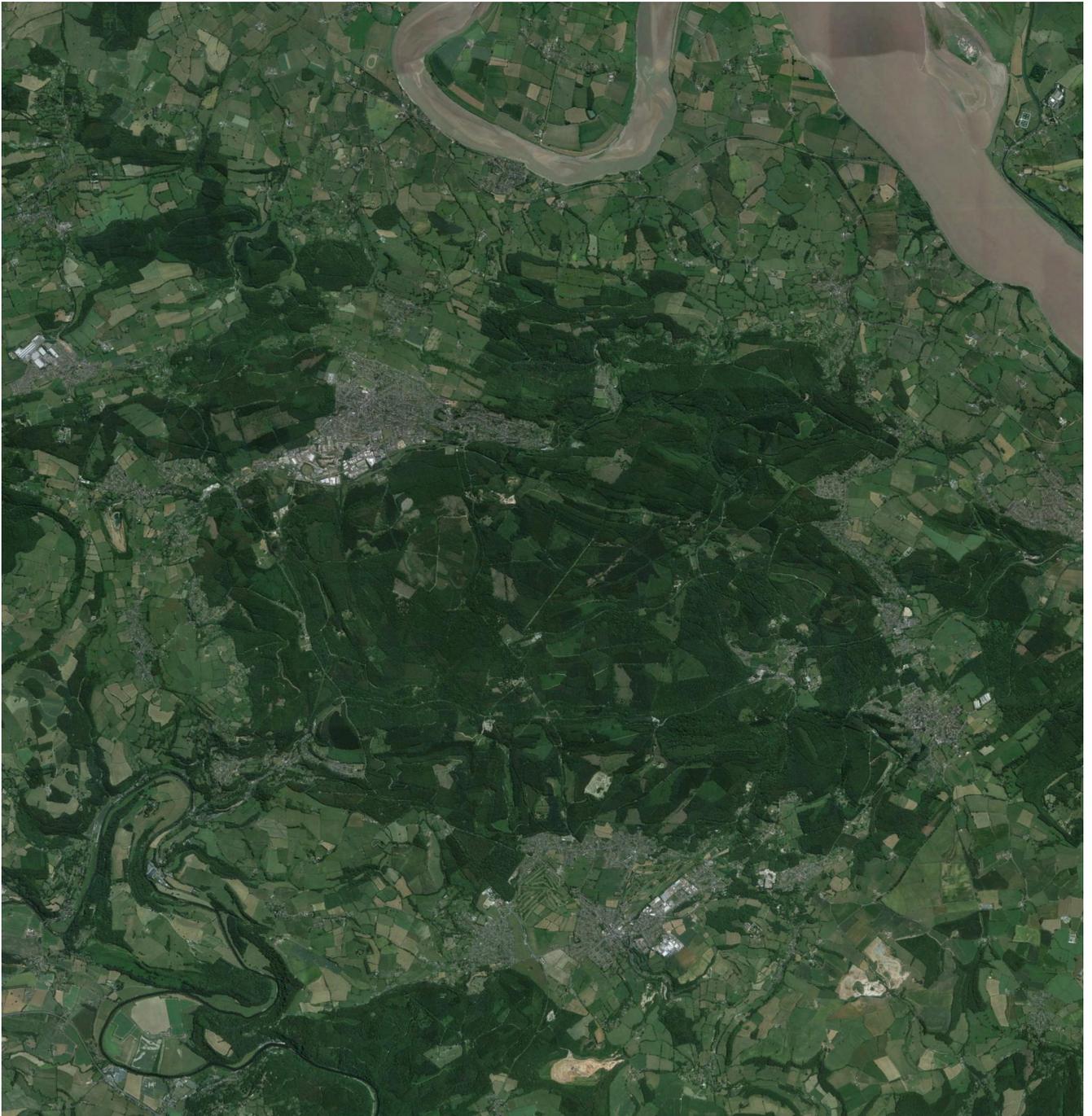


Infrastructure Delivery Plan



Forest of Dean District Council

Infrastructure Delivery Plan

Issue | 16 February 2015

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number Job number

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Map of National Grid Infrastructure

Executive Summary

Ove Arup and Partners was commissioned to produce an Infrastructure Delivery Plan (IDP) for the Forest of Dean (FoD) District Authority area. The purpose of the IDP is to evaluate the transport, utilities, community and green infrastructure and services that will be required to support the levels of housing and employment growth proposed in the draft Allocations Development Plan Document (DPD) now known as the Allocations Plan.

This version of the IDP presents a refresh of the FoD IDP and has been prepared in part on the basis of the information received from various service providers as part of the consultation process, and on the understanding that the FoD was planning for some 5,290 new homes. This was the position of the draft Allocations Plan.

The report has been prepared with the following caveats:

- The cost and specification information received for individual infrastructure schemes has not been audited or tested for accuracy. It has not always been possible to ascertain whether some of the infrastructure projects identified have confirmed or guaranteed funding to deliver them;
- The IDP is a high level assessment of infrastructure need which is based on the information received and benchmark indices. This provides an assessment which is based partly on theoretical costings and estimates and which should be further defined as information becomes available;
- Where we have not received an accurate or satisfactory level of actual project information from infrastructure providers, costs and project specifications have been benchmarked and estimated using industry standards and comparable project information from other parts of the UK and/or previous infrastructure projects designed and implemented by Arup;
- We accept that there may be cases where the cost of delivering infrastructure items (for example, some social and community infrastructure) could be reduced by collocating different services together. No allowance has been made at this stage of the potential to collocate and therefore reduce the cost of delivering individual services in multifunctional buildings. This would require further discussions with service providers;
- Infrastructure delivery planning is a live process and it is expected that the figures in this report will change over time. Further work, including infrastructure modelling and on-going consultation with service providers and developers, will be required to refine an understanding of infrastructure requirements, funding and delivery mechanisms. A detailed project tracker which accompanies this report will need to be maintained and updated over years to come to provide the most up to date and accurate picture of the overall funding and delivery picture for infrastructure across the FoD area as a whole;
- This IDP has been prepared on the basis of 5,290 new homes being built (situation as of September 2014); and
- The project tracker attached to this IDP identifies the projects which have emerged during the preparation of the document. There are likely to be other

projects that may come on stream which have not been identified and for this reason, the project tracker forms a live document which will continue to be updated over the plan period up to 2026.

The next stage of infrastructure planning within the FoD area will involve the FoD District Authority continuing to work collaboratively with key service providers in order to make decisions around prioritisation of projects.

Further work on the Community Infrastructure Levy (CIL) will aid this prioritisation process and the IDP tracker will form an important tool in identifying, developing and prioritising projects across the FoD area.

IDP Development Scenarios

The IDP has been through two revisions with a Stage 1 Interim Version IDP prepared in March 2013, with this document is the Stage 2 Refresh Version IDP to be published in December 2014. This document provides an Executive Summary in support of this Stage 2 IDP and the process of preparation is summarised in the table below.

Housing Growth

The Allocations Plan covers a period up to 2026. Over this period the draft Allocations Plan (July 2014) proposes total housing provision of 5,290 new dwellings.

The following tables present the proposed residential and employment allocations based on the July 2014 housing provision by settlement area, as agreed by the FoD authority for inclusion in the IDP Refresh process.

Residential Development Allocations by Settlement

Settlement	Revised Development Scenario Totals (Sept 2014)	Committed Sites	Site Allocations
Cinderford	1,040	743	297
Lydney	1,905	1,711	194
Coleford	600	497	103
Newent	470	352	118
Tutshill / Sedbury	113	18	95
Bream	110	51	59
Drybrook	91	41	50
Mitcheldean	140	60	80
Newnham	65	31	34
Yorkley / Pillowell / Whitecroft	96	66	30
Lydbrook Joys Green	98	53	45
Other villages and rural area	562	526	36
Total	5,290	4,149	1,141

Forest of Dean Employment Land Provision

Settlement	Allocation (ha)	Description
Aylburton	1.0	Employment generating uses
Cinderford	75.8	North Quarter and Forest Vale, Cinderford employment area (employment generating uses)
Coleford	22.5	Employment generating uses Tufthorn Farm - Employment sites' (Industrial area inc Old Station Way junction, Tufthorn Ave, Pingry Farm)
Coleford	6.7	Employment generating uses land adjoining Suntory Factory Coleford
Lydney	20.9	Hurst Farm employment generating uses
Lydney	4.8	East of Lydney Land within Bypass to include employment generating uses

The Refresh IDP considers the potential infrastructure demand of the proposed allocations as part of the revised development scenario (2014-2026). In exploring infrastructure requirements, the IDP applies an average household size at 2026 of 2.35 persons, derived from dividing the forecast population at 2026 by the number of households in the District, as advised by FoD. This is considered the most pragmatic approach to the forecasting of the population expected from each proposed development allocation. This approach considers the demands on infrastructure generated by the proposed development, including both the planned growth as well as movement within the District and changes in demographics, for example a reduction in household size.

Benchmark standards have been applied to the whole plan period (2014-2026). These standards are developed in order to forecast demand for various pieces of infrastructure in line with projected housing growth. For example, a child yield is used in order to estimate the number of primary, secondary and further education places generated by projected growth. These benchmarks therefore enable forecasts to be made for infrastructure planning purposes.

Report Structure

The main element of this report explores the infrastructure requirements for the FoD area under the following sectors:

- Community & Cultural;
- Education;
- Emergency Services;
- Energy;
- Healthcare;
- Flood Water & Waste Water;
- Recreation, Sports & Open Space;
- Information & Communications Technology;
- Transport & Public Realm; and

- Waste.
- Following a review of the infrastructure requirements within each of these broad sectors, the report explores existing or confirmed funding sources and provides some broad recommendations on delivery of infrastructure which is critical to growth across the FoD area.

Infrastructure Requirements

Delivering infrastructure of importance to support new development and achieving the Vision set out within the FoD District Local Plan will rely upon a wide range of public, private and community sector organisations working together effectively and efficiently. FoD District Council has an important role to play in this process, particularly as the Local Plan progresses through examination and planned growth begins to emerge. Key to this role is ongoing review and refinement of the IDP in order to ensure that infrastructure requirements and information on planned projects is as up to date as possible.

It is recommended that FoD DC commit to infrastructure planning as an ongoing process and resource the role as the body responsible for delivering some projects and working with key partners to ensure delivery of others. This document is the starting point for an on-going process and regular updates of the project information underlying the IDP will be required. This document is accompanied by a project tracker which details projects that have emerged through the development of the IDP. This tracker will form an important tool for FoD DC as infrastructure is planned and implemented and/or as new projects or requirements emerge.

For a number of sectors reviewed, we have undertaken cost assessment using accepted benchmark standards, providing a high level view of infrastructure requirements based on population forecasts. As specific projects and proposals develop, further work will be required to fully test options for delivery, refining project details, costs and timescales over time.

In order to assist in the prioritisation of identified infrastructure, projects have been identified and assigned to one of the following four broad categories:

- *Regionally Critical Infrastructure* – Projects that have wider geographic area implications than FoD District which must happen to enable the delivery of growth within the District and beyond (i.e. critical to the District functioning as a whole with the potential also for the mitigation of cross boundary needs and effects).
- *Critical Infrastructure* – Projects that the study has identified which must happen to enable the delivery of growth within FoD District.
- *Essential Infrastructure* – Projects that are required if growth is to be achieved in a timely and sustainable manner.
- *Desirable Infrastructure* – Projects that are required for sustainable growth but is unlikely to prevent development in the short to medium term.

The IDP therefore presents infrastructure requirements and costs for the broad sectors and considers phasing of infrastructure across FoD District Council. The identified requirements should be read alongside the associated Project Tracker in order to understand specific infrastructure projects.

Cross Boundary Infrastructure

Through the process of preparing the FoD IDP and those for the surrounding authority areas, a number of projects have been identified that are considered to be critical or essential to a geographic area which is county-wide and beyond. This infrastructure largely relates to projects on infrastructure networks (e.g. transport) and where catchments exist (e.g. schools and secondary healthcare) that extend beyond FoD's administrative area. In many cases, transport projects help to strengthen the network as a whole, and it is therefore difficult to determine that such projects serve only a site specific or local purpose.

Some cross boundary projects have therefore been identified below and are highlighted within the accompanying project tracker. In identifying these projects, it does not necessarily imply that funding will be derived solely from development within FoD DC.

Sector Analysis

The analysis below summarises the infrastructure requirements by sector for the revised development scenario (2014 to 2026). This does not consider the infrastructure requirements and/or the financial contributions received from completions (2006-2014). It does, however, consider committed sites for which planning permission and/or S106 agreements may already be in place. Given the level of commitments within the revised growth scenario, FoD DC should undertake a process of comparison on these sites in order to inform future funding gap analysis.

Community & Cultural

In total, the IDP estimates that community and cultural facilities to serve the revised development scenario could cost £4.2m over the plan period to 2026. This can be broken down as follows:

Libraries

Provision of new libraries across the FoD to serve the Refresh IDP development scenario is estimated to be £1.2m. This estimate doesn't allow for any opportunities for co-location of services (e.g. council services within libraries) which may reduce the overall capital cost.

Taking account of the County Council's Strategy for library services, it is anticipated that the additional demand for services (and related funding) could be channelled towards maintaining and enhancing the existing library network, including the Virtual Library, and providing services for more vulnerable groups such as the elderly. This approach could lead to a lower capital cost requirement.

Community Centres

The provision of new community centres within the FoD DC area is estimated to cost £3m depending on the exact number of dwellings.

Taking a pragmatic view, financing the modernisation and maintenance of existing community centres is a challenge for the third sector organisations that

manage these facilities in many cases. The District Council seeks to provide support, including funding where possible, to these organisations. For this reason, and depending on the scale and location of new development, finance may be directed towards supporting and enhancing existing facilities through maintenance, refurbishment and revenue payments, rather than provision of new halls.

Youth Support Services

The provision of targeted youth support services infrastructure has been estimated at a cost of £358,000.

Alongside the cost of providing youth services, new development also offers wider opportunities relating to the provision of training, apprenticeships and employment during the construction of new schemes. This will help address youth unemployment issues and local planning authorities are therefore urged to consider the agreement and implementation of Employment and Skills Charters working with developers, to help facilitate the creation of employment opportunities within the construction sector.

Education

The educational requirements identified across FoD DC to serve the IDP Refresh development scenario are summarised in the table below. This theoretical demand has been derived from a model provided by Gloucestershire County council during IDP refresh consultation.

Total Dwellings	Theoretical Demand	Cost Provision (£m)
Early Years (2,3 & 4 years)		
5290	395	£4.61
Primary Education		
5290	1,468.6	£17.16
Secondary Education (no 6th form locally)		
5290	733	£11.08
Secondary Education (Sixth Form locally)		
5290	834	£14.88
Further Education (Post 16)		
5290	79	£1.2
TOTAL (with sixth form locally)		£37.85

The figures represent a maximum required provision, using child yield ratios and applying these to the development trajectory. The calculations do not consider opportunities presented through the reconfiguration of existing facilities.

Where possible, consideration should be given to the provision of more comprehensive educational facilities that incorporate an element of all three of the above.

Emergency Services

The IDP estimates that new emergency services provision could cost in the region of £668,610. This relates entirely to police service contributions and does not include contributions towards any police station upgrades or contributions to the regional custody suite as described below.

Contributions to these wider property infrastructure projects will be calculated separately, especially where facilities are serving the region (e.g. £11.9m for the new central custody suite).

The identified provision can be broken down as follows.

Ambulance

Emergencies in FoD are responded to by a number of ambulances and rapid response vehicles that are strategically located throughout Gloucestershire. The ambulance stations in FoD include:

- Cinderford Ambulance Station, Littledean Hill Road, Cinderford, GL12 2BD
- Coleford Ambulance Station, High Street, Coleford, GL16 8HF
- Lydney Ambulance Station, Church Road, Lydney, GL15 5EA.

On consultation, the Ambulance Service outlined that they are considering options for enhanced service delivery and optioneering exercises are ongoing and will be informed by modelling exercises to ascertain optimum locations.

In working with the ambulance service to develop standby points, FoD DC should consider the ability to co-locate services, particularly at existing facilities (e.g. police or fire stations).

Fire and Rescue

Gloucestershire Fire and Rescue Service reviewed their services in 2005 and embarked on the creation of new community fire stations which were completed in 2012. From the retained and wholetime stations the Service is confident they can provide an emergency response to any incident in the County.

Through consultation, a number of specific development measures were identified including:

- Ensuring adequate access points and road sizing to enable rapid response times;
- Fitting housing with sprinkle systems; and
- Fire hydrants, typically spaces at 50m apart.

Costs associated with these measures will be met by the developer at individual sites who should consult the Fire and Rescue Service on design matters.

Police

Gloucestershire Constabulary identified a number of infrastructure needs required to support development in FoD District. This included both property infrastructure and non-property infrastructure as set out below.

Property Infrastructure

- Centralised Custody Suite at Waterwells, Quedgeley (£11.9m) – see description of project above.
- Refurbishment and upgrade of Coleford Police Station – The extent and cost of this refurbishment is estimated at around £1.055m.
- Disposal of police station at Cinderford – Cinderford station is a Victorian building and does not lend itself to refurbishment.
- Disposal of police station at Lydney – This building has also been earmarked for disposal.

Non-Property Infrastructure

The planned new growth in the FOD District has been identified to require the setting up of 15 new Police Officer and staff posts at an approximate cost of circa £107,235. This estimated cost, calculated using the ACPO formula, allows for:

- Uniform and Protective Equipment
- Patrol car – the Constabulary has a replacement programme but additional vehicles can only be purchased if additional funding is available. The proposed growth within the County would have an impact on the number of vehicles and this is reflected in the formula. The formula accounts for costs in terms of a patrol car. If a mobile police station were funded the individual costs would be higher but fewer patrol cars would be required.
- Cost of recruitment
- Training
- IT Equipment, airwave / telephony – as the FOD District is a large rural area, officers will be expected to rely on mobile data and vehicles rather than returning to police stations to complete paperwork.
- Furniture

The central custody suite is a regional project and therefore adjacent authority areas will also be expected to contribute to this infrastructure.

It is understood that the police will seek contributions towards these projects. At the time of writing this IDP no commitment had been made by FoD District Council towards this requirement.

Energy (Utilities)

The primary concern of the IDP in relation to energy is to understand whether there are any engineering or other obstacles that would prevent or delay the connection of development sites to the electricity and gas grid/network, resulting in implications for site delivery or phasing.

Electricity

The extra high voltage transmission network (275kV and 400kV) in England is owned and operated by National Grid Electricity Transmission (NGET). The regional distribution network in FoD is operated by Western Power Distribution (WPD).

WPD have not identified any sites in FoD where connections could not be provided, but have identified that development at Cinderford, Lydney, Coleford, Newent and Lydbrook and general load growth in the area, necessitate reinforcement works to local substations. This reinforcement is planned and it is anticipated that the reinforcements will be complete by mid-2016.

WPD advise that the installation of 11kV circuits are not normally significant with the majority installed in the public highway.

Gas

Wales & West Utilities (WWU) were unable to provide an estimate of infrastructure cost for gas infrastructure due to insufficient details in terms of potential load requirements. WWU require relatively detailed information on development sites before they can provide formal feedback on network capacities and constraints. This should include the size and shape of sites, number of units and indicative layout and phasing.

FoD District Council should continue to work with WWU and update them as proposals for sites emerge in order that the IDP and associated Tracker can be updated.

Healthcare

The IDP estimates that the total cost of providing the necessary healthcare facilities to accommodate the revised growth scenario could range between £5m. This is broken down as follows:

GPs

It is estimated that development at the identified growth locations (2014-2026) could lead to the demand for an additional 6 GPs at an estimated capital cost of £2m.

Dentists

It is estimated that development at the identified growth locations (2014-2026) could lead to the demand for an additional 6 dentists at an estimated capital cost of £1.1m.

Acute Bed spaces

It is estimated that development at the identified growth locations (2014-2026) could lead to the demand for an additional 22 bed spaces at an estimated capital cost of £1.8m.

In working with the NHS in developing their strategy, further consideration should be given to the fact that not all this demand will necessarily be provided for within FoD District Council area, along with the fact that some demand will prefer privately funded healthcare.

Flood Water & Waste Water

Flood Management

The proposed development locations have been informed by Strategic Flood Risk Assessments (SFRA Levels 1 and 2) and are generally located in areas that are at low risk of flooding (e.g. Flood Zone 1), within only small parts of sites within areas of higher risk (e.g. Flood Zones 2 and 3).

Consultation with the Environment Agency has led to the following conclusions at the various strategic locations along with identification of planned flood risk projects.

The proposed development locations of Cinderford and Lydney have been informed by Strategic Flood Risk Assessments (SFRA Levels 1 and 2) and are generally located in areas that are at low risk of flooding (e.g. Flood Zone 1).

Consultation with the Environment Agency has identified that at the various development locations the Council should undertake a Level 2 SFRA (Sequential Test) for all sites where flood risk could affect the site or its access (i.e. those in or adjacent to Flood Zones 2 and 3, or with historic flooding identified). The Environment Agency also considered that developers should be encouraged to submit detailed flood risk assessments for the proposed development sites as part of planning applications.

Water Supply & Waste Water

Water supply and wastewater services in FoD District are provided by the following service providers:

- Severn Trent Water (STW) – Water supply to the District and wastewater services to the majority of the District; and
- Dwr Cymru Welsh Water (DCWW) – DCWW provides a water supply service to Tutshill/Sedbury and wastewater services to some parts of the district, mainly Coleford and Tutshill/Sedbury, as well as some other smaller villages.

During consultation as part of the IDP and subsequent refresh versions, the service providers identified the potential constraints in the table below. As with the energy sector, while the review has not identified any constraints that will ultimately prevent delivery, the service providers have provided detail on likely works which may influence the phasing on proposed allocations.

Waste Water Treatment and Sewage and Drainage Capacity

Area	Sewage Treatment Works Catchment	Waste Water Treatment Comment	Sewerage & Drainage Capacity Comment
Cinderford	Blakeney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Although individually sites would not appear to cause any capacity issues, together they could. It is strongly recommended that sites are hydraulically modelled in combination in order to ascertain the impact on the downstream network. There are some known flooding incidents downstream and some very long lengths of gravity sewer to flow down before reaching the STW.
Lydney	Lydney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	During the original IDP STW commented that these large sites situated to the East of Lydney are likely to connect into small diameter sewers. Flows would then drain South to a nearby pumping station before being pumped to Lydney STW. It was considered likely that capacity would be an issue. It is understood from the IDP Refresh consultation that STW have completed upgrade work to accommodate growth.
Coleford	DCWW - No problems in accommodating the foul flows have been identified for this area and for specific sites planning permission has been granted and discharges of planning conditions have occurred.		
Bream	Lydney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. There are, however, known external flooding incidents downstream that flows from these developments could exacerbate. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.
Drybrook	-	No comments received to date.	STW - Although this is a small site and would not appear to cause any capacity issues, it is upstream of a significant amount of development in Cinderford. Please see comments regarding Cinderford development.

Area	Sewage Treatment Works Catchment	Waste Water Treatment Comment	Sewerage & Drainage Capacity Comment
Mitcheldean	Longhope STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. There are, however, known external flooding incidents downstream that flows from these developments could exacerbate. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.
Newent	Newent STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Sites situated to the South East of Newent are fairly large sites which will connect into small diameter sewers. It is recommended that hydraulic modelling is undertaken in order to ascertain the impact of flows on the system.
Newnham	Broadoak STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.
Tutshill/ Sedbury	-	Foul flows will ultimately arrive at our Sedbury Sewage Pumping Station which can accept the flows.	DCWW – No specific comment was received from Welsh Water although it is understood that previous works have resolved potential sewage issues.

In general the funding for any site connections and necessary upgrades to the local water supply and wastewater networks for each settlement come from site developers. On-going maintenance of the water and wastewater networks, including any strategic water resource projects (such as new reservoirs), are funded by ratepayers.

Recreation, Sports & Open Space

Using benchmark standards, the IDP estimates that the total cost of providing the necessary recreation, sport and open space in relation to the revised development scenario could have an estimated cost of £15.2m. This can be broken down as follows.

Indoor Sports Facilities

While the IDP has not undertaken a full audit of existing sports facilities and playing pitches, an overview of current facilities (excluding privately managed facilities) has been provided, along with an assessment of future demand using the Sport England Sports Facility Calculator (SFC). The IDP estimates the following demand for indoor sports facilities:

- 0.6 new swimming pools with an estimated capital cost of £1.9m; and
- 0.8 new sports halls with an estimated capital cost of £2.2m.

In summary, it is anticipated that provision will be provided in areas with greatest demand (e.g. near to largest growth areas). This is likely to be provided through the provision of 1 new swimming pool and hall. Opportunities to meet this demand through refurbishment or improvement to existing facilities and/or improved hours of opening could also be explored.

Outdoor Playing Pitches & Other Outdoor Sports

The IDP has used a combination of the Fields in Trust (FIT) Benchmark Standards and Natural England Accessible Natural Greenspace Standards (ANGSt) in order to calculate the following demand for playing pitches and outdoor sports:

- 14.9ha of playing pitches at an estimated capital cost of £1.4m; and
- 4.9ha of space for other outdoor sports at an estimated capital cost of £4.9m.

Children's Play Space

The IDP estimates a play space demand of 3.1ha with an estimated capital cost of £1.5m.

Informal and Natural Open Space

Using the same benchmark standards, the IDP estimates the following demand for informal and natural open space:

- 6.8ha of informal open space with an estimated capital cost of £116,235; and
- 12.4ha of accessible natural greenspace with an estimated capital cost of £2.9m.

In relation to natural open space, Natural England have begun discussions in relation to the potential need for contributions from major developments (over 10 dwellings) or the provision of on-site mitigation in order to protect the interests of

designated sites in FoD DC. These contributions would be requested from any such developments within a specified distance of the above designated sites.

Information & Communications Technology

The provision of ICT infrastructure may not be a key factor in determining the soundness of the emerging Local Plan, but it will have implications for the economic competitiveness of FoD and the ability of households to access the online services of other infrastructure and service providers (e.g. library services, healthcare and education).

Within FoD the majority of the local exchanges serving draft Local Plan allocations have now been upgraded to superfast broadband, or the upgrade is scheduled to occur by the end of 2014 (Blakeney/Newent). The Lydney exchange is now under evaluation as part of a government funded programme. It is recommended that new developments are encouraged to provide fibre optic connections from the upgraded cabinets to premises from the outset.

The remaining, more rural communities fall into the 'final third' category of upgrade, suffering from below average internet speeds and a lack of competition between services. The Borders Broadband initiative has secured £14.4m towards the rolling out of fibre broadband in rural areas, which has been boosted by an additional £7.5m investment from Gloucestershire County Council and £6m from Herefordshire County Council. This project aims to bring fibre broadband to around 90% of homes by the end of 2016.

Transport & Public Realm

Transport infrastructure planning is viewed as essential to ensuring well planned new development and will be key to delivering growth within the FoD Allocations Plan.

A relatively large proportion of planned development within the Forest of Dean already benefits from planning consent, including major developments at the Cinderford Northern Quarter and Lydney East new community. As a result, knowledge of transport matters and required infrastructure has been gained through site-specific Transport Assessment processes.

The IDP has identified a number of district wide and site specific transport infrastructure requirements relating to planned growth. Consideration has also been given to public transport improvements and sustainable travel. Further detail of transport requirements can be found within the full version of the FoD IDP and transport capacity assessment work submitted in support of the Local Plan.

Additional highway modelling and capacity work should be undertaken by FoD District Council through a Transport Impact Assessment. This work should provide a better understanding of the mitigation measures required at key junctions as a result of projected capacity issues. The potential costs of improvements should also be considered as part of this work. This information could also emerge through site specific transport assessment work as part of future developments.

Waste

In order to meet the projected demand for waste management, the Waste Core Strategy identifies a number of locations with the potential to accommodate re-modelled, alternative and/or new waste management facilities over the timeframe of the plan. None of these sites are located within FOD DC.

With respect to further potential projects within the FOD, planning permission has been granted for an Anaerobic Digestion (AD) facility at Rosehill Farm, near Dymock in the Forest of Dean but this is not currently operational.

Implementation

Successful implementation of this IDP and the infrastructure requirements identified requires a well-managed infrastructure delivery framework which is monitored and managed by FoD DC and updated regularly. These updates should record the delivery of infrastructure and details of new projects as they emerge and requirements are developed further and fully costed. This process should:

- Consider any changes to housing and employment trajectories;
- Record and update critical or priority infrastructure as the plan progresses;
- Regularly update costing information in order to analyse the associated funding gap and update any cost plans;
- Review funding arrangements, both from private and public funding sources;
- Keep a robust and appropriate plan for maximising developer contributions; and
- Be shared with various service providers in order that priorities are known and providers are aware of the most up to date trajectories and development proposals.

Implementation of infrastructure requirements will not be possible without monitoring and review of this delivery framework. This can be completed using the associated cost tracker and project tracker.

Categorisation

The identified infrastructure projects have been placed into four categories, reflecting the relative importance of that infrastructure in achieving growth. The categories include:

- *Regionally Critical Infrastructure* – Projects that have wider geographic area implications than FoD District but which must happen to enable the delivery of growth within the District and beyond.
- *Critical Infrastructure* – Projects that the study has identified which must happen to enable the delivery of growth within FoD District.
- *Essential Infrastructure* – Projects that are required if growth is to be achieved in a timely and sustainable manner.
- *Desirable Infrastructure* – Projects that are required for sustainable growth but is unlikely to prevent development in the short to medium term

The table below provides a summary of the total cost and categorisation of the various infrastructure needs identified. In the round, the IDP has taken a worst case scenario in relation to capital cost and therefore the data should be viewed optimistically in terms of potential to reduce capital cost implications.

Cost Summary & Prioritisation – Revised Development Scenario (Oct 2014)

	Regionally Critical	Critical	Essential	Desirable	Total Costs	Secured match funding to date	Associated Funding Gap to date
Community & Cultural	£0	£0	£0	£3,006,869	£3,006,869	Being investigated	£3,006,869
Education	£0	£0	£37,850,000	£0	£37,850,000	£6,185,753	£31,664,247
Emergency Services	£0	£0	£11,900,000	£1,000,055	£12,900,055	Being investigated	£12,900,055
Energy (Utilities)	£0	£0	£0	£0	£TBC	TBC	£TBC
Flood Water & Waste Water	£0	£0	£0	£0	£0	Being investigated	£1,000,000
Healthcare	£0	£0	£5,084,069	£0	£5,084,069	Being investigated	£5,084,069
Recreation, Sports & Open Space	£0	£0	£3,099,795	£12,192,118	£15,291,913	Being investigated	£15,291,913
Transport & Public Realm	£0	£15,000,000	£11,200,000	£5,930,000	£32,130,000	£7,390,000	£24,740,000
Waste	£0	£0	£0	£94,000,000	£94,000,000	£94,000,000	£0
Total		£15,000,000	£69,133,864	£116,129,042	£200,262,906	£107,575,753	£93,687,153

This categorisation, with reference to the associated Project Tracker and Cost Tracker allows consideration of the infrastructure needs across the authority area and provides a starting point for FoD DC to begin the process of prioritisation, working alongside key delivery partners and developers. It is particularly important that the FoD DC identify any ‘critical’ infrastructure necessary to deliver strategic growth.

Of those projects identified as being ‘regionally critical’ or ‘critical’ in the Project Tracker and table above, a number are currently well advanced in design and funding commitment terms and may be under construction or constructed in the short to medium term.

Further work is necessary from a transport modelling perspective in order to fully analyse ‘critical’ schemes and their alignment in relation to strategic growth.

Prioritisation for Delivery

Infrastructure planning involves prioritisation at all stages and presents difficult choices in terms of which infrastructure is critical and therefore must be delivered

in advance of other requirements. In general, prioritisation will reflect development viability, the availability of public sector funding as well as council and community priorities.

Developer Contributions

As part of the strategy for preparing and adopting a CIL charging schedule, the council will need to identify priorities for spending funds secured through CIL, and the IDP forms the initial basis of this prioritisation. FoD DC have decided that work on developing a potential Cill in the District should continue. Further this evidence base should be utilised in prioritising spending of any CIL and S106 monies, taking account of:

- Spatial growth projections and the anticipated phasing of strategic sites;
- The importance of physical infrastructure for enabling development; and
- Opportunities to deliver specific infrastructure through, for example, new funding opportunities.

Infrastructure categorised as critical, and related to the identified strategic allocations should form the initial focus for investment, especially where required to enable development (e.g. flood prevention, access road and utilities).

Public Sector Investment

Alongside developer contributions FoD District Council will need to carefully manage and plan other key infrastructure and associated funding sources, ensuring that all delivery partners work together in order to achieve the vision set within the Local Plan and enable sustainable and managed growth.

Funding Gap

While the data presents a worst case funding gap within FoD in excess of £81.1m it must be considered in light of this future prioritisation along with the fact that some of the infrastructure requirements will be delivered at the cost to the developer and/or commercial operator (e.g. utilities infrastructure). Other projects could clearly rely on other private and public funds including bids to central government, National Lottery and other sources.

It is also worth noting that limited information has been received to date on associated funding and therefore FoD District Council should work closely with service providers and colleagues across various departments in order to ensure an up to date funding picture for projects identified in the Project Tracker.

Consideration also needs to be given to the amount of this identified funding gap which should already be agreed and/or have been received through the level of committed sites identified Refresh IDP development scenario. This totals 4,149 dwellings, over 78% of the allocations for the period 2014-2026 and therefore existing developer contributions should already be known and available to contribute to the identified funding gap.

FoD District Council should therefore work to understand the existing or known contributions from commitments and continue to prioritise infrastructure development in order to focus efforts to reduce the remaining funding gap.

Funding

This report makes a high level assessment of funding that is available for infrastructure projects and assesses this against estimated capital costs. The assumptions in relation to funding have been informed through discussions with service providers and other stakeholders.

The IDP does not take into account existing contributions which have been received or agreed through known commitments. FoD DC should work to assess the level of such contributions in understanding future funding requirements.

Further investigation of public sector funding sources is also required as part of the iterative process required to update the IDP. The IDP Tracker should be updated with the clearer funding picture that will emerge following adoption of the Local Plan. This should be progressed through further consultation following adoption.

In order to meet the funding gap other funding sources and mechanisms will be required in order to offer a range of funding mechanisms to deliver infrastructure.

Management and Co-ordination

The successful delivery of sustainable and timely employment and housing growth will be dependent on the evolution of the existing strong co-ordination, management and governance arrangements into a more delivery focussed decision making structure.

The delivery of infrastructure projects should be coordinated through a dedicated and independent individual or Implementation Unit (IU) with strong links to the County Council, delivery partners and Local Enterprise Partnership.

Formal arrangements would be required to engage and work with the full range of infrastructure delivery providers. This will be particularly important in trying to deliver efficiencies through innovative approaches to service delivery such as co-location or shared services

Recommendations and Next Steps

The delivery of the infrastructure required to support new development will rely on a wide range of public, private and third sector organisations working together effectively and efficiently. The District Council has an important leadership role to play in this process as the Allocations Plan progresses through examination and adoption and the supporting IDP is refined.

For these reasons, infrastructure planning and delivery must be viewed as an iterative process with the IDP, associated Tracker and Site Calculator reviewed and updated on a regular basis in order to reflect the on-going project development, funding situation and the views of key consultees. Key tasks which must be fulfilled by FoD DC therefore include:

- Continued liaison with delivery partners, developers and other key stakeholders in order to understand priorities, programmes and delivery plans;
- Utilise the findings within the IDP and Tracker and work with service providers to explore and identify innovative solutions to infrastructure needs

that potentially reduce costs. This could include, for example, collocated facilities or expansion of existing facilities over new build.

- Further work on associated funding in order to updated funding gap information;
- Further work to understand the level of agreed/known contributions as a result of the level of commitments within the Plan;
- Regular updates to the IDP and associated Tracker as a ‘live process’ which will lead to improved accuracy and outcomes of the process;
- Meetings and workshops which focus on particular key infrastructure needs and/or strategic sites, particularly where cross-sectoral working is required;
- Monitoring of local plan policy in relation to infrastructure.

At present there may seem to be more questions than answers raised by the process. This is perfectly normal given that infrastructure planning needs to be a ongoing iterative process to be effective. Perhaps of greatest importance for FoD District Council is the need to begin to prioritise infrastructure needs and projects and further understand the potential funding situation in order to continue to develop a funding gap model.

1 Introduction

1.1 Purpose of the Infrastructure Delivery Plan (IDP)

This Infrastructure Delivery Plan (IDP) has been prepared to update the Forest of Dean (FOD) District Council's understanding of the deliverability of the adopted Core Strategy (Feb 2012) and to inform the preparation of the Council's Site Allocations Development Plan Document (DPD) now known as the Allocations Plan. In doing so the study seeks to fulfil the following roles:

- Provide a review of the infrastructure requirements associated with Core Strategy allocations and strategic sites in the Forest of Dean (the Lydney East New Neighbourhood and Cinderford Northern Quarter) and progress towards delivery of key infrastructure projects.
- Provide a preliminary view of the infrastructure requirements relating to site allocations within the future Allocations Plan.
- Present a list of estimated infrastructure needs, capital costs and responsibilities for delivery for projects and services relating to new development. In doing so the IDP can help inform Section 106 Planning Obligations and provides evidence supporting the preparation of a CIL.
- In line with national guidance, the study seeks to identify whether any Nationally Significant Infrastructure Projects (NSIP, as defined in the Planning Act 2008) are expected to come forward in the FOD District.

Setting out a coherent plan for projected housing and employment growth is an important role of the FOD Core Strategy and Allocations Plan. However, the document also sets out an overall Vision for the District of a thriving sustainable community with a high quality environment. The Vision also encompasses the development of a local economy with a focus on tourism and housing which meets the needs of residents (including affordable homes) and the creation of safer communities. Advancement towards the Vision for the FOD District is reliant on the timely provision of appropriate infrastructure and services.

This Interim Version of the IDP was prepared between October 2013 and January 2014 for publication as draft evidence alongside the Draft Allocations Plan. It is anticipated that an updated 'Refresh' version of the IDP will be prepared during the summer 2014, to accompany a submission version of the DPD.

Preparation of the FOD IDP by Arup forms part of a joint commission by a partnership of the following councils in Gloucestershire: Cheltenham Borough Council, Cotswold District Council, Gloucester City Council, Forest of Dean District Council, Stroud Council and Tewkesbury Borough Council. By preparing a series of IDPs for the District Councils in Gloucestershire, working closely with the County Council, the intention has been to apply a consistent methodology and provide for the identification of cross-boundary infrastructure issues and solutions.

1.2 Structure of the IDP

The contents and structure of the IDP are as follows:

- Chapter 2 describes the methodology that has been followed during the preparation of the IDP;
- Chapter 3 sets out the local context for the IDP, including further information on the FOD Development Strategy and progress in Neighbourhood Planning;
- Chapter 4 provides a sector by sector assessment of the infrastructure required to support planned development, current infrastructure projects, responsibilities for delivery, and sector specific funding routes;
- Chapter 5 provides a summary of the emerging infrastructure priorities for each settlement where growth has been allocated in the FOD Core Strategy and emerging Allocations Plan;
- Chapter 6 sets out an initial view on the level of developer contributions towards infrastructure that may be viable and recommendations for a Community Infrastructure Levy (CIL);
- Chapter 7 reviews other potential funding sources that could be pursued to help deliver priority infrastructure projects;
- Chapter 8 considers next steps and governance arrangements that could help facilitate a collaborative approach to infrastructure planning and delivery; and
- Chapter 9 presents conclusions.

2 Methodology

The common methodology adopted for the preparation of the IDPs has been informed by a review of national policy and guidance, together with a review of experience producing IDPs and Community Infrastructure Levy (CIL) documents elsewhere in England.

2.1 National Policy and Guidance

2.1.1 National Planning Policy Framework (March 2012)

The National Planning Policy Framework (NPPF) states that Local Plans must be prepared with the objective of contributing to the achievement of sustainable development (paragraph 151), with infrastructure planning forming an important component of this. The three dimensions of sustainable development give rise to the need for the planning system to perform the following roles (paragraph 7 - summarised):

- **an economic role** – contributing to building a strong, responsive and competitive economy, which includes coordinating development requirements and ensuring the provision of infrastructure.
- **a social role** – by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being.
- **an environmental role** – helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, mitigate and adapt to climate change including moving to a low carbon economy.

At paragraph 162, the NPPF sets out specific guidance on infrastructure planning, emphasising the need for joint-working with infrastructure and service providers:

“Local planning authorities should work with other authorities and providers to:

- assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and
- take account of the need for strategic infrastructure including nationally significant infrastructure with their areas.”

2.1.2 Community Infrastructure Levy Legislation and Regulations

As set out in the IDP project objectives in chapter 1, the IDP is expected to inform decisions on the CIL frameworks to be adopted by the Councils and provide the evidence base supporting any CIL Schedules. It is therefore logical that the IDP methodology complies with relevant legislation and regulations, to the extent that this is necessary to facilitate CIL preparation at a later date.

The Planning Act 2008 put in place enabling legislation giving local authorities in England and Wales the power to levy a standard charge, the CIL, on most types

of new development, to fund the infrastructure needed to support development in their area. A relatively narrow definition of infrastructure is provided in the Planning Act 2008, when compared to the NPPF. This may be on the basis that other sectors, such as the utilities, are in the main self-financing. Sectors referred to in the Act are:

- roads and other transport facilities;
- flood defences;
- schools and other educational facilities;
- medical facilities;
- sporting and recreational facilities;
- open spaces; and
- affordable housing.

This definition applies to infrastructure for the purposes of defining the CIL legislation. However, the phraseology within the Act allows for this list to be expanded or retracted as the Government sees fit. For instance, the statutory definition of “Infrastructure” which may be funded through CIL in the Planning Act 2008 is wide enough to include affordable housing, but the CIL Regulations specifically exclude affordable housing from CIL at this time. Further background on CIL and relevant regulations is provided at section 6.2.

2.1.3 Planning Advisory Service Guidance

In June 2009, the Planning Advisory Service published ‘A steps approach to infrastructure planning and delivery’. The seven stages of the infrastructure planning process described in the guidance can be summarised as:

- Step 1 – Vision / Policy Context
- Step 2 – Governance
- Step 3 – Evidence Gathering
- Step 4 – Use Infrastructure Standards to assess deficits and identify requirements for strategic sites
- Step 5 - Prepare Infrastructure Delivery Plan, involving phasing and viability testing.
- Step 6 – Validation and consultation
- Step 7 – Implementation and monitoring

The guidance advises that many of the steps can be carried out concurrently and not all parts of the steps will be necessary if other work has already been undertaken. It also advises that evidence and the level of information gathered should be proportionate.

2.2 Summary of IDP Project Stages & Outputs

2.2.1 Summary of IDP Methodology and Outputs

The methodology of the IDP project that was agreed with the partnership of LAs at Stage 1 of this study is summarised in the diagram below and explained in further detail in the subsequent sections.

2.3 Stage 1 – Development Vision, Scenarios & IDP Governance

2.3.1 Stage 1A – Definition of Development Scenarios & Strategic Locations

An important first step was to establish the development scenarios that formed the basis for infrastructure planning. This involved confirmation of:

- Strategic and local development Visions that could inform infrastructure delivery and funding priorities.
- Local Plan housing and employment development levels to be tested through the infrastructure planning process.
- Agreement of the appropriate geographies for infrastructure planning, such as the identification of sub-areas and strategic locations for development that underpin the spatial strategy for each Borough, City or District.

This information provides the context for the IDP and is set out at chapter 3

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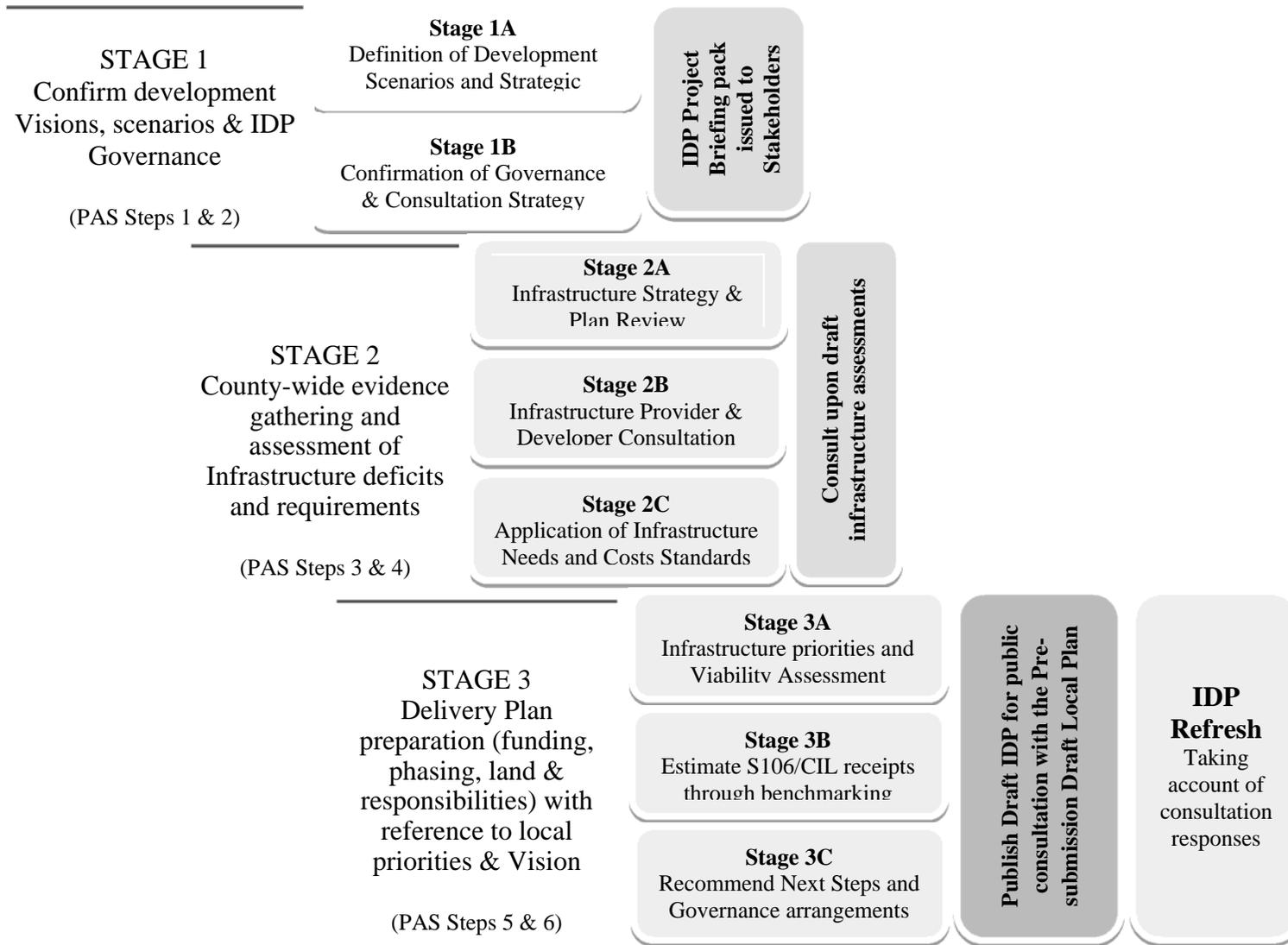


Figure 1- Infrastructure Delivery Plan Study Stage

2.3.2 Stage 1B – Establish Governance arrangements and Consultation Strategy

The County Planning Officers Group (CPOG) has met on a monthly basis during the commission to agree the IDP methodology, review progress and facilitate the consideration of cross-boundary matters in the spirit of the ‘Duty to Cooperate’. The CPOG comprises representatives of Cheltenham Borough Council, Cotswold District Council, Forest of Dean District Council, Gloucester City Council, Stroud District Council and Tewkesbury Borough Council.

As highlighted in the PAS Guidance, the preparation of robust IDPs relies upon consultation with a wide range of infrastructure and service providers, to ensure the projection of infrastructure requirements is realistic and that there is reasonable prospect of infrastructure provision. During the course of IDP preparation Council Members, developers and local communities will also be kept informed of emerging results and recommendations by a variety of means, as set out in the table below.

Table 1 - Summary of IDP Consultation Activities

Group	Description
Infrastructure and Service Providers	Issue of IDP Briefing Pack and Questionnaire
	Telecoms and meetings (Stages 2B & 3B)
	Issue of draft IDP outputs for comment (end Stage 2)
	Consultation on Interim Version as evidence base to Allocations Plan and request for updates to inform ‘refresh’ IDP
Developers (Strategic Locations)	Consultation on Draft Allocations Plan with Interim Version IDP published as supporting evidence.
Council Members	IDP presentation and discussion on 16 th December 2013
Local Community	Consultation on Allocations Plan with Interim Version IDP published as supporting evidence.

2.4 Stage 2 – County-wide evidence gathering and assessment of infrastructure needs

Infrastructure needs assessment work is undertaken on the basis that the most up to date and detailed information is utilised. In some cases the Council has used agreed assessment standards to supplement and update the information available from infrastructure providers (see Stage 2C for further explanation).

2.4.1 Stage 2A – Infrastructure Strategy & Plan Review

In many cases infrastructure and service providers prepare their own forward plans for an area. Examples include the School Population Forecast and Organisation Plan of the Education Authority and the 5 year Asset Management Plans (AMPs) prepared by the water supply and wastewater utilities. Where asset

plans and strategies are available they have been reviewed to identify relevant information including:

- the methodology used to assess future infrastructure requirements;
- the adequacy of baseline provision and whether there is an existing deficit or oversupply;
- whether the infrastructure plan timeframes and assumed development levels adequately provide for the development scenarios agreed at Stage 1; and
- whether there are priority infrastructure projects that should be highlighted in the IDP.

This review exercise provides background information to be further developed through consultation and infrastructure assessment at Stages 2B & 2C.

2.4.2 Stage 2B – Infrastructure Provider Consultation and Sign-off

Telecoms and meetings were arranged with individual infrastructure and service providers to discuss the outcomes of the document review and understand whether further feedback could be provided in relation to the Local Plan development scenarios set out in the Infrastructure Briefing Pack. Supplementing information from the Stage 2B document review, the objective of the consultation was to understand whether any important development thresholds exist that prompt:

- provision of significant new infrastructure or extension/refurbishment of existing;
- the cost of providing the infrastructure and whether there are funding gaps; and
- whether there are any other viability issues, such as the availability of sites and unrealistic timescales for provision that threaten reasonable prospect of provision.

Where further infrastructure assessment work was proposed to inform the IDP, the methodology for undertaking this work was also agreed with the relevant organisation. Wherever possible, draft IDP assessments have been circulated for agreement with infrastructure providers.

2.4.3 Stage 2C – Application of Infrastructure Needs and Costs Standards

For certain infrastructure sectors it has been beneficial to update information available from existing sector-specific plans by using agreed infrastructure provision standards. These can be used to derive estimates of the amount of provision that is required, for instance one new primary school in a particular location, and an estimate of the capital cost for the new infrastructure. This tends to apply to the social and community infrastructure sectors, where benchmarking information has been used to derive national or local standards.

Assessing infrastructure requirements for other sectors, such as the utilities, transport and flood risk management is more reliant on modelling and infrastructure design information available from providers and developers.

2.4.4 Stage 2 Outputs

By the end of Stage 2 the Councils were able to provide draft versions of the sector specific chapters (chapter 4) to infrastructure providers and developers for comment. As far as possible, these sector specific analysis sections are structured in a consistent way as set out below:

Table 2 - Structure for infrastructure assessment by sector

Topic	Contents
Responsibility	The organisation(s) responsible for planning and service delivery.
Asset Plans & Strategies	Summary of the relevant plans and strategies and how they have informed the study.
Infrastructure baseline and deficits	Commentary and any available figures relating to the infrastructure provision baseline and existing areas/priorities for improvement.
Assessment of Infrastructure Needs	Assessment of infrastructure needs and costs relating to planned development, drawing on relevant strategies, plans, reports and/or national benchmarks.
Recent and current infrastructure projects identified	A brief description of recent and current infrastructure projects.
Funding	Identifying relevant sector-specific sources of funding for infrastructure provision.

2.5 Stage 3 – Delivery Plan preparation

2.5.1 Stage 3A – Infrastructure Priorities and Viability Assessment by Settlement

At this stage of the commission the focus shifted from preparing evidence base on a sector by sector basis towards reaching a view by settlement on: potential infrastructure priorities for each settlement; and the viability and phasing of infrastructure delivery relative to development in that location.

2.5.2 Stage 3B – Estimate S106 Planning Obligation/CIL receipts

To inform the Viability Assessment of infrastructure project delivery, it was important to understand the scale of developer contributions towards infrastructure that may come forward via S106 Planning Obligations and/or a CIL. As the Council was not yet at the stage of progressing draft CIL proposals (recommendations on CIL are set out at chapter 7 of this report), it was agreed that a benchmarking exercise would provide a suitable methodology for estimating S106/CIL income at this stage. This process involves comparing proposed and established CIL rates in other Local Authority areas, taking into account average property prices in the different areas. Further details of the methodology and outcomes of this stage are set out at chapter 7.

2.5.3 Stage 3C – Recommend Next Steps and Governance arrangements

Achievement of the Council's Vision and Local Plan for an area will rely on a wide range of public, private and community sector organisations working effectively and efficiently to assist in delivering projects that contribute towards common goals. The Council has an important leadership and coordination role to play in this process. Chapter 9 provides a summary of next steps and actions identified during the course of preparing the IDP.

2.6 IDP Refresh

In recognition that the IDP is a 'living document' which will be kept under review, this is the second version of the plan and updates findings of the February 2012 IDP with the latest available information regarding infrastructure provision in FoD. Future iterations will be produced to reflect the changing plans and strategies of partners, progress in terms of infrastructure delivery and identification of any new infrastructure requirements.

This IDP Refresh has utilised two main sources of information:

- Firstly, consultation on the Draft Allocations Plan for FoD District Local Plan took place during July to September 2014 and a number of representations made were of relevance or specifically referred to within the IDP. This Refresh Version of the IDP has been updated to take into account the comments made.
- Secondly, an IDP Update Briefing Pack was circulated to infrastructure and service providers during September 2014, with any further comments requested. Where additional information has been provided this has been incorporated within this document. Where important matters relating to the potential soundness of the plan have arisen, further focussed telecoms and meetings were arranged.

3 Local context for the IDP

The FOD District is a predominantly rural area which takes its name from its largest landscape feature – the Forest of Dean itself. Other notable landscape features in the area include the Severn Estuary and the Wye Valley, which provide natural boundaries for the District. The FOD covers an area of around 585 square kilometres, approximately 100 kilometres of which is woodland managed by the Forestry Commission. The District has four main towns – Newent, Coleford, Cinderford and Lydney; around which the larger proposed housing developments within the adopted Core Strategy (Feb 2012) are located.

The population of the District is around 82,000¹ (2011 census) and is currently increasing slowly (see latest 2012 ONS projections). The average household size in the area is 2.4 (figure derived from population and households information provided by MAIDeN²). Within the projected population growth it is expected there will be a decline in the number of children, young people and adults aged 20-64 against an older population in the 65+ age group, which is set to increase by 41% by 2026.

In terms of the local economy, unemployment remains below national levels, however the economy is the poorest performing out of all the Gloucestershire districts with 37% of workers out-commuting to jobs in surrounding towns and cities (Forest of Dean Annual Report, 2012/13). Notwithstanding the above, the natural environment of the FOD continues to contribute to its cultural identity, and it is still considered to be an attractive destination in which to work, live and visit.

3.1 Council's Vision & Objectives

3.1.1 Council's Corporate Strategy (2013 – 2017)

The Council's vision for the FOD District is for it to be a great place to live, work and stay. This will be achieved by meeting the following objectives:

- To provide value for money services.
- Promote thriving communities.
- Encourage a thriving economy.
- Protect and improve our environment.

The Corporate Strategy sets out in detail how these objectives will be achieved over the period 2013 – 2017.

Within this strategy there are a number of infrastructure projects planned for 2013/14, relating specifically to leisure and transport; these are listed below:

- Work with relevant agencies, partners and the community to facilitate a solution for the Five Acres Complex in the event that Gloucestershire College leaves the site.

¹ Source: 'FOD District Council Annual Report 2012.13' - <http://www.fdean.gov.uk/media/Assets/Improvement-Policy/documents/annualreport2013.pdf>

² Source: FOD District Profile (2013) <http://www.maiden.gov.uk/index.asp>

- Procure an extension to the fitness suite at Forest Leisure, Lydney.
- Work towards the implementation of a new spine road in Cinderford.
- Continue work towards the regeneration of Cinderford and the wider district.

These proposed projects and initiatives are recorded in the appropriate sector specific sections in chapter 3 also.

3.1.2 Forest of Dean Sustainable Community Strategy – ‘Our Forest: Our Future’ (2008-2020)

The FOD sustainable community strategy identifies a number of different priorities which can be categorised under the following outcomes (our underlining to highlight those objectives that relate closely to infrastructure delivery):

- ***Outcome 1 – A place where the future matters*** - raise the aspirations of local people, improve and monitor the quality of the natural environment and work to reduce waste and manage it in a sustainable way.
- ***Outcome 2 – A place where communities feel safe and are safe*** – this includes promoting community respect and addressing the fear of crime in the District. Promoting and improving road safety would also help achieve this objective.
- ***Outcome 3 – A place that offers local people a quality home appropriate to their needs and lifestyle*** i.e. provide decent, affordable homes for local people which make the best use of our resources and promote creative and sustainable approaches to addressing the supply of affordable housing.
- ***Outcome 4 – A place with a strong, prosperous and diverse economy*** – this outcome incorporates realising the economic potential of tourism in the area and attracting more and better quality jobs for local people.
- ***Outcome 5 – A place where everyone can access the services they need*** – this includes developing the public and community transport system and ensuring access to high quality, locally provided health services. This outcome also includes providing access to a range of activities for local people within their communities.

3.2 Forest of Dean Local Development Framework

The Core Strategy for the FOD District will be accompanied by the Cinderford Northern Quarter Area Action Plan (AAP), the Lydney Neighbourhood Development Plan and the Allocations Plan as key planning policy documents. A brief overview of each of these documents is provided below.

3.2.1 Forest of Dean Core Strategy

To accord with principles of sustainability, the Council’s Development Strategy seeks to ensure that development will be located at existing settlements in amounts proportionate to the size of the settlement. This will increase their self-containment and enhance their role as service centres. There are clear differences in the region between the Forest Core and the areas north and south; the “core” has a more pronounced industrial history and the landscape types between the areas vary considerably.

Development is centred on the four main towns of Coleford, Cinderford, Newent and Lydney, each town offering a different environment. Coleford provides the administrative core of the District, Cinderford has a long industrial history and is currently the focus of a regeneration programme, Newent is an attractive market town and finally Lydney is the largest town in the FOD and subsequently designated as the major growth area for the District.

In addition to the above, it is essential that all development occurring in smaller towns and settlements support their role as local hubs for community facilities and services, including public transport³.

The overall Core Strategy Vision is set out below:

Core Strategy Vision

The Forest of Dean will be a thriving sustainable community with a high quality environment, a developing local economy including tourism, housing which meets the needs of residents (including affordable homes) and safer communities.

The existing complementary nature of the three southern forest towns will be reinforced to ensure Coleford, Lydney and Cinderford work together with their hinterlands to provide a more sustainable future. Much of the planned change will be in the towns, especially Lydney and Cinderford, with improved shopping and services meeting the needs of the existing and new population. Improved town centres, services and a wider range of employment will reduce commuting and other journeys. Newent will become a more effective local centre through improvements in the centre and additional employment. The quality of the countryside and the built environment will be maintained through the careful promotion of the economy, and safeguarding of the landscape.

3.2.2 Cinderford Northern Quarter Area Action Plan

Policy CSP.11 of the Core Strategy provides the basis for the Cinderford Northern Quarter development framework, design principles and delivery mechanisms set out in the Area Action Plan (Feb 2012):

“Cinderford Northern Quarter will be allocated as an area for mixed development to lead the regeneration of the town. Land will be set aside for approximately 175 dwellings, about 6Ha of employment generation uses and about 3.5Ha for mixed uses. These will include cultural, educational and recreational provision together with ancillary service space. All will be set within the forest environment and will lead on innovation, design and energy efficiency.”

Residential development within the Northern Quarter is expected to make up around 20% of the Cinderford housing allocations and around 35% of the employment allocation.

Further priority development areas for Cinderford include:

- The development of about 928 dwellings in total, of which around 60% will be located on previously developed land; and

³ para 3.5.3 SW RSS Secretary of State's proposed changes 2008

- The continued redevelopment of the town centre to provide enhanced public realm and to bring improved facilities, including retail outlets, with up to an additional 2,600m² convenience and 2,300m² comparison floorspace in the town, public space and cultural facilities.
- The realignment of the Cinderford Bridge junction (Valley Road South/St Whites Road).

3.2.3 Lydney East New Neighbourhood and Neighbourhood Plan

The overall development strategy for Lydney is set out in policy CSP.12 of the Core Strategy:

“In order to enhance the role of the town, the Core Strategy will support the proposed development of the land east of Lydney for a new neighbourhood and will promote a new mixed development including amenity land along the axis between the harbour and the town centre. The development of the town centre including improvements following the implementation of the highway strategy and the improvement of key retail sites will be supported.”

Policy CSP.13 of the Core Strategy provided the basis for the Lydney new neighbourhood (which has now received planning consent) and the preparation of an Area Action Plan. The Lydney Area Action Plan (LAAP) was intended to be a detailed brief for the development of important parts of the town, and its preparation was considered necessary in order to provide the level of guidance for the town centre and the areas between the centre and the harbour.

Since the LAAP commencement, a Neighbourhood Development Plan (NDP) for the town has been started. Consequently it was decided that the Allocations Plan will include policies and proposals considered necessary for the former Area Action Plan, and will be utilised alongside the Neighbourhood Development Plan to guide development proposals.

Lydney Town Council and local community groups will bring forward preparation of the Neighbourhood Development Plan, and a Draft Plan (September 2013) has been published for consultation.

3.3 Housing development allocations and commitments

The FOD District Council has an adopted housing target as established within the Core strategy. The total number of dwellings to be delivered over the plan period (2010-2026). The net requirement from 2012/13 onwards is now for 4,439 dwellings due to completions in the past three years.

It is important to note that a high proportion of the dwellings allocated is now ‘committed’ – i.e. planning permission has already been granted. In the case of committed sites, the infrastructure required to support development has already been considered through the planning application process, with S106 Planning Obligations towards the provision of infrastructure being secured in many cases. Table 3 presents the Core Strategy dwelling allocations set out within the adopted Core Strategy, together with the number and percentage of committed development.

Table 3 - Core Strategy housing allocations and proportion of committed development

Settlement	Allocation	Committed	% committed
Cinderford	1050	783	75
Lydney	1900	1711	90
Coleford	650	497	76
Newent	350	352	101
Tutshill/Sedbury	111	18	16
Bream	100	41	41
Drybrook	100	41	41
Mitcheldean	101	60	59
Newnham	65	31	48
Yorkley/Pillowell/Whitecroft	45	66	147
Lydbrook and Joys Green	82	53	65
Other villages and rural area	608	526	87
Total	5162	4179	81

Committed development includes planning permission for the Lydney East New Neighbourhood, which will provide around 1,660 new dwellings as part of a major mixed-use development.

The housing numbers per settlement set out in the Core Strategy provide the basis for the selection of specific sites, to be presented for consultation in the Draft Allocations Plan. To facilitate feedback on potential site allocations, a table (see below) and map of potential site allocations was distributed to infrastructure providers (see Appendix A).

Table 4 - Core Strategy housing numbers and potential site allocations by settlement (updated to reflect proposed allocations in Allocations Plan Draft)

Settlement	Dwelling total	Commitments	Allocations	Committed sites and potential allocations	5 Year Housing Land Supply Phasing (Dwellings)					2018 to 2023	2023 to 2027	2027 to 2031
					2013/14	2014/15	2015/16	2016/17	2017/18			
Cinderford	1,040	743		169 dwellings at St Whites Farm	20	20	25	26	0	0	-	N/A
				92 dwellings at Valley Rd South	30	30	32				-	N/A
				100 dwellings at Station St Listers					0	100	-	N/A
				30 dwellings at Nailbridge					0	30	-	N/A
				175 dwellings at Cinderford Steam Mills Northern Quarter			30	0	20	125	-	N/A
		297	70 dwellings at Cinderford Football Club				20	20	30		N/A	
			Other smaller site allocations in Cinderford								N/A	
Lydney	1,905	1,711		390 dwellings at Lydney East MMC			0	0	85	305		N/A
				323 dwellings at Lydney East Phase A				0	0	323		N/A
				750 dwellings at Lydney East Phase B				80	85	465	120	N/A
				200 dwellings at land adjacent to Federal Mogul	43	43	42					N/A
				47 dwellings at Highfield Rd		15	15	17				N/A
		194	25 dwellings at Augustus Way				25					
			Other smaller site allocations in Lydney								N/A	

Settlement	Dwelling total	Commitments	Allocations	Committed sites and potential allocations	5 Year Housing Land Supply Phasing (Dwellings)					2018 to 2023	2023 to 2027	2027 to 2031
					2013/14	2014/15	2015/16	2016/17	2017/18			
Coleford	600	497		156 dwellings at Owen Farm		52	52	52			-	N/A
				100 dwellings at Angel Farm	21	0				0	-	N/A
				80 dwellings at Poolway Farm			20	20	30		-	N/A
												N/A
			103									N/A
						Other smaller site allocations in Coleford						
Newent	470	352		141 dwellings at Onslow Rd A						0		N/A
				91 dwellings at Onslow Rd B		30	30	31				N/A
				120 dwellings at Land at Foley Rd (permitted on appeal and additional to Core Strategy allocation)			40	40	40			N/A
			118		30 dwellings at Watery Lane			30				N/A
						Other smaller site allocations in Newent						
Tutshill/Sedbury	113	18										N/A
			95		95 dwellings on two sites adj Bigstone and off Sedbury Lane				30	30	35	

Settlement	Dwelling total	Commitments	Allocations	Committed sites and potential allocations	5 Year Housing Land Supply Phasing (Dwellings)					2018 to 2023	2023 to 2027	2027 to 2031
					2013/14	2014/15	2015/16	2016/17	2017/18			
Bream	110	51		Off New Road					30			N/A
			59									N/A
Drybrook	91	41										N/A
			50		Land off High Street					50		N/A
Mitcheldean	140	60		49 dwellings at Gloucester Rd			16	16	17			N/A
			80		40 dwellings at Land south of A4136					45		N/A
					40 dwellings at Former Coach Depot and at the Former George PH			12	18			
Newnham	65	31								40		N/A
			34									N/A
Yorkley/ Pillowell/ Whitecroft	96	66		50 dwellings at Land at Whitecroft		17	16	16				N/A
			30		30 dwellings at Whitecroft					30		
Lydbrook Joys Green	98	53										N/A
			45		45 dwellings at Stowfield Works					20	25	N/A
Other villages and rural area	562	526										N/A
			36		36 dwellings at Netherend/ Woolaston Ashway				20	16		N/A
Total	5,290	4,149	1,141									

3.4 Employment development allocations

Employment development will primarily be concentrated at the settlements of Cinderford, Lydney, Coleford, Newent and Lydbrook. Employment allocations in the Forest of Dean are for “employment generating uses”, covering a wide range of uses, not just the typical B1 Business/Office, B2 General Industrial and B8 Distribution and Storage use classes. New retail units are expected to be developed in Cinderford (already committed with planning permission) and Coleford. Some additional retailing may be developed in Lydney and Newent. Within the Cinderford Northern Quarter AAP area is a mixed range of allocations including education, hotel, “B” use classes and recreation and tourism.

Table 5– Core Strategy employment land provision

Settlement	Core Strategy Allocation	Comment
Cinderford	Approx. 26Ha	Approx. 26Ha of land to be brought forward, including land at the Northern Quarter. Diversification of provision through other sites, and step change in quality. Provision to include office and other B1 (Business) space. B2 (General Industrial) and B8 (Distribution and Storage) mainly located within existing employment areas.
Lydney	Approx. 30Ha	Approx. 30Ha of land to be used for employment, in addition to intensification elsewhere. Allocated land is expected to be suitable for a diverse range of employment generating uses. 20 Ha is linked to or adjoins the proposed new neighbourhood and around 5Ha is to be provided as an integral part of the neighbourhood.
Coleford	Approx. 6.8Ha	About 6.8Ha of land already identified to be developed in addition to other sites within settlement for a range of employment.
Newent	Approx 5Ha	5Ha of new land to be developed in addition to promotion of other employment uses within the settlement.
Lydbrook (Stowfield)	Approx. 5ha	Redevelopment of old employment site for a variety of employment generating uses, including tourism/ recreation, and part of site to be allocated for residential.

4 Assessment by infrastructure sector

4.1 Community and culture

4.1.1 Community Centres

Overview

A preliminary high level assessment of demand for community centres arising from new development has been undertaken. There are existing community centres operated by town/parish councils and community groups within each of the settlements where site allocations are proposed. As such, in each case where development comes forward it will be necessary to consider whether the demand generated by new development is best accommodated through enhancements to existing facilities or provision of new community centres.

Proposals for new facilities should be considered in partnership with community groups that may be willing to take on long term management of buildings. Where relatively large new developments are proposed i.e. Lydney, Cinderford and Coleford, the appointment of community development or youth support officers should be considered for an interim period, to help establish community groups that could later take on this role independently.

Based on a high level assessment of demand, it is predicted that the cost of community centres to serve new development in the FOD District will be around £648,552, based on capital costs and non-committed development allocations only.

Responsibilities for delivery

The provision and maintenance of community and cultural facilities, such as community and village halls, will rely upon a mix of public (including use of Parish precept); voluntary and community sector investment, although FOD District Council will have an important leadership role to play.

Sector plans and strategies

There is no single county or district-wide strategy for community centres, however, the Gloucestershire Rural Community Council Parish/Community Led Planning Database and the FOD Village and Community Hall's Network websites provide useful information taken into account in the preparation of this study.

Infrastructure baseline and deficits

In all cases there are existing community centres in those settlements where site allocations are proposed, although the capacity, range of facilities and state of repair of community buildings will vary from place to place.

Table 6 below provides brief details of the community centres closest to the strategy locations for development.

Table 6 - Community centres closest to strategic locations for development⁴

Settlement	Nearest existing community centres	Description
Cinderford	Cinderford Community Hall & Council Chamber	Hall capacity 80; 1 meeting room.
	Cinderford, Miners Welfare Hall	<i>Unavailable</i>
	Ruspidge Memorial Hall	Hall capacity 80; 2 meeting rooms.
Lydney	Lydney Town Hall	Hall capacity 270; 3 meeting rooms. With a sprung wooden dance floor and large parking area.
	Lydney, Naas Lane Community Centre	Hall capacity 70; 2 meeting rooms. Converted school.
	Lydney Community Centre (Youth & Community Centre)	Hall capacity 80; 2 meeting rooms.
Coleford	Staunton Village Hall	Hall capacity 74; 1 meeting room.
	Coalway Methodist Hall	Hall capacity 50; 1 meeting room.
	Coleford, The Main Place	Hall capacity 100. Facilities include: a training level kitchen, offices, meeting and training rooms available for hire. Audio visual equipment and upstairs with lift access.
	Broadwell War Memorial Hall	Hall capacity 200; 3 meeting rooms.
	Berry Hill Memorial Hall	Hal capacity 70; 2 meeting rooms.
Newent	Cliffords Mesne Village Hall	Hall capacity 60; 3 meeting rooms.
	Newent Memorial Hall	Hall capacity 180; 2 meeting rooms. Large hall in the centre of town with ample parking.
	Oxenhall Village Hall	Hall capacity 60; 2 meeting rooms.
Tutshill/Sedbury	Tidenham War Memorial Hall	Hall capacity 60; 2 meeting rooms.
	Tidenham Chase, Old School Village Hall	1 meeting room.
	Sedbury & Beachley Village Hall	Hall capacity 67; 2 meeting rooms.

⁴ Source: <http://www.grcc.org.uk/village-hall-database/village-hall-database> (October 2013)

Settlement	Nearest existing community centres	Description
Bream	West Dean Centre	Hall capacity 150; 3 meeting rooms. Former C of E school providing 3 letting rooms, community, library, café and kitchen with car parking for 70 vehicles.
Drybrook	Ruardean Hill Recreation Centre	Hall capacity 50, 2 meeting rooms.
	Ruardean Woodside Memorial Hall	Hall capacity 100, 2 meeting rooms.
	Drybrook, Holy Trinity School Rooms	Hall capacity 50; 1 meeting room. Medium sized hall with kitchen facilities in easily accessible location. New toilets and disabled toilet. Ample parking outside and in nearby car park.
	Drybrook Memorial Hall	Hall capacity 110; 2 meeting rooms.
Mitcheldean	Mitcheldean Community Centre	Hall capacity 160; 2 meeting rooms. Of reasonable size with parking in the playing field for up to 30 vehicles.
	Longhope, Latchen Room	Hall capacity 100; 2 meeting rooms. Refurbished in 2009 to a high standard with modern facilities. Well equipped kitchen.
Newnham	Newnham Armoury Village Hall	Hall capacity 90; 2 meeting rooms.
Yorkley/Pillowell/Whitecroft	Pillowell Village Hall	Hall capacity 60; 2 meeting rooms.
	Yorkley Recreation Centre	Hall capacity 120; 1 meeting rooms.
Lydbrook Joys Green	Lydbrook Memorial Hall	Hall capacity 120; 2 meeting rooms.

Assessment of infrastructure needs and costs

In order to gauge the level of provision that would be appropriate to support growth in the FOD development scenarios, a preliminary high level assessment of need has been undertaken. This uses a neighbourhood accessibility standard provided in the publication *Shaping Neighbourhoods – A Guide for Health, Sustainability and Vitality* (Spon 2003, figure 4.9). Assumptions informing the standard are as follows:

- A community centre per 4,000 people, which equates to a community centre per 1,740 dwellings (based on an average household size of 2.4). Many settlements within the FOD that do have a community centre may not have a current population of 4,000 dwellings and therefore the standard is a guideline only.
- The Village and Community Halls Design guidance (Sport England, 2001) sets out a number of standard floor plans for different sizes of hall. A two hall design with a plan area of 645m² is considered a reasonable template as it would allow for a range of activities to be undertaken during higher demand periods at evenings and weekends.
- An estimated capital cost of £1,500/m² (rounded) is applied based on Building Cost Information Services (BCIS) Online information (Q2 2013, costs rebased

for Gloucestershire location) and SPONS 2012 example community centre achieving BREEAM Very Good (costs rebased to 2013 and Gloucestershire location). This results in an estimated cost of £967,500 for the Sport England template community centre.

A high level assessment of community centre provision to support new development based on this standard is set out in Table 7 below:

Table 7 – Assessment of need for Community Centres

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand(m2)	Capital Cost
Cinderford	1,040	2,444	394	£591,143
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>282</i>	<i>£422,326</i>
Lydney	1,905	4,477	722	£1,082,814
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>648</i>	<i>£972,543</i>
Coleford	600	1,410	227	£341,044
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>188</i>	<i>£282,498</i>
Newent	470	1,105	178	£267,151
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>133</i>	<i>£200,079</i>
Tutshill / Sedbury	113	266	43	£64,230
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>7</i>	<i>£10,231</i>
Bream	110	259	42	£62,525
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>19</i>	<i>£28,989</i>
Drybrook	91	214	34	£51,725
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>16</i>	<i>£23,305</i>
Mitcheldean	140	329	53	£79,577
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>23</i>	<i>£34,104</i>
Newnham	65	153	25	£36,946
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>12</i>	<i>£17,621</i>
Yorkley / Pillowell / Whitecroft	96	226	36	£54,567
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>25</i>	<i>£37,515</i>
Lydbrook Joys Green	98	230	37	£55,704
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>20</i>	<i>£30,126</i>
Other village and rural area	562	1,321	213	£319,444

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand(m2)	Capital Cost
<i>Committed Sites & Windfall</i>	526	1,236	199	£298,982

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand(m2)	Capital Cost
Total				
Dwellings/Population	5,290	12431.5	2,005	£3,006,869
Committed Sites & Windfall	4,149	9750.15	1,572	£2,358,318
Allocations	1,141	2,681	432	£648,552

Infrastructure need and S106 Funding

It is important to note that the need for and size of a community centre at any of the settlements in the FOD needs to be considered in light of the capacity, accessibility and quality of existing and forthcoming provision in the area. Focussing on the settlements of Cinderford, Lydney, Coleford and Newent, where relatively large developments are committed/proposed, the following initial conclusions can be drawn.

In the case of Cinderford, a high proportion of development (743 of 1,040 dwellings) is committed and at the current time no further S106/CIL contributions towards community centres are secured. There are already three community centres within the settlement and, as further applications come forward, consideration should be given to whether improvements to the capacity and quality of these facilities should be pursued. In addition, the **Northern Quarter** AAP refers to provision of community space within the proposed Gloucestershire College Campus, which has potential to contribute towards improving both the quantity and quality of community space available within the town (see Further Education section for further details on the proposed relocation of the college campus).

With regards to the Lydney East development, provision for a Neighbourhood Centre is allowed for within the planning application, with £411,715 S106 Planning Obligation funding available to contribute towards delivery.

For Coleford, £13,980 has been secured towards community/health provision in the town through committed development and the town benefits from five existing community halls/centres. Development allocations allow for around a further 150 to 200 dwellings, so consideration should be given to whether improvements to the capacity and quality of existing community facilities should be pursued.

In Newent, the Core Strategy allocation of 350 dwellings has been met through committed development, with £126,132 secured towards enhancing the quality of community facilities in the town.

Funding Sources

Local funding initiatives that could be applicable to the enhancement of community centres include:

- **Community Grants 2013/14⁵** – The FOD District Council offer not for profit voluntary and community groups the opportunity to apply for one off funding to enable the development of stronger and more cohesive communities.
- **Forest Youth Activities Grant⁶** – The Forest Youth Activities Fund is designed to help provide a number of activities in the FOD District that will make a positive contribution to young people. There is £50,000 available within this fund.

Clearly the extent of funding available means that these funding sources will not be appropriate (alone) for provision or major refurbishment works. Communities also often rely on funding from local and national charitable trusts, the lottery and local fundraising efforts, as well as use of the parish precept in some cases.

FOD DC will continue to work with partner organisations to identify sources of funding to maintain, enhance and where required, provide new community facilities to support development. Funding sources could include further developer contributions through S106/CIL, subject to the prioritisation of planning obligations/CIL infrastructure schedules.

⁵ Source: http://www.fdean.gov.uk/nqcontent.cfm?a_id=6504

⁶ Source: http://www.fdean.gov.uk/nqcontent.cfm?a_id=6504

4.1.2 Libraries

Overview

The way in which library services are provided in Gloucestershire and the FOD District is being reformed taking account of pressure on the financing of public services and the move towards providing digital services. The County Council intends to retain a network of library buildings across the District with the aim that the majority of people should be able to get to a library within a reasonable journey by foot, by public transport or by a short car journey of around 20 minutes. Libraries will increasingly act as the local access point for a range of public and digital services and therefore the additional demand for these services generated by new development justifies developer contributions towards the maintenance and enhancement of these facilities, where viable.

Based on a high level assessment of demand, it is predicted that the cost of library services to serve all new development in the Forest of Dean (FOD) District will be around £1.2m (providing 357m² of floorspace or equivalent) based on capital costs only. The cost of libraries for non-committed development is estimated to be around £270,000, based on capital costs only (providing around 77m² of floorspace).

Responsibilities for delivery

Gloucestershire County Council is responsible for the delivery of library services across the County and in the FOD District. Under the public libraries and Museums Act 1964 there is a statutory requirement to provide a comprehensive and efficient library service for all.

There have been changes to support for these facilities at the national level that are noteworthy. Responsibilities for museums and libraries, previously undertaken by the Museums, Libraries and Archives Council (MLA), was transferred to the Arts Council in October 2011 as part of the Coalition Government's review to reduce the number of arm's length agencies. The Arts Council is funded by the Department for Culture, Media and Sport and the National Lottery. Whilst not responsible for direct provision or funding of library services, the Arts Council is now responsible for supporting and developing the libraries sector.

Sector plans and strategies

Gloucestershire County Council 'A Strategy for Library Services in Gloucestershire' (April 2012) – this takes into account pressures on public sector spending and the growing importance of digital information resources. The new strategy proposes a library service that encompasses different delivery mechanisms through:

- Digital means and via development of the virtual library
- Services targeted to support vulnerable people

- A reconfigured network of libraries
- Engagement with communities and volunteers
- Development of partnership with other public sector agencies

Infrastructure baseline and deficits

There are currently seven libraries provided by the County Council in the FOD District, that serve a total population of 81,961 (2011 census). The libraries operated by the County Council are listed below⁷:

- Bream Community Library (open 3 days/week; 10 hrs in total)
- Cinderford Library (open 6 days/week; 35 hrs in total)
- Coleford Library (open 6 days/week; 40 hrs in total)
- Lydney Library (open 6 days/week; 35 hrs in total)
- Mitcheldean Community Library (open 4 days/week; 21 hrs in total)
- Newent Library (open 6 days/week; 21 hrs in total)
- Newnham Community Library (open 6 days/week; 10.5 hrs in total)

Up to 9th November 2012, Gloucestershire County Council operated three rural mobile libraries, with the Forest of Dean rural areas being covered by the West Mobile library. The service makes a total of nine stops in the FOD district.

A ‘virtual Library’ website is in operation across Gloucestershire and is available to anyone with internet access. In 2011-12 125,000 ‘virtual’ library visits were made in the county and nearly 3 million actual visits to the county libraries.

Against a background of public spending cuts and changes in the ways library services are used, such as increasing demand for digital, web-based services, the County Council has undertaken a review of existing assets and what the library service should look like in the future. Three important elements of the strategy highlighted here are:

A reconfigured network of libraries and the Big Community Offer - In April 2012 the County Council decided to apply a reduction of £1.8million (25%) in the context of library services and the new Library Strategy provides for 31 council run libraries, two mobile library services and the Virtual Library. Under the County Council’s Community Offer 8 communities were invited to submit business cases for running a community library once council funding was withdrawn. By 1st January 8 community run libraries will be in place in the county. As part of the Big Community Offer encouraging third sector community groups to manage services, these libraries receive on-going support in the form of a cash revenue funding stream of £10,000 per year, provision of PCs and data lines enabling internet access and provision of the Libraries Management System for administering the library loan system. In addition, the library building was made available to them through a lease arrangement with a ‘peppercorn rent’ (£0) or 20% discount on market value if the library asset was purchased by the

⁷ Source: <http://www.gloucestershire.gov.uk/libraries> (accessed June 2013)

community or up to 50% share of sale proceeds to invest in an alternative community venue for the library provision.

Co-location of facilities – The County Council Strategy identifies libraries as important access points to public services in Gloucestershire and therefore the provision of space for other organisations within library buildings is a logical step. Co-location agreements with the police are in place for a number of libraries, where *Police Points* are now provided, saving costs for both the County Council and Constabulary.

Development of the Virtual Library - The County Council's strategy is that libraries will continue to be key places in the community where people will be able to access broadband and use computers. They will continue to provide support to assist people with accessing digital public services and digital communication, and digital information. As such, the library service will continue to play an important role in ensuring that computer and digital services are accessible to all. The County Council aims to continue with the expansion of the services available through its own virtual library which means wherever the Internet is available anyone will be able to use these digital services 24/7.

Assessment of Infrastructure Needs and Costs

A high level assessment of library service infrastructure needed to support Local Plan growth has been undertaken using Arts Council benchmark standards. The Arts Council publication 'The Community Infrastructure Levy: advice note for culture, arts and planning professionals (April 2012) provides standards to guide the level of provision of library space, as set out below:

- Provision of 30m² of Library space per 1000 people. An estimated capital cost of £3,500/m² is given for England based on 2009/10 process. Rebased this estimated cost for 2013⁸ and a Gloucestershire location results in a capital cost of £3,839/m², rounded to £3,800/m².

An assessment of library space to support new development per settlement based on this standard is set out in Table 8 below:

⁸ BCIS Online – costs rebased to Q2 2013

Table 8 –Assessment of need for libraries

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Library Services Infrastructure	
		Indicative Demand Analysis: Application of recommended MLA (now Arts Council) service space requirements (Theoretical m2 requirement)	Indicative Demand Analysis: Application of recommended MLA (now Arts Council) delivery costs (reflective of 2009/10 prices and rounded to nearest £1000)
Cinderford	1040	70.2	£246,000
<i>Committed Sites & Windfall</i>	743	50.2	£176,000
Lydney	1905	128.6	£450,000
<i>Committed Sites & Windfall</i>	1711	115.5	£404,000
Coleford	600	40.5	£142,000
<i>Committed Sites & Windfall</i>	497	33.5	£117,000
Newent	470	31.7	£111,000
<i>Committed Sites & Windfall</i>	352	23.8	£83,000
Tutshill / Sedbury	113	7.6	£27,000
<i>Committed Sites & Windfall</i>	18	1.2	£4,000
Bream	110	7.4	£26,000
<i>Committed Sites & Windfall</i>	51	3.4	£12,000
Drybrook	91	6.1	£21,000
<i>Committed Sites & Windfall</i>	41	2.8	£10,000

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Library Services Infrastructure	
		Indicative Demand Analysis: Application of recommended MLA (now Arts Council) service space requirements (Theoretical m2 requirement)	Indicative Demand Analysis: Application of recommended MLA (now Arts Council) delivery costs (reflective of 2009/10 prices and rounded to nearest £1000)
Mitcheldean	140	9.5	£33,000
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>4.1</i>	<i>£14,000</i>
Total Dwellings/Population	5290	357.1	£1,250,000
Committed Sites & Windfall	4149	280.1	£980,000
Allocations	1141	77.02	£270,000.

Taking account of the County Council's Strategy for library services summarised above, it is anticipated that the additional demand for services (and related funding) would be channelled towards maintaining and enhancing the existing library network, including the Virtual Library, and providing services for more vulnerable groups such as the elderly. In rural localities, the infrastructure mitigation may include increasing the capacity of the mobile library service (e.g. the length and frequency of stops).

Within each of the four settlements where the Core Strategy proposes the highest levels of development, there is an existing library in the settlement.

Cinderford has a significant proportion of committed development (783 of 1,050 dwellings) and at the current time, no S106 contributions toward library provision are secured. The need for improvements to the existing services to cater for new demand will need to be considered as further applications within the settlement come forward. For instance, there may be an opportunity to provide access to library and online facilities within the proposed Gloucestershire College campus within the Northern Quarter.

In the case of the East of Lydney New Neighbourhood, committed development makes an allowance for financial contributions towards library provision, as set out in the table above.

The town of Coleford benefits from an existing library which is open 40 hours a week. £17,875 has been secured towards library provision in the town through committed development to date and development allocations allow for a further 150 – 200 dwellings. Opportunities to further improve the range of facilities available at the library, such as online services and services to reach vulnerable people such as the elderly, could be investigated.

With regards to Newent, £23,225 has been secured through open S106 agreements. The Core Strategy allocation of 350 dwellings has been met through committed development so it is not anticipated that further allocations would create substantial additional need, although there could be an opportunity to extend the opening hours of the library.

A further notable case is that of Tutshill/Sedbury, where the nearest library is located in Chepstow and operated by Monmouthshire County Council. A mobile service operated by Gloucestershire County Council also visits the villages, although there may be the potential to improve the frequency of visits (the service stops once within a four week cycle on a Tuesday between 9.45 and 11.45).

4.1.3 Youth Support Services

Responsibility for delivery

Youth Support Teams in Gloucestershire provide a range of services targeted at vulnerable young people aged 11-19 (up to 25 for young people with special needs). Gloucestershire County Council is the commissioning authority for Youth Support Services and has a statutory responsibility to provide support for young people at risk. The Youth Support Team commissions the following services:

- Youth Offending Service
- Looked After Children

- Care Leaver's Support services (for those aged 16+)
- Early Intervention and Prevention Service for 11-19 year olds
- Support for young people with learning disabilities and/or disabilities
- Positive activities for young people with disabilities
- Support with housing and homelessness
- Help and support to tackle substance misuse problems and other health issues
- Support into education, training and employment
- Support for teenage parents

The FOD youth support team operates out of The Main Place in Coleford, however the team also run a number of drop-in sessions at various locations including:

- Lydney Youth Café - Tuesday 10.00am – 12.30pm
- CANDI Cinderford - Wednesday 10.00am – 12.30pm

Assessment of infrastructure needs and costs

During consultation with Gloucestershire Youth Support Services three main measures relating to new development were identified.

Firstly, population growth and new residential development results in increased demand for Youth Support Services for vulnerable young people, with the result that it is necessary to increase the capacity of the single Youth Support Centre in each District. Gloucestershire County Council have calculated that the cost of providing services and an assessment of need for Youth Support Services based on this standard is provided in Table 9.

Table 9 - Assessment of need for Youth Support Services

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Targeted Youth Support Services Infrastructure	
		Theoretical 'High-Level' Demand for TYSS Intervention Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2012 prices) (Rounded to the nearest £10,000)
Cinderford	1040	12.6	£70,000
<i>Committed Sites & Windfall</i>	743	9.0	£50,000
Lydney	1905	23.0	£129,000
<i>Committed Sites & Windfall</i>	1711	20.7	£116,000
Coleford	600	7.3	£41,000
<i>Committed Sites & Windfall</i>	497	6.0	£34,000
Newent	470	5.7	£32,000
<i>Committed Sites & Windfall</i>	352	4.3	£24,000
Tutshill / Sedbury	113	1.4	£8,000
<i>Committed Sites & Windfall</i>	18	0.2	£1,000
Bream	110	1.3	£7,000
<i>Committed Sites & Windfall</i>	51	0.6	£3,000
Drybrook	91	1.1	£6,000
<i>Committed Sites & Windfall</i>	41	0.5	£3,000
Mitcheldean	140	1.7	£9,000

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Targeted Youth Support Services Infrastructure	
		Theoretical 'High-Level' Demand for TYSS Intervention Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2012 prices) (Rounded to the nearest £10,000)
<i>Committed Sites & Windfall</i>	60	0.7	£4,000
Newnham	65	0.8	£4,000
<i>Committed Sites & Windfall</i>	31	0.4	£2,000
Yorkley / Pillowell / Whitecroft	96	1.2	£7,000
<i>Committed Sites & Windfall</i>	66	0.8	£4,000
Lydbrook Joys Green	98	1.2	£7,000
<i>Committed Sites & Windfall</i>	53	0.6	£4,000
Other village and rural area	562	6.8	£38,000
<i>Committed Sites & Windfall</i>	526	6.4	£36,000

FoD DC Revised Development Scenario (2014)		FoD IDP Revised Development Scenario – Housing Units	Targeted Youth Support Services Infrastructure	
			Theoretical 'High-Level' Demand for TYSS Intervention Places (Rounded Totals)	Theoretical 'High-Level' Demand for TYSS Intervention Places (Rounded Totals)
Total Dwellings/Population		5290	64.0	£358,000
Committed Sites & Windfall		4149	50.2	£281,000
Allocations		1141	13.80	£77,000.00

A second aspect of Youth Support Services where new development is of importance relates to the opportunity to provide training, apprenticeships and employment during the construction of new schemes. The recession following the global credit crunch of 2008 has resulted in a bulge in youth unemployment in Gloucestershire. 30% of Job Seekers Allowance claimants across the County are aged under 25 years and 32% of these remain unemployed for 6+ months⁹. Local planning authorities are therefore urged to consider the agreement and implementation of Employment and Skills Charters working with developers, to help facilitate the creation of employment opportunities within the construction sector.

The third recommended measure is to ensure that facilities for young people within major new developments are brought forward early in the phasing schedule (by way of appropriate planning conditions) and that a Community Development Officer is appointed to help establish pioneer community activities and services.

The Kingsway development in Gloucester has been identified as an example of where the absence of community infrastructure during the early years of occupation of the estate was a contributing factor to escalating anti-social behaviour, particularly amongst young people. A youth worker is now to be appointed to assist in tackling issues and improve the availability of facilities for young people.

For those developments that are considered to be of a scale that would warrant the appointment of a community development/youth worker officer, a basic annual cost allowance of £30,000 - £35,000 is recommended by Gloucestershire County Council.

⁹ *'Grow Gloucestershire: A youth employment and skills strategy for Gloucestershire'*
(Gloucestershire County Council Youth Economic Stimulus Project, July 2012)

4.2 Education

4.2.1 Early Year's education and childcare

Overview

The Childcare Act 2006 requires Local Authorities (LAs) to provide universal childcare provision for 3 to 4 year olds to ensure that there is sufficient good quality childcare available for parents who want to work, train for work or who are already in work. The Government is also committed to introducing a new targeted entitlement for 2 year olds to access free early education. This is being introduced in two phases, with free early education for 30% of the least advantaged two-year-olds from September 2013, with the number of places increasing to provide for 40% of the least advantaged children from September 2014. Ensuring there is sufficient capacity within the network of Children's Centres, nurseries, pre-school playgroups and child-minders will therefore be of great importance.

A detailed assessment of the need for additional Early Year's places will rely on the provision of updated baseline information, as well as more detailed information on planned housing mix and type (dwellings size and tenure) for each development. Therefore, at this stage, a preliminary high level assessment of need has been undertaken using a locally derived standard provided by Gloucestershire County Council. This suggests that planned development in the draft Allocations Plan would result in the need for around 395 Early Year's care places, provided at a capital cost of £4,610,000 (around 85 additional places would be required in relation to non-committed allocations, with an estimated capital cost of £990,000).

Responsibilities for delivery

Early Years education is currently defined as full-time or part-time education from the start of the term following the child's 3rd birthday and up to compulsory school age, although coverage is broadening in certain circumstances to include two year olds. Early Years education places are provided through partnership working between the responsible Local Authority (LA) and providers in the maintained, private, voluntary and independent sectors. Gloucestershire County Council's Children's Centres operate some local services through on-site provision, although childcare provision across the county is predominantly delivered through day nurseries and pre-school playgroups that offer sessional day care. Other local options include child-minders, nursery classes within independent schools and privately operated nursery schools.

The Childcare Act 2006 requires LAs to provide universal childcare provision for 3 to 4 year olds to ensure that there is sufficient good quality childcare available for parents who want to work, train for work, or who are already in work. The Government is also committed to introducing a new targeted entitlement for 2

year olds to access free early education. This is part of the government's Fairness Premium, to give up social mobility and improve life chances.

Department for Education *Statutory Guidance for Local Authorities on the Delivery of Free Early Education for Three and Four Year Olds and Securing Sufficient Childcare* (September 2012) summarises the responsibilities of English LAs under the 2006 Act:

- *2 year old entitlement* – The free entitlement to early education was initially extended to some 2 year olds through a national pilot. Gloucestershire has been part of the pilot since 2007, delivering the free entitlement to the most vulnerable and disadvantages 2 year olds. The Government now plans that the new entitlement for 2 year olds will be implemented across the country in two phases. In September 2013 (phase one), around 130,000 (20%) of 2 year olds in England will be able to access free early education places. From 2014 (phase 2), the entitlement will be extended to around 260,000 (40%) of two year olds.
- *3 and 4 year olds entitlement* – Regardless of their parent's' ability to pay, all eligible children are able to take up high quality early education. LAs are required by legislation to make available sufficient free early education places offering 570 hours a year over no fewer than 38 weeks of the year for every eligible child (the equivalent for 15 hours/week for 38 weeks a year).
- *Childcare for older children* – In addition, LAs are required by legislation to secure sufficient childcare, as far as reasonably practicable, for working parents (or parents studying or training for employment), for children aged 0-14 (or up to 18 for disabled children).

Infrastructure related sector specific plans and strategies

The Childcare Sufficiency Assessment (April 2011) - The Childcare act 2006 formalises the process of gathering information on the planning and development of childcare, and requires local authorities to undertake a thorough 'sufficiency assessment' every three years, and to update this information regularly in the interim periods. The latest *childcare Sufficiency Assessment* was prepared by Gloucestershire County Council (GCC) childcare Team and published in April 2011. The assessment sets out details of the current level of provision within the County for Early Years provision and, more specifically, details of the supply and demand of facilities.

The Gloucestershire Strategic Infrastructure Delivery Plan (October 2010) - The Gloucestershire Strategic Infrastructure Delivery Plan (SIDP) provided an initial assessment of Early Years education needs linked to future growth in the County up to 2026 as determined during 2009 and 2010. The section on Social and Community Infrastructure applied locally derived standards for the number of early year's education places anticipated to be generated through new development.

Infrastructure Baseline

The following information is taken from the Gloucestershire County Council website which maintains a regularly updated directory of childcare centres within the County. The Forest of Dean is served by five Children's Centres located in

Coleford, Mitcheldean, Newent, Lydney and Cinderford. Gloucestershire has 39 Children’s Centres in total which vary between large centres offering a wide range of services throughout the week in deprived areas and smaller ‘bases’ that offer occasional activities and staff outreach. Children’s Centres form part of the local provision package and sit alongside day nurseries, pre-school playgroups, childminders, and nursery classes provided within independent schools and privately operated nursery schools.

Table 10 below sets out the Children’s Centres by settlement and matters identified for further investigation in the Childcare Sufficiency Assessment, based on 2011 data. The establishment shaded in grey were considered to have significant problems at the point of survey, particularly in terms of an imbalance with the local population, the availability of places for sufficient early years’ provision and its affordability.

Table 10 - Children's Centre's within the Forest of Dean

FOD Sub-area	Local Children’s Centres reach within the Family Tree Cluster	Gap analysis – based on 2011 Childcare Sufficiency Assessment ¹⁰
Cinderford	Hilltop – Cinderford	-
Lydney	River – Lydney (Severnbanks)	Demand is high and gaps have been identified in current provision.
Coleford	Leaves - Coleford	High demand at 88%.
Newent	Branches - Newent	-
Tutshill/Sedbury	-	-
Bream	-	-
Drybrook	-	-
Mitcheldean	Twigs - Mitcheldean	Gaps identified regarding places; high demand at 86%.
Newnham	-	-
Yorkley/Pillowell/Whitecroft	-	-
Lydbrook Joys Green	-	-

Assessment of infrastructure needs and costs

A detailed local assessment of the need for Early Year’s places to accommodate growth will require an up to date data review of capacities and any anticipated future changes in provision. Equally important will be the provision of information on the proposed housing mix and type including aspirations on tenure, likely to be supported throughout the FOD area. FOD Core Strategy Policy CSP.5 – Housing states that a mix of house sizes and types including those

¹⁰ Section 8 of the Childcare Sufficiency Assessment identifies those areas where demand is high and gaps have been identified in current provision. The Childcare Sufficiency Assessment utilises two gradings of issues that need to be addressed: only the higher priority issues are referenced here.

suitable for an ageing population will be encouraged in accordance with prevailing evidence.

At this stage, in order to inform a review of requirements for the Core Strategy and the emerging Allocations plan, a preliminary high level indicative assessment of theoretical demand has been completed. This applies the locally derived Gloucestershire standard for the number of Early Year's places likely to be generated through new development. The standard reads as follows:

- 7.467 (full-time equivalent) Early Year's care places per 100 qualifying homes¹¹. To estimate capital cost for providing early years provision Gloucestershire CC use a figure of £11,682 per child.

It is important to note that this indicative assessment has suspended the application of qualifying homes and has included all potential dwellings in its calculations. Any further assessment of need will need to consider the impact of the proposed housing mix and type (i.e. size and tenure) at each location.

This Gloucestershire standard is well established and has been successfully used in local planning for a number of years, including for the consideration of development proposals. It is based upon statistical research into estimating future theoretical demand, which was carried out by Gloucestershire County Council's Chief Executive's Support Unit (CESU) and Business Services (Property) Directorate. In line with good practice, the County Council have recently instigated an update review of this standard.

Table 11 below sets out the results of the indicative assessment of demand from growth for Early Year's provision across the FOD area. The assessment has not undergone further analysis to establish a potential need, which would need to factor in the potential impact of utilising any existing or emerging surplus provision over the plan period. As the Site Allocations Development Plan Document is progressed, a more detailed and localised analysis will be needed.

Table 11 - Assessment of theoretical demand for Early Year's places

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure	
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
Total Dwellings/Population	5290	395.0	£4,610,000
Committed Sites & Windfall	4149	309.8	£3,620,000
Allocations	1141	85.20	£990,000

¹¹ A 'qualifying home' for education purposes is defined as a single residential unit that is not an apartment/flat or which has not been covered by restricted occupancy in respect of families (e.g. retirement/age restricted housing).

Current Projects

Based on more detailed assessments of demand undertaken in relation to individual planning applications, a district-wide total of £423,614 has been secured through S106 planning contributions towards Education, based on information set out in the FOD S106 Contributions Keynote (21st March 2011)¹². This includes an element of Early Years provision.

With respect to specific settlements, information from 2011 suggests that demand is particularly high in relation to the Lydney and Mitcheldean Children's Centres. At the current time the following specific projects and financial contributions have been secured to address projected demand:

Lydney East

- **Lydney A** - £102,906 (current amount) secured towards provision of early years facilities in the Lydney area.
- **Lydney B** - £123,172 (current amount) has been secured towards improving capacity at the River Children's Centre.

Mitcheldean

The planned growth levels for Mitcheldean is relatively low with about 130 dwellings proposed and 60 of these comprising committed development. Nevertheless, further growth in Mitcheldean and other nearby settlements such as Drybrook may exacerbate capacity problems and further more detailed assessment work based on up to date recent capacity figures will be required to assess whether expansion of facilities is necessary.

Funding

Early Years single Funding Formula – Funding is channelled through Gloucestershire County Council via the Early Years Single Funding formula (EYSFF) to a mix of local authority, private, voluntary, independent nurseries and accredited childminders.

The aim of the EYSFF introduced by the Government is to distribute funding based on common principles. In Gloucestershire the EYSFF was introduced in 2010 and is based on participation of children and so only fund occupied places. The formula consists of a base (hourly) rate plus an annual supplement for deprivation (statutory requirement). The introduction of the EYSFF decreased the base rate, but introduced an annual supplement for deprivation. In April 2010 when the EYSFF was introduced, the hourly base rate was £3.22. This rate increased to £3.25 in April 2011¹³.

¹² Source: Open and Closed contributions figures from http://www.fdean.gov.uk/media/Assets/ForwardPlan/documents/Core%20Strategy%20Documents/keynote_Section_106_Agreements.pdf

¹³ <http://glostext.gloucestershire.gov.uk/documents/s17669/EYSFF%20-%202026%20Jun%202013.pdf>

4.2.2 Primary and secondary education

Overview

The education system is currently in a period of transition as management and funding arrangements are changed to reflect the coalition Government's objectives. The Government wants to provide schools with greater management and budgetary freedoms, with the result that many schools, particularly secondary schools at this time, are converting to Academy status. Local Authorities will retain a strategic coordinating role to ensure that all children have a school place and will continue to allocate funding for state schools until such time as they convert to Academies.

Planning for future school capacity is complicated by the desire to enable parent/student choice and changes to the popularity of different schools. This means that pupils may not attend the closest school to new development and the County Council therefore uses School Planning Areas to gauge changes in capacity requirements across a wider area.

At this stage of the infrastructure planning process preliminary high level assessments of need have been undertaken utilising a locally derived Gloucestershire County Council standard and DCSF Basic Needs Cost Multipliers. Application of these standards results in projected demand for 1,468 primary school places across the FOD area, at a capital cost of around £17.1m (with projected demand for 316 places at non-committed allocations, with a capital cost of around £3.7m). Results indicate a need for 834 secondary school places for the full Core Strategy period at a cost of around £14.8m (with a demand of around 179 places for non-committed allocations at a capital cost of approximately £3.2m).

Responsibilities for delivery

Published by the Department of Education in November 2010, *The Importance of Teaching White Paper* sets out the Government's intended direction of travel for the schools system and funding. A principal objective of the Government is to increase the autonomy of schools and reduce bureaucratic constraints at the national and local levels. Based on a review of international experience and the high performance of Academies and City Technology Colleges (CTCs) in the UK, the Government wants to provide schools with greater management and budgetary freedoms, while Local Authorities (LAs) will retain a strategic coordinating role.

In summary, the White Paper states that the Government will:

- Restore all original freedoms to Academies, while ensuring there is a level playing field on admissions (particularly in relation to Special Educational Needs).
- Dramatically extend the Academies programme, opening it to all schools.

- Ensure lowest performing schools are considered for conversion to Academies to effect educational transformation.
- Ensure there is support for schools to collaborate through Academy chains and multi-school trusts and federations.
- Support teachers and parents to set up new Free Schools to meet parental demand, especially in areas of deprivation.

With respect to the on-going role of LAs, the White Paper proposes to give LAs a strong strategic role as champions for parents, families and vulnerable pupils. They should promote educational excellence by:

- ensuring a good supply of strong schools and high quality school places;
- co-ordinating fair admissions to schools for every child;
- retain responsibility for school transport arrangements which promote fair access;
- support vulnerable pupils, including Looked After Children, those with Special Educational Needs and those outside mainstream education;
- support maintained schools performing below the floor standards to improve quickly or convert to Academy status with a strong sponsor;
- use their democratic mandate to stand up for the interests of parents and children; and
- develop their own school improvement strategies.

Importantly, while the majority of schools are LA maintained schools, funding will continue to pass to them through the LA, which is Gloucestershire County Council for the FOD area. As more schools become Academies, funding will be provided directly by the Government to improve funding consistency nationwide.

Local authorities will, over time, play a role in commissioning new provision and overseeing the transition of failing schools to new management.

In practical terms, where there is a need for a new school, the Government advises that the first choice will be a new Academy or Free School. Where a local authority is unable to identify a suitable sponsor to open a new school, it will be able to contact the Secretary of State, so that they can work together to find a sponsor.

Infrastructure related sector specific plans and strategies

The Gloucestershire Strategic Infrastructure Delivery Plan (April 2011) - The Gloucestershire Strategic Infrastructure Delivery Plan (SIDP) provided an initial assessment of primary and secondary education needs in the County up to 2026, as determined during 2009 and 2010. The section on Social and Community Infrastructure presented locally applied standards for the anticipated number of education places that would be generated through new development, for primary and secondary education (up to age 16 years).

Infrastructure baseline – Primary Schools

The Gloucestershire County Council website offers an up-to date directory of all primary and secondary schools within the county¹⁴. There are 39 Primary Schools across the whole of the FOD District (see Table 12 below). At the present time there are three Academy Converters, four Foundation Schools and six Voluntary Aided Schools. The majority of the primary schools fall within the Community Schools and Voluntary Controlled Schools categories. There are three schools within Chepstow and Cinderford which come under the Independent or Academy Sponsor Led category.

Within the FOD District, the majority of primary schools provide both infant and junior education from reception through to year six (4-11). There are, however a number of infant schools that operate as part of a three-tier education system. Infant schools are in operation at Newent and Coleford, there is also a junior school based in Coleford.

State-funded primary schools in Gloucestershire are organised into local school planning areas. These represent collections of schools that have a broad physiographic relationship by virtue of the established local trends of serving similar local neighbourhoods. Local school planning areas have been used to assist in assessment of local capacities for forecasting revenue and capital funding requirements from national government.

As of 2012, the majority of primary schools covering the FOD area reported to have little or no space to accommodate additional child spaces. There were also a small number of schools, which operated above their indicative capacity.

¹⁴ <http://www.education.gov.uk/edubase/search.xhtml?filter=&page=5>

Table 12 - Primary school provision within the Forest of Dean

Settlement	Community Schools	Academy Converter	Voluntary Controlled School	Foundation School	Vo Sc
Blakeney	1				
Chepstow			1		
Cinderford	3	1	1		
Coleford	3	1	2	1	
Drybrook	1				
Lydbrook	1				
Ledbury					1
Lydney	4	1	3	1 (Proposed to Close)	1
Longhope			1		
Dymock					1
Mitcheldean					1
Monmouth			1		
Newnham					1
Newent			1	2	
Ruardean	1		1		
Westbury-on Severn					1
Total:	13	3	10	4	6

Infrastructure Baseline – Secondary Schools

There are seven secondary schools located within the FOD District, three of which are Academy Converters, two are Academy Sponsor Led and one is a Foundation School. There are no Grammar Schools in the FOD District, although there are several elsewhere in Gloucestershire, in Cheltenham, Gloucester and Stroud. Grammar schools are state schools that select their pupils on the basis of academic ability. Pupils in their final year of primary school sit an exam known as the 11-plus which determines whether or not they are eligible for a place.

There is one special school in Coleford which provides for pupils aged 3-19. Two of the secondary schools in the FOD District, Wydean School Centre and Newent Community School, have Sixth Form Centres and therefore cater for pupils aged 11-18.

Table 13 - Secondary Schools within the Forest of Dean

Settlement	Academy Sponsor Led	Academy Converter	Foundation School	Special School
Cinderford	1			
Coleford			1	1

Lydney	1			
Mitcheldean		1		
Newent		1		
Tutshill /Sedbury Tidenham		1		
Total:	2	3	1	1

State-funded Secondary schools in Gloucestershire are organised into local school planning areas under similar circumstances to Gloucestershire’s primary schools. However, there are fewer local planning areas than for primary schools to reflect their more ‘strategic’, than local reach.

Assessment of infrastructure needs and costs

Providing a meaningful assessment of need for new school places requires careful consideration. It is not a simple exercise of identifying unmet need by deducting the anticipated number of new pupils generated by new development from the current unused number of places available in the closest local schools. A number of other factors need to be taken into account such as increasing opportunities for parental choice – this is a statutory duty of the LA, and acknowledging changes in local popularity of local schools over time. Consequently, at this stage of the IDP process a broader needs assessment to the level of a school planning area represents the most practical approach. This need assessment will also need to reflect an occurrence of new pupils over time, such as in five-year blocks over the lifetime of the Local Plan.

Detailed assessments of need for school places will therefore rely upon up to date baseline information for each school planning area along with more detailed information on planned housing mix and type (dwellings size and tenure).

For the purpose of this study, a high level assessment of indicative need has been undertaken, based on the following locally derived Gloucestershire CC Standards:

- 27.76 primary school places required by every 100 additional dwellings with an estimated capital cost of £11,682 per primary school pupil place.
- 13.87 secondary school places per 100 qualifying homes, for 11-16yrs only at a capital cost of £15,101 per pupil place.

The Gloucestershire standard is well established and has been successfully used in local planning for a number of years, including for the consideration of development proposals. It is based upon statistical research into estimating future theoretical demand, which was carried out by Gloucestershire County Council’s Chief Executive’s Support Unit (CESU) and Business Services (Property) Directorate¹⁵. In line with good practice, the County Council are reviewing the standard.

¹⁵ *Child Population of New Developments in Gloucestershire: An investigation into the Numbers of Children Likely to be Resident on New Housing Developments in Gloucestershire* - Gloucestershire County Council (GCC): Chief Executive’s Support Unit (CESU) (June 2007)

Table 14 - Assessment of theoretical demand for Primary Education

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Primary Education Infrastructure	
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
Total Dwellings/Population	5290	1468.6	£17,160,000
Committed Sites & Windfall	4149	1151.8	£13,460,000
Allocations	1141	316.76	£3,700,000

Provision for primary schools will need to be locally focus to ensure that its key users – children, parents and employees, can achieve reasonable accessible choice to education without the need to heavily rely upon motorised travel. Evidence to support local transport planning work – namely the Gloucestershire Manual for Streets, indicates that primary school infrastructure should ideally be considered as part of a ‘walkable neighbourhoods’. This would mean facilitating sufficient local choice within 10 minutes or 800 metres safe walking distance of residential areas.

In terms of the requirement for new standalone facilities, it would not be unreasonable to expect development of 800 + dwellings to generate specific localised demand for a new primary school. However, for reasons of asset efficiency and economies of scale it would be preferred if new standalone provision was designed to accommodate up to 2-form entry / 420 places or with the potential to expand to this size and scale of provision with the least amount of disruption and cost.

Table 15 - Assessment of theoretical demand for Secondary Education

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Secondary Education (incorporating post-16 6th Form Provision) Infrastructure	
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals) Secondary incl. 6th Form	Indicative Capital Delivery Cost (Based on 2014 prices) - where 6th-form is to be provided locally
Total Dwellings/Population	5290	834.3	£14,880,000
Committed Sites & Windfall	4149	654.4	£11,670,000
Allocations	1141	179.96	£3,210,000.00

There is greater flexibility regarding accessibility to secondary-level education. The choice of school made by parents and children are less dictated by local accessibility. This circumstance is further complicated in Gloucestershire by the presence of selective (grammar) schools and religious orientation. Children access secondary schools by a variety of different transport modes including private car, bus, train, cycling and walking. Nevertheless, there remains a keenness to reduce the need to travel by private car, which should be incorporated into the consideration for future provision need with new development.

In terms of the requirement for new standalone facilities, it would not be unreasonable to expect development of around 5,000 + dwellings to generate demand for a new secondary school.

It should be noted that through consultation as part of the refresh we were made aware that on a number of recent sites no primary contribution was sought and the requirement for secondary contributions are now less likely to be sought. FoD DC should work closely with GCC in analysing the above worst case scenario, current education provision and therefore future need and necessary contributions.

Current/Future Projects

Within the FOD District there is one planned development, the new neighbourhood east of Lydney, that is of sufficient scale to trigger on-site education in the form of a primary school. A brief summary of the S106 contributions secured to date is provided below, showing that capacity enhancements and/or new schools are planned in relation to both primary and secondary provision:

East of Lydney - for the new neighbourhood East of Lydney, the following school contributions and projects are identified:

- ***Lydney A primary school contribution*** - £857,550 (current amount) secured contribution towards new school or extension of Severnbanks primary school.
- ***Lydney B primary school contribution*** - £2,961,437 (current amount) has been secured towards provision of a new on-site one form entry primary school; OR developer construction of school.
- ***Lydney B secondary school contribution*** - £2,140,688 (current amount) secured contribution towards improving capacity at Whitecross secondary school.

At other settlements, particularly Cinderford, Coleford and Newent (where higher dwelling numbers are proposed) the combined development across a range of sites can together result in significant demand. In these instances, alternative means to on-site provision of new schools need to be considered, such as expansion of existing schools within the County Council school planning area. As demonstrated above and in the FOD S106 Keynote report, contributions towards education have been secured in relation to committed development and the availability of pupil places will need to be kept under review.

Funding

The Dedicated School Grant – As set out above under Responsibilities for delivery, the County Council will remain responsible for the allocation of funding

to schools until they reach a stage of converting to Academy status. The Government's proposal in the White Paper is to simplify funding and provide greater flexibility by giving autonomous schools a single funding stream, the Dedicated Schools Grant. This will be based on a national funding formula to improve consistency and fairness of funding levels.

The Government also proposes to target more resources towards the most disadvantaged areas, primarily through the application of a 'Pupil Premium', which means schools will receive extra money for each pupil from a deprived background.

Schools Capital Spending – The Buildings Schools for the Future programme was ended by the Government as it considered that large sums of money were being wasted on bureaucracy. This had resulted in a 60% reduction in education capital spending, but the Government has committed to spend £15.8 billion between 2011-12 and 2014-15. The priority for spending has shifted from new build programmes towards addressing the poor condition of the existing school estate and ensuring that there are enough places for the predicted increase in the number of school age children, particularly at the primary level (paragraphs 8.24 and 8.25 of the *Importance of Teaching White Paper, 2010*).

4.2.3 Further Education

Overview

In 2008 the Government set requirements that by 2015 all 17 and 18 year olds should remain in education or training. This requirement will have clear implications for capacity at the existing Further Education institutions in the FOD District and neighbouring authorities.

The Education Funding Agency(EFA) has put in place a 16-19 Demographic Growth Fund to assist institutions to provide the additional accommodation, however further research will be required to understand whether this will enable the creation of sufficient student places taking account of proposed new development.

A high level assessment of estimated demand has been undertaken, which concludes that for the full plan period around 79 additional places would be required at a capital cost of approximately £1,200,000 (for non-committed allocations, the projected demand is for around 17 places at a capital cost of approximately £260,000).

It should also be highlighted that Further Education provision comprises an important element of the District's regeneration plans for Cinderford, with the

planned relocation of the Gloucestershire College Forest of Dean campus to the Northern Quarter.

Responsibilities for Delivery

The Education Funding Agency (EFA), an executive agency of the Department for Education, is responsible for the funding of 16-19 provision in academies, general further education colleges, sixth-form colleges and independent provision. Funding allocations administered by the EFA are designed to support the Government's aims for raising the age of participation in education or training. The Education and Skills Act 2008 set out that from summer 2013, all young people will be required to continue in education or training. This change is being implemented in two phases:

- From the summer 2013, all young people will be required to continue in education or training until the end of the academic year in which they turn 17.
- From 2015 they will be required to continue until their 18th birthday.

This requirement will have clear implications for the capacity of Sixth-Form and Further Education providers and Local Authorities will have a statutory responsibility to secure sufficient education and training places in their areas, taking into account quality and other factors.

Baseline and assessment of need

Current providers of sixth form and further education in the FOD District are:

- Wyedean School and Sixth Form Centre
- Newent Community School and Sixth Form Centre
- Gloucestershire College – the FOD area is also served by several Further Education (FE) colleges that offer a range of academic and vocational courses. These establishments tend to serve a much wider catchment area. Gloucestershire College has campus' located in Cheltenham and Gloucester as well as within the Forest of Dean District. Further afield, other FE providers in Gloucestershire that may attract students from the FOD are South Gloucestershire & Stroud (SGS) College which has a campus in Stroud (and a campus in Filton, near Bristol) and Cirencester College, which lies on the outskirts of Cirencester.

In terms of assessing future demand, this study does not seek to assess the full implications of the Government's age of participation objectives, with respect to children and young people already within the system. However, it does seek to appraise the implications of new development in the FOD District taking account of the requirements for 17 and 18 year olds to remain in education or training.

A high level assessment of need has been undertaken by applying the following benchmark standard:

- an assumption of 4.8 post-16 full-time education places per 100 qualifying homes; and
- to estimate capital costs calculated at £17,832 per child.

In addition a theoretical demand for space has been created using the Department for Education 'Briefing Framework for Secondary Schools'. This advises 14.23m² should be considered for students aged 16 – 18yrs. This broadly aligns with Former DCSF 'Guidance for Further Education Colleges on the Management of Floor Space' (2007), which recommends ranges per workspace of between 11.5m² and 14.5m² for colleges and 10m² to 13m² for sixth form colleges.

The present local approach to demand for post-16 education does not take into account recent changes in government policy concerning the rise in participation in either education or skills-based training for employment for 16 - 19 year olds. The assessment applies historic locally derived standards, which incorporates a 'staying on rate' (only 48%) for formal education at 16 (i.e. A-levels) taken from data analysed from the mid-2000's. Future detailed assessments of 'need' will have to consider the possibility of a revised methodology that more meaningfully captures the likely generation of 16-19 residents whom will require access to education and / or training.

Application of these standards results in the following estimated demand for further Education places as a result of new development:

Table 16 - Assessment of theoretical demand for Further Education places

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)	
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
Total Dwellings/Population	5290	79.6	£1,200,000
Committed Sites & Windfall	4149	62.5	£940,000
Allocations	1141	17.18	£260,000.00

Current Projects

Further Education provision comprises an important element of the District's regeneration plans for Cinderford, as set out in the adopted AAP for the Northern Quarter:

"A new Gloucestershire College Campus will be an essential catalyst for the regeneration of the Northern Quarter. It is envisaged that this will be located in a prominent and easily accessible place on the site. The new Gloucestershire College Campus AAP will be providing a unique and vibrant environment for further education and adult learning in the Forest and its wider catchment. Strong links with the hotel, business spaces and environment, both in terms of curriculum and physical links, will be sought. The new Campus will be of the highest standard of contextual and environmental design, contributing to a low carbon future for Cinderford" (paragraph 5.93).

It is understood that Gloucestershire College continue to explore plans to relocate the College from the existing site at Five Acres, Coleford, to the Cinderford Northern Quarter regeneration area. Further clarity on the funding situation and timescales should be sought as the project progress.

Funding Sources

The Government has put in place a series of funding mechanisms to support further Education capital and infrastructure spending, which are administered by the Education Funding Agency (EFA):

- ***Devolved Formula Capital (DFC)*** – Sixth-form colleges will receive DFC payments for the 2013-14 financial year of £4,000 per institution plus £22.50 per full-time learner. This is to be allocated to planned capital and maintenance works.¹⁶
- ***Sixth-form college Building Condition Improvement Fund (BCIF)*** – BCIF funding will be available during 2013-14 to help improve colleges in the lowest two condition categories.¹⁷

16-19 Demographic Growth (Basic Need) Fund (DGCF) 2013-2015 – The purpose of the DGCF is to provide funding to create accommodation for new learners aged 16 to 19 in local areas, arising from increases in the local population or increases in participation by young people who were not in education, employment or training (NEET). In particular, the EFA wants to identify new learners with learning difficulties and/or disabilities (LLD/D) who require local provision.

¹⁶ Source:

<http://www.education.gov.uk/aboutdfe/executiveagencies/efa/efafundingfinance/b00212638/efa-academies-capital/devolved-formula-capital->

¹⁷ Source: <http://www.education.gov.uk/aboutdfe/executiveagencies/efa/h00217721/issue-17/article-05>

Table 17 - Assessment of demand for School Places

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure		Primary Education Infrastructure	Secondary Education (incorporating post-16 6th Form Provision) Infrastructure			Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)				
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)			Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)		
					Secondary element	6th Form element	Secondary incl. 6th Form					
Cinderford	1040	77.7	£910,000	288.7	£3,370,000	144.3	19.7	164.0	£2,180,000	£2,920,000	15.7	£240,000
<i>Committed Sites & Windfall</i>	743	55.5	£650,000	206.3	£2,410,000	103.1	14.1	117.2	£1,560,000	£2,090,000	11.2	£170,000
Lydney	1905	142.2	£1,660,000	528.9	£6,180,000	264.3	36.2	300.5	£3,990,000	£5,360,000	28.7	£430,000
<i>Committed Sites & Windfall</i>	1711	127.8	£1,490,000	475.0	£5,550,000	237.4	32.5	269.9	£3,580,000	£4,810,000	25.8	£390,000
Coleford	600	44.8	£520,000	166.6	£1,950,000	83.2	11.4	94.6	£1,260,000	£1,690,000	9.0	£140,000

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure		Primary Education Infrastructure		Secondary Education (incorporating post-16 6th Form Provision) Infrastructure			Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)			
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)			Indicative Capital Delivery Cost (Based on 2014 prices) - where no 6th-form is to be provided locally	Indicative Capital Delivery Cost (Based on 2014 prices) - where 6th-form is to be provided locally	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
						Secondary element	6th Form element	Secondary incl. 6th Form				
<i>Committed Sites & Windfall</i>	497	37.1	£430,000	138.0	£1,610,000	68.9	9.4	78.4	£1,040,000	£1,400,000	7.5	£110,000
Newent	470	35.1	£410,000	130.5	£1,520,000	65.2	8.9	74.1	£980,000	£1,320,000	7.1	£110,000
<i>Committed Sites & Windfall</i>	352	26.3	£310,000	97.7	£1,140,000	48.8	6.7	55.5	£740,000	£990,000	5.3	£80,000
Tutshill / Sedbury	113	8.4	£100,000	31.4	£370,000	15.7	2.1	17.8	£240,000	£320,000	1.7	£30,000
<i>Committed Sites & Windfall</i>	18	1.3	£20,000	5.0	£60,000	2.5	0.3	2.8	£40,000	£50,000	0.3	£0

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure		Primary Education Infrastructure		Secondary Education (incorporating post-16 6th Form Provision) Infrastructure			Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)			
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)			Indicative Capital Delivery Cost (Based on 2014 prices) - where no 6th-form is to be provided locally	Indicative Capital Delivery Cost (Based on 2014 prices) - where 6th-form is to be provided locally	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
						Secondary element	6th Form element	Secondary incl. 6th Form				
Bream	110	8.2	£100,000	30.5	£360,000	15.3	2.1	17.3	£230,000	£310,000	1.7	£30,000
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>3.8</i>	<i>£40,000</i>	<i>14.2</i>	<i>£170,000</i>	<i>7.1</i>	<i>1.0</i>	<i>8.0</i>	<i>£110,000</i>	<i>£140,000</i>	<i>0.8</i>	<i>£10,000</i>
Drybrook	91	6.8	£80,000	25.3	£300,000	12.6	1.7	14.4	£190,000	£260,000	1.4	£20,000
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>3.1</i>	<i>£40,000</i>	<i>11.4</i>	<i>£130,000</i>	<i>5.7</i>	<i>0.8</i>	<i>6.5</i>	<i>£90,000</i>	<i>£120,000</i>	<i>0.6</i>	<i>£10,000</i>
Mitcheldean	140	10.5	£120,000	38.9	£450,000	19.4	2.7	22.1	£290,000	£390,000	2.1	£30,000

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure		Primary Education Infrastructure		Secondary Education (incorporating post-16 6th Form Provision) Infrastructure			Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)			
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)			Indicative Capital Delivery Cost (Based on 2014 prices) - where no 6th-form is to be provided locally	Indicative Capital Delivery Cost (Based on 2014 prices) - where 6th-form is to be provided locally	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
						Secondary element	6th Form element	Secondary incl. 6th Form				
<i>Committed Sites & Windfall</i>	60	4.5	£50,000	16.7	£190,000	8.3	1.1	9.5	£130,000	£170,000	0.9	£10,000
Newnham	65	4.9	£60,000	18.0	£210,000	9.0	1.2	10.3	£140,000	£180,000	1.0	£10,000
<i>Committed Sites & Windfall</i>	31	2.3	£30,000	8.6	£100,000	4.3	0.6	4.9	£60,000	£90,000	0.5	£10,000
Yorkley / Pillowell / Whitecroft	96	7.2	£80,000	26.7	£310,000	13.3	1.8	15.1	£200,000	£270,000	1.4	£20,000
<i>Committed Sites & Windfall</i>	66	4.9	£60,000	18.3	£210,000	9.2	1.3	10.4	£140,000	£190,000	1.0	£20,000

FoD DC Revised Development Scenario (2014)	FoD IDP Revised Development Scenario – Housing Units	Early Years Education Infrastructure		Primary Education Infrastructure		Secondary Education (incorporating post-16 6th Form Provision) Infrastructure			Post-16 Education Infrastructure (provided by FE Institutions and / or other publicly-funded providers)			
		Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)			Indicative Capital Delivery Cost (Based on 2014 prices) - where no 6th-form is to be provided locally	Indicative Capital Delivery Cost (Based on 2014 prices) - where 6th-form is to be provided locally	Theoretical 'High-Level' Demand for Education Places (Rounded Totals)	Indicative Capital Delivery Cost (Based on 2014 prices) (Rounded to the nearest £10,000)
					Secondary element	6th Form element	Secondary incl. 6th Form					
Lydbrook Joys Green	98	7.3	£90,000	27.2	£320,000	13.6	1.9	15.5	£210,000	£280,000	1.5	£20,000
<i>Committed Sites & Windfall</i>	53	4.0	£50,000	14.7	£170,000	7.4	1.0	8.4	£110,000	£150,000	0.8	£10,000
Other village and rural area	562	42.0	£490,000	156.0	£1,820,000	78.0	10.7	88.6	£1,180,000	£1,580,000	8.5	£130,000
<i>Committed Sites & Windfall</i>	526	39.3	£460,000	146.0	£1,710,000	73.0	10.0	83.0	£1,100,000	£1,480,000	7.9	£120,000

4.3 Emergency Services

4.3.1 Ambulance

Overview

The Great Western Ambulance Service that previously served Gloucestershire has now merged with the South Western Ambulance Service NHS Foundation Trust. As a result of the merger, the new organisation is undertaking a review of the combined estate to understand where disposal, re-provision or new facilities would be appropriate or required. It is not anticipated that the review work will identify any major or key infrastructure projects in the FOD District.

Responsibilities for delivery

South western ambulance service NHS Foundation Trust (SWASFT) provides services across Gloucestershire as well as Cornwall, Devon, Somerset, Dorset, Wiltshire and the former Avon area. The trust employs more than 4000 staff across 120 operational sites, responding to over 660,000 incidents. The trust covers an area of 9,600 square miles with a population of more than 5.3 million people.

Baseline and assessment of needs

Emergencies in Gloucestershire County are responded to by a number of ambulances and rapid response vehicles that are strategically located at ambulance Stations and Standby Points. There is a requirement to respond to 76% of all Red Calls (Life Threatening Emergencies) within 8 minutes and therefore the location of these vehicles is of paramount importance. The Ambulance Stations and Standby Points in the FOD District are set out below:

- Cinderford
- Coleford
- Lydney

Following the merger of the Great Western Ambulance service (GWAS) with SWASFT, a new Estate Strategy is being developed to cover the enlarged area. The current requirement is for existing ambulance stations to be supported by local Standby Points where, if feasible, staff facilities for rest breaks and vehicle parking are provided.

As part of responses to the Refresh IDP infrastructure service provider briefing pack and consultation of on the FoD Allocations Plan Pre-Publication Draft. South Western Ambulance Service NHS Foundation Trust stated that they continually consider options for enhanced service delivery in all areas including within the FoD area and review options for station provision. The Trust stated that the provision of future growth areas identified within the Allocations Plan will also inform the exercise.

Options for ambulance stations could include merging stations into a single location (in association with standby points to enhance response times) or co-locating with other emergency service providers. Optioneering exercises are ongoing and will be informed by modelling exercises to ascertain optimum locations.

The Trust stated it will continue to liaise with the Council in terms of the Infrastructure Delivery Programme work and will provide further information on the identified sites as and when options are developed further.

Key infrastructure projects

As stated above, the two existing trusts were working together prior to acquisition in early 2013 to develop an Estate Strategy covering the wider area. Initial reviews are continuing in the GWAS area following the approval of the GWAS Estate Strategy in May 2011 – these do not include any major or key infrastructure projects in the FOD area.

4.3.2 Fire and Rescue

Overview

The Gloucestershire Fire and Rescue Service undertook a comprehensive review of its estate during 2005 and secured a £multi-million Private Finance Initiative to deliver four new fire stations around Gloucester and Cheltenham. Supplemented by smaller community fire stations in the Cotswold District, the Fire & Rescue service has put in place the infrastructure to respond quickly to life threatening incidents across the county.

Development proposed in the FOD Development Strategy is not expected to result in a requirement for major new infrastructure. Nevertheless, continuing consultation with the Fire and Rescue Service is recommended to ensure that development proposals enable rapid response times, and include safety measures such as sprinkler systems and fire hydrant provision as appropriate.

Responsibilities for delivery

The Fire and Rescue service for the whole of Gloucestershire is delivered by the Gloucestershire Fire and Rescue Service. From 2012 the service was delivered from 22 community fire stations across the County.

Sector plans and strategies

The Gloucestershire Fire and Rescue Service ***Integrated Risk Management Plan 2012-2015*** notes that in 2005 Gloucestershire Fire and Rescue Service carried out a review of the best way to continue to protect their service area. From this review it was noted that the County needed better located fire stations, to enable faster responses to life threatening incidents.

Using the Government's Private finance Initiative the fire Service successfully secured a £multi-million project in 2010 to build four new community fire stations. The new community fire stations are being built at Shepherd Road (incorporating the Life Skills centre) and Cheltenham Road East in Gloucester (replacing existing fire station on Eastern Avenue) and Keynsham Road (existing fire station demolished and rebuilt) and Uckington in Cheltenham.

The Gloucestershire Fire and Rescue Service *Integrated Risk Management Plan 2012-2015* states that the number of firefighters with specialist skills and vehicles at each station reflects the existing risks within the area, giving the most efficient and effective emergency response to the local community, as well as county wide resilience for larger scale incidents.

Infrastructure baseline and deficits

Of the 22 stations in Gloucestershire, five are crewed permanently 24 hours a day and one is crewed during the day with retained firefighters at night. The other sixteen stations, located in the smaller towns are crewed by retained firefighters only (where firefighters respond to emergencies from their main jobs or from home as and when required). The Gloucestershire fire and Rescue Headquarters is located in Quedgeley, Gloucester, where a Tri-service Co-responding scheme is based (see Ambulance section for further information).

Table 18 below shows each of the community fire stations in the FOD area and the fire equipment available at each stations.

Table 18 - Fire and Rescue Stations in the Forest of Dean

Community Fire and Rescue Stations	Day crewing / Wholetime / Retained	Fire Equipment
Lydney Community Fire Station	Retained – rope and water rescue, co-responder	2 x fire engines
Coleford Community Fire Station	Retained – rope rescue, co-responder	2 x fire engines
Cinderford Community Fire Station	Retained	1 x fire engine, 1 x pump rescue, a x landrover rapid-response pump
Newent Community Fire Station	Retained – hovercraft water rescue, co-responder	1 x fire engine

Assessment of infrastructure needs

As detailed above the Gloucestershire Fire and Rescue Service reviewed their services in 2005 and embarked on the creation of four new community fire stations, which were completed in 2012. The location of existing and new fire stations has been carefully considered and together they provide an emergency response to any incident in the County.

During consultation with the Gloucestershire Fire and Rescue Service, the following matters were raised with respect to ensuring the appropriate design of new development:

- Access points and road sizing within developments are important when ensuring that rapid response times can be achieved. Consultation with the Fire

and Rescue Service is recommended at the pre-application stage when development proposals are at an early stage.

- Fitting housing with sprinkler systems is recommended as an important safety measure, particularly within affordable housing developments. This can also form an important form of mitigation where target response times cannot be met due to the location or layout of development.
- Fire hydrants will be required within new development, typically spaced 50m apart. Developers should consult with the Fire and Rescue Service on layout and minimum standards for hydrants, which are normally secured by a condition attached to a planning permission.

The Fire and Rescue Service places a great deal of emphasis on accident prevention through education, awareness raising and advice. A complete package of care is provided that is aimed at providing advice and education for every age group from the very young to the elderly and vulnerable. This includes the appointment of Community Safety Advisors (CSAs) who visit homes and give advice to the most vulnerable members of the community.

4.4 Police

Overview

Gloucestershire Constabulary operates the Policing Area covering the FOD District area and currently maintain seven police stations. FOD District Council have an obligation to consider crime and disorder reduction in the exercise of all its duties.

Gloucestershire Constabulary has concluded that the proposed level of growth across the FOD area will not present the Constabulary with a major requirement for growth as the main areas of development are around Cinderford, Coleford, Lydney and Newent. In general terms, these areas have lower levels of crime so the required policing level would not be substantially affected, although some extra capacity relative to current levels may be required.

The police service has seen substantial budget reductions as part of the Government's Comprehensive Spending Review and the constabulary has emphasised that developer contributions (through S106 Planning Contributions or CIL) will be necessary to provide the police infrastructure necessary to support growth, as no other funding sources are available. Contributions in the order of £119.70 per dwelling will be sought towards the following projects and services: Centralised Custody Suite at Waterwells, Quedgeley (£11.9mil), refurbishment and upgrade of Coleford Police Station (£1,055,000), disposal of police stations at Cinderford and Lydney, and employment of additional officers with associated equipment. Failure to secure appropriate developer

contributions may necessitate addition borrowing by the Constabulary, reducing the amount of money available for operational policing.

Responsibilities for delivery

Gloucestershire Constabulary has a statutory responsibility to ensure that the FOD area is a safe place to live and work; where crime and fear of crime is reduced.

The Crime and disorder Act 1998 introduced a wide range of measures for preventing crime and disorder. Section 17 (as amended by Schedule 9 of the Police and Justice Act 2006), imposes an obligation on every local authority and other specified bodies to consider crime and disorder reduction in the exercise of all their duties. This duty extends to spatial planning and by clear association the infrastructure planning required to facilitate growth in a sustainable way.

Sector plans and strategies

Police and Crime Commissioner's Police and Crime Plan (1st April 2013) – A Police and Crime Plan replaces the “old” Local Policing Plan and sets out to reduce crime by: involving all of Gloucestershire’s criminal justice agencies in on joined-strategy, bringing together the Police, Crown Prosecution Service, courts, Probation Service and HM Prison Service including community and voluntary sectors. It is the first time the county’s police; criminal justice services, community and voluntary sectors have all been included in a co-ordinated approach to reducing crime. Commissioner Surl’s vision can be described as “*less crime, more peace and good order*”. The Police and Crime Commissioner’s priorities are:

- Accessibility and accountability
- Older but not overlooked
- Young people becoming adults
- Safe days and nights for all
- Safe and social driving

‘People First Policing’ 2012-2013 – The Policing Plan for Gloucestershire, sets out the purpose of Gloucestershire Constabulary as an organisation is “to keep people safe from harm and to inspire the highest levels of public confidence in us, their local police.” The constabulary’s mission is “to consistently deliver first class policing that meets the expectations and needs of individuals and communities.” Key activities identified for the year were:

- Improve: the development of police officers and staff; and organisational structure; processes and systems.
- Achieve the savings required. The Government’s Comprehensive Spending review requires the constabulary to make savings of £18million. This will include the closure of Police Stations, which will be replaced with Police Points that enable members of the public to meet local officers through locally arranged surgery hours.

- Realise opportunities for collaboration and sharing resources. This includes the establishment of Police Points in shared accommodation such as Council offices or libraries.

Neighbourhood Policing and Mobile Information are important aspects of the constabularies to policing.

- **Neighbourhood Policing** is identified as being at the heart of Gloucestershire Constabulary with teams established in each of our 55 communities, staffed by Police Officers and Police community Support Officers. The on-going success of these teams is built through improvements in the quality of our engagement and communication as we continue tackling local priorities identified by our communities. Research suggests that people who feel well informed about local policing feel more confident in their local police and are more likely to believe that levels of local crime and anti-social behaviour have improved.
- **Mobile Information** will enable Officers to make enquiries and provide updates hand-held Blackberry devices reducing the requirement to return to a police station to access systems.

Asset Management Strategy (April 2013)

The Asset Management Strategy is a strategic level document to guide the delivery of an estate that meets operational needs, including the requirement of planned growth in the County. The strategy covers a 20 year period and lists the high level priorities, but does not include timescales for the delivery of any projects. Priority projects are:

- Centralised Custody suite – this project was initiated in October 2011 and it is anticipated building work will start in the summer of 2013.
- New Gloucester Police Station – a site has been purchased and an outline business case approved, but no timescales as yet.
- New Cheltenham Police station – a site has been identified but to date no further progress has been made on this project.

Design out Crime - The Police and Crime Commission is committed to assisting developers and urban designers to design out crime and if funding is made available would allocate an individual to assist developers at the design stage.

Baseline

Gloucestershire Constabulary has recently been restructured and now operates within six Local Policing Areas, commanded by Superintendents, corresponding with the six District authorities. Local policing is provided by response teams in each area and nine Neighbourhood Policing Teams, two each in Cheltenham and Gloucester and one in Tewkesbury, the Forest of Dean and the Cotswolds. Within the Local Policing Areas are fifty-five neighbourhoods, each with identified officers and locally agreed priorities.

There are currently four police stations covering the FOD District area; there are facilities at Coleford, Lydney, Cinderford and Newent¹⁸. There is however, only a

¹⁸ http://www.fdean.gov.uk/media/Assets/Crime-Disorder/documents/Moving_to_the_Forest_of_Deans_Leaflet2_copy.pdf

reception at Coleford with officers working out of the units at Lydney, Cinderford and Newent, but with no public facing service.

Table 19 - Police Stations in the FOD District

Name of facility	Key Functions	Infrastructure required
Coleford	Neighbourhood policing and response	Refurbishment and upgrade of existing 1970s building. The building is well situated but out of date and requires upgrading to make it fit for purpose. The approximate cost of this is £1,055,000. The cost has not been fully quantified as resources are being concentrated on the provision of a new custody suite and options for policing in Gloucester. CIL contributions could be partly utilised to facilitate this refurbishment.
Cinderford	Neighbourhood policing and response	Disposal – CIL contributions would be used for additional mobile data and vehicles as appropriate. The building is Victorian and does not lend itself to refurbishment or upgrade.
Lydney	Neighbourhood policing	Disposal – CIL contributions would be used for additional mobile data and vehicles as appropriate.
Forcewide	-	Provision of a central unit – approximate cost of £11.9 million.
Mobile Police Station	-	This vehicle is nearly in an unusable state and funding for a replacement will not be available.

Central Custody Facility – When assessing the additional property infrastructure that is required to meet planned growth in the FOD area, it is also necessary to look at the whole of the County and the level of growth proposed in other local authority areas. The central custody suite in Gloucestershire is one of the central specialist facilities in Gloucestershire utilised by Neighbourhood Policing Teams in the FOD area. A decision has already been made to replace custody facilities as the current suites are increasingly becoming unfit for purpose. However, the suites also do not have capacity to meet the needs of planned growth, so if the replacement facility with extra capacity is not provided officers will be forced to take arrestees to other county custody suites such as West Mercia or Wiltshire or not to make arrests. The new facility, which is planned for construction at an identified site close to Police Headquarters in Waterwells is required to replace the existing custody facilities at Gloucester, Bearland and Lansdown Road, Cheltenham, but has also been designed so as to provide additional capacity for planned growth across the County.

In terms of the number of Police Officers and staff, recruitment has been frozen for a number of years and only recently has the constabulary been able to commence recruiting new Police Officers. However, these will only be replacing the officers who have retired as the overall establishment has been cut. The current funding arrangements will not allow for growth.

Potential constraints/issues faced by the Police given the characteristics of the FOD area are:

- The population in the Forest of Dean is sparsely dispersed across a large rural district. The three main towns in the Forest of Dean are Cinderford, Coleford and Lydney with the market town of Newent to the North.
- The Forest of dean is a popular tourist area with relatively low levels of crime.

The constabulary is confident that in the future there will be a greater need for mobility and therefore a greater requirement for non-property infrastructure (vehicles and mobile ICT equipment) to allow officers to be 'on the streets' for large parts of their working day in such a large rural area.

Assessment of infrastructure needs and cost

Gloucestershire Constabulary has advised that the growth related impacts of effective and efficient policing are twofold:

- **Population growth** – Policing is essentially a population driven service; with any increase in population there is a concomitant increase in the pressure on the ability of the Police to fulfil their obligation under the Police Act 1996 to deliver an efficient and effective Police service. The casual relationship between population size and levels of crime is supported by academic research. Put simply, if a population increases there is a proportionate increase in the level of crime. Therefore a need then exists to either increase the number of officers to address the rising incidence of crime associated with a growing population, or to make the existing quotient of officers more efficient in dealing with the rising number of incidents to ensure the level of service is maintained or improved.
- **Dispersal or concentration of property** – Whilst population is a key influence on the effectiveness of delivery of the police service; property, and in particular residential property, exerts a string influence over how policing is delivered. Population growth, greater longevity and decreasing household size combine to create a need to deliver growth in the stock of housing provided nationally. In addition it is Government policy to increase access to home ownership and to enhance economic prosperity through an increase in the delivery of housing. New housing is delivered (broadly) either through redevelopment and intensification of existing urban areas, or through the development of new peripheral greenfield sites, Each will impact on delivery of policing; either through a concentration of population within an existing urban area, which places greater demand on existing facilities/staff; or by spreading the growing population more widely within an area, thereby facilitating a need for additional facilities located to relate to new centres of population.

Economic growth is also a key Government policy objective. Economic growth creates a greater stock of premises to be policed, which impact for similar reasons (to residential growth) on the delivery of policing.

Maintenance of a visible police presence is a key deterrent to crime, and therefore an increase in the amount and dispersal of all types of property necessarily increases demands on policing infrastructure.

In broad terms Gloucestershire Constabulary has concluded that the proposed level of growth within the FOD area will moderately increase pressure on Gloucestershire Constabulary's infrastructure within the District. The constabulary has sought to identify the appropriate level of additional

infrastructure necessary to cater for the increased demands on policing generated by the planned level of growth. This has been assessed at the county-wide and district level and both for property and non-property infrastructure.

In line with guidance from the Association of Chief Police Officers (ACPO) (which advises Police Forces nationally), Gloucestershire Constabulary has prepared a county-wide formula in order to provide a quantitative assessment of infrastructure needs and costs for each Local Policing Area. The formula produces an indicative figure that is based on the premise that an increase in population will necessitate further recruitment and associated infrastructure provision. This indicative figure has enabled the Constabulary and its Local Area Commanders to identify levels of additional infrastructure which are proportionate to the levels of growth proposed.

Infrastructure investment required to support development in the FOD area is summarised below:

Property infrastructure:

- Centralised Custody Suite at Waterwells, Quedgeley (£11.9mil) – see description of project above.
- Refurbishment and upgrade of Coleford Police Station – The extent and cost of this refurbishment is estimated at around £1,055,000.
- Disposal of police station at Cinderford – Cinderford station is a Victorian building and does not lend itself to refurbishment.
- Disposal of police station at Lydney – This building has been earmarked for disposal.

Non-property infrastructure:

The planned new growth in the FOD District has been identified to require the setting up of 15 new Police Officer and staff posts at an approximate cost of circa £107,235. This estimated cost, calculated using the ACPO formula, allows for:

- Uniform and Protective Equipment
- Patrol car – the Constabulary has a replacement programme but additional vehicles can only be purchased if additional funding is available. The proposed growth within the County would have an impact on the number of vehicles and this is reflected in the formula. The formula accounts for costs in terms of a patrol car. If a mobile police station were funded the individual costs would be higher but fewer patrol cars would be required.
- Cost of recruitment
- Training
- IT Equipment, airwave / telephony – as the FOD District is a large rural area, officers will be expected to rely on mobile data and vehicles rather than returning to police stations to complete paperwork.
- Furniture

In accordance with the ACPO formula, the funding to be sought from developers through S106 Planning Obligations or CIL would equate to around £119.70¹⁹ per dwelling.

Gloucestershire Constabulary has stressed that if developer contributions towards policing infrastructure cannot be secured, the Constabulary would only be able to provide a reduced service which would impact detrimentally on sustainability of planned development. Failure to secure appropriate developer contributions/CIL funding for police infrastructure may necessitate additional borrowing by the Constabulary, reducing the amount of money available to deliver operational policing (further notes on the funding situation are provided below). Failure to secure appropriate developer contributions/CIL funding for infrastructure to police new growth will put the public at risk because of:

- inability to respond to police incidents within safe parameters of risk; and
- dilution of police presence within communities which will result in higher levels of criminality.

Funding

The delivery of growth and new development within the FOD area imposes additional pressure on Gloucestershire Constabulary's infrastructure base, which is critical to the delivery of effective policing and to securing safe and sustainable communities. The Police Service does not receive any dedicated funding for capital projects. Whilst revenue funding is provided by the Home Office and the Council Tax precept, capital spending is predominantly financed by prudential borrowing. Borrowing to provide infrastructure necessarily has an impact on the delivery of safe and sustainable communities because loans ultimately have to be repaid from revenue budgets, the corollary of which is a reduction in the funding available to deliver operational policing.

As part of the Government's Comprehensive Spending Review (CSR) announced in November 2010, Gloucestershire Constabulary has been forced to rationalise its estate and plan for future financial cuts in order to achieve its CSR requirements of an £18 million saving over 4 years. This has included the consolidation of policing services at some police stations and the closure of other police stations. Any receipts generated from the disposal of existing facilities cannot be 'ring-fenced' or dedicated to new capital spending projects; instead the funds are required by statute to be reinvested into the running of the police estate as a whole. Income is therefore ploughed back into areas such as building maintenance; replacement of operational equipment and operational funding. As a consequence in practical terms there is no 'pot' of money available to provide new facilities, where expansion, replacement or upgrading is required. Capital receipts from the sale of stations are committed to supplementing other funding streams within Gloucestershire Constabulary (to minimise potential impacts on frontline services). Post-CSR, through its Estate Plan, the Force has sought to streamline its infrastructure base to reduce operational costs whilst maintaining

¹⁹ Gloucestershire Constabulary has obtained population figures from the Gloucestershire County Council demographics team to input to the ACPO formula as this information was not provided in the Infrastructure Provider Briefing Packs prepared by Arup. The Constabulary reserves the right to update the calculations as necessary.

frontline presence to match the existing population and maintain delivery of an efficient and effective police service.

To this end, the baseline position for this document reflects the post-CSR spending cuts. Therefore, any net additional growth within the Local Policing Area will place some additional pressures on policing infrastructure.

4.5 Healthcare

Overview of responsibilities for delivery

Healthcare structures in Gloucestershire, as across England, are in a period of transition as a result of the Coalition Government's recent health reform plans. Subject to the changes proposed by the Health and Social Care Act 2012, the Gloucestershire Primary care Trust administration level has been phased out. From April 2013 the responsibility for commissioning and managing primary and secondary healthcare services and the management of healthcare estates moved to the following organisations and groups:

- **NHS England (formerly the NHS Commissioning Board)** – Established in October 2011 as an independent body, at arm's length to the Government, the Commissioning Board's first responsibility was the authorisation of locally based Clinical Commissioning Groups (CCGs) across England. From April 2013 the NHS England became responsible for commissioning **Primary Healthcare** from CCGs in ways that support consistent, high standards of quality across the county.
- **Gloucestershire Clinical Commissioning Group (GCCG)** – In Gloucestershire there is one county-wide clinical Commissioning Group, with a locality sub-structure. The CCG is a membership organisation and currently membership includes all of the 85 GP practices in the county. The Forest of Dean District corresponds with the Forest of Dean CCG locality. From April 2013 the GCCG became responsible for commissioning **Secondary Healthcare** services from the Gloucestershire Hospitals NHS Foundation Trust and other equivalent providers. This is a key element of the Government's objective to establish a clinically-led commissioning system.
- **Secondary Healthcare providers** – The principal secondary healthcare provider for the county is the Gloucestershire Hospitals NHS Foundation Trust, which provides countrywide acute hospital services from two large district general hospitals, Cheltenham General Hospital and Gloucestershire Royal Hospital. Gloucestershire Care Services NHS Trust (established in April 2013) delivers nursing and community hospital services. There are eight community hospitals in the county and a major building programme aimed at enhancing or replacing several of them is currently in progress.
- **Gloucestershire County Council and the Gloucestershire Shadow Health and Wellbeing Board** – Established by Gloucestershire County Council, the Board is a high-level strategic group whose purpose is to drive the new health and social care agenda and improve outcomes through monitoring, forward planning and promotion of public health. The Board has oversight of the Joint Strategic Needs Assessment (JSNA) and has a duty to produce a Joint Health and Wellbeing Strategy that identifies key priorities for health and local government commissioning. The County Council and Gloucestershire Clinical Commissioning Group (GCCG) also have a joint statutory responsibility to ensure the use of the Joint Strategic Needs Assessment to inform commissioning and the board has to ensure that GCCG has demonstrated its use in its commissioning plans for the NHS.
- **NHS Property Services Ltd** - A Government-owned limited company, NHS Property Services, has taken over ownership and management of that part of

the former Primary Care Trust estate that have not transferred to NHS community care providers under the healthcare reform plans. It is intended that PropCo will: hold property for use by community and primary care services, including social enterprises; cut costs of administering the estate overall by consolidating the management of over 150 estates; deliver and develop cost-effective property solutions for community health services; and dispose of property surplus to NHS requirements. It should be noted that most GP surgeries are independently owned.

Primary Healthcare

Primary healthcare services which have typically fallen under the direct control of Primary Care Trusts (PCTs) in the past include General Practitioners (GPs), nurses, therapists, dentists, optometrists and pharmacists. This study has focussed on the provision of GP and dentists surgeries as key local services.

General Practitioners (GPs)

Responsibilities for delivery and baseline

Primary healthcare in the Forest of Dean will be overseen by the Gloucestershire Clinical Commissioning Group, with funding provided by NHS England.

Plans and strategies

- **Joint Strategic Needs Assessment (JSNA)** - The Joint Strategic Needs Assessment (JSNA) is a 'live' strategic planning tool which brings together the latest information on the health and wellbeing of people who live in Gloucestershire and people who use Gloucestershire public services. The JSNA looks at all the factors which impact on health and wellbeing, including income, work, environment and housing; and individual lifestyle behaviours, like smoking and alcohol consumption.
- **Joint Health and Wellbeing Strategy: Fit for the Future (2012 – 2032)** - The JSNA informs Gloucestershire's Joint Health and Wellbeing Strategy. The strategy sets out the key priorities for action to improve the health of Gloucestershire's population at different stages of life. It does not yet provide information on what interventions or programmes will be put in place to achieve improvements, but identifies the following key principles that will guide the development of actions plans:
 - Supporting communities to take an active role in improving health.
 - Encouraging people to adopt healthy lifestyles to stop problems from developing.
 - Taking early action to tackle symptoms or risks.
 - Helping people to take more responsibility for their health.
 - Helping people to recover quickly from illness and return home to their normal homes.
 - Supporting individuals or communities where life expectancy is lower than the county average or where quality of life is poor.

Assessment of infrastructure needs and cost

The IDP assessment of need is based upon preliminary feedback provided by representatives of the CCG Localities, supported by a high level assessment of the additional GPs and associated surgery space that would be required to support growth. This study also incorporates a brief commentary on the implications of an ageing population for healthcare and what this could mean for the evolution of local services and priorities.

Firstly, the preliminary assessment assumes that, as a minimum, a current average GP list size should be maintained at the District's surgeries. The demand for doctors is based on the average GP patient list size of 1,800 patients per GP, with the capital cost of delivering surgeries based on a standard of 150m² per GP, at a capital cost of £2,000/m². These standards are based on advice provided by the Gloucestershire Clinical Commissioning Group (the floorspace capital cost of £2,000/ m² is based on £1,500 m² plus VAT plus 12% fees). It is noted following consultation with GPs that the capital cost of surgery provision can be greater than indicated here, particularly where additional design standards apply, such as within designated Conservation Areas.

This assessment based on benchmark standards indicates that residential development set out in FOD Core Strategy would generate demand for around 7 GPs across the FOD area during plan period (and around 1.3 GPs in relation to non-committed allocations).

Table 20 - Assessment of demand for GPs and surgery space

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	1.4	£407,333
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>1.0</i>	<i>£291,008</i>
Lydney	1,905	4,477	2.5	£746,125
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>2.2</i>	<i>£670,142</i>
Coleford	600	1,410	0.8	£235,000
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>0.6</i>	<i>£194,658</i>
Newent	470	1,105	0.6	£184,083
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>0.5</i>	<i>£137,867</i>
Tutshill / Sedbury	113	266	0.1	£44,258
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>0.0</i>	<i>£7,050</i>
Bream	110	259	0.1	£43,083
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>0.1</i>	<i>£19,975</i>
Drybrook	91	214	0.1	£35,642
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>0.1</i>	<i>£16,058</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Mitcheldean	140	329	0.2	£54,833
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>0.1</i>	<i>£23,500</i>
Newnham	65	153	0.1	£25,458
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.0</i>	<i>£12,142</i>
Yorkley / Pillowell / Whitecroft	96	226	0.1	£37,600
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.1</i>	<i>£25,850</i>
Lydbrook Joys Green	98	230	0.1	£38,383
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.1</i>	<i>£20,758</i>
Other village and rural area	562	1,321	0.7	£220,117
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>0.7</i>	<i>£206,017</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	6.9	£2,071,917
<i>Committed Sites & Windfall</i>	<i>4,149</i>	<i>9,750</i>	<i>5.4</i>	<i>£1,625,025</i>
<i>Allocations</i>	<i>1,141</i>	<i>2,681</i>	<i>1</i>	<i>£446,892</i>

The locations of the nearest existing GP surgeries with respect to proposed locations for development within the FOD area are set out in Table 21 below. Existing patient list sizes are shown to give an impression of relative surgery capacity within each settlement, although it should be noted that GPs have recommended that the data on the number of GPs is updated to reflect Whole Time Equivalent (WTE) partners, to improve the accuracy of the average patient list size recorded here. This work will be undertaken to inform the final version of the IDP.

Table 21 - GPs in housing allocation areas

Settlement	Surgeries within Strategic Locations (or closest available)	Number of GPs²⁰	Patient list size²¹	Average patient list size per GP	Description / comment
Cinderford	Dr D Lane & Partners Forest Health Care Centre, Dockham Road	4	7,727	1,932	

²⁰ Data on number of GPs sourced from NHS Choices website in October 2013.

²¹ Data source from www.apho.org.uk National General Practices Profiles (accessed October 2013)

Settlement	Surgeries within Strategic Locations (or closest available)	Number of GPs ²⁰	Patient list size ²¹	Average patient list size per GP	Description / comment
	Dr Silver & Partners Forest Health Care Centre, Dockham Road	2	6,111	3,056	
Lydney	Dr Andrew MR & Partners Yorkley Health Centre	4	7,426	1,857	
	Lydney Practice The Health Centre Albert Street	4	6,959	1,740	
	Dr Hamilton & Partner, Severnbank Surgery, Tutnalls Street	2	4,102	2,051	
Coleford	Dr Wilksinson NM & Partners Coleford Health Centre, Railway Drive	5	7,090	1,418	
	Dr Bhageerutty & Partners Brunston Surgery, Cinderhill	3	5,706	1,902	This surgery is part of a practice group – they also operate out of Lydbrook Health Centre.
Newent	Dr Drewett KA & Partners The Holts Health Centre, Watery Lane	6	10,446	1,741	The Health Centre at Newent has recently been extended to provide 4 new consulting rooms and extended health education room.
Tutshill/ Sedbury	Tutshill branch of Vauxhall Practice, Chepstow Beachley Road, Sedbury branch of The Town Gate Practice, Chepstow	The Vauxhall Surgery and Town Gate Practice in Chepstow are funded by NHS Wales. Information on practice size and patient lists are is not available online.			
Bream	Dr Andrew MR & Partners The Surgery, Beech Way	4	7,426	1,857	
Drybrook	Dr Good & Partners Drybrook Surgery, Drybrook Road	3	4,427	1,476	

Settlement	Surgeries within Strategic Locations (or closest available)	Number of GPs ²⁰	Patient list size ²¹	Average patient list size per GP	Description / comment
Mitcheldean	Drs Weiss and Stallard Mitcheldean Surgery, Brook Street	4	5,914	1,479	
Newnham	Dr Alder TJ & Partner The Surgery, High Street	2	3,279	1,640	
Yorkley/ Pillowell/ Whitecroft	Dr Andrew MR & Partners Yorkley Health Centre, Yorkley	4	7,426	1,857	
Lydbrook Joys Green	Dr Bhageeruty & Partners Lydbrook Health Centre	3	5,706	1,902	This surgery is part of a practice group also operating from Brunston Surgery

Larger health centres

In terms of overall conclusions, it can be seen that patient list sizes for GPs within the FOD are typically larger than the average for the County of around 1,400 and therefore options for increasing capacity to keep pace with population growth need to be investigated. There are considered to be few options for expansion of existing healthcare premises within their existing premises, so development of larger centres or new centres will be necessary.

A further issue highlighted in consultation comments is that housing in new developments in the past, such as at Bream, have been taken up by people that have moved to the FOD from elsewhere. This can result in isolated communities with health and social problems. The incorporation of integrated social infrastructure within new developments, particularly at larger sites, is therefore an important issue (see also Community Centre and Youth Support sections of IDP).

Healthcare in the villages

It has been highlighted that the village general practices in the FOD are small and therefore even relatively modest housing developments can have a significant impact.

Demographics and an ageing population

It is important that the demographics of the growing population is considered as the IDP is refined over time. A foremost issue with respect to future healthcare delivery across Gloucestershire is that of the ageing population, which is expected to lead to increased demand for healthcare services and a transformation in service delivery. The number of older people aged 65+ in the county has been growing by an average of 1,500 people per year over the last 10 years or so. Projections

suggest that this will double to an annual increase of around 3,300 people in the longer term. Significantly, the projected percentage increase of the older population is greater in Gloucestershire than in England over the period 2010-2035 (up 70% compared to 65%).²²

‘Ready for Ageing?’²³, a recent report prepared for a House of Lords select committee, advises that rapidly ageing society means many more people living more years, often with one or more chronic long-term health conditions; a consequence of this and other pressures is a large increase in health and social care costs. Predicted increases in demand for health and social care from 2010 to 2030 for people aged 65 and over in England and Wales include:

- People with diabetes: up by over 45%
- People with arthritis, coronary heart disease, stroke: each up by over 50%
- People with dementia (moderate or severe cognitive impairment) : up by over 80% to 1.96 million
- People with moderate or severe need for social care: up by 90%

The treatment and care of people with long-term conditions accounted for 70% of the total health and social care spend in England in 2010, so the large increases in the number of older people with long-term conditions will create significant extra costs, ‘Care at home - whenever possible’ provides a summary statement for the recommended evolution of service delivery, which would:

- Be more focused on prevention, early diagnosis, intervention, and managing long-term conditions to prevent degeneration, with much less use of acute hospitals;
- Be centred on the individual person, with patients engaged in decisions about their care and supported to manage their own conditions in their own homes so that they can be prevented from deteriorating;
- Have the home as the hub of care and support, including emotional, psychological and practical support for patients and caregivers;
- Ensure older people only go into hospitals or care homes if essential, although they must have access to good specialist and diagnostic facilities to ensure early interventions for reversible conditions and prevent decline into chronic ill health.

‘Ready for Ageing’ concludes that a remarkable shift in NHS services will be needed to deliver this. Older people with long-term conditions need good, joined-up primary care, community care and social care, with effective out-of-hour services. Such services make it possible to minimise hospital stays. The report remarks that time in hospitals is often not what older people want or need, and it is expensive.

While the details of policy and service delivery mechanisms are yet to be worked through in full, there is a clear implication for the demands placed on primary healthcare and community care services. Feedback provided by the FOD CCG representative highlights concerns over provision for the elderly. They

²² Source: MAIDeN ‘Understanding Gloucestershire 2012’

²³ House of Lords Select Committee on Public Service and Demographic Change ‘Ready for Ageing? – report’ (14 March 2013)

recommend that future plans need to consider the development of care communities for supported lodging and care home provision.

An issue has also been raised with respect to the relatively high prevalence of people with learning difficulties in the FOD, and related care infrastructure impacts.

Promoting healthy lifestyles

During consultation with the CCG FOD representative, the issue of promoting safe cycle ways between towns and villages is raised, partly as a means for promoting healthier lifestyles. Please refer to the Transport & Public Realm chapter and Recreation, Sports and Open Space chapters for further information relevant to this theme.

Recent and current projects

Current primary healthcare projects in the Forest of Dean are as follows:

- ***Lydney East A Healthcare provision*** – Committed development at Lydney East A relates to the provision of 323 dwellings. Within this development, provision has been considered for additional health facilities²⁴ and a financial contribution of £71,621 has been secured towards facilities at Lydney Health Centre.

Dentists

Responsibilities for delivery and baseline

Under the Health and Social Care Act 2012, responsibility for commissioning and managing NHS dental contracts moved from local PCTs to NHS England (previously the NHS Commissioning Board) in April 2013. Most dental care is provided by privately operated general dental practitioner surgeries, for whom NHS contracts are very important. Some treatment, however, is carried out directly by NHS community dental services and hospital dental departments.

Local Dental Networks (LDNs) now clinically lead on and own the delivery of:

- Quality and performance improvement and assurance;
- Local implementation of NHS England Strategy;
- Planning and designing local care pathways and services;
- Oral health strategy and improvement; and
- Clinical and professional leadership and engagement.

Dental Provision is measured by UDAs (units of dental activity) or UOAs (units of orthodontic activity). Contractors are commissioned to provide a specific

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http://www.fdean.gov.uk/media/Assets/ForwardPlan/documents/Core%20Strategy%20Documents/Keynote_Infrastructure_Delivery.pdf

volume of activity, which across the Gloucestershire County total 844,866 UDAs and 42,218 UOZs, at a cost of £20.5 million.

Baseline an Assessment of Infrastructure Needs and Costs

The preliminary assessment of demand for additional dental services is based on the application of a benchmark standards that assumes a current average Dentist list size is maintained at the District's surgeries:

- The demand for dentists is based on the average number of dentists in the South West region of 0.5 per 1,000 population (taken from the NHS Information Centre *NHS Dental Statistics for England: 2010/2011*).
- The capital cost of delivering surgeries is based on a standard of 130m² per Dentist, at a capital cost of £1,400/m² (floorspace standard taken from NHS London Healthy Urban Developments Unit model, with estimated cost based on BCIS Online Q2 2013 information and Spons 2012 surgery example rebased for 2013 and Gloucestershire location).

The application of these benchmarks is shown in Table 22 below.

Table 22 - Assessment of need for Dentists

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	1.2	£222,404
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>0.9</i>	<i>£158,891</i>
Lydney	1,905	4,477	2.2	£407,384
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>2.0</i>	<i>£365,897</i>
Coleford	600	1,410	0.7	£128,310
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>0.6</i>	<i>£106,283</i>
Newent	470	1,105	0.6	£100,510
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>0.4</i>	<i>£75,275</i>
Tutshill / Sedbury	113	266	0.1	£24,165
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>0.0</i>	<i>£3,849</i>
Bream	110	259	0.1	£23,524
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>0.1</i>	<i>£10,906</i>
Drybrook	91	214	0.1	£19,460
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>0.0</i>	<i>£8,768</i>
Mitcheldean	140	329	0.2	£29,939
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>0.1</i>	<i>£12,831</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Newnham	65	153	0.1	£13,900
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.0</i>	<i>£6,629</i>
Yorkley / Pillowell / Whitecroft	96	226	0.1	£20,530
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.1</i>	<i>£14,114</i>
Lydbrook Joys Green	98	230	0.1	£20,957
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.1</i>	<i>£11,334</i>
Other village and rural area	562	1,321	0.7	£120,184
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>0.6</i>	<i>£112,485</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	6.2	£1,131,267
<i>Committed Sites & Windfall</i>	<i>4,149</i>	<i>9,750</i>	<i>4.9</i>	<i>£887,264</i>
<i>Allocations</i>	<i>1,141</i>	<i>2,681</i>	<i>1</i>	<i>£244,003</i>

Recent and current projects

No current projects to establish new dentist surgeries within the District have been identified.

Secondary Healthcare

Responsibilities for delivery

At present, Gloucestershire Hospitals NHS Foundation Trust provides countywide acute hospital services from two large district general hospitals, Cheltenham General Hospital and Gloucestershire Royal Hospital.

Gloucestershire Care Services NHS Trust (established in April 2013) delivers nursing and community hospital services. There are eight community hospitals in the county and a major building programme aimed at enhancing or replacing several of them is currently in progress. Currently, there are two community hospitals within the FOD – Lydney and District Hospital and The Dilke Memorial Hospital in Cinderford²⁵.

²⁵ Source: <http://www.glos-care.nhs.uk/our-services/community-hospitals>

Plans & strategies

Gloucestershire Hospitals NHS Foundation Trust “Forward Plan Strategy document” (2013/14) – this sets out the Trust’s priorities for the next three years, that will enable it to deliver appropriate, high quality and cost-effective services for its patients.

Gloucestershire Care Services NHS Trust “Our priorities for 2013/14” – The document sets out the Trust’s ambition to provide comprehensive community and social care, with the aim of providing services as part of a seamless pathway between acute hospital and primary care. This includes specialist community provision that increasingly delivers local treatments as an alternative to hospital care.

Baseline

In 2012/13 the Hospitals Trust secured around 80% of the locally available acute funding and therefore retains the majority of the market share in Gloucestershire. The Hospitals Trust is also a net ‘importer’ of patients for the services they deliver, suggesting that more patients come from surrounding counties into the Trust than those who leave the Gloucestershire area to providers outside the county.

The following table summarises the average number of beds available and percentage of occupied beds by sector for hospitals operated by Gloucestershire NHS Foundation Trust and Gloucestershire Care Services. The information shown is sourced from the Department of Health Unify2data collection (KH03 – January to March 2012), with the number of beds available per 1,000 population based on the county population of 596,984 (2011 census estimate). This does not account for movement of people across county boundaries for treatment, such as use of hospitals in Swindon or Bristol.

Table 23– Average number of beds available within Gloucestershire hospitals

Bed Type	Number available	Number available / 1,000 pop'n	Number occupied	% Occupied	% Occupied, England average
General & Acute (Hospitals Trust)	980	-	908	92.6%	-
General & Acute (PCT)	80	-	76	95.4%	-
General & Acute Sub-total	1,060	1.78	984	92.8%	89%
Learning Disabilities	-	-	-	-	
Maternity	46	0.08	39	85.1%	61%
Mental Illness	-	-	-	-	

Bed Type	Number available	Number available / 1,000 pop'n	Number occupied	% Occupied	% Occupied, England average
Total	1,106	1.85	1,023	92.5%	86.9%

These figures demonstrate that there is less than 10% spare capacity in the system for General and Acute beds and that the level of bed occupation is higher than the average for England. This is particularly the case for maternity beds.

Assessment of infrastructure needs and costs

The Hospital Trust's Annual Plan refers to the challenges posed by a growing and ageing population, noting that the population of Gloucestershire will increase from 596,200 to 636,400 over a ten year period and that the population is ageing at a higher rate than national average rate. Key areas of investment identified by the Hospitals Trust are:

- Developing the workforce;
- Developing information technology and communications infrastructure; and
- Developing buildings and equipment infrastructure – each year the Trust plans to create a financial surplus to enable it to maintain a capital programme. Priorities for the capital programme over the next three years include a satellite radiotherapy unit in Hereford, improvements to the clinical area around the trust, new and replacement equipment, and implementation of SmartCare and our technology blueprint.

In order to provide a preliminary assessment of long term acute care needs for the purpose of this study, a standards based approach has been utilised. This applies:

- An overall target that the average number of General and Acute beds of 1.78 per 1,000 population is maintained.
- Capital costs have been estimated on a floospace standard of 50m² per bed (based on the NHS London Healthy Urban Development Unit model) and cost per bed of £1,700/m², based on BCIS Online April 2013 information with cost rebased to a Gloucestershire location.

The results of the assessment is summarised in Table 24 below:

Table 24 - Assessment of demand for secondary healthcare across the FOD

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	4.4	£369,777
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>3.1</i>	<i>£264,177</i>
Lydney	1,905	4,477	8.0	£677,332
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>7.2</i>	<i>£608,355</i>
Coleford	600	1,410	2.5	£213,333
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>2.1</i>	<i>£176,711</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Newent	470	1,105	2.0	£167,111
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>1.5</i>	<i>£125,155</i>
Tutshill / Sedbury	113	266	0.5	£40,178
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>0.1</i>	<i>£6,400</i>
Bream	110	259	0.5	£39,111
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>0.2</i>	<i>£18,133</i>
Drybrook	91	214	0.4	£32,356
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>0.2</i>	<i>£14,578</i>
Mitcheldean	140	329	0.6	£49,778
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>0.3</i>	<i>£21,333</i>
Newnham	65	153	0.3	£23,111
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.1</i>	<i>£11,022</i>
Yorkley / Pillowell / Whitecroft	96	226	0.4	£34,133
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.3</i>	<i>£23,467</i>
Lydbrook Joys Green	98	230	0.4	£34,844
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.2</i>	<i>£18,844</i>
Other village and rural area	562	1,321	2.4	£199,822
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>2.2</i>	<i>£187,022</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	22.1	£1,880,886
<i>Committed Sites & Windfall</i>	<i>4,149</i>	<i>9,750</i>	<i>17.4</i>	<i>£1,475,198</i>
<i>Allocations</i>	<i>1,141</i>	<i>2,681</i>	<i>4.8</i>	<i>£405,688</i>

It is understood from initial discussions with the Gloucestershire Hospitals NHS Foundation Trust that they are undertaking their own service planning based on the Office of National Statistics (ONS) 2011-based Subnational Population Projections. Therefore, assuming the population projections underpinning the Forest of Dean Core Strategy do not exceed the ONS projections that inform the Hospital Trusts own planning processes, there is a reasonable expectation that sufficient capacity will be made available. The hospitals typically serve wide

catchments and therefore the precise locations of development are less of a concern, subject to transport accessibility considerations.

4.6 Energy

Overview

This study is primarily concerned with understanding whether there are any engineering or other obstacles that would prevent or delay the connection of development sites to the electricity and gas grid/network, resulting in implications for site delivery or phasing.

With respect to heat, the possibility of establishing heat networks, Lydney, Cinderford and Mitcheldean are identified as locations that potentially have sufficient demand intensity, along with ‘anchor loads’, that could make district heating networks fuelled by low carbon fuels viable.

No energy projects of sufficient scale to be classed as nationally significant Infrastructure Projects (NSIPs) have been identified.

Responsibilities for delivery

Following the privatisation of the English energy industry in 1990, responsibilities for energy and distribution has been dispersed to numerous private sector infrastructure operators, as described further throughout this report section, with oversight and regulation provided by the industry regulator Ofgem. More recently, however, in response to energy security and climate change drivers, both the national and local tiers of government have become increasingly active in strategy and planning processes and promoting low carbon energy generation.

4.6.1 Electricity generation

Responsibilities for delivery

Security of energy supply in terms of generation capacity is a matter safeguarded at the national level and there is not a requirement to demonstrate there is sufficient supply overall to ensure Core Strategy soundness, however FOD District Council does have a responsibility to assist in the achievement of UK targets to reduce emissions of greenhouse gases.

The Climate Change Act 2008 sets a target to reduce greenhouse gas emissions in the UK by at least 80 per cent from 1990 levels by 2050. To achieve this, nationwide there will need to be an increase in energy generation from renewable sources, a new generation of nuclear power stations, the development of newer and sometimes smaller scale generation techniques such as anaerobic digestion and the replacement of existing coal-fired power stations with cleaner alternatives, including the commercial deployment of carbon capture and storage technology.

The NPPF states that ‘...local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources’ (paragraph 97). They should (in summary):

- have a positive strategy to promote energy generation from renewable and low carbon sources;
- design policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed;
- consider identifying suitable areas for renewable and low carbon energy sources;
- support community-led initiatives for renewable and low carbon energy; and
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy sources.

Sector plans and strategies

Gloucestershire Renewable Energy Study: Phase 2 (February 2011) A two stage study looking at the potential for renewable energy in Gloucestershire in the period to 2026²⁶, considers the potential to accommodate renewable energy techniques within Gloucestershire including the FOD. The report considers that in the FOD area there is good wind power potential and excellent existing biomass resource but limited potential for energy crops.

Current and planned infrastructure projects

No current major energy generation proposals within the FOD area have been identified.

4.6.2 Electricity Transmission

Responsibilities for Delivery

The extra high-voltage transmission grid (275kV and 400kV) in England is owned and operated by National Grid Electricity Transmission (NGET). The regional distribution network operator for the FOD area is Western Power Distribution (WPD), who are responsible for distributing electricity from the national grid to consumers.

Assessment of Infrastructure Needs

Electricity is transferred from generation to point of use via Transmission and Distribution networks. Transmission networks (TN) in England typically operate at 275kV and above whereas the Distribution network (DN) generally operates from 132kV down to the 230V supplied to domestic customers.

The Stage 2 report of the Gloucestershire Renewable Energy Feasibility Study confirms that *'...there is a relatively even distribution of circuits across Gloucestershire and there are no areas of the County which are remote from the grid..... however, a connection to the closest point of grid infrastructure is not*

²⁶ Gloucestershire County Council (2010) Renewable Energy Study and Resource Assessment
Gloucestershire County Council (2011) Renewable Energy Study 2 – Resource Assessment

guaranteed and any generation development should be assessed on its own merits' (Section 9.2 GCC 2011).

With respect to the TN network operated by National Grid, there is a possibility that proposed allocations could coincide with the existing network of high voltage lines, with implications for the acceptability, layout or viability of development. A map showing the locations of the TN network in relation to potential strategic locations for development is provided at Appendix B. As confirmed in Table 25 below, there are no proposed locations for development within the FOD where conflicts are anticipated.

WPD have provided feedback in relation to the proposed site allocations, as set out in the table below. In summary, WPD identify that for those settlements with the larger allocations (Cinderford, Lydney, Coleford and Newent), reinforcement of the network is likely to be required. Commercial development in particular results in a higher demand for electricity, hence the employment allocation at Lydbrook may also result in a requirement for reinforcement of the network.

Table 25 - Electricity transmission and distribution by settlement

Settlement	Transmission Network	Distribution Network – Comment from Western Power Distribution
Forest of Dean District Council		
Cinderford	No National Grid infrastructure within close proximity	<p>Housing - the anticipated demand requirement for this development is 2.1 MVA. The primary substation (Mitcheldean PSS) near to the site currently has ample capacity to accommodate the proposed residential development.</p> <p>Commercial - The anticipated demand requirement for this development is 13 MVA. Mitcheldean 33/11kV substation is the nearest primary substation to the development site and has a summer firm capacity of 12MVA (summer MD ~ 6MVA). Therefore, in order to accommodate the proposed 26Ha development, primary upstream reinforcement will be required, potentially in the form of 2 x 19MVA transformers, plus additional an 11kV switchboard. Typically this work would take around 12-24 months to complete.</p>
Lydney	No National Grid infrastructure within close proximity	<p>Housing - The anticipated demand requirement for this development is 4.0 MVA. Lydney 33/11kV substation is the nearest primary substation to the development area, reinforcement is planned at this site and is due to begin in the summer of 2015 to increase capacity. It is anticipated that this reinforcement will be complete by early 2016 and should provide an additional 3.8MVA winter firm capacity (site did have a firm capacity of 8.2MVA, this will increase to 12MVA).</p> <p>Commercial - The anticipated demand requirement for this development is 15 MVA. Lydney 33/11kV substation is the nearest primary substation to the development site and currently has a summer firm capacity of 7.6MVA, reinforcement is planned at this site and is due to begin in the summer of 2015 to increase capacity. It is anticipated that this reinforcement will be complete by early 2016 and should provide an additional 2MVA summer firm capacity. Further work to reinforce Lydney 33/11kV will be required to accommodate the proposed 30Ha development, potentially in the form of 2 x 19MVA transformers, plus an additional 11kV switchboard. Typically this work would take around 12-24 months to complete.</p>
Coleford	No National Grid infrastructure within close proximity	<p>Housing - The anticipated demand requirement for this development is 1.4 MVA. Bixhead 33/11kV substation is the nearest primary substation to the development area, this site is currently being reinforced to increase capacity. It is anticipated that this reinforcement will be complete by mid-2015 and should provide an additional 11MVA winter firm capacity (site did have a firm capacity of 13MVA, this will increase to 24MVA).</p>

Settlement	Transmission Network	Distribution Network – Comment from Western Power Distribution
		Commercial - The anticipated demand requirement for this development is 3.5 MVA. Bixhead 33/11kV substation is the nearest primary substation to the development area, this site is currently being reinforced to increase capacity. It is anticipated that this reinforcement will be complete by mid-2015 and should provide an additional 11MVA winter firm capacity (site did have a firm capacity of 13MVA, this will increase to 24MVA).
Newent	A National Grid overhead powerline is located to the south. The Core Strategy allocation of housing at Newent is now committed, so it is assumed the sites are not close to/there was no conflict with National Grid infrastructure.	Housing - The anticipated demand requirement for this development is 0.7 MVA. Newent 66/11kV substation is the nearest primary substation to the development site, this site is currently being reinforced to increase capacity. It is anticipated that this reinforcement will be complete by late-2015 and should provide an additional 10MVA winter firm capacity (site did have a firm capacity of 5.29MVA, this will increase to 15.6MVA).
Tutshill/ Sedbury	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.2 MVA. The primary substation (Mead Lane PSS) near to the site currently has ample capacity to accommodate the proposed development.
Bream	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.2 MVA. The primary substation (Princess Royal PSS) near to the site currently has ample capacity to accommodate the proposed development.
Drybrook	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.2 MVA. The primary substation (Bilson PSS) near to the site currently has ample capacity to accommodate the proposed development.
Mitcheldean	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.2 MVA. The primary substation (Mitcheldean PSS) near to the site currently has ample capacity to accommodate the proposed development.
Newnham	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.14 MVA. The primary substation (Elton PSS) near to the site currently has ample capacity to accommodate the proposed development.

Settlement	Transmission Network	Distribution Network – Comment from Western Power Distribution
Yorkley/ Pillowell/ Whitecroft	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.10 MVA. The primary substation (Princess Royal PSS) near to the site currently has ample capacity to accommodate the proposed development.
Lydbrook Joys Green	No National Grid infrastructure within close proximity	Housing - The anticipated demand requirement for this development is 0.16 MVA. The primary substation (Stowfield PSS) near to the site currently has ample capacity to accommodate the proposed development. Commercial - The anticipated demand requirement for this development is 2.5 MVA. Stowfield 33/11kV substation is the nearest primary substation to the development area. Work to reinforce Stowfield PSS is currently underway but this will only add a further 1.5MVA to the summer firm capacity (as Stowfield is a single transformer site). Further work to reinforce Stowfield 33/11kV will be required to accommodate the proposed 5Ha development, potentially in the form of an additional 19MVA transformer, plus an additional 11kV switchboard. Typically this work would take around 12-18 months to complete.

4.6.3 Gas Distribution

Responsibilities for delivery

The National Grid Gas (NGG) transmits gas from the production beachhead and import terminals to regional distribution companies or Distribution Operators (DO's) that operate the network of pipelines serving consumers. Wales and West Utilities (WWU) are the DO for the FOD area.

Assessment of infrastructure needs and current projects

With respect to the TN network operated by National Grid, there is a possibility that proposed allocations could coincide with the existing network of high voltage lines, with implications for the acceptability, layout or viability of development. A map showing the locations of the TN network in relation to potential locations for development is provided at Appendix B. As confirmed in Table 26 below, there are no proposed locations for development within the FOD where conflicts are anticipated.

WWU require relatively detailed information on development sites before they can provide formal feedback on network capacities and constraints. This should include the size and shape of sites, number of units and indicative layout and phasing. However it is understood that Wales and West Utilities can respond to developer connection requests within a relatively short time frame.

Further more detailed information will be issued to WWU as soon as available, in order to inform future updates of the IDP and discussions with site developers. Comments have been provided by WWU on the proposed allocations for development as set out in the table below:

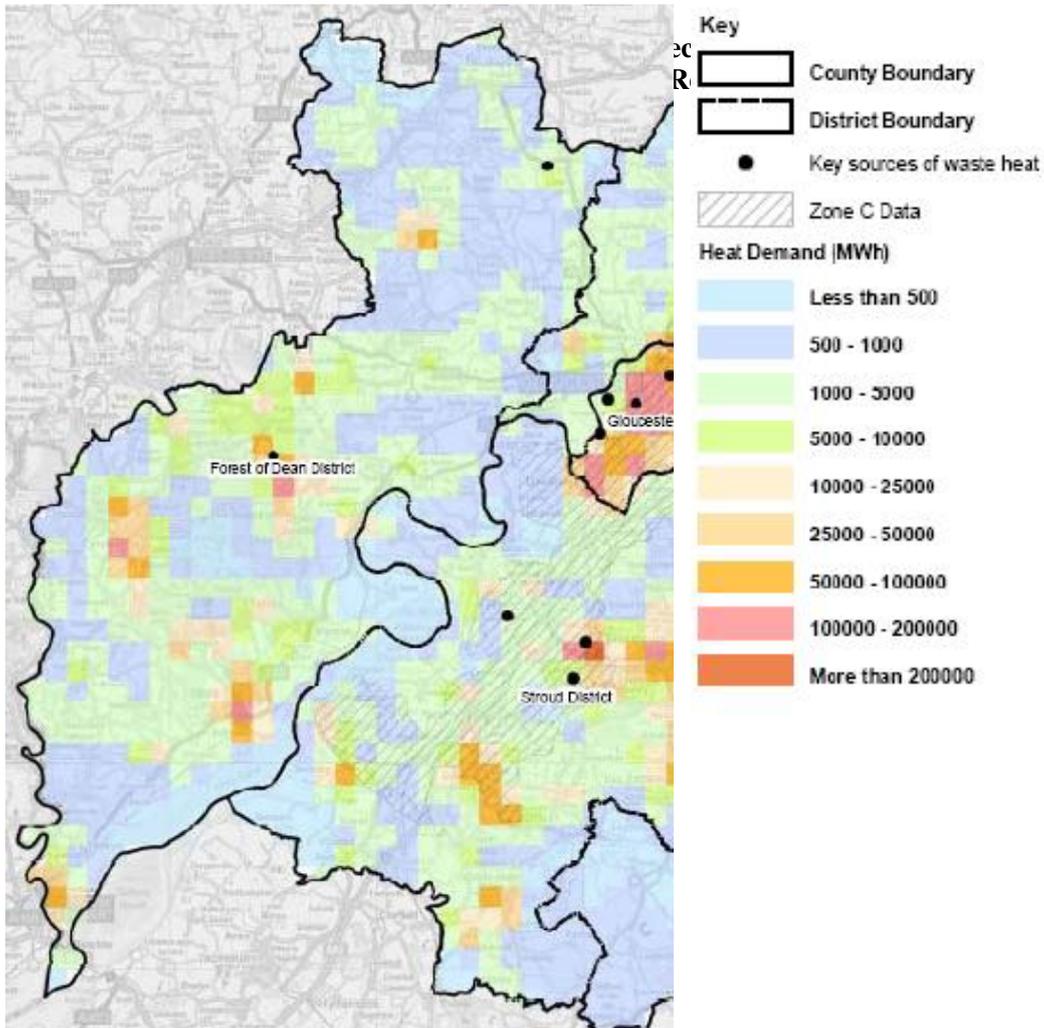
Table 26 - Gas distribution network by settlement

Settlement	Comment based on map of National Grid assets at Appendix B
Cinderford	No National Grid infrastructure within close proximity.
Lydney	No National Grid infrastructure within close proximity.
Coleford	No National Grid infrastructure within close proximity.
Newent	A National Grid gas pipeline runs from east to west to the north of Newent. The Core Strategy allocation of housing at Newent is now committed, so it is assumed the sites are not close to/there was no conflict with National Grid infrastructure.
Tutshill/Sedbury	No National Grid infrastructure within close proximity.
Bream	No National Grid infrastructure within close proximity.
Drybrook	No National Grid infrastructure within close proximity.
Mitcheldean	No National Grid infrastructure within close proximity.
Newnham	No National Grid infrastructure within close proximity.
Yorkley/Pillowell/Whitecroft	No National Grid infrastructure within close proximity.
Lydbrook Joys Green	No National Grid infrastructure within close proximity.

4.6.4 Heat Distribution

Sector plans and strategies

The Gloucestershire Renewable Energy Feasibility Study has looked at the potential for district heat networks. It concludes that there are a small number of areas within the Forest of Dean where there is potentially sufficient demand intensity that moderate district heating networks fuelled by low carbon fuels such as biomass or waste may be viable, as shown in the figure below. These include Lydney, Cinderford and Coleford, which are shown to have the highest heat demand. It is also noted that small networks may be viable at other sites.

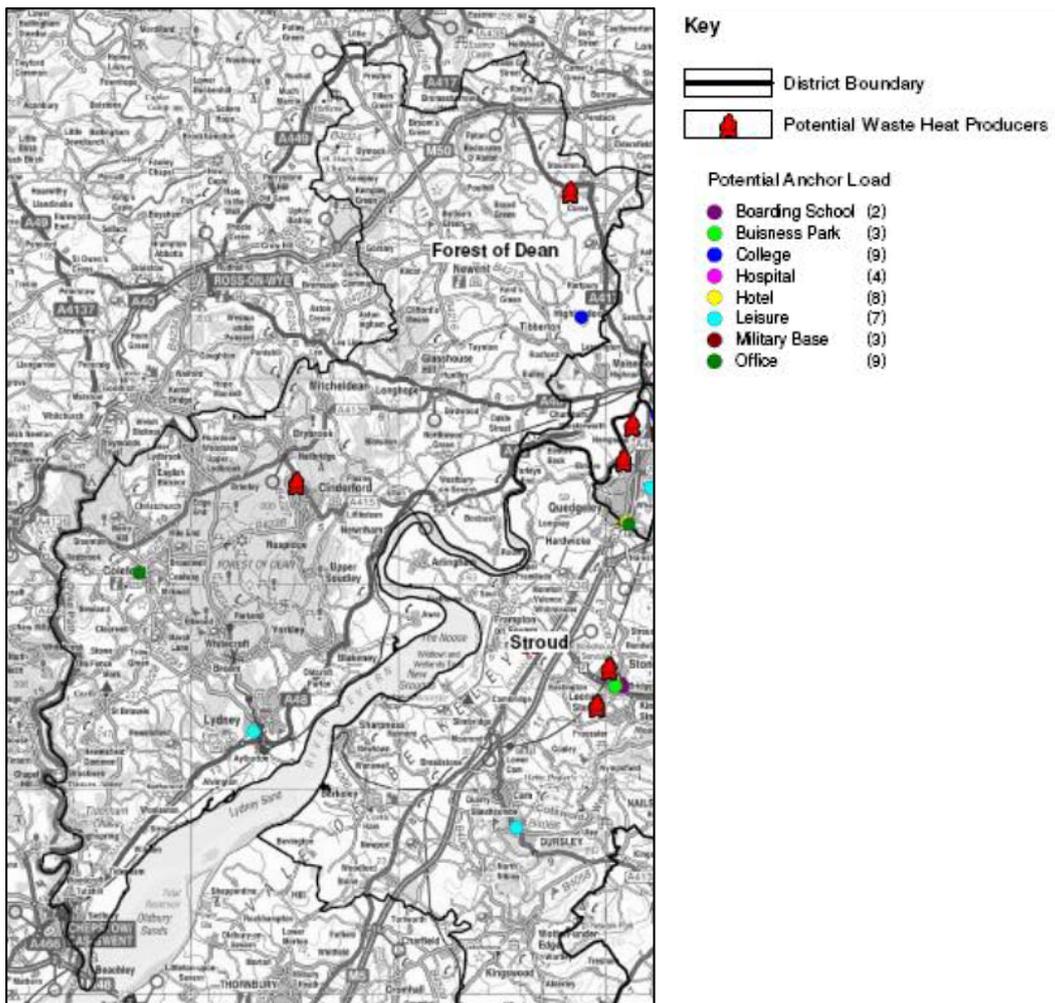


The study has also identified potential sites for the deployment of stand-alone installations or ‘anchor loads’. These include business parks, boarding schools etc. A summary of sites with good potential for renewable heating is shown below:

Table 27 - Potential renewable heating sites within the FOD area:

Renewable Heating Sites
2 x Potential Waste Heat Producers
1 x College
1 x Leisure
1 x Office

Figure 3 - Sites with Good Potential for Renewable Heating - recreated from Gloucestershire County Council (2011) Renewable Energy Study 2 – Resource Assessment, Figure 8.1



The feasibility study considers where particular forms of energy are most suitable, in terms of new residential development, and concludes that new build flats/apartment complexes provide the best opportunities, along with other large high density uses such as hospitals, while noting that the use of heat networks may be possible for other forms of development.

The UK Green Investment Bank

The following priority sectors have been determined for the UK Green Investment Bank:

- Offshore wind power generation;
- Commercial and industrial waste processing and recycling;
- Energy from waste generation, including gasification, pyrolysis and anaerobic digestion for the production of heat and/ or power;
- Non-domestic energy efficiency, including onsite renewable energy generation and heat; and
- Support for the Green Deal.

At least 80% of the funds will be invested in these priority sectors.

There is initial capitalisation up to £3 billion until 2015, which the GIB will have powers to borrow (subject to debt falling as a % of GDP) subject to State aid clearance from DG Competition and the European Commission.

4.7 Flood risk management, water supply and wastewater

4.7.1 Flood risk management

Responsibilities for delivery

Wider responsibilities for flood risk management are complex and shared amongst a number of organisations. A summary of responsibilities most relevant to the IDP is provided below²⁷.

The Environment Agency (EA) – With its national role, the EA has a strategic overview of all sources of flooding and coastal erosion (as defined in the Flood and Water Management Act). It is responsible for flood and coastal erosion risk management activities on main rivers and the coast, regulating reservoir safety, and working in partnership with the Met Office to provide flood forecasts and warning. It must also look for opportunities to maintain and improve the environment for people and wildlife while carrying out all of its duties.

The Environment Agency is a ‘category one responder’ to flood events under the Civil Contingencies Act.

Gloucestershire County Council (GCC) as Lead Local Flood Authority (LLFA)

– The LLFA is required to perform roles that include:

- Prepare and maintain a strategy for local flood risk management in their areas;
- Maintain a register of assets and designate flood risk management assets;
- Investigate significant local flooding incidents and publish the results;
- Establish approval bodies for Sustainable Drainage Systems (SuDS); and
- Play a lead role in emergency planning and recovery after a flood event.

As the Highways Authority, GCC has lead responsibility for providing and managing highway and roadside drainage under the Highways Act 1980.

Forest of Dean District Council is a ‘category one responder’²⁸ to flood events under the Civil Contingencies Act and will also be able to designate flood risk management assets.

Water and wastewater companies - Water companies are responsible for the provision, maintenance and operation of public sewers and works for the purposes of ‘effectually draining’ their area. They are also responsible for managing the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure. The utilities are partners in developing the county flood defence strategy and must share data with the LLFA.

²⁷ Summary of Local Government Association information:
<http://www.local.gov.uk/web/guest/local-flood-risk-management/>

²⁸ <http://www.gloucestershireprepared.co.uk/cca-the-lrf.html>

Lower Severn Internal Drainage (IDB) - IDBs are local public authorities established in areas of special drainage need within the UK. They have permissive powers to undertake works to reduce flood risk and manage water levels within their respective drainage areas. The Lower Severn IDB area includes land alongside the River Severn to the southwest of Lydney, around the settlements of Westbury-on-Severn and Chaxhill, and to the east of Newent.

Site developers – Site developers must demonstrate that their proposals would not increase flooding levels elsewhere and, if the site is in an area at risk of flooding, demonstrate that the development is appropriately flood resilient and resistant (NPPF, para. 103).

Sector plans and strategies

The following plans have been reviewed to inform the IDP:

Gloucestershire County Council Preliminary Flood Risk Assessment (PFRA)(Nov 2011) – Undertaken in compliance with the EC Floods Directive and UK Flood Risk Regulations (2009), the PFRA is a high level screening exercise to identify the areas of most significant ‘flood risk areas’ across Europe. Using national criteria approved by Defra it was found that there are ten ‘Flood Risk Areas’ in England, none of which are in Gloucestershire. GCC did not propose to add any new ‘Flood Risk Areas’ for the PFRA, but have identified actions that include the development Surface Water Management Plans for the most vulnerable areas.

Severn Estuary Shoreline Management Plan (SMP)(2000) and SMP2 (Dec, 2010) – The aim of the Shoreline Management Plan is to provide the basis for sustainable coastal defence policies within the Severn Estuary and to develop objectives for the future management of the shoreline. Sustainable coastal defence policies need to take account of the inter-relationships between defences, developments and processes within the Estuary, and they should avoid as far as possible tying future generations into inflexible and expensive options for defence. Actions identified in relation to the shoreline in the FOD area (Tidenham & Villages and Lydney to Gloucester theme area) include:

Tidenham & Surrounding Villages:

- Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.
- Investigate the methods to improve the quality and availability of National Flood Coastal Defence Database (NFCDD) data.
- Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds. And
- Review the economic value of agricultural land at flood/erosion risk

Lydney & Lydney to Gloucester – the above actions plus the following:

- Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management.
- Identify where new defences will need to be, when they will need to be replaced, how they should be constructed.

- Undertake a study into opportunities to remove flood embankments.
- Investigate the feasibility of improving the condition of Walmore Common SSSI and increasing its size by reconnecting the river to the floodplain.
- Study of the flood risks to Westbury Court Gardens from Westbury Brook
- Identify where new MR defences will be, when they will be built and how they should be constructed. And
- Put in place monitoring programme of erosion rates.

Severn Tidal Tributaries Catchment Flood Management Plan (CFMP)(Dec 2009) – CFMPs are intended to provide an understanding of the scale and extent of flooding now and in the future and set policies for managing flood risk within the river catchment. The CFMP area covers a significant portion of Gloucestershire, extending from Cinderford in the west, to Gloucester in the north, Chalford to the east, and to Thornbury in the south along the Severn Estuary. Parts of the FOD District are covered by three CFMP sub-areas: the FOD/Cinderford/Coleford sub-area; the Severn Vale sub-area that incorporates Newent; and the Lydney sub-area. Key messages relating to each of the sub-areas are as follows:

Forest of Dean and Cinderford Streams

- Sub-area characterised by steep sided valleys with fast-flowing streams and numerous groundwater springs.
- There are opportunities to restore natural storage of floodwater in the upstream area, which could benefit communities in the sub-area and downstream such as Lydney. Opportunity to naturalise river channel between Cinderford and Blakeney is specifically identified.

Severn Vale

- Sub-area characterised by agricultural land and extremely flat coastal floodplain, much of which is below sea level.
- EA plans to take opportunities to restore natural storage of floodwater on undeveloped floodplains. The potential to reconnect Walmore Common SSSI with the River Severn is specifically identified.

Lydney

- Sub-area includes the urban area of Lydney and floodplain grazing marsh along the estuary and west bank of the River Lyd.
- Flooding cannot be entirely eliminated and so residents, owners and businesses need to manage some risks themselves. Actions include registering for flood warnings and adapting buildings in areas vulnerable to flooding.

Severn Estuary Flood Risk Management Strategy (2013 Consultation) – The Strategy is the Environment Agency’s plan to manage tidal flood risks in the Severn Estuary. The three main objectives of the strategy are:

- To define a 100 year plan of investment for flood defences by the Environment Agency and local authorities.
- To prioritise other flood risk management measures such as providing advice to utility companies to protect critical infrastructure, development control advice and flood warning investment.
- To decide where we should create new inter-tidal wildlife habitats to compensate for losses of habitat caused by rising sea levels.

- Further information arising from a review of this document is provided in the assessment section below.

Gloucestershire Flood Risk Management Strategy – Consultation Draft (July 2013) – the County Council are in the process of preparing a Local Flood Risk Management Strategy, which was published for consultation during the summer 2013. The strategy is being prepared in consultation with a Flood Risk Management Partnership Group, which includes representatives from Forest of Dean District Council. A list of initial priority locations for investment in flood risk management measures is identified in the draft strategy, helping target limited financial resources to the areas of greatest risk and promote transparency in decision-making (see assessment section below for further details).

Forest of Dean District Council – Strategic Flood Risk Assessment for Local Development Framework – Level 1 (Volume 1) FINAL (2008) In December 2007, Gloucestershire County Council commissioned Halcrow to produce a Level 1 Strategic Flood Risk Assessment (SFRA) for the county, including the FOD District, in accordance with PPS25. The aim of the SFRA was to map all forms of flood risk and use this as evidence base to locate new development primarily in low risk areas (Zone 1). Where development cannot be located in Flood Zone 1, the planning authority was required to apply the Sequential Test to land use allocations and, where necessary, the Exception Test (requiring a Level 2 SFRA).

Lydney and Cinderford Level 2 Flood Risk Reports (September 2009) The need to undertake Level 2 SFRA's for Cinderford and Lydney arose from the need to refine the existing flood zone information so that informed decisions could be made on the locations of future development during the preparation of the Core Strategy. The Level 2 Flood Risk Reports provided robust Flood Zones, as well as flood hazard information that informed application of the Sequential and Exception Tests (by the Council).

Groundwater Scoping Study –Formerly within the remit of the Environment Agency, the County Council is in the process of preparing a groundwater study covering the Gloucestershire area. An executive summary of this document should be available within the first six months of 2014.

Assessment of local infrastructure needs and costs

In order to provide an overview of flood risk management infrastructure needs, this study provides a summary review of flood risk and proposed mitigation measures for each of the settlements where there are existing/proposed development allocations. A summary review of the Severn Estuary Flood Risk Management Strategy (2013 consultation version) is also provided, as this may result in flood risk management projects along the western bank of the Severn towards the end of the Core Strategy plan period.

Table 28 sets out summary information relating to settlements where development is proposed in the FOD Core Strategy and draft Allocations Plan. Proposed strategic development locations, at Cinderford and Lydney, have been informed by SFRAs at Levels 1 and 2. The SFRAs confirm that development would be located within areas that are predominantly at low risk of flooding (Flood Zone 1) and the Core Strategy was examined and adopted on this basis.

Consultation with the Environment Agency has identified that at the other development locations the Council should undertake a Level 2 SFRA (Sequential Test) for all sites where flood risk could affect the site or its access (i.e. those in or adjacent to Flood Zones 2 and 3, or with historic flooding identified). The Environment Agency also considered that developers should be encouraged to submit detailed flood risk assessments for the proposed development sites as part of planning applications.

In order to inform preparation of the Allocations Plan and CIL, Table 28 also sets out the following:

- Whether proposed site allocations are located outside, adjacent to or within areas at risk of flooding (Flood Zones 2, 3a and 3b), based on an exercise of cross-referencing with 'Flood Zones in Gloucestershire' mapping that is available on the County Council website²⁹. This has been undertaken to highlight whether there are areas where further research will clearly be required. This report does not comprise a SFRA and the County Council mapping is also caveated as follows: 'Whilst every care has been taken to ensure all information is correct, the Council can accept no liability for the inaccuracy of information.'
- A review of Draft Flood Risk Management Strategy initial priority locations within the Forest of Dean, where investigations of surface water flooding issues are planned for 2014/15.

Assuming the potential site allocations are eventually adopted as part of the Development Plan for the FOD District, a Site Specific Flood Risk Assessment will be required to demonstrate flood risk to the site is appropriately managed and that flood risk is not increased elsewhere (NPPF para.30)³⁰. It is not expected at this stage that any unusually onerous site specific flood risk management infrastructure requirements will arise. The Environment Agency has also advised that, providing developers undertake adequate and appropriate surface water drainage management, the allocations are not anticipated to require further infrastructure provision as a result of exacerbating flood risk.

²⁹ Source:

<https://gloucestershire.firmstep.com/default.aspx/RenderForm/?F.Name=eXzfxLenBZ3&HideToolBar=1>

³⁰ According to footnote 20 within the NPPF (page 24), site-specific flood risk assessments are only required for proposals of 1 ha or greater when they are located in Flood Zone 1.

Table 28 - Review of flood risk management information by housing allocation area³¹

Housing Allocation Area	Review of SFRA Level 2 reports and 'Flood Zones in Gloucestershire' mapping	Draft Flood Risk Management Strategy			
		Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
Cinderford	<p>There are only a few site allocations which are affected by flood risk and it is determined that the risk need not prohibit these sites from development, provided the flood risk areas remain as open space. The exception to this is the employment allocation at Broadmoor which contains a small housing allocation. The Broadmoor area is significantly affected by flood risk and therefore the Council revised plans within the Cinderford AAP to ensure allocations are located within Flood Zone 1. Further studies have been undertaken regarding the AAP to ensure that it can be developed satisfactorily.</p> <p>The site formerly allocated at Nailbridge has been reduced in area. This means that the remaining flood risk can be addressed as the revised site is proposed for development.</p>	<p>There is limited historic flooding within Cinderford; it is estimated that 11 properties flooded during the July 2007 floods, and there is no evidence of other significant flooding events in the last 30 years.</p> <p>Surface water mapping predicts a significant number of properties to be at risk of flooding. There is some predicted flooding from the Cinderford Brook, but the majority of predicted flooding is via overland flow from Edge Hills and Littledean Hill causing flooding to a number of clusters of properties.</p>	<p>An investigation is planned for 2014/15 to confirm nature of flood risk in the area and identify suitable mitigation measures.</p> <p>Estimated costs for measures cannot be provided at this stage.</p>	Investigation to be carried out in 2014/15	County Council in partnership with FOD DC. Availability of funding to be confirmed.
Lydney	Results of all modelling periods show that fluvial flood risk does not affect any of the potential allocations in	No specific management or mitigation identified.			

³¹ <http://www.gloucestershire.gov.uk/CHttpHandler.ashx?id=56193&p=0> (October 2013)

Housing Allocation Area	Review of SFRA Level 2 reports and 'Flood Zones in Gloucestershire' mapping	Draft Flood Risk Management Strategy			
		Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
	south-east Lydney, confirming that all the sites are located within Flood Zone 1.				
Coleford	Proposed allocations located outside Flood Zones 2, 3a and 3b.	<p>The County Council database of historic flooding indicates limited flooding in this parish, although evidence submitted to the County Council by the parish council suggests nearly 60 properties were affected in July 2007.</p> <p>Surface water mapping predicts a significant number of properties to be at risk of flooding. The predominant predicted flooding is to properties adjacent to the watercourse which runs through Coleford, which suggests fluvial flooding from the ordinary watercourse would be the primary flooding mechanism.</p>	No mitigation measures have been identified to date; an investigation is planned for 2014/15 to confirm flood risk in the area and identify suitable mitigation measures.	Investigation to be carried out in 2014/15	County Council in partnership with FOD DC. Availability of funding to be confirmed.
Newent	Proposed allocations located outside Flood Zones 2, 3a and 3b.	No specific management or mitigation identified.			
Tutshill/Sedbury	Proposed allocations outside Flood Zones 2, 3a and 3b.	No specific management or mitigation identified.			
Bream	Proposed allocation/s located outside Flood Zones 2, 3a and 3b.	No specific management or mitigation identified.			
Drybrook	Proposed allocation/s located outside Flood Zones 2, 3a and 3b.	No specific management or mitigation identified.			

Housing Allocation Area	Review of SFRA Level 2 reports and 'Flood Zones in Gloucestershire' mapping	Draft Flood Risk Management Strategy			
		Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
Mitcheldean	Proposed allocation/s located outside Flood Zones 2, 3a and 3b.	There is limited anecdotal evidence of flooding in Mitcheldean, but surface water mapping indicates significant surface water flood risk due to three overland flow pathways in the town, caused by surface runoff from the surrounding catchment.	No mitigation measures have been identified to date; an investigation is planned for 2014/15 to confirm flood risk in the area and identify suitable mitigation measures.	Investigation to be carried out in 2014/15.	County Council in partnership with FOD DC. Availability of funding to be confirmed.
Newnham	Proposed allocation located adjacent to, but outside Flood Zone 2.	No specific management or mitigation identified.			
Yorkley/ Pillowell/ Whitecroft	Committed development	No specific management or mitigation identified.			
Lydbrook Joys Green	Stowfield Works potential allocation site located adjacent and partially within Flood Zones 2, 3a and 3b, however, it is considered that a Site Specific Flood Risk Assessment will enable areas of flood risk to be avoided through site planning and careful disposition of uses.	No specific management or mitigation identified.			
Woolaston	Proposed allocation located outside Flood Zones 2, 3a and 3b.	No specific management or mitigation identified.			

With respect to the Environment Agency's long term plan to manage tidal flood risks in the Severn Estuary, the coverage of the Severn Estuary Flood Risk Management Strategy (2013 Consultation) includes areas along the western bank of the Severn that fall within the FOD district. In summary, the consultation document sets out the following recommendations for defences:

- ***Minsterworth and Minsterworth Ham*** – At Minsterworth village, the height of the defence should provide protection against the 1 in 200 year flood until sea level rises by 0.7m (around 2110). The EA intends to maintain the current standard of the defence for the village in response to climate change, subject to the availability of funding. For Minsterworth Ham, a sea level rise of 0.1m (by around 2030) is likely to result in annual flooding to the agricultural land. In this case, options to be considered include: landowners taking on responsibility for maintaining defences; a voluntary managed realignment scheme for new defences and habitat creation is explored; and properties and farming activities are adapted to be more resilient to flooding.
- ***Newnham, Westbury on Severn, Rodley and Bollow*** – Important infrastructure protected in this area includes the A48 and railway line. A sea level rise of 0.1m (by 2030) would increase the risk of tidal flooding at Newnham to a 1 in 20 chance in any year at Newnham. A 0.1m rise in sea level would result in Westbury Court Gardens having a 1 in 5 chance of flooding in any year, rising to flooding in most years by 2060. At Newnham, Westbury, Cleeve, Rodley and at the Noards, the EA intends to continue to maintain defences (as funds allow) in response to climate change. The National Trust is currently considering flood risk management options for Westbury Court Gardens.
- ***Awre*** – The embankment on the Awre peninsula provides a standard of protection against tidal inundation of around a 1 in 5 to 1 in 10 year chance in any year to the land behind it. Even with some maintenance more frequent overtopping can be expected, reducing the effectiveness of the defence within 20 years. The properties and infrastructure at Awre are on high ground and have a 1 in 200 year chance of flooding in any one year. There is no economic justification for the EA to continue to undertake maintenance work on the defences protecting agricultural land in this area. Options to be considered include: landowners, local authorities and the community taking on responsibility for maintaining defences; a voluntary managed realignment scheme for new defences and habitat creation is explored; and farming activities are adapted to be more resilient to flooding.
- ***Alvington, Aylburton and Lydney*** – The risk of tidal flooding to properties near Lydney is a 1 in 200 chance or less in any year, becoming a greater than 1 in 200 chance with a sea level rise of 0.3m (by 2060). Minimal maintenance is required to the banks and rock armour at Lydney and Aylburton New Grounds in the foreseeable future. The EA intends to maintain the defences (as funds allow) and then sustain the current standard of protection in response to climate change.
- ***Tidenham, Stroat and Woolaston*** – In this area the raised railway embankment limits the extent of tidal flooding and the railway itself has a 1 in 100 chance of tidal flooding in any year. As sea level rises, Network Rail may need to increase maintenance on the rail embankment. Tidal flaps covering

culverts, originally design to prevent tidal flows beyond the railway, are at their end of their functional lives and are largely ineffective. The EA cannot justify expenditure of public funds to replace the tide flaps on the culverts under the railway as there is insufficient economic benefit from reducing flood risk to small areas of agricultural grazing land.

Drainage capacity has been a factor in recent flooding events in Gloucestershire and it is recommended that the Allocations Plan or associated development management policies should include policy emphasising the need for this potential cause of flooding to be assessed robustly within site-specific Flood Risk Assessments. The need for early engagement with the relevant wastewater utility provider, the Environment Agency and County Council should be highlighted within the policy, on the basis that planning conditions requiring capacity upgrades (where necessary) could influence how quickly development can be brought forward (see also wastewater section below).

Refresh consultation identified a need for future investment in flood risk management at the following locations:

- Upper Lydbrook, Flood Alleviation Scheme – This is a scheme to improve drainage and carry our watercourse improvements to reduce the risk of flooding to properties;

River Wye, River Cam and Nailsworth Stream Property Level Protection – These are individual property level measures to reduce the risk of flooding to properties along these watercourses.

- Severn Estuary tidal defences– a scheme to improve the standard of protection of the defences in the Westbury area.

Consultation also identified a number of implemented schemes which have an ongoing maintenance/operational cost:

- Lydney Flood Alleviation Scheme in the town and at Station Road; and
- Tidal flood defences along the Severn Estuary.

At this stage, funding has not been secured to deliver the above investment and partnership funding contributions will be required.

The Environment Agency also identified that development that relies of their flood warning system to ensure that they are operational and safe will be expected to contribute to the ongoing costs of the service. This would include financial contributions towards the maintenance and operation of gauging stations and systems that support the early warning system, as well as resources that implement the early warnings.

Funding Sources

There are a range of funding routes that could be pursued to deliver flood risk management infrastructure:

Developer flood risk management and financial contributions (S106/CIL)

Typically, where new development takes place, the onus falls upon the developer to demonstrate that flood risk to the site is appropriately managed and that flood risk is not increased elsewhere (NPPF para. 103). This can involve the delivery of on-site flood risk management infrastructure through S106 Planning Obligations or a Community Infrastructure Levy.

Flood Defence Grant-in-Aid: Defra Resilience Partnership Funding

During 2011 Defra announced changes to the way funding is allocated to flood and coastal defence projects. The reformed funding programme, entitled Resilience Partnership Funding, aims to allow more schemes to go ahead and to give each community more of a say in what is done to protect them. Instead of meeting the full costs of a limited number of schemes, the new partnership approach to funding flood and coastal resilience will mean Government money is potentially available towards the cost of any worthwhile scheme, where other local committed funds are available. Government funding levels will be based on:

- The numbers of households protected;
- The damages being presented; and
- The other benefits a project would deliver.

Overall Defra expect more schemes to go ahead than if the previous ‘all or nothing’ approach to funding were to continue. The ability of FOD DC to demonstrate that match funding could be achieved through developer contributions or another source is therefore likely to be essential for accessing flood risk management grant funding from the Government.

Local Action through an Environment Agency Local Levy

Section 17 of the Flood and Water Management Act 2010 enables the Environment Agency to issue a levy in respect of flood and coastal erosion risk management functions carried out by the Environment Agency. Income is raised by way of a levy agreed with local authorities and is used to support locally important flood risk management projects that are not considered to be national priorities and hence do not attract national funding through flood defence grant in aid.

It is estimated that every £1 currently being invested in new and improved defences in the UK reduces the long-term costs of flooding by on average £8. Providing a financial incentive for action at the local level. The cost of flood risk management works can also appear more attractive when offset against projected increases in insurance premiums and excesses if no action is taken.

There are currently no Environment Agency Local Levy projects in the FOD area.

Gloucestershire One-Off Levy – There is a precedent for local action to raise funds for flood risk management works. Following the severe flood in 2007, nearly £29 million was provided by the Government to assist with the recovery from the flooding, but no significant finance was made available for flood risk management measures that would make the county less vulnerable in the future. Politicians in Gloucestershire, with a record of maintaining low council tax rises, consulted the community on whether they would pay a one-off levy to raise a ‘fighting fund’. There was a positive response and an extra 1.1% council tax rise for 2008/09 was turned into a fighting fund of nearly £10 million.

Private Beneficiary Investment - This comprises voluntary contributions from private beneficiaries and could include local businesses, landlords, etc. This method is becoming increasingly common, although can be time consuming to agree and underpin with legal agreements.

General Drainage Charge/Special Drainage Charge – These charges comprise money raised from landowners to fund additional works by the Environment Agency. This mechanism has been used to raise £3 million a year in the Anglian region, primarily for projects that protect agricultural areas.

Investing in Britain’s Future (June 2013) – The Government’s recent publication introduces a specific long term funding settlement for flood defences, rising to £370 million in 2015-16 and then protected in real terms to 2020-21. This provides a total of £2.3 billion and represents a real annual increase of 18% compared with the Spending Review 2010 period. This is intended to:

- fund a pipeline of projects across England;
- delivery improved protection to at least 300,000 homes;
- support an ambition to increase the efficiency of this investment by at least 10% across the investment period compared to a 2014-15 baseline;
- make it easier for communities and businesses to contribute towards schemes, allow public money to go further and help more schemes be built; and
- support the insurance industry in maintaining available and affordable flood cover for households.

4.7.2 Water and wastewater

Overview

Severn Trent water is responsible for water supply to the majority of the FOD District. Severn Trent Water’s draft Strategic Water Resources Management Plan (2015 – 2040) advises that for the Forest and Stroud water resource zone, while the company faces pressures to reduce abstraction from unsustainable sources and climate change impacts, these are not expected to trigger the need for investment in new sources of supply. Instead, the company plans for the zone are to manage the supply / demand balance through ongoing leakage control and water efficiency measures.

Wastewater services with the FOD District are provided by Welsh Water and Severn Trent Water. With respect to wastewater sewerage and treatment plant capacity, the following issues in particular have been identified as requiring further investigation and consultation:

- *At Cinderford, Drybook, Lydney and Newent, the cumulative impact of developments connecting to small diameter sewage pipes may result in*

capacity issues and Severn Trent Water has strongly recommended that hydraulic modelling is undertaken to inform upgrade assessments.

- *Welsh Water has advised that at Tutshill/Sedbury, both water supply and wastewater constraints arise. Early consultation at the pre-application stage is recommended so that solutions can be found, and hydraulic modelling of sewerage capacity is likely to be required.*

Responsibilities for delivery

Severn Trent Water (STW) – STW provides water supply services to the majority of the district. The company also provides wastewater services to large parts of the district, including the larger settlements of Cinderford, Lydney and Newent.

Dwr Cymru Welsh Water (DCWW) – DCWW provides a water supply service to Tutshill/Sedbury and wastewater services to some parts of the district, mainly Coleford and Tutshill/Sedbury, as well as some other smaller villages.

The Environment Agency – the Environment Agency has a role as regulator with respect to managing water resources under the Water Framework Directive. This includes the granting of Environmental Permits held by the water utility companies (these permits were previously known as Abstraction Licenses and Discharges Consents, but are now Environmental Permits under the Environmental Permitting Regulations 2010).

Sector plans and strategies

Water Resource Plans – All water supply companies are required to produce Water Resource Plans covering a period of 25 years, which should demonstrate the predicted demand and supply requirements resulting from population growth. The preparation of Local Plans and the associated Infrastructure Delivery Plans should feed into this process, providing water companies with important information on planned development levels.

Severn Trent are in the process of preparing a Water Resource Plan for the period 2015 – 2040 and published a consultation draft during the spring 2013.

Asset Management Plans - Water and wastewater companies also produce 5 year business plans, known as Asset Management Plans (AMPs), setting out their planned infrastructure projects for that period. The current AMP5 period covers 1st April 2010 to 31st March 2015. AMP6 will cover the period from 1st April 2015 to 31st March 2020 and the water companies' draft Business Plans were submitted to Ofwat in August 2013.

Severn River Basin Management Plan (December 2009) – The plan sets out the pressures facing the water environment in this river basin district and the actions that will address these. The plan is prepared under the Water Framework Directive and will be reviewed on a six year cycle.

Baseline infrastructure and deficits

STW does not provide details of specific projects within the 2010 – 2015 AMP Business Plan, but does set out overall commitments for the five year period. For water supply these are³²:

- Increase the reliability of services by protecting assets from flooding and providing alternative supplies.
- Use water resources more sustainably by reducing leakage.
- Promote greater water efficiency and metering without customers.
- Sustain high levels of drinking water quality.
- Investigate how the need for carbon intensive and expensive treatment processes can be reduced.

For waste water services the key commitments are:

- Solve 885 internal sewer flooding problems and 678 external sewer flooding problems.
- Tackle odour issues at 16 sewage treatment works across the STW region.
- Reduce the number of pollution incidents,
- Deliver improvements to treatment processes to make a contribution to improving the natural environment and compliance with European Union standards.
- Stated capital investment priorities for Welsh Water across their service area within their Final AMP Business Plan (2010 – 2015) are:
 - Sewerage:
 - sewer network and pumping station maintenance;
 - maintenance of combined sewer overflows;
 - update drainage area plans;
 - surface water management;
 - improvements to the sewer network to reduce sewer flooding problems; and
 - sewer network improvements to support economic development.
 - Wastewater treatment:
 - maintenance of Wastewater Treatment Works (WTWs);
 - asset improvement at WTWs to meet higher environmental standards; and
 - asset improvements to provide new capacity to support economic development.
 - The emphasis within waste water investment plans on works to prevent flooding from sewers highlights the importance of ensuring sufficient capacity is provided within sewage and drainage networks to accommodate new development, along with appropriate design measures.

³² Source: “*Our commitment to your services – Severn Trent Water’s investment plans for 2010-15*”

Assessment of infrastructure needs and costs

As part of the process of preparing the IDP, the water and wastewater utility companies have been asked to comment on whether they see any specific infrastructure needs arising from the growth levels set out in the FOD IDP.

Water Supply

With respect to water supply, the draft Water Resource Management Plan takes account of future development and sets out the interventions Severn Trent Water propose to maintain the supply-demand balance. This confirms that for the Forest and Stroud water resource zone, Severn Trent Water have high confidence of having sufficient water resource to meet customer's needs. The company does face pressure to reduce abstraction from unsustainable sources and climate change impacts, but these are not expected to trigger the need for investment in new sources of supply. Instead, plans for these zones are to manage the supply/demand balance through ongoing leakage control and water efficiency measures.

In the specific case of Tutshill/Sedbury, Dwr Cymru Welsh Water (DCWW) has advised that there are water supply issues in this area and a hydraulic modelling assessment is required to establish how DCWW would provide a water supply to the site. DCWW recommend that this assessment is done at the pre-planning application stage so that appropriate time is allowed and so that solutions can be found. Should the assessment result in the provision of off-site water mains to the site, then this can be procured through the water requisition provisions of the Water Industry Act 1991 (as amended).

Wastewater

In terms of the capacity of the sewerage system and wastewater treatment plants, Severn Trent and Welsh Water have provided comments in relation to the settlements where development is proposed through the Core Strategy and potential site specific allocations are identified. The information in Table 29 below is provided as a guide only and it is important that the utility companies are consulted early by developers to ensure that water and wastewater infrastructure issues are given adequate consideration.

In particular, the site located behind Ingledean in Drybrook has been identified as having high impact on the sewerage infrastructure. This is because it is located upstream of significant development in Cinderford; and as a result, hydraulic modelling is required.

All sites within Lydney are likely to connect into small diameter sewers with flows then draining south into a nearby pumping station, before being pumped to Lydney Sewage Treatment Works. It is likely that capacity in this area will be an issue and Severn Trent will need to undertake works to the network to ensure additional flows can be accommodated. As a result of the above, hydraulic modelling has been strongly recommended to gauge the impact of flows from these developments and assess the additional capacity required.

STW advise that wherever possible new development within FoD should be built with separate foul and surface water drainage systems. This would employ

sustainable drainage measures with surface water drainage not connected to the foul sewer and dealt with on site. This principle is in line with the Flood and Water Management 2010.

Funding

The utility companies would expect the funding for any site connections and necessary upgrades to the local water supply and wastewater networks for each settlements to come from site developers.

Ongoing maintenance of the water and wastewater networks, including any strategic water resource projects (such as new reservoirs), are funded by ratepayers. Investment plans set out in the Water Resource Management Plans and AMPs and subsequent variations in rates paid are regulated by Ofwat.

Table 29 - Potential impact of locations for development on sewerage infrastructure assets (sites shown shaded are committed developments)

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
Cinderford						
	Nailbridge	Part of site for 70 dwellings	Blakeney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Although individually these sites would not appear to cause any capacity issues, all five of them together could. It is strongly recommended that these sites are hydraulically modelled in combination in order to ascertain the impact on the downstream network. There are some known flooding incidents downstream and some very long lengths of gravity sewer to flow down before reaching the STW.	Medium / High - Large sites connecting into small diameter sewers. Combination of flows could cause capacity issues. Despite this potential constraint it is understood that STW have not objected to recent proposals within the AAP area. Site promoters should continue to work with STW in order to hydraulically model sites and better understand in combination effects.
	Steam Mills Northern Quarter	Part of housing allocation for 175 dwellings in Northern Quarter				
	Nailbridge	Part of site area for 70 dwellings				
	Steam Mills Northern Quarter	Part of housing allocation of 175 dwellings for the northern quarter				

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
	Valley Road South	92 dwellings			STW - These sites are further downstream of the above 5, however, the comments written above apply. On their own, they are not envisaged to have any capacity issues. However, in combination with the above five sites, it is likely that capacity will be affected. Hydraulic modelling is recommended to ascertain the impact of flows from the above sites and these sites.	
	Station Street Listers	100 dwellings				
	St Whites Farm	169 dwellings			STW - This is a large site that would probably connect into a small diameter sewer. This site is now under construction.	
Lydney						
	Lydney East MMC	390 dwellings	Lydney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable	STW – During the original IDP STW commented that these large sites situated to the East of Lydney are likely to connect into small diameter sewers.	Medium – Site Specific work required to identify capacity
	Land at Augustus Way	20 dwellings				

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
	Highfield Road	Permission for 47 dwellings		spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	Flows would then drain South to a nearby pumping station before being pumped to Lydney STW. It was considered likely that capacity would be an issue. It is understood from the IDP Refresh consultation that STW have completed upgrade work to accommodate growth.	
	Lydney East Phase B	750 dwellings				
	Lydney East Phase A	Lydney East Phase A				
	Land Adjacent to Federal Mogul	200 dwellings				
	Miners arms	23 dwellings			STW - Although this site is situated very far from the treatment works, provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	Low - subject to hydraulic modelling
	Land at Whitecroft former Vencil Resil Site	50 dwellings			STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these	Low - subject to hydraulic modelling
	Netherend Farm	25 dwellings				

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
					developments are not envisaged to have any capacity issues. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	
Coleford						
	Poolway Farm	80 dwellings		DCWW - In terms of the local public sewerage network there are no problems in accommodating the foul flows from this development. Potential developers need to be advised that our 225mm diameter public combined sewer traverses this site and that an easement width of minimum 3 metres either side is required to allow us to perform our statutory duties.		
	Angel Farm	100 dwellings		DCWW - This site has the benefit of planning permission, LPA ref P1229/07/FUL following a previous Appeal. Subsequent discharges of planning conditions have occurred for this site.		
	Owen Farm	156 dwellings		DCWW - This site has the benefit of planning permission, LPA ref P1251/12/FUL and therefore the site can be delivered from a sewerage perspective, subject of course to any conditions imposed.		
	Five Acres – Berry Hill	Part of site for 50 dwellings- not allocated specifically for housing but may be developed to include housing in a		DCWW - There are no problems with our Newland WwTW in accepting the foul flows.	DCWW - Our Public sewerage network in the Berry Hill area is a 150mm diameter and in general terms this can accommodate the planned growth from 50 homes. It is advised that currently there are no known flooding incidents in this area. It is noted that under the allocations heading that it is proposed to develop	

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
		mixed scheme			153 dwellings, of which 50 dwellings are to be located in the Berry Hill area.	
	Lawnstone House	Housing 8 dwellings		No comments received to date.	No comments received to date.	
Bream						
	Rylands Road	12 Dwellings	Lydney STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then no issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. There are, however, known external flooding incidents downstream that flows from these developments could exacerbate. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	Low - subject to hydraulic modelling
	New Road Behind rugby Club	15 dwellings				
Drybrook						
	Land Behind Ingledean, High Street	50 dwellings			STW - Although this is a small site and would not appear to cause any capacity issues, it is upstream of a significant amount of development in Cinderford. Please see comments regarding Cinderford development.	High - upstream of major proposed development
Mitcheldean						

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
	Gloucester Road	49 dwellings	Longhope STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. There are, however, known external flooding incidents downstream that flows from these developments could exacerbate. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	Low - subject to hydraulic modelling
	Former Coach Depot	12 dwellings				
	George Hotel High Street	20 dwellings				
	Land South of A4136 Gloucester Road	30 dwellings				
Newent						
	Onslow Road B	91 dwellings	Newent STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional	STW - These sites are situated to the South East of Newent. These are fairly large sites which will connect into small diameter sewers. It is recommended that hydraulic modelling is undertaken in order to ascertain the impact of flows on the system.	Medium - large sites connecting into small diameter sewers.
	Land at Foley Road	120 dwellings				
	Onslow Road A	141 dwellings				

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
	Watery lane	30 dwellings		capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. There are, however, known external flooding incidents downstream that flows from these developments could exacerbate. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	Low - subject to hydraulic modelling
Newnham						
	North of Newnham	20 dwellings	Broadoak STW	STW - Comparison of current measured dry weather flow against the consented dry weather flow and current quality performance assessments indicate there is no spare capacity at this treatment works. Additional capacity will be required in order to accommodate future development. No issues are envisaged as there are no land or other physical constraints preventing expansion.	STW - Provided surface water is managed sustainably and is not connected to the foul/combined water sewers and the downstream pumping station has spare capacity, the additional foul only flows generated from these developments are not envisaged to have any capacity issues. It is recommended that Hydraulic modelling is undertaken in order to ascertain any impact.	Low - subject to hydraulic modelling
	Victoria Hotel	20 dwellings				
Tutshill/Sedbury						

Area	Site Name	Potential Dwellings	Sewage Treatment Works Catchment	Sewage Treatment Works Comment	Sewerage & Drainage Comment	Potential impact on sewerage infrastructure
	Adj Bigstone and Adj Sedbury Lane	95		Foul flows will ultimately arrive at our Sedbury Sewage Pumping Station which can accept the flows.	DCWW – No specific comment was received from Welsh Water although it is understood that previous works have resolved potential sewage issues.	
Lydbrook / Joys Green						
	Stowfield Works	40 dwellings		No comments received to date		

4.8 Information and Communications Technology (ICT)

Overview

Securing high speed broadband has important implications for economic competitiveness and the ability of households to access the online services of other infrastructure and service providers. Within the FOD district a number of exchanges were upgraded to super-fast broadband during 2013, namely Cinderford, Coleford, Lydbrook and Whitecroft.

It is recommended that strategic developments located in close proximity to the main urban areas are encouraged to provide fibre optic connections from the upgraded cabinets to premises from the outset. For all developments of 25 dwellings or more, the business case for implementing these connections is expected to be within reasonable limits of viability.

This will, however, leave the rural communities that fall into the ‘final third’ category in the UK that will suffer from below average internet speeds and a lack of competition between services. In order to combat this, the Borders Broadband initiative has secured £14.4 million from the Government towards rolling out fibre broadband in rural areas, which has been boosted with a further £7.5 million investment by Gloucestershire County Council and £6 million from Herefordshire County Council. The two county councils have now formed a non-profit making collaboration with BT Openreach called ‘Fastershire’, which has the aim of bringing fibre broadband to around 90% of homes by the end of 2016. The ‘Fastershire’ initiative will apply to locations in more rural areas, where there is typically not a viable business case to achieve broadband provision without public funding support.

It is understood that the case for upgrading the Lydney and Netherend exchanges that serve Lydney is currently under evaluation through Fastershire Initiative.

Responsibilities for delivery

Telecommunications cover a wide range of services including voice, audio visual, mobile telephone and internet. BT has a universal service obligation to provide telephone connections. A number of internet infrastructure providers, including BT Openreach, Cable & Wireless and Virgin Media, compete to provide connections to businesses and households. BT Openreach operates as a wholesale network access provider, meaning that other internet providers can ‘rent’ the fibre optic and copper cable provided when providing services to businesses and households.

Improving the provision of local broadband is an infrastructure priority for Gloucestershire. It forms an integral element of the County Council's economic stimulus package – Grow Gloucestershire.

Gloucestershire's Local Enterprise Partnership *GFirst*, Herefordshire Council, Gloucestershire County Council and BDUK (Broadband Delivery UK) manage an initiative called Borders Broadband, which aims to secure private investment in new fast broadband infrastructure for rural areas in Gloucestershire and Herefordshire. This has led to the creation of *Fastershire*, a non-profit making collaboration by the two County Councils and BT Openreach.

Assessment of infrastructure needs and current projects

The provision of ICT infrastructure will have key implications for the economic competitiveness of the FOD district and the ability of households to access the online services of other infrastructure and service providers (e.g. library services, healthcare and education). This study has focussed on internet access as an important measure, and in particular the provision of high speed broadband connectivity.

BT Openreach upgrades

Internet infrastructure providers have been working on an on-going basis to upgrade the national broadband network. As an example, it is the aim of BT Openreach that by 2014 two-thirds of UK premises will have super-fast broadband (download speeds of up to 300Mbps), through the process of laying fibre optic cables over the current copper lines. The fibre to the Cabinet (FTTC) local exchange upgrades being undertaken by BT openreach are capable of offering download speeds of up to 80Mbps and upload speeds of 20Mbps. Where a Fibre to the Premises (FTTP) connection is also installed, replacing the existing copper network between the local exchange and individual properties, download speeds of up to 300Mbps can be achieved. The actual internet speed achieved also depends on other factors, such as the length of the connection. From 2014, BT Openreach propose that they only provide FTTP connections to new homes.

Table 30 below sets out whether the local exchange has been upgraded for the areas within the FOD. This shows that a number of areas within the FOD have benefitted from a recent upgrade and that other key growth areas, in particular Lydney, is currently being evaluated for an upgrade.

In order to ensure that new properties benefit from superfast broadband, it is recommended that developers are urged to liaise with internet infrastructure providers from an early stage and install FTTP connections when new properties are constructed. The County Council is consulting on proposals that may recommend the use of planning conditions to ensure new communications infrastructure will achieve Next-generation Access standards³³ (see '*Local Developer Guide- Infrastructure & Services with new development.*' Public Consultation Version, August 2013). For developments over a threshold of 25 dwellings, and which are served by an upgraded exchange, it is expected that the business case for providing FTTP infrastructure from 2014 will fall within

³³ The UK Office of Communications (OFCOM) defines Next-generation Access (NGA) as super-fast broadband that provides a maximum download speed that is greater than 24Mbps.

acceptable limits of viability (subject to consideration of total development viability).

Table 30 - BT Openreach Superfast Broadband upgrades at local exchanges

FOD Area	Status of super-fast broadband provision ³⁴
Cinderford	Cinderford exchange upgraded to super-fast broadband during 2013.
Lydney	Lydney exchange upgrade being evaluated as part of a government funded programme.
Coleford	Coleford exchange upgraded to super-fast broadband during 2013.
Newent	Future exchange, with upgrade expected by end 2014.
Tutshill/Sedbury	Nearest exchange is Chepstow – already upgraded to super-fast broadband and accepting orders
Bream	Nearest exchange is Whitecroft, which was upgraded to super-fast broadband during 2013.
Drybrook	Exchange upgrade expected March 2014.
Mitcheldean	Nearest exchange is Drybrook. Exchange upgrade expected March 2014.
Newnham	Nearest exchange is Blakeney. Future exchange expected by end 2014.
Yorkley/Pillowell/ Whitecroft	Whitecroft exchange upgraded to super-fast broadband during 2013.
Lydbrook Joys Green	Lydbrook exchange upgraded to super-fast broadband during 2013.

Borders Broadband Project

Taking account of the current programme of exchange upgrades to the main urban areas, and potential for new households to achieve superfast broadband connections from the outset, this will still leave the ‘final third’ of properties in rural areas that are hard-to-reach, or simply not commercially viable to connect with private funding alone.

Within the UK, £830 million of public funding has been set aside for Broadband Delivery UK (BDUK the UL Government’s broadband delivery authority) to address this challenge of poor coverage in rural areas. The Borders Broadband project covering Herefordshire and Gloucestershire is one of four initial pilots that have been set up, which secured £14.4 million from the Government towards rolling out fibre broadband in rural areas. This has been boosted with a further £7.5 million investment by Gloucestershire County Council and £6 million from Herefordshire County Council. The two county councils have now formed a non-profit making collaboration with BT Openreach called ‘Fasterhire’, which has the aim of bringing fibre broadband to around 90% of homes by the end of 2016.

Industrial areas and business parks are a key priority for the provision of fibre broadband and the project should also benefit those premises that currently receive downstream speeds of less than 2Mbps. Ofcom currently believe that

³⁴ <http://www.superfast-openreach.co.uk/where-and-when/> (accessed January 2014)

around 20% of premises in the counties receive less than 2Mbps but that percentage will reduce close to zero as a result of the Fastershire project³⁵.

As well as securing an improved broadband infrastructure via the Borders Broadband project, new wireless technologies such as mobile 4G (Fourth Generation), LTE (Long-term Evolution) data services and TV white-space (technology that uses areas of the airwaves reserved for TV broadcasts) should become more available over time. These technologies may have a role in providing fast data services in rural areas in the future.

Funding

In addition to the Borders Broadband initiative, GFirst (the Local Enterprise Partnership for Gloucestershire) and the County Council has worked with other South West local authority partners and Peninsula Enterprise to secure European funding for a project which will provide a high-speed broadband business support programme. The programme will offer a series of awareness-raising events, specialist advice and support, to target and drive up demand, exploitation and growth of businesses in the eligible areas.

³⁵ Source: <http://www.fastershire.com/questions-and-answers?tabId=5149>

4.9 Open Space, Sport and Recreation

This section covers the provision of a range of sports, leisure and amenity facilities including indoor facilities (swimming pools and sports halls), outdoor playing pitches, informal outdoor open space, childrens' play space and accessible natural greenspace.

Responsibilities for delivery

Sports and recreation facilities are owned and managed by a range of public, private and third sector organisations, including schools and private gym operators. Some of the key providers of sports and recreation facilities available for community use within the FOD area are listed below:

- **Active Gloucestershire** is a company limited guarantee with charitable status, which is part of the national network of county sport and physical activity partnerships in England that works to increase participation in physical activity and sport.
- **Forest of Dean District Council** operate sports centres in:
 - Lydney
 - Coleford
 - Cinderford
 - Newent
 - Sedbury
- Private companies and schools are also important providers of sports facilities within the FOD area.

Alongside formal indoor and outdoor sports facilities, it is also desirable to provide space for informal recreation. These include play spaces for children and recreational areas for young people, as well as parks and gardens. In many instances informal open spaces are owned and managed by the FOD District Council, although in some cases (particularly within new development) these may be maintained by a management company.

Natural England promote the provision of natural and semi-natural open space alongside new development through the Accessible Natural Greenspace Standards (ANGSt). These areas are commonly transferred for management by third sector groups, such as Gloucestershire Wildlife Trust and the Wildfowl and Wetlands Trust.

Plans and Strategies

The Forest of Dean District Council has not prepared and approved a specific strategy for open space, sport and recreation. It does however expect to commission an Indoor Built Facilities strategy during 2014/15; and discussions are taking place at a countywide level to consider Playing Pitch strategies. The Council's relevant adopted standards with respect to the provision of open space and play space for children alongside new development can be found within the Core Strategy (further details are provided below). In addition to this, some specific open space, sport and recreation projects are identified in relation to

planned development at the East of Lydney New Community and Cinderford Northern Quarter. Documents detailing relevant projects are listed below:

- Forest of Dean Cinderford: Investment Prospectus 2026
- Forest of Dean Corporate Strategy (2013-17)
- Forest of Dean Core Strategy (adopted 2012)
- Cinderford Area Action Plan (AAP) (adopted 2012)

Baseline

Although the Council have not produced an official green space strategy, work has been undertaken to assess the current level of open space provision in the District and important findings are summarised as appropriate within this IDP section. The schedule of open spaces records a total of 223ha of open space, and identifies whether playing pitches and/or children's play areas are provided. It is worth noting that the assessment work only includes land within settlement boundaries, so facilities (e.g. cricket clubs) in rural areas located away from a designated settlement will not be included within these figures. The Council has acknowledged this and is planning further work to rectify this, which could seek to draw out conclusions on where existing open space is adequate in terms of quantity and quality, or whether there is a shortfall in provision.

4.9.1 Indoor Sports Facilities

Responsibilities for delivery

Indoor sports provision within the FOD Area is centred predominantly on five leisure centres, four of which also offer pool facilities. The five Forest Leisure Centres are located at Cinderford, Coleford, Lydney, Newent and Sedbury, all of which offer indoor sports in the form of badminton, netball, general gym classes and studio sessions.

Assessment of infrastructure needs and costs

Sport England have created the Sports Facility Calculator (SFC) to help local authorities quantify how much additional demand for key community sports facilities is generated by new development. The SFC covers swimming pools, sports halls and indoor bowling rinks as important indoor facilities (swimming pools and sports halls are considered by this study) and this tool has been utilised to undertake an assessment of potential provision to cater for development set out in the Forest of Dean Core Strategy.

Swimming Pools

Baseline

There are four swimming facilities that are open to the public located within the FOD area. Brief details of the swimming pools are provided below³⁶:

³⁶ http://www.fdean.gov.uk/nqcontent.cfm?a_id=7066&tt=graphic

- Cinderford - 25 Metre indoor heated swimming pool, open seven days a week, offering classes ranging from 50+ swim, to junior lifeguard club and funsplash.
- Coleford – Indoor 20m heated swimming pool, open seven days a week, offering classes ranging from aqua aerobics, adults only swimming and a diving club.
- Lydney – 25m Indoor heated swimming pool, open seven days a week, offering services such as party hire, junior lessons and an adults only swim.
- Newent – 15m Indoor heated swimming pool, open seven days a week, offering classes ranging from therapy swim (requiring GP permission), techno swim and private hire.

The above list details the extent of the community access facilities within the FOD. There are a limited number of additional private leisure facilities that provide swimming pools, such as the CSMA Whitemead Forest Park at Parkend and Lindors Country House, although access can be more restrictive (for instance it may be necessary to purchase an annual membership).

To gain an indication of whether the existing level of provision is sufficient to meet the needs of the current population, it is possible to utilise the SFC. Sport England warn that, whilst the SFC can also be used to estimate the overall demand for sports facilities for the existing population in this way, there are dangers in how such figures are subsequently used for strategic gap analysis. For instance, the SFC does not take account of facility location compared to demand (including potential travel to adjoining districts), the capacity and availability of facilities or the attractiveness of facilities.

The existing population of the FOD is around 82,000; in terms of demand for facilities, this equates to around 3.93 swimming pools. As there are four pools in the District, the level of provision is considered broadly in line with standards, although it is noteworthy that the Newent pool is only a 15m facility. Further audit work would need to be undertaken to more accurately establish the current level of provision across the FOD District and neighbouring authorities, taking into account the quality of facilities and accessibility to the general public. Such audit work should consider the wider impact of other strategic projects of key leisure facilities (e.g. possible relocation of Gloucester College and its impact on existing facilities at Five Acers)

Assessment of future need

Utilising the Sport England SFC tool it is predicted that additional demand for around 0.60 swimming pools would arise from new development proposed within the Core Strategy. It is recommended that further assessment and viability work is undertaken in relation to whether new pool provision would be viable in the long term, and if so, the best location for new facilities taking account of the typically large catchment areas of swimming facilities and the proposed locations for new development set out in the Core Strategy.

On the basis that the level of existing provision in the District is relatively good for the size of population, it may be that the Council chooses to direct available finance to the enhancement of these existing facilities rather than new provision.

Table 31- Assessment of need for swimming pools

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	0.11	£389,047
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>0.08</i>	<i>£277,945</i>
Lydney	1,905	4,477	0.20	£712,630
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>0.18</i>	<i>£640,058</i>
Coleford	600	1,410	0.06	£224,450
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>0.05</i>	<i>£185,920</i>
Newent	470	1,105	0.05	£175,820
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>0.04</i>	<i>£131,678</i>
Tutshill / Sedbury	113	266	0.01	£42,272
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>0.00</i>	<i>£6,734</i>
Bream	110	259	0.01	£41,149
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>0.01</i>	<i>£19,078</i>
Drybrook	91	214	0.01	£34,042
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>0.00</i>	<i>£15,337</i>
Mitcheldean	140	329	0.01	£52,372
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>0.01</i>	<i>£22,445</i>
Newnham	65	153	0.01	£24,315
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.00</i>	<i>£11,597</i>
Yorkley / Pillowell / Whitecroft	96	226	0.01	£35,912
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.01</i>	<i>£24,690</i>
Lydbrook Joys Green	98	230	0.01	£36,660
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.01</i>	<i>£19,826</i>
Other village and rural area	562	1,321	0.06	£210,235
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>0.06</i>	<i>£196,768</i>
Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	0.6	£1,978,905

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Committed Sites & Windfall	4,149	9,750	0.44	£1,552,075
Allocations	1,141	2,681	0.12	£426,830

Sports Halls

Table 32 below sets out the publically accessible sports centres for each of the settlements within the FOD, together with an examples of private facilities that could also be accessible to the occupants of new development. For those smaller settlements within the district where there is not a leisure centre, the closest existing facility is indicated. This should not be treated as a full audit of existing facilities available across the FOD area, but as information that will help to inform an initial view of where additional demand could arise should development at the proposed strategic locations come forward.

Community centres in villages often fulfil the role of providing additional space for fitness and leisure activities, and in some instances provide sufficient space for badminton courts and indoor bowls etc. (see section 4.1) for details of community centres in each settlement). Schools also contribute to the overall level of sports provision in an area, although the level of community access to these can vary.

Table 32 - Leisure centres/sports halls serving the FOD District

Settlement	Leisure centres within settlements (or closest available)	Facilities
Cinderford	Cinderford	<i>Forest Leisure Cinderford</i> - 25 metre indoor heated pool, sports hall, gymnasium hall, two squash courts, spotlight (multi use room), trixster indoor cycling studio, full size synthetic pitch, outdoor tennis courts and outdoor netball courts. <i>Forest Fitness</i> – fitness centre / gym
Lydney	Lydney	<i>Forest Leisure Lydney</i> - 25m Indoor heated swimming pool, air conditioned fitness suite, sports hall, gymnasium, three squash courts, outdoor floodlit artificial pitch, outdoor tennis court, outdoor netball court, grass pitches and multi-purpose meeting room/fitness class studio. <i>Club Ginger Health & Fitness</i> – private gym offering general gym and classes. <i>Whitemead Forest Park</i> – fully equipped gym
Coleford	Coleford	<i>Forest Leisure Coleford</i> - Fully equipped, air conditioned family fitness suite, 20m indoor heated swimming pool, sports hall, floodlit outdoor tennis courts, mini tennis skills zone, three squash courts, gymnasium, grass pitches and mini sports hall. The Gym – Providing general facilities in a central location.

Settlement	Leisure centres within settlements (or closest available)	Facilities
Newent	Newent	<i>Forest Leisure Newent</i> - 18m Indoor heated swimming pool, air conditioned fitness suite, sports hall, squash court, gymnasium, steam room and training room. <i>Newent Sports & Social Club</i> – Floodlit artificial pitch and tennis courts.
Tutshill/ Sedbury	Sedbury	<i>Forest Leisure Sedbury</i> - Fully equipped air conditioned family fitness suite, designated junior fitness suite area, sports hall, dance/fitness studio, outdoor courts, outdoor grass pitches and male and female changing rooms.
Bream	Lydney	(See Lydney facilities)
Drybrook	Cinderford	(See Cinderford facilities)
Mitcheldean	Cinderford	<i>Dene Magna School</i> – Sports hall and small fitness suite (see also Cinderford facilities)
Newnham	<i>No facility in close proximity</i>	N/A
Yorkley/ Pillowell/ Whitecroft	Lydney	(See Lydney facilities, including Whitemead Forest Park, Parkend)
Lydbrook Joys Green	<i>No facility in close proximity</i>	N/A

Assessment of future need

Utilising the Sport England SFC tool, it is predicted that additional demand for around 3.29 badminton courts would arise from new development (sports halls typically provide 4 to 6 courts). In some cases, an alternative approach to the provision of new facilities would be to facilitate improvements to existing leisure and community centres across the FOD area. Due to the large amount of committed development and the limited levels of new development and related demand (particularly in the smaller settlements), it might be suitable to consider improvements to existing provision rather than build new facilities. An example of this is the proposed extension to the fitness suite at Forest Leisure in Lydney.

Table 33- Assessment of need for Sports Halls

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	0.16	£445,808
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>0.12</i>	<i>£318,496</i>
Lydney	1,905	4,477	0.30	£816,600
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>0.27</i>	<i>£733,440</i>
Coleford	600	1,410	0.09	£257,197
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>0.08</i>	<i>£213,045</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Newent	470	1,105	0.07	£201,471
<i>Committed Sites & Windfall</i>	352	827	0.05	£150,889
Tutshill / Sedbury	113	266	0.02	£48,439
<i>Committed Sites & Windfall</i>	18	42	0.00	£7,716
Bream	110	259	0.02	£47,153
<i>Committed Sites & Windfall</i>	51	120	0.01	£21,862
Drybrook	91	214	0.01	£39,008
<i>Committed Sites & Windfall</i>	41	96	0.01	£17,575
Mitcheldean	140	329	0.02	£60,013
<i>Committed Sites & Windfall</i>	60	141	0.01	£25,720
Newnham	65	153	0.01	£27,863
<i>Committed Sites & Windfall</i>	31	73	0.00	£13,289
Yorkley / Pillowell / Whitecroft	96	226	0.01	£41,152
<i>Committed Sites & Windfall</i>	66	155	0.01	£28,292
Lydbrook Joys Green	98	230	0.02	£42,009
<i>Committed Sites & Windfall</i>	53	125	0.01	£22,719
Other village and rural area	562	1,321	0.09	£240,908
<i>Committed Sites & Windfall</i>	526	1,236	0.08	£225,476

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	0.82	£2,267,620
<i>Committed Sites & Windfall</i>	4,149	9,750	0.64	£1,778,517
<i>Allocations</i>	1,141	2,681	0.18	£489,103

Current Projects

For the FOD, future projects are identified in its Investment Prospectus 2026 which focuses largely on Cinderford as a main hub for development at the Northern Quarter:

- ***Forest of Dean- Cinderford: Investment Prospectus 2026*** states that by 2026, Cinderford’s Northern Quarter will have an activity centre (amongst a number of new facilities) which will offer biking, hiking and riding.
- ***Forest of Dean Corporate Strategy (2013-17)*** - under Priority 2 – Promote Thriving Communities, the FOD District Council aims to procure an extension to the fitness suite at Forest Leisure, Lydney.

4.9.2 Playing pitches and recreational open space

In order to provide an initial assessment of demand for outdoor open space arising from new development, this study uses a combination of the Fields in Trust (FIT) Benchmark Standards and Natural England Accessible Natural Greenspace Standards (ANGSt). These standards allow open space provision to be broken down into a number categories that are considered separately in the following sub-sections:

- Playing pitches and outdoor sports;
- Informal open space;
- Children’s playspace and facilities for young people; and
- Accessible natural greenspace.

Further background on the FIT and ANGSt standards are provided in the relevant sub-sections below.

Policy CSP.9 of the FOD Core Strategy states that new development will be expected to make provision, or a contribution towards provision, of open space and other facilities including those required for children’s play and youth/adult recreation. The District Council currently utilises the FIT Benchmark Standards as a guideline when considering development proposals, and it is therefore appropriate that these are utilised within the IDP to undertake a preliminary assessment of demand arising from housing allocations.

Playing pitches and other outdoor sports

Responsibilities for delivery

Responsibility for planning and managing playing pitches and outdoor sport facilities are shared between Forest of Dean District Council, education providers and community organisations.

Assessment of infrastructure needs and costs

The Fields in Trust (FIT) Benchmark Standards for All Outdoor Sports, Playing Pitches and Informal Play Space and Children’s Play Space (2008) provide a means for gauging the appropriate level of provision of outdoor amenity space. FIT is the operating name of the National Playing Fields Association, the organisation whose recommendations on planning for and providing outdoor recreational facilities are known as the “Six Acre Standard”. In 2006 FIT commissioned a postal survey of local planning authorities throughout the UK to provide an evidence-based framework for recommending updated Benchmark Standards on open space provision, to succeed the Six Acre Standard.

The FIT Benchmark Standard differentiates between playing pitches (football, rugby, hockey, and cricket) and space for other outdoor sports (e.g. bowling, tennis, athletics) and therefore the same distinction is made in the preliminary high level assessment below. Separate Urban, Rural and Overall Standards are also presented by FIT, reflecting the varying characteristics of local authorities that responded to the 2006 survey. For the FOD area, the Overall standard has been applied, which allows for a high level assessment of need arising from proposed new development within both the larger towns and rural areas. The standards are as follows:

- 1.2ha playing pitch provision per 1,000 population, with estimated capital cost based on the Sport England Planning Contributions Kitbag cost for a natural turf senior football pitch (£75,000 for a 7,697m² pitch, 2nd quarter 2012, so £9.75/m²).
- 0.4ha other outdoor sport provision per 1,000 population, with estimated capital cost based on Sport England Planning Contributions Kitbag costs for an outdoor bowling green, tennis courts and athletics track (average cost of 99.60/m² based on: bowling green at £68.75/m²; and tennis courts at £130.40/m²).³⁷

The FOD District open space audit identifies which areas of open space incorporate pitch provision and, as shown in Table 34 below, all the settlements where development is proposed benefit from existing playing pitches. With the exception of Cinderford, Lydney and Coleford, the assessment of demand for pitches arising from new development (in hectares) is lower than the equivalent of providing a single football pitch (approx. 0.75 ha). As a result resources may be concentrated on improving the quality of playing pitches, such as improved drainage, that enable the facility to be used more regularly.

³⁷ Source: Costs and facility areas based on Sport England Planning Contributions Kitbag (2nd quarter, 2012).

Table 34 - Assessment of demand for playing pitches

Revised Development Scenario (2014-2026)	Existing Facilities	Dwellings	Population	Demand (Ha)	Capital Cost
Cinderford	Linear Park; Nailbridge Recreation Ground; Adventure Playground; Cinderford St John's; Dockham Road	1,040	2,444	2.93	£285,948
<i>Committed Sites & Windfall</i>		743	1,746	2.10	£204,288
Lydney	Lydney Recreation Ground; Whitecross; Primrose Hill; Bathurst Park; Rugby Club	1,905	4,477	5.37	£523,780
<i>Committed Sites & Windfall</i>		1,711	4,021	4.83	£470,439
Coleford	King George Playing Field; Buchanan Recreation	600	1,410	1.69	£164,970
<i>Committed Sites & Windfall</i>		497	1,168	1.40	£136,650
Newent	Newent Recreation Ground	470	1,105	1.33	£129,227
<i>Committed Sites & Windfall</i>		352	827	0.99	£96,782
Tutshill / Sedbury	Tutshill Recreation Ground; Buttington Road, Sedbury; Danes Hill, Sedbury; Village Hill, Sedbury	113	266	0.32	£31,069
<i>Committed Sites & Windfall</i>		18	42	0.05	£4,949
Bream	Rugby Club; High Beech	110	259	0.31	£30,245
<i>Committed Sites & Windfall</i>		51	120	0.14	£14,022
Drybrook	Harrow Hill AFC; Playing Field off Larkhill; Drybrook Rugby Club	91	214	0.26	£25,020
<i>Committed Sites & Windfall</i>		41	96	0.12	£11,273
Mitcheldean	Mitcheldean Recreation Ground	140	329	0.39	£38,493

Revised Development Scenario (2014-2026)	Existing Facilities	Dwellings	Population	Demand (Ha)	Capital Cost
<i>Committed Sites & Windfall</i>		60	141	0.17	£16,497
Newnham	Newnham Cricket Ground; Newnham Playing Field	65	153	0.18	£17,872
<i>Committed Sites & Windfall</i>		31	73	0.09	£8,523
Yorkley / Pillowell / Whitecroft	Yorkley Village Hall and Recreation Ground	96	226	0.27	£26,395
<i>Committed Sites & Windfall</i>		66	155	0.19	£18,147
Lydbrook Joys Green	Lydbrook Recreation Ground and Playing Ground	98	230	0.28	£26,945
<i>Committed Sites & Windfall</i>		53	125	0.15	£14,572
Other village and rural area	-	562	1,321	1.58	£154,522
<i>Committed Sites & Windfall</i>		526	1,236	1.48	£144,624

Revised Development Scenario (2014-2026)	Existing Facilities	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	N/A	5,290	12,432	14.92	£1,454,486
Committed Sites & Windfall	N/A	4,149	9,750	11.70	£1,140,768
Allocations	N/A	1,141	2,681	3	£313,718

Recreational open space and accessible natural greenspace

Assessment of infrastructure needs and costs

Two sets of standards facilitate a high level assessment of open space provision and there is potential for some overlap between the two, as in some instances open space is designed to provide both recreation and nature conservation functions.

The national ***FIT Benchmark Standards*** (see introduction above in relation to Playing Pitches) includes provision for play with an emphasis on provision for children and young people, but does also include an allowance for ‘Informal Playing Space’ that could cater for a wider range of groups.

The Natural England ***Accessible Natural Greenspace Standards (ANGSt)*** seek to address the variability of access to natural greenspaces by promoting the provision of sites within easy reach of people’s homes. Natural England confirm that, in this context, natural does not necessarily mean the site has to be rare or notable enough to be designated for biodiversity protection. Table 35 below sets out the FIT and ANGSt standards and indicates where there is potential for areas of informal open space to contribute to the objectives of both benchmarks. The Forest of Dean Local Plan (2012) reiterates the importance of the above standards in Policy CSP 9: recreational and amenity land including forest waste-protection and provision –

Policy CSP 9 – *‘Where there is an established need, new development will be expected to make provision, or a contribution towards provision, of open space and other facilities including those required for children's play and youth/adult recreation. In considering the provision of new space and the contribution of any that exists, the need to retain, expand by way of habitat creation such as tree planting and further develop a network of green infrastructure will be taken into account.’*

Pending the results of more detailed assessment work based on recent audit results, this study utilises the FIT Benchmark Standards and ANGSt to undertake a high level assessment.

Table 35 - Overlap between FIT Benchmark Standards and Natural England Accessible Natural Greenspace Standards

FIT Benchmark Standards		Natural England ANGSt		Comment
Type	Standard	Type ³⁸	Standard	
Designated Children’s Playing Space	0.25Ha per 1,000 population	-	-	FIT set out guidelines for ³⁹ : LAPs – located within 100m;
Informal Playing Space	0.55Ha per 1,000 population	Local natural greenspace	Site of min. 2Ha within 300m	LEAPs – located within 400m; and

³⁸ Natural England does not provide a title for each standard and therefore the Local, Neighbourhood, Parish and District level site types have been provided to give a sense of scale distribution.

³⁹ Local Areas for Play (LAP), Local Equipped Areas for Play (LEAP) and Neighbourhood Equipped Areas for Play (NEAP).

FIT Benchmark Standards		Natural England ANGSt		Comment
Type	Standard	Type ³⁸	Standard	
-	-	Neighbourhood natural greenspace	Site of min. 20Ha within 2km	NEAPs – located within 1km.
-	-	Parish natural greenspace	Site of 100Ha within 5km	-
-	-	District natural greenspace	Site of 500Ha within 10km	
-	-	Local Nature Reserves	1Ha per 1,000 population	

Informal Playing and Open Space

Informal playing and amenity space is most commonly found in residential areas and includes informal recreation spaces, green spaces and village greens in and around housing. There may be some overlap in provision of informal open space and accessible natural greenspace, assuming open space is designed to have high biodiversity value. A high level assessment of demand for informal playing space has been undertaken utilising the FIT Benchmark Standard of 0.55 Ha per 1,000 population. An estimated capital cost of £17,000/Ha has been applied based on 2010 data (rebased to 2013).

Table 36 - Assessment of demand for informal playing and open space

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	1.34	£22,851
<i>Committed Sites & Windfall</i>	<i>743</i>	<i>1,746</i>	<i>0.96</i>	<i>£16,326</i>
Lydney	1,905	4,477	2.46	£41,858
<i>Committed Sites & Windfall</i>	<i>1,711</i>	<i>4,021</i>	<i>2.21</i>	<i>£37,595</i>
Coleford	600	1,410	0.78	£13,184
<i>Committed Sites & Windfall</i>	<i>497</i>	<i>1,168</i>	<i>0.64</i>	<i>£10,920</i>
Newent	470	1,105	0.61	£10,327
<i>Committed Sites & Windfall</i>	<i>352</i>	<i>827</i>	<i>0.45</i>	<i>£7,734</i>
Tutshill / Sedbury	113	266	0.15	£2,483
<i>Committed Sites & Windfall</i>	<i>18</i>	<i>42</i>	<i>0.02</i>	<i>£396</i>
Bream	110	259	0.14	£2,417
<i>Committed Sites & Windfall</i>	<i>51</i>	<i>120</i>	<i>0.07</i>	<i>£1,121</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Drybrook	91	214	0.12	£1,999
<i>Committed Sites & Windfall</i>	<i>41</i>	<i>96</i>	<i>0.05</i>	<i>£901</i>
Mitcheldean	140	329	0.18	£3,076
<i>Committed Sites & Windfall</i>	<i>60</i>	<i>141</i>	<i>0.08</i>	<i>£1,318</i>
Newnham	65	153	0.08	£1,428
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.04</i>	<i>£681</i>
Yorkley / Pillowell / Whitecroft	96	226	0.12	£2,109
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.09</i>	<i>£1,450</i>
Lydbrook Joys Green	98	230	0.13	£2,153
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.07</i>	<i>£1,165</i>
Other village and rural area	562	1,321	0.73	£12,349
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>0.68</i>	<i>£11,558</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	6.84	£116,235
Committed Sites & Windfall	4,149	9,750	5.36	£91,164
Allocations	1,141	2,681	1	£25,071

Current informal open space projects

Current projects for the provision of recreational open space include:

- ***Lydney East Neighbourhood*** – contributions towards open space, recreation and green infrastructure are to be provided by the developer and managed at an agreed cost
- ***Cinderford Town Centre*** – contributions towards improvements to public space have been sought through public bodies and developer contributions. The improvements will be phased in step with available contributions - some improvements are now complete. The provision of open space in town centres can also be of relevance to improving safety and the quality of environment for cyclists
- ***Newent Town Centre*** – Improvements to public space will be provided by FOD District Council, Gloucester County Council and public bodies. Some improvements are required in relation to committed development.

- ***The Lydney Neighbourhood Development Plan*** identifies land designated as new or additional recreation space, such sites are as follows:
 - Lydney Town Marsh
 - Land south of Lydney Lake at Lydney Recreation Trust
 - Land east of Severnbank Avenue

Facilities for Children and Young People

A high level assessment of demand for Children's playspace and provision for young people has been undertaken utilising the FIT Benchmark Standard of 0.25 Ha per 1,000 population. An estimated capital cost for provision of £495,000/Ha has been derived from a 2008 play area build up, rebased to 2013.

In addition to the preliminary assessment of demand for play areas, Table 37 also records existing play facilities for each of the settlements where development is proposed, based on the Forest of Dean DC open space audit. Of the larger settlements, Cinderford has a relatively large supply of play areas, although the quality of these is not recorder in the audit. In comparison, there is only one play area in Coleford.

There are two smaller settlements where residential site allocations are proposed, but there are no existing play areas, namely Bream and Lydbrook/Joys Green. Depending on the type of residential development proposed, the provision of play facilities may form a priority for these two settlements.

Table 37 - Assessment of need for Children's Play Space and facilities for Young People

Revised Development Scenario (2014-2026)		Dwellings	Population	Demand	Capital Cost
Cinderford	Miners Welfare Field; Nailbridge Recreation Ground; Adventure Playground; Mount Pleasant; Double View; Mount Pleasant Road; Causeway Rd/Latimer Road	1,040	2,444	0.61	£302,445
<i>Committed Sites & Windfall</i>		743	1,746	0.44	£216,074
Lydney	Centurian Road; Wye Dean Close; Primrose Hill; Bathurst Park;	1,905	4,477	1.12	£553,998
<i>Committed Sites & Windfall</i>		1,711	4,021	1.01	£497,580
Coleford	Buchanan Recreation Ground	600	1,410	0.35	£174,488
<i>Committed Sites & Windfall</i>		497	1,168	0.29	£144,534
Newent	Off Meak Road; Meek Road; Foley Road; Recreation Ground, Watery Lane; Meek Road / Onslow Road.	470	1,105	0.28	£136,682
<i>Committed Sites & Windfall</i>		352	827	0.21	£102,366
Tutshill / Sedbury	Wyebank Road, Sedbury; Danes Road, Sedbury	113	266	0.07	£32,862
<i>Committed Sites & Windfall</i>		18	42	0.01	£5,235
Bream	No play area recorded	110	259	0.06	£31,989
<i>Committed Sites & Windfall</i>		51	120	0.03	£14,831
Drybrook	Hazel Road Play Area	91	214	0.05	£26,464
<i>Committed Sites & Windfall</i>		41	96	0.02	£11,923
Mitcheldean	Townsend Recreation Ground; Lining Wood	140	329	0.08	£40,714
<i>Committed Sites & Windfall</i>		60	141	0.04	£17,449

Revised Development Scenario (2014-2026)		Dwellings	Population	Demand	Capital Cost
Newnham	Playing field, Station Road	65	153	0.04	£18,903
<i>Committed Sites & Windfall</i>		<i>31</i>	<i>73</i>	<i>0.02</i>	<i>£9,015</i>
Yorkley / Pillowell / Whitecroft	Yorkley Village Hall and Recreation Ground	96	226	0.06	£27,918
<i>Committed Sites & Windfall</i>		<i>66</i>	<i>155</i>	<i>0.04</i>	<i>£19,194</i>
Lydbrook Joys Green	No play area recorded	98	230	0.06	£28,500
<i>Committed Sites & Windfall</i>		<i>53</i>	<i>125</i>	<i>0.03</i>	<i>£15,413</i>
Other village and rural area	-	562	1,321	0.33	£163,437
<i>Committed Sites & Windfall</i>		<i>526</i>	<i>1,236</i>	<i>0.31</i>	<i>£152,967</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	3.11	£1,538,398
Committed Sites & Windfall	4,149	9,750	2.44	£1,206,581
Allocations	1,141	2,681	1	£331,817

Local Accessible Natural Greenspace

In order to provide a high level assessment for the provision of accessible natural greenspace, the Natural England ANGSt for the provision of local greenspaces of 2Ha within 300m of new development has been applied. Based on an assumption that the occupants of homes within a circular area (300m radius; 30 dwellings per Ha) are able to access a 2Ha site, a standard of approximately 1Ha per 1,000 population results.⁴⁰

The assessment of need in Table 38 below is based on this standard of 1 Ha per 1,000 population and an estimated capital cost of £240,000/Ha has been applied, derived from a semi-natural open space cost build up from a 2008 case study and Spons 2010 data (rebased to 2013). Although costed there is in many areas of the FoD a case to take into account the value and ease of access to the Forest of Dean itself and related areas of woodland to which the public have access.

Table 38 - Assessment of demand for natural and semi-natural greenspace

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Cinderford	1,040	2,444	2.44	£586,560
<i>Committed Sites & Windfall</i>	743	1,746	1.75	£419,052
Lydney	1,905	4,477	4.48	£1,074,420
<i>Committed Sites & Windfall</i>	1,711	4,021	4.02	£965,004
Coleford	600	1,410	1.41	£338,400
<i>Committed Sites & Windfall</i>	497	1,168	1.17	£280,308
Newent	470	1,105	1.10	£265,080
<i>Committed Sites & Windfall</i>	352	827	0.83	£198,528
Tutshill / Sedbury	113	266	0.27	£63,732
<i>Committed Sites & Windfall</i>	18	42	0.04	£10,152
Bream	110	259	0.26	£62,040
<i>Committed Sites & Windfall</i>	51	120	0.12	£28,764
Drybrook	91	214	0.21	£51,324
<i>Committed Sites & Windfall</i>	41	96	0.10	£23,124
Mitcheldean	140	329	0.33	£78,960
<i>Committed Sites & Windfall</i>	60	141	0.14	£33,840

⁴⁰ Area of 300m radius circle = 282,780sqm or 28.3Ha. Assume density of 30 dwelling per Ha results in catchment of 848 dwellings. This equates to 1,950 people based on an average household size of 2.3 people.

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Newnham	65	153	0.15	£36,660
<i>Committed Sites & Windfall</i>	<i>31</i>	<i>73</i>	<i>0.07</i>	<i>£17,484</i>
Yorkley / Pillowell / Whitecroft	96	226	0.23	£54,144
<i>Committed Sites & Windfall</i>	<i>66</i>	<i>155</i>	<i>0.16</i>	<i>£37,224</i>
Lydbrook Joys Green	98	230	0.23	£55,272
<i>Committed Sites & Windfall</i>	<i>53</i>	<i>125</i>	<i>0.12</i>	<i>£29,892</i>
Other village and rural area	562	1,321	1.32	£316,968
<i>Committed Sites & Windfall</i>	<i>526</i>	<i>1,236</i>	<i>1.24</i>	<i>£296,664</i>

Revised Development Scenario (2014-2026)	Dwellings	Population	Demand	Capital Cost
Total Dwellings/Population	5,290	12,432	12.43	£2,983,560
Committed Sites & Windfall	4,149	9,750	9.75	£2,340,036
Allocations	1,141	2,681	3	£643,524

Overall S106 Costs for Open Space and Recreation

Where planning permission has been granted, the District Council has been successful in securing the provision of (or contributions towards) open space and recreation provision. Table 39 below provides a comparison of the combined assessed demand for open space set out in the IDP above, together with the S106 Contributions achieved to date. It should be noted that the contributions listed in the table have been secured through S106 agreements. It is also necessary to take into account the current level of committed development within each settlement.

Table 39 - Overall S106 Costs for Open Space and Recreation

Settlement	IDP Assessed Demand		S106 Contributions	
	Demand ⁴¹ (Ha)	Capital Cost	Play Area/Open Space	Youth/Recreation
Cinderford	8.57	£2,076,397	£229,807	478760
Lydney A	15.5	£3,757,290	£432,854	£32,400 (Leisure and Fitness Suite at Whitecross)
Lydney B				£180,000 (New pitches and car park improvements)

⁴¹ Demand is based on the culmination of figures for playing pitches, other outdoor space, informal playing and open space, facilities for children and young people and local accessible natural space.

Settlement	IDP Assessed Demand		S106 Contributions	
	Demand ⁴¹ (Ha)	Capital Cost	Play Area/Open Space	Youth/Recreation
Coleford	5.3	£1,285,389	£226,926	£316,985
Newent	2.86	£692,132	£120,245	£414,620
Tutshill/ Sedbury	0.92	£219,176	£50,000	-
Bream	0.82	£197,752	-	-
Drybrook	0.82	£197,752	£40,000	£52,000
Mitcheldean	0.82	£199,401	£182,571	£14,014
Newnham	0.54	£128,539	£12,626	£78,640
Yorkley/ Pillowell/ Whitecroft	0.37	£88,988	-	-
Lydbrook Joys Green	0.68	£162,322	-	-
Other Locations	4.95	£1,202,168	-	-
Built/ Committed Sites	34.11	£8,264,391	-	-

4.10 Transport and Public Realm

4.10.1 Responsibilities for delivery

Gloucestershire County Council is the Local Authority responsible for overall transport strategy and planning across the county. A range of further organisations are involved in the delivery of transport services for the FOD area, as summarised below:

Highways

Highways Agency – The Highways Agency is responsible for operating, maintaining and improving the Strategic road Network (SRN). Within the FOD area the SRN comprises:

- The section of M50 within Forest of Dean district, including Junction 2; and
- The A40 between the county boundary near Longhope and Highnam Woods.

In addition to this, the Agency is responsible for other sections of SRN which run close to, but outside of the district. This includes the M48 across the Severn and Wye Bridges up to and including the eastbound slip roads at Junction 2. The dual carriageway sections of the A40 (T) also run close to the northern edge of the district, across the border in Herefordshire and Monmouthshire.

The A40 and M50 form part of the Midlands to Wales & Gloucestershire Route-Based Strategies (RBS), currently being prepared. The RBS will investigate potential solutions and develop proposals, with a form of business case justification, to address a set of prioritised challenges and opportunities.

Local Highways Authority – Gloucestershire County Council (GCC) is the Local Highway Authority responsible for maintaining and enhancing the local road network in the FOD.

Rail

Network rail – Network Rail are responsible for the maintenance and enhancement of rail infrastructure. Network Rail is also the landlord of virtually all stations on the network, although all the stations in Gloucestershire are leased to train operators.

Train Operators – Figure 6 shows the train operators that provide services to Gloucestershire. Within the FOD area, there is one train station located in Lydney which is served by direct trains to Maesteg via Cardiff and Newport, and to Cheltenham via Gloucester. In the mornings, this service also runs to Birmingham and Nottingham. Indirectly, rail access is provided to the whole rail network.

The Cross Country franchise operates national intercity trains that cross the county from Gloucester to Lydney, with the service ending in Cardiff.

Arriva Trains Wales also operates services between Gloucester and Lydney.

Bus

Gloucestershire County Council – the County Council is responsible for administering bus route subsidies working in partnership with the local authorities and relevant bus network operators.

Bus network operators – Stagecoach West operate the majority of bus services within the FOD area, although there are a range of other companies/organisations that operate strategic services across the county. These include: James Bevan Coaches, Third Sector Services, Astons' Coaches, Castelways, Pulhams' Coaches and Swanbrook Transport Ltd.

Lydney Dial-A-Ride – Dial-A-Ride provide community door-to-door transport for Lydney, Coleford, Cinderford and the surrounding villages throughout the Forest of Dean. The service aims to provide transport for people without their own transport who are:

- elderly and/or frail;
- have a disability (permanent or temporary); or
- need to use a wheelchair.

Forest Community Transport is the new rural bus route provided by Lydney Dial-a-Ride. The routes not only help to connect communities around the Forest, but also provide the opportunity to travel further by linking into onward connecting bus services such as to Gloucester and Monmouth.

Cycling, walking and public realm

Gloucestershire County Council is responsible for forward planning of walking and cycling projects through the Local Transport Planning (LTP) process, and also has related responsibilities for maintaining and improving the Public Rights

of Way network of footpaths and bridleways. The City, Borough and District Councils, Town and Parish Councils and a variety of community sector organisations (e.g. Sustrans) are also actively involved in promoting and delivering cycling and walking projects.

The Forestry Commission is responsible for an extensive cycling and walking network within the Forest of Dean.

4.10.2 Sector plans and strategies

The following key sector plans and strategies are identified and have been referred to in this chapter:

Highways Agency Business Plan 2013-2014 and Department for Transport (DfT) Strategic Road Network Performance Specification 2013-15

The DfT has set out five main outcomes for management of the SRN:

- a SRN which supports and facilitates economic growth;
- a SRN which is maintained to a safe and serviceable condition;
- an efficiently and effectively operated SRN;
- a SRN which minimises its negative impacts on users, local communities and the environment; and
- a SRN which balances the needs of individuals and businesses that use and rely on it.

The Business Plan (Annex A) sets out the major schemes to be constructed within the 2013-14 plan period, none of which are located in Gloucestershire. However, the Agency has been successful in bidding for money from Tranche 3 of the DfT's Pinch Point Programme, in partnership with the County Council.

Gloucestershire Local Transport Plan 3 – 2011-26 Promoting a safe and sustainable transport system (LTP3)

The vision for transport set out in this plan is to provide “...a safe and sustainable transport network within Gloucestershire”, where safe means a transport network that people feel safe and secure using and sustainable means a transport network that is both environmentally and financially sustainable.

The LTP3 sets out the importance of Gloucestershire's transport system, explaining how the County Council can deliver a safe and sustainable transport system in Gloucestershire within the financial constraints that are likely to exist over the period covered by LTP3.

LTP3 has to address national transport priorities at the local level and Gloucestershire have aligned these to four main themes, which are:-

- A greener, healthier Gloucestershire
- Sustainable economic growth
- A safer, securer transport system
- Good access to services

The County Council are currently working on a review of the LTP, with the intention that an update will be published in 2015, covering a plan period to 2026.

Within this document, specific policies for the FOD area were set out:

National transport objectives	Forest of Dean objectives
Support economic growth	<ul style="list-style-type: none"> - Provide the transport infrastructure necessary to accommodate new development and the increasing population predicted for the Forest of Dean. - Support the local economy in the Forest of Dean and provide access to employment for local resident.
Reduce carbon emissions	<ul style="list-style-type: none"> - Encourage the use of sustainable modes of transport in the Forest of Dean. - Encourage the use of cleaner engines in all vehicles.
Promote equality of opportunity	<ul style="list-style-type: none"> - Provide access to services, jobs and local shops for all Forest of Dean residents.
Contribute to better safety, security and health	<ul style="list-style-type: none"> - Improve air quality and road safety in the Forest of Dean. - Make the transport network in the Forest of Dean more resilient.
Improve quality of life and a healthy natural environment	<ul style="list-style-type: none"> - Manage the negative impacts of traffic for local communities in the Forest of Dean.

The Central Severn Vale Transport Study 2011-2026 (Draft 2010) – the CSVT is an important study feeding into LTP3, which examined the forecast impacts of planned developments until 2026, setting out multi-modal transport interventions to accommodate this development wherever possible, as well as addressing transport related problems and issues occurring today. The study was based on planned growth of 56,400 houses in Gloucestershire up to 2026, with 34,800 in the Central Severn Vale (CSV) Study Area, which extends into the northern part of the Forest of Dean along the A40 and A48 corridors.

The Network Rail Great Western Route Utilisation Strategy year (RUS)(March 2010) – prepared by Network Rail this Strategy covers Gloucestershire and sets out the strategic vision for the future of the rail network across the Great Western region. Development of the strategy followed a well-established process. Initially, an analysis was carried out into the capacity and capability of the existing network and train services taking into account major changes planned over the next 10 years. Future demand was then analysed with a number of “Gaps” identified and options to resolve these gaps appraised. Those which demonstrated the best value for money were included in the strategy. The RUS was based on forecasting of future passenger demand taking into account growth proposals set out in the Draft

Regional Spatial Strategy (now abolished) and will therefore need to be updated in due course.

Forest of Dean Core Strategy – Adopted 2012 – There are a number of references within this document to sustainable transport methods. Policy CSP 7 – Economy, notes the importance of supporting transport investment that will aid economic development. Paragraph 7.4 addresses the need to develop a more self-contained and diverse local economy including tourism – to address out commuting and enable more sustainable transport patterns while providing a greater range and number of jobs, and improving the services and facilities that are available.

Cinderford Northern Quarter Area Action Plan (AAP) This document was adopted in February 2012 and provides a comprehensive overview of the development in Cinderford’s Northern Quarter. The paper splits the scheme into a number elements, including Transport, Movement and Connectivity which is the most pertinent chapter to this section of the IDP.

Cinderford Northern Quarter Masterplan & Design Code (CNQMDC). This document was adopted in July 2013 and provides design guidance for proposals coming forward as part of the Cinderford AAP. The Masterplan includes 4.5 Movement & Public Transport. The Design Code details the movement hierarchy with specific guidance on speed limit, street dimensions & character, transport infrastructure and parking.

Lydney Highway Strategy – This document states the details of the transport scheme planned for the Lydney area. The document also sets out the cost and timescale for certain parts of the project.

4.10.3 Infrastructure baseline

Within the FOD District, the distribution of the majority of development is centred around the four largest towns in the district (Cinderford, Lydney, Coleford and Newent). In most cases this development is located some distance from the SRN. However, the Agency is aware of the significant number of journeys made out of the district for commuting to work or for shopping.

Census 2001 data demonstrated that 14,000 people commuted out of the district, (representing 37% of the working age population) set against 4,750 people commuting into the district. 90% of out-commuters travel by car/van or motorcycles. Of those residents out-commuting, 4,500 people (33%) travelled to Gloucester, with significant flows using the Severn Crossing to reach the West of England area. Partly as a consequence of this and flows to South Wales, the A48 as it enters Wales at Chepstow also experiences peak hour congestion. The former example of commuting in particular gives rise to congestion on the A40 approach to Gloucester.

Some overarching issues relating to the existing transport infrastructure are summarised below:

Highways - Within Gloucestershire, there is over 3,000 miles of road, of which 80 miles are motorway or Trunk Road (managed by the Highways Agency) and 3,300 miles are local roads managed by the County Council.

With respect to usage, Figures 4 and 5 show All Vehicle Traffic Flows and HGV Traffic Flows respectively (based on 2009 data). These reveal that:

- The M5 is the busiest route in the county, carrying up to 90,000 vehicles a day and over 1,000 HGVs a day.
- The following A class roads are the busiest within the county (our underlining for emphasis):
- the A417/A419 linking Gloucester and Cirencester with Swindon;
- the A419 between M5 J13 and Stroud;
- the A40 that provides the direct link between Gloucester and Cheltenham (All Vehicles); and links to South Wales (via Ross-on-Wye) in the west and Oxford to the east (HGV traffic)
- the A4109 between M5 J10 and Cheltenham; and
- the M50 which links the M5 and Ross-on-Wye.

The Gloucestershire Local Transport Plan 3 suggests a number of headline issues for the FOD; these are listed below:

- New housing development often dispersed in rural areas;
- Regeneration in Cinderford and Newent;
- Potential traffic congestion at peak times in Lydney due to new development;
- Congestion on the A40 between Highnam and Over Roundabouts;
- Highway maintenance and resilience of the transport network;
- Access to services, especially in rural areas; and
- Capacity issues at Lydney Station car park and the need to improve rail services.

Comments provided by the Highways Agency suggest that within the FOD, future development in the district may have the same travel patterns as those that currently arise. This is likely to exacerbate congestion on the SRN, especially on the A40(T) approach to Gloucester, unless mitigation is agreed and put in place. Appropriate mitigation may involve addressing capacity at the following junctions:

- A40(T)/A417 Over Roundabout;
- A40(T)/B4215 traffic signal junction at Highnam;
- A40(T)/A48 roundabout at Highnam; and
- A40(T)/A4136 traffic signal junction at Huntley.

Due to the largely unimproved single carriageway nature of the A40(T) west of Gloucester there may well be a need for other works to improve junctions on routes leading to and from the Forest towns to overcome safety concerns. Similarly, the junctions on the M50 do not meet current design standards and developments which give rise to additional traffic through them, may require upgrading; this is particularly true of Junction 3. Although the nearest allocations are in Newent some four miles away, assessment of impact here will need to be robust.

Rail – As noted above, the FOD area is served by two rail routes: the Cross Country operated route between Birmingham and Cardiff, which stops at Lydney

for the FOD; and a route from Cheltenham Spa through to Newport, Cardiff and connecting to other locations within Wales, operated by Arriva Trains Wales.

The LTP3 recognises that there are capacity issues at Lydney Station car park and a need to improve rail services. In addition to this, it has been noted that there is a need to improve rail connections from the FOD to Gloucester, Cheltenham and Cardiff.

Bus – There are 11 bus services currently operating within the FOD area, of which six are classified as ‘Strategic’ bus services. These strategic routes are made up of a combination of fully commercial, part-subsidised and subsidised bus services that are a priority for the County to maintain. Where strategic development has the potential to support commercialisation of subsidised strategic routes, through increased patronage, this is viewed as a positive step, hence the focus on strategic bus routes within the appraisal below. There is also a desire to enhance the quality and frequency of services where possible, to further encourage travel by public transport.

Bus-rail integration is seen as a further important step to ensure that longer distance journeys can be made by public transport.

The table below details the available strategic bus services within the FOD and their current status:

Bus service	Status
Ross on Wye – Joys Green – Ruardean – Mitcheldean - Gloucester	Runs every hour, Monday to Saturday with a limited infrequent service on Sunday, this is a partly subsidised <i>strategic route</i> (likely to be evenings/Sundays) operated by Stagecoach West
Pillowell – St Briavels – Bream – Yorkley - Gloucester	This is a subsidised rural shopping service operated by Willetts of Yorkley
Cinderford – Drybrook – Mitcheldean - Gloucester	Runs every hour, Monday to Saturday with a limited infrequent service on Sunday, this is a subsidised <i>strategic route</i> operated by Stagecoach West
Parkend – Bream – Lydney - Gloucester	This is a subsidised rural shopping service operated by Willetts of Yorkley
Newent – Taynton - Gloucester	This is a subsidised rural shopping service operated by Newent Community Link
Gloucester – Newent – Ross on Wye	Runs every hour, Monday to Saturday with a limited infrequent service on Sunday, this is a partly subsidised <i>strategic route</i> (likely to be evenings/Sundays) operated by Stagecoach West
Gloucester – Newent - Ledbury	This is a partly subsidised <i>strategic route</i> (likely to be evenings/Sundays) operated by Stagecoach West
Much Marcle – Newent - Gloucester	This is a subsidised rural shopping service operated by George Youngs Coaches
Gloucester – Lydney - Coleford	Runs every hour, Monday to Saturday with a limited infrequent service on Sunday, this is a partly subsidised <i>strategic route</i> (likely to be evenings/Sundays) operated by Stagecoach West

Gloucester – Cinderford - Coleford	Runs every hour, Monday to Saturday with a limited infrequent service on Sunday, this is a partly subsidised <i>strategic route</i> (likely to be evenings/Sundays) operated by Stagecoach West
Blakeney – Cinderford – Blaisdon – Gloucester	This is a subsidised rural shopping service operated by Belfitt Mini Coach Hire

Walking and cycling

The LTP3 highlights that measures to encourage walking and cycling can make important contributions to the LTP objectives of reducing CO² emissions, improving health and quality of life. Reducing the number of short trips that are currently made by car can also help reduce traffic congestion. Broad measures outlined in the LTP3 to help encourage walking and cycling include:

- Encourage schools to implement and review their travel plans;
- Require developers to submit and fund travel plans; and
- Support funding bids to improve cycling infrastructure, especially to schools and employment sites.

Improvements to walking and cycling facilities are one of the most important transport themes illustrated within the FOD Parish Plans. Such improvements would provide a cheap and environmentally friendly way of travelling and would also offer opportunities for people to improve their health.

A report produced by Sustrans suggests that the future key challenges for cycling infrastructure in the FOD are to link the existing cycle routes to the town centres and also to services in the District to provide not only for leisure but also everyday cycling.

Proposed development sites in Lydney East and the Northern Quarter of Cinderford should be connected to their town centres by high quality walking and cycling routes. Policy 16 ‘Pedestrian Network’ of the adopted Cinderford Northern Quarter AAP advises that *‘the Council will require all proposals to place an emphasis on the creation of high quality pedestrian routes that ensure good connections between the Northern Quarter and surrounding settlements and Cinderford Town Centre.’* Similarly, Policy 17 states *‘the Council will require proposals to encourage cycling as a sustainable mode of transport in the Northern Quarter.’* Such measures would help to redress the fact that the FOD already has a lower than county average level of cycling to work. This is despite the fact that the FOD is one of the top leisure cycling destinations in the UK. In addition to this, the LTP3 identifies the need for development of the Strategic Cycle Route A40 Churcham – Longhope.

Figure 4 - Gloucestershire's Local Transport Plan 2011-26 (page 22)

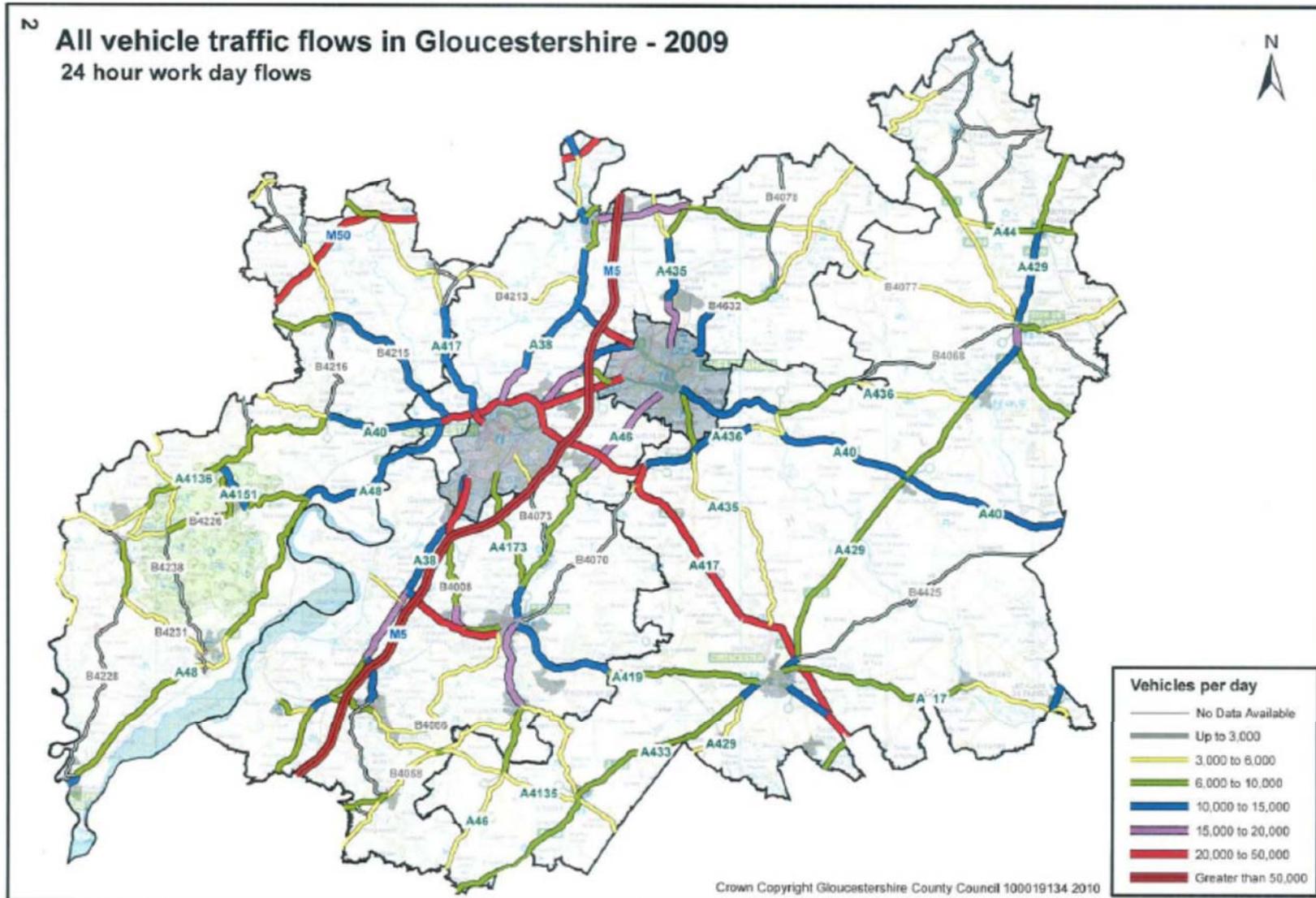


Figure 5 - Source: Gloucestershire's Local Transport Plan 2011-26 (page 29)

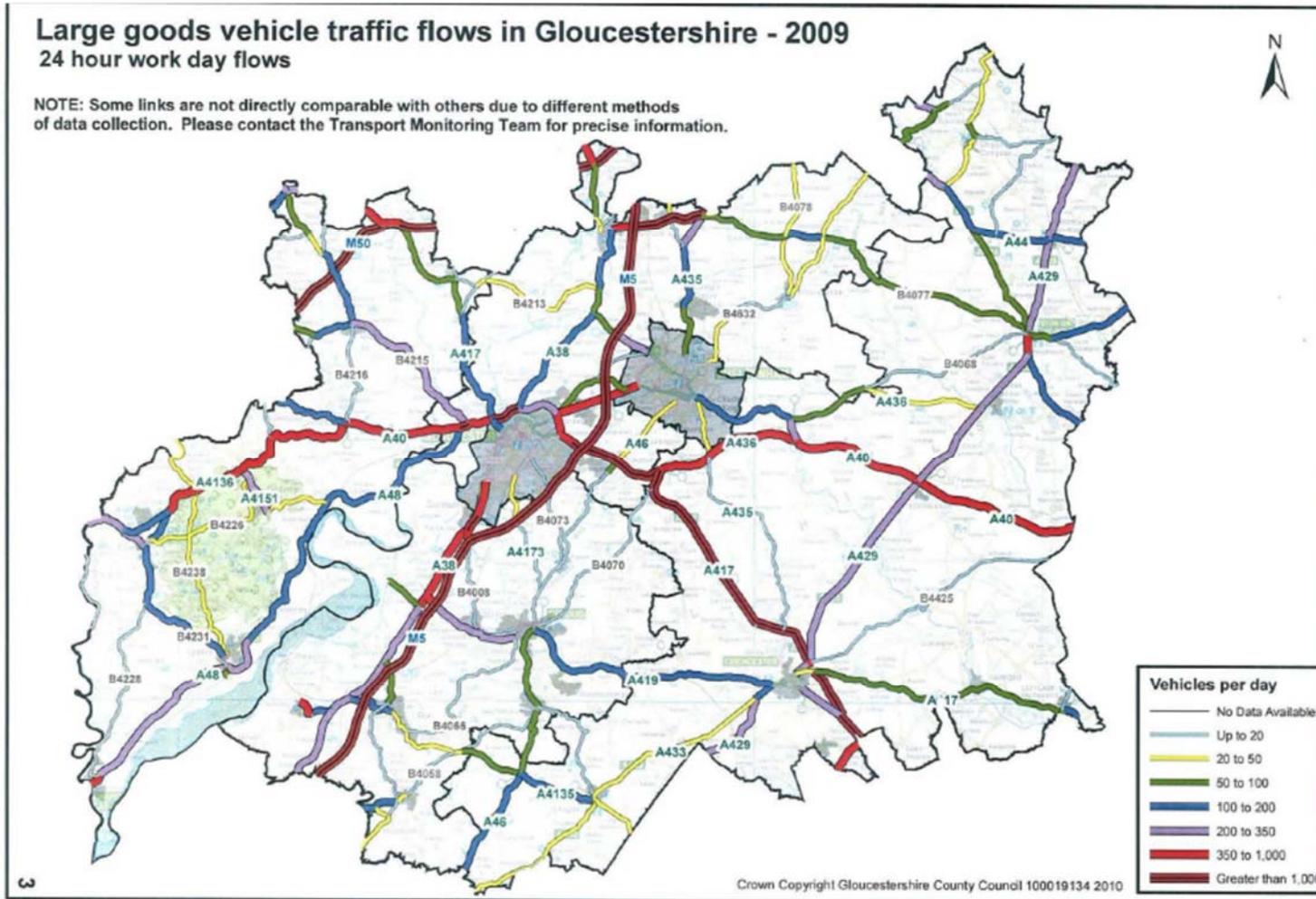
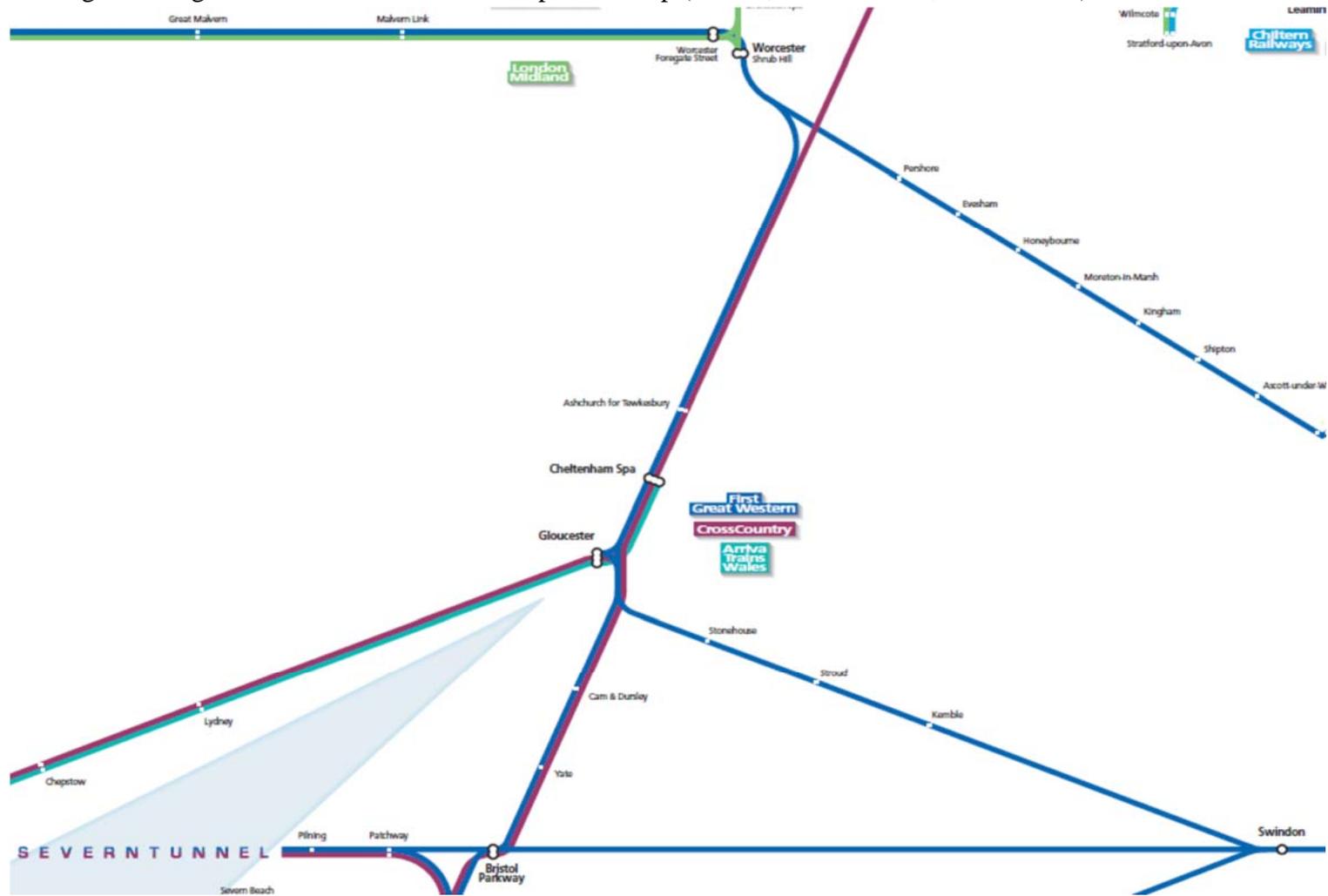


Figure 6 - Figure 3- Figure 1- Nation Rail Network Operator Map (extract, Network Rail, March 2013)



4.10.4 Assessment of infrastructure needs

Gloucestershire County Council

Transport infrastructure planning is viewed as essential to ensuring spatially well located and planned new development. Principles and objectives that should underpin a spatial strategy and site design, as recommended by Gloucestershire County Council, are as follows:

- Population density needs to be close to existing major transport corridors to provide the patronage needed to make public transport financially sustainable.
- Travel distances to employment and services should be minimised to encourage walking and cycling to reduce carbon emissions.
- Each of the sites should be fully integrated into the fabric of the existing adjacent settlements. In some instances this may require significant engineering measures.
- Safe and suitable access must be located onto the highway network where it does not result in an unacceptable increased level of congestion.
- All new junctions should provide for safe and attractive movement for all people, including the needs of the people with disabilities.
- Sustainable transport should be given priority on key highway corridors between the site and key services and facilities, to reduce the need for major transport infrastructure. Current public transport provision should be developed in preference to establishing new services, which in the case of the Forest of Dean, may involve the creation of mini Park & Ride hubs on the routes of existing strategic bus services.
- All mode (walking, cycling, bus and car) and accesses onto the local street network should be provided where possible to accommodate local demand (i.e. trips under 1km).
- All mode (walking, cycling, bus and car) accesses onto the principal road network should be provided at suitable locations to accommodate demand to adjacent towns or cities.

As acknowledged within chapters 1 and 3 of this IDP, a relatively large proportion of planned development within the Forest of Dean already benefits from planning consent, including major developments at the Cinderford Northern Quarter and Lydney East new community. As a result, knowledge of transport matters and required infrastructure has been gained through site-specific Transport Assessment processes. Key transport infrastructure requirements relating to committed sites are recorded below.

Where new development proposals come forward (or existing planning permissions are reviewed and resubmitted), the County Council will also require the following detailed assessment work to be undertaken:

- **Full Transport Assessments (TAs) and Travel Plans** will be required for the majority of planning applications (with the exception of small-scale applications. Appropriate guidance for these is set out in the Department for Transport's Guidance on Transport Assessment (March 2007), the Manual for Gloucestershire Streets (Feb 2012, due to be updated) and Gloucestershire

Travel Plan Guide for Developers (2012), The scope of studies will need to be agreed with the County Council at an early stage of the planning process. The Highways Agency should also be consulted on these where there is potential for impacts upon the operation of the Strategic Road Network.

- **Accessibility Modelling** will be required to demonstrate how well the developments fit with access to local services. The County Council has an Accession Model available that can be used for this purpose.

The County Council has confirmed that without access to supporting TAs and further information on the proposed dwelling mix at each settlement, the advice they have provided will be subject to review. However, local improvements to public transport, walking and cycling are likely in respect of all sites. Large developments are also expected to contribute appropriately to wider strategic transport infrastructure.

The Highways Agency

Without the benefit of up-to-date transport models covering the whole of the FOD area and plan proposals, the Highways Agency has been unable to provide detailed comments or advise with sufficient certainty on the nature, scale and costs of transport infrastructure which will be required on the Strategic Road Network to support development. The Agency is now treating the draft DfT *circular on the Strategic Road Network and the Delivery of Sustainable Development* (February 2013) as carrying significant weight. This explains the Agency's policy on development and development locations as follows:

- Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed. However, development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe (para. 9).
- The Agency's prime consideration will be the continued safe operation of its network, even where development proposals would not result in capacity issues (para. 10).
- In determining its contribution to the development of Local Plans, the Highways Agency's aim will be to ensure that the scale and patterns of development are planned in a manner which will not compromise the fulfilment of the primary purpose of the SRN (para. 14).
- Through the production of Local Plans, development should be promoted at locations that are or can be made sustainable, that allow for uptake of sustainable transport modes and support wider social and health objectives, and which support existing business sectors as well as enabling new growth (para. 16).

Further key points raised in the draft Circular are as follows:

- Capacity enhancements and infrastructure required to deliver strategic growth should be identified at the Local Plan stage, which provides the best opportunity to consider development aspirations alongside the associated

strategic infrastructure needs. Enhancements should not normally be considered as fresh proposals at the planning application stage. The Highways Agency will work with strategic delivery bodies to identify infrastructure and access needs at the earliest possible opportunity in order to assess suitability, viability and deliverability of such proposals, including the identification of potential funding arrangements (para. 18).

- The creation of new accesses to the strategic road network can impact on its ability to fulfil the function of facilitating the safe and effective movement of goods and people in support of economic growth by compromising traffic movement and flow (para. 37).
- Where appropriate, proposals for the creation of new junctions or direct means of access may be identified and developed at the Plan-making stage in circumstances where it can be established that such new infrastructure is essential for the delivery of strategic planned growth (para. 39).
- The Highways Agency will adopt a graduated and less restrictive approach to the formation or intensification of use of access to the remainder of the strategic road network. However, the preference will always be that new development should make use of existing junctions. Where a new junction or direct means of access is agreed, the promoter will be expected to secure all necessary consents, and to fund all related design and construction works (para. 43).

This advice needs to be seen in the context of the significant levels of committed development within the Forest of Dean area, for which there is an established body of evidence about infrastructure requirements derived from the Core Strategy examination process and planning applications. Nevertheless, this information may be subject to review as further planning applications come forward and the Site Allocations Development Plan Document progresses towards adoption.

A review of transport projects relating to the A40 corridor (to Gloucester), A48/M48 corridor (to South Wales and the M4) and each of the settlements where development is proposed in the Core Strategy and Allocations Plan is set out below.

A40 Highway Corridor

As recorded in the baseline section, the Forest of Dean area displays high levels of out-commuting, with many commuter trips that utilise the A48 (e.g. from Lydney) and A4136 (from Coleford and Cinderford) converging on the A40 route near Highnam and Gloucester. The capacity of the A40 is of significance for both the Forest of Dean and the Draft Joint Core Strategy proposals, with substantial development proposals at nearby Innsforth (north of Gloucester). For the Forest of Dean, alternative routes into Gloucester result in long detours along minor roads, so there is limited resilience of the network in the case of major accidents or flooding.

In terms of bringing forward improvements, the County Council has been successful in securing Pinch Point funding to help address existing capacity issues at the A40 Over Roundabout (on the eastern side of the River Severn) and further investment for this location is being pursued through the Gloucestershire Local Transport Board (GLTB) process. The schemes are as follows:

- **A40/A417 Over Roundabout westbound traffic segregation – Pinch Point Programme** funding of £190,000 has been secured for this project, which is scheduled to be constructed during 2014. The proposed scheme is designed to segregate traffic by movement on the westbound approach and reduce overall queue lengths at the roundabout. The A40 route experiences recurrent congestion and delays between M5 Junction 11 and the Gloucestershire border at Lea. The A40 Over Roundabout experiences recurrent queues and delays in the morning and evening peak periods. This scheme has the potential to support development at the Innsworth strategic location and employment development at the northern Gloucester fringe.
- **A40 Over Roundabout and Highnam Lodge Improvements** - Partial signalisation and modifications to the junction layout at the A40 Over Roundabout; and removal of hatchings on the nearside lane of the eastbound carriageway and implementation of signals at Highnam Lodge access. This scheme has an estimated capital cost of £2.23m, with full funding to be sought through the **GLTB** process. Construction is scheduled to be undertaken from October 2016 to March 2017.

It is also noteworthy that the potential for a **West of Severn/Gloucester Park & Ride facility** in the vicinity of the A40 / B4215 junction is identified within the CSVTS, and such a scheme may assist in alleviating traffic congestion in the area around the River Severn crossing.

In terms of consultation feedback relating specifically to proposals in the Forest of Dean district, the HA have identified a number of potential further mitigation measures/improvements to be put in place, as listed below:

- A40(T)/A417 Over Roundabout (see projects above, although further mitigation measures may also be necessary);
- A40(T)/B4215 traffic signal junction at Highnam;
- A40(T)/A48 roundabout at Highnam; and
- A40(T)/A4136 traffic signal junction at Huntley.

In order to encourage further cycle trips along the A40 corridor and surrounding area, the Gloucestershire LTP3 Forest of Dean Area Transport Strategy identifies two Strategic Cycle Routes to be delivered during the 2019-26 plan period. Gloucestershire County Council has advised that the pure build cost for a segregated cycling facility would be around £100,000 per km (additional engineering complexities, topography, land purchase etc. may add to this). The estimated costs set out in the table below are based on this assumption.

Strategic Cycle Path Scheme	Comment	Estimated length	Estimated capital cost
A40 Churcham to Longhope (near Mitcheldean)	Estimated length based on distance along the A40 and A4136 between the two settlements.	9.4km	£940,000
A417 Maisemore to Hartpur	Estimated length based on distance along Over Old Road between the two settlements	4.2km	£420,000

A48/M48 Corridor

Council Members and officers have highlighted that the A48 around Chepstow, at the southern boundary of the District, is a further pinchpoint during peak hours. Further consultation with Monmouthshire County Council is required to understand the exact nature of the problems that arise and investments in infrastructure that could help to alleviate problems in this location (see also section on Tutshill/Sedbury below).

Cinderford

The LTP3 acknowledges the main transport issues for the Cinderford area are regeneration in the form of the new Northern Quarter development and also completion of the Cinderford Northern Quarter Spine Road. There are remaining unfunded sections of the new road from Broadmoor Road to the A4136.

Highways – The Northern Quarter benefits from a good strategic location adjacent to A4136 and Steam Mills Road, however, the full potential of the site is constrained by the internal and external highways network and the relatively poor level of public transport accessibility. The County Council has raised that providing links to the Northern United site (the westernmost part of the Northern Quarter) is of particular concern.

An aim of the regeneration proposal is to provide an effective public highway network, in the form a Northern Quarter Link Road, which will unlock the potential of key development sites. Policy 15 of the Cinderford Area Action Plan (APP) states that the main north-south connection should be in the form of a new spine road between the A4136 in the vicinity of the existing Northern United junction and Broadmoor Road. This will provide an alternative to Steam Mills Road for accessing Cinderford.

A funding proposal for the Cinderford Northern Quarter Link Road was submitted to the GLTB for consideration:

- **Cinderford Northern Quarter Link Road** – The proposal is to develop new highway infrastructure of approximately 1.5km in length, single carriageway width, limited to 30mph, with a lower 20mph limit through the Central Zone adjacent to the new education facility to promote carbon efficiency. The new road will connect with the A4136 in the north-west and with the B4227 Broadmoor Road at its south-east end. This is a strategic regeneration project that will launch the delivery of a £60 million mixed-use investment programme over the next 13 years. The project is championed by the Homes & Communities Agency (HCA), which is leading the project design, procurement and construction process. The road will provide a primary route within the Cinderford Area Action Plan (AAP) Transport Strategy and serve to unlock the Northern Quarter for future mixed-use development, provide a new tree-lined point of entry into the town from the north and help to ease traffic congestion along the A4151 Steam Mills Road into Cinderford. The highways project has an estimated capital cost of £8.78 million (excluding optimism bias).

The GLTB Link Road funding application was initially ranked 11 out of 14 following a prioritisation process. At the present time only the 4 highest priority schemes are those that the GLTB expects to be able to fund through a Department

for Transport (DfT) allocation. However, the GLTB is currently conducting a further prioritisation exercise and updated information on the Cinderford Northern Quarter Link Road was submitted to this process in December 2013. In addition, depending on the final funding allocation to the GLTB, it is possible that less or more schemes than 4 may be financed through this process.

The Cinderford Northern Quarter Link Road scheme has also been submitted as a proposal to the Gloucestershire Infrastructure Investment Fund (GIIF), an £8.4million fund secured by *Gfirst* (the Gloucestershire Local Enterprise Partnership) and the County Council from the Government's Growing Places Initiative. *Gfirst* shortlisted five projects for potential major investment through the GIIF, which includes the Cinderford Northern Quarter Link Road. Final approval has been given for a £3.4m loan for part of the Spine Road, and there is also an approved amount under the LEP of £3.8M for Cinderford NQ, to support improvements to the link road.

The following further highways projects are identified within the LTP3 Forest of Dean Area Transport Strategy and information provided by the County Council:

- ***Cinderford Bridge Junction Re-alignment*** – The preliminary design was prepared during December 2012, with implementation subject to developer contributions, but expected during 2014/15.
- ***Nailbridge Junction (A4136/A4151) Signal Upgrade and Safety Improvements, Cinderford*** - project programmed for the 2011-14 period.
- ***Cinderford A48 access improvements and A48 safety improvements***
- ***St White's Road safety improvements*** – St White's is an accident Hotspot and potential safety improvements include an average speed camera, school safety zone, resolution of parking issues, and controls to limit speeds on Church Road.
- ***Valley Road/Station Street safety improvements*** – the County Council has identified safety and parking issues to be resolved in this area (see also creation of cycling/walking route below).
- ***Football Club Ruffits/Reddings & Causeway Road junction improvements***

£106 contributions relating to roads in the Cinderford area amount to £57,500 and overall transport contributions amount to £12,500.

Taking this information on funding into account, it is considered likely that further funding mechanisms will need to be explored to enable the delivery of this project.

Rail

As the only train station in the FOD is in Lydney, it is important that linking bus services between Cinderford and the station are enhanced and that interchange facilities at the station are improved. A shortage of car parking space is also an issue, along with a lack of cycle facilities.

Bus – Within the Gloucestershire LTP3 Forest of Dean Area Transport Strategy the creation of a ***Cinderford Northern Quarter Public Transport Hub*** is identified as a specific scheme. In addition, The LTP3 FoD Area Transport Strategy (July 2010) states that the County Council, District Council, and Local strategic Partnership will work together to develop a strategic bus network

between Lydney, Coleford and Cinderford and Gloucester, supported by Community Transport and taxi services in the rural areas.

Strategic bus routes 24A, 30 and 31 connect Cinderford with Coleford and Gloucester. These services are currently either subsidised or part-subsidised, so further development in Cinderford could potentially support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development. It is worth noting that the proposed new superstore at Steam Mills Road / Valley Road, Cinderford will enable the introduction of RTPI display boards at Cinderford Bus Station along with 17 RTPI bus flags located in and around the town centre.

The town is also served by a rural bus service (781), which currently operates on a subsidised basis.

Bus Routes	Operator	Status
24A Cinderford – Drybrook – Mitcheldean - Gloucester	Stagecoach West	Subsidised
30 Gloucester – Cinderford – Coleford	Stagecoach West	Part-subsidised
31 Gloucester – Cinderford - Coleford	Stagecoach West	Part-subsidised
781 Blakeney – Cinderford – Blaisdon - Gloucester	Belfitt Mini Coach Hire	Subsidised

Walking and Cycling – Referencing a report undertaken by Sustrans, the LTP3 FoD Area Strategy (July 2010) notes that there is a need to link existing cycle routes to the town centres and that the large development sites should be connected to their town centres by high quality walking and cycling routes. To provide an example of where this objective can be realised, the proposed cycling network within the Cinderford Northern Quarter will connect with existing cyclepaths & forest trails within the Linear Park. Additional connections will also be encouraged to provide links to the National Cycle Network Routes 42 & 44.

The Cinderford AAP (Policy 14) notes that proposals should seek to enhance all forms of transport, with a particular emphasis on sustainable modes of transport such as walking, cycling and public transport. Most of the Northern Quarter site is within a 5-minute walking distance from the Northern Quarter Centre. This includes the new residential development at Steam Mills West and the existing Steam Mills village. Only the Northern United site is approximately 10-minutes walking distance from the Northern Quarter Centre.

Policy 17 of the APP discusses the cycle network and encourages the following measures:

- Providing safe and secure cycle parking adjacent to residential units, employment sites and other community amenities, such as at shops and the Gloucestershire College campus.
- Ensuring the provision of sustainable transport infrastructure, including sheltered bicycle stands, quality road surfacing and safe, well-lit routes.
- Providing showers, changing facilities and lockers at workplaces.
- Introducing community bike rental initiatives and bicycle training programmes.

Further projects identified by infrastructure providers are as follows:

- **Valley Road South walking/cycling route and linear park** – County Council proposal to help address safety issues close to the ‘works’ where there are narrow bends.
- **Town Centre cycle racks** - FoDDC has recently funded the installation of bespoke town centre cycle racks which were designed and manufactured by a local blacksmith.

Lydney

In the case of Lydney, Policy CSP.12 of the Core Strategy highlights the importance of delivering transport improvements, the **Lydney Transport Strategy**, which will in turn facilitate further regeneration activity in and around the town centre. Details of the strategy and constituent components are provided below:

- **Lydney Transport Strategy** – This strategy involves highway and public realm improvements in the town centre (with a total estimated cost of £4.99million and a construction programme from Feb 2018 to Feb 2019). Overall the strategy will enable better accessibility to and within the town centre, facilitating: environmental improvements and the removal of through traffic from the main shopping frontage; improved air quality; and town centre development. Components of the strategy are as follows:
 - The **Newerne Street Link**, including mini-roundabouts with Forest Road and Albert Road. The aim of this proposal is to provide a replacement route and enable the removal of virtually all traffic from Newerne Street which is a busy shopping street. The road layout in Lydney means that traffic to and from the Forest of Dean mostly has to pass through the town centre rather than use the bypass.
 - **Forest Road junction improvement and pedestrian crossing**
 - **Bream Road junction improvement** – The Bream Road part of the strategy involves addressing the poor visibility at its junction with Hill Street and the limited opportunities to turn right due to the flow of traffic on Hill Street/High Street (provision of new traffic signals required). This in turn also results in left turning traffic being delayed behind traffic turning right.
 - **Albert Street junction improvement** - new traffic signals
 - **A48/ Highfield Hill junction improvement**
 - **Cycle route** – a cycle route running from the town centre to the major existing employment areas (located south of the town centre and south of the mainline station) and Lydney railway station
 - **Lydney Rail Station car park improvement** – see further details below under ‘Rail’.

A funding proposal for the Lydney Transport Strategy was submitted to the GLTB for consideration. The GLTB funding application is currently ranked 9 out of 14 following a prioritisation process. At the present time only the 4 highest priority schemes are those that the GLTB expects to be able to fund through a Department for Transport (DfT) allocation. However, depending on the final funding allocation, less or more schemes may be progressed through this process.

FoD District Council has been successful in securing S106 contributions towards transport and highways (Closed and Open S106 agreements for roads amount to £1,382,333)⁴². £1,496,309 of these totals are specifically committed to the Lydney Transport Strategy, leaving an overall shortfall of around £2.5m at the present time. - There is a recent approved spend of 1M for Lydney transport schemes under the LEP.

Highways – Further to the implementation of the Lydney Transport Strategy, the County Council has identified the following highways issues and projects for the town:

- **Lydney A48 safety improvements** – speed and safety issues have been identified in relation to Highfield Hill and Naas Lane, in addition to safety issues at the new roundabout at the bypass/Church Road junction.
- **Bream Road/ High Street/ Hill Street junction improvements** - The junction of Bream Road with High Street and Hill Street was declared an Air Quality Management Area (AQMA) by the FOD District Council in 2009/10. It is a key access point from Lydney to the forest and links three roads designated for local freight journeys. It suffers from poor visibility and has been identified as a priority junction for improvements. The declared AQMA in Lydney has enabled some funds for a modelling exercise which may indicate transport solutions that will improve the air quality.

Rail – Lydney rail station is located to the south of the town centre and regeneration proposals (now to be reviewed through a Neighbourhood Planning process) have the potential to provide attractive walking and cycling links to the station from the town centre and proposed new development at the East of Lydney new neighbourhood. At present, facilities for walking/cycling for interchange at the train station are poor. In addition, pedestrians have no segregated crossing facility to get from the platform on one side of the track to the other.

In order to further facilitate use of rail by the population of Lydney and the district as a whole, there are proposals to improve the facilities available at Lydney station, which forms part of the wider Lydney Transport Strategy:

- **Lydney Station park and ride enhancements** – Stakeholders including the District Council, Train Operating Company and Network Rail are in the process of preparing a masterplan, incorporating expanded parking provision and improvements to facilities at the station. There is an agreed masterplan for the station which is supported by the FoD Allocations Plan. This demonstrates scope for major changes and improvements to the station.
- **Bus** – The LTP3 FOD Area Transport Strategy (July 2010) states that the County Council, District Council, and Local Strategic Partnership will work together to develop a strategic bus network between Lydney, Coleford and Cinderford and Gloucester, supported by Community Transport and taxi services in the rural areas. In addition, the station is currently not fully served by a bus service which affects connectivity with the rest of the district.

Strategic bus route 23 connects Lydney with Coleford and Gloucester. This service is currently part-subsidised and further development in Lydney could

⁴² Source: Open and Closed contributions figures from S106 Contributions Keynote - http://www.fdean.gov.uk/media/Assets/ForwardPlan/documents/Core%20Strategy%20Documents/keynote_Section_106_Agreements.pdf

support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development. To date, S106 contributions of £126,144 towards bus service enhancements have been secured in relation to the East of Lydney new neighbourhood.

Lydney is also served by a rural bus service (No. 786), which currently operates on a subsidised basis.

Bus Route	Operator	Status
23 Gloucester – Lydney – Coleford	Stagecoach West	Part-subsidised
786 Parkend – Bream – Lydney - Gloucester	Willetts of Yorkley	Subsidised

Walking and Cycling – Proposed regeneration within the former Lydney AAP area offers the opportunity to provide safe and attractive walking and cycling routes within the town, and it is expected that specific project proposals will emerge through the Neighbourhood Planning process now in progress. At the present time, £85,302 has been secured in connection with the East of Lydney new neighbourhood towards footpath improvements and cycle parking. The following specific project has been identified:

- **Lydney to Parkend Cycle Route** - A new cycle route between Lydney and Parkend is planned and a draft route is currently being finalised. The route will be safeguarded where necessary in the forthcoming Allocations Plan (this is a joint scheme in partnership with the Forestry Commission).

Coleford

Within the FOD Core Strategy, key objectives for Coleford include providing better road, pedestrian and cycle access both to, and within Coleford, as well as improvements to public transport where they can be made.

Highways – As for Cinderford and Lydney, a high proportion of development within Coleford is committed and to date, S106 contributions relating to roads in the Coleford area amount to £159,000. The main highways improvements planned within the town are:

- **Mile End crossroads safety improvements**
- **Old Station Way Toucan Crossing** – to link cycle route and Community Centre
- **B4228 safety improvements** – proposals include Milkwall staggered junction and improvements around the Pike House junction. Pike House junction improvements have since been implemented.
- **A4136 safety improvements** – this is an accident Hotspot with visibility issues to be resolved, in addition to drainage issues in the Owen Farm to Newland section.

S106 contributions towards other forms of transport improvements amount to £64,160.

Rail - As the only train station in the FOD is in Lydney, it is important that linking bus services between Coleford and the station are enhanced and that interchange facilities at the station are improved.

Bus - The LTP3 FOD Area Transport Strategy (July 2010) states that the County Council, District Council, and Local strategic Partnership will work together to develop a strategic bus network between Lydney, Coleford and Cinderford and Gloucester, supported by Community Transport and taxi services in the rural areas.

Strategic bus routes 23, 30 and 31 connect Coleford with Cinderford, Lydney and Gloucester. This services are currently part-subsidised and further development in Coleford could support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Bus Routes	Operator	Status
23 Gloucester – Lydney - Coleford	Stagecoach West	Part-subsidised
30 Gloucester – Cinderford - Coleford	Stagecoach West	Part-subsidised
31 Gloucester – Cinderford - Coleford	Stagecoach West	Part-subsidised

Walking/Cycling – Local policy identifies the need for a complete range of social, physical and green infrastructure in Coleford as part of its town strategy policy. This will be sought largely through developer contributions, and are now partly agreed in accordance with planning permissions. The following additional project has also been identified:

- **Christchurch to Coleford Town Centre cycleway** - Forest Holidays cabin/lodge development in Christchurch, Coleford is seeking to expand. The District Council is encouraging that the delivery of a new cycleway to connect this site with the town centre as part of the overall proposals.

Newent

The Core Strategy aims to provide better road, pedestrian and cycle access both to, and within Newent.

Highways – Newent is the closest proposed allocation for new development to Junction 3 of the M50, which has been identified as being in need of upgrading. The junctions on the M50 do not meet current design standards and developments which give rise to additional traffic may result in a requirement for them to be upgraded.

In this regard it is notable that the Core Strategy allocation for the town has already been met through existing commitments. Therefore a transport assessment relating to Junction 3 should take account of cumulative impacts arising from development across the Forest of Dean, as well neighbouring authorities, if a business case for upgrading is to be made.

To date, S106 contributions relating to roads in the Newent area amount to £154,264. S106 contributions towards other forms of transport improvements

amount to £54,000. In terms of specific projects, the following has been identified:

- ***Newent highways and public realm investment programme*** - Three phases of a highway and public realm improvement programme have recently been completed in Newent Town Centre, with works funded by Gloucestershire County Council, Forest of Dean DC, Newent Town Council, Forest of Dean Local Action Group and the former South West Regional Development Agency. Phase 4 of the programme in Church Street is reliant on S106 developer contributions, with a total of £125,000 funding coming from the Phase 2 Onslow Road housing development.

Rail – Newent is located to the northwest of Gloucester and it is therefore anticipated that those wishing to travel by train would access services at Gloucester or Cheltenham Spa station, unless they are travelling to destinations in south Wales, in which case they may choose to access services from Lydney station. Given the distance from Newent to these stations, it is important that linking bus services are interchange facilities are improved.

Bus – Located in the north of the FOD district, Newent benefits from relatively direct access to Gloucester along the B4215/A40 to Gloucester.

Strategic bus routes connect Newent with Gloucester, Ross-on-Wye and Ledbury. These services are currently part-subsidised and further development in Newent could support a move towards full commercial status, although it is acknowledged that the proposed level of development is relatively low. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development. To date, S106 contributions of £126,144 towards bus service enhancements have been secured for Newent, although issues of penetration of new developments by bus services remain.

The town is also served by rural bus services (No.s 677 and 678), which currently operate on a subsidised basis, together with a Newent Community Transport Scheme.

Bus Routes	Operator	Status
32 Gloucester – Newent – Ross-on-Wye	Stagecoach West	Part-subsidised (ST)
132 Gloucester – Newent – Ledbury	Stagecoach West	Part-subsidised (ST)
677 Much Marcle – Newent – Gloucester	George Youngs Coaches	Subsidised
678 Newent – Taynton - Gloucester	Newent Community Link	Subsidised

Walking/Cycling – to enhance Newent town centre there will be public space improvements as identified in the Infrastructure Delivery Keynote. This should encourage walking and cycling as the public realm will be more attractive and user friendly. The improvements are being provided by Forest of Dean District Council, Gloucester County Council, developers and public bodies in partnership. Phases 4 to 6 of the works are planned to provide safer routes to schools and expected to resolve some existing on-street parking issues.

In addition, the Gloucestershire LTP3 Forest of Dean Area Transport Strategy identifies a Strategic Cycle Route between Highnam and Newent as a scheme for

the 2019-26 part of the plan period. Gloucestershire County Council has advised that the pure build cost for a segregated cycling facility would be around £100,000 per km (additional engineering complexities, topography, land purchase etc. may add to this). The estimated cost set out in the table below is based on this assumption.

Strategic Cycle Path Scheme	Comment	Estimated length	Estimated capital cost
B4215 Highnam - Newent	Estimated length based on distance along the B4125 between the two settlements.	10.7km	£1,070,000

Tutshill/Sedbury

Highways

Through consultation with the County Council, the following highways issue/project has been identified:

- **A48/Beachley Road /B4228 /Castleford Hill junction safety improvements** – parking, safety and congestion issues in this area to be addressed.

S106 contributions specific to roads for Tutshill/Sedbury amount to £14,000.

Bus

Bus services to Tutshill and Sedbury are managed by Monmouthshire County Council and include a linking service between Chepstow and Lydney. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Bus Routes	Operator	Status
Service 755 Chepstow to Lydney	Monmouthshire County Council	Mon-Sat service. Supported by Monmouthshire County Council and Gloucestershire County Council
Service 761 Chepstow to Beachley via Sedbury	Monmouthshire County Council	

Walking/Cycling

The following area specific walking and cycling project has been identified:

- **Chepstow to Tintern Railway Path** – This project led by Sustrans envisages a traffic-free path for families, walkers, cyclists, runners, mobility vehicles, wheelchair users and horse-riders by Sustrans, the sustainable transport charity. The path will follow the disused 19th Century Wye Valley Railway line between Chepstow, Brockweir and Tintern.

Bream

Highways

S106 contributions for improvements to roads for this settlement currently amount to £4,000. No further specific projects have been identified through the IDP study work to date.

Bus

Bream is currently served by two subsidised rural services, with further development in the settlement potentially supporting customer numbers utilising these.

Strategic Bus Route	Operator	Status
786 Parkend – Bream – Lydney Gloucester	Stagecoach West	Subsidised
787 Pillowell – St Briavels – Bream – Yorkley - Gloucester	Willetts of Yorkley	Subsidised

Walking/Cycling

No specific walking/cycling projects have been identified to date.

Drybrook

S106 contributions for roads within Drybrook currently amount to £36,000.

Highways

Through consultation with the County Council, the following highways issues and projects have been identified:

- **Hawthorns / Hillside Road junction improvements**
- **Mitcheldean Road / Stenders junction improvements**
- **Lorry Weight Restriction Order** – to help resolve problems relating to freight traffic in the village.

Also of relevance for Drybrook are proposals to improve the A4136 Nailbridge Junction and links into the Cinderford Northern Quarter/Northern United sites (see Cinderford sub-section).

Bus

Drybrook is currently served by strategic bus route 24A This service is currently subsidised and further development in the settlements along the route could support a move towards part-subsidised or full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Strategic Bus Route	Operator	Status
24A Cinderford – Drybrook – Mitcheldean – Gloucester	Stagecoach West	Subsidised

Walking/Cycling

No specific walking/cycling projects have been identified to date.

Mitcheldean

Overall S106 contributions for transport improvements at Mitcheldean amount to £10,000.

Highways

Through consultation with the County Council, the following highways issues and projects have been identified:

- **A4136/ High Street/ Silver Street/ Abenhall Road junctions improvements** – there are capacity and safety issues to be addressed at the mini-roundabout junction and nearby street access points
- **Village centre parking improvements**

Bus

Mitcheldean is currently served by strategic bus routes 24 and 24A. These services are currently subsidised and further development in the settlements along the route could support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Strategic Bus Route	Operator	Status
24A Cinderford – Drybrook – Mitcheldean – Gloucester	Stagecoach West	Subsidised
24 Ross on Wye – Joys Green – Ruardean – Mitcheldean - Gloucester	Stagecoach West	Part-subsidised

Walking/Cycling

Specific projects identified for Mitcheldean are as follows:

- **Safe routes to school proposals**

Newnham

Overall S106 contributions for transport improvements in Newnham currently amount to £27,000.

Bus

Strategic bus route 23 connects Newnham with Coleford, Lydney and Gloucester. This is currently a part-subsidised strategic service and further development along the route could support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Bus Routes	Operator	Status
23 Gloucester – Lydney - Coleford	Stagecoach West	Part-subsidised

Walking/Cycling

The emphasis for investment in Newnham is safety improvements for walkers and cyclists, involving the following projects:

- **Safe routes to school provision**
- **A48 crossing facilities** – the A48 currently acts as barrier within the town and improvements to crossing points are required, including upgrades to the Zebra crossing.

Yorkley/Pillowell/Whitecroft

Highways

Through consultation with the County Council, the following highways issues and projects have been identified:

- **Whitecroft level crossing upgrade**
- **B4234 safety improvements** – the B4234 has a series of bends at the southern end of the village and there is scope for safety improvements.

Bus

Yorkley is currently served by a subsidised rural service, with further development in the settlement potentially supporting customer numbers utilising this.

Strategic Bus Route	Operator	Status
787 Pillowell – St Briavels – Bream – Yorkley - Gloucester	Willetts of Yorkley	Subsidised

Walking/Cycling

These settlements are located on the route of the planned **Lydney to Parkend cycle route** (see Lydney section above).

Lydbrook/Joys Green

Highways

Highways issues and projects identified through consultation with the County Council are as follows:

- **B4234 speed restriction proposal** – speeding issues are encountered and there is a proposal for a 50mph speed limit to be introduced.
- **Coppice Road turning area** – provision of a turning area would facilitate permanent road closure due to landslip.
- **Joys Green traffic calming** – provision of traffic calming measures around the Forge Hill / School Road junction.

Bus

Joys Green is currently served by strategic bus route 24. This service is currently part-subsidised and further development in the settlements along the route could

support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

Strategic Bus Route	Operator	Status
24 Ross on Wye – Joys Green – Ruardean – Mitcheldean - Gloucester	Stagecoach West	Part-subsidised

Walking/Cycling

No specific projects have been identified to date, although it is noteworthy that there is access to the recreational routes in the forest from Lydbrook.

District Highways improvements

Further to the review of information relating to the A40 corridor and projects within specific settlements, a series of improvements to the highway network have been identified by the Council. These are less clearly of relevance to development in on particular area, but would help to improve the safety and resilience of the network overall:

- ***Trow Green B4228 / B4231 junction improvements*** – this junction is on the Accident Hotspot list and major junction improvements are proposed. Is this what has been done (completed November 2013)- it changed the layout of the junction?
- ***A48 junctions safety improvements*** – there are general safety issues for all junctions on the A48. Examples include the Nibley crossroads and the need for a low bridge warning system for lorries at Broadoak and Westbury.
- ***Edge End A4136 / B4228 junction improvements***
- ***A466 Newland / Redbrook speeding restriction and safety improvements***
- ***Cannop crossroads and A4136/B4234 safety improvements*** – these are Accident Hotspots and signalisation is one proposal to resolve issues at the Cannop crossroads.
- ***A4151 Elton Corner to Littledean safety improvements***

4.11 Waste

Overview

Taking account of long term projects of waste creation, the adopted Gloucestershire Waste Core Strategy identified five strategic sites within the county with the potential to accommodate re-modelled, alternative and/or new waste management facilities over the timeframe of the plan. None of these strategic sites fall within the FOD area.

Nevertheless, in seeking to combat the challenges of changing patterns of commercial and household consumption, recycling and waste generation, further local waste infrastructure within the FOD may be necessary. In particular, the need for increased capacity at Household Recycling Centres serving the FOD area will be kept under review. Furthermore, developers are urged to provide additional space within proposals to facilitate recycling by households.

Responsibilities for delivery

The Gloucestershire Waste Partnership (GWP) consists of the six city, borough and district councils within Gloucestershire and the County Council. A Partnership Agreement and Terms of Reference were produced in 2009 to strengthen the two tiers of waste management in the county. Its vision is to ‘develop partnership working and sustainable waste management in Gloucestershire.’ In broad terms, the responsibilities of the two tiers of Councils are:

- **Gloucestershire County Council** – responsibility for preparation of the Minerals and Waste Local Development Framework (LDF) and the management of waste disposal.
- **Forest of Dean District Council** – responsibility for managing the collection of waste from households and businesses.

Plans and strategies

Minerals and Waste Local Development Framework (LDF) - At the present time Gloucestershire County Council is preparing a countywide Waste (& Minerals) Development Plan. This includes the Waste Core Strategy that was adopted on 21st November 2012 (covering the period to 2027) and now forms part of the Development Plan.

Waste Minimisation in Development Projects Supplementary Planning Document (SPD)(September 2006) – The SPD provides guidance on how waste, generated during the construction and occupation of new developments, can be effectively minimised with smarter use of construction materials and increased recycling. Proposals for major development are expected to be accompanied by a Waste Minimisation Statement. The County Council has highlighted that people

need more space within dwellings to enable re-cycling and this should be considered in the design of new development.

Baseline and assessment of infrastructure needs

The table below displays the current capacity by waste process method in Gloucestershire.

Management/Process Method	Operational Capacity in Tonnes
Recycling	110,000t
Of which composting/AD is	79,000t
Residual Waste Treatment	No operational capacity – all residual currently goes to 2 Cory operated landfills
C&D Waste recycling	-
Non-hazardous. Landfill	3,205,000m3 C&D recycling
Inert Landfill	-

This operational capacity is provided through a range of waste facilities in Gloucestershire. There are three non-hazardous landfill sites in Gloucestershire: Hempsted at Gloucester; and Wingmoor Farm (West) and Wingmoor Farm (East) close to Bishop's Cleeve North of Cheltenham. A hazardous landfill site is provided at Wingmoor Farm (East). There are also nineteen inert landfill/restoration sites across the County receiving construction and demolition (C & D) waste.

The existing Household Recycling Centre (HRC) waste management sites serving the FOD area is located at Oak Quarry, Broadwell nr Coleford. The facility is open all year round from 9am – 6.45pm.

Assessment of infrastructure needs and waste projects

The Waste Core Strategy assumes that Municipal solid Waste (MSW) in Gloucestershire will increase to some 359,600 tonnes per annum due to a combination of population growth and growth in waste per head. In Gloucestershire, each person generated 414kg of municipal waste in 1995 and 504kg in 2009/10. This increase in waste tonnes is primarily due to, growth in household consumption, changes to waste collection systems and an increase in household numbers. Short-term fluctuations in waste tonnage can result from other factors including the wider economic circumstances and changes to service charges.⁴³

Based on projected increases in MSW and other waste streams, the Waste Core Strategy identifies an on-going need to develop new waste facilities in the county. An overarching objective of the Waste Core Strategy is to enable diversion from landfill use, in response to the national policy of tackling climate change through more sustainable waste alternatives.

In order to meet the projected demand for waste management, the Waste Core Strategy identified the following locations with the potential to accommodate re-

⁴³ Gloucestershire County Council Waste Core Strategy Topic Paper 2 – Whether the statistical basis for the CS is robust and justifies the vision and the strategic objectives (January 2012).

modelled, alternative and/or new waste management facilities over the timeframe of the plan. Although none of these sites are specifically within the FOD district, the facilities they provide will serve the wider county of Gloucestershire.

Wingmoor Farm East - This 2.8 hectare site is located to the west of Bishop's Cleeve, five miles north of Cheltenham on the Stoke Road leading from the A435 to Stoke Orchard. It forms part of the Wingmoor Farm (East) landfill, recycling and quarry complex. The site is not currently in active use and its availability for a strategic waste recovery facility has been confirmed by the site operator Grundon Waste Management.

The Park - This 6.8 hectare site, often referred to as 'The Park' is located two miles west of Bishop's Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins Wingmoor Farm West which is also allocated (see below). The site comprises a number of former aeroplane hangars converted to industrial units including waste management processes and other, as yet unimplemented waste management planning permissions. The site is owned by Wellington Park Properties Ltd.

Wingmoor Farm West (Sites A&B) - This 4.0 hectare site is located two miles west of Bishops Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins 'The Park' (see above). The site includes an area of concrete hard-standing currently used as a Household Recycling Centre (HRC) and other land within the curtilage of the landfill planning permission. The site is owned by Cory Environmental Ltd.

Javelin Park (Stroud District Council) - This 5 hectare site comprises part of the former Moreton Valence Airfield and is located immediately to the south of Junction 12 of the M5 between the M5 and the B4008. The site is currently vacant and owned by Gloucestershire County Council.

Land at Moreton Valence (Stroud District Council) - This 7 hectare site is located between the M5 and A38 to the north-east of Moreton Valence. The site is partly used for light industrial and waste management. The operators of the site, Smiths (Gloucester) Ltd. have confirmed that the site is available for strategic waste management use.

During March 2013 Gloucestershire County Council considered a planning application for a £500 million Energy from Waste facility at Javelin Park in Stroud district, a proposal submitted by Urbaser Balfour Beatty. The proposed facility would help to divert over 92% of Gloucestershire's residual waste from landfill (waste left following recycling), however the application was refused planning permission and an appeal to the Planning Inspectorate has now been submitted.

Further projects

With respect to further potential projects within the FOD, planning permission has been granted for an Anaerobic Digestion (AD) facility at Rosehill Farm, near Dymock in the Forest of Dean but this is not currently operational.

5 Strategic infrastructure and prioritisation

5.1 Projects of potential strategic importance

The previous chapter sets out an assessment of infrastructure requirements by sector and identifies a wide range of projected infrastructure needs and projects. The purpose of this chapter is to distil the information gathered to date to establish a candidate list of infrastructure projects that are considered to be of potential strategic importance for the Forest of Dean District and in some cases at the County-wide level. Criteria applied to establish whether projects may be considered of ‘strategic’ importance are as follows:

- The project is of cross-boundary importance, either forming part of a strategic network (e.g. A class roads), or otherwise serving a catchment area that extends beyond the district boundary.
- The project is considered of fundamental importance to delivering development at Cinderford, Lydney, Coleford or Newent. These four settlements have the largest development allocations, which together make up over 75% of overall housing development in the district. Demonstrating that such infrastructure is deliverable is of importance to the overall robustness of the Core Strategy and Allocations Plan.

It is important to note that the list of infrastructure projects presented in the schedule below represents an initial view only, and it is ultimately the role of the Council to determine infrastructure delivery priorities. A full list of infrastructure projects derived from the process of preparing the IDP is to be presented in a separate Infrastructure Project Tracker schedule provided to the Council.

5.2 Infrastructure investment and prioritisation

Financing the construction, operation and maintenance of the infrastructure identified through this study will depend on a wide range of funding sources, including grants, loans, taxation, levies and rates. Through updates of the IDP Project Tracker, it will necessary to maintain an overview of where funding has been secured and where shortfalls may arise. In the long run, it is likely that the Councils will have to make a difficult decisions about which infrastructure projects should be progressed as a priority, taking into account availability of finance.

A source of funding over which the Council has a significant degree of local discretion is developer contributions, which are currently collected through Planning Obligations (also known as Section 106 Agreements). The Council is now also considering the introduction of a Community Infrastructure Levy (CIL). This would set a standard charge for development, the revenue from which would then be used to help fund infrastructure (see chapter 6 for further details).

When the Council is considering infrastructure investment and how developer contributions could be utilised, a framework for categorising projects and establishing priorities can assist the decision-making process. The IDP Project Tracker begins this process of categorising projects, for further consideration by the Council. Important factors that could influence priorities are:

- ***Geographic area of influence*** – does the infrastructure support planned development at regional, county-wide, sub-area or single site level.
- ***Status of infrastructure*** – is the infrastructure critical for delivering new development (e.g. flood risk management) or does it serve an important place-making function (e.g. improvements to public open space).
- ***Fit with Corporation Objectives and Vision*** – to what extent does the infrastructure project promote economic development or contribute to the achievement of a further key objective.
- ***Funding and delivery options*** – what funding options are available (other than S106/CIL) and are their alternative ways of delivering infrastructure or services that help to reduce initial capital and long term maintenance costs. During the process of refining the IDP, the local authorities will seek to ensure that all alternative funding options have been investigated.
- ***Local community priorities*** - how does the local community wish to utilise CIL Neighbourhood Funds (15% of levy revenues to transfer to the local community⁴⁴).

It is the intention of the Councils that a programmed and planned approach to debating and establishing infrastructure investment priorities is to be put in place, linking in with the schedule for updates to the IDP.

⁴⁴ 25% of CIL revenue to transfer to the local community where a Neighbourhood Development Plan is in place.

6 Infrastructure funding: development viability and the Community Infrastructure Levy (CIL)

6.1 Introduction

A source of infrastructure funding over which the Council has a significant degree of local discretion is developer contributions, which are currently collected by the Local Planning Authority (LPA) through Planning Obligations, also known as Section 106 agreements. The FOD District Council intends to introduce a CIL by April 2014. This will enable a contribution towards necessary infrastructure to be collected from new development taking place in the District.

This chapter of the Delivery Strategy sets out the following:

- background to the use of planning obligations and CIL;
- development viability considerations;
- a review of proposed CIL charging rates in other local planning authority areas along with a comparison to average house prices in those areas to identify trends;
- a summary table of estimated infrastructure costs; and
- recommendations on use of S106 Planning Obligations and CIL to fund infrastructure.

6.2 Section 106 Planning Obligation and CIL

6.2.1 S106 Planning Obligations

Planning Obligations are enabled by Section 106 (S106) of the Town and Country Planning Act and negotiated based on guidance in paragraphs 204 and 205 of the National Planning Policy Framework (NPPF, March 2012), as reproduced here:

“204. Planning obligations should only be sought where they meet all of the following tests:

- *necessary to make the development acceptable in planning terms;*
- *directly related to the development; and*
- *fairly and reasonably related in scale and kind to the development.*

205. Where obligations are being sought or revised, local planning authorities should take account of changes in market conditions over time and, wherever appropriate, be sufficiently flexible to prevent planned development being stalled.”

A key benefit of developer contributions secured through S106 Planning Obligations is their flexibility, which allows finance to be directed to meet local priorities across a wide range of infrastructure types, where it can be demonstrated that the infrastructure requirement directly relates to a proposed development.

Financial contributions to infrastructure secured through S106 Planning Obligations from different sites can be pooled in some circumstances, allowing for the creation of standard charges or tariffs. However, CIL Regulation 123 limits the number of planning obligations from separate developments that can be used to provide funding for a particular project or type of infrastructure to a maximum of five.

S106 Planning Obligations can also be used to secure ‘in kind’ provision of infrastructure by a developer, such as the provision of a site and construction of a facility rather than a financial contribution.

6.2.2 Community Infrastructure Levy

The Government has introduced a complementary mechanism for securing finance, the Community Infrastructure Levy (CIL). The CIL is a new levy that Local Authorities can choose to charge on new developments in their area. The money can then be used to support development by funding infrastructure that the Council and local communities want. S106 Planning Obligations and the CIL can be used in parallel by a Council, but their use should not overlap with respect to specific infrastructure projects or types (i.e. there should be no double-charging). It is intended that CIL will provide the main means for the ‘pooling’ of funds from development to finance infrastructure.

Part 11, Section 205 (1) and (2) of the Planning Act 2008 makes provision for the imposition of CIL in England and Wales:

“The Secretary of State may with the consent of the Treasury make regulations providing for the imposition of a charge to be known as Community Infrastructure Levy (CIL)”.

“In making the regulations the Secretary of State shall aim to ensure that the overall purpose of CIL is to ensure that costs incurred in providing infrastructure to support the development of an area can be funded (wholly or partly) by owners or developers of land”.

The Community Infrastructure Levy Regulations 2010 made the first use of these powers and came into effect in April 2010 and were amended by the Coalition Government in April 2011.

Further amendments set out in the Localism Act 2011 require local authorities to pass a meaningful proportion of CIL receipts to local neighbourhoods, as Neighbourhood Funds. The Government has confirmed that Neighbourhoods that take proactive approach by drawing up a Neighbourhood Development Plan, and securing the consent of local people in a referendum, will receive 25% of the revenues from the Community Infrastructure Levy arising from development. This cash boost will be paid directly to the parish and town councils and can be used to back the community’s priorities for example to re-roof a village hall, refurbish a municipal pool or take over a community pub. Neighbourhoods without a Neighbourhood Development Plan, but where the levy is still charged, will still receive a capped 15% share of the levy revenue arising from development in their area.

Statutory CIL guidance published in December 2012 seeks to prevent Councils from setting high CIL rates that are unrealistic taking into account development viability. The guidance also seeks to provide more flexibility in the application of

CIL, recognising that it can be necessary to set lower rates for strategic sites and to allow the use of the exceptions process.

In April 2013 CLG published consultation on additional proposed changes to the CIL Regulations, setting out potential amendments that would address principal structural problems and further respond to concerns over CIL rates being set too high, potentially stifling a recovery in the construction industry. During October 2013 the Government published its response to the consultation, proposing the following key changes:

- An extension of the date from 2014 to 2015 for the pooling of S106 so that more time can be taken by Local Authorities to introduce the CIL and get it right.
- Allowing payment of CIL ‘in kind’ with direct provision of infrastructure by a developer, as well as land.
- People building or extending their own homes

6.3 Development Viability

When utilising S106 Planning Obligations and establishing a CIL, Local Authorities must ensure that they do not threaten the overall viability of development and the local development plan as a whole, taking account of other policy initiatives such as affordable housing provision. The NPPF states that:

“Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-making... To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements [e.g. environmental performance standards for new development] should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable” (paragraph 173).

The CIL guidance highlights the importance of Regulation 14, which requires that a charging authority, in setting levy rates, *“must aim to strike what appears to be an appropriate balance between”* the desirability of funding infrastructure from the levy and *“the potential effects (taken as a whole) of the imposition of CIL on the economic viability of development across its area.”*

With the objective of maintaining development viability in mind, the following section sets out evidence leading to an initial view on the level of infrastructure funding that might be achieved through S106 Planning Obligation and CIL mechanisms within the FOD District.

6.4 Review of reference CIL rates

A review of draft and adopted CIL charging rates for other Local Authorities in England that are at an advanced stage of preparation contributes to a preliminary view of what charging rates may be appropriate within the FOD District. Summary observations are as follows, with a more detailed comparison provided in Table 42 and Table 43 below.

- Proposed CIL rates for residential development vary significantly from £40sqm Gross External Area (Shrewsbury) to £150sqm (rural South Somerset). This is due to variations in the level of viability of development across locations, the scope of infrastructure covered, as well as the levels of affordable housing that are required.
- The majority of Local Authorities reviewed have decided to apply “differential CIL rates” for residential development. This means the CIL rate has been varied to reflect differences in property values across the Local Authority area. The exception to this is Mid Devon, which has proposed the same residential rate across the area.

In Table 41 the residential CIL rates have been compared against average house prices in those local areas to identify trends. The average house prices are based on semi-detached housing, to give a sense of the CIL charge rates, and have been derived from the property website Zoopla.co.uk (accessed November 2013). The CIL is charged by unit of floorspace and an average semi-detached house size of 87sqm has been assumed for the purpose of this study⁴⁵.

There is no direct correlation between average house price and the CIL rate imposed as Local Authorities have had to weigh up a range of factors when setting rates. Further research into the justification of the CIL rates by the various Local Authorities is shown in Table 42, with the main reasons for variation being:

- For council areas with differential rates, varying levels of viability are demonstrated, with certain areas capable of remaining viable with a higher CIL rate being charged.
- The need to encourage and remain attractive to development in certain areas e.g. such as Shropshire’s lower CIL rate for town revitalisation areas.
- For urban extensions, a low CIL rate has been set in some instances. South Somerset District Council conclude that urban extensions have very high start-up costs to open up sites for development and therefore lower rates are proposed than elsewhere in the District. For an urban extension to Wellington (Taunton Deane Borough Council), the proposed CIL rate has been set to zero.
- Some rates have been set lower than what can be viably achieved, but the Council involved has taken the view that there should be flexibility. For instance some sites have higher site specific costs that would result in further S106 Planning Obligations (e.g. Bristol and Mid Devon).
- Varying levels of affordable housing requirements are set out in policy, as summarised in Table 42.

Property values across the FOD District do of course vary from place to place and have been subject to price volatility in the period of recession and low economic growth since 2007/2008. Average property prices sourced from Zoopla.co.uk in 2013 show values for the FOD District that are typically significantly lower than the average for Gloucestershire, although there are variations. For instance, Newent has relatively high property prices.

⁴⁵ Based on Zoopla.co.uk ‘Area Stats’ for Gloucestershire.

Table 40 - FOD District average house prices

Area/settlements	Average house prices (2013) ⁴⁶	
	Semi-detached properties	All properties
Cinderford	£152,145	£156,674
Lydney	£154,909	£202,816
Coleford	£157,795	£193,629
Newent	£188,498	£246,764
Tutshill/Sedbury	-	£177,236
Bream	-	£176,849
Drybrook	£164,814	£200,616
Mitcheldean	£164,814	£188,238
Newnham	£152,145	£258,783
Yorkley/Pillowell/ Whitecroft	-	£202,469
Lydbrook Joys Green	-	£155,481
FOD District settlements average	£162,160	£196,323
Gloucestershire County average	£215,839	£255,134

Semi-detached properties in Shropshire County and the District of Newark and Sherwood are of a similar average value to those in the FOD District so provide a basis for making initial estimates of an appropriate CIL rate for residential development. Shropshire has an average semi-detached house price of £167,708 (compared to the FOD District average price of £162,160) and a CIL rate of £40/sqm is applied. Shropshire County Council has an affordable housing policy that seeks 33% affordable housing in comparison to 40% provision sought by FOD District. Currently Newark has an average semi-detached house price of £165,497 and a CIL rate of £45/sqm has been adopted. Newark and Sherwood DC have an affordable housing policy that seeks 30% affordable housing, so also lower than that for the FOD District.

This exercise of comparing CIL rates and average property prices suggests that residential CIL rates in the range £40/sqm to £50/sqm may be feasible for the FOD District, with the higher end of the range applying to the north of the District at Newent. This translates to a CIL rate of around £3,480 to £4,350 per dwelling, assuming a floorspace of 87sqm for a semi-detached dwelling. It must be borne in mind that affordable housing targets in the FOD District are set at a rate of 40%, which is relatively high given the comparatively low house prices and this will also influence what CIL rates are reasonable and achievable.

Please note that this review was undertaken as part of the initial IDP and presents an initial view only. It was prepared to inform a detailed viability assessment which is still required to inform the process of setting CIL rates by the Council.

⁴⁶ ⁴⁶ Source: www.zoopla.co.uk Property values for Gloucestershire (accessed November 2013).

Table 41 - Residential CIL rates and house prices across local authorities

Local Authority	Urban 1 (Prime)		Urban 2 (Secondary)		Urban extension		Other / rural
	CIL rate	Average House Price (semi-detached)	CIL rate	Average House Price (semi-detached)	CIL rate	Average House Price (semi-detached)	CIL rate
Taunton Deane BC	Taunton £70/sqm	Taunton - £198,799	Wellington £0/sqm	Wellington - £187,259	Wellington £0/sqm	Wellington - £187,259	£125/sqm
Shropshire	£40/sqm	Shrewsbury - £167,708		Telford - £121,427	-		£80/sqm
Bristol CC	Inner Zone £70/sqm	Central Bristol BS1 - £360,652	Outer Zone £50/sqm	Bristol as a whole £223,468	-		-
Newark & Sherwood DC	Newark £45/sqm	Newark - £165,497	Collingham £45/sqm	Collingham – not available	-		£55-75/sqm
South Somerset DC	£150/sqm	Chard EDA £169,689			Yeovil £32/sqm Chard EDA £100/sqm	Yeovil - £170,175 Chard - £169,689	£150/sqm
Mid Devon DC	-	-	-	-	-	-	All - £40/sqm

Table 42 - Justification for CIL rates across Local Authorities

Local Authority	Rates	CIL rate justification	Affordable housing policy	Status
Taunton Deane BC	Taunton (including urban extensions) - £70/sqm Wellington urban area - £0/sqm Wellington urban extensions - £0/sqm Rest of Borough - £125/sqm	The Community Infrastructure Levy Viability Appraisal (June 2012) provides the following points: <ul style="list-style-type: none"> The viability evidence suggests that there are significantly higher residual values in Taunton than in Wellington, and again significantly higher values in the 'Rest of the Borough' which has been reflected in different CIL rates. For development to be viable in Wellington CIL rates have been set to nil. For the Wellington urban extension – with flexibility around affordable housing and attention to the mix of dwellings, CIL at a maximum of £25/sqm is realistic. The proposed rate for the Wellington urban extension has been reduced from £25/sqm in the Preliminary Draft Charging Schedule (June 2012) to £0/sqm Noted that children's play would be provided via s106 agreements rather than CIL http://www.tauntondeane.gov.uk/irj/public/council/futureplans/futureplan?rid=/wpccontent/Sites/TDBC/Web%20Pages/Council/Future%20plans/Community%20Infrastructure%20Levy	25% affordable housing	Draft Charging Schedule (January 2013)
Shropshire	£40/sqm in Shrewsbury, the market towns and key centres and £80/sqm elsewhere	The following points are made in the CIL levy rationale background paper (March 2011) <ul style="list-style-type: none"> For Shrewsbury, the market towns and other key centres, the current economic downturn and the Council's emphasis on market town revitalisation suggests that the CIL rate should not be too high In rural Shropshire there is evidence that economic viability of residential development is stronger than in the towns and key centres A lower proportion of development is sought in rural areas in Shropshire in the Core Strategy period http://www.shropshire.gov.uk/planningpolicy.nsf/open/7C726F39E5694F6E80257922004CC920	33% for the first five years of the Core Strategy, including 20% social rented- and 13% intermediate affordable housing	Adopted

Local Authority	Rates	CIL rate justification	Affordable housing policy	Status
Bristol CC	Inner Zone £70/sqm Outer Zone £50/sqm	<p>Recommendations of the BNP Paribas Community Infrastructure Levy Viability Study for BCC Feb 2012:</p> <ul style="list-style-type: none"> • Use higher rates for sites that could provide a greater contribution • CIL is not a critical factor in determining scheme viability but it is important not to set rates that are on the limit of viability • For residential schemes, the application of CIL of £50 to £70 per sqm does not appear to be a critical factor in determining whether or not a scheme is viable. • The rates allow a viability buffer that should be large enough to take account of economic downturns and site-specific issues that may affect individual development schemes. <p>http://www.bristol.gov.uk/page/community-infrastructure-levy-consultation</p>	40 % in North West, Inner West and Inner East Bristol 30% in all other locations	Approved at examination with no alterations
Newark & Sherwood DC		<ul style="list-style-type: none"> • Not viable to charge a standard rate as some areas could not take even a low CIL rate • Council's use of zones for charging different CIL rates is appropriate as the margin of viability varies across the District <p>http://www.newark-sherwooddc.gov.uk/cilexam/</p>	30% affordable housing	Adopted
South Somerset DC		<p>As set out in the Community Infrastructure Levy Evidence Base (Jan 2012) and the Preliminary Draft Charging Schedule (March 2012):</p> <ul style="list-style-type: none"> • The rate is lower for the urban extension as urban extensions have higher costs associated with opening up sites for development which reduces viability • All locations outside of Chard and Yeovil Urban Extensions could bear an increased level of CIL to at least £150 sqm and still remain viable • Differing levels of site viability and needs for site specific mitigation between the two locations means that differential rates are appropriate <p>http://www.southsomerset.gov.uk/planning-and-building-control/planning-policy/community-infrastructure-levy-(cil)/</p>	35% affordable housing including (60% social rented and 40% intermediate housing)	Preliminary Draft Charging Schedule (March 2012)

Local Authority	Rates	CIL rate justification	Affordable housing policy	Status
Mid Devon DC	£40/sqm	<p>As set out in The Draft Charging Schedule (Submission Version July 2012):</p> <ul style="list-style-type: none"> • One rate for the whole area is proposed as it is considered that Mid Devon is a homogenous housing market • Viability research suggested that £156/sqm would be viable however a rate of £90 permits a level of flexibility and allow schemes with higher costs to pay the CIL charge <p>http://www.middevon.gov.uk/index.aspx?articleid=8598</p>	30% affordable housing provision	Draft Charging Schedule (July 2012)

6.5 Total estimated infrastructure costs

Bearing in mind that viability places limits on the finance that can be raised for infrastructure through developer contributions, it is likely to be necessary for the Council to make difficult decisions about the types of infrastructure and specific projects that should be prioritised to receive funding through S106 and CIL mechanisms. Table 43 below provides a summary of estimated infrastructure costs per dwelling that could form the basis for a CIL charging schedule and shows total estimated costs of £18,040, although this figure would be expected to fall as alternative appropriate funding sources are identified.

When interpreting the information in the chart, it is important to note the following points:

- There are a number of infrastructure sectors and categories where costs have not been included, as explained in Table 43. This includes site specific transport and flood risk management infrastructure that cannot be determined until detailed assessment have been undertaken.
- Major projects that are already fully funded are not included, such as the A40/A417 Over Roundabout westbound traffic segregation project funded through Department for Transport Pinch Point funds.
- When setting a CIL, it will be important to consider what infrastructure costs can be fairly attributed to new development.

Even when the exclusions above are allowed for, the total estimated cost of infrastructure to support development amounts to approximately £202,333,252 and the overall estimated infrastructure costs per dwelling are considerably higher than the indicative CIL rates of around £3,480 to £4,350 per dwelling. This highlights the need for the Council to undertake process of prioritisation of infrastructure that should benefit from developer contributions, taking account of the availability of funding from other sources. Further factors that will or could limit the total finance available through S106 Planning Obligations or the CIL include: the Council will need to take account the significant number of dwellings that have already achieved planning consent; certain sites may be excluded from the CIL on viability grounds; and Social Housing Relief can be claimed where affordable housing is delivered.

Table 43 - Summary of Estimated Infrastructure Costs

Infrastructure Category	Infrastructure Type	Cost per dwelling	Plan total	Comment	Existing funding		Existing S106 Amount	Estimated funding gap
					Type / description	Amount		
Community & Culture	Community Centre	£568	£3,006,869.06	Cost based on Shaping Neighbourhoods and Sport England Village Hall Design Guide				£3,006,869
	Library	£236	£1,250,000.00	Cost based on Arts Council recommended standard				£1,250,000
	Youth Support Services	£68	£358,000.00	Based on standard provided by Gloucestershire County Council				£358,000
	Sub-total	£872	£4,614,869			£ -	£ -	£4,614,869
Education	Early Years	£871	£4,610,000	Based on standards provided by Gloucestershire County Council	Lydney new neighbourhood early years provision (£226,078), Lydney new neighbourhood (A&B) provision towards new primary schools (£3,818,987) and Lydney new neighbourhood (B) capacity improvements Whitecross school (£2,140,688)	£226,078	-	
	Primary	£3,244	£17,160,000			£3,818,987	-	
	Secondary	£2,813	£14,880,000			£2,140,688	-	
	Further	£227	£1,200,000				-	
	Sub-total	£7,155	£37,850,000				£6,185,753	
Emergency Services	Fire & Rescue Service			Developer on-site provision of fire hydrants and sprinkler	Site specific measures to be agreed with developer and captured within S106 as appropriate.			

Infrastructure Category	Infrastructure Type	Cost per dwelling	Plan total	Comment	Existing funding		Existing S106 Amount	Estimated funding gap
					Type / description	Amount		
				systems where necessary.				
	Ambulance Service			Developer on-site provision of stand-by points and other facilities where necessary.	Site specific measures to be agreed with developer and captured within S106 as appropriate.			
	Police (Property)		£12,900,055	Capital cost based on estimates from Gloucestershire constabulary Gloucestershire new Central Custody Suite	Central custody suite (£11,900,000) and Coleford Police Station (£1,000,055)			£12,900,055
	Police (Non-Property)	£87	£462,346	Cost per dwelling based on Police ACPO methodology.	Police representation to IDP highlights reliance on developer contributions to respond to increasing demand on services.			£462,346
Energy	Generation			No estimated cost information available.	Infrastructure funded by consumer rates; and/or developer connection charges as appropriate.			
	Transmission			No estimated cost information available.	Infrastructure funded by consumer rates; and/or developer connection charges as appropriate.			
	Flood Risk Management				Assumed that site specific measures will be agreed with			

Infrastructure Category	Infrastructure Type	Cost per dwelling	Plan total	Comment	Existing funding		Existing S106 Amount	Estimated funding gap
					Type / description	Amount		
Flood risk, water and wastewater					and delivered by site developers.			
	Water supply and wastewater				Infrastructure funded through Asset Management process, consumer rates and developer connection charges.			
Healthcare	Doctors	£392	£2,071,916.67	Based on average patient list size				£2,071,917
	Dentists	£214	£1,131,266.50	Based on average patient list size				£1,131,267
	Secondary healthcare	£356	£1,880,885.95	Based on average no. beds per head of population.	Gloucestershire NHS Hospitals Trust has indicated it will not require S106/CIL monies. Gloucestershire Care Services Trust may however seek contributions.			£1,880,886
	Sub-total	£961	£5,084,069		Being investigated		£0	£5,084,069
ICT	Broadband			BT Openreach adopting approach of developer provision of fibre to the door in new development.	Fastershire programme in place to facilitate broadband infrastructure in rural areas.			
Sport, recreation and open space	Swimming	£374	£1,978,905	Based on Sport England Sports Facility Calculator				£1,978,905
	Sports hall	£429	£2,267,620	Based on Sport England Sports Facility Calculator				£2,267,620

Infrastructure Category	Infrastructure Type	Cost per dwelling	Plan total	Comment	Existing funding		Existing S106 Amount	Estimated funding gap
					Type / description	Amount		
	Playing pitches	£275	£1,454,486	Based on Fields in Trust Benchmark Standards				£1,454,486
	Other outdoor sports	£936	£4,952,710	Based on Fields in Trust Benchmark Standards				£4,952,710
	Children's Playspace	£291	£1,538,398	Based on Fields in Trust Benchmark Standards				£1,538,398
	Informal open space	£22	£116,235	Based on Fields in Trust Benchmark Standards				£116,235
	Accessible natural greenspace	£564	£2,983,560	Based on Natural England Accessible Natural Greenspace Standard				£2,983,560
	Sub-total	£2,891	£15,291,913					£15,291,913
Transport and public realm	Highways	£2,117.20	£11,200,000	Based on schemes identified in the IDP project tracker	£190,000 secured for A40/A4136 roundabout improvements and £7,200,000 for Cinderford Link road	£7,390,000.00		£3,810,000
	Bus Services	£3,778.83	£19,990,000		To be confirmed			£19,990,000
	Cycle and walking	£177.69	£940,000		To be confirmed			£940,000
	Sub-total	£6,073.72	£32,130,000.00				£7,390,000.00	

Infrastructure Category	Infrastructure Type	Cost per dwelling	Plan total	Comment	Existing funding		Existing S106 Amount	Estimated funding gap
					Type / description	Amount		
Waste	Javelin Park Energy from Waste facility		£94,000,000	Project cost based on proportion of total £500mil project cost, based on Stroud population is 18.8% of county total.	Waste infrastructure to be funded by private investment and Council Tax revenue.	£94,000,000	£0	£0
Totals		£18,040	£202,333,252			£121,151,506	£0	£81,181,746

7 Infrastructure funding: alternative finance mechanisms

As finance for infrastructure provision through developer contributions is expected to be over-subscribed it will be necessary to pursue alternative funding sources wherever possible. Funding sources specific to different sectors are presented throughout the relevant sections in chapter 4. This chapter provides an introduction to further funding sources that can apply to a range of different infrastructure project types.

7.1 Investing in Britain's future

Published during June 2013, 'Investing in Britain's Future' sets out the Government's commitment to invest £50billion of capital investment in 2015-16 and over £300billion of capital spending guaranteed to end of the decade.⁴¹ Investing in Britain's Future sets out key spending commitments for the following sectors: roads, rail, energy, science and innovation, housing and digital communications; as well as long term approaches in other sectors and approaches for local growth.

With respect to devolved finance for infrastructure investment, the Government has decided to grant economic power to Local Enterprise Partnerships (LEPs) through the creation of a Single Local Growth Fund and Growth Deals. Important headlines of the proposals can be summarised as follows:

- creation of a Single Local Growth Fund (SLGF) with over £2billion of budgets nationally in the years to 2021;
- a further commitment of £5billion of transport funding in the SLGF from 2016-17 to 2020-21 to enable long-term planning of priority infrastructure while also committing to maintain the SLGF at a total of at least £2billion each year in the next Parliament;
- giving LEPs responsibility for how £5.3billion of EU Structural and Investment Funds is spent;
- the Government will increase the Local Infrastructure Fund (LIF) by a further £50million in 2014-15 to ensure that Enterprise Zones have the infrastructure they need to attract business;
- the Spending Round announces £300mil funding a year for a refocused Regional Growth Fund (RGF) in both 2015-16 and 2016-17 to support projects and programmes to create economic growth and sustain private sector employment.

7.2 New Homes Bonus and Business Rate Retention

The Government has put in place local financial incentives for the delivery of growth in the form of the New Homes Bonus, and now plans to sharpen these incentives.

The New Homes Bonus match funds the additional council tax raises for new homes and properties brought back into use, with an additional amount for affordable homes. Until recently, increased housing in communities has meant

increased strain on public services and reduced amenities. The New Homes Bonus introduced in April 2011 by DCLG removed this disincentive by providing local authorities with the means to mitigate the strain the increased population causes.

DCLG set aside almost £1 billion over the Comprehensive Spending Review period for the scheme, including nearly £200 million in 2011-12 and £250 million for each of the following three years. The Bonus is intended to be a permanent feature of the local government finance system. Reforms set out within ‘Investing in Britain’s Future’ involve the pooling of £400million from the New Homes Bonus within Local Enterprise Partnership areas, to support strategic housing and economic development priorities.

Since April 2013, Local Authorities in England are able to retain half of the business rates that are raised locally, providing a further incentive to deliver development.

FoD has secured Growth Deal funding for Cinderford and Lydney from the Government. Approval has been given for a £3.4m loan for part of the Spine Road, and there is also an approved amount under the LEP of £3.8M for Cinderford NQ, to support improvements to the link road. Additionally £1m was recently awarded to develop a robust transport strategy for Lydney through the LEP Growth Deal scheme.

7.3 Gloucestershire Infrastructure Investment Fund

Gloucestershire Local Enterprise Partnership (LEP) and the County Council have recently secured £8.4million from Government, through the Growing Places initiative, to form the Gloucestershire Infrastructure Investment Fund (GIIF). In a context of constrained development finance and sluggish economic performance, the Growing Places Fund is one of the major Government initiatives to get stalled development proposals up and running. The creation of the fund follows on from previous initiatives that have included the provision of expert brokers for Councils to renegotiate S106 Planning Obligation agreements for moth-balled sites.

Three overriding objectives have been announced for the Growing Places Fund⁴⁷:

- to generate economic activity in the short term by addressing immediate infrastructure and site constraints and promote the delivery of jobs and housing;
- to allow local enterprise partnerships to prioritise the infrastructure they need, empowering them to deliver economic strategies; and
- to establish sustainable revolving funds so that funding can be reinvested to unlock further development, and leverage private investment.

The Government places great emphasis on use of the fund to maximise development in a short time horizon, advising that “*to get economic activity going we envisage that funding being directed towards stalled sites, given that these are likely to progress quickly once capital is injected.*” (Prospectus, paragraph 9).

⁴⁷ Communities & Local Government & Department for Transport ‘*Growing Places Fund, Prospectus*’ (November 2011)

Nevertheless, the Government also states that the fund is intended to put local areas in the driving seat, taking decisions on local priorities in investment.

To date, the Gloucestershire LEP has shortlisted five projects for potential major investment through the GIIF⁴⁸, including two key transport projects for the Forest of Dean:

- Flood defence scheme for Gloucester City Football Club new stadium and associated commercial accommodation and workshops.
- Highways infrastructure to serve a mixed use housing and employment development East of Lydney.
- Site clearance works at the Gloucester Greater Blackfriars regeneration masterplan area.
- Development of hangars and the reinforcement of infrastructure at Gloucestershire Airport.
- The delivery of the Cinderford Northern Quarter Relief Road to enable the regeneration and development of a former coalmining area.

7.4 Further financing mechanisms

Council Tax

Local authorities are responsible for setting their budgets for the year and determining how much of the cost of a service or capital project will be met through council tax. FOD District Council do, therefore, have some discretion over whether rates should be increased to deliver certain projects or service objectives, although the Council will also be under pressure to keep tax increases within acceptable limits. Should outright increases to council tax be considered unacceptable, the ‘ring-fencing’ of funds for a high profile priority project or ‘one-off levy’ may provide a vehicle for generating political support if a particular project is considered to be of fundamental importance for the District.

Public Works Loan Board (PWLB)

For larger scale projects, for local authorities, Internal Drainage Boards (and a small number of other bodies such as parish councils), the Public Works Loans Board provides a source of loans. The PWLB is a statutory body operating within the UK Debt Management Office (a department of the UK Treasury Office). The PWLB is responsible for lending money to local authorities, as well as collecting the repayments. If a local authority has its application accepted it may raise long-term funding and pay back the loan made by the PWLB at advantageous interest rates. At present nearly all borrowers are local authorities requiring loans for capital purposes.

‘Investing in Britain’s Future’ announced that LEPs will have access to cheaper borrowing through the PWLB for local priority infrastructure projects up to a total of £1.5billion borrowing (excluding London).

⁴⁸ Source: <http://www.lepnetwork.org.uk/five-investments-projects-to-boost-cash-for-gloucestershire-lep.html>

Prudential Borrowing

Prior to April 2004, limits on the amounts local authorities were able to borrow for capital expenditure were determined by the Government. There is now greater flexibility for local authorities to invest. Prudential borrowing allows local authorities to borrow at a rate which is typically preferential to that available in the commercial capital market.

Prudential borrowing allows local authorities more scope to borrow money for infrastructure and regeneration projects. Funding from this source has the advantage of not being associated with the restrictive conditions which are typically attached to grant forms of funding.

Tax Incremental Financing

TIF allows local authorities to raise money for infrastructure by borrowing against the increased business rate revenues that would be generated by development. The 2012 Budget promised investment towards TIF projects for larger scale projects in core cities. At this stage TIF is only proposed in the Core Cities but may become available to other areas in the future.

Asset backed financing

Local Asset-Backed Vehicles (LABVs) are arrangements where local authority assets are used to lever long-term investment from the private sector to fund development projects. They are designed to:

- bring together public and private sector partners in order to pool finance, land, planning powers and expertise;
- deliver an acceptable balance of risk and return for partners; and
- support strategic planning and delivery of projects

This approach is best suited to those cities or regions that can identify a portfolio of assets, a pipeline of regeneration projects and suitable institutional investors, offering a route to unlock additional private sector investment. They have been mainly used for regeneration and housing programmes.

Private Sector Finance

The use of private finance vehicles has become a frequent means of funding infrastructure projects that have traditionally been delivered by the public sector. Public Private Partnerships have proved popular in recent times as they are a mechanism to attract the finance (and skills) from the private sector whilst delivering a public service effectively. Other potential advantages of Public Private Partnerships can include the quicker delivery of projects, improved incentives to market forces, cost efficiencies and improved cost calculations by the public sector.

There are some disadvantages, the most notable of which is the high initial cost of establishing the various alliances. These costs tend to be higher than would normally be incurred due to the complexity of the relations between the diverse actors and because of the typical long duration of these relations. In addition, it

should be recognised that private sector investors are likely to want to see a return in the short to medium term. Investment cycles may also vary for each organisation and business sector involved. The timing and management of investment returns is therefore an issue which needs to be carefully considered and discussed up front.

Big Lottery Funding & Heritage Lottery Funding

The BIG Lottery Fund distributes funds raised by the National Lottery. The majority of the funds are allocated to voluntary and community organisations though some funding also goes to local authorities and statutory bodies.

The Heritage Lottery Fund invests around £375m a year on projects which make a lasting impact on the UK's heritage. This can include a broad range of projects including museums, parks, historic places and the natural environment.

The Heritage Lottery Fund runs a number of different grant programmes. For example the Heritage Grant (grants above £100,000), and Parks for People (grants from £250,000 to £2,000,000).

8 Governance and capacity for delivery

Delivery of planned development and the Vision for the FOD District will rely upon a wide range of public, private and community sector organisations working together effectively and efficiently. FOD DC have an important leadership role to play in this process and it is intended that this IDP will assist by drawing together relevant information and provide impetus for project planning and pursuing the necessary funding. This chapter of the report considers the organisational and resourcing measures for consideration by the Council that could enhance cross-sectoral working.

8.1 Infrastructure planning as a ‘live’ process

It is recommended that infrastructure planning and delivery is viewed as an iterative process, requiring regular (potentially annual) updates of the IDP. Infrastructure and service providers are all engaged in their own strategy and business planning processes, meaning that information comes forward at different rates and varying levels of detail. For many sectors, the initial assessment of infrastructure requirements and capital costs set out in this study are preliminary estimates based on benchmark standards of provision. This means that infrastructure requirements, details, costs and timescales for provision will need to be refined over time.

Tracking the progress of projects, understanding phasing implications and assessing the deliverability of multiple projects in this context is challenging. In order to assist with this task, the Infrastructure Projects Tracker issues alongside this report will help enable the Council to store and review information on the costs, funding strategies and programming of infrastructure projects.

8.2 Governance for infrastructure planning

The establishment of an Infrastructure Planning Group is proposed to help ensure that lines of communication between the District Council and service providers continue to be strengthened. Careful preparatory work will be required to ensure that the role of the group is well defined and the frequency of meetings/activities is realistic given resource pressures on participants. Further important considerations include the geographical scope of the group and need to avoid duplication with existing forums for partnership working. These matters are explored in further detail below.

8.2.1 The role of the Infrastructure Planning Group

Suggested roles and activities for the Infrastructure Planning Group include:

- Updates to and approval of the IDP and Project Tracker as a ‘live’ process – on-going input and verification by infrastructure and service providers will improve the accuracy and outcomes of the process.
- Meetings and workshops focussed on particular issues or strategic sites that demand cross-sectoral working.
- Updates and information sharing by the local planning authority on development sites expected to come forward in the short and medium term.

- Monitoring of Local Plan policies relating to infrastructure provision.

8.2.2 Relationship of Infrastructure Planning Group with existing forums

The concept of partnership amongst infrastructure and service providers is not new and it is recommended that the membership of the Forest of Dean Partnership (Local Strategic Partnership) and Gloucestershire Strategic Partnership and other existing forums are reviewed to understand whether these could assume certain suggested Infrastructure Planning Group roles.

9 Conclusions

This Interim Version of the Infrastructure Delivery Plan (IDP) has been prepared to support the preparation of and consultation on the Allocations Plan, as well as provide an update on key infrastructure projects associated with the delivery of Core Strategy major developments. Looking ahead the IDP will also form a component of the evidence base for the establishment of a Community Infrastructure Levy.

It is expected that the IDP will be updated on an iterative basis as part of a ‘live’ process, taking into account updated information from infrastructure and service providers and the availability of funding for the delivery of projects. At this stage of preparation the following broad conclusions and key matters are raised:

- **Transport projects of fundamental importance for Cinderford and Lydney** – Chapter 5 sets out a series of candidate projects of potential strategic importance, including over 10 transport projects. Of these, the **Cinderford Northern Quarter Link Road** and elements of the **The Lydney Transport Strategy** are considered of fundamental importance to the delivery of proposed development in these towns. At this stage, insufficient funding has been secured to demonstrate reasonable prospect of provision, potentially undermining the delivery of developments that are central elements of the Core Strategy. The Council is however very active in seeking to raise finance towards these projects through the Gloucestershire Infrastructure Investment Fund (GIIF) and Gloucestershire Local Transport Board (GLTB) funding routes.
- **Cross-boundary transport links** – High levels of out-commuting from the FOD District place pressure on transport infrastructure at the boundaries of the District, in particular the A40 corridor that provides the main link to Gloucester, and the A48 in the area around Tutshill, Sedbury and Chepstow. Department for Transport Pinch Point funding will enable some improvements at the A40 Over Roundabout, but further modelling work may be necessary to understand the implications of cumulative development and define infrastructure investment priorities. Enhancement of facilities at **Lydney Railway Station** is a further project being pursued by the District Council that may help secure increased use of rail services and modal shift away from private car trips.
- **Flood risk management, water and wastewater** – Already a high priority in Gloucestershire, weather conditions during January and February 2014 further highlight the importance of flood risk management and related wastewater infrastructure investment. Strategic Flood Risk Assessment processes have been followed by the Council and there is only one proposed allocation (without committed development), at **Stowfield Works** that falls partially within Flood Zones 2 and 3, meaning careful consideration will need to be given to site layout based on site specific Flood Risk Assessment. With respect to wastewater infrastructure, Severn Trent Water have strongly recommended that hydraulic modelling is undertaken for the networks at Cinderford and Drybrook as cumulative development at these settlements could result in sewerage capacity issues and there are some known flooding incidents downstream.

- ***Social infrastructure (health, education, community services and sports and recreation)*** – the appraisal of infrastructure needs set out within the IDP is largely based on the application of benchmark standards, and it is considered that further more detailed work will be required to understand the capacity of existing facilities and to assess where the provision of new facilities is necessary and that these will be financially sustainable in the long term.

It is important to note that a high proportion of the development proposed through the adopted FOD Core Strategy (around 80%) is ‘committed’ and planning permission has already been granted. In the case of committed sites the infrastructure required to support development has already been considered through the planning application process, with S106 Planning Obligations towards the provision of infrastructure secured in many cases. Financial contributions towards infrastructure are recorded in the relevant sections within Chapter 4. It is worth noting that re-negotiation of S106 has taken place and continues across a number of sites particularly in the Lydney area. This has in some cases resulted in securing additional infrastructure improvements supporting development and growth.

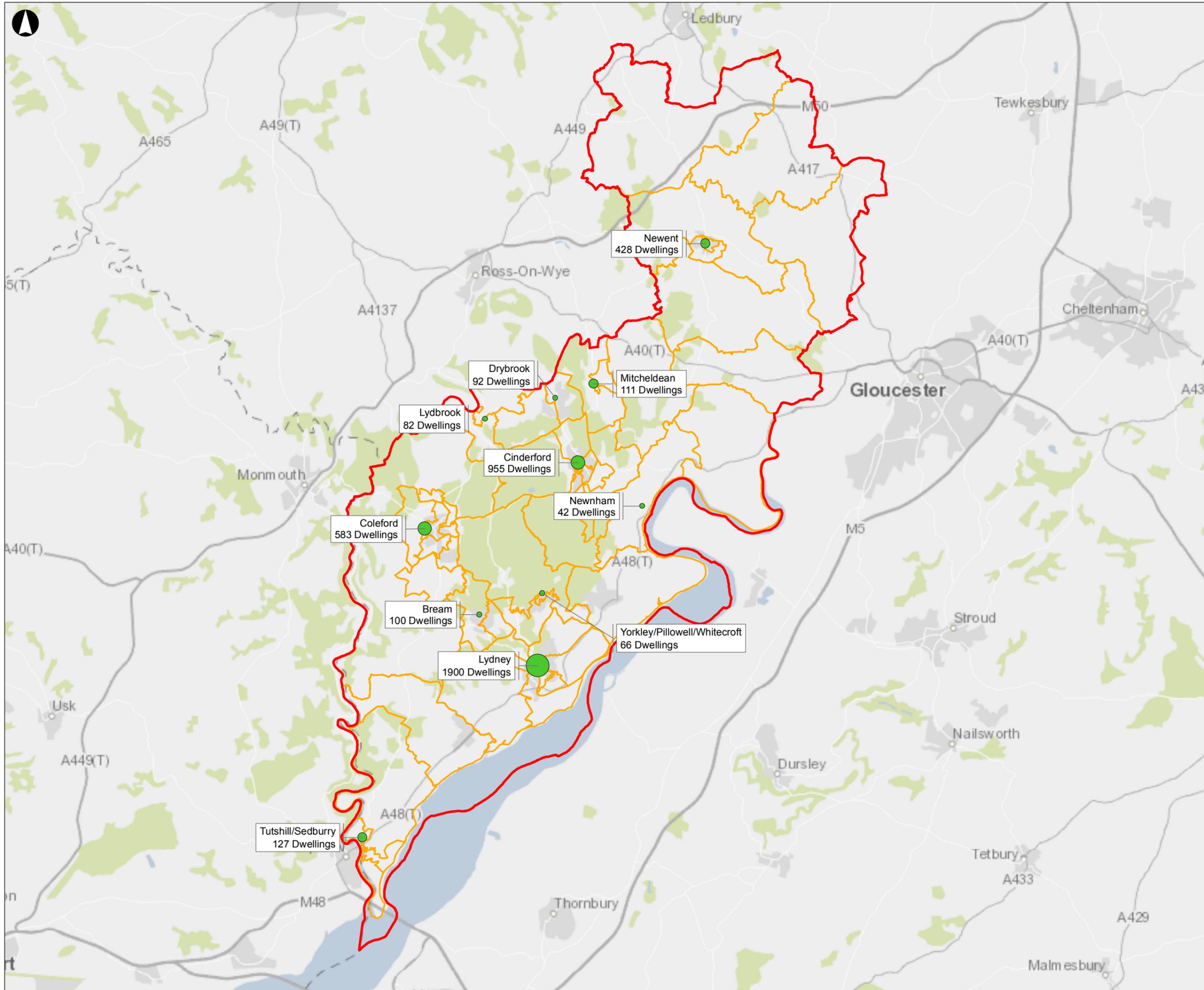
Although in many cases infrastructure investment relating to specific developments has already been confirmed through the planning application process, the Council still has the option to implement a Community Infrastructure Levy (CIL). Adoption of a CIL could enable the Council to pool funds towards the delivery of strategic infrastructure projects, as well as supporting initiatives in the settlements where development takes place through the setting aside of Neighbourhood Funds (at least 15% of CIL receipts). Preliminary work comparing property prices with other Local Authorities that are at an advanced stage of CIL preparation suggests that residential rates of around £40 - £50/sqm may be feasible, however detailed Viability Assessment work is necessary to inform proposed rates, which would take into account the adopted policy for provision of 40% Affordable Housing in new development.

The prospect of any Nationally Significant Infrastructure Projects (NSIPs) coming forward in the FOD District has also been reviewed through the IDP work. There are currently no projects within the District registered with the Planning Inspectorate. The closest NSIP is the proposed nuclear power station at Oldbury in South Gloucestershire, and any infrastructure or other impacts (positive or negative) on the FOD District would need to be assessed separately

Appendix A

Development Allocations

A1

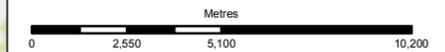


- Legend**
- Strategic Housing Locations
 - District Boundary
 - Lower super output areas

Note:
Housing numbers for the Strategic Housing Locations are additional to the housing numbers indicated for each sub-area.

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Issue	Date	By	Chkd	Appd



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Job Title
Gloucestershire Districts Infrastructure Delivery Plans

Draft Forest of Dean Core Strategy Development Levels (for infrastructure planning purposes only)

Scale at A3
1:190,000

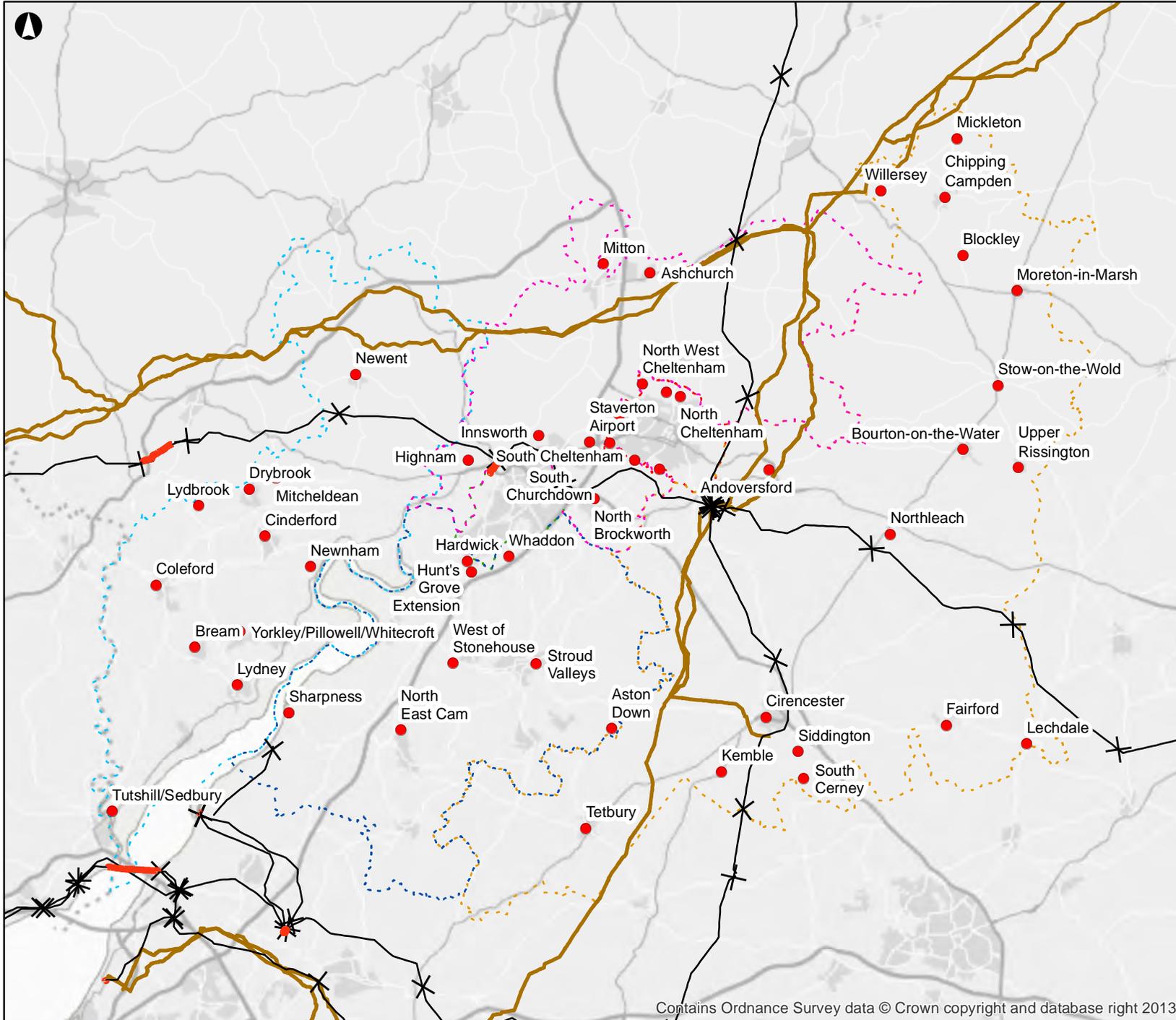
Job No 226824-00	Drawing Status Draft
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Appendix B

Map of National Grid Infrastructure

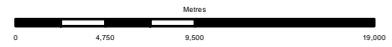
B1



- Legend**
- Strategic Locations
 - Underground Cable
 - Overhead Powerline
 - Gas Pipeline
 - - - Cheltenham District (B)
 - - - Cotswold District
 - - - Gloucester District (B)
 - - - Forest of Dean District
 - - - Stroud District
 - - - Tewkesbury District (B)

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