Dear Sir/Madam

Rushcliffe Local Plan Part 2 - Publication

Thank you for the opportunity to comment on your consultation. Please find some comments on Local Plan part 2 below, please keep us informed as your plans are developed further when we will be able to offer more detailed comments and advice.

Policy 1: Development Requirements (Sustainable Development)

Severn Trent understand that there is a need for additional development to occur and that this need for additional housing and employment needs balanced against other factors including the nature environment and local resources. We are therefore supportive of the general principle laid out within Policy 1. However this policy does not make any reference to drainage or water consumption. From a water supplier and sewerage undertakers viewpoint these two elements are key to delivering sustainable development both within the plan period and beyond.

Severn Trent would therefore encourage the inclusion of a bullet point within policy 1 which directs developers to use the lower water consumption rate of 110 Litres of water per person per day. Development in accordance with this approach would provide a more resilient supply of water for future generations in the face of climate change and further anticipated growth requirements. This policy would therefore consistent with the overriding principles of the National Planning Policy Framework (NPPF), delivering both Social and Environmental sustainability benefits.

Severn Trent would like to highlight the need to ensure that surface water is returned to the natural water system through the most sustainable route. We are therefore supportive of the drainage hierarchy which is specified in Paragraph 80 of the Planning Practice Guidance PPG (Reference ID: 7-080-20150323). An additional bullet point to reference the need to deliver drainage in accordance with these principles should be considered within this policy.

Severn Trent are supportive of the use of Sustainable Drainage Systems (SuDS) and note that all major development will need to incorporate SuDS, unless proven in accordance with the Written Ministerial Statement for Sustainable Drainage (HCWS161). The use of SuDS to manage surface water flows will be key to protecting properties, watercourses and the sewers from extreme weather events and the impacts of climate change. Severn Trent therefore encourage the inclusion of a bullet point to specifically reference the need to incorporate SuDS within all new major developments.

These principles are further supported within NPPF by paragraph 94 “Local Authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.”
It is noted that there are a number of Policies within the Plan that relate to specific development sites, some of the comments within this next section have been touched on in the response to Policy 1, but as the sites are subject to site specific policies there would be additional benefits to highlight all relevant aspects within the individual policies.

Policy 2.1 - Housing Allocation – Land rear of Mill Lane/ the Old Park, Cotgrave

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 2.1 does highlight the need to incorporate SuDS within the development, Severn Trent are supportive of this approach. Severn Trent would also support a reference to the drainage hierarchy within the Policy, this is particularly important as the site is indicated to have a watercourse flowing along the site boundary. Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 2.2 - Housing Allocation – Land south of Hollygate Lane, Cotgrave

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 2.2 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to slope gradually to the north and a drain is indicated to flow north on the opposite side Hollygate road. Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 3 – Housing Allocation – Land North of Rempstone Road, East Leake

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that Policy 3 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The Rempstone Road Development site is indicated to be bounded by a watercourse along the northern boundary of the site. Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 4.1 – Housing Allocation – Land off Nicker Hill, Keyworth

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 4.1 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The Nicker Hill Development site is indicated slope towards the North East, a watercourse is indicated on the OS Maps to flow along the nearby field boundaries in accordance with the drainage hierarchy if infiltration is not suitable the possibility of draining this development site to the watercourse should be promoted. There are surface water sewers in the vicinity of the site therefore no connection of surface water to a foul sewer should be undertaken.
Policy 4.2 – Housing Allocation – Land between Platt Lane and Station Road, Keyworth

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 4.2 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicate to slope gradually to the east, towards Platt Lane and there is a watercourse indicated on OS Maps on the southern side of Platt Lane. Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 4.3 – Housing Allocation – Land South of Debdale Lane, Keyworth

There is the potential for sewer capacity improvements to be required to enable the development of this site to be undertaken. Severn Trent Would therefore advise that further discussion regarding the development of this site is undertaken with Severn Trent to ascertain the likely delivery and the timescales for this development. It is noted that the site may require a northern and southern drainage system to be developed due to the topography of the site. The site is bounded by a watercourse along the northern boundary, therefore the majority of the site should be able to drain to watercourse. No connection of surface water to a foul sewer should be permitted.

It is noted that policy 4.3 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to contain sewers therefore developers should be advised to contact Severn Trent Developer Services regarding the locations and limitations of working around these assets.

Policy 4.4 – Housing Allocation – Hillside Farm, Keyworth

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 4.4 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. Based on the topography and sewer records, it is believed that the southern boundary of the site is watercourse, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 5.1 – Housing Allocation – Land North of Nottingham Road, Radcliffe on Trent

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 5.1 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to be intersected by a watercourse Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.
The topography and location of the site may result in a number of connection points being possible, it is advised that early consultation is undertaken to ensure that the proposed connection point for this development and the associated drainage strategy are designed in conjunction. This should ensure that the development is carried out in a sustainable way and limit the disruption to developers and resident.

Policy 5.2 – Housing Allocation – Land adjacent Grooms Cottage, Radcliffe on Trent

Severn Trent would like to highlight that development of this site and the adjacent site indicated under Policy 5.3 should be considered together when looking at the development of the drainage system. Both sites will require a connection into the drainage system and it is advised that further consultation regarding the delivery of these sites and the potential timescales, phasing and delivery of these schemes should be undertaken, to ensure the most sustainable connection is developed and disruption to residents is minimised.

There are no surface water or combined sewers in the vicinity of this site, therefore the development of site 5.2 without the development of the site identified by Policy 5.3 would not be a sustainable option. As identified above the development of the surface water drainage for policies 5.2 and 5.3 should be undertaken jointly as this would result in a more sustainable system being developed, reduced developer costs and reduced disruption to residents. Severn Trent would encourage early consultation regarding these sites to ensure that a suitable drainage solution can be developed.

It is advised that a specific reference to the need to design the drainage on conjunction with the adjacent site should be written into the local plan to enable this to be enforced as development is brought forward. This could be through phasing to ensure that the drainage for development 5.3 is constructed prior to the commencement of the site 5.2. Severn Trent would advise that reference to the use of SuDS and the drainage hierarchy are incorporated for clarity. No connection of surface water to the foul sewers should be permitted.

Policy 5.3 – Housing Allocation – Land off Shelford Road, Radcliffe on Trent

Severn Trent would like to highlight that development of this site and the adjacent site indicated under Policy 5.2 should be considered together when looking at the development of the drainage system. Both sites will require a connection into the drainage system and it is advised that further consultation regarding the delivery of these sites and the potential timescales, phasing and delivery of these schemes should be undertaken to ensure the most sustainable connection is developed and disruption to residents is minimised.

The site is indicated to slope towards the southern boundary of the site, this boundary is indicated to be demarcated by a watercourse. In accordance with the drainage hierarchy, as outline within our response to Policy 1 surface water should be directed towards this watercourse as an outfall. SuDS principles should be utilised as part of the development and bullet points to reference SuDS and the Drainage Hierarchy are advised within the individual policy for clarity. Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.
Policy 5.4 – Housing Allocation – Land North of Grantham Road, Radcliffe on Trent

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 5.4 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to be intersected by a watercourse, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 5.5 – Housing Allocation – 72 Main Road, Radcliffe on Trent

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 5.5 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to be intersected by a culverted watercourse, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 5.6 – Housing Allocation – The Paddocks, Nottingham Road, Radcliffe on Trent

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 5.6 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity.

The site is indicated to be relatively flat, a watercourse is indicated to run through the proposed allocation 5.1 on the opposite site of Nottingham road, it is unclear if there are any surface water flows closer to the development, but there are no Surface water or Combined sewers within the vicinity of the site. In accordance with the drainage Hierarchy surface water should be directed towards the watercourses. No Connection of surface water to the foul sewer should be permitted.

The site is indicated to contain sewers therefore developers should be advised to contact Severn Trent Developer Services regarding the locations and limitations of working around these assets.

Policy 6.1 – Housing Allocation – Land West of Wilford Road, Ruddington

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 6.1 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to be bounded by a watercourse along the northern boundary of the site, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.
The site is indicated to contain sewers therefore developers should be advised to contact Severn Trent Developer Services regarding the locations and limitations of working around these assets.

**Policy 6.2 – Housing Allocation – Land South of Falwforth Lane, Ruddington**

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 6.2 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity.

The site is not located adjacent to any obvious watercourse, although there may be a culverted watercourse or road side ditch present in Flawforth Lane. There are no surface water or combined sewers in the vicinity of the site. There is a watercourse to the North East of the development site. As identified under the drainage Hierarchy, if the site is not suitable for infiltration this would be the next appropriate outfall for surface water. No surface water connections should be made into the Foul Sewers.

It may be advisable to ensure that the development of the surface water drainage for the site is considered in conjunction with Policy 6.3, either in relation to phasing or detailed drainage for both sites, this would deliver a more sustainable drainage solution and minimise disruption on local residents.

**Policy 6.3 – Housing Allocation – Land Opposite Mere Way, Ruddington**

There is the potential for sewer capacity improvements to be required to enable the development of this site to be undertaken. Severn Trent would therefore advise that further discussion regarding the development of this site is undertaken with Severn Trent to ascertain the likely delivery and the timescales for this development. It is noted that the site may require a northern and southern drainage system to be developed due to the topography of the site. The northern portion of the site may need to drain through the proposed development identified under Policy 6.2.

As identified above, the development of the surface water drainage for policies 6.2 and part of 6.3 should be undertaken jointly as this would result in a more sustainable system being developed, reduced developer costs and reduced disruption to residents. Severn Trent would encourage early consultation regarding these sites to ensure that a suitable drainage solution can be developed.

It is advised that a specific reference to the need to design the drainage in conjunction with the adjacent site should be written into the local plan to enable this to be enforced as development is brought forward. This could be through phasing to ensure that the drainage for development 6.2 is constructed prior to the commencement of the northern part of site 6.3.

It is noted that policy 6.3 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity.
There are no watercourses identified adjacent to the site for the southern portion of the development, whilst there is a combined sewer within Loughborough Road. There is also a surface water sewer in Mere way. Discharge of surface water to the surface water sewer should be investigated as this would represent a more sustainable outfall in accordance with the drainage Hierarchy.

**Policy 7 – Housing Allocation – Land East of Church Street, Cropwell Bishop**

The proposed development is adjacent to our Sewerage Treatment works, this is acknowledged within bullet point B. Severn Trent would advise that a FIDOL assessment is carried out to ensure that development at this location can be carried out without undue impact from the existing Sewerage Treatment works. This assessment should also be used to ensure that the proposed buffer is large enough to provide sufficient mitigation.

Severn Trent have no further concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 7 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The site is indicated to be bounded by a watercourse along the western and northern boundaries of the site, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

**Policy 8.1 – Housing Allocation – Land between Butt Lane and Closes Side Land, East Bridgeford**

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 8.1 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. There are no watercourses indicated within the vicinity of the site, and the nearby Sewers is indicated to be a combined system. Severn Trent would therefore strongly advocate the use of the drainage hierarchy on this site to find a more sustainable outfall for the surface water from the development.

**Policy 8.2 – Housing Allocation – Land South of Butt Lane, East Bridgeford**

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 8.2 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. There are no watercourses indicated within the vicinity of the site, and the nearby Sewers is indicated to be a combined system. Severn Trent would therefore strongly advocate the use of the drainage hierarchy on this site to find a more sustainable outfall for the surface water from the development.

The site is indicated to contain sewers therefore developers should be advised to contact Severn Trent Developer Services regarding the locations and limitations of working around these assets.
Policy 9 – Housing Allocation – Land East of Gypsum Way / The Orchards, Gotham

There is the potential for sewer capacity improvements to be required to enable the development of this site to be undertaken. Severn Trent Would therefore advise that further discussion regarding the development of this site are undertaken with Severn Trent to ascertain the likely delivery and the delivery timescales for this development. It is noted that policy 9 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity.

The OS maps indicate that there is a field drain running through the development site, there is also a watercourse on the opposite side of Leake Road, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 10 – Housing Allocation – Land North of Park Lane, Sutton Bonnington

Severn Trent have no specific concerns in relation to this development provided that the surface water drainage for the site is designed and constructed in line with the principles suggested for Policy 1. It is noted that policy 10 does not highlight the need to incorporate SuDS into the drainage system. Severn Trent would advise that reference to the use of SuDS and the drainage Hierarchy are incorporated for clarity. The northern boundary of the site is indicated to contain a watercourse, Severn Trent would therefore anticipate that no surface water flows would be connected to the local sewerage system.

Policy 12 – Housing Standards (Water Efficiency Standards)

Severn Trent are supportive of the inclusion of the optional water efficiency standard as this will help to secure water resources for current and future growth. This approach is also supportive of the underlying principles of NPPF. Severn Trent would also advise the incorporation of section of policy 12 to promote the use of rain water harvesting.

Policy 15 – Employment Development

Severn Trent would advise that all 6 of the commercial development are required to incorporate SuDS, in accordance with the underlying Principles of NPPF this principle is also supported by Policy 1 of the Rushcliffe Local Plan Part 2. In accordance with the House of Commons Written Ministerial Statement for Sustainable Drainage (HCWS161) any brownfield development should look to reduce the surface water discharge rate to a rate as close as reasonably practical to the equivalent greenfield runoff rate. This is particularly important where these flows are directed into combined sewers. Redevelopment of sites should also look to replace combined sewers with separate Foul and Surface water systems so that when upgrades are made to the Severn Trent Network separation of flows can be considered and implemented as appropriate. This approach is supported by the Drainage Hierarchy as identified in our response to Policy 1.

Severn Trent would also advise the incorporation of section of policy 15 to promote the use of rain water harvesting, this policy would assist with both water consumption and flood risk within commercial developments, particularly where there are any water intensive industrial processes proposed.
Policy 18 – Surface Water Management

Severn Trent are supportive of the use of SuDS and SuDS principles to manage Surface Water Run-off. We would also recommend that the Drainage Hierarchy is included to direct surface water to natural outfall routes such as infiltration or Watercourse before utilising sewers, as supported by Planning Practice Guidance Paragraph 80. Surface water should also not be permitted to connect to a foul sewer.
For your information we have set out some general guidelines that may be useful to you.

**Position Statement**
As a water company we have an obligation to provide water supplies and sewage treatment capacity for future development. It is important for us to work collaboratively with Local Planning Authorities to provide relevant assessments of the impacts of future developments. For outline proposals we are able to provide general comments. Once detailed developments and site specific locations are confirmed by local councils, we are able to provide more specific comments and modelling of the network if required. For most developments we do not foresee any particular issues. Where we consider there may be an issue we would discuss in further detail with the Local Planning Authority. We will complete any necessary improvements to provide additional capacity once we have sufficient confidence that a development will go ahead. We do this to avoid making investments on speculative developments to minimise customer bills.

**Sewage Strategy**
Once detailed plans are available and we have modelled the additional capacity, in areas where sufficient capacity is not currently available and we have sufficient confidence that developments will be built, we will complete necessary improvements to provide the capacity. We will ensure that our assets have no adverse effect on the environment and that we provide appropriate levels of treatment at each of our sewage treatment works.

**Surface Water and Sewer Flooding**
We expect surface water to be managed in line with the Government’s Water Strategy, Future Water. The strategy sets out a vision for more effective management of surface water to deal with the dual pressures of climate change and housing development. Surface water needs to be managed sustainably. For new developments we would not expect surface water to be conveyed to our foul or combined sewage system and, where practicable, we support the removal of surface water already connected to foul or combined sewer.

We believe that greater emphasis needs to be paid to consequences of extreme rainfall. In the past, even outside of the flood plain, some properties have been built in natural drainage paths. We request that developers providing sewers on new developments should safely accommodate floods which exceed the design capacity of the sewers.

To encourage developers to consider sustainable drainage, Severn Trent currently offer a 100% discount on the sewerage infrastructure charge if there is no surface water connection and a 75% discount if there is a surface water connection via a sustainable drainage system. More details can be found on our website


**Water Quality**
Good quality river water and groundwater is vital for provision of good quality drinking water. We work closely with the Environment Agency and local farmers to ensure that water quality of supplies are not impacted by our or others operations. The Environment Agency’s Source Protection Zone (SPZ) and Safe Guarding Zone policy should provide guidance on development. Any proposals should take into account the principles of the Water Framework Directive and River Basin Management Plan for the Severn River basin unit as prepared by the Environment Agency.
**Water Supply**

When specific detail of planned development location and sizes are available a site specific assessment of the capacity of our water supply network could be made. Any assessment will involve carrying out a network analysis exercise to investigate any potential impacts.

We would not anticipate capacity problems within the urban areas of our network, any issues can be addressed through reinforcing our network. However, the ability to support significant development in the rural areas is likely to have a greater impact and require greater reinforcement to accommodate greater demands.

**Water Efficiency**

Part G of Building Regulations specify that new homes must consume no more than 125 litres of water per person per day. We recommend that you consider taking an approach of installing specifically designed water efficient fittings in all areas of the property rather than focus on the overall consumption of the property. This should help to achieve a lower overall consumption than the maximum volume specified in the Building Regulations.

We recommend that in all cases you consider:

- Single flush siphon toilet cistern and those with a flush volume of 4 litres.
- Showers designed to operate efficiently and with a maximum flow rate of 8 litres per minute.
- Hand wash basin taps with low flow rates of 4 litres or less.
- Water butts for external use in properties with gardens.

To further encourage developers to act sustainably Severn Trent currently offer a 100% discount on the clean water infrastructure charge if properties are built so consumption per person is 110 litres per person per day or less. More details can be found on our website


We would encourage you to impose the expectation on developers that properties are built to the optional requirement in Building Regulations of 110 litres of water per person per day.

We hope this information has been useful to you and we look forward in hearing from you in the near future.

Yours sincerely

Chris Bramley

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