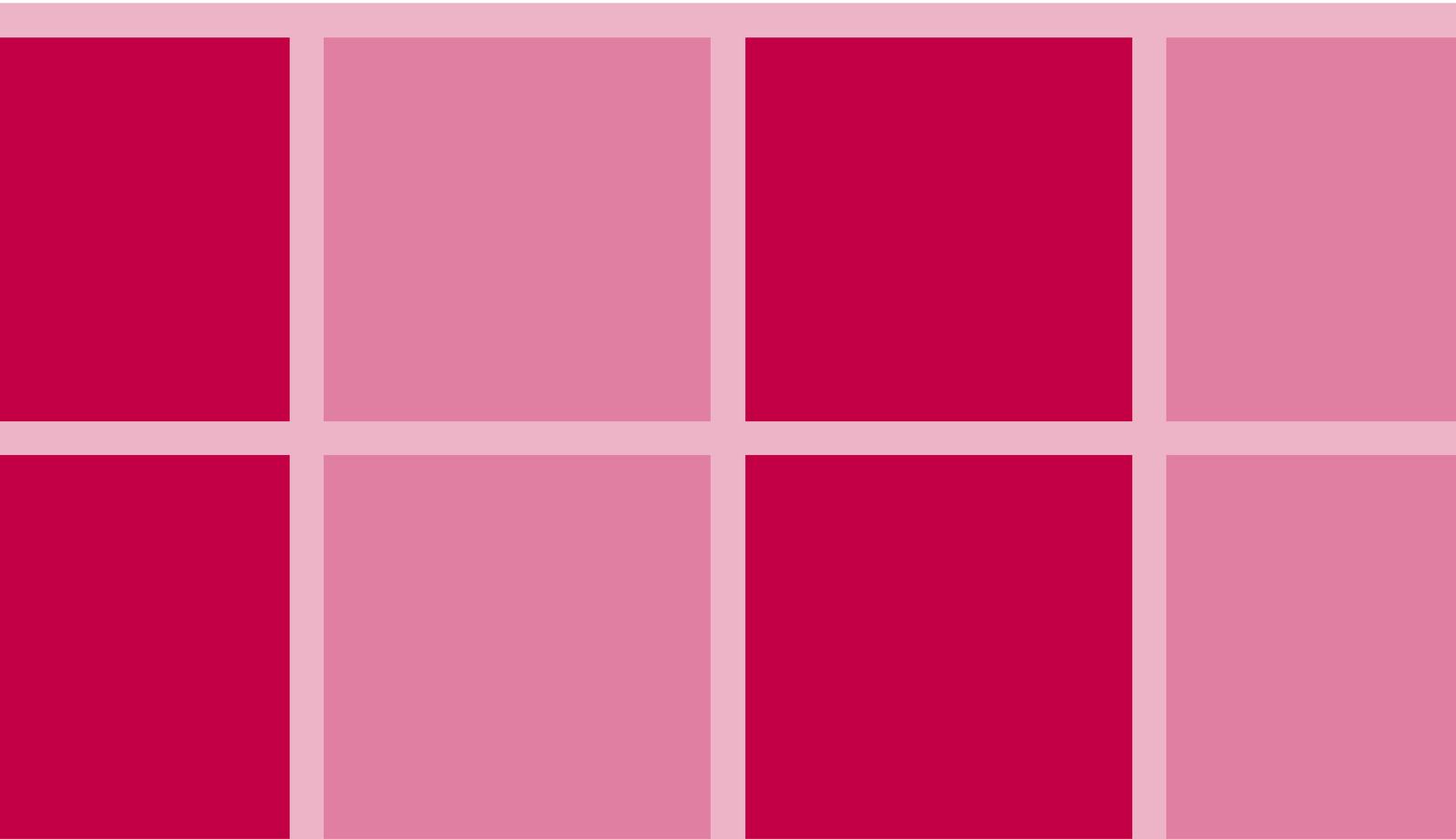


# Technical Paper - Water



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# 1 Introduction

**1.1** This technical paper provides the justification for the policies in the Telford & Wrekin Local Plan concerned with water management (Policies ER10, ER11 and ER12). This paper covers the topics of water supply, wastewater, water quality and flood risk. It should be read alongside the Council's legal obligations in the plan making process and a detailed evidence base that has been prepared, most notably the Council's Infrastructure Delivery Plan and the Integrated Assessment submitted with the Local Plan.

**1.2** The paper also acknowledges comments received during the Regulation 18 (Consultation Version) and Regulation 19 (Publication Version) stages of the Telford & Wrekin Local Plan as well as those from the Environment Agency which is a Duty to Cooperate body under the Localism Act 2011 along with the changes made to these policies as a result.

## 2 Legislative and Policy Framework

**2.1** The Council is obliged to have regard to a number of EU directives as well as UK Government primary legislation and national planning policy and guidance.

### European Legislation

#### Urban Waste Water Treatment Directive 1991

**2.2** The Directive sets minimum standards for treated effluent discharge from waste water treatment works.

#### Water Framework Directive December 2000

**2.3** The Water Framework Directive (WFD) came into force in December 2000 and establishes an integrated approach to the protection, improvement and sustainable use of Europe's rivers, lakes, estuaries, coastal waters and groundwater. The Directive requires that all member states manage their inland and coastal water bodies so that a good status is achieved. This aims to provide substantial long term benefits for sustainable management of water. In exercising their planning functions, Councils must have regard to the river basin management plans prepared by the Environment Agency which implement this directive.

#### Floods Directive 2009

**2.4** The Floods Directive was transposed into UK law in 2009. The Directive requires Member States to first carry out Preliminary Flood Risk Assessments (PFRA). The last PFRA for England was conducted in 2011 and the borough was not identified as a flood risk area. Telford & Wrekin is located within the English area of the Severn River Basin.

## UK Legislation and Policy

### Flood and Water Management Act 2010

**2.5** The Act is the outcome of a thorough review of the responsibilities of regulators, local authorities, water companies and other stakeholders in the management of flood risk and the water industry in the UK. The Pitt Review of the 2007 flood was a major driver in the forming of the legislation. Its key features relevant to this paper are:

- To give the Environment Agency an overview of all flood and coastal erosion risk management and unitary and county councils the lead in managing the risk of all local floods;
- To encourage the uptake of sustainable drainage systems by removing the automatic right to connect to sewers and providing for unitary and county councils to adopt SUDS for new developments and redevelopments; and
- To widen the list of uses of water that water companies can control during periods of water shortage, and enable Government to add to and remove uses from the list.

**2.6** Telford & Wrekin is a Lead Local Flood Authority under this Act and, as a result, has a responsibility to develop, maintain, apply and monitor a strategy for local flood risk management for the borough. The Councils Local Flood Risk Management Strategy was formally adopted in 2015.

## National Planning Policy

**2.7** The Council has had regard to the National Planning Policy Framework (the NPPF) and the National Planning Practice Guidance (NPPG) in the articulation of its water-related planning policies.

### National Planning Policy Framework

**2.8** Sustainability is a "golden thread" that runs through national planning policy. Having regard to its implications for policies to deal with water the relevant advice, contained within the NPPF, for this Council <sup>(1)</sup> is as follows:

- The Council should adopt a proactive strategy to mitigate and adapt to climate change, taking full account of flood risk and water supply and demand considerations (paragraph 94);
- It should take account of climate change over the longer term, including factors such as flood risk, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the impacts arising from climate change (paragraph 99);
- It should direct new housing away from areas of highest flood risk and should be supported by Strategic Flood Risk Assessments taking account of the advice of the Environment Agency (paragraph 100);
- The Local Plan should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property (paragraphs 100 to 102);

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1 because Telford & Wrekin is not a coastal authority

- The planning system should enhance the natural and local environment by preventing new and existing development from contributing to or being put at unacceptable risk from water pollution (paragraph 109);
- The Local Plan should set out strategic priorities for waters supply, waster water and flood risk, among other things (paragraph 156); and assess the quality and capacity of infrastructure for waters supply and wastewater (paragraph 162).

## National Planning Practice Guidance

**2.9** The NPPG has provided advice <sup>(2)</sup> on the relevant considerations that a Council has to take into account in planning for water supply, waste water and water quality. The broad areas of consideration are:

- **Infrastructure and water quality** - Local Plans may need to identify sites for new or enhanced infrastructure and take into account whether new development is appropriate near to sites with water and waste water infrastructure. It advises that new development should be phased so that water and wastewater infrastructure will be in place where needed.
- **Wastewater** - plan making should consider the sufficiency and capacity of wastewater infrastructure;
- **Cross-boundary concerns** - these should be addressed on a catchment basis and through liaison with the Environment Agency and neighbouring local authorities.
- **Strategic environmental assessment and sustainability appraisal** - water supply and quality is a consideration in these assessments.

## 3 Evidence Base

### Current Local Practice

#### Local Planning Policy

**3.1** The Core Strategy is the principal development plan document which currently covers water matters, identifying existing infrastructure at Coalport, Newport and Rushmoor; the need to manage drainage issues from potential pollution and to reduce flood risk. The spatial development strategy was underpinned by the flood risk research undertaken. The principal policies supporting the Council's approach to managing water issues locally are Policy CS13 Natural Environment and Policy CS12 Natural Environment. Collectively, the thrust of these policies is to: integrate measures for sustainable water management; reduce flood risk; protect the countryside, open space, natural resources and flood-risk areas from unnecessary development; and promote the highest standards of resource and energy efficiency.

#### Water Infrastructure Management and Delivery

**3.2** Water supply and waste water treatment are the responsibility of Severn Trent Water as the statutory undertaker as set out in the Water Industry Act 1991. The role of the Environment Agency is to monitor and regulate Severn Trent Water's environmental related activities including the issuing of Environmental Permits for; waste water discharge from sewage works; the supply of drinking water; and monitoring water quality.

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2 Reference ID: 34-002-20140306

**3.3** Severn Trent Water has an obligation to plan for, invest in and develop infrastructure to support the provision of public water supplies and sewerage treatment capacity. Water Resource Management Plans provide a 25 year framework for the identification of long term planning issues such as resilience of water supplies. The delivery of and investment in strategic infrastructure is then managed and delivered through five yearly Asset Management Plans.

**3.4** The framework through which water supply and waste water are managed and delivered include the following documents:

- **Water Resources Management Plan 2014 to 2039** - All water companies are required to produce Water Resource Plans covering a period of 25 years, which should demonstrate the predicted demand and supply requirements resulting from population growth. The preparation of Local Plans and associated Infrastructure Delivery Plans feed into this process, providing water companies with important information on planned development levels.
- **Severn Trent Water Asset Management Plan period 6 2015 to 2020** - Water companies (including Severn Trent Water) produce 5 year business plans known as Asset Management Plans, setting out their planned infrastructure projects for that period. The current period 6 covers 2015 - 2020 with period 7 covering 2020 - 2025 with draft plans expected to be submitted in 2018 and period 8 covering 2025 - 2030.
- **Severn River Basin Management Plan 2009 to 2015** - The plan sets out the pressures facing the water environment in this river basin district and the actions that will seek to address these. The plan is prepared under the Water Framework Directive and will be reviewed on a six yearly cycle with the next plan due for adoption in 2016. The Council is represented on the project steering group.

**3.5** Most investment in infrastructure will be agreed through the Asset Management Planning process, however where unforeseen requirements arise during an Asset Management Planning period Severn Trent Water can submit interim determinations to Ofwat, the water industry regulator, to seek additional funding to meet these requirements.

**3.6** When a developer wishes to proceed with a particular site, they can requisition Severn Trent Water to provide local network infrastructure to connect the site to public water supplies and sewers with the cost being met by Severn Trent Water as part of their role as statutory undertaker. However, provisions within the legislation do allow costs to be shared between the developers and Severn Trent Water via a 'Requisition Agreement' if it is demonstrated that there is/was no sewerage problem before development.

**3.7** Severn Trent Water expects that its main responsibility over the Local Plan period will lie with removing foul waste from new developed sites. This reason for this is that the Council will be promoting the use of Sustainable Drainage features through Local Plan policy.

**3.8** The borough's population is primarily supplied by ground water abstracted from local aquifers via a series of boreholes. The borough is covered by two 'Water Resource Zones' (WRZ) which are the geographical areas for drawing ground water supplies. The larger portion of the borough, including Telford, is covered by the Shelton WRZ and a portion of the rural area covered by the Wem and Whitchurch WRZ. The key issues driving investment in water supply infrastructure are sustainable management of ground water, addressing issues of low river flows and improving the resilience of local water supplies.

**3.9** Severn Trent Water has a general duty under section 94 (1A) and (1B) of the Water Industry Act 1991 to:

- Provide, maintain, improve and extend such a system of public sewers;
- Ensure that the area is and continues to be effectively drained;
- Make provision of the emptying of sewers by means of sewage disposal works or otherwise.

**3.10** Waste water is managed by Severn Trent Water through nine sewage works spread across the the borough, two sites located outside the borough at Coalport (to the south) and Monkmoor (to the west) and associated sewerage networks. The majority of homes are served by Rushmoor, Coalport and Newport with rural settlements served by smaller treatment plants.

**3.11** The key factors influencing the levels of water treatment at sewage works are the size of the population and sensitivity of receiving water courses to the pollutants that could be discharged. The Environment Agency regulates the discharge of water from sewage works and monitors the quality of local receiving water courses to help determine the source of any pollution.

### **Drainage and Flood Risk Management**

**3.12** Under the Flood and Water Management Act 2010 the Council has been designated the Lead Local Flood Authority for the borough and, as such, has a responsibility to develop, maintain, apply and monitor a strategy for local flood risk management in the borough. The Council works closely with the Environment Agency, Severn Trent Water and the Strine Internal Drainage Board (IDB) to reduce instances of flooding and damage to property with flood risk betterment considered where viable.

**3.13** Responsibility to manage flood risk and drainage falls under the following bodies:

- **The Council (Lead Local Flood Authority)** - management of flood risk from ordinary watercourses, surface water runoff and ground water and consultee on Sustainable Drainage Systems;
- **Environment Agency (EA)** - strategic overview on flood risk and management of flooding from main rivers;
- **Severn Trent Water (STW)** - to provide, maintain and operate systems of public sewers and works for the purpose of effectively draining their area;
- **Strine Internal Drainage Board** - work to secure clean water drainage and water level management to ordinary watercourses within their boundary.

**3.14** Working in partnership with the above agencies the Council has delivered a range of projects including:

- The erection of temporary flood barriers along the Wharfage at Ironbridge to protect against flooding from the River Severn;
- 'Love Your River' a joint project to promote better management and maintenance of local water courses;
- Maintenance of water course grilles and structures.

## Local Plan Evidence Base

**3.15** In preparing new policies the Council engaged external advice on the subjects listed below.

**3.16 Water Cycle** (including water supply, waste water and flood risk):

- A 2012 scoping Water Cycle Study (Hyder Consulting (UK) Ltd)
- A 2014 Detailed Water Cycle Study (AMEC)
- An update to the detailed Water Cycle Study (AMEC)

**3.17 Water Quality:**

- Water Quality Modelling for Telford & Wrekin

**3.18 Flood Risk:**

- Telford and Wrekin Council Strategic Flood Risk Assessment for Local Development Framework Level 1, Volume 1 (2007)
- Telford and Wrekin Council Strategic Flood Risk Assessment Framework Level 2 Final (2008)
- Telford & Wrekin Strategic Flood Risk Assessment Phase 2 Addendum (2015)
- Telford & Wrekin Council Lead Local Flood Authority Flood Risk Management Strategy (2015)

## Water Resources and Supply

**3.19** The updated Water Cycle Study concludes that the level of demand for water has significantly reduced following the updated residential and employment allocations included within the Local Plan. Severn Trent Water are pursuing flexible solutions to improve the resilience of local water supply this includes projects listed in Severn Trent Water's current Water Resources Management Plan including:

- Increasing the levels of abstraction from the Uckington borehole; and
- The recently completed £18m investment in a 8km water supply pipeline between Shrewsbury and Telford allowing the transfer of water from the west part of the Shelton Water Resource Zone to the east part should circumstances require.

**3.20** The Water Cycle Study (and direct contact) concluded that Severn Trent Water does not anticipate any significant capacity problems within the areas of its network over the life of the Local Plan, and that the company would address any requirements for additional capacity by reinforcing its network through the Asset Management Plan process.

## Wastewater Treatment and Sewerage Constraints

**3.21** Early engagement with the Environment Agency and Severn Trent Water as part of the development of the Water Cycle Study helped to identify the physical capacity of existing sewage works and areas of potential constraints and opportunities for development.

**3.22** Following advice from the Environment Agency the Council has worked to phase allocated development sites towards the later two thirds of the Local Plan. Given the build out rates and projected start dates for allocated development sites it is agreed by all parties including the Council, the Environment Agency and Severn Trent that there is a sufficient lead in time to plan for and address the need for additional capacity at local treatment works.

**3.23** The update to the Detailed Water Cycle Study, 2016 and the Water Quality Modelling carried out by the EA showed that there are no significant waste water barriers to the delivery of growth over the period of the Local Plan. Identified constraints at Newport sewage works are actively being addressed through a project to switch flows to Rushmoor Water Waste Treatment Works which has significant additional capacity available. Capacity at Coalport works will also be addressed during the AMP 6 (2015-20) period to cover the expected levels of development.

**3.24** It should be noted that Severn Trent Water will address capacity requirements through the five year Asset Management Plans and the Council will work in partnership to consider what development is expected to come forward over that period of the Local Plan.

### **Flood Risks**

**3.25** The Strategic Flood Risk Assessment was carried out in 2008 and, following agreement with the EA, an addendum document was produced in 2015 which assessed additional sites not considered as part of the original assessment.

**3.26** Of the sites allocations in the Local Plan parts of a small number were affected by flooding. This included larger development sites including H1, H2 and H10. Site H1 lies approximately 70% within Flood Zone 1 and it is expected that development will take place within this area the remaining sites have significantly smaller portions in Flood Zones 2-3.

**3.27** Where areas of sites are within Flood Zones 2 and 3 these developments should consider housing design, site layout, including access within the context of minimising the potential impacts of flooding.

## **4 Local Plan Water Management Policies**

**4.1** The importance of this topic area is reflected across the Local Plan. Aim 3 of the Local Plan is to **Harness the borough's natural environment** and Aim 7 of the Local Plan is to **Reduce the environmental impact**. A number of objectives beneath these aims seek to deliver these aims.

**4.2** The Council has therefore prepared three water-related policies. These are: Policy ER10 Water conservation and efficiency; Policy ER11 Sewerage systems and water quality; and Policy ER12 Flood risk management. Other policies have been drafted which indirectly support the water related policies in the Local Plan including: Policy BE1 Design criteria; Policy BE2 Residential alterations; and Policy BE10 Land contamination. The Local Plan identifies a number of monitoring indicators against which these policies will be reviewed.

### **Policy ER10 - Water Conservation and Efficiency**

**4.3** The purpose of Policy ER10 is to enable development to make a positive and more cost effective contribution towards improving the local environment by adopting design features that reduce, reuse and recycle water.

**4.4** As detailed earlier, allocated development in the Plan will increase demand for water, Severn Trent Water are planning for this and pursuing options to secure the balance between demand and supply. It is in the interest of the Local Plan to have a policy that makes a positive contribution to the security, conservation and long term sustainability of the borough's water supplies. The policy will help drive a culture change in the sustainability of new developments and amongst new residents through the supply of low cost measures to help offset potable water demand including, for example, water butts.

## **Policy ER11 - Sewerage Systems and Water Quality**

**4.5** A plan led approach to the delivery of development is required to address the sewage capacity constraints and phase the delivery of wastewater treatment infrastructure referred to in evidence documents.

**4.6** There is an element of existing capacity with existing waste water treatment infrastructure serving the borough, however it is not always possible to match growth proposals with available capacity due to other planning factors such as the need to release brownfield sites, public land and access to other services and facilities such as schools.

**4.7** The purpose of Policy ER11 is to align development with available capacity at wastewater treatment works and where capacity is constrained, the policy ensures that infrastructure improvements are planned for and delivered to meet development as it comes forward. Additionally, the policy seeks to comply with the Water Framework Directive 2000 so that development contributes towards achieving 'good quality' status for all water bodies.

## **Policy ER12 - Flood risk management**

**4.8** The purpose of Policy ER12 is to take a proactive approach to managing flood risk from watercourses, sewers, heavy rainfall and groundwater sources. The policy has been developed in the context of potential for flooding in certain areas of the borough where some of the housing the employment allocations are sited and the history of flooding in the Ironbridge Gorge World Heritage Site as well as other areas of the borough where windfall development might take place.

**4.9** The policy will play a important part in protecting developments and third party property from flooding by working to retain water on-site through sustainable drainage as well as other measures. The policy ensures that development plans take into account the effects of climate change through such measures as setting appropriate stand off areas between development and areas prone to flooding. Additionally, the policy sets out a series of further measures do with culverts and watercourses, as agreed with the Environment Agency to help alleviate the effects of flooding.

## **Other Water Related Considerations**

**4.10** Separately from the development of these policies, the Council has assessed all of its site allocations from the perspective of flood management and is confident that all of the sites could be developed. It demonstrates that the majority of sites are in Flood Zone 1 and that development would not be expected to take place on those parts of sites which are identified to be in Flood Zone 3 unless appropriate mitigation is agreed in advance of development.

**4.11** Finally, the Infrastructure Delivery Plan <sup>(3)</sup> has considered the potential impacts on the borough as a result of the housing and employment land requirement in the Local Plan in consultation with the Environment Agency, Severn Trent Water and the Strine Internal Drainage Board. The IDP has concluded that it is not necessary to plan for any new water infrastructure facilities within the plan making process. Nor are there any critical water infrastructure issues that cannot be addressed other than through existing partnership working and Severn Trent Waters Asset Management Planning process.

## **5 Review of Regulation 18 (Consultation Version) and Regulation 19 (Publication Version) representations**

### **Regulation 18 (Consultation Version) representations**

**5.1 Policy ER 10 Water Conservation and Efficiency:** A number of respondents such as the Environment Agency and the Telford Green Space Partnership supported the policy. However, others raised concerns over water demand issues associated with the amount of new development taking place across the lifetime of the Local Plan, Severn Trent Water are planning for additional demand set out within the Local Plan.

**5.2** Policy ER10 originally referred to schemes of 10 or more homes or development of 1,000 sqm or more. This was changed to "major development" and the term defined in the Glossary of the Local Plan consistent with the Town and Country Planning (Development Management Procedure) (England) Order 2015.

**5.3 Policy ER 11 Sewage Systems and Water Quality:** Predominately there was support for the policy including support from the Environment Agency. However, a couple of concerns were raised by respondents in regards to the potential drainage issues which may occur in Ironbridge and South Telford due to extent of new development including one site allocation in Ironbridge. The policy is designed to ensure that any waste water and drainage issues are planned for prior to development coming forward.

**5.4 Policy ER 12 Flood Risk Management:** The Environment Agency broadly support the policy. One rural parish raised concern at the potential increased runoff from developments in the north of Telford on the Northern Interceptor Channel, this issue has been discussed with the Strine Internal Drainage Board and Severn Trent Water have been asked to investigate capacity and maintenance of the interceptor.

**5.5** The term "Sustainable Urban Drainage Systems" in Policy ER12 was changed to "Sustainable Drainage Systems" to take account of the fact that the principle applies to development in the rural area as well as urbanised parts of the borough.

**5.6** The text of these policies was revised slightly with some paragraphs merged and policy indent numbering changed. The changes were made chiefly to improve the readability of the policies. The Council has reviewed its extensive evidence base and is confident that the borough's water infrastructure can accommodate the employment and housing requirements set out in the Local Plan.

## Regulation 19 (Publication Version) representations

**5.7** Six duly made representations were made in connection with Policies ER10 to ER12. Separately from this the Environment Agency submitted a representation in its duty to cooperate role stating as follows: *"We have no significant comments to make on this as we have bottomed out the Policy Wording and supporting evidence for both the Flood Risk/Waste Water elements. With regard to climate change I would re-iterate my previous email in regard to the recently produced climate change guidance that, in instances where local plans, and the associated evidence base, are well advanced, the application of the updated allowances could significantly slow down completion or add to costs."* The Council has subsequently confirmed that the updated allowances have been taken into account in the Local Plan's housing and employment land allocations.

**5.8** Natural England supported Policy ER10 too. One developer and a consortium of housing associations opposed the policy stating that such matters are covered elsewhere (the Building Regulations) or are unnecessary and should be addressed by the Building Regulations. One Newport group queried how recently approved schemes in the town would achieve this policy goal.

**5.9** No comments were received in connection with Policy ER11 Sewerage systems and water quality.

**5.10** The Woodland Trust support Policy ER12 Flood risk management. A Newport based business opposed the nine criteria in the policy as being unduly burdensome. By contrast, the Council takes the view that the criteria will be applied on a case by case basis.

**5.11** The Council does not consider it necessary for reasons of soundness to make any further changes to this suite of policies.

## 6 Conclusion

**6.1** This technical paper has demonstrated that the Council has prepared water management policies based on a comprehensive evidence base and following extensive engagement with relevant statutory undertakers and the Environment Agency, a duty to cooperate body. It is significant to note that all expert bodies support the policies within the Local Plan and the Council has demonstrated that the policies are consistent with national policy and support sustainable development.

**6.2** In addition to the above the IDP demonstrates that the EA and Severn Trent Water are aware of and are planning for the levels of growth set out within the Local Plan with infrastructure improvements delivered through the Asset Management Plan process. The IDP will be kept under regular review and the Council will work with Severn Trent Water as part of the Asset Management process on forward planning of residential and employment development for the following five year period.