# Integrated Drainage East Anglia (IDEA)

# Water management checklist for Local Plan policies – May 2020

## (SuDS, water efficiency and reuse, and integrated water management)

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**Introduction**

Integrated Drainage East Anglia (IDEA) which includes Anglian Water and the Lead Local Flood Authorities in the East of England have developed a checklist to inform the preparation of local plan polices relating to water management. The purpose of which is to promote the effective use of Sustainable Drainage Systems together with incorporation of water efficiency and re-use measures which will provide wider community and environmental benefits.

**Sustainable drainage systems (SuDS)**

Managing surface water runoff helps protect homes, businesses and the environment, by reducing the risk of flooding and improving the quality of runoff entering waterways, such as rivers and lakes. SuDS aim to mimic the way rainfall drains in the natural system to manage the quantity and quality of surface water runoff from developed sites, while also contributing to amenity and biodiversity. Typically a management train of different SuDS measures is used, which can include source, conveyance, site and regional controls.

*Recommendations for local plan policies:*

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| 1. All development proposals to incorporate SuDS unless it can be demonstrated by the applicant to be technically unfeasible. |
| 2. SuDS features to provide multi-functional benefits including reduced flood risk, enhanced amenity, biodiversity net gain and water quality improvement by surface water treatment. |
| 3. Applicants to demonstrate they have followed the surface water hierarchy for all proposals:<br>a) surface water runoff is collected for use;<br>b) discharge into the ground via infiltration;<br>c) discharge to a watercourse of other surface water body;<br>d) discharge to a surface water sewer, highway drain or other drainage system, discharging to a watercourse or other surface water body;<br>e) discharge to a combined sewer;<br>(*Water UK, 2020, Design and Construction Guidance – Sewerage Sector Guidance Appendix C):* |
| 4. Betterment to be achieved for all surface water management proposals by limiting the peak discharge rate to the greenfield equivalent wherever possible. |
| 5. Where a site discharges surface water to the public sewerage network a connection point and peak discharge rate and peak volume must be agreed with the local sewerage undertaker and LLFA. |

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| 6. Discharge rate(s) and volumes to include an up to date allowance for climate change to be agreed for each development proposal rather than specified in policy wording. |
| 7. Provide details of adoption and maintenance for SuDs features. |
| 8. Consider options for rainwater and surface water harvesting systems to be included as part of a SuDS management train, where the systems are designed for both functions. |

**Water efficiency and reuse**

Water efficiency and reuse measures help reduce the use of potable mains water. Water efficiency measures may include fixtures and fittings, appliances or other technologies to help save water.

Water reuse systems provide an alternative non-potable water supply for uses where drinking water quality is not required (e.g. flushing toilets and watering gardens). There are various types of water reuse systems including rainwater and surface water harvesting, grey water recycling and larger scale black water recycling schemes. Further information can be found on Anglian Water's green water page (https://www.anglianwater.co.uk/developers/development-services/green-water/).

*Recommendations for local plan policies:*

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| 1. Include reference to 110 litres/per person/per day water efficiency standard where AW is the water company including where there is more than one water company – expressed as no more than 110 litres or similar (to encourage developers to go further). |
| 2. All development proposals to incorporate water efficiency and reuse measures, for example:<br>• Grey water recycling<br>• Rainwater harvesting<br>• Surface water harvesting<br>• Water efficient fixtures and fittings/technologies to minimise water use |
| 3. The incorporation of water efficiency and re-use measures on site to be maximised subject to technical feasibility and viability. |

**Water Smart Communities (integrated water management)**

Water Smart Communities combine different elements of water management together with town planning and design to deliver multiple benefits for communities and the environment. They utilise and more holistic and integrated water management approach to encourage multi-functional assets. For example, a surface water pond designed for both SuDS attenuation and storage for water reuse, which is integrated as part of the public open space to improve amenity and provide habitat.

*Recommendations for local plan policies:*

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| 1. Applicants to explore opportunities for an integrated water management approach, including multi-functional water management assets (e.g. combined SuDS and water reuse schemes). |
| 2. Consider how an integrated water management approach can support broader local objectives (e.g. climate change, sustainability, or biodiversity aims set out in Local Plan policies). |