

# Buxton Critical Sewer Rehabilitation Scheme

## rehabilitation of sewers in the spa town of Buxton including the coordination of four separate contractors to minimize impact on the public

by Matthew Rogers BSc CEng MICE

The historic spa town of Buxton was identified as part of Severn Trent Waters AMP 5 Critical Sewer Rehabilitation Programme. The works involved rehabilitating over 3,000m of Grade 4 and 5 sewers which were found to be in danger of collapse. It was identified in the early stages of the project that no-dig techniques would need to be utilised where possible to minimise traffic and customer disruption. Approximately 2,500m of these sewers lie in traffic sensitive roads. Although no-dig techniques would be utilised where possible some lengths were too severely damaged to allow this technique and therefore needed to be replaced in open trench. A total of 64 (No.) of the 93 (No.) manholes where access was required to carry out the works were too small for man entry and these all needed to be opened up in advance of the sewer lining works.



Work underway outside the historic Buxton Pavilion Gardens - Courtesy of NMCNomenca

Buxton is a town that has a large volume of tourists visiting during the summer months and attend the Festival during July. The Christmas period is also a very busy and important time of year for the tourist trade in the area. Around the perimeter of the town there are six major quarries which contribute to the large number of HGVs using Buxton's roads. The busiest route being Fairfield Road, where the slightest incident causes significant traffic build up.

The core team of NMCNomenca, Severn Trent Water (STW) Asset Creation all based at Severn Trent Water, Derby, widely consulted with the key stakeholder STW Service Delivery to embrace existing and innovative technology. The contract engaged the use of strategic supply chain partners to enhance the design from inception through to construction, utilising their skills to realise maximum potential efficiencies.

### Planning the works

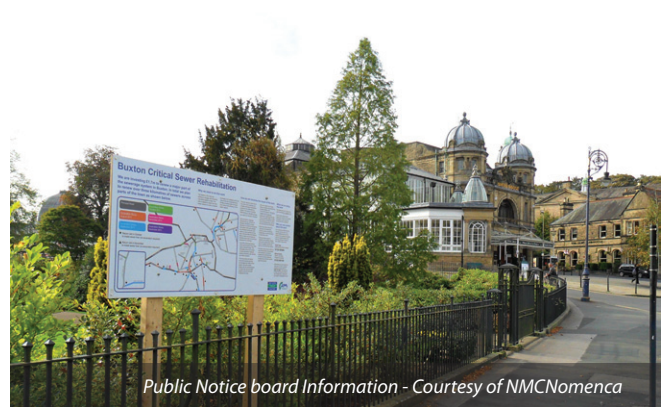
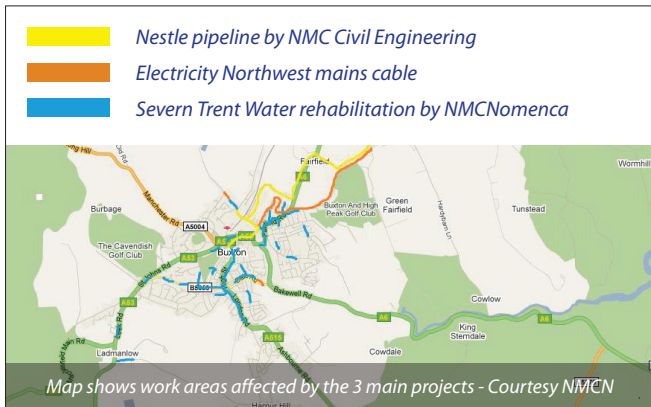
Derbyshire County Council's Street Works Coordination Team held discussions in November 2010 regarding the sewer rehabilitation project. This was primarily to schedule the works and to find out how many work sites could run at any time.

At this time Nestlé announced that they intended to build a new bottling plant on the outskirts of town, having outgrown the current location in the town centre. They planned to re-route their pipelines from the town centre up Fairfield Road to the new bottling plant. The public became very opposed to planned disruption on Fairfield Road, particularly as Nestlé was perceived as very profitable and could well afford to find an alternative route. The local paper drummed up support against the route. It took great pride in announcing "people power had forced an alternative route" when plans were resubmitted.

The sewer rehabilitation works for Fairfield Road, were clearly going to come up against opposition as this was one of the most traffic sensitive roads in the area. The Street Works Coordination Team made it clear from the outset that any excavation works could only be carried out on Sunday's and had to be reinstated on the same day.

In March 2011 a coordination meeting was held regarding planned works in the town. This involved Derbyshire County Council's Street Works Coordination and Resurfacing Teams as they had





plans to resurface all the main traffic sensitive routes by the end of the year. The meeting also included NMCNomenca on behalf of STW, Nestlé, and Electricity North West who also planned a major scheme at the same time. It was concluded that all parties needed to work together, in partnership sharing work space and planning the works to minimise disruption to traffic. NMCNomenca together with Derbyshire County Council were instrumental in ensuring a partnership working arrangement was maintained throughout.

**Teamwork at its best**

In summer 2011 Nestlé awarded their water main works to North Midland Civil Engineering. As NMCNomenca and North Midland Civil Engineering are part of the same North Midland Construction PLC Group, this certainly contributed to the successful partnership as both divisions were able to share information freely. The same traffic management company was employed by both divisions to organise all of the work areas in the town.

Weekly discussions between the two site managers to review progress and plan work locations were held. Through these reviews it was planned that Electricity North West would lay their new mains cable immediately prior to NMC starting their works. The resurfacing works by Derbyshire County Council were also programmed into the master programme, along with local events, such as the Buxton Festival.

NMCNomenca were allocated the first work space slot, both Nestlé and Electricity North West followed immediately afterwards. Planning the work in this way reduced the impact and disruption to traffic and to the town as a whole.

**Collaborative working**

One particular section of the works along Lightwood Road, an arterial route through the town, would have seen road works over about three quarters of its length (approx 1 mile) by the end of the year. This included three sections of road closure and a further three sections of open excavation works. All works were planned in partnership with the various contractors to ensure continuity, such as Gallagher's and May Gurney, who utilised our workspace when we worked in other areas of the town. The efforts of the partnership were recognised by the National Joint Utility Group (NJUG) in receiving a commendation at their 2011 Awards.

**Customer communications**

Customer care has been essential to keep the community and town users informed and also to measure how well the partnership has worked. Prior to works starting a letter drop was done to 10,300 addresses, public information boards were on display in the town advising where and when works were taking place. Press releases were issued and the Buxton Advertiser carried articles covering the works. During the works, daily letter drops were carried out to each street affected by the works.

The project benefitted both the environment and local community. Coupled with an enhanced reputation, both with residents and tourists, this scheme has created and maintained a heightened perception of the local highways authority and contractors alike.

*The Editor & Publishers thank Matthew Rogers, Design and Innovation Manager with NMCNomenca (part of North Midland Construction), for preparing the above article for publication.*

## Buxton Critical Sewer Rehabilitation

**We are investing £1.7m to renew a major part of the sewerage system in Buxton. In total we plan to renew over three kilometres of sewers across parts of the town as shown below.**

**Why we need to do this work**

The sewers in the town are starting to struggle with demands now being placed on them. The work is required to repair the main sewer network in order to prevent blockages and collapses which will reduce the risk of potential future flooding incidents within the town and improve the efficiency of the sewer network.

**How we will minimise the impact of the work**

The work required means this is one of the most extensive and complex sewerage rehabilitation projects to be undertaken by Severn Trent and its contractor NMCNomenca. The work will take just under five months to complete.

Due to its nature, sewerage renewal work can, at times, be disruptive. We will try to keep disruption to a minimum throughout the duration of the work because we understand that Buxton town centre is a very popular and busy place. We have taken the following steps to make sure we keep any potential impact upon you and local businesses to a minimum:

- Over 85% of the improvement works will be carried out by using sewer lining technology. This will greatly reduce the number of open excavations required, thereby minimising road closures and traffic disruption.
- The lining works will require some lane closures that will be managed with traffic control signage. We have worked closely with the local Authorities to ensure that only one traffic sensitive route into the town is affected at a time.

**When we are doing the work**

We started the work in August and plan to be finished by December 2011

Prior to each phase of work starting we will send more detailed information to the homes and businesses that are affected.

**Who you can contact about this work**

Our contractors, NMCNomenca, will carry out the work on our behalf. NMCNomenca and the Severn Trent programme engineer can be contacted between 9am and 5pm, Monday to Friday on the numbers shown below.

**Rupert Tagg**  
NMCNomenca Project manager  
**01332 683664**

**Michael Burden**  
Severn Trent Water Programme engineer  
**01332 683159**

Alternatively, you can contact us direct at our 24 hour customer operations service centre on **0800 783 4444**. This is also the number that should be used for any emergencies or issues with your water or wastewater service.

**Public Notice board Information - Courtesy of NMCNomenca**