on the environment and the area's natural resources must be carefully managed.

PROMOTING SUSTAINABLE TRANSPORT CHOICES

- 6.4** Sustainable travel means making choices that reflect the wider impacts of our modes of travel. Government guidance has established a hierarchy of transport modes whereby walking, cycling and public transport should be prioritised. Encouraging sustainable travel is largely dependent on making it easier for travellers to make this choice. This is done both through the provision of infrastructure, such as footways, cycle lanes or bus priority measures and through education and information. Planning can ensure that such infrastructure is built into new development so as to change the balance of uses in favour of more appropriate modes of travel.

Walking and Cycling

- 6.5 The role of the pedestrian network is fundamental to our ability to travel. Its design, maintenance and links to other modes all play a central role in its effectiveness. If any of these are of poor quality, or are overlooked, our ability to travel on foot is reduced. We may be able to choose another mode of travel to complete the journey or we may be unable to make that journey at all.
- 6.6 Cycling can fulfil a role for a variety of journeys. It is possible, for instance, to commute to work, travel to school or travel to rail or bus stations as part of longer journeys. Cycling can also serve a distinct leisure role, which has further issues for infrastructure. Like walking, cycling can be used for short journeys. It also has practical use in journeys over medium distances.
- 6.7 The Local Plan can promote the development and use of pedestrian and cycle networks through identifying specific routes and setting requirements for pedestrian and cycle provision within new development.
- 6.8 The preparation of the Council's Core Paths Plan, as required by the Land Reform Act and referred to in Structure Plan Policy TRANS.1, has identified an integrated system of routes, both urban and rural, recreational and functional.
- 6.9
- 6.10 It is crucial that a high quality of pedestrian and cycle infrastructure is built into new development, as set out in Policy ST2. Routes must allow journeys to be completed in reasonable safety and as conveniently as possible. Routes should be direct, along established or likely desire lines and built to a quality sufficient to encourage their use. Developers will be required to demonstrate how any proposed development integrates with existing pedestrian and cycle networks.

ST1 CORE PATH NETWORK

The Council will safeguard and promote the development of the core path network. Where appropriate, developer contributions to the implementation of the network will be sought.

6.11

ST2 PEDESTRIAN TRAVEL AND CYCLING

New development will be required to provide an appropriate standard of pedestrian and cycle infrastructure. This will consist of on- and, where appropriate, off-site measures that allow pedestrian and cycle movements within and beyond developments, and ensure that those wishing to use pedestrian/cycle networks are not dissuaded from doing so through the absence of suitable infrastructure.

- (1) All pedestrian and cycle routes will comply with the standards set out in the Design Guidelines and Construction Standards for Roads in the Falkirk Council Area. Where appropriate, infrastructure supporting the two modes will be combined.
- (2) Pedestrian and cycle facilities in new developments should offer appropriate links to existing networks in surrounding areas, to other amenities and community facilities and support objectives in agreed Travel Plans where relevant.
- (3) Pedestrian and cycle movement within developments should be allowed for via direct routes without barriers.
- (4) Pedestrian and cycle links should be provided that offer connections to public transport connections in the surrounding area. For guidance, in new developments, no pedestrian should have to walk more than 400m to the nearest bus stop.
- (5) Where practical, no pedestrian route should be obstructed by features that render it unsuitable for the mobility impaired.
- (6) The surfacing, lighting, design, maintenance and location of pedestrian and cycle routes should promote their safe use. Particular emphasis should be given to the provision of suitable lighting, and the provision of suitably designed and located crossing facilities where routes meet the public road network.
- (7) Pedestrian and cycle routes for school journeys should be provided in residential development where a need to do so is identified. In all cases, the aim should be to provide an overall walking/cycling distance between home and school of less than 2 miles wherever practical, or less than 1 mile for pedestrian journeys to primary school.
- (8) Cycle parking should be provided in accordance with the standards set out in Falkirk Council's Design Guidelines and Construction Standards for Roads in the Falkirk Council Area.

Bus Travel

- 6.12** Buses represent a vital element in the sustainable transport network. They offer mid to long distance transport that complements the role of walking and cycling. Buses are flexible and adaptive, in that they are capable of utilising much, though not all, of the public road network. They require relatively little specialist infrastructure, particularly when compared to the requirements of rail. Much of the existing bus network is operated commercially. Other services are provided under subsidy from the Council. The latter are most often provided for social needs or in locations or at times where commercially operated bus services are not feasible.
- 6.13** Bus services can play an important role in supporting the economic activity within town centres. A permanent park and ride facility is now operating at Wester Carmuir on the Glasgow Road / Camelon corridor. In future years the role of park and ride facilities of this type will become more important as town centre car parking resources become saturated. Bus links to economic, employment and rail centres will also be important in contributing to the delivery of sustainable travel.
- 6.14** Specific proposals and opportunities for improving bus infrastructure within communities are set out within Settlement Statements, but are summarised in Table 6.1.
- 6.15** Facilitating access to bus services within new development will be increasingly important, and requirements are set down in Policy ST3. This will include physical infrastructure such as bus stops, bays and shelters, but for larger developments may also include contributions to support services, where needed to meet the targets identified in travel plans.

6.16

ST3 BUS TRAVEL AND NEW DEVELOPMENT

New development will be required to provide appropriate levels of bus infrastructure or suitable links to existing bus stops, services or stations, as identified within travel plans. This provision will be delivered through direct funding of infrastructure and/ or the provision of sums to support the delivery of bus services serving the development.

- (1) Bus infrastructure should be provided at locations and to phasing agreed with Falkirk Council, and designed in accordance with the standards set out in Falkirk Council's Design Guidelines and Construction Standards for Roads in the Falkirk Council Area.
- (2) Bus facilities within new developments should offer appropriate links to existing pedestrian or cycle networks in surrounding areas. Alternatively, new development should be linked to existing bus infrastructure via pedestrian or cycle links as described in Policy ST2.
- (3) New development should incorporate routes suitable for the provision of bus services. Where bus services already exist, new developments should not be designed or constructed in ways that impede the routing of these services.
- (4) New developments may require bus links to rail stations or other public transport infrastructure.

Rail Travel

- 6.17** The rail network provides mid to long distance public transport connections. The Falkirk area is well served with stations, having 5 within its boundaries. These provide services to and from Edinburgh/ Glasgow and the line north through Stirling and Perth. Grahamston Station has the Inverness to London Sleeper connection and other longer distance services to London and the north.
- 6.18** Rail travel to and from the Council area has been increasing in recent years, driven in part by service increases at some stations and in part increasing by traffic congestion and parking problems in the cities. In the 10 years since 1997, annual passenger figures for the Falkirk area increased by some 58%. This increase has benefited many in the community, but brought pressure on parking around the stations. It has also raised issues of train capacity on services used by Falkirk area residents.
- 6.19** Many of these issues lie outwith the responsibility or resources of the Council. They are a matter for the Scottish and UK wide bodies dedicated to rail operation. However, there are a number of ways in which the Council and its partners can work to improve rail services. Specific proposals and opportunities for improving, and safeguarding sites for rail infrastructure are set out within Settlement Statements, but are summarised in Table 6.1.

6.20

ST4 RAIL TRAVEL

New and improved rail infrastructure will be delivered where this supports the use of rail for mid to long distance commuter journeys and meets the cost/ benefit criteria for such investments. Falkirk Council will work where appropriate with other local authorities, rail companies, developers, and Transport Scotland in delivering rail projects.

- (1) Sites for possible new stations will be safeguarded at Bonnybridge, Grangemouth and Laurieston.
- (2) Pedestrian, cycle and bus links will be provided to existing and new stations where appropriate. Bus stops, cycle parking and disabled access at stations will be provided as required.
- (3) New parking will be provided to support the strategic role of existing and new stations, with priority given to new provision at Falkirk High. Where possible, the provision of new off street parking facilities will be associated with traffic management and other measures to reduce uncontrolled on-street parking.

6.21 Table 6.1 Sustainable Transport Proposals and Opportunities

Proposal/Opportunity	Local Plan Ref.
Pedestrian/Cycle Travel	
Core Path Network	Routes shown on Core paths Plan. Other priorities for route development shown on Proposals Map.
Bus Travel	
Bo'ness Bus Station Upgrading	TR.BNS02
Falkirk Bus Station Upgrading/Redevelopment	TR.FAL03
Westfield Park & Ride	TR.FAL04
B902 Carron Road/Grahams Road Corridor	TR.FAL01
A803 Glasgow Road Bus Lanes	TR.FAL05
A803 Callendar Road Bus Lanes	TR.FAL06
Coneypark, Banknock Bus Turning Area	TR.B&B02
Rail Station Safeguarding/Feasibility	
Bonnybridge	TR.B&B01
Grangemouth	TR.GRA02
Laurieston	TR.POL04
Rail Station Parking	
Falkirk High	TR.FAL02

Travel to School

6.22 Travel to school is an important component of weekday journey totals. It has been estimated that in some areas nationally, over 20% of vehicles making journeys during the morning peak are involved in transporting children to school. These journeys impact on overall congestion levels, while creating potential hazards in the areas around schools. Many vehicular journeys to school take place over relatively short distances, less than 1 mile, well within the range of walking or cycling.

6.23 School travel is therefore an area in which the development of sustainable travel can make an important contribution to overall journey patterns. Immediate improvements can be achieved if car use is reduced in favour of walking, cycling or other modes. The hierarchy of access modes will form the basis of school travel plans, safer routes to school and other school travel initiatives.

6.24

ST5 MANAGING TRAVEL TO SCHOOL

Falkirk Council will work with communities and other authorities in identifying opportunities to promote travel to school by sustainable means. School Travel Plans, Safer Routes to School, traffic management and road safety measures will be used where appropriate to deliver solutions tailored to the circumstances of the individual school.

- (1) Pedestrian, cycle and public transport routes will be promoted that facilitate travel by these modes to school. Developers will be expected to demonstrate that developments include adequate footway, cycle and public transport links to nearby schools. Where necessary, developers will be expected to contribute towards the provision of links to schools.
- (2) New schools should be located where they are most accessible to the community who will be served by them. Direct access should be provided using walking and cycling routes.
- (3) Where development leads to increased walking or cycling to existing schools, developers may be required to contribute to the provision of infrastructure at the school e.g. new cycle lockers.

6.25

Promoting Sustainable Transport Choices - Actions and Indicators

Actions:

- Undertake feasibility studies and implement pedestrian, cycle and public transport infrastructure schemes
- Continue programme of school travel plans/safer routes to schools

Indicators:

- Modal share for trips made by Council residents
- Total length of new pedestrian/cycle routes
- Usage of selected pedestrian/cycle routes
- Number of schools covered by school travel plans

DEVELOPING A SAFE AND EFFICIENT TRANSPORT NETWORK

Improving the Road Network

- 6.26** The Falkirk Council area is located at a hub of the central Scotland motorway network. The M9/M876 routes offer good road access to Glasgow, Edinburgh, Fife and the north. The motorways are relatively uncongested, although difficulties are encountered, particularly at local pressure points. Grangemouth Freight Hub is listed as one of the national developments in National Planning Framework 2. The development will involve improvements in port, road and rail infrastructure to support the role of Grangemouth as Scotland's largest container port and main freight distribution centre. Grangemouth road and rail access upgrades have been identified by Transport Scotland's Strategic Transport Projects Review (2008) as interventions that reflect the Scottish Government's aspirations for better connections to the rest of the UK.
- 6.27** Further afield, the operation of the central Scotland motorway network has implications for Falkirk. The A80 Stepps to Haggs is an important route, linking Falkirk and its surrounding communities to Glasgow and the south. Congestion on this corridor has long been an issue for businesses and commuters.
- 6.28** A network of strategic roads, including the A9, A88, A803, A905 and A801, augments the motorway network. These routes carry significant volumes of traffic, and provide vital arteries for commerce in and around Falkirk. Effective management of these routes is important in promoting the Falkirk area as a centre for business and jobs.
- 6.29** Where practical, improvements will be made to the road network that reduce congestion or promote greater safety for travellers. In particular, through the Structure Plan process, attention has been focussed on the impact of the Strategic Development Opportunities and Strategic Initiatives for Residential Led Regeneration on the trunk road network. Junction improvements have been identified which are capable of mitigating these impacts at least for the period of the Local Plan. Contributions will be sought from developers and other agencies where necessary. Improvements to the road network will be balanced against the need to promote sustainable transport. As such they will be considered in association with other measures that will meet the wider objectives. Specific proposals and opportunities are identified within the relevant Settlement Statements and summarised in Table 6.2. The trunk and strategic road schemes will bring particular benefits and are supported by the Council. Further work is needed to address longer term capacity problems at M9 Junction 6. Transport Scotland will work with Falkirk Council and other key partners to carry out further studies that develop the interventions identified in the Strategic Transport Projects Review and which will form a key input to realising the National Development aspirations for Grangemouth Freight Hub set out in NPF2
- 6.30**

ST6 IMPROVING THE ROAD NETWORK

Falkirk Council will work with other authorities, Transport Scotland and developers in delivering necessary improvements to the road network. Any improvements identified will be taken forward as part of packages of measures that support sustainable transport.

6.31 Table 6.2 Road Improvement Proposals and Opportunities

Proposal/Opportunity	Local Plan Ref.
Trunk Road Improvements	
A80 Stepps to Haggs Upgrading	TR.RUR01
M876/A9 Glenbervie Interchange	TR.L&S01
M9 Champany Slips	TR.BNS01
M9 Junction 6/Glensburgh Road Upgrading	TR.GRA05
M9 Junction 5 Upgrading	TR.GRA07
Strategic Road Improvements	
A801 Avon Gorge Bridge and Approach Roads	TR.RUR02
Local Road Improvements	
A803/Salmon Inn Road Improvement	TR.POL01
A9/Grandsable Road Junction Improvement	TR.POL02
A9 Hollings Realignment	TR.RUR03
A883 Headswood Realignment	TR.RUR04
Development Led/Funded Improvements	
A803 Upgrading at Gilston, Polmont	TR.POL03
A904 Grangemouth Town Centre Bypass	TR.GRA01
Denny Eastern Access Road	TR.DEN01
Falkirk Town Centre - Upgrade to Gyratory Systems	TR.FAL07

Transport Impacts of New Development

6.32 New developments impact on the local and strategic road network. Congestion, safety and access impacts can be created through the introduction of new journeys onto the transport network. Air quality can also be adversely affected, and increased emissions contribute to climate change. As part of the development management process, Falkirk Council will require the submission of transport assessments, including travel plans, safety audits and other appropriate studies to identify likely impacts on the transport network and the mitigation measures required. Transport assessments will be undertaken in line with the "Guide to Transport Assessment in Scotland", published in August 2005.

6.33 In all cases where a transport assessment is requested, the Council will expect developers to identify and provide appropriate mitigation in line with the hierarchy of modes established in the SPP. In line with the guidance on transport assessments, any analysis completed of the transport impact of a proposed development will assess how individual trips can be addressed to minimise adverse impacts.

6.34 The use of public transport, cycling and walking will be central to the completion of transport assessments. Travel plans will, therefore, be integral to the transport assessment process. Appropriately scoped travel plans will be included in each assessment, and used in support of the mitigation measures proposed to address the issues identified in the assessment. Where requested, developers will also complete safety audits of the proposed mitigation measures.

6.35

ST7 TRANSPORT ASSESSMENTS

- (1) Falkirk Council will require transport assessments of developments where the impact of that development on the transport network is considered likely to require mitigation. In all cases, this mitigation.
- (2) Transport assessments will include travel plans and, where necessary, safety audits of proposed mitigation measures and assessment of the likely impacts on air quality as a result of proposed development.
- (3) Developers will agree the scope of the assessment with Falkirk Council, then undertake the assessment in accordance with the scoping. In all cases, the assessment will focus on the hierarchy of transport modes, favouring the use of walking, cycling and public transport over unnecessary use of the car.
- (4) The Council will only grant planning permission where it is satisfied that the transport assessment and travel plan has been appropriately scoped, the network impacts properly defined and suitable mitigation measures identified.

Transport Safety

6.36 Safety is a vital aspect of the development and use of transport systems. Falkirk Council works with other Local Authorities, the Roads Accident Investigation Unit and Central Scotland Police, amongst others, in promoting transport safety.

6.37 The Council will continue to bring forward schemes that address particular safety issues or promote a wider safety for the travelling public. These include works at sites or on routes where significant patterns of accidents are identified. Such works can include redesign, new signing or surfacing, or the introduction of traffic calming. Other safety measures may arise from the provision of safer routes to school, walking or cycling links to employment or residential areas, or safety audits for new or revised designs.

6.38

ST8 TRANSPORT SAFETY

- 1) Falkirk Council will require safety audits of new schemes where appropriate. These will be undertaken in line with the Institute of Highway and Transportation's "Guidelines for the Safety Audit of Highways".
- 2) Developers will provide or contribute to the provision of safety based infrastructure where this is agreed through the scoping for Transport Assessments, Freight Partnerships or other appropriate processes.

Freight Transport

- 6.39** Freight is fundamental to the performance of the economy through the movement of goods, materials and products. Deliveries and collections are an integral part of modern life and must be accommodated within the transport network. This accommodation must be balanced, however, with measures to minimise adverse impacts of freight movements, particularly where large or heavy goods vehicles are involved. These vehicles can impact on surrounding communities, particularly in the confined spaces of town centres or on the main access routes to freight dependant sites.
- 6.40** The Falkirk Council area benefits from generally good transport connections to surrounding areas. This is recognised in the identification of the Grangemouth Freight Hub as a national development within the National Planning Framework. Road and rail links offer routes for freight and the area has become a focus for distribution centres, haulage companies and rail freight centres. The role played by Grangemouth Docks, the M9 and the railway network has been significant in this development. There may also be a limited role for the lowland canal network in supporting freight movements. Opportunities to develop such a role will be explored where appropriate.
- 6.41** Planning can reduce the impact of freight by allocating freight intensive uses to areas where adverse impacts will be reduced. Sustainable transport considerations can further act to reduce remaining adverse impacts.

6.42

ST9 MANAGING FREIGHT TRANSPORT

- (1) Freight intensive development will be directed to locations that can be accessed without significant impact on local communities, or on the local and strategic road network. Areas with rail or sea access, notably Grangemouth Docks and the connecting branchline, will be particularly favoured.**
- (2) Development which will encourage the transfer of freight from road to rail, including the development of freight handling facilities, will be supported subject to other Local Plan policies.**
- (3) Signage strategies, junction improvements and network upgrades will be considered where these contribute to improved access for freight.**
- (4) The Council will work where appropriate with freight companies, developers and others to bring forward freight quality partnerships.**
- (5) The Council will work with other agencies and developers to explore freight use of the lowland canal network where appropriate.**

Parking

- 6.43** Parking is a central element of current transport provision. It supports the use of cars for journeys and as such can be used as an effective management tool in the control of car use.
- 6.44** Until recently, Falkirk Council's guidelines provided a figure for the minimum level of parking provision required for specific types of development. The Scottish Government has now published maximum parking standards for certain types of development in the SPP. Falkirk Council will apply these new standards as appropriate in the transport assessment process. Minimum standards will still be relevant. In some instances, where this minimum standard cannot be met, it may be appropriate to increase the resources allocated to the travel plan by way of compensation.
- 6.45** The most pressing parking capacity problems occur in Falkirk Town Centre. Total parking provision in the town centre is in the order of 6,500 spaces. It is expected that changing patterns of use will offset some of these capacity problems, but it is clear that a new wider approach to managing town centre access must be adopted.
- 6.46** Further provision of town centre car parking will place additional pressure on the main access routes to the town centre. It is proposed, therefore, to operate a presumption against new public parking in the town centre, and to promote park and ride facilities where these can act to offset travel demand. A park & ride facility was opened at Wester Carmuirns in 2003 and a further site identified at Westfield. The B902 corridor from the north into the town centre is a further candidate for park & ride provision, although no site has yet been identified. The use of parking regulations and charging regimes will allow further management of parking in the longer term.
- 6.47** Equally, existing town centre parking provision must be maintained. It is clear that different car parks serve different roles within the town centre. Any proposed loss of car parking must be considered in light of the role the car park serves, and the likely impacts that the loss of spaces would have on the town centre.

6.48

ST10 PARKING

The Council will manage parking provision as an integral part of wider transport planning policy to ensure that road traffic reduction, public transport, walking, cycling and safety objectives are met.

- (1) There will be a presumption against significant additional public parking in Falkirk Town Centre.
- (2) There will be a presumption against the removal of existing parking provision in Falkirk Town Centre where this would adversely affect the vitality and viability of the centre.
- (3) Park and ride facilities will be promoted at Westfield, Falkirk. The feasibility of providing facilities on the B902 Stenhousemuir-Falkirk corridor will be investigated.
- (4) Parking in District and Local Centres will be managed to promote sustainable travel and the role of the centres.
- (5) The maximum parking standards set out in the SPP will be applied where relevant, in tandem with the Council's minimum standards. Where the minimum standards cannot be met, then enhanced travel plan resources may be required in compensation.

6.49

Promoting Sustainable Transport Choices - Actions and Indicators

Actions

- Require developers to undertake transport assessments, included travel plans, where appropriate.
- Deliver infrastructure improvements and safety schemes where safety/capacity problems are identified.
- Monitor and control parking in town centres.

Indicators

- Road casualties.
- Number of safety schemes introduced.
- Parking rates and numbers in town centres.
- Total numbers and use of park and ride spaces.

PROMOTING SUSTAINABLE DRAINAGE PRACTICE AND REDUCING FLOOD RISK

- 6.50** New development will impact on the water environment in a number of ways. Drainage of land is required to make it suitable for development, to protect existing and proposed development from the effects of flooding, to deal with surface water run off from hard surfaces, and to take away and treat foul sewage. Falkirk Council, SEPA and Scottish Water have statutory responsibilities for particular aspects of the water environment. It is, however, the responsibility of designers of new development to minimise the impact of new development on the water environment and demonstrate how this has been achieved and integrated with the principles of sustainable design.
- 6.51** New development reduces the surface permeability by replacing vegetated ground with roofs and paved areas. Traditionally surface water management has tended to adopt a “hard” engineering approach. However, there is now a general requirement under the Water Environment (Controlled Activities) (Scotland) Regulations 2005 for Sustainable Urban Drainage Systems (SUDS) to be used for all surface water run-off for new developments discharging to the water environment. The basic principles behind SUDS is that the design solution should, wherever possible, mimic the natural water cycle through such measures as:
- Managing surface water run off on site as near to source as possible;
 - Slowing down run off;
 - Treating it naturally; and
 - Releasing good quality surface water to watercourses or groundwater.
- 6.52** Designers need to be aware of the requirements of Scottish Water, who have responsibility for the future maintenance of public SUDS which have been constructed to an appropriate standard under ‘Sewers for Scotland’ 2nd Edition. They should also be aware that measures that control water quality, and thus satisfy SEPA’s concerns, will not necessarily be effective flood prevention measures. This illustrates the importance of designers following current published best practice, including the CIRIA C697 SUDS manual, and considering surface water management issues at the early stages of development process. SUDS should also be integrated positively with strategies for open space provision and biodiversity promotion within development sites. Further guidance is contained within the Council’s SPG Note Flooding and Sustainable Urban Drainage Systems.

6.53

ST11 SUSTAINABLE URBAN DRAINAGE

Surface water management for new development should comply with current best practice on sustainable urban drainage systems, including opportunities for promoting biodiversity through habitat creation. A drainage strategy, as set out in PAN 61, should be submitted with planning applications and must include flood attenuation measures, details for the long term maintenance of any necessary features and a risk assessment.

- 6.54** In hydrological terms Falkirk Council is dominated by the Forth Estuary and the two catchments of the River Avon and Carron that flow into it. Falkirk Council area therefore faces issues of both watercourse and coastal flooding which have been identified in greater detail following the publication of the Indicative Flood Map by SEPA. Flooding occurs when the volume of water exceeds the capacity of the water channel. It is a natural phenomenon and cannot be entirely prevented. Whilst the risk can often be managed through appropriate mitigation, in some circumstances sustainable flood management or mitigation measures may not be achievable.
- 6.55** The Council maintains maps of all watercourses in its area and collects data from a variety of sources on both actual and predicted flooding events. In addition to this, the Council uses SEPA’s Indicative Flood Map as a strategic tool to identify land that may be at risk from flooding. This information has been taken into account in allocating land for development. Over the recent past, flooding incidents within Falkirk Council area have been relatively small scale, and have tended to be caused by localised management and maintenance issues. This illustrates the importance of not only avoiding development in areas that will obviously be at risk from flooding, in accordance with the SPP and the Scottish Government’s 4 ‘A’s on flooding, but making sure, for all development, that best practice design advice for surface water management is followed. Where a planning application is likely to raise a flooding issue from all identified sources, applicants will be required to demonstrate that any flood risks can be adequately managed. In carrying out this assessment Falkirk Council will have regard to the risk framework set out in the SPP.

6.56

ST12 FLOODING

In areas where there is significant risk of flooding, there will be a presumption against new development which would be likely to be at risk, would increase the level of risk for existing development or would be likely to require high levels of public expenditure on flood protection works. Applicants will be required to provide information demonstrating that any flood risks can be adequately managed both within and outwith the site.

6.57 Scottish Water is responsible for the provision of water supplies, waste water treatment works and the sewerage network. In the Falkirk Council area, until recently, there were few locations where there have not been constraints to extending the water supply and sewerage infrastructure to accommodate the development set out in the Local Plan.

6.58 However, since April 2006, Scottish Water's Quality and Standards III investment programme for 2006-2014 includes funding to address growth at its water and waste water treatment works to accommodate development. The Council will liaise closely with Scottish Water to secure the necessary investment and careful phasing of development will continue to be needed, augmented in some locations by financial contributions from developers. Falkirk Council will use section 75 agreements, where appropriate, in order to secure equitable contributions where improvements are required to serve more than one site.

6.59 For new development to be sustainable it is important that new infrastructure continues to protect and maintain water quality and the ecological status of watercourses. It is the view of SEPA that a series of private non-adoptable sewage systems is unsustainable. Falkirk Council will therefore not grant planning permission for new development unless publicly adopted sewerage infrastructure is provided or that SEPA is satisfied that other adequate arrangements are in place.

6.60

ST12A SEWERAGE INFRASTRUCTURE

New development will only be permitted if necessary sewerage infrastructure is adopted by Scottish Water or alternative maintenance arrangements are acceptable to SEPA.

6.61

Reducing Flood Risk and the Impact of Drainage - Actions and Indicators

Actions

- Require developers to undertake flood risk assessments and submit a drainage strategy where appropriate
- Monitor flooding events

Indicators

- River water quality
- Number of flooding events

MINIMISING THE IMPACT OF INFRASTRUCTURE

Telecommunications Development

- 6.62** The SPP sets out the Government's policy of facilitating the growth of telecommunications infrastructure, whilst ensuring that the environmental impact of apparatus is minimised through greater attention to siting and design. In 2001, in response to concerns about such impacts, changes in legislation were introduced which extended planning controls over telecommunications development. PAN 62 was also published, providing advice on the nature of the industry and good practice in the siting and design of facilities.
- 6.63** Policy ST 13 requires operators to demonstrate that options have been explored to select the optimum site in environmental terms, whilst still meeting technical requirements, and that the full range of techniques have been utilised to minimise visual impact.
- 6.64** Health issues associated with mobile phone base masts and transmitters were assessed by the Independent Expert Group on Mobile Phones (IEGMP) in 2000. The resulting Stewart Report recommended a precautionary approach, which has been accepted by the Government. In line with this, Policy ST13 seeks to ensure that apparatus is not permitted on or adjacent to schools where the 'beam of greatest intensity' would fall on any part of the school's grounds. All telecommunications planning applications must be accompanied by a declaration that the equipment and installation is designed to be in full compliance with the appropriate guidelines for public exposure to radio frequency radiation.

6.65

ST13 TELECOMMUNICATIONS DEVELOPMENT

- (1) When proposing installation and siting of any new telecommunications equipment, operators will require to provide evidence that consideration has been given to siting and design options and that the site selected will make less impact on the community or the environment than any other available sites that are technically suitable for transmissions, including existing sites already in operation or holding permissions.
- (2) Operators will be required to minimise the visual impact of proposed installations by minimising the contrast between such equipment and its surroundings. This can be achieved through the installation of small scale equipment, concealing or disguising equipment, mast sharing, site sharing or installing on existing buildings or other structures where appropriate.
- (3) The siting of equipment on listed buildings or in conservation areas will not be permitted unless it can be demonstrated that all other options have been exhausted; and
- (4) Applications to site telecommunications installations on school properties or adjacent to schools will not be permitted where the zone where the concentration of radio waves is higher than elsewhere ('the beam of greatest intensity' as referred to by the IEGMP) would fall on any part of the school's grounds. In such cases the term "school" will include secondary, primary, nursery schools, nurseries and schools for children with special educational needs.

Pipelines and Overhead Power Lines

6.66 Pipelines can impose constraints on the future development of land in their vicinity by virtue of operational wayleaves or, depending on the substances conveyed, health and safety considerations. To minimise such effects, Policy ST14 directs that new pipelines should, where possible, follow the existing network of pipeline corridors indicated on the Proposals Map. Where this is not practical, efforts should be made to avoid areas of ecological and archaeological importance.

6.67 ST14 PIPELINES

The preferred location for new pipelines will be in the existing Pipeline Consultation Zones shown on the Proposals Map. The routing of all new pipelines should minimise the impact on protected nature conservation areas, important areas of woodland and Scheduled Ancient Monuments, having regard to policies EQ24, EQ25 and EQ16.

6.68 Overhead power lines can have major impacts on the landscape, agricultural land, woodland and nearby residents, both individually and cumulatively. Policy ST15 indicates the range of relevant considerations

6.69 ST15 OVERHEAD POWER LINES

In considering proposals for overhead power lines the Council will take into account the following:

- (1) The effect the proposed route and its wayleave may have in landscape terms, with particular regard to natural features, the skyline, open areas of flat land and historic landscape features such as the Antonine Wall;
- (2) The impact on prime agricultural land, features of ecological value, with particular reference to habitats and species protected under Policy EQ24, and woodland areas where felling is required along the proposed route and its wayleave;
- (3) The visual impact and noise in relation to residential properties; and
- (4) The cumulative visual impact of the proposed line considered together with any existing lines in the vicinity.

6.74 Minimising the Impact of Infrastructure - Actions and Indicators

Actions

- None

Indicators

- None

Airport Safeguarding Areas

6.70 In order to ensure the safe functioning of airports, aircraft and their flight paths, airport safeguarding areas have been established. Within these, development which could attract birds, interfere with the safe operation of technical installations, or exceed 90 metres in height may be subject to restrictions. The Council area is affected by the safeguarding area associated with Edinburgh Airport.

6.71 ST16 AIRPORT SAFEGUARDING AREAS

In accordance with the Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Areas)(Scotland) Direction 2003, the Council will refer planning applications to the relevant airport operator subject to the provisions of the official safeguarding map. In the interests of air travel safety, development proposals which compromise the safe flight approach to airports could be subject to restrictions.

Light Pollution

6.72 Light pollution is increasingly recognised as an issue affecting the local environment and quality of life. Impacts can be minimised by a variety of means including the specification of the light source, and controls over the period of usage.

6.73 ST16A LIGHT POLLUTION

All proposals involving the installation or replacement of external lighting should seek to minimise intrusive light spillage and light pollution. The use of locations and lighting equipment that limit light spillage and light pollution together with methods to control the period of usage will be required.

SUPPORTING SUSTAINABLE WASTE MANAGEMENT

6.75 The Scottish Government's National Waste Strategy previously set the statutory and policy framework for waste in Scotland. The general principles set out in the National Waste Strategy are reflected in Structure Plan Policy ENV.11. The Zero Waste Plan now sets objectives for the sustainable management of Scotland's waste. Planning Authorities have a role in furthering these objectives.

6.76 One of the main elements of the National Waste Strategy was to create Area Waste Plans in order to ensure there were local solutions to local waste management problems. Falkirk Council area was within the Forth Valley area, which included Stirling and Clackmannanshire. The Area Waste Plan produced by SEPA in partnership with Falkirk, Stirling and Clackmannanshire Councils was approved by Scottish Ministers in February 2003. Action 12 required that there should be a 10 year landfill capacity for municipal solid waste (MSW), with planning permission across the Forth Valley area. A sub group of the Area Group looked at waste arisings and capacity in the Forth Valley and concluded, that even with targets being met, additional capacity was required beyond 2009. The sub group carried out a preliminary assessment of 26 possible sites across Forth Valley and concluded that safeguarding land for the possible extension of the existing site at Avondale struck the best balance between operational efficiency and environmental impact.

6.77 The existing landfill site at Avondale is the major landfill site serving the Forth Valley area. Planning permission for a major extension was granted in 2008. A site immediately to the east, at Avonbank Farm, has the potential to form a further extension, should further landfill capacity be needed, and as such it is 'safeguarded' as part of Proposal TR.RUR7 subject to satisfactory feasibility and environmental assessment. Approval of reserved matters was also granted in 2008 for a materials recycling facility on adjacent land.

6.78

ST17 LANDFILL

The area at Avondale, Polmont, as shown TR.RUR7 on the Proposals Map, will be safeguarded for the future expansion of the existing landfill facility.

6.79 While landfill continues to be a necessary waste management option the increased emphasis on recycling will require a different range of land and property requirements. For example provision must be made for new waste collection, separation and recycling facilities, transfer stations and composting. The preferred location for large scale versions of these new facilities, as set out in Structure Plan Policy ENV.11, is general industrial areas and existing waste management facilities where it is less likely that there will be conflicts with surrounding uses. Small scale waste management facilities, not operated in such an intensive manner, may be acceptable in a wider range of locations without causing any unacceptable harm in terms of environmental impact or residential amenity. These will be subject to normal business and industrial use policies (Policies EP4 and EP5). Landfill sites are not within the scope of Policy ST18.

6.80

ST18 WASTE MANAGEMENT FACILITIES

Proposals for large scale waste management facilities will be directed to locations within or adjacent to existing waste management facilities and general industrial areas as indicated by Policy EP2. Proposals must:

- (1) Comply with the objectives of the Zero Waste Plan;
- (2) Promote sustainable transport and the proximity principle;
- (3) Consider the need for the facility;
- (4) Demonstrate that the impact on the environment and local communities is acceptable; and
- (5) Comply with other Local Plan policies.

6.81 Action 24 of the Area Waste Plan states that the three planning authorities will encourage new housing and commercial developments to incorporate construction and design features that maximise the use of recycled or reused materials and maximise waste reduction and material separation at source. It is obviously sensible to incorporate measures when developments are being built. For example, consideration should be given to the three bin waste collection system for new housing.

6.82 **ST19 WASTE REDUCTION IN NEW DEVELOPMENT**

Proposals for new housing and commercial developments must demonstrate that they have maximised the use of recycled or reused materials and minimised the generation of waste during construction and that appropriate recycling facilities are accommodated in the completed development.

6.83 **Supporting Sustainable Waste Management - Actions and Indicators**

Actions

- Implement the land use planning elements of the Zero Waste Plan.

Indicators

- Percentage of waste recycled
- Identified land fill capacity

DEVELOPING RENEWABLE ENERGY POTENTIAL

6.84 As part of the government's commitment to reduce greenhouse gas emissions, there is an increasing emphasis on developing renewable energy sources. The Scottish Government's current target is that 80% of Scotland's electricity should come from renewable sources by 2020. The SPP requires planning authorities to 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. The SPP requires the planning system to make positive provision for renewables, whilst taking account of the wider environmental implications of such developments. PAN 45: Renewable Energy Technologies offers useful advice on the particular planning issues characteristic of the various technologies.

6.85 In 2003, the Council undertook a study of renewable energy potential in the Council area, focussing on four particular technologies - wind, small scale hydro, biomass and geothermal. The findings suggest that wind and biomass development may have some potential on a commercial scale, whilst hydro and geothermal may only be exploitable as community projects or on a domestic scale.

6.86 Structure Plan Policy ENV.13 provides a supportive policy context. Against this background, Policy ST20 indicates that the Council will operate a presumption in favour of renewable energy development, having regard to other Local Plan policies. Assessment against environmental policies will be particularly important. Policy ST20 also accepts that renewable energy will generally be an acceptable use in the countryside. For certain technologies, such as wind and hydro, development associated with renewable energy generation requires to be at the source, which will usually be a countryside location. For biomass, fuel processing and associated energy generation is less tied to the source, but in practice is likely to require proximity to the feedstock.

6.87

ST20 RENEWABLE ENERGY DEVELOPMENT

The Council will support development required for the generation of energy from renewable sources, and the utilisation of renewable energy sources as part of new development, subject to assessment of proposals against other Local Plan policies. Renewable energy development will be viewed as an appropriate use in the countryside where there is an operational requirement for a countryside location.

6.88 Of the various technologies, wind energy has perhaps the most potential for commercial exploitation. However, wind turbines raise a number of complex planning and environmental issues, including impacts on landscape and visual amenity, ecology (particularly birds), cultural heritage, countryside recreation, aviation, telecommunications and noise. For example, in one of the key areas of potential, the Slamannan Plateau, the need to protect overwintering Bean Geese is a particular issue. The Council's 2003 Renewable Energy Study mapped this complex range of constraints and concluded that potential was limited to smaller scale facilities of up to 22.5MW. Consequently, it has not been considered appropriate or necessary at this stage to identify specific areas of search, but rather to guide development through the criteria set out in Policy ST21. The implications of the requirement in the SPP to identify broad areas of search for wind farms in excess of 20MW will be reviewed.

6.89

ST21 WIND ENERGY

Wind energy developments will be assessed in relation to the following factors:

- (1) The visual impact of the development, having regard to the scale and number of turbines, existing landscape character, and views from settlements, main transport corridors and other key vantage points. Development will not necessarily be excluded from Green Belts or Areas of Great Landscape Value, but must demonstrate particular sensitivity in terms of scale and design where these designated areas are affected;
- (2) The ecological impact of the development, having regard to Policies EQ24 and EQ25, including impacts on both designated sites and protected species. In particular, developers will be required to demonstrate that there will be no adverse impact on migratory birds;
- (3) The impact on the cultural heritage and the landscape setting of cultural features, having regard to Policies EQ12, EQ14, EQ16, EQ17 and EQ 18;
- (4) The impact on aviation and telecommunications, with particular regard to the safeguarding zones and operational needs associated with Edinburgh, Glasgow and Cumbernauld airports;
- (5) The impact on settlements and residential properties by virtue of noise and 'shadow flicker'; and
- (6) Cumulative impacts in relation to the above factors, where there are existing developments in the area, or the development is one of a number of proposals for an area.

6.89

Supporting Sustainable Waste Management - Actions and Indicators

Actions:

- Review potential for identification of broad areas of search for wind farms

Indicators:

- No of renewable energy developments
- Total output in MW