

SECTION 13: NATURAL RESOURCES AND UTILITIES

INTRODUCTION

- 13.1 The Island's natural resources need to be carefully managed to ensure they are not harmed unnecessarily (for example through pollution) and to prevent depletion of those resources that are finite. Ensuring that choices for future generations are not limited is one of the guiding principles of sustainability, suggesting the need for efficiency in use of materials, minimum use of scarce materials and the re-use and recycling of materials wherever possible.
- 13.2 Natural resources requiring particular protection through the land-use planning system include water resources and minerals. Planning also has a significant rôle to play in reducing energy consumption: the rate at which the world uses up finite energy resources such as coal, oil and gas.
- 13.3 This section also covers future development by utility companies in the Island, relating to water supply, drainage, electricity and gas supply. The utility companies each have significant operational requirements involving the need for land and plant to generate, store, process and distribute a product. The Section addresses telecommunications and also includes the development requirements for safety reasons in the vicinity of existing hazardous installations.
- 13.4 Over 80% of the resident population of Jersey lives in homes connected to the mains water supply provided by the Jersey New Waterworks Company. The public water supply is mainly derived from reservoirs, with contributions from boreholes and the desalination plant. Private sources include wells, boreholes and rainwater tanks. These sources are neither registered nor metered, and there has been increasing incidence of contamination and pollution. It is hoped that this will be overcome with the introduction of the new Water Pollution Law, which came into force in 2000.
- 13.5 Water-borne sewage is currently carried by sewers to the treatment plant at Bellozanne. The extensive foul sewer network serves all the major populated areas in the Island. The existing surface water drainage network is not particularly extensive and there are large areas where there is no separate surface water system. This can result in surface water draining into the foul sewer network, causing overloading of sewers and pumping stations and ultimately leading to the overflow of foul sewage to sea. Recent development of the surface water drainage system has concentrated mainly on flood relief at known problem areas.

- 13.6 Jersey's energy demands are met to a large extent through the use of electricity, although oil and gas are also important contributors. Much of the Island's electricity supply comes from France via two submarine interconnectors to La Collette power station. Imported electricity is over 90% free from fossil fuel emissions both at the points of production and use. However, there are other environmental implications associated with the French link, notably France's high reliance on nuclear power and the related issue of nuclear waste disposal.
- 13.7 The only minerals currently worked in the Island are sand, gravel and stone, with all other requirements met by imports. The majority of minerals extracted in Jersey are used as aggregates in the construction industry. Although their contribution to the prosperity of the Island is recognised, mineral workings can damage the environment of the Island. This is especially true in Jersey where land is limited and the high quality landscape is extremely sensitive to the effects of intrusive development. Minerals policies contained within the 1987 Island Plan are now regarded as inadequate to meet the challenges associated with changing development pressures and associated mineral requirements.
- 13.8 In 1996, the Planning and Environment Committee was charged by the States with producing a Minerals Strategy. It appointed consultants to undertake a study of mineral resources in Jersey. The Jersey Mineral Study Consultation Report was produced in 1999 after extensive consultation with interested parties including local mineral operators, the building industry, environmental groups and officers of the States of Jersey. The document, which reviewed the mineral supply options for the Island and recommended a minerals planning framework within which mineral development proposals can be implemented, has also been the subject of a public consultation exercise. The review of the recommended mineral strategy was held in abeyance pending the findings of the Jersey Harbours Masterplan Study. In the light of these findings, the Planning and Environment Committee produced a revised Mineral Strategy in 2000.

Relationship to the Vision and Objectives

- 13.9 The Vision for Jersey sees an Island where 'physical resources are sustained not compromised'. The objectives of the new Island Plan with regard to natural resources and utilities are to:
- manage natural resources wisely to avoid depletion and irreversible damage;
 - minimise the impact of Island activities on the local and global environment, including the minimisation of production of waste, greenhouse gases and pollutants; and
 - encourage the environmentally sustainable use of existing buildings and land resources.

Approach

13.10 The approach of the Island Plan is to protect the Island's natural resources and to provide for appropriate development by utility companies. The main aims that have been developed to achieve the Plan objectives are to:

- protect the Island's water resources, including surface and groundwater quality and quantity, through prevention of inappropriate development and encouragement of water conservation measures;
- encourage the use of renewable energy, improve the energy efficiency of buildings through the careful siting and design of new development;
- control and where possible mitigate the impacts of mineral workings, through planning conditions and legal agreements;
- encourage the recycling and re-use of secondary aggregates;
- support the appropriate development and siting of new facilities and infrastructure by utility companies; and
- protect as far as possible, the safety of the public from hazardous installations.

POLICIES AND PROPOSALS

Protection of Water Resources

13.11 The quality and quantity of all waters in Jersey, including marine waters, surface waters and groundwater must be protected to ensure the protection of local ecology and biodiversity. Present and future generations of residents and visitors to Jersey must also have high quality drinking water and that water must be safe for recreational purposes. Activities associated with certain land-uses can adversely affect the quality and/or quantity of water resources in the Island.

13.12 The Water Pollution (Jersey) Law came into force in November 2000 and brings the Island in line with the rest of Europe with regard to the protection of the aquatic environment from all forms of pollution. The principal sources of water pollution include industrial processes, leakage of oil from domestic and commercial oil tanks, run-off from roads and other impermeable surfaces, agricultural activity and foul sewage discharge.

13.13 Water Pollution Safeguard Areas (WPSAs) have previously been designated around existing water sources. The aim of these areas is to protect aquifers and watercourses from pollution. The introduction of Water Catchment Management Areas has also been considered as a possibility, with a wider aim of safeguarding water quantities and thus protecting resources for the future.

13.14 It has now been decided that there should be a single designation in the new Island Plan of a Water Pollution Safeguard Area, which encompasses the outer boundaries of the current Water Pollution Safeguard Areas combined with the Water Catchment Areas. There is a need to have regard to both the quantity and quality of water within the areas. In addition to protecting the water supply from pollution, development proposals should also seek to ensure that:

- external surfaces and surface water drainage are designed to increase filtration and the natural recharge of underground water, through the use of, for example, soak-aways, earthworks for improved filtration, absorbent paving and detention ponds; and
- natural vegetation is maintained as far as possible (i.e. avoiding the creation of landscapes, which require excessive irrigation)

POLICY NR1 – PROTECTION OF WATER RESOURCES

Development that would have an unacceptable impact on the aquatic environment, including surface water and groundwater quality and quantity will not normally be permitted.

If a development proposal is within the Water Pollution Safeguard Area, the Jersey New Waterworks Company will be consulted prior to determining the planning application, to ensure the public water supply is not put at risk from pollution.

Foul Sewerage Facilities

13.15 The Public Services Committee has been charged with the responsibility of extending the foul sewer system to as many areas of the Island as is practicable, economic and environmentally viable. The average increase in foul sewer length over the past ten years has been approximately six kilometres per annum. However, there remain a large number of properties, predominantly in rural areas, that rely on private sewage treatment and disposal systems including septic tanks and soakaways. New development using these systems should not be permitted, as it frequently causes pollution of the water environment.

13.16 There may be some exceptional circumstances where other methods of treatment such as reed beds might be allowed in order to reduce energy consumption used in the process of sewage treatment and disposal systems, to avoid the risk of pollution associated with conventional private treatment plants and to increase biodiversity.

POLICY NR2 – FOUL SEWERAGE FACILITIES

New development proposals that rely on septic tanks, soakaways or private sewage treatment plants as a means of waste disposal will not normally be permitted.

Water Conservation

- 13.17 Over the last decade, water consumption has increased at an average rate of 1% per annum. Overall water consumption trends are dependent on a number of factors, such as weather conditions, temperatures and the number of visitors during the summer months. The Jersey New Waterworks Company anticipates that there is sufficient raw water storage to meet needs over the Plan period.
- 13.18 The availability of water resources will be kept under review and the Planning and Environment Committee will encourage measures to reduce the demand for water. An example is development design which seeks to collect and store rainwater or to generally use water more efficiently.

POLICY NR3 – WATER CONSERVATION

Development proposals will be encouraged to incorporate water conservation and management measures to conserve the Island's water resources.

Renewable Energy

- 13.19 The development of renewable energy sources offers the hope of increasing diversity and security of energy supply, and of reducing harmful emissions to the environment. Renewable energy schemes include wind power, energy from waste combustion, hydroelectric power, wood fuel from short rotation coppicing, anaerobic digestion and solar power. Whilst there has been a considerable amount of research into types of renewable energy, some technologies have yet to become commercially viable. Indeed, certain technologies (for example tidal and wave power) are unlikely to be exploited on any significant scale for the foreseeable future.
- 13.20 Renewable energy schemes differ from traditional fossil fuel systems in their relationship to land-use and the environment, tending to be of a lower energy output for an equivalent area of land used. A variety of factors peculiar to the renewable energy technology involved have to be taken into account when assessing planning applications for such schemes.
- 13.21 Encouragement of the development of renewable energy schemes must be weighed carefully against environmental protection policies in particular. Where such a conflict may occur, the Planning and Environment Committee will need to consider both the immediate impact on the local environment and the wider contribution the proposal would make to reducing greenhouse gases.

POLICY NR4 – RENEWABLE ENERGY PROPOSALS

Proposals for renewable energy schemes will normally be permitted provided that the development:

- (i) will not have an unacceptable visual impact;
- (ii) will not have an unacceptable impact on the character of the immediate and wider landscape;
- (iii) will not have an unreasonable impact on features of ecological, archaeological or historic interest;
- (iv) will not have an unreasonable impact on neighbouring uses and the local environment by reason of noise, odour, pollution, visual intrusion or other amenity considerations, both during and after construction; and
- (v) is in accordance with other principles and policies of the Plan.

Energy Efficiency

13.22 Improving energy efficiency of buildings can significantly reduce resource exploitation and greenhouse gas emissions, thereby contributing to sustainable development. Many relatively simple changes can significantly reduce the energy requirements of buildings. For example, changes in site layout (orientation, location on a slope and landscaping) can reduce the energy requirements of a typical dwelling by 20%, through solar gain and improvements to the micro-climate.

13.23 There are also methods of reducing energy consumption for larger developments through design, including alternative technology such as combined heat and power (CHP) stations or district heating schemes. Creative planting and earth banks can also provide shelter, reduce wind exposure and thus improve the micro-climate.

POLICY NR5 – ENERGY EFFICIENCY

The Planning and Environment Committee will encourage the saving of energy and the use of alternative and renewable sources through the energy efficient siting, construction and design of new development.

In considering planning applications, the Planning and Environment Committee will encourage where appropriate:

- (i) the use of heat recycling, solar energy and passive solar gain;
- (ii) the use of materials with reduced energy inputs and low maintenance needs; and
- (iii) layouts that reduce wind chill and maximise the efficient use of natural light.

New or Extended Mineral Workings

- 13.24 The demand for rock and sand resources in Jersey is almost entirely dependent on the activities of the construction industry. From a peak of around 525,000 tonnes in the early 1990s, demand declined to 450,000 tonnes in 1996, before rising again to over 500,000 tonnes in 1998 and 1999.
- 13.25 The States has recently approved an anti-inflation strategy, which includes a proposal to maintain the level of construction work to the capacity of the industry.
- 13.26 Notwithstanding the uncertainties associated with predicting future demand, the Planning and Environment Committee considers that a revised annual estimate of 450,000 tonnes per annum offers a reasonable basis for developing a minerals strategy. There is clearly a need to regularly monitor and review aggregate demand and the various factors that impact upon it to ensure that the strategy evolves to respond effectively to changing circumstances.
- 13.27 Sand and stone are the only two minerals that are actively worked in the Island at present. There are currently two working sandpits, both extracting sand from St Ouen's Bay. There are also three operational stone quarries in the Island, namely Ronez and La Saline on the north coast and La Gigoulande Quarry in St Peter's Valley.
- 13.28 The Jersey Mineral Strategy 2000-2020 has been developed following a reassessment of the future demand for aggregates and a re-examination of the potential supply options. The Strategy provides for:
- a reduction in the extraction of primary aggregates locally;
 - the bulk importation of aggregates to help meet medium to longer term requirements;
 - the continuing production of secondary aggregates; and
 - the sensitive restoration and after-use of mineral workings.
- 13.29 The main components of the Strategy include:
- continuing production at Ronez into the longer term and continuing production at La Gigoulande for between 13 and 20 years depending on extraction rates;
 - winding down the Simon Sand Pit by 2018;
 - the use of La Gigoulande for landfill for waste and for secondary aggregate production when the La Collette Phase 2 reclamation site has been filled; and
 - creation of a new berth and handling area at St Helier Harbour for importing all the Island's future sand requirements and a large proportion of its future aggregate requirements.

- 13.30 Mineral extraction can have an adverse impact on the environment and other land-uses. Although the individual characteristics of mineral workings may vary, there are many common factors that need to be considered in assessing proposals for mineral operations.

POLICY NR6 – NEW OR EXTENDED MINERAL WORKINGS

Proposals for new or extended mineral workings will normally only be permitted where:

- (i) the proposal is in line with the Jersey Mineral Strategy;**
- (ii) there is a demonstrated need for the resource to be worked in terms of its geological characteristics and properties, the gross, net and saleable reserves and the market that the proposal is intended to serve;**
- (iii) supply cannot be reasonably met from existing mineral extraction areas in Jersey or from sources elsewhere;**
- (iv) the proposal will retain existing employment opportunities;**
- (v) the proposal will not have an unacceptable impact on areas of important and sensitive countryside character, Sites of Special Interest or heritage designations;**
- (vi) a satisfactory means of access is available or can be provided;**
- (vii) the proposal will not lead to unacceptable problems of traffic generation or safety;**
- (viii) after consultation with the relevant water authorities it is considered that the proposal will not damage a source of public water supply or other water resources;**
- (ix) the proposal does not have an unacceptable impact on a geological, archaeological or other site important to the setting of the Island;**
- (x) rights of way are judged not to be materially affected by the proposal or are capable of being diverted;**
- (xi) other environmental factors are judged satisfactory, for example the transboundary effects of the proposal;**
- (xii) there is sufficient information provided by the Environmental Impact Assessment to allow a proper assessment of the environmental effects and ensure that any significant impacts predicted can be avoided or mitigated; and**
- (xiii) the proposal is in accordance with other principles and policies of the Plan.**

Proposals which do not satisfy the above criteria will not normally be permitted.

Use of Planning Conditions on Mineral Workings

- 13.31 When new planning permissions are granted (or when existing permissions are reviewed) conditions will be imposed to adequately control the possible impacts of the operation.
- 13.32 Operators will be required to submit detailed proposals regarding the method and phasing of restoration work. This will include information regarding the stripping and storage of topsoil, subsoil and the conservation of other soil-forming materials. Proposals will also be expected to be accompanied by a soil survey and, where appropriate, habitat surveys. Phased restoration of the mineral site may be agreed while mineral working continues. In other cases, at the end of the mineral working operators will be required to implement the restoration scheme forthwith.
- 13.33 It is unreasonable for operations to take place continuously at mineral working sites because of potential adverse impacts on the amenity of adjacent land-users. The Planning and Environment Committee will control working hours to ensure that mineral working and associated processing is restricted to between 07.00 hours and 17.00 hours on Mondays to Saturdays and does not take place on Sundays or on public holidays.

POLICY NR7 – USE OF PLANNING CONDITIONS ON MINERAL WORKINGS

If a proposal for mineral workings is judged acceptable in principle, the following detailed considerations will, where appropriate, be the subject of conditions on any planning permission granted:

- (i) a satisfactory programme setting out the method and phasing of work;**
- (ii) landscaping proposals and any other provisions required to protect the amenity of the area during and after working;**
- (iii) proposals for restoration of the land to a condition suitable for an appropriate after-use;**
- (iv) a programme for the after-care of the land to a standard necessary for subsequent agriculture, forestry or amenity use (normally for a period of five years following the initial completion);**
- (v) where necessary to safeguard the amenity of adjoining residential areas, by use of:**
 - effective screening of the mineral workings;**
 - effective noise reduction measures;**
 - limitation on working hours to exclude Sundays, public holidays and unsociable hours.**
- (vi) measures to ensure highway safety is not prejudiced by the operation; and**
- (vii) imposition of a limit on maximum annual output where justified by market and/or environmental considerations.**

Use of Legal Agreements

- 13.34 To further ensure that mineral operations are managed to a high standard during extraction, it may be necessary for the Planning and Environment Committee to enter into a legal agreement with the mineral operator. This agreement may cover restrictions on working requirements or mitigation measures that lie outside the normal scope of planning conditions. For example, legal agreements may be used to confirm arrangements for the routing of traffic to and from the site to avoid adverse impact upon residential amenity or highway safety.

POLICY NR8 – USE OF LEGAL AGREEMENTS

Before determining applications for new or extended mineral workings, the Planning and Environment Committee may seek to enter into a legal agreement/s with the mineral operator under which there would be restrictions upon or measures taken in connection with the working of the mineral, where such measures lie outside the normal scope of conditions which could properly be attached to the planning permission and where such measures are essential for the proper planning of the area.

Secondary Aggregates

- 13.35 An ever-increasing proportion of waste generated in Jersey arises from construction and demolition activity. Much of this waste is delivered to the land reclamation site at La Collette, where a proportion is recycled into secondary aggregates and the remainder used to provide stability to the infill material. The evidence available to date suggests that this recycling operation represents a significant source of supply.
- 13.36 The reason for the success of aggregate recovery in Jersey owes much to prevailing economic and market conditions. It is more profitable to produce secondary aggregates in Jersey than anywhere in the UK, because of much higher production costs and sale prices of local quarry products. The production of secondary aggregates delivered to the infill site at La Collette 2 is currently limited because some of this recycled material is required to stabilise the land reclamation itself. There is little doubt that secondary aggregates can continue to play a leading rôle in managing the overall demand for minerals in the Island. Recycling of aggregates is also important from a sustainability viewpoint, reducing the use of finite natural resources.

POLICY NR9 – SECONDARY AGGREGATES

Proposals for the production of secondary aggregates will normally be permitted in suitable locations, such as on demolition sites or within active mineral or landfill sites, only where:

- (i) the proposal does not unduly prolong the restoration and aftercare of a mineral workings site;
- (ii) the visual implications of the proposal are acceptable or can be satisfactorily screened;
- (iii) the noise and dust impacts can be satisfactorily mitigated;
- (iv) the proposal will not lead to unacceptable problems of traffic generation or safety; and
- (v) the proposal is in accordance with other principles and policies of the Plan.

Proposals which do not satisfy these criteria will not normally be permitted.

New Off-loading Facilities for Imported Aggregates

- 13.37 The only regular aggregate imports to the Island are 5,000 tonnes per annum of sand imported by Ronez Ltd, which is presently handled by St Helier Port Services. There are currently no dedicated handling or storage facilities for aggregates within the harbour. Other aggregate imports include fill/beach replenishment/rock armour, which are imported directly to site and a small amount of stone in block form for La Saline Quarry.
- 13.38 The Harbours and Airport Committee has prepared (in 2000) a Master Plan which considers the feasibility of developing sand and aggregate importation facilities at St Helier Harbour. In light of the findings of the Harbours Master Plan, the Jersey Mineral Strategy 2000-2020 recommends the creation of a new berth and handling area at St Helier Harbour to import all the Island's future sand requirements and a large proportion of its future aggregate requirements. It is accepted that this will have implications for traffic to and from La Collette 2. The States debate on the Mineral Strategy has been deferred pending the completion of a traffic modeling exercise by the Public Services Committee, which will address the traffic implications of the above proposal and other planned developments in the St Helier Waterfront Area.

POLICY NR10 – NEW OFF-LOADING FACILITIES FOR IMPORTED AGGREGATES

The Planning and Environment Committee will safeguard a site for a new aggregate importing facility at St Helier Harbour, as shown on the Town Proposals Map.

New off-loading facilities for aggregates outside the St Helier Harbour Operational Area will not normally be permitted, unless a need can be satisfactorily demonstrated and the proposal is in accordance with other principles and policies of the Plan.

Utilities

- 13.39 Each of the utility companies will have different land-use requirements during the Plan period. These requirements may be part of an ongoing programme of development by the company or a result of changes in technology that may occur during the Plan period. The Planning and Environment Committee will normally require these proposals to be subject to a comprehensive Environmental Impact Assessment, in accordance with Policy G5 of this Plan.
- 13.40 The Jersey Gas Company has no specific plans to extend the gas mains network, although sections of it are being replaced on a priority basis. The Company's storage and gas-making capacity is considered to be sufficient for at least the next five years.
- 13.41 The Jersey Electricity Company has seen a steady growth in the use of electricity in the Island over the last ten years. Two inter-connectors now connect Jersey to the European grid in France, permitting local electricity generation at the La Collette power station to close for several months of the year. The Island is currently well served in terms of electricity distribution. Electricity capacity in the built-up areas should be adequate to meet strategic policies for new development in the Island.
- 13.42 Water quality parameters and the permissible level of elements in drinking water are under regular review. The Jersey New Waterworks Company may require expansion of existing facilities to accommodate increased water treatment capacity, waterworks sludge treatment and advanced water treatment technology. The Company may also need abstraction ponds and pumping stations.
- 13.43 Jersey Telecoms considers that it will be able to meet the required telecommunications capacity of new developments in the Island to the end of the Plan period, although there is increasing congestion with respect to cabling in St Helier. The company has an ongoing programme to identify a number of 'nodes for distribution', or exchanges, Island-wide during the Plan period.

POLICY NR11 – UTILITIES

Proposals for new facilities for utility companies will normally be permitted provided that the proposal:

- (i) is acceptable in terms of design and siting;**
- (ii) will not have an unreasonable impact on neighbouring uses and the local environment by reason of noise, odour, pollution, visual intrusion or other amenity considerations;**
- (iii) will not have an unacceptable impact on a Site of Special Interest, Building of Local Importance, Conservation Area or other site of natural or heritage importance; and**
- (iv) is in accordance with other principles and policies of the Plan.**

Telecommunications Masts

- 13.44 The need for additional telecommunications masts is presently dealt with on a case-by-case basis following feedback from mobile phone users on where additional capacity may be required. Jersey Telecoms is likely to increase the number of masts across the Island during the Plan period. Where possible, the company will incorporate masts into existing buildings or structures. However, with the liberalisation of the telecommunications market, it is possible that other mobile phone networks may want to install masts in the Island. Mast sharing by new and existing companies will be strongly encouraged. The size and location of telecommunications masts will be strictly controlled to reduce visual impact and avoid serious adverse effects on the amenities of local residents.

POLICY NR12 – TELECOMMUNICATIONS MASTS

Telecommunications development will normally only be permitted where the following criteria are satisfied:

- (i) its siting and design will not unreasonably affect the character and amenity of the area;**
- (ii) all practicable possibilities of sharing facilities have been fully explored and found to be unfeasible or unacceptable by the Planning and Environment Committee;**
- (iii) there would be no unacceptable impact on residential amenity; and**
- (iv) the proposal is in accordance with other principles and policies of the Plan.**

Safety Zones for Hazardous Installations

- 13.45 There are a number of installations in the Island that represent a constraint on development in the vicinity because of health and safety considerations. Such installations are essential Island facilities, such as the fuel farm at La Collette as well as the storage of explosives at Crabbé. The type of constraint posed to development varies by facility and therefore there will be a need for the Planning and Environment Committee to consult with the Health and Safety Inspector regarding any development within the zones.
- 13.46 As an example, the safety zone at Crabbé includes an inner zone and an outer zone. Within the inner zone, there should be no additional roads or tracks and within the outer zone, there should be no new buildings of solid construction in which people would gather.

**POLICY NR13 – SAFETY ZONES FOR HAZARDOUS
INSTALLATIONS**

In considering development proposals within the following safety zones associated with hazardous installations, as designated on the Island and Town Proposals Maps, the Planning and Environment Committee will consult with the Health and Safety Inspector, to determine the appropriateness of the development:

1. La Collette Fuel Farm;
2. Les Ruettes, St John;
3. Crabbé Explosive Storage Magazines, St Mary; and
4. Airport Gas Storage.

In all cases, the health and safety of the public will be the overriding consideration. Developments that would conflict with the requirements of health and safety will not be permitted.