



CHAPTER 9 - UTILITIES & ENERGY

9.1 Introduction

9.1.1 In order to sustain existing development and facilitate future development there must be adequate provision of utilities. Utilities include the generation and supply of electricity, the supply and reclamation of water, the supply of gas, the collection and disposal/treatment of foul wastes and surface water drainage and the provision of telecommunication services. The existing capacity, current availability and the economic costs of expansion of such services is particularly important in influencing the timing, scale and location of new development.

9.2 Gas and Electricity

9.2.1 Both British Gas (East Midlands) and East Midlands Electricity have indicated that there are unlikely to be problems supplying future developments in the plan area. If existing provision does prove to be inadequate, services may have to be reinforced and/or upgraded by the developer through agreement with the relevant authority, especially if loads capable of causing disturbance to other customers are required. However, colliery closures and other traditional industry contractions, (outlined in the Employment Chapter) combined with system improvements, means that most of Mansfield District has significant spare capacity.

9.3 Water Quality and Supply

9.3.1 Within Nottinghamshire, around 80% of public supply is ground water abstracted from Sherwood Sandstone. This and ground water from Magnesium Limestone is a major supply for industrial and agricultural needs. However, this source of water is particularly vulnerable to pollution as a result of modern industrial and agricultural processes, and unlike pollution of surface watercourses, may result in the loss of the resource for many years. Effective remedial action is either difficult and excessively expensive or not feasible at all. Therefore, controls and other preventative measures must be vigorously administered. The District Council will liaise with the Environment Agency on such matters and will have regard to the policies contained in the Environment Agency's document Policy and Practice for the Protection of Groundwater.

9.3.2 In order to prevent the pollution of ground water, the Environment Agency has identified Water Source Protection Zones around aquifers from which public water supplies are drawn. Within these areas planning permission will not be given for certain types of development without full protective measures being implemented by the developer through agreement with the Environment Agency.

9.3.3 It is essential to prevent over abstraction from the Sherwood Sandstone and Lower Magnesium aquifers caused by future developments. The District Council will liaise with appropriate Agencies to identify if proposed new development is likely to have over abstraction implications and will subsequently resist such developments.

- 9.3.4 Although, generally, the District is well served for water supplies there may be some individual sites which will require mains reinforcement. There are no problems providing water supplies to normal domestic and light industrial development, except in certain locations where off-site mains reinforcement will be required. These reinforcements may be of major proportions in the extreme north-west and south-east of Mansfield. To accommodate major proposals, requiring process water, large scale works may be required. Any development on high ground in the vicinity of Abbott Road and Berry Hill reservoirs is likely to experience lower than normal water pressure which may require local boosters and new mains to alleviate the problem. Prospective developers are advised to discuss their requirements with Severn Trent Water so that an assessment can be made at the earliest opportunity.
- 9.3.5 The Environment Agency is addressing the issue of over abstraction, algae blooms and pollution in the Idle and Torne Local Environment Agency Plan. This details areas of work and investment proposed by the Agency and others, formulated as a result of the consultation process.

9.4 **Sewerage and Water Reclamation**

- 9.4.1 Sewerage provision and maintenance together with sewage disposal, are costly services which can significantly limit development prospects. At present Severn Trent Water is implementing a major capital investment programme, expected to take until 1997-98 to complete. Developments involving sewage treatment works are now County matters and will be determined accordingly.
- 9.4.2 The majority of the plan area drains to the Bath Lane sewage works. However, Forest Town in the east is drained to Edwinstowe sewage works, whilst part of Berry Hill and Lindhurst in the south east of the plan area drains to Rainworth sewage works, and Warsop drains to its own sewage works. The capacity of the Mansfield sewage works is presently fully committed to meeting existing developments. Any additional allocations will require extension of the works, for which planning permission has been given and development begun. Rainworth sewage works has some spare capacity but both Warsop and Edwinstowe works are very limited due to the effects of mining subsidence. Works may well be required from developers to facilitate any additional treatment capacity. Foul/Storm water requisition procedures may be required.



- 9.4.3 Since the Woodhouse Local Plan was produced in 1983, the Kingsley Avenue reclamation works have been closed and the land redeveloped for housing and recreation. The area is now served by the Bath Lane works.

9.5 **Land Drainage**

9.5.1 The limited capacity of the rivers which drain the District can cause some land drainage problems for development in certain areas. Developments within the catchment area of these water courses, which may result in significant water discharges, are likely to require provision of off-site watercourse improvements or on-site water balancing or other measures by developers.

9.5.2 Developments which result in significant water discharges, which cannot be accommodated without improvement to the storm water sewerage system will also require such measures. This is in accordance with Government advice contained within Circular 30/92 "Development and Flood Risk".

9.5.3 At present, there is little available capacity for watercourse and storm system drainage within the south-east of Mansfield between Bellamy Road and Rainworth and land to the west of Abbott Road. Improvements within these areas are unlikely until the construction of the Southern and Western Bypass routes. Until such time, any development is likely to require necessary improvements by the developer. In any case, it is recommended that potential developers contact Mansfield District Council (acting as agent for Severn Trent Water plc) and the Environment Agency at the earliest opportunity to obtain up to date information.

9.6 **Floodplains**

9.6.1 The Rivers Maun and Meden are designated "main rivers". Any works affecting the bed or banks of these rivers will require the prior written consent of the Environment Agency under the Water Resources Act 1991. The Environment Agency is currently in the process of updating its Flood Plain Records for Mansfield District. There are land drainage problems associated with the River Meden in the Pleasley area.

9.7 **Telecommunications**

9.7.1 Telecommunication operators undertake the installation of equipment and facilities, the erection or conversion of buildings for use as exchanges or switches, the erection of masts and towers, the erection of antennae and dish aerials on purpose built structures or existing roof tops.

9.7.2 As telecommunications technology is continually changing, policies in the Plan need to be flexible enough to allow for new developments whilst addressing the environmental implications of new technology and to consider the use of materials, colours and design of any equipment which would minimise obtrusiveness. Additionally, telecommunications operators should be encouraged to use existing buildings and masts for any new equipment, subject to development control policies to minimise any detrimental impact on the environment. Where possible the dual use of facilities by telecommunications operators should be encouraged.

9.7.3 Prospective developers of new housing and industrial estates should be encouraged to consider how the telecommunication needs of future occupiers will be met, in co-operation with the telecommunication operators.

9.8 **Regional and Structure Plan Guidance**

9.8.1 The Regional Planning Guidance for the East Midlands, published in March 1994, requires local authorities to ascertain the implications of changes in utility technology processes and services in order to produce policies which provide a locational framework for their future development, with particular reference to the safeguarding of suitable land. The use of economical renewable energy resources should be encouraged where environmentally acceptable, along with waste minimisation, recycling and energy recovery, whilst importance is also attached to the conservation and safeguarding of water supplies.

9.8.2 The Nottinghamshire Structure Plan Review encourages and facilitates energy conservation through efficient land-use patterns, with special consideration being given to public transport, and illustrates the need to protect flood plains (to reduce the risk of flooding) and ground water supplies from contamination by land-uses such as waste disposal and agriculture. It encourages the good design and siting of utility installations and confirms the need to ensure that major development is accommodated in those areas where spare utility capacity is available so that it can be serviced economically and without delay. This is particularly attractive to inward investment and, therefore, important to the future prosperity of urban areas, of which Mansfield is specifically identified. There is also significant emphasis on protecting the investment placed in coal based energy production and to supporting its future where possible. The District Council will, where possible, argue for the introduction of technology to reduce SO₂ and other emissions, but it must be emphasised that this responsibility lies with National Government.

9.9 **Objectives of the Local Plan**

9.9.1 To facilitate development by ensuring that there is sufficient capacity within the utility services, where possible.

9.9.2 To facilitate the expansion of existing and the introduction of new telecommunication technology, where possible, to create a modern efficient and competitive local economy and to contribute towards the desirable reduction of energy consumption through reduced transport use.

9.9.3 To encourage the use of energy efficient design and urban layout.

9.9.4 To ensure that the provision of utility or energy supply facilities does not have an adverse effect on the environment.

POLICIES AND PROPOSALS

9.10 Energy

9.10.1 The growing awareness of the impact of energy production and consumption on the environment (pollution, acid rain, global warming, etc,) and the finite reserves of fossil fuels, has led to pressure to conserve these resources by reducing energy consumption, increasing energy efficiency and encouraging the exploitation of renewable forms of energy production (for both electricity and heat supply). The planning system can contribute to this by concentrating development in urban areas, where existing and new infrastructure can accommodate new building, to reduce the need for excessive transport use and to allow economic energy distribution.

U1 PLANNING PERMISSION WILL BE GRANTED FOR DEVELOPMENTS WHICH UTILISE RENEWABLE SOURCES OF ENERGY GENERATION, FOR COMMERCIAL AND OTHER PURPOSES, AND ENERGY EFFICIENT LAND USE FORMS PROVIDED THAT THEY WOULD MEET ALL OF THE FOLLOWING CRITERIA:-

- 1) NOT HAVE A DETRIMENTAL EFFECT ON THE CHARACTER AND AMENITY OF THE SURROUNDING AREA;**
- 2) NOT HAVE AN ADVERSE IMPACT ON AREAS OF NATURAL, CULTURAL, HISTORIC AND ARCHAEOLOGICAL INTEREST AS DEFINED ON THE PROPOSALS MAP;**
- 3) NOT CAUSE HARM TO THE AMENITY OF RESIDENTIAL OCCUPIERS OR THE OPERATION OF OTHER ESTABLISHED USES IN THE SURROUNDING AREA, BOTH DURING AND AFTER CONSTRUCTION, DUE TO VISUAL DOMINANCE, NOISE, DISTURBANCE, VIBRATION, SMELL, FUMES, DUST, REFLECTED LIGHT, SHADOW FLICKER OR OTHER FORMS OF POLLUTION.**

IN ASSESSING THE IMPACT OF ANY DEVELOPMENT THE COUNCIL WILL TAKE ACCOUNT OF ANY MITIGATING MEASURES WHICH ARE PROPOSED AND THE NATURE AND EXTENT OF THE RESOURCE IN THE AREA.

9.10.2 The Council acknowledges that new and renewable energy sources can potentially contribute to energy needs in a significant and sustainable way. Renewable energy sources offer the hope of increasing diversity and security of supply, and of reducing harmful emissions to the environment. A Department of Trade and Industry sponsored Renewable Energy Resource and Planning Study has been carried out in the East Midlands, the results of which are shortly to be published. This will produce County and Regional level renewable energy resource data which will provide local authorities with better information on which to base planning policies. The Council's policy towards developing renewable energy sources, in accordance with Energy Paper 62, must be weighed carefully with its continuing commitment to policies for protecting the local environment, in accordance with PPG22. Proposals for renewable energy projects will be considered on their impact on the local environment and their wider contribution to reducing emissions of greenhouse gases. Proposals will also be considered against Structure Plan Policy, in particular Policy 10/3.

9.10.3 Concentrated decentralisation is also desirable in that it requires, where possible a range of business and social facilities and services to be developed near existing and new residential areas throughout the urban area, in order to reduce the need for cross-town commuting, to reduce congestion in town centres and to give the opportunity to do without motorised transport at all. Otherwise these facilities and services should be served by good public transport and provide accessibility to cyclists and those who are less mobile. These issues are referred to in more detail in the Movement Chapter.

9.10.4 Encouraging good siting, orientation, layout and design through land-use planning controls and supplementary planning guidance, will enable local firms, community facilities and households to realise energy savings. This is not only good for the environment but also good economic sense.

9.11 **Water Supply and Sewerage**

9.11.1 The District Council is anxious to prevent the contamination of underground water supplies by development. Equally, developments which exacerbate or create flooding or sewerage problems will not be favourably considered.

U2 PLANNING PERMISSION WILL NOT BE GRANTED FOR DEVELOPMENTS WHICH WOULD LEAD TO ANY OF THE FOLLOWING UNLESS THEY FULLY INCORPORATE APPROVED MITIGATION MEASURES:-

- 1) **GROUND WATER OBSTRUCTIONS;**
- 2) **PHYSICAL DISTURBANCE OF AQUIFERS AND GROUNDWATER FLOW;**
- 3) **WASTE DISPOSAL TO LAND;**
- 4) **CONTAMINATION OF LAND;**
- 5) **DISPOSAL OF LIQUID EFFLUENTS, SLUDGES AND SLURRIES TO LAND;**
- 6) **DISCHARGES TO UNDERGROUND STRATA;**
- 7) **DIFFUSE POLLUTION OF GROUNDWATER;**
- 8) **OTHER ACTIVITIES WHICH WOULD HAVE AN ADVERSE IMPACT ON UNDERGROUND AQUIFERS, GROUNDWATER OR SURFACE WATER QUALITY.**

9.11.2 Most of Mansfield District is underlain by the Sherwood Sandstone. This is a major source of public and private water supply which warrants special protection. The Environment Agency's "Policy and Practice for the Protection of Ground Water document" outlines activities which could impact on ground water quality, for which preventative measures must be taken.

U3 PLANNING PERMISSION WILL NOT BE GRANTED FOR DEVELOPMENTS WHICH WOULD CREATE UNACCEPTABLE SEWERAGE DISPOSAL PROBLEMS, UNLESS INFRASTRUCTURE IMPROVEMENTS ARE PROVIDED.

9.11.3 Generally speaking the sewerage systems of Mansfield District are currently working at optimum levels. Whilst there is some capability to accept additional discharge, this varies considerably across the Plan area. Off-site sewers and pumping equipment may well be required to be provided by developers in some cases. However, a major programme of improvement is currently being implemented within Mansfield.

U4 PLANNING PERMISSION WILL NOT BE GRANTED FOR DEVELOPMENT WITHIN A CORDON SANITAIRE IF IT WOULD RESULT IN OCCUPIERS AND USERS OF THE DEVELOPMENT EXPERIENCING UNACCEPTABLE LOSS OF AMENITY CAUSED BY PROBLEMS ASSOCIATED WITH THE SEWAGE TREATMENT WORKS.

9.11.4 Severn Trent Water Ltd has developed a Cordon Sanitaire policy for sewage treatment works, which seeks to minimise the impact of potential nuisance and discomfort caused by odours and flies, which neighbours may consider as unacceptable. Each Cordon will be site specific and defined by the size of the works in terms of population, complaints received, liaison with the Local Authority Environmental Health Officer, topographical and environmental features and existing land uses. The Cordon Sanitaire is taken into account when locating development. Of course certain types of development near works are less subject to nuisance than others.

U5 PLANNING PERMISSION WILL NOT BE GRANTED FOR DEVELOPMENTS ON SITES WHERE THE DISCHARGE OF ADDITIONAL SURFACE WATER WOULD EXACERBATE EXISTING FLOODING PROBLEMS OR CREATE NEW FLOODING PROBLEMS, UNLESS INFRASTRUCTURE IMPROVEMENTS ARE PROVIDED.

9.11.5 This policy is intended to prevent new developments creating land drainage/flooding problems. There are likely to be restrictions on the discharge of surface run off from new developments to certain watercourses. In these cases the run-off will require balancing on site so that the outflow is restricted to the safe capacity of the watercourse downstream. The land drainage requirements of developments will be amended individually and, where necessary, requisition procedures will be enacted to ensure standards are met.

U6 PLANNING PERMISSION WILL NOT BE GRANTED FOR DEVELOPMENTS (INCLUDING THE RAISING OF GROUND LEVELS) IN THOSE AREAS DEFINED AS FLOOD PLAINS UNLESS THEY WOULD MEET EITHER OF THE FOLLOWING CRITERIA:-

- 1) RELATE TO EXISTING BUILDINGS IN THE FLOOD PLAIN;**
- 2) FLOOD STORAGE CAPACITY HAS BEEN PROVIDED ELSEWHERE.**

9.11.6 The flood plains are narrow and in many cases definitive boundaries have not been firmly established. They lie in the flood plains of the River Maun and Meden but have not been shown on the Proposals Map, as the boundaries were determined over 10 years ago and are due to be reviewed by the Environment Agency in the near future. Any potential developer of land close to the Rivers Maun and Meden should contact the Environment Agency at the earliest opportunity. These areas provide additional flow capacity and storage for flood water and, therefore, not only are people and property at

risk but development also reduces the capacity of floodplains, impedes water flow and so increases the risk of flooding elsewhere. Consequently, applications for development will be resisted. This policy is in accordance with Government advice in Circular 30/92 "Development and Flood Risk" and Policy 9/4 of the Nottinghamshire Replacement Structure Plan. In addition, a strip of land must be left adjacent to any watercourse clear of all buildings, structures and trees to facilitate access, essential maintenance and future improvement.

9.12 **Design Considerations**

9.12.1 The provision of essential utility installations is important to the future prosperity of the local economy and, therefore, will generally be looked on favourably by the Council.

U7 PLANNING PERMISSION WILL BE GRANTED FOR THE DEVELOPMENT OF, INCLUDING THE EXPANSION OF EXISTING, UTILITY FACILITIES PROVIDED THAT THEY WOULD MEET ALL OF THE FOLLOWING CRITERIA:-

- 1) **INTEGRATE WITH THE EXISTING PATTERN OF SETTLEMENT AND/OR ARE SITED, DESIGNED AND LANDSCAPED TO MINIMISE ANY ADVERSE IMPACT ON THE CHARACTER, QUALITY AND AMENITY OF THE SURROUNDING AREA;**
- 2) **HAVE REGARD TO EXISTING SITE CHARACTERISTICS / FEATURES;**
- 3) **HAVE REGARD TO PERSONAL SAFETY/SECURITY AND CRIME PREVENTION.**

THE ABOVE CRITERIA MAY BE RELAXED WHERE A DEVELOPER CAN DEMONSTRATE THAT THEY WOULD AFFECT THE OPERATIONAL EFFICIENCY OF THE SERVICE.

9.12.2 However, in order to minimise adverse effects on the environment, the design, siting and landscaping of utility facilities must be carefully considered, particularly where neighbouring residential properties and necessary siting in the countryside are concerned.

U8 PLANNING PERMISSION WILL BE GRANTED WHEN REQUIRED FOR DEVELOPMENT OF TELECOMMUNICATION INSTALLATIONS PROVIDED THAT THEY WOULD MEET ALL THE FOLLOWING CRITERIA:-

- 1) **MAST OR SITE SHARING IS UNDERTAKEN WHERE POSSIBLE;**
- 2) **THE DESIGN AND SITING OF EQUIPMENT HOUSINGS MINIMISES VISUAL IMPACT;**
- 3) **CABLES ARE SITED UNDERGROUND, UTILISING EXISTING CHANNELS WHERE AVAILABLE.**

THE ABOVE CRITERIA MAY BE RELAXED WHERE A DEVELOPER CAN DEMONSTRATE THAT THEY WOULD AFFECT THE OPERATIONAL EFFICIENCY OF THE SERVICE.

9.12.3

The District Council will require that mast site sharing is undertaken where possible, that the design and siting of equipment housing minimises visual impact and cables etc will be sited underground, utilising existing channels where available, where this will not affect the operational efficiency of the service. New installations will also not be allowed where they will interfere with the equipment and communications of neighbouring users. This is in line with advice given in Policy Guidance Note 8 (Dec. 1992) and further guidance can be found in the Council's Development Control Policy Note 'Satellite Dishes and Microwave Antenna'.