

## Appendix A Glossary of Terms

Abstraction license	a licence granted under the Water Resources Act 1991, as amended by the Water Act 2003, to abstract untreated water from a source of supply.
Area of Outstanding Beauty (AONB)	National landscape designation
Asset Management Period (AMP)	five year period in which water companies implement planned upgrades and improvements to their asset base. Activities are subject to funding review.
Best Available Technology (BAT)	Best available technology available for infrastructure provision
Best Available Technology Not Encuring Excessive Cost (BATNEEC)	Best available technology available for infrastructure provision excluding excessively expensive options
Biochemical Oxygen Demand (BOD)	a widely used measure of polluting potential - a measure of oxygen use, or demand, by bacteria breaking down the biodegradable load in sewage treatment plants or environmental waters.
Biodiversity Action Plan Priority Habitat	each Local Biodiversity Action Plan works on the basis of partnership to identify local priorities and to determine the contribution they can make to the delivery of the national Species and Habitat Action Plan targets.
Catchment Abstraction Management Strategy (CAMS)	the assessment of how much water can be extracted to meet its many economic uses – agriculture, industry, and drinking water supply – while leaving sufficient water in the environment to meet ecological needs.
Catchment Flood Management Plan (CFMP)	a strategic planning tool through which the Agency will seek to work with other key decision-makers within a river catchment to identify and agree policies for sustainable flood risk management.
Code for Sustainable Homes (CSH)	signals a new direction for building standards. Wherever practical DCLG intend to develop and introduce a system of sustainable building standards based on voluntary compliance.
Core Strategy	a Development Plan Document setting out the spatial vision and strategic objectives of the planning framework for an area, having regard to the Community Strategy (see also DPDs).
County Council	the local authority that is responsible for waste and minerals planning functions in non-unitary, and non-national park, local authority areas. A county council may provide advice and proposals on strategic planning issues to the Regional Planning Body.
Department for Environment, Food and Rural Affairs (DEFRA)	department that brings together the interests of farmers and the countryside; the environment and the rural economy; the food we eat, the air we breathe and the water we drink.
Development Plan Document (DPD)	details the spatial representation of housing and employment land allocations in response to the regional spatial strategy.
Dry Weather Flow (DWF)	is a measure of the flow influx to a WwTW derived from human activity (both domestic and trade), but excluding any storm-induced flows
EA flood zone	flood zones on the maps produced by Environmental Agency providing an indication of the flood risk within all areas of England and Wales, assuming there are no flood defences.
EC Freshwater Fisheries Directive	protects and improves the quality of rivers and lakes to encourage healthy fish populations.
Environment Agency (EA)	A government body that aims to prevent or minimise the effects of pollution on the environment and issues permits to monitor and control activities that handle or produce waste. It also provides up-to-date information on waste management matters and deals with other matters such as water issues including flood protection



	advice.
Environmental capacity	the ability of the physical environment to accommodate urban development and population growth without causing a deterioration in environmental quality.
Flood Estimation Handbook (FEH)	document produced by Centre for Ecology and Hydrology, Wallingford (formerly the Institute of Hydrology).
Flood Risk Assessment (FRA)	An assessment of the likelihood of flooding in a particular area so that development needs and mitigation measures can be carefully considered.
General Quality Assessment (GQA) Programme	the Agency's method for classifying the water quality of rivers and canals is known as the General Quality Assessment scheme (GQA). It is designed to provide an accurate and consistent assessment of the state of water quality and changes in this state over time.
Geographical Information System (GIS)	is a system for capturing, storing, analyzing and managing data and associated attributes which are spatially referenced to the earth.
Green Infrastructure Strategy (GI)	local authority strategy to promote green space and sites of conservation value
Habitats Directive	an EU Directive which seeks to ensure the conservation or restoration of habitats.
Hydro-ecology	the science of water in relation to wetland wildlife habitats and of how plant and animal communities interact with their supporting soil water, surface water and ground water systems.
Interim Code of Practice for SuDS	document produced by CIRIA, which aims to facilitate the implementation of sustainable drainage in developments in England and Wales by providing model maintenance agreements and advice on their use. It provides a set of agreements between those public organisations with statutory or regulatory responsibilities relating to SuDS.
Internal Drainage Board (IDB)	drainage operator commissioned by the agricultural sector to drain land through a system of levies
l/h/d	Litres per head per day
Local Delivery Vehicle (LDV)	partnership that brings the public and private sectors together to deliver large-scale social, economic and environmental change to deliver the Government's Sustainable Communities Plan.
Local Development Framework (LDF)	a folder of local development documents that outlines how planning will be managed in the area.
Local Planning Authority (LPA)	the local authority or council that is empowered by law to exercise planning functions. Often the local borough or district council. National parks and the Broads authority are also considered to be local planning authorities. County councils are the authority for waste and minerals matters.
Natural England	is formed by bringing together English Nature, the landscape, access and recreation elements of the Countryside Agency and the environmental land management functions of the Rural Development Service.
OFWAT	The Water Services Regulation Authority. Ofwat regulate how much money a water company can be required to spend over each five year planning period, and regulate the amount of money the water companies can charge from their customers.
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic.
Per capita	a Latin phrase meaning 'for each head'
Periodic Review or price review (PR)	One of Ofwat's main tasks is to set price limits for the water and sewerage companies in England and Wales. Ofwat do this in order to protect consumers from the monopoly providers of these services. However it is also our duty to enable efficient companies to finance their functions. They make sure that consumers receive reliable services and value for money and that each company is able to meet its environmental obligations now and in the future. We review price limits every five years. Prices were set at the price review in 2004 for the 2005 – 2010. This current price review (PR09) covers the five years from April 2010.
Planning Gain Supplement Obligations	the planning gain supplement is a proposed mechanism by which landowners or land developers will contribute to off site infrastructure.
Planning Policy Statements (PPS) and Planning Policy	set out the Government's national policies on different aspect of planning. The policies in these statements apply throughout England and focus on procedural policy and the process of preparing local development



Guidance (PPG)	documents.
Receiving water	watercourse, river, estuary or coastal water into which the outfall from Combined Sewer Overflow (CSO), surface water or other sewer discharges.
Regional Assembly	each of the English regions outside of London has a regional chamber that the regions generally call Regional Assemblies (not to be confused with the term Elected Regional Assemblies). They are responsible for developing and coordinating a strategic vision for improving the quality of life in a region. The assembly is responsible for setting priorities and preparing certain regional strategies, including the Regional Spatial Strategy.
Regional Development Agency	the nine Regional Development Agencies (RDAs) set up in the English regions are non-departmental public bodies. Their primary role is as a strategic driver of regional economic development in their region.
Regional Spatial Strategy (RSS)	a broad development strategy for a region for a 15 to 20 year period prepared by the Regional Planning Body.
Restoring Sustainable Abstraction Programme (RSAP)	identifies abstraction licences causing problems, and reviewed them with the purpose of rectifying the problems by reducing the volume extracted, altering licence conditions, and relocating abstraction points.
Review of Consents Programme (RoC)	as RSA but reviewing impacts of abstractions on designated sites
River Basin Management Plan (RMBP)	planning document to develop measures to meet Water Framework Directive objectives developed by the Environment Agency
River Ecosystem class (RE)	classification which uses a six-fold classification (five RE classes and an unclassified level for the very polluted rivers). This classification reflects the chemical status of the water, as an indication general health of the water.
River Quality Objective (RQO)	Agreed by Government as targets for all rivers in England and Wales when the water industry was privatised in 1989. The targets specify the water quality needed in rivers if we are to be able to rely on them for water supplies, recreation and conservation.
RQP	Environment Agency River Quality Planning Software
S106	a legal agreement under section 106 of the 1990 Town & Country Planning Act. Section 106 agreements are legal agreements between a planning authority and a developer, or undertakings offered unilaterally by a developer, that ensure that certain extra works related to a development are undertaken.
Sewage Works (STW)	plant to treat wastewater to higher chemical before release into the environment
SIMCAT	catchment based water quality model developed by Environmental Agency.
Site of Special Scientific Interest (SSSI)	a site identified under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) as an area of special interest by reason of any of its flora, fauna, geological or physiographical features (basically, plants, animals, and natural features relating to the Earth's structure).
Site Option Plan (SOP)	Habitats Directive to document identify measures to mitigate impacts on SPAs and SACs
Source Protection Zone (SPZ)	Designated area around public water supply groundwater abstractions to indicate the catchment to the abstraction.
Special Areas of Conservation (SAC)	a site designated under the European Community Habitats Directive, to protect internationally important natural habitats and species.
Special Protection Area (SPA)	sites classified under the European Community Directive on Wild Birds to protect internationally important bird species.
Strategic Flood Risk Assessment (SFRA)	document that informs the planning process of flood risk and provides information on future risk over a wide spatial area. It is also used as a planning tool to examine the sustainability of the proposed development allocations.
Strategic Water Resources Plan, or Statutory Water Resources Management Plan	It is now a statutory duty for water companies to prepare, consult, publish and maintain a water resources management plan under new sections of the Water Industry Act 1991, brought in by the Water Act of 2003. This plan is then kept under yearly review.



(WRMP)	
Super Output Areas (SOA)	a new national geography created by the Office for National Statistics (ONS) for collecting, aggregating and reporting statistics.
Sustainable Drainage Systems (SuDS)	Sustainable drainage systems or sustainable (urban) drainage systems: a sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques (may also be referred to as SuDS or SDS).
The First Secretary of State	the lead Minister for all policies relating to Town & Country Planning, having powers of intervention on Development Plans and Planning Casework under certain circumstances.
United Kingdom Biodiversity Action Plan (UK BAP)	action plan developed by DEFRA to protect threatened species and habitats and promote biodiversity
UKCIP	climate change predictions based on climate modelling
United Kingdom Technical Advisory Group (UKTAG)	supporting the implementation of the European Community (EC) Water Framework Directive (Directive 2000/60/EC). It is a partnership of the UK environment and conservation agencies. It also includes partners from the Republic of Ireland.
Urban Regeneration Company	a dedicated body through which different people combine to co-ordinate the delivery of urban regeneration projects such as major mixed-use developments.
Wastewater Treatment Works (WwTW)	separates solids from liquids by physical processes and purifies the liquid by biological processes. Discharge from Wastewater Treatment Works may contain a range of pollutants and need to be carefully monitored.
Water Framework Directive (WFD)	A European Union directive which commits member states to making all water bodies (surface, estuarine and groundwater) of good qualitative and quantitative status by 2015.
Water Resources Management Plan (WRMP)	
Water Resource Zone (WRZ)	defined by the water supply/demand balance in the region such that all customers within it receive the same level of service in terms of reliability of water supply.



## Appendix B Planning Context

The Planning and Compulsory Purchase Act 2004 came into force from September 2004. This Act amended the Town and Country Planning Act 1990 and, in part, introduced new legislation including a new statutory policy framework for planning. Under Section 38 of The 2004 Act, the determination of planning applications must now be in accordance with the approved development plan unless material considerations indicate otherwise. Other changes to the 1990 Act included the replacement of Regional Planning Guidance with new statutory Regional Spatial Strategies (RSS), the abolition of Structure Plans and the replacement of Local Plans with spatially orientated Local Development Frameworks (LDF). Whilst the Development Plan Documents which make up the LDFs are being prepared interim arrangements exist whereby certain Structure and Local Plan policies will continue to apply provided that upon Direction of the Secretary of State they were saved before 27<sup>th</sup> September 2007<sup>7</sup>. New statements of government planning policy (PPS) have, and are, being prepared to replace Planning Policy Guidance notes (PPG) and to provide an up to date national planning policy framework.

### National Policy

#### PPS1 - Delivering Sustainable Development

Planning Policy Statement 1 (PPS1) was published in January 2005 and sets out the Government's overarching planning policies on the delivery of sustainable development through the planning system. The policies set out in the PPS need to be taken into account by regional planning bodies in the preparation of regional spatial strategies and by local planning authorities in the preparation of local development documents. The Government considers Sustainable development is the core principle underpinning planning and in its objectives for the planning system reiterates the four aims set out in its 1999 strategy<sup>8</sup>. These are:

- Social progress which recognises the needs of everyone;
- Effective protection of the environment;
- The prudent use of natural resources; and,
- The maintenance of high and stable levels of economic growth and employment.

National policies and regional and local development plans are seen as providing the framework for planning for sustainable development and ensuring development is effectively managed. The PPS advises that amongst the key

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<sup>7</sup> Paragraph 1(3) of Schedule 8 to the Planning and Compulsory Purchase Act 2004

<sup>8</sup> A Better Quality of Life - A Strategy for Sustainable Development for the UK 1999



principles to ensure development plans and decisions taken on planning applications contribute to the delivery of sustainable development is the adoption of an integrated approach. Regional planning bodies and local planning authorities should ensure that development plans promote outcomes in which environmental, economic and social objectives are achieved together over time and contribute to global sustainability by addressing the causes and potential impacts of climate<sup>9</sup>.

It advises that in protecting and enhancing the environment planning authorities should seek to enhance the environment as part of development proposals; avoid significant adverse impacts and pursue alternative options. Where adverse impacts are unavoidable, planning authorities and developers should consider possible mitigation measures and where these are not possible, compensatory measures may be appropriate<sup>10</sup>.

Development plan policies should take account of environmental issues *such as the protection of groundwater from contamination and the potential impact of the environment on proposed developments by avoiding new development in areas at risk of flooding and sea-level rise, and as far as possible, by accommodating natural hazards and the impacts of climate change*<sup>11</sup>. The policies should also minimise the consumption of new resources by making more efficient use or reuse of existing resources. The PPS advises that Regional planning authorities and local authorities should promote amongst other things the sustainable use of water resources and the use of sustainable drainage systems in the management of run-off<sup>12</sup>.

In delivering sustainable economic development the Government advises that Planning authorities should *recognise the wider benefits of economic development and consider these alongside adverse local impacts, ensure that suitable locations are available for developments, actively promote and facilitate good quality development, which is sustainable and consistent with their plans, ensure the provision of sufficient, good quality, new homes in suitable location, ensure that infrastructure and services are provided to support new and existing economic development and housing and ensure that development plans take account of the regional economic strategies of Regional Development Agencies, regional housing strategies, local authority community strategies and local economic strategies*<sup>13</sup>. Sufficient land of a suitable quality in appropriate locations needs to be brought forward to meet the expected needs taking into account issues such as *the need to avoid flood risk and other natural hazard and to address the management of pollution and natural hazards, the safeguarding of natural resources, and the minimisation of impacts from the management and use of resource*<sup>14</sup>s.

The supplement to PPS1: *Planning and Climate Change* published in December 2007 seeks to set out how planning should contribute to reducing carbon emissions and stabilising climate change.

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<sup>9</sup> Paragraph 13 of PPS 1

<sup>10</sup> Paragraph 19 of PPS 1

<sup>11</sup> Paragraph 20 of PPS 1

<sup>12</sup> Paragraph 22 of PPS 1

<sup>13</sup> Paragraph 23 of PPS 1

<sup>14</sup> Paragraph 27 of PPS 1





## PPS7 - Sustainable Development in Rural Areas

PPS7 applies to the rural areas, including country towns and villages and the wider countryside up to the fringes of larger urban areas. The Government's objectives for rural areas as identified in PPS7, include seeking to raise the quality of life in rural areas, promoting more sustainable patterns of development and promoting the development of the English regions through improved economic performance.

PPS7 states that development should be focused in, or next to, existing towns and villages discouraging the use of 'greenfield' land.

A key objective of PPS7 is

*To raise the quality of life and the environment in rural areas through the promotion of:*

- *thriving, inclusive and sustainable rural communities, ensuring people have decent places to live by improving the quality and sustainability of local environments and neighbourhoods;*
- *sustainable economic growth and diversification;*
- *good quality, sustainable development that respects and, where possible, enhances local distinctiveness and the intrinsic qualities of the countryside; and*
- *continued protection of the open countryside for the benefit of all, with the highest level of protection for our most valued landscapes and environmental resources.*

With regards to the location of development, PPS7 states:

*“Away from larger urban areas, planning authorities should focus most new development in or near to local service centres where employment, housing (including affordable housing), services and other facilities can be provided close together. This should help to ensure these facilities are served by public transport and provide improved opportunities for access by walking and cycling. These centres (which might be a country town, a single large village or a group of villages) should be identified in the development plan as the preferred location for such development.”*

## PPS9 - Biodiversity and Geological Conservation

PPS9 was published in August 2005 and sets out the major role the planning system has to play in conserving our natural heritage, on designated sites and in the wider environment. In parallel with the UK Biodiversity strategy, it sets the Government's vision for conserving and enhancing biological diversity in England. It includes the broad aim that planning, construction, development and regeneration should have minimal impacts on biodiversity and enhance it wherever possible.



## PPS12 - Creating Strong Safe and Prosperous Communities through Local Spatial Planning

Planning Policy Statement 12 (PPS12) was published in June 2008. It explains local spatial planning and its benefits; and outlines the key components of local spatial plans and the key government policies on how they should be prepared. It should be taken into account by local planning authorities in preparing development plan documents and other local development documents. It should be noted that transitional arrangements apply until 1 September 2008.

With regard to infrastructure it states *the core strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. This evidence should cover who will provide the infrastructure and when it will be provided. The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations*<sup>15</sup>.

## PPG20 - Coastal Planning

PPG20 published October 1992 covers the character of the coast, designated areas, heritage coasts and the international dimension.

It discusses types of coasts, policies for their conservation and development and policies covering risks of flooding, erosion and land instability, as well as coastal protection and defence.

It outlines policies for developments which may specifically require a coastal location, including tourism, recreation, mineral extraction, energy generation and waste water and sewage treatment plants.

When producing development plans Local Planning Authorities should have information regarding the following:

- earth science information and other aspects of scientific interest (eg geology, geomorphology);
- ecological diversity, and relative importance as a wildlife habitat for fauna or flora, including all designations;
- baseline information on water and air quality and on the existence and population levels of key flora and fauna;
- landscape assessments of natural and historic landscapes, including the built environment, monuments and historic parks and gardens;
- agricultural land quality, particularly the extent of the best and most versatile agricultural land;
- areas of fishing interest, particularly in relation to aquaculture and cultivation of shellfish stocks; and

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<sup>15</sup> Paragraph 4.8 of PPS 12





- sites of archaeological and built heritage interest.

## PPS25 - Development and Flood Risk

Planning Policy Statement 25 (PPS25) was published in December 2006. Its aims are to ensure that flood risk is taken into account in the planning process to avoid inappropriate development in areas at risk of flooding and to direct development away from areas at highest risk. Where, in exceptional circumstances, new development is necessary in such areas then the aim is to make it safe without increasing flood risk elsewhere and, where possible, to reduce flood risk overall<sup>16</sup>.

Regional planning bodies (RPBs) and local planning authorities (LPAs) are advised that they should prepare and implement planning strategies that assist in delivering sustainable development by appraising the risk, managing the risk and reducing the risk. In so doing they should specifically:

- Identify land at risk and the degree of risk of flooding from river, sea and other
- Sources in their areas;
- Prepare Regional Flood Risk Appraisals (RFRAs) or Strategic Flood Risk Assessments (SFRAs) as appropriate, as freestanding assessments that contribute to the Sustainability Appraisals of their plans;
- Frame policies for the location of development which avoid flood risk to people and
- Property where possible, and manage any residual risk, taking account of the impacts of climate change;
- Only permit development in areas of flood risk when there are no reasonably
- Available sites in areas of lower flood risk and benefits of the development outweigh the risks from flooding;
- Safeguard land from development that is required for current and future flood
- Management, e.g. conveyance and storage of flood water, and flood defences;
- Reduce flood risk to and from new development through location, layout and design,
- Incorporating sustainable drainage systems (SuDS);
- Use opportunities offered by new development to reduce the causes and impacts of

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<sup>16</sup> Paragraph 5 of PPS 25



- Flooding, e.g. surface water management plans; making the most of the benefits of green infrastructure for flood storage, conveyance and SuDS; re-creating functional floodplain; and setting back defences<sup>17</sup>.

In addition, LPAs should in determining planning applications:

- Give priority to the use of SuDS; and
- Ensure that all new development in flood risk areas is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed<sup>18</sup>.

## Relevant Planning Policies

## REGIONAL SPATIAL STRATEGY FOR THE EAST OF ENGLAND

### East of England Regional Spatial Strategy

The Regional Spatial Strategy (RSS) for the East of England<sup>19</sup>, provides the planning and development strategy for the region to 2021. The RSS establishes the broad principles for sustainable development and growth in the region. It provides Local Planning Authorities with a framework to base their policies on.

Its objectives are:

- To reduce the region's impact on, and exposure to, the effects of climate change:
- To address housing shortages in the region:
- To realise the economic potential of the region and its people:
- To improve the quality of life for the people of the region:
- To improve and conserve the region's environment:

The RSS concentrates growth at key centres for development and change, which includes all of the region's main urban areas, and have potential to accommodate substantial development in sustainable ways to 2021 and beyond. It recognises the importance of a number of priority areas for regeneration, which include many of the key centres for development and change, whilst not overlooking pockets of deprivation in otherwise relatively buoyant town and rural areas.

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<sup>17</sup> Paragraph 6 of PPS 25

<sup>18</sup> Paragraph 8 of PPS 25

<sup>19</sup> Published May 2008.



It seeks to increase energy efficiency and carbon performance, improve water efficiency and recycling as percentage of waste with protection of the environment and avoiding adverse effect on sites of European or International importance for nature conservation.

The RSS seeks the construction of least 12,000 new homes, and the creation of at least 5,000 new jobs between 2001 and 2021.

The Regional Spatial Strategy is currently being reviewed, to provide a framework between 2021 and 2031. The revised RSS is due to be complete by end of 2010.

**Policy SS1** seeks to bring about sustainable development and refers to several Government Policy statements and commitments.

**Policy SS2** directs strategically significant growth to the region's major urban areas and identifies the overall regional target for development on previously developed land as 60%.

**Policy SS4** relates to development in towns other than key centres and in rural areas. This requires that that the approach to development in these areas shall be defined by LDDs. It states that, for *other rural settlements they (LDDs) should seek to support the viability of agriculture and other economic activities, diversification of the economy, the provision of housing for local needs and the sustainability of local services. Rural settlements they should seek to support the continued viability of agriculture and other economic activities such as tourism, the diversification of the economy, the provision of housing for local needs and the sustainability of local services.*

**Policy SS 8 relates** to land in the Urban Fringe and requires Local Authorities to work with developers and other agencies to secure the enhancement, effective management, and appropriate use of land in the urban fringe.

**Policy E1** seeks the creation of 5,000 new jobs in west norfolk

**Policy E2** requires that LDDs identify/allocate an adequate range of sites to meet the full need of sectoral requirements to achieve the job growth identified in policy E1 and the needs of the local economy. It states:

*"Sites of sufficient range, quantity and quality to cater for all relevant employment sectors should be provided at appropriate scales at urban areas, market towns and key rural centres."*

**Policy H1** on regional housing provision states that:

*"In the East of England as a whole provision will be made for at least 508,000 additional dwellings over the period 2001 to 2021. District allocations in this policy should be regarded as minimum targets to be achieved, rather than ceilings which should not be exceeded."*

Policy H1 seeks at least 12,000 in King's Lynn and West Norfolk.

The RSS states that the East of England is the driest region in England, and one of the fastest growing. Water resources are limited and there are already supply-demand issues in parts of the region. In some catchments



abstraction is not reliable during dry winters and under predicted scenarios for climate change more frequent drought conditions are expected, leading to increased pressure on resources.

## Key Water Policies

### POLICY WAT1: Water Efficiency

*The Government will work with the Environment Agency, water companies, OFWAT, and regional stakeholders to ensure that development in the spatial strategy is matched with improvements in water efficiency delivered through a progressive, year on year, reduction in per capita consumption rates. Savings will be monitored against the per capita per day consumption target set out in the Regional Assembly's monitoring framework.*

### POLICY WAT2: Water Infrastructure

*The Environment Agency and water companies should work with OFWAT, EERA and the neighbouring regional assemblies, local authorities, delivery agencies and others to ensure timely provision of the appropriate additional infrastructure for water supply and waste water treatment to cater for the levels of development provided through this plan, whilst meeting surface and groundwater quality standards, and avoiding adverse impact on sites of European or international importance for wildlife.*

*A co-ordinated approach to plan making should be developed through a programme of water cycle and river cycle studies to address the issues of water supply, water quality, wastewater treatment and flood risk in receiving water courses relating to development proposed in this RSS. Complementing this approach, Local Development Documents should plan to site new development so as to maximise the potential of existing water/waste water treatment infrastructure and minimise the need for new/improved infrastructure.*

### POLICY WAT3: Integrated Water Management

*Local planning authorities should work with partners to ensure their plans, policies, programmes and proposals take account of the environmental consequences of river basin management plans, catchment abstraction management strategies, groundwater vulnerability maps, groundwater source protection zone maps, proposals for water abstraction and storage and the need to avoid adverse impacts on sites of European importance for wildlife. The Environment Agency and water industry should work with local authorities and other partners to develop an integrated approach to the management of the water environment.*

### POLICY WAT4: Flood Risk Management

*Coastal and river flooding is a significant risk in parts of the East of the England. The priorities are to defend existing properties from flooding and locate new development where there is little or no risk of flooding.*

*Local Development Documents should:*



- *use Strategic Flood Risk Assessments to guide development away from floodplains, other areas at medium or high risk or likely to be at future risk from flooding, and areas where development would increase the risk of flooding elsewhere;*

- *include policies which identify and protect flood plains and land liable to tidal or coastal flooding from development, based on the Environment Agency's flood maps and Strategic Flood Risk Assessments supplemented by historical and modelled flood risk data, Catchment Flood Management Plans and policies in*

*Shoreline Management Plans and Flood Management Strategies, including 'managed re-alignment' where appropriate;*

- *only propose departures from the above principles in exceptional cases where suitable land at lower risk of flooding is not available, the benefits of development outweigh the risks from flooding, and appropriate mitigation measures are incorporated; and*

- *require that sustainable drainage systems are incorporated in all appropriate developments. Areas of functional floodplain needed for strategic flood storage in the Thames Estuary should be identified and safeguarded by local authorities in their Local Development Documents.*

## KING'S LYNN AND WEST NORFOLK CORE STRATEGY REGULATION 25 CONSULTATION (PREFERRED OPTIONS) DEVELOPMENT PLAN DOCUMENT

### Policy 10 Housing Distribution

The plan will identify sufficient land for a minimum of 16,200 new dwellings across the Borough over the period 2001 to 2025, (12,000 to 2021 and an additional 2400 to maintain a 15 year supply from adoption date of the Core Strategy, anticipated 2010. The total allows 10% for flexibility and non-completion of commitments etc.) to be distributed broadly as follows:

King's Lynn - Provision for at least 7100 dwellings in total (with 4,000 new allocations) will be made in King's Lynn through the development of strategic sites identified on the proposals map and through other smaller sites that will be allocated through the Site Allocation DPD.

Downham Market - Provision will be made for at least 3,000 dwellings in total (with 500 new allocations) in Downham Market over the plan period, which will require new allocations in the town and will be identified through the Site Allocation DPD.

Hunstanton - Provision will be made for at least 530 new dwellings in total (with 200 new allocations) in Hunstanton, which will require the identification of new allocations within the town. Where possible new allocations should support the aims and objectives in the Hunstanton regeneration plan and involve the redevelopment of previously developed land in the centre of the town. New Greenfield allocations will be restricted to land east of the A149 and will be identified through the Site Allocation DPD.



Wisbech fringe (Emneth/Walsoken) - Provision will be made for up to 500 new dwellings to support the service centre function of Wisbech.

Key Service Centres - Provision will be made for at least 3,800 new dwellings in total (with 740 new allocations) in the Key Service Centres identified by the Settlement Hierarchy. Most of this provision will be met through existing completions and commitments, with new housing allocations in appropriate villages to be identified through the Site Allocations DPD.

Rural Villages - Provision will be made for at least 1,000 dwellings in total (with 320 new allocations) in the rural villages. New housing allocations will be restricted solely to the provision of small scale infilling or affordable housing allocations or potential exceptions housing to meet the identified needs of the local community, and will be identified through the Site Allocations DPD. In total new allocations amount to 6,300.

## **Policy 11 The Economy**

The local economy will be developed:

To facilitate job growth in the local economy, delivering the RSS target of 5,000 additional jobs by 2021. To increase the proportion of higher skilled jobs while ensuring that opportunities are available for the development of all sectors of the economy and workforce.

## **Policy 15 Infrastructure provision**

All development in the plan area will be accompanied by appropriate infrastructure provided in a timely way as appropriate, with arrangements for its subsequent maintenance. Provision will be achieved through:

Contributions from all market residential and commercial development in the plan area through appropriate legal agreements.

Coordination with the investment programmes of other public bodies and utility providers Taking full advantage of mainstream Government funding streams

Active use, where necessary, by the local planning authorities and County Council of their legal powers to bring about the strategically significant development, including compulsory purchase. In the case of community or social development, a reduced contribution, taking account of the social value of the development concerned.

The resulting funds will be gathered, managed and spent in a transparent way.

Future maintenance of infrastructure provided on the site or built or improved as part of the development will be achieved either through adoption by a public body with appropriate maintenance payments or other secure arrangements such as the establishment of a local infrastructure management body. This will apply to all infrastructure, including, where applicable. Community and recreation facilities [education facilities, community halls, health facilities, libraries, social services facilities, allotments etc.] Improved public transport facilities





- Other appropriate transport infrastructure including pedestrian and cycle links
- Affordable or supported housing
- Sustainable Drainage Systems, including surface water
- Green infrastructure including habitat creation/ recreation facilities/landscaping
- Water conservation measures
- Emergency services including crime prevention
- Recycling/composting facilities
- Street furniture
- Local and renewable energy generation



## Appendix C

### Water Resource Availability

#### Water Resource Availability - CAMS Status of Catchments

The Environment Agency has published assessments of water availability within individual catchments in the CAMS documents. The CAMS documents classify water resource availability for surface water and groundwater into the following categories:

- Water available. There is water available within the catchment for abstraction licensing;
- No water available. The water that is present is already fully allocated;
- Over licensed. This means that if abstractors used their full allocation they would have the potential to cause unacceptable environmental impact at low flows. Additional water may be available at high flows with appropriate restrictions; or
- Over abstracted. This means that existing abstraction is causing unacceptable environmental impact at low flows. Additional water may be available at high flows with appropriate restrictions.

Where the Environment Agency assesses a catchment as being over-abstracted, the Environment Agency's licensing strategy will seek to secure downward variations to abstraction licences under its existing powers when abstraction licences are renewed.

The Habitats Directive and the Water Framework Directive and the Environment Agency's Restoration of Sustainable Abstraction (RSAP) programmes have the potential to impact on water abstractions across the country. Where it can be demonstrated that abstractions are having a detrimental impact upon the environment then the Environment Agency will seek to reduce abstractions at those sites.

The public water supply licences were granted as 'Licences of Right' to abstract water under the 1963 Water Act. No consideration was given to the environmental impact of these abstractions at the time the licences were issued, and they are often licensed at abstraction rates that exceed the capacity of abstraction equipment or the capability of the aquifer to provide the licensed yield. Consequently, there are areas within the catchment that have been assessed as over abstracted.

If the Environment Agency were to consider licensing new licences the applicant would need to demonstrate that:

- Environmental sustainability is not in question;
- There is justification for the need of the licence; and
- Water is used efficiently.



## Appendix D

### Water Demand Calculation - Methodology

The water demand forecast for Kings Lynn and West Norfolk District has been calculated using data supplied by Anglian Water as part of its Draft Water Resource Management Plans (WRMP) 2008. A Microsoft Excel spreadsheet model was created that calculated the total demand based on individual demand components reported by the water company.

#### Sources of Information

Information on forecast household numbers has been provided by the Local Authority in the form of a forecast housing trajectory for the area. This was based on the East of England RSS target figures, updated using the Council's local growth knowledge. Additional upper and lower growth forecasts were presented in the original RSS supporting documents and are summarised in Table D.1 below.

**Table D.1**

RSS appendix 1 – Growth Scenarios	Houses per year
East of England Plan 08 Average Annual Rate 2001-2021	600
RSS 2006-2021 Residual Rate being used in emerging LDF's*	630
Total no. required 2008 to 2026 Applying Residual Rate 2006-2021*	11,340
Additional growth 2008-2031 above total in column 3 If 2006-2021 residual RSS rate applied*	3150
Lower NHPAU Rate	679
Additional growth 2008-2031 above total in column 3 If Lower NHPAU rate applied	4277
<b>Upper NHPAU Rate (Upper growth scenario)</b>	<b>906</b>
Additional growth 2008-2031 above total in column 3 If Upper NHPAU rate applied	9498
<b>GVA Growth Average Annual net additions 2008-2031 (Lower growth scenario)</b>	<b>584</b>
Additional growth 2008-2031 above total in column 3 If GVA Growth rate is applied	2092

#### Growth Forecasts

The draft Water Resource Management Plan includes allowances for demand for water from new housing and business growth. Fenland District Council has supplied a single growth forecast for Wisbech, which is the other area included in the water resource zone plan. The following section presents the three alternative growth scenarios, plus the single forecast for Wisbech, in comparison with the housing growth allowance forecast by Anglian Water.



## Growth Scenarios in this Water Cycle Study

Table D.2 summarises the total number of households forecast in the study area (and Wisbech). This includes existing and new houses.

**Table D.2**

Scenario	2009/10	2014/15	2015/16	2019/20	2024/25	2029/30	2030/31
KLWN Total housing projection	69834	75430	76283	79212	82273	86208	86995
RSS Lower Rate (584 p.a)	70252	73647	74326	77042	80437	83832	84511
RSS Upper Rate (906 p.a)	70706	75236	76142	79766	84296	88826	89732
Wisbech forecast	11589	12569	12765	13548	14432	14932	15032
Anglian Water Fenland Zone Forecast	83089	87909	88793	92225	97353	102032	102948

Table D.3 compares the sum of the KLWN and Wisbech scenarios against the total housing forecast provided by Anglian Water. A negative number indicates that the scenario growth exceeds that planned by the water company.

**Table D.3 Relative comparison between growth scenarios and water company growth forecast**

Scenario	2009/10	2014/15	2015/16	2019/20	2024/25	2029/30	2030/31
KLWN Total housing projection	1666	-90	-255	-535	648	892	921
RSS Lower Rate (584 p.a)	1248	1693	1702	1635	2484	3268	3405
RSS Upper Rate (906 p.a)	794	104	-114	-1089	-1375	-1726	-1816

Table D.3 shows that between 2014 and 2021/22 the combination of KLWN preferred forecast plus Wisbech growth exceeds the Company forecast (90 in 2014/15 and maximum exceedance of 535 by 2019/20). However, by 2022/23 Anglian Water's forecast exceeds the Local Authority growth scenarios. This demonstrates that over time Anglian Water is planning to meet demand from a potential population greater than the Local Authority growth scenarios predict. It demonstrates that there may be differences in the rate of growth over time and this reinforces the importance of the Local Authority and the Water Company working together to ensure that development and infrastructure plans are co-ordinated.

Under the upper growth rate scenario (906 new houses per year) the Company forecast is exceeded by 2015/16 throughout the planning period. The preferred forecast exceeds the Company forecast earlier than the upper forecast as there are high levels of growth planned before 2014/15.



## Household Demand

The water demand from the existing households was calculated using the standard water industry approach shown below:

$$D = H \times O \times C$$

where :

D = Water Demand

H = Households (provided by Local Authorities)

O = Occupancy rate (persons per property, provided by Local Authorities)

C = Per capita consumption (WRMP l/head/d)

This calculation was conducted for two different building types, existing measured households and existing unmeasured households as per standard WRMP methodology. The water companies include an allowance for leakage from 'Void' households (i.e. unoccupied properties connected to the water supply system). The same allowance has been included in this assessment.

## Non Household Demand

No information is available on forecast non households. Information in the draft WRMP suggests that the number of non households and the associated demand is forecast to remain constant.

## Per Capita Consumption and Water Efficiency

The WRMP pcc values used are shown in Table D.5. An average pcc is calculated based on the number of measured and unmeasured households. The impact of alternative water efficiency scenarios have been tested by modelling alternative pcc figures for both new and existing homes, in comparison to the Water Company data. The alternative scenarios are illustrated in Table D.4 and the results are summarised in Figures D.1 to D.12.

**Table D.4 Water Efficiency Scenarios**

Scenario	Existing Households	Forecast Households	
1A	WRMP PCC -10%	35% @ 80 l/h/d + 7.68 l/hh/d Outdoor	65% @ 105 l/h/d + 10.08 l/hh/d Outdoor
1B	WRMP PCC -10%	35% @ 105 l/h/d + 10.08 l/hh/d Outdoor	65% @ 120 l/h/d + 11.52 l/hh/d Outdoor
1C	WRMP PCC -10%	35% @ 125 l/h/d + 12 l/hh/d Outdoor	65% @ 130 l/h/d + 12.48 l/hh/d Outdoor
2A	WRMP PCC	25% @ 80 l/h/d + 7.68 l/hh/d Outdoor	75% @ 105 l/h/d + 10.08 l/hh/d Outdoor
2B	WRMP PCC	25% @ 105 l/h/d + 10.08 l/hh/d Outdoor	75% @ 120 l/h/d + 11.52 l/hh/d Outdoor



Scenario	Existing Households	Forecast Households	
2C	WRMP PCC	25% @ 125 l/h/d + 12 l/hh/d Outdoor	75% @ 130 l/h/d + 12.48 l/hh/d Outdoor
3A	WRMP PCC +10%	45% @ 105 l/h/d + 10.08 l/hh/d Outdoor	55% @ 120 l/h/d + 11.52 l/hh/d Outdoor
3B	WRMP PCC +10%	45% @ 120 l/h/d + 11.52 l/hh/d Outdoor	55% @ 125 l/h/d + 12 l/hh/d Outdoor
3C	WRMP PCC +10%	45% @ 130 l/h/d + 12.48 l/hh/d Outdoor	55% @ 150 l/h/d + 14.4 l/hh/d Outdoor





**Table D.5      Draft WRMP existing household baseline per capita consumption (average litres/head/day)**

l/h/d	2006/07	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030/31
uPCC	140.91	143.11	145.93	148.62	151.49	154.21	157.21	160.22	163.40	166.42	169.33	172.28	175.33	178.46	181.32	184.34	186.90	189.60	192.00	140.91	205.55
mPCC	132.57	128.10	126.70	125.27	124.40	122.94	122.06	121.15	120.55	120.11	119.70	119.33	118.65	118.19	117.97	118.04	117.71	117.88	117.85	132.57	117.84
Ave PCC	136.89	135.46	135.68	135.62	135.82	135.45	135.41	135.21	135.20	135.19	135.08	134.98	134.57	134.32	134.08	134.10	133.64	133.68	133.47	136.89	131.99



## Results Option 1: Preferred Growth Rate

Figure D.1 Forecast total demand (existing and forecast households and non households)

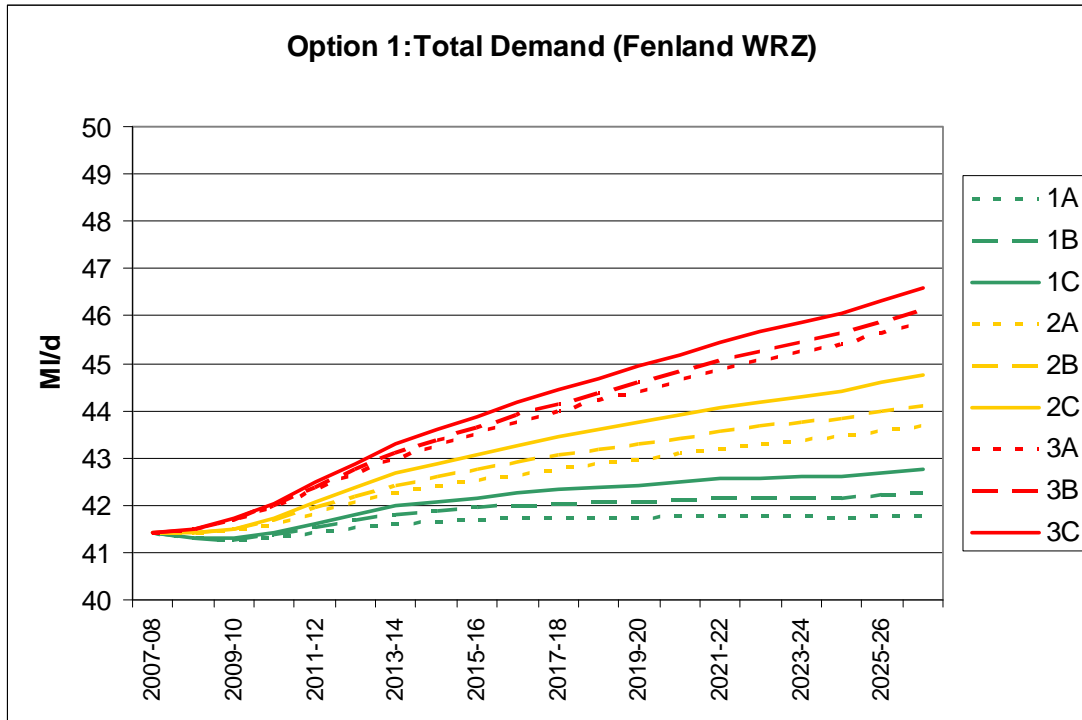


Figure D.2 Option 1 Forecast demand from all households

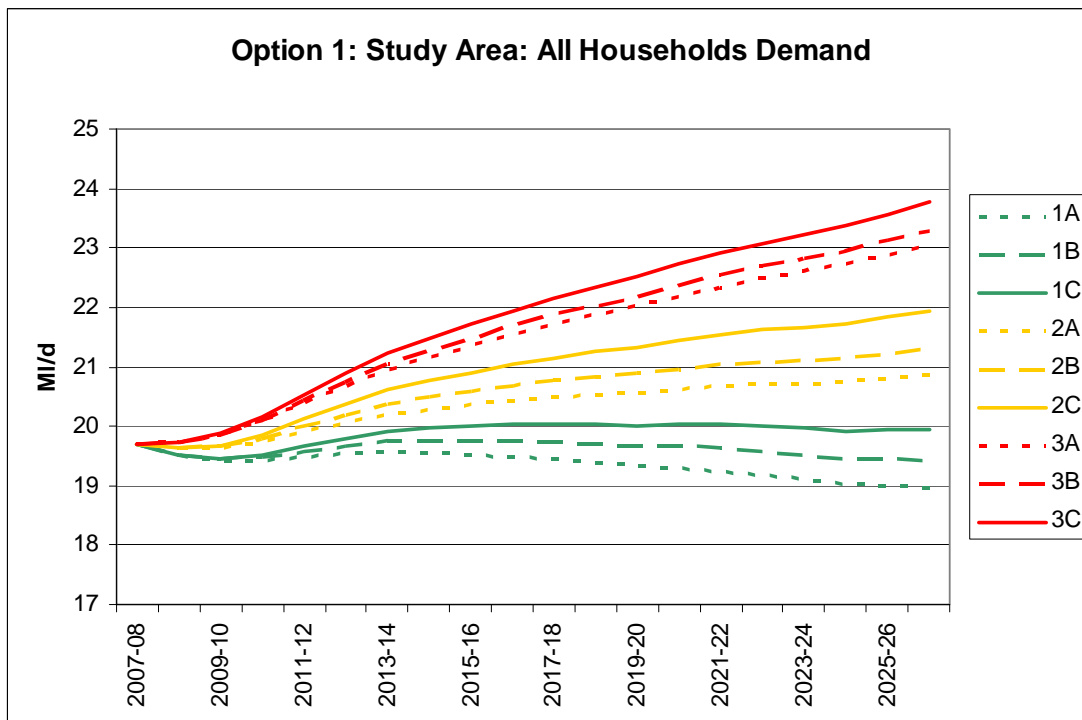


Figure D.3. Option 1: Forecast demand from new houses

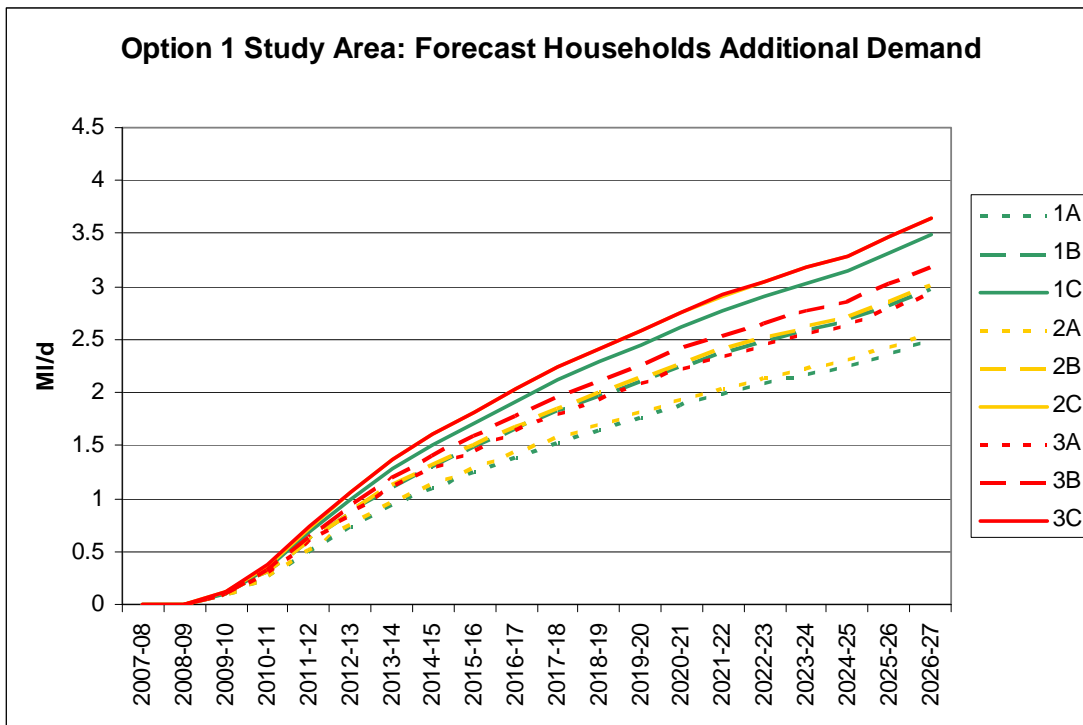
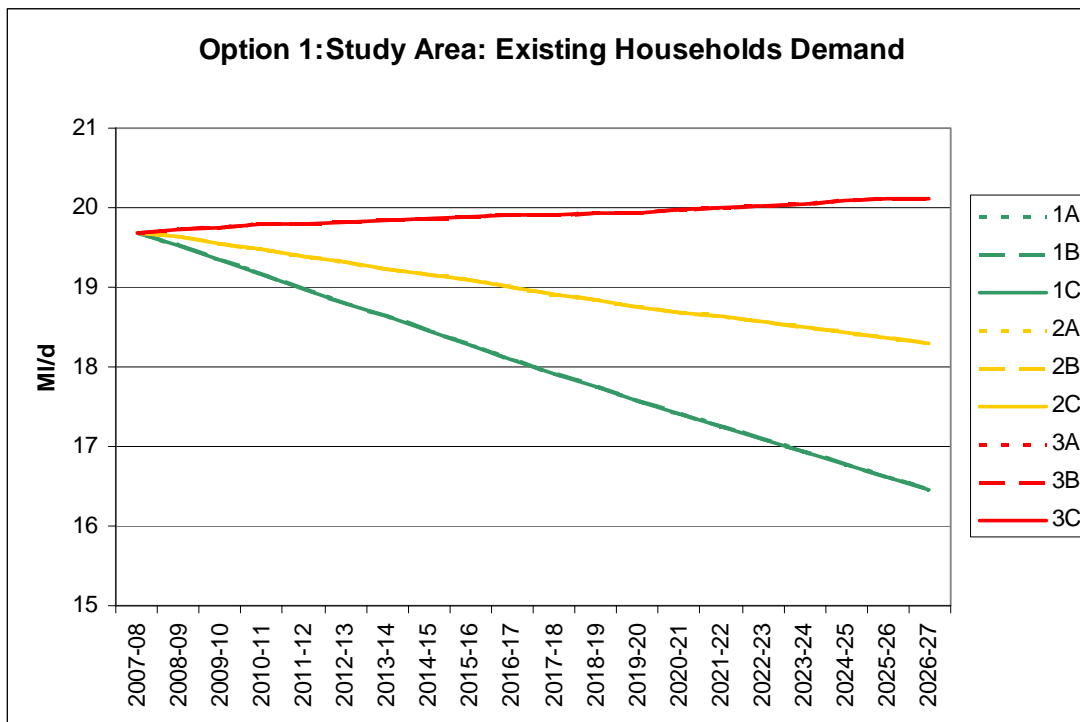


Figure D.4 Option 1: Forecast demand from existing houses



## Results Option 2: Upper Growth Rate

Figure D.5 Forecast total demand (existing and forecast households and non households)

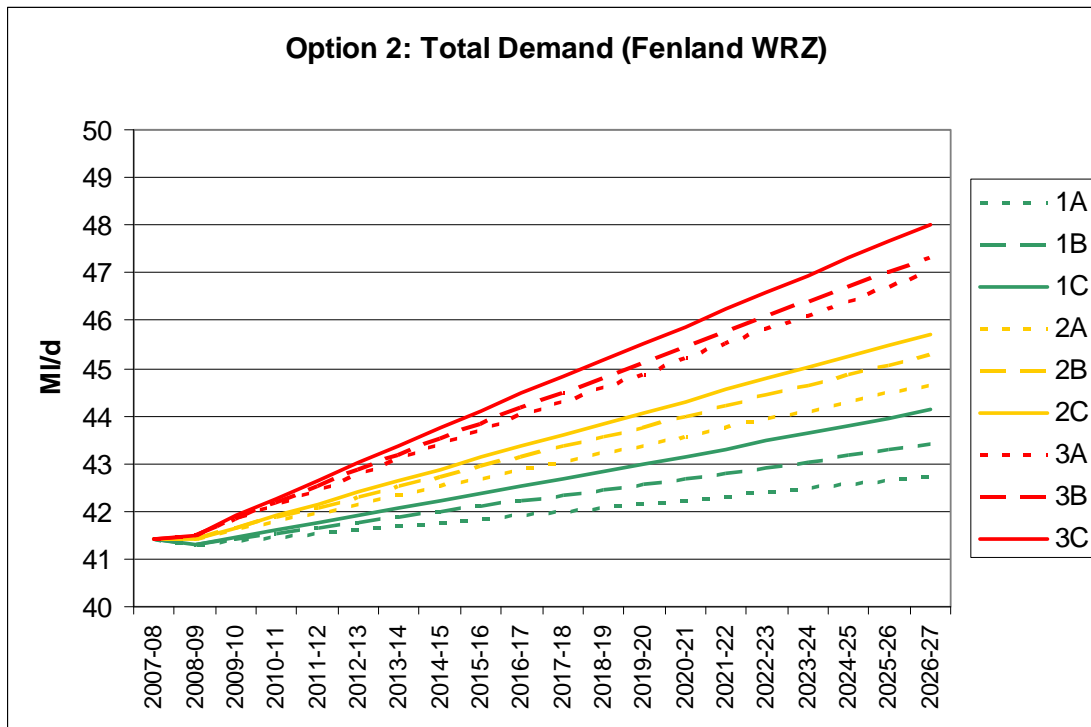


Figure D.6 Option 2: Forecast demand from all households

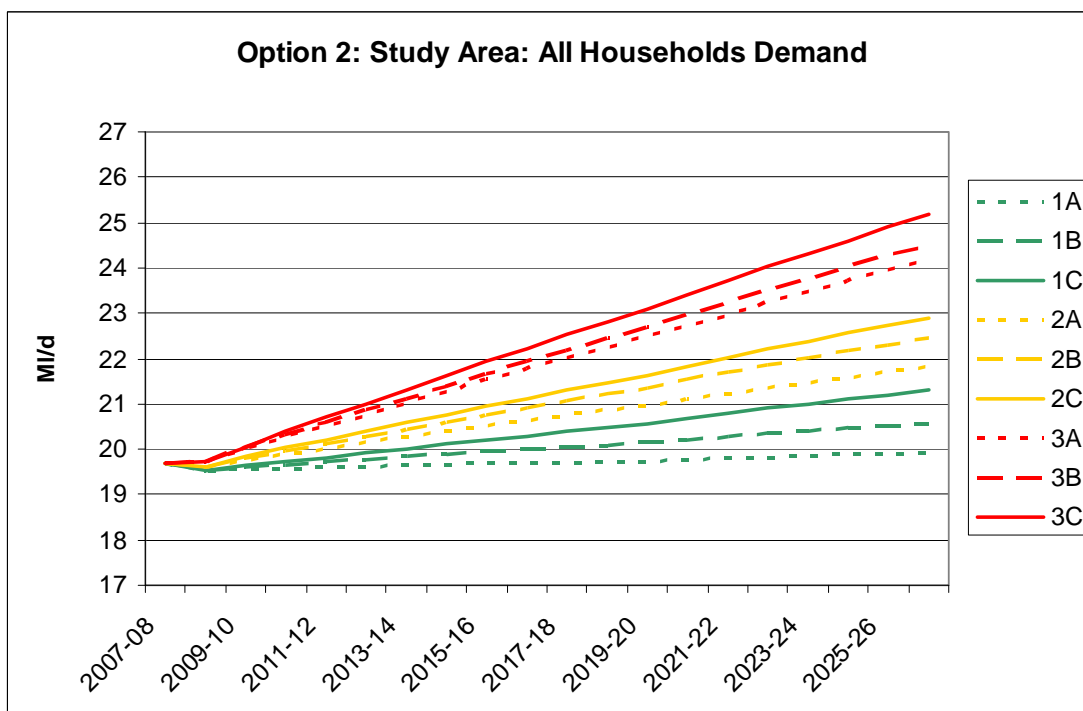


Figure D.7 Option 2: Forecast demand from new houses

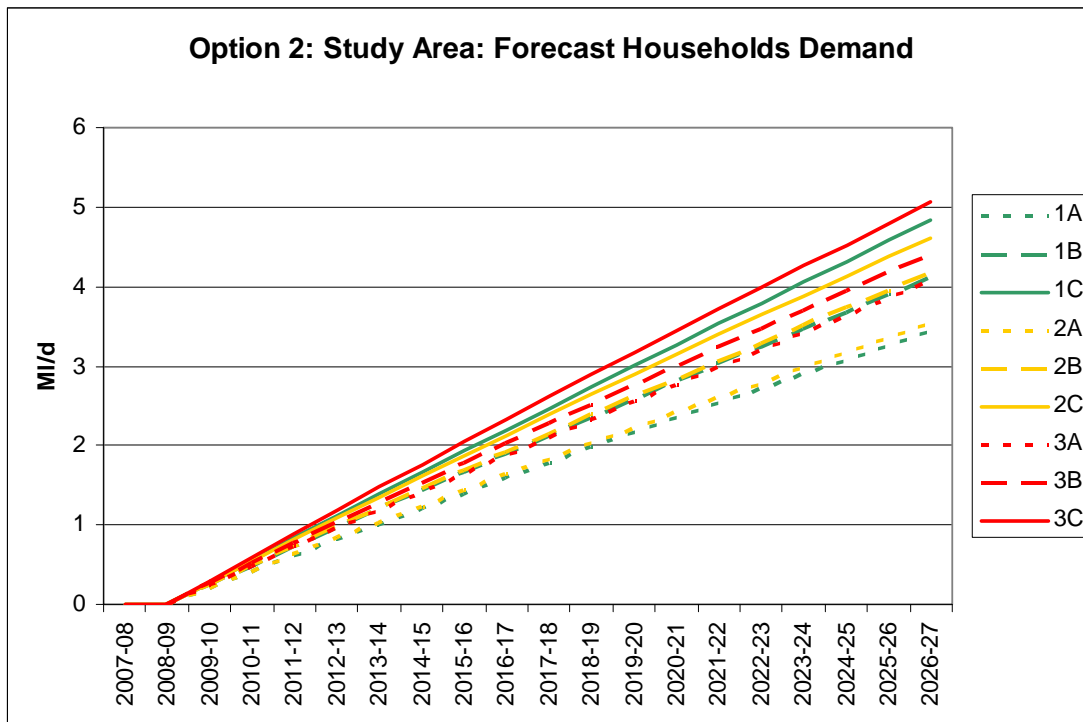
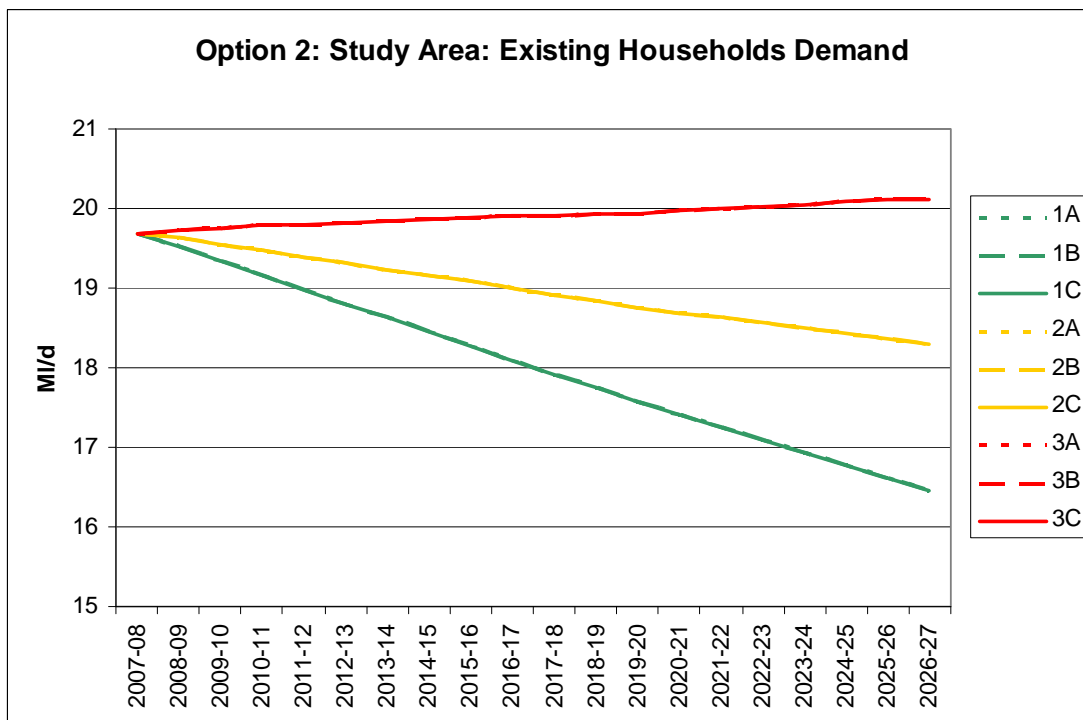


Figure D.8 Option 2: Forecast demand from existing houses



## Results Option 3: Lower Growth Rate

Figure D.9 Forecast total demand (existing and forecast households and non households)

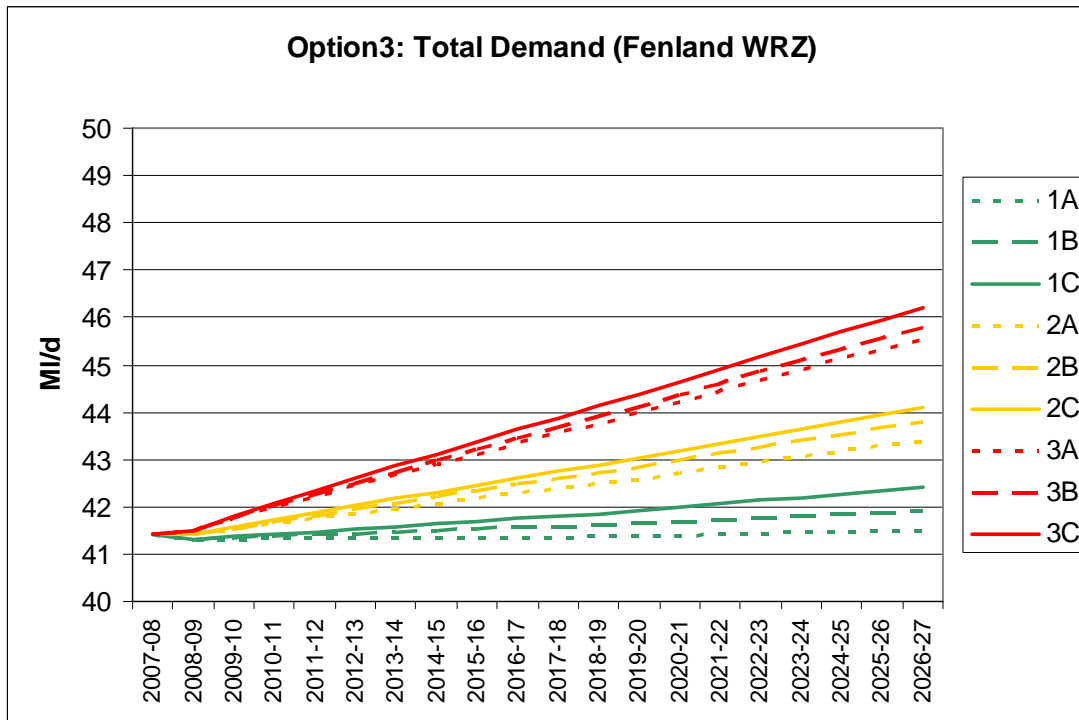


Figure D.10 Option 3: Forecast demand from all households

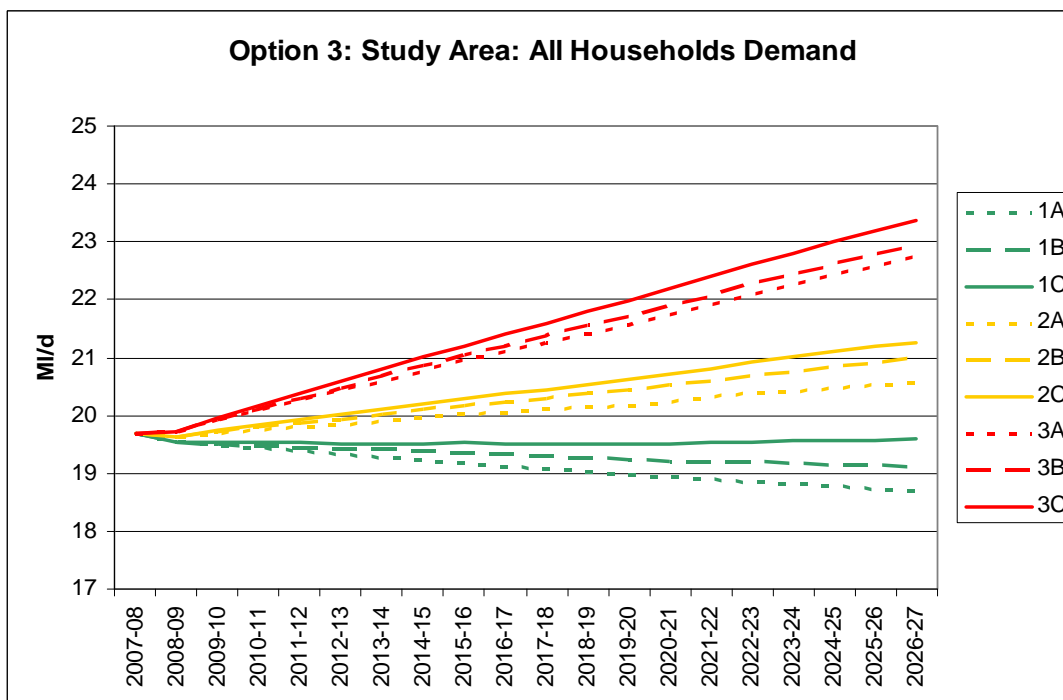




Figure D.11 Option 3: Forecast demand from new houses

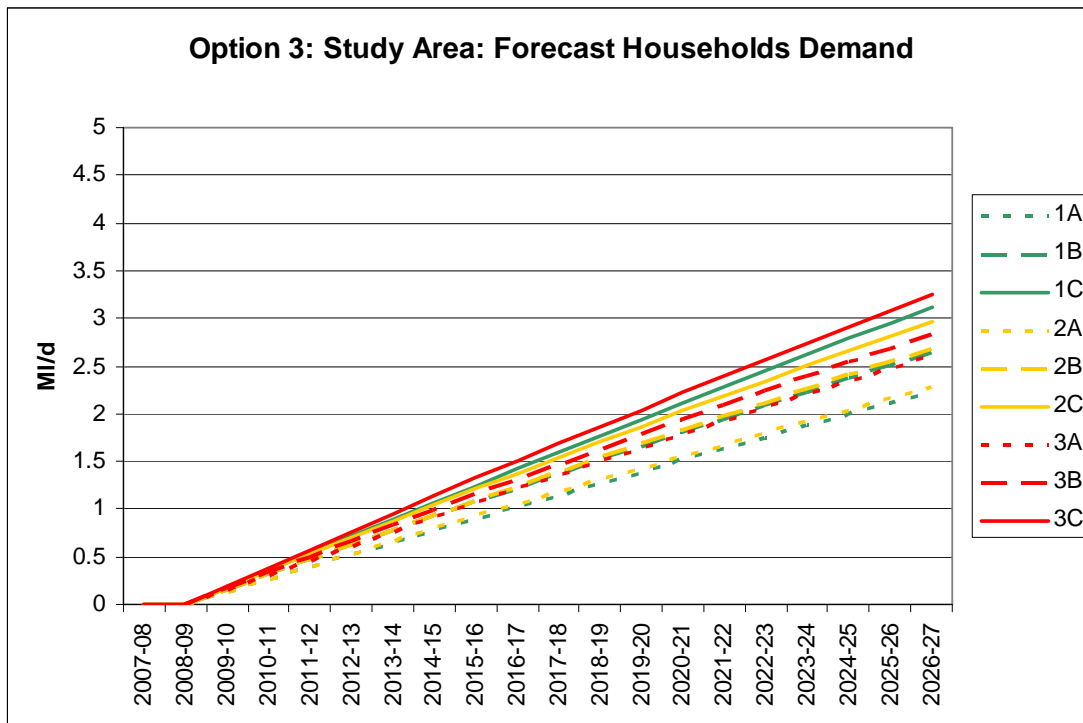
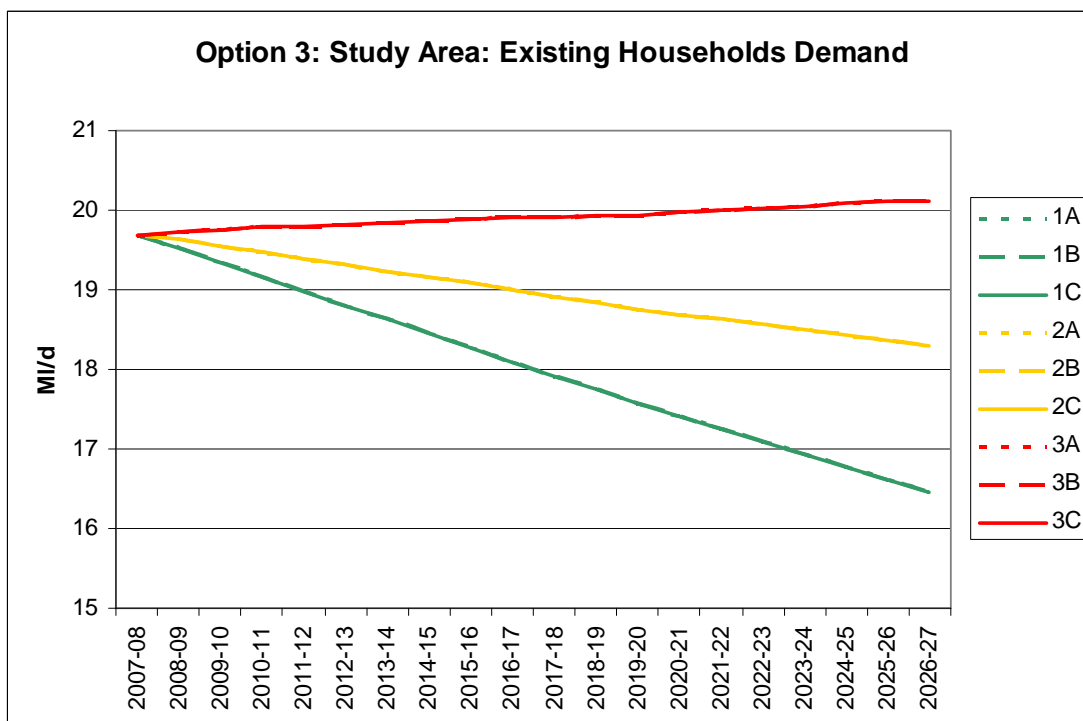


Figure D.12 Option 3: Forecast demand from existing houses



## Appendix E

# The Code for Sustainable Homes and Water Consumption

### Water Consumption Standards in the Code for Sustainable Homes

The Government has launched the Code for Sustainable Homes (CSH), which introduces whole-building performance standards against which new homes can be rated. For water, performance against the CSH is measured in terms of per capita consumption or pcc, expressed in litres per head per day (l/h/d). There are three standards for water efficiency in the CSH as follows:

- CSH Level 1/2                      120 l/h/d
- CSH Level 3/4                      105 l/h/d
- CSH Level 5/6                      80 l/h/d

It should be noted that the pcc figures quoted above exclude an allowance for water use outside the home (for example, for car washing or garden water use). The Department for Communities and Local Government (or CLG, the Government department responsible for the CSH) estimate that the outdoor element of water use is approximately 4% of indoor use. The CSH is currently voluntary, although from April 2007 and all housing built on English Partnerships' land and from April 2008 all social housing funded through the Housing Corporation has to be built to CSH Level 3.

Following the publication of the CSH, the Government has committed to the introduction of a minimum regulatory standard for water consumption in new homes. This has been set at 125 l/h/d (including external water use) and will be introduced through amendments to the Building Regulations, due to come into force in April 2010 (CLG, 2007). The regulatory minimum is approximately equal to the CSH Level 1/2 standard, when an allowance for external use is included.

### Costs of achieving water consumption standards in the Code for Sustainable Homes

The following tables present a breakdown of the costs for the fixtures and fittings required to deliver a new home to the CSH standards. These estimates are based on information from published reports<sup>20</sup>. To achieve the more challenging water consumption standards of CSH Level 5/6 requires the installation of rainwater harvesting

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<sup>20</sup> Environment Agency (2007g) Assessing the cost of compliance with the Code for Sustainable Homes. Environment Agency, Bristol



technology, adding considerably to the cost when compared to constructing a new home to the standards in CSH Level 3/4.

**Table E.1** Costs of fixtures and fittings required to deliver CSH level 1/2 (120 l/h/d)

Water using product	Flow rate or capacity	Cost per item	Number per property	Cost per property
WC	6/3 litre dual flush	£119	2	£238
Basin taps	3 litres/min	£20	2	£40
Shower	8 litres/min	£209	1	£209
Bath	160 litres capacity	£198	1	£198
Kitchen sink taps	3 litres/min	£60	1	£60
Washing machine	45 litres/cycle	£280	1	£280
Dishwasher	12 litres/cycle	£350	1	£350
Outdoor Tap		£10	1	£10
<b>TOTAL</b>				<b>£1385</b>

**Table E.2** Cost of fixtures and fittings required to deliver CSH Level 3/4 (105 l/h/d)

Micro-component of demand	Flow rate or capacity	Cost per item	Number per property	Cost per property
WC	4.5/3 litre dual flush	£120	2	£240
Basin taps	1.7 litres/min	£60	2	£120
Shower	6 litres/min	£209	1	£209
Bath	160 litres capacity	£198	1	£198
Kitchen sink taps	3 litres/min	£60	1	£60
Washing machine	45 litres/cycle	£280	1	£280
Dishwasher	12 litres/cycle	£350	1	£350
Outdoor Tap		£10	1	£10
<b>TOTAL</b>				<b>£1,467</b>

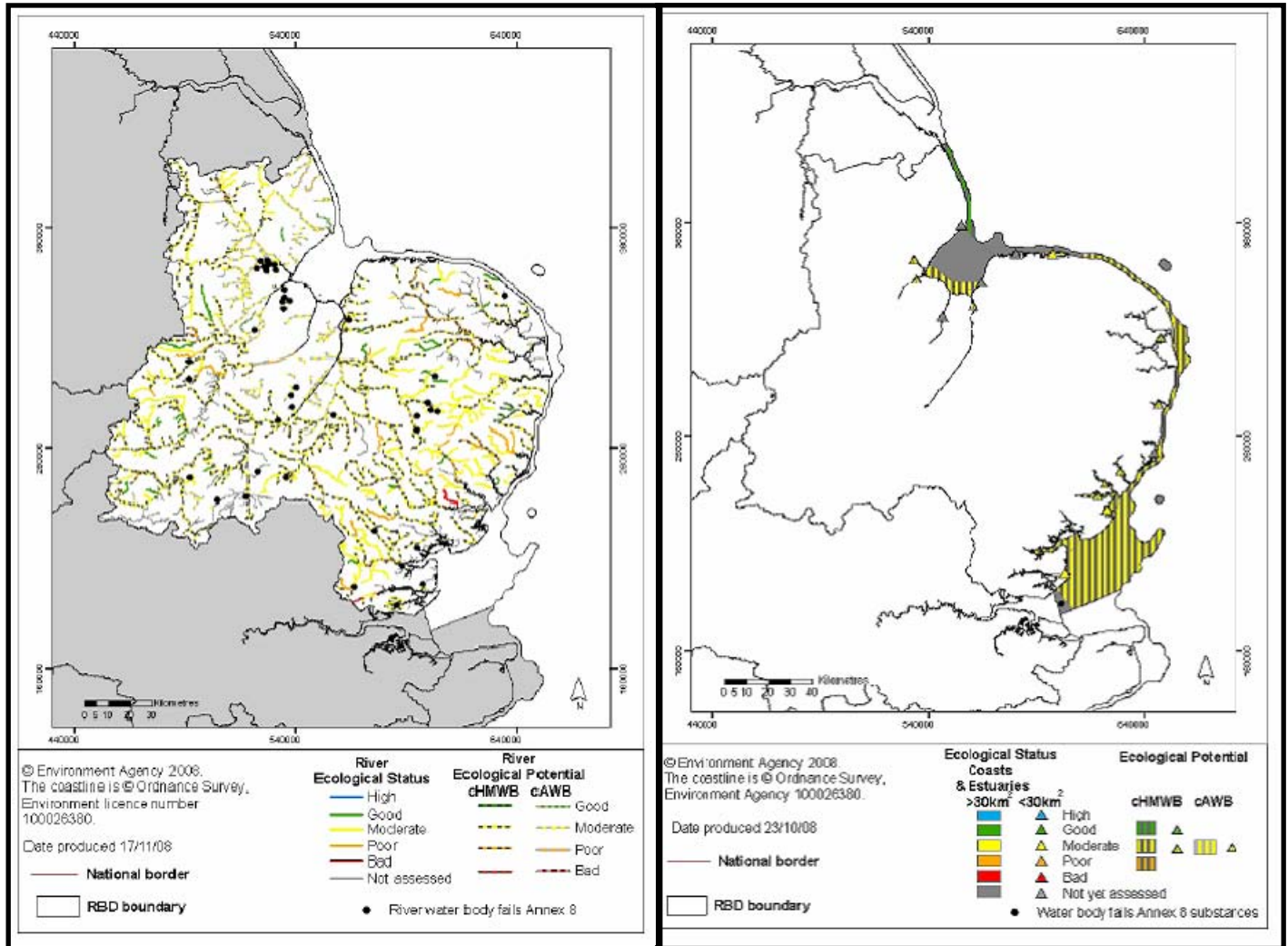


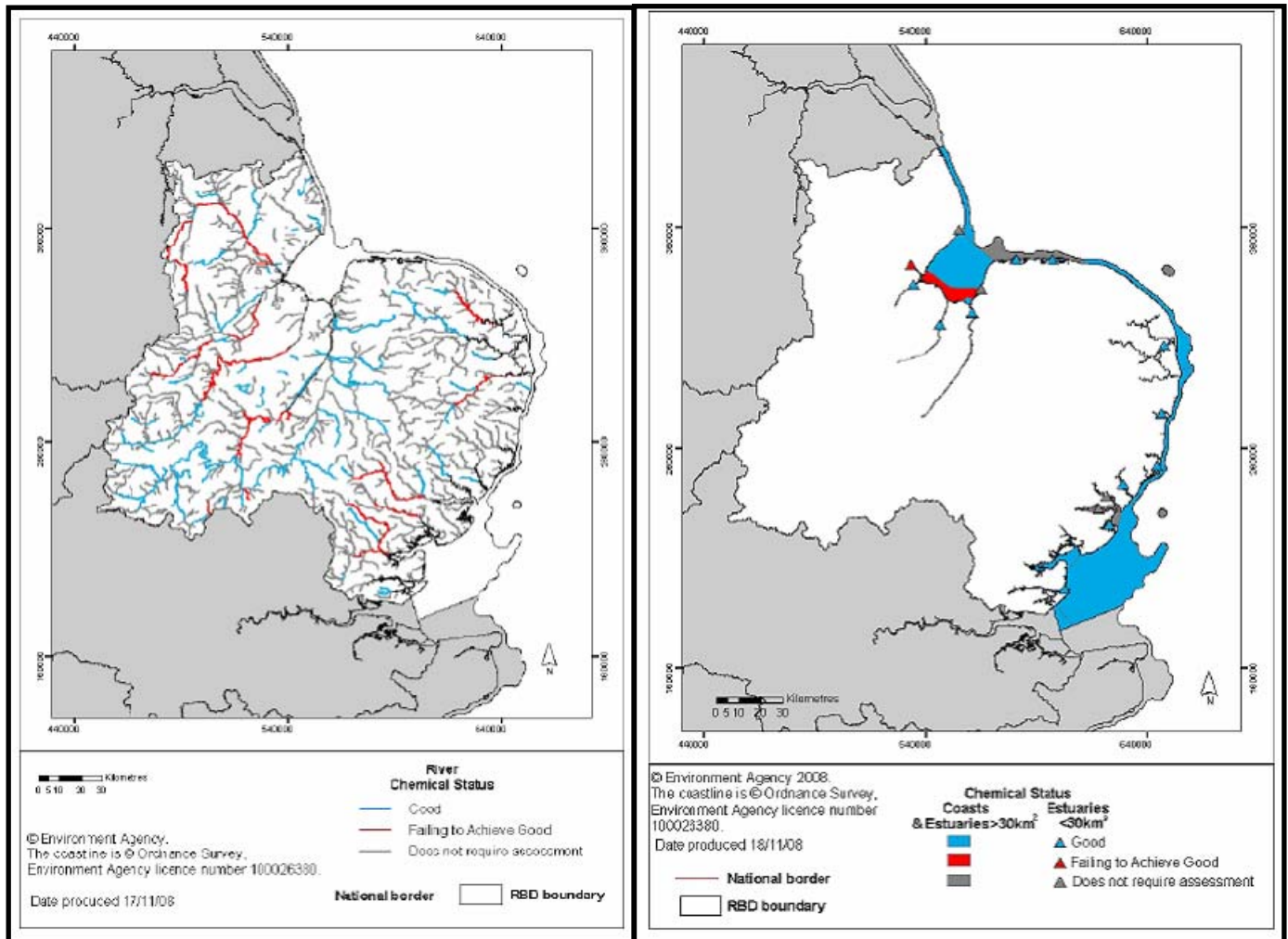
**Table E.3**      **Cost of fixtures and fittings required to deliver new home to the 80 l/h/d pcc standard (equivalent to CSH Level 5/6)**

Micro-component of demand	Flow rate or capacity	Cost per item	Number per property	Cost per property
WC	4.5/3 litre dual flush	£120	2	£240
Basin taps	1.7 litres/min	£60	2	£120
Shower	6 litres/min	£209	1	£209
Bath	140 litres capacity	£455	1	£455
Kitchen sink taps	1.7 litres/min	£60	1	£60
Washing machine	45 litres/cycle	£280	1	£280
Dishwasher	12 litres/cycle	£350	1	£350
Rainwater harvesting	-	£3,200	1	£3,200
Outdoor Tap		£10	-	-
<b>TOTAL</b>				<b>£4,024</b>

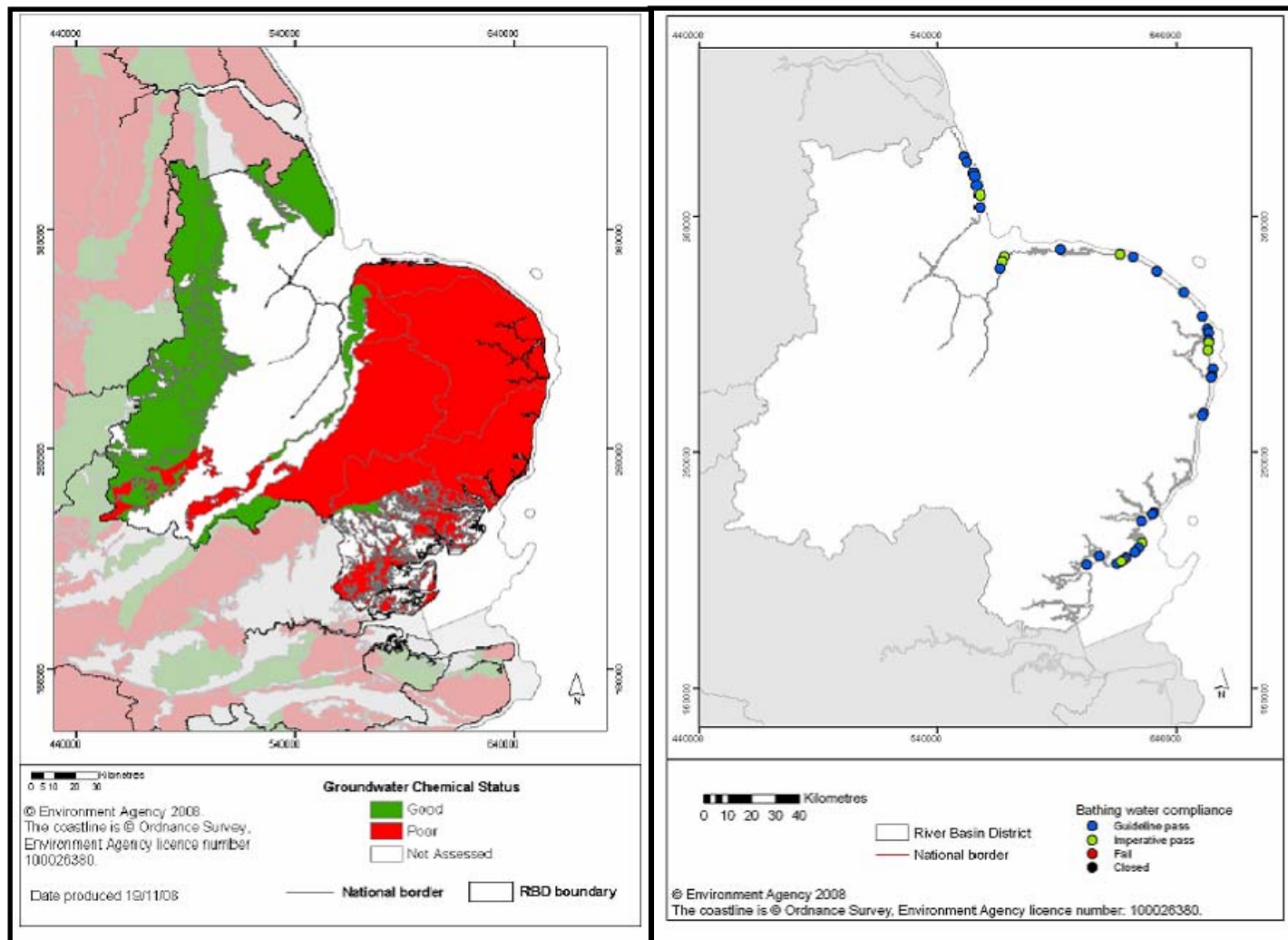


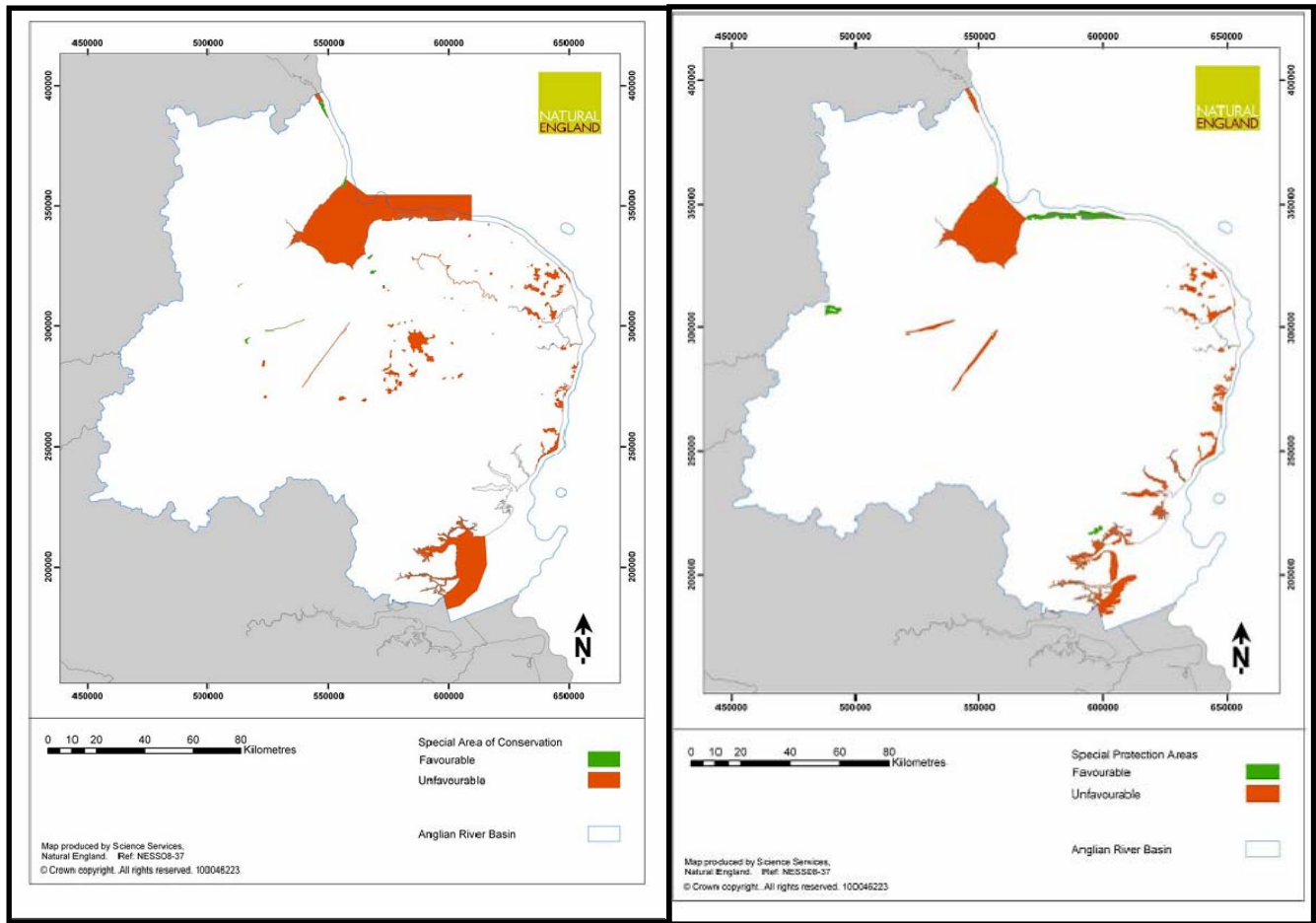
## Appendix F Draft River Basin Management Plan maps











## Appendix G Water Quality and Wastewater Treatment

**Figure G.1 Sensitive Water Bodies and Designations in Study Area**

Type of designation	Name	Reason for designation
<b>Special Area of Conservation (SAC)</b>	North Norfolk Coastline	
	The Wash	
	ROYDON COMMON & DERSINGHAM BOG	
	NORFOLK VALLEY FENS	
	Breckland	
	Ouse Washes	
<b>Special Protected Areas (SPA)</b>	The Wash	
	North Norfolk Coast	
<b>Site of Special Scientific Interest (SSSI)</b>	North Norfolk Coast	Primarily consists of intertidal sands and muds, salt marshes, shingle banks and sand dunes. Also lagoons and reedbeds. Rare and local species. Area of great physiographic interest.
	The Wash	The whole area is of exceptional biological interest, being the winter feeding/breeding ground for birds, and seals, and has areas of extreme botanical interest.
	Syderstone Common	Syderstone Common consists of a series of heath and grassland communities, providing breeding grounds for amphibians and Toads
	River Nar	The River combines the characteristics of a southern chalk stream and an East Anglian fen river. Together with the adjacent terrestrial habitats, it is an outstanding river system of its type.
	East Walton and Adcocks Common	The topography of the area is of considerable geomorphological interest. The site is also of great botanical interest containing some of the finest unimproved grassland remaining in Norfolk. The wide range of habitats is attractive to many breeding birds.
	East Winch Common	Wet acid Heathland and woodland. Uncommon and rare bird species.
	Blackborough End Pit	This is an important site for the demonstration of regional stratigraphy and erosional relationships in the Lower Cretaceous.



Type of designation	Name	Reason for designation
	Setchey	Setchey is important for studies of Flandrian sea-level change. The site is important as part of the overall network of Fenland sites.
	Boughton Fen	A tall fen community covers much of the site and several interesting plants are present. Scrub is well represented and is used by breeding birds. The site is of entomological interest.
	Wretton	The Devensian deposits are of unique interest because they record the most complete sequence of Early Devensian deposits containing stratigraphically useful pollen, molluscs, beetles and vertebrates, collectively making this a key stratigraphic locality.  Fluvial deposits here contain abundant fossil mammal remains.
	Higay Heronry	Small copse on the end of the Fens that supports nationally important herons.
	Breckland Farmland	This site is notified for its internationally important population of stone curlew <i>Burhinus oedicnemus</i> .
	Breckland Forest	Breckland forest supports internationally important numbers of nightjar and woodlark, but also important flora and fauna, and key geological areas
	HUNSTANTON PARK ESKER	This site is important for an esker of Devensian age
	RINGSTEAD DOWNS	the valley-sides support an  excellent example of species-rich chalk grassland.
	Hunstanton Cliffs	Locality of the classic much quoted Red chalk. Biological interest due to breeding colonies.
	Heacham Brick Pit	This is the only locality that gives the opportunity to examine the lower Creaceous Snettisham Clay.
	Snettisham Carstone Quarry	Snettisham Carstone Quarry is the only known locality in Britain for the micro-moth <i>Nothris verbascella</i> .
	Dersingham Bog	Largest most in tact example of an acid valley mire in East Anglia. Large breeding ground for birds etc. Part of the site is of geological interest.
	Roydon Common	Roydon Common is considered to be one of the best examples in Britain of a lowland mixed valley mire.
	Leziate, Sugar and Derby Fens	These three fens are the remnants of a once extensive valley fen system along the Gaywood River.
	Bawsey	The site is also important for present and future work directed towards determining the origin of the west Norfolk tills and their relationships to the Marly Drift and Lowestoft Till which form the main till sheet of the region.
	Islington Heronry	Islington Heronry is a small, isolated stand of mature oaks surrounded by fenland which  supports the largest colony of Grey Herons <i>Ardea cinerea</i> in Norfolk.
	Wiggenhall St Germans	Wiggenhall St Germans was one of the first sites in Britain to be investigated for sea-level studies using pollen and foraminifera analyses.



Type of designation	Name	Reason for designation
	Ouse Washes	The site is one of the country's few remaining areas of extensive washland habitat.
	The Brinks	Over 140 flowering plants have been recorded from the site. In Norfolk as a whole such meadows are rare and none are known in West Norfolk or the Breckland Natural Area.
<b>Ramsar</b>	North Norfolk Coast The Wash DERSINGHAM BOG ROYDON COMMON Ouse Washes	
<b>Area of Outstanding Natural Beauty</b>		
<b>Heritage Coastline</b>	North Norfolk Coast	
<b>Biodiversity Action Plan chalk rivers (check important sites from BAP report)</b>		
<b>Biodiversity Action Plan intertidal mudflats</b>	North Norfolk Coast The Wash	
<b>Biodiversity Action Plan Lagoons</b>	North Norfolk Coast	
<b>Biodiversity Action Plan Reed Beds</b>	North Norfolk Coast	
<b>Biodiversity Action Plan Coastal Sand Dunes</b>	The Wash	
<b>Biodiversity Action Plan Coastal and floodplain grazing marsh</b>	The Wash North Norfolk Coastline River Nar Ouse Washes	
<b>Bathing Waters</b>	HEACHAM HUNSTANTON MAIN BEACH HUNSTANTON BEACH	
<b>Nitrate Vulnerable Zones</b>	All but one area	
<b>Shellfish Waters</b>		
<b>Freshwater Fish Directive</b>		



Type of designation	Name	Reason for designation
Urban Wastewater Treatment Directive – Sensitive Areas [Eutrophic]		



**Figure G.2 Bathing Water compliance data for beaches in the Borough of King's Lynn and West Norfolk**

	Hunstanton Beach	Hunstanton Main Beach	Heacham	Wells
1988	Poor		Poor	Good
1989	Good		Good	Good
1990	Good		Good	Good
1991	Good		Good	Good
1992	Excellent		Excellent	Good
1993	Excellent		Good	Good
1994	Good		Good	Good
1995	Good		Poor	Good
1996	Excellent	Good	Good	Good
1997	Good	Good	Good	Good
1998	Excellent	Good	Good	Excellent
1999	Good	Good	Good	Good
2000	Good	Good	Good	Excellent
2001	Good	Good	Good	Good
2002	Excellent	Good	Good	Excellent
2003	Good	Good	Good	Excellent
2004	Good	Good	Good	Good
2005	Good	Excellent	Good	Excellent
2006	Good	Good	Good	Good
2007	Good	Good	Excellent	Excellent
2008	Excellent	Good	Good	Excellent

Good is also Imperative, Excellent is Guideline.

## Wastewater Treatment DWF and Formula A

The mechanism for deriving DWFs has evolved over recent years. All WwTWs should now have certified flow monitoring equipment that enables effluent flows to be accurately monitored. The DWF is calculated based on the 20th percentile flow on the basis of 12 months daily data (i.e. the flow that is exceeded 80% of the time).

For water quality planning and design purposes, dry weather flow can also be estimated based on the following equation:





## Estimating Dry Weather Flow

$$\text{DWF} = \text{PG} + \text{I} + \text{E}$$

where:

P	=	Population served
G	=	Water consumption per head per day
I	=	Infiltration allowance
E	=	Trade Effluent flow to sewer as applicable

## Formula A

$$\text{Formula A} = (\text{PG} + \text{I} + \text{E}) + 1360\text{P}$$

## Downham Market catchment summary

<b>Population equivalent (JR07)</b>	<b>9927</b>
Latest DAP	Model Update 2007 Growth Ass
Model Status	InfoWorks
DG5	6 External
Pumping stations	58 SPS, 3 TPS
CSOs	10
Length of foul sewer	51038
Length of combined sewer	135
Length of SW sewer	13375



## King's Lynn catchment summary

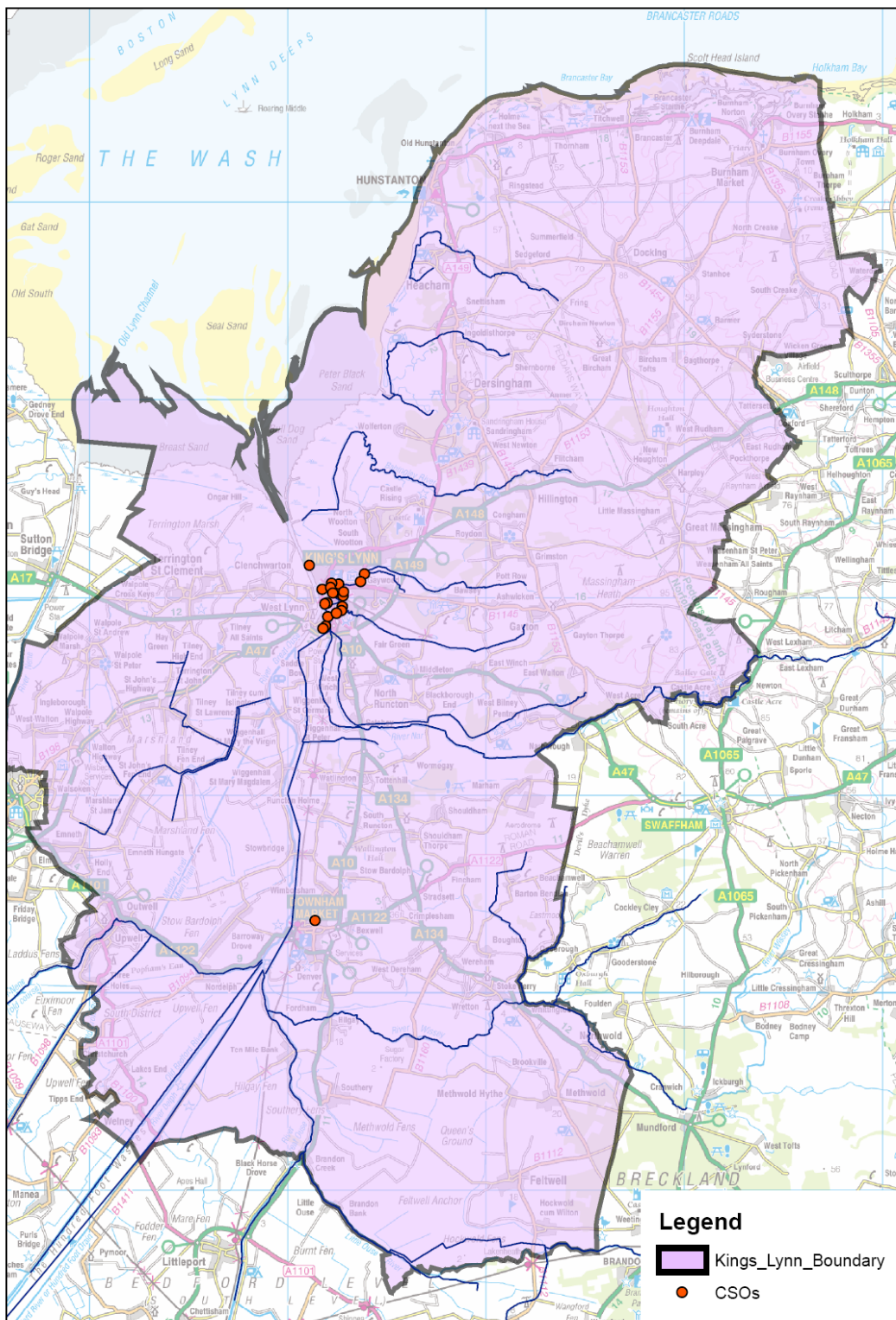
<b>Population equivalent (JR07)</b>	<b>48135</b>
Latest DAP	Model 2005
Model Status	InfoWorks
DG5	6 Internal 19 External
Pumping stations	73 SPS, 3 TPS
CSOs	34
Length of foul sewer	193115
Length of combined sewer	9375
Length of SW sewer	97539

## West Walton catchment summary

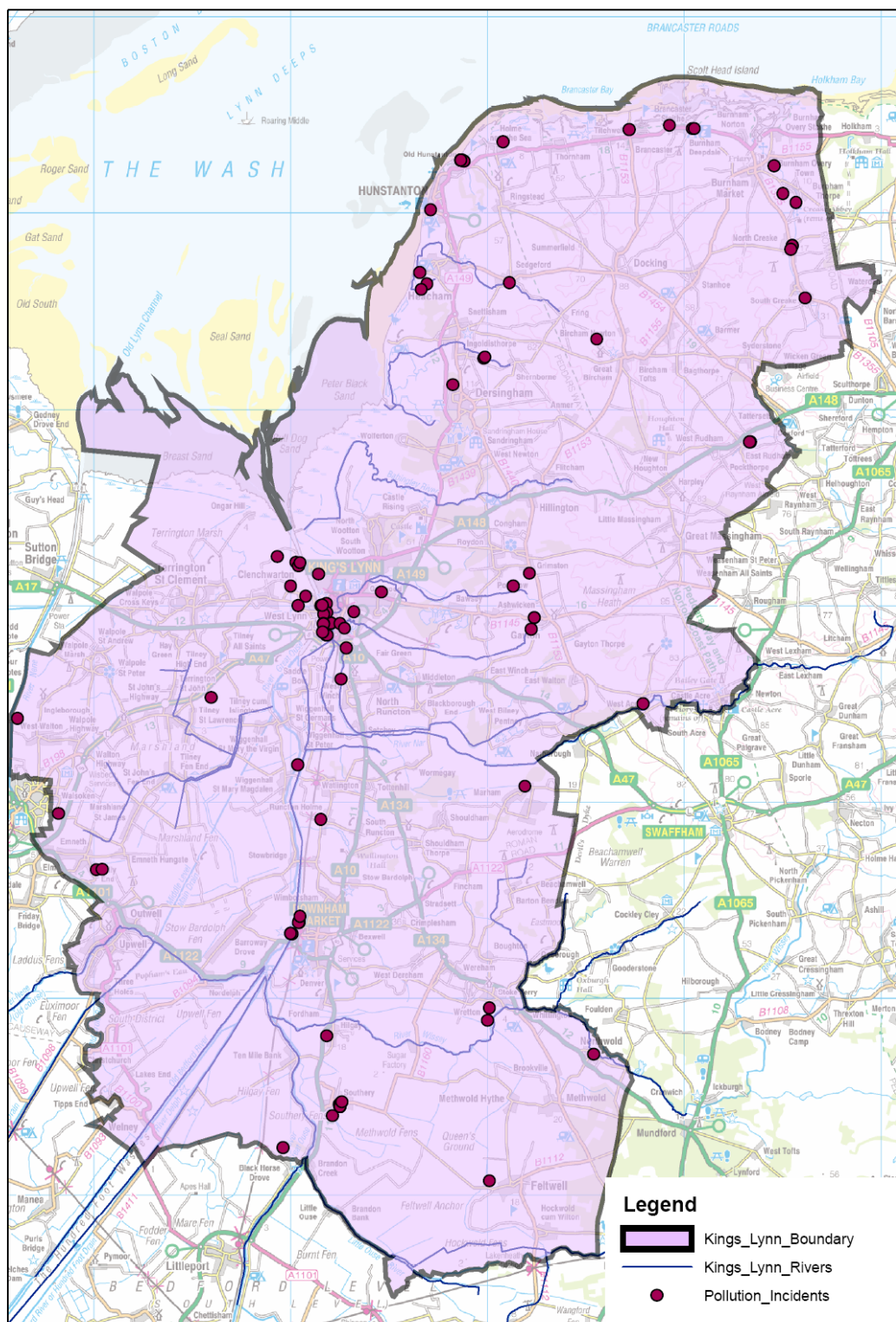
<b>Population equivalent (JR07)</b>	<b>132,611</b>
Latest DAP	2004
Model Status	InfoWorks
DG5	0
Pumping stations	34
CSOs	2
Length of foul sewer	142422m
Length of combined sewer	619m
Length of SW sewer	59096m



**Figure G1 Combined sewer overflows in the Borough of King's Lynn and West Norfolk**

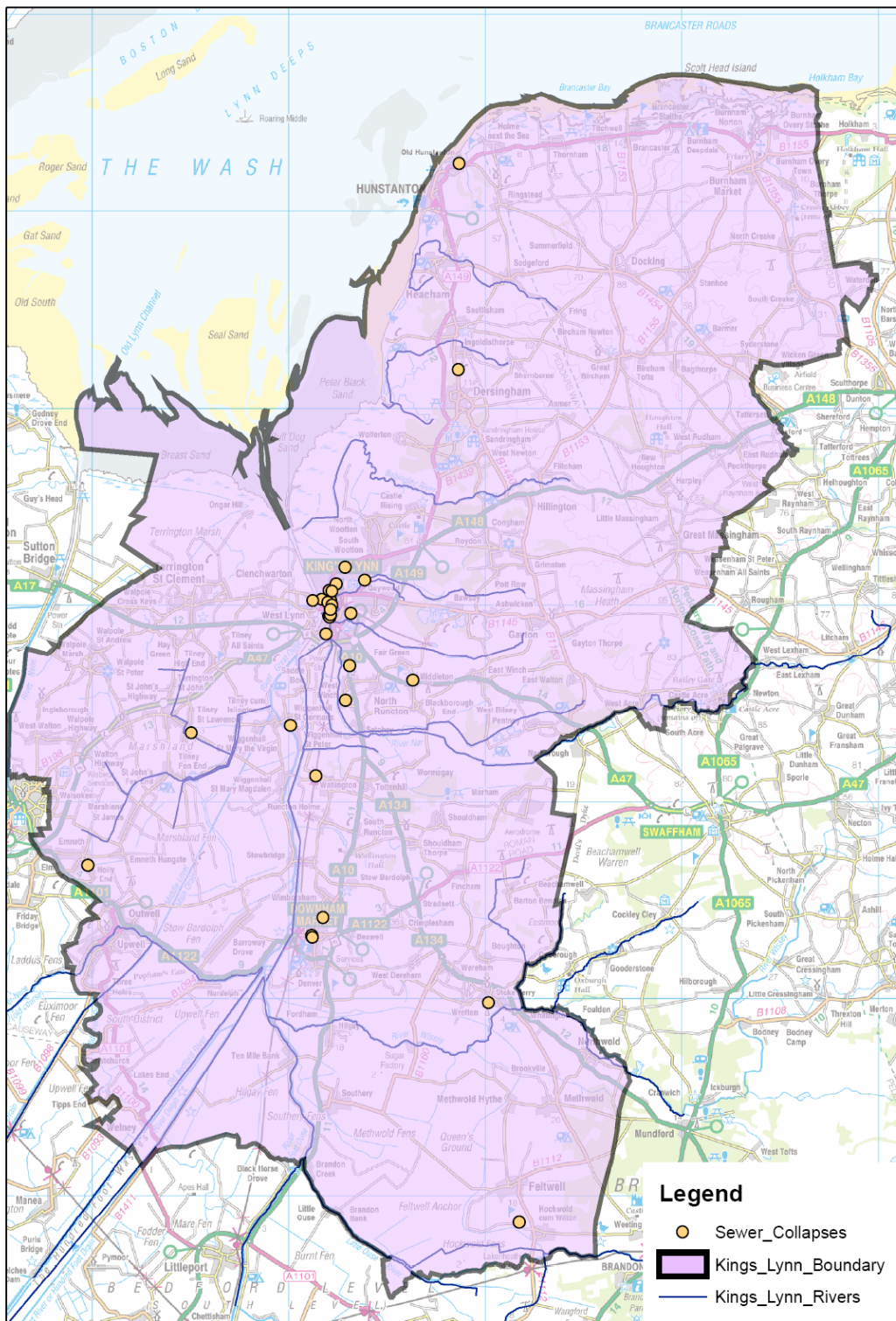


**Figure G2 Sewer pollution incidents in the Borough of King's Lynn and West Norfolk**

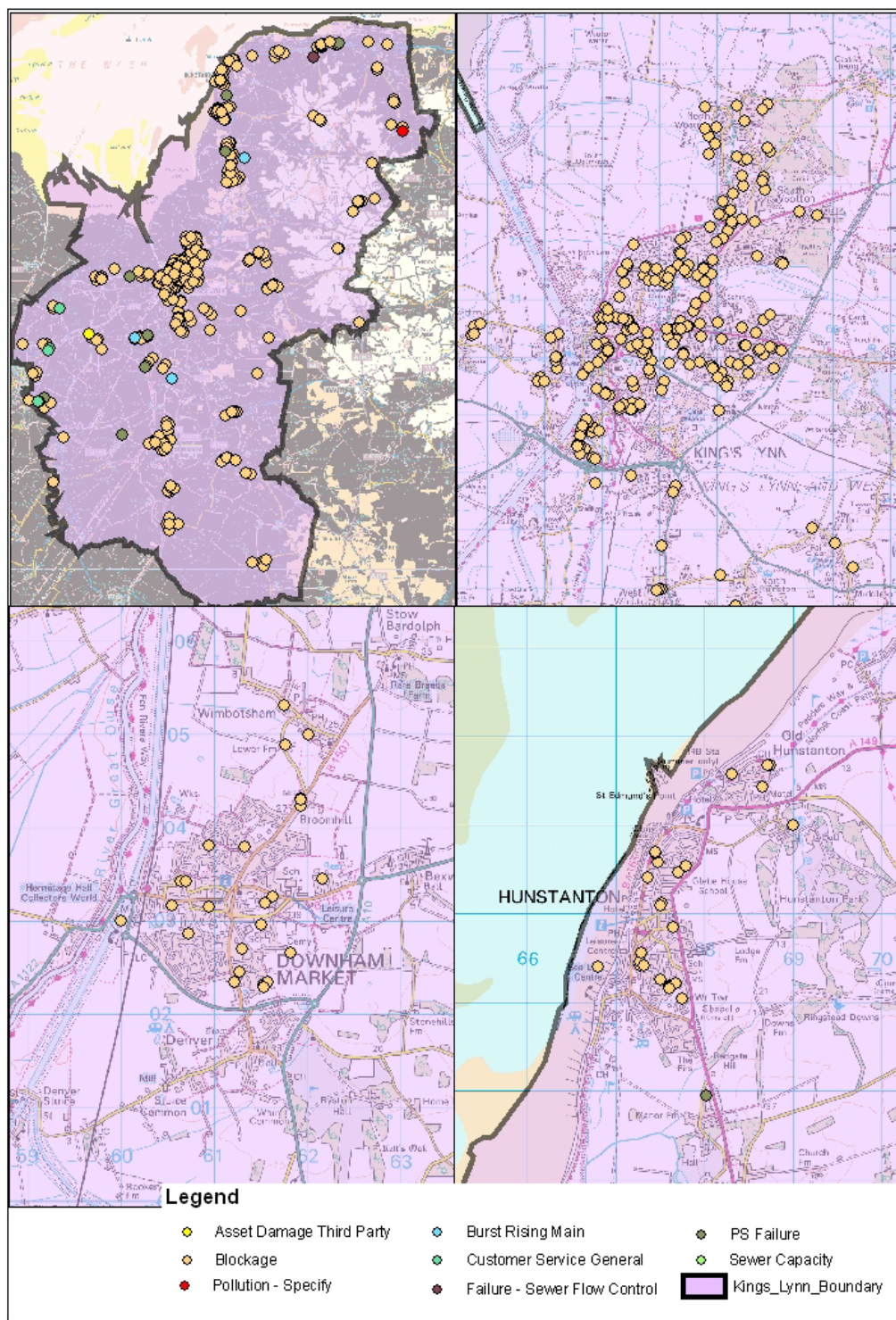




**Figure G3** Sewer collapses in the Borough of King's Lynn and West Norfolk



**Figure G4 Sewer incidents in the Borough of King's Lynn and West Norfolk**



## Appendix H Flood Risk







Site Name	Developers	Easting	Northing	Housing Allocation	Site Area (ha)	Latest Permission status - Outline / Full / Reserved Matters	Flood Zone	FRA required	Appropriate Development
King's Lynn - 46 King Street 45/27	GH Owen Property	561678	320217	0	0.09	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - NORA 45/33 Overall site (Housing Figures exclude Phase I)	Urban BCKLWN Regen Agency / Morton Morston Muckworks Ltd	561923	318526	765	52.48	Outline	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - NORA 45/33 Phase I	Morston Muckworks Ltd	561923	318526	0	6.07	Reserved Matters	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - Wisbech Road 45/36	Mr & Mrs May Eastern Rose Ltd	561464	318598	0	0.2	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - All Saints Street 45/38	EN Suiter & Son	561904	319529	17	0.44	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - Stonegate Street 45/39	Howard Hunter Dev	561929	319726	0	0.1	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - West Lynn 45/40	Persimmon Homes	560886	319509	0	3.59	Reserved Matters	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - West Lynn - St Peters Rd 45/50	Mrs K Hare	561124	320275	43	1.36	Outline	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - West Lynn - St Peters Rd 45/51	Regional & City Estates Ltd	561380	319793	149	1.96	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - John Kennedy Road 45/52	Mr P Dawson	561969	320614	13	0.08	Full	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
Downham Mkt - Adj Brickfields 22/13	Starblast Ltd	560000	303000	103	1.9	Outline	Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
Downham Mkt - Railway Road 22/16	Starblast Ltd Bennetts	560000	303000	337	10.38		Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
Villages S - Clenchwarton Smallholdings Road 16/1	Flagship Housing Group Ltd	558862	319927	14	0.61		Flood Zone 3 (Tidal)	Y	Residential EXCEPT basement dwellings
King's Lynn - Wootton Road 45/4	Persimmon Homes	563913	321335	150	4.29	Outline	Flood Zone 3 (Fluvial)	Y	Residential EXCEPT basement dwellings
King's Lynn - SOUTH 45/42		562609	317382	924	30.8		Flood Zone 3 (Fluvial)	Y	Residential EXCEPT basement dwellings
King's Lynn - Marsh Lane 45/1	Wimpey/Hsg Ptnr-Phase 1 Longhurst/Wherry-Phase 2	563411	321771	153	6.2	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - North End (URA) 45/24	Broadland Housing Assocn	561911	320735	0	0.6	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Edma Street 45/25	Individual applicants - no permission for majority of site	562152	320926	137	4.6		Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Ethel Terrace 45/31	Minster Gen Hsg Assocn The Olivia Group Ltd	562060	319238	12	0.1	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Queen Mary Hostel 45/35	Nene Housing	562434	319614	0	0.6	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - The Friars 45/37	Sommerfield & Thomas Mr C Shipton	561882	319334	20	0.44	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Southgate Street 45/41	Wherry Housing Assocn	562150	319174	0	0.25	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Regis House 45/47	Mr Low	561931	320421	0	0.13	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - 15 Austin Street 45/49	Mr R Morse	561886	320404	13	0.05	Full	Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
Downham Mkt - Railway Road 22/28	Country & Metropolitan	560266	302959	43	0.91		Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
Terrington St Clement - Eastgate Ln 78/2	Sovereign Homes	554026	319542	0	1		Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
Villages S - Walton Highway Salts Road 95/1	English Brothers Ltd	548700	313000	30	0.98		Flood Zone 2 (Tidal)	Y	All residential HOWEVER basement dwellings would need to pass the Exception Test
King's Lynn - Mill Lane 45/6	Fern Developments	563751	321740	0	0.9	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Baldock Drive 45/7	Salter Devt/ Mark Health Care	563579	321894	0	1.1	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Millfields 45/8	Fern Developments	563723	321641	14	1.3	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - South Fairstead 45/14a	Wilson Homes Anglia Taylor Woodrow Dev Ltd	564389	319231	1	4.3	Reserved Matters	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - South Fairstead 45/14b	Taylor Woodrow Dev Ltd	564646	319302	136	0.77	Reserved Matters	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - South Fairstead 45/14c	Taylor Wimpey Dev Ltd Taylor Woodrow Dev Ltd	564233	319332	150	4.03	Reserved Matters	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Capt Vancouver Oak Circle 45/15	BC Roberts Mr W Clark N Bailey	563546	319936	0	0.3	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - East Anglian Hotel 45/22	Rexstone Properties	562236	320058	20	0.04	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Former North Star PH45/26	DTL Ltd	562895	321505	0	0.3	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Tower Street 45/28	Dvid Taylor / Pastimes	561942	319935	10	0.05	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - 18 Gaywood Road 45/29	Ian Nicholson	562420	320389	15	0.08	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - SOUTH EAST 45/43		563600	317623	717	23.9		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Adrian Lodge 45/44	D Marrell & H Ballard	562413	320445	10	0.25	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Park View Hotel 45/45	Nelson Restoration	562142	320001	0	0.18	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test



King's Lynn - John Kennedy Road 45/46	Mr N Marten	562028	320350	24	0.11	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Blackfriars Road 45/48	Sigma Real Estates Ltd	562250	320278	0	0.07	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Railway Rd/Albion St 45/53	Clients of David Taylor Assoc	562095	320204	15	0.07	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Littleport Street 45/54	Zog 2 Ltd	562306	320332	16	0.11	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - North of 33 Railway Road 45/55	Nelson Developments Ltd	562142	320035	17	0.05	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
King's Lynn - Paradise Road 45/56	BT Plc Eastern Rose Ltd	562009	320030	12	0.05	Full	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
North Wootton - The Howards 56/2	RG Carter Hopkin Homes	564618	323784	0	2.7	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
South Wootton - Nursery Lane East 72/1	J Trenowath Wilcon Homes Broadland Housing Assocn	564211	323510	0	3.6	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
South Wootton -Gap Farm 72/3	Taylor Woodrow Dev Ltd	564793	322628	21	4.5	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
South Wootton -Priory Lane 72/4	Allison Homes East	564697	323250	0	0.8	Reserved Matters	Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - N E 22/6	Wimpey/Wilcon/CJC Stamford Homes Wimpey/Wilcon Wherry HA Persimmon Homes G Wimpey East Anglia Ltd	562170	303688	69	14.9	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Park Lane Sth 22/7	J F Bennett Broadland Housing	561255	302094	0	13	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - 14 Bridge St 22/11	Octavia Devs Ltd	561053	303320	0	1.8	Full	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - N W 22/12 Abbey Site	Abbey Developments	560417	303436	0	5.1	Outline	Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - N W 22/12 Bennett Site	Bennett Homes	560478	303723	226	8.8		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - N W 22/12 Williams Site	Taylor Wimpey Dev	560398	303556	110	2.09		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Maltings Ln W 22/14		560292	303234	12	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Prince Henry Pl 22/15		561576	302783	21	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Victory Road 22/17	TD Harvey	561049	302717	0	0.8		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Breckland House 22/18	Grosvenor Homes Halcyon Homes	561373	303913	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Short Drove Ph2 22/19	S Teverson Halcyon Homes	561447	303823	13	1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Lynn Road 22/20	S Teverson	561466	303866	51	0.2		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Crow Hall 22/21	PJ Liversey, Country Homes	561324	302291	0	1.6		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Old Cinema 22/22	Copthorne Dev.	561199	303272	20	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Howdale Road 22/23	Marchase Properties Ltd	561225	303087	0	2.6		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - High St/Para Rd 22/24	Flagship Housing Group	561138	303308	15	0.9		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - 34 High Street 22/25	Grosvenor Homes Halcyon Homes	561090	303290	11	0.05		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - 8, 10, 12 High St 22/26	Whitfield Associates	561120	303160	8	0.08		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - Priory Road 22/27	Dr DS Anderson	560992	303127	14	0.8		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Downham Mkt - London Road 22/29	S Gibbs	561166	302500	31	0.61		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - Downs Rd (North) 43/3	Norfolk Homes Ltd	567926	340782	0	3.6		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - 8 Hamilton Rd West 43/7	Laxmi Properties Ltd	568398	342363	0	0.2		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test



Hunstanton - Silfield House 43/8	Tudor Homes	567534	340782	0	0.2		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - Manor Rd 43/9	Mr & Mrs J Isherwood	567224	340064	39	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - 44 Cliff Parade 43/10	Cranmere Ltd	567420	341620	10	0.1		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - Westgate 43/11	Nelson Developments Ltd	567318	340702	0	0.1		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Hunstanton - Old Hunstanton Holiday Park 43/12	Bullock Homes Ltd	568420	342125	20	1.05		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
West Winch - Hall Lane 96/1	Bovis Homes McLean Homes/Peddars Way HA Beazer Homes	562990	315334	0	7.4		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Watlington - The Meadows Extn Martingales 89/3	Persimmon Homes	561555	310983	51	6		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Watlington - Fen Road/Row 89/6	JA Brothers (ex) Orchid Properties Ltd	561821	310366	17	1.1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Watlington - Thieves Bridge Rd 89/7	Hutchinson Vawser & Co	562142	310575	20	0.8		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - Gelham Court 20/1	RW Hipkin BCKLWN	568506	330361	0	9.4		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Dersingham - Hall Hotel 20/5	Willoughby (399)Ltd	568777	330724	0	0.5		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - 22 Station Road 20/6	Marchase Properties Ltd	568379	330880	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - 2 Hunstanton Road 20/7	Marchase Properties Ltd	568681	330518	0	0.07		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Hall Close 37/4	Massen Bldrs	568016	338455	3	1.1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Heacham - Pound Lane 37/6	Broadland Housing Assocn	567803	337566	0	0.2		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Station Road 37/7	D Crown	567862	337682	0	0.3		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Malthouse Crescent 37/8	Allison Homes Eastern Ltd	567711	337107	11	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Terrington St Clement - The Saltings 78/6	Persimmon Homes	554539	320264	0	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Emneth - Hungate Road 27/2	Gemdome	549742	307124	0	2.3		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Brancaster Hall Farm 8/1	Hastoe HA	577823	343844	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Bum. Mkt Bellamys Ln 9/2	Peddars Way HA	583590	342476	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Docking Hare Pub Hse 21/1	Mr AN Rogers	576592	337282	0	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Docking Stn Rd 21/2	Feast Properties Ltd	576572	337778	25	0.9		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Gt Mass Sunnyside 34/2	Dr & Mrs Hunham RS Baker & Sons	579575	323410	13	1.08		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Gt Mass Surgery 34/4	Hastoe HA	579594	323613	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Syderstone The Broadlands 77/1	Ashdale	582982	332734	33	1.7		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Thornham Ship Ln 80/1	Bullen Developments	572979	343467	13	3.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Stn Rd 69/2	Wagg Jex	567879	333725	0	5		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Stn Rd 69/3	Orchid Properties	568026	333497	19	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Pk Farm 69/4	Stanton Farms Ltd	569028	334086	14	1.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Gayton Back Street 33/2	J & C Farms	573020	319053	29	1.33		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Feltwell The Beck 28/3	Goymour Homes	571483	290862	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Feltwell Old Brand. Rd 28/4	Hastoe Hsg Assocn Ltd	571887	290613	0	0.39		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Marham The Street 48/1	Veltshaw Builders Ltd	570854	309795	14	0.35		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Methwold Hi/Millgt St 50/1	Beach Developments	573432	294639	7	0.9		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Northwold Whittington Mill 55/2	Marten Developments Ltd	571608	299205	22	0.49		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Outwell Isle Rd Dairy 58/1	Hannam & Davy	551140	304291	0	1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test



Villages S - Outwell Equest Cntr 58/3	Mill Lodge Equestrian Ctre	550884	303188	15	2.4		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Stoke Ferry S Fairfield 74/1	Parkland/Bennett PLC Housing 21	569986	300010	0	2.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Stoke Ferry Bridge Rd 74/2	Mr P Bishop	570628	299837	11	1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Southery Feltwell Rd 71/1	Broadland HA	562439	294863	0	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell The Russets 85/1	Wards Homes Anglia Housing Group Suiter	550601	303163	67	3.1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell The Old Mill 85/4	Mr Brown	550877	303182	17	0.3		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell Barhale Dpt 85/5	James Dev Co Ltd	550680	303103	9	0.78		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Wimbotsham Honey Hill 100/1	Bennett Plc	561826	305414	22	0.78		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test



Watlington - Thieves Bridge Rd 89/7	Hutchinson Vawser & Co	562142	310575	20	0.8		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - Gelham Court 20/1	RW Hipkin BCKLWN	568508	330361	0	9.4		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Dersingham - Hall Hotel 20/5	Willoughby (399)Ltd	568777	330724	0	0.5		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - 22 Station Road 20/6	Marchase Properties Ltd	568379	330880	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Dersingham - 2 Hunstanton Road 20/7	Marchase Properties Ltd	568681	330518	0	0.07		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Hall Close 37/4	Massen Bldrs	568016	338455	3	1.1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Heacham - Pound Lane 37/6	Broadland Housing Assocn	567803	337566	0	0.2		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Station Road 37/7	D Crown	567862	337682	0	0.3		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Heacham - Malthouse Crescent 37/8	Allison Homes Eastern Ltd	567711	337107	11	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Terrington St Clement - The Saltings 78/6	Persimmon Homes	554539	320264	0	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Emneth - Hungate Road 27/2	Gemdome	549742	307124	0	2.3		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Brancaster Hall Farm 8/1	Hastoe HA	577823	343844	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Burn. Mkt Bellamys Ln 9/2	Peddars Way HA	583590	342476	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Docking Hare Pub Hse 21/1	Mr AN Rogers	576592	337282	0	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Docking Stn Rd 21/2	Feast Properties Ltd	576572	337778	25	0.9		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Gt Mass Sunnyside 34/2	Dr & Mrs Hunham RS Baker & Sons	579575	323410	13	1.08		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Gt Mass Surgery 34/4	Hastoe HA	579594	323613	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages N - Syderstone The Broadlands 77/1	Ashdale	582982	332734	33	1.7		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages N - Thornham Ship Ln 80/1	Bullen Developments	572979	343467	13	3.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Stn Rd 69/2	Wagg Jex	567879	333725	0	5		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Stn Rd 69/3	Orchid Properties	568026	333497	19	0.7		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages C - Snettisham Pk Farm 69/4	Stanton Farms Ltd	569028	334086	14	1.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages C - Gayton Back Street 33/2	J & C Farms	573020	319053	29	1.33		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Feltwell The Beck 28/3	Goymour Homes	571483	290862	0	0.4		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Feltwell Old Brand. Rd 28/4	Hastoe Hsg Assocn Ltd	571887	290613	0	0.39		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Marham The Street 48/1	Veltshaw Builders Ltd	570854	309795	14	0.35		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Methwold Hi/Millgt St 50/1	Beach Developments	573432	294639	7	0.9		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Northwold Whittington Mill 55/2	Marten Developments Ltd	571608	299205	22	0.49		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Outwell Isle Rd Dairy 58/1	Hannam & Davy	551140	304291	0	1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Outwell Equest Cntr 58/3	Mill Lodge Equestrian Ctre	550884	303188	15	2.4		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Stoke Ferry S Fairfield 74/1	Parkland/Bennett PLC Housing 21	569986	300010	0	2.2		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Stoke Ferry Bridge Rd 74/2	Mr P Bishop	570628	299837	11	1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Southery Feltwell Rd 71/1	Broadland HA	562439	294863	0	0.6		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell The Russets 85/1	Wards Homes Anglia Housing Group Suiter	550601	303163	67	3.1		Flood Zone 1	Y	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell The Old Mill 85/4	Mr Brown	550877	303182	17	0.3		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Upwell Barhale Dpt 85/5	James Dev Co Ltd	550680	303103	9	0.78		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test
Villages S - Wimbotsham Honey Hill 100/1	Bennett Plc	561826	305414	22	0.78		Flood Zone 1	N	All residential however basement dwellings would need to pass the Exception Test

