

Sewer Capacity Assessment: Market Drayton NDP

Potential Impact of proposed developments on sewerage infrastructure assets

Date: 20 July 2018

NOTE: The purpose of these desktop based assessments are to indicate where proposed developments **MAY** have a detrimental impact on the performance of the existing public sewerage network taking into account the size of the development proposals.

For most new development provided the surface water is managed sustainably through use of SuDS the additional foul only flows will have a negligible impact on existing sewer performance but where there are pre-existing capacity constraints additional capacity improvements may be required.

Where subsequent detailed modelling indicates capacity improvements are required such work will be phased to align with development occupancy with capacity improvement works will be funded by Severn Trent Water. However, whilst Severn Trent have a duty to provide additional capacity to accommodate planned development, we also have a requirement to manage our assets efficiently to minimise our customers' bills. Consequently to avoid potential inefficient investment we generally do not provide additional capacity until there is certainty that the development is due to commence. Where development proposals are likely to require additional capacity upgrades to accommodate new development flows it is highly recommended that potential developers contact Severn Trent as early as possible to confirm flow rates and intended connection points. This will ensure provision of additional capacity can be planned into our investment programme to ensure development is not delayed.

Note: These are desktop assessments using readily available information and have not been subjected to detailed hydraulic modelling

| STW Ref | LPA | LPA Ref | Site Name | Settlement | Size | Units | Estimated number of dwellings based on H _u | Assumed flows from the site (l/s) | Sewage Treatment Works Catchment | SMP Consultant | Date of assessment | Sewerage Comment | | Potential impact on sewerage infrastructure | Surface water Comment | | Potential impact of surface water sewerage infrastructure | |
|-----------------------|--------------------|--------------------|---|------------|------|-----------|---|-----------------------------------|----------------------------------|----------------|--------------------|---|---|---|--|---|--|--|
| | | | | | | | | | | | | Known network constraints | Assumed connectivity | | Outfall assumption | Surface water disposal | | |
| Market Drayton | | | | | | | | | | | | | | | | | | |
| Shropshire Council | MD030 | MD030 | Land off Rush Lane (West) MD030 (part) | | 110 | dwellings | | 0.51 | Market Drayton | Atkins | 2007/2018 | There is a known hydraulic flooding property at the junction of Longlow Rd and Alexandra Rd. There is also limited capacity in the parallel sewers down Alexandra Rd where surcharge is predicted in a 1 in 1 year event. | It has been assumed that foul flows will be collected on site in a new pumping station, operated by United Utilities and then discharged into the Severn Trent Market Drayton catchment area, at the junction of Longlow Rd and Alexandra Rd (S.86345102). | Medium - High Further hydraulic analysis will be required to assess the impact of this development on sewer capacity. Depending on the discharge location, flows from the site could impact on the existing hydraulic loading of the junction of Longlow Rd and Alexandra Rd. Discharge from the site is also likely to impact on the limited capacity down Alexandra Road. | The outfall location like similar recent developments is assumed to be via a surface water outfall to an unnamed stream running east to west across the north of Market Drayton. The stream is possibly an overflow from the Shropshire Union Canal. | Surface water is expected to be controlled on site and discharges limited to green field run off. No known flooding issues associated with the discharge stream downstream of Market Drayton. However it is noted that flood mitigation is required as part of plans for MD030. | Low Subject to hydraulic modelling confirmation | |
| Shropshire Council | MD030 | MD030 | Land off Rush Lane (East) MD030 (part) | | 214 | dwellings | | 0.99 | Market Drayton | Atkins | 2007/2018 | | | | | | | |
| Shropshire Council | MD030 | MD030 | Land at Greenfields | | 8 | ha | 260 | 1.30 | Market Drayton | Atkins | 2007/2018 | Several existing hydraulic flooding locations and pollution incidents are known around the junction of Kirtbank Road and Walnut Road. | It has been assumed that foul flows will be collected on site in a new pumping station (or utilise an existing PWS in the case of Siph Farm) operated by United Utilities. | Medium - High Further hydraulic analysis will be required to assess the impact of this development on sewer capacity and the capacity of the treatment works. Due to the size of the developments in relation to the existing sewerage system it is envisaged that capacity improvements will be required to the existing sewerage system to ensure additional flows from these developments do not adversely increase sewer flood risk at Kirtbank Road. | | | | |
| Shropshire Council | MD019 and MD028 | MD019 and MD028 | Land between Croft Way and Greenfields Lane | | 76 | dwellings | | 0.35 | Market Drayton | Atkins | 2007/2018 | | | | | | | |
| Shropshire Council | ELR0238 and ELR024 | ELR0238 and ELR024 | Siph Farm Phase 2 (ELR0238) Phase 2 (ELR024) | | 16 | ha | 560 | 2.59 | Market Drayton | Atkins | 2007/2018 | | | | | | | |
| Shropshire Council | MD034 | MD034 | Land off Meer Lane | | 8.7 | ha | 305 | 1.41 | Market Drayton | Atkins | 2007/2018 | | Local sewers within the development boundary, because of their location are expected to be owned and operated by United Utilities. Connection point assumed to be at S.87344703 on Meer Lane. | | | Surface water is expected to be controlled on site and discharges limited to green field run off. It should be noted that part of this development site falls within Flood Risk Zone 2 and 3 and therefore this could have an impact on the ability to discharge. | Medium Discharge from this site should result in the increase in the size of Flood Risk Zone 2/3 | |
| Shropshire Council | MD031 | MD031 | Proposed Marina and Associated Tourism, Leisure and Related Development | | 26.5 | ha | 1276 | 5.91 | Market Drayton | Atkins | 2007/2018 | | Sewers within the northern part of the development boundary, because of their location are expected to be owned and operated by United Utilities. Flows from the development site are assumed to gravitate towards the south, and in order to utilise an existing crossing of the Shropshire Union Canal, discharge may be possible to S.86347801, depending on capacity checks to Hinckley Mill SPS. | High Further hydraulic analysis will be required to assess the impact of this development on sewer capacity and the capacity of two treatment works. Due to the size of the development in relation to the existing sewerage system it is envisaged that capacity improvements will be required to ensure additional flows from the developments do not adversely increase sewer flood risk at Kirtbank Road. Revised flow capacity of Hinckley Mill SPS, performance deterioration from predicted sewer overflow at the capacity of the treatment works. | It is anticipated that because of the location of the development, the network developed on the northern part of the site will be owned and operated by United Utilities. Permission unlikely to be given to discharge to the Shropshire Union Canal (nearest discharge point), therefore the creation on a new surface water system discharging to the River Teme in the south is assumed to be the most suitable discharge location, this would be operated by Severn Trent Water. | Surface water is expected to be controlled on site and discharges limited to green field run off. No known flooding issues associated with the River Teme in the area. | Low Subject to hydraulic modelling confirmation | |
| Shropshire Council | MD038 | MD038 | Regeneration of land to the rear of The Red Lion Public House and adjacent to Stafford Street | | na | na | | | Market Drayton | Atkins | 2007/2018 | | Regeneration of existing site only, no new flows anticipated, so no impact on Severn Trent Water systems expected. | | | | | |
| Longford | | | | | | | | | | | | | | | | | | |
| Shropshire Council | MD036 | MD036 | Housing Land off Longford Road | | 8.2 | ha | 217 | 1.00 | Unknown | Atkins | 2007/2018 | | No Severn Trent Water sewers in the Longford village area. This area is located within the United Utilities administrative area and it has been assumed that all foul flows and the associated sewerage/surface water system will be owned and operated by United Utilities. | | | | | |