

Information Sheet: Water Treatment Works

The Need

Both water treatment works in our South Staffs region are in need of major investment. They are operating to the original design specification, which is no longer considered to be best practice. To ensure we can provide the water quality our customers want and pay for we need to install an additional treatment stage at both works.

However, to make sure we made the right investment choices for both these assets and our customers we reviewed our whole supply capability. We not only looked at capital-intensive solutions for the treatment works, but also opportunities to trade and new alternative resources, together with how we can better manage customer demand and leakage.

We worked with industry experts to support us on this; recognising that this is a step change in investment for us both in terms of complexity and scale.

Our customers said

“It has to be the number one priority. It’s a basic requirement”

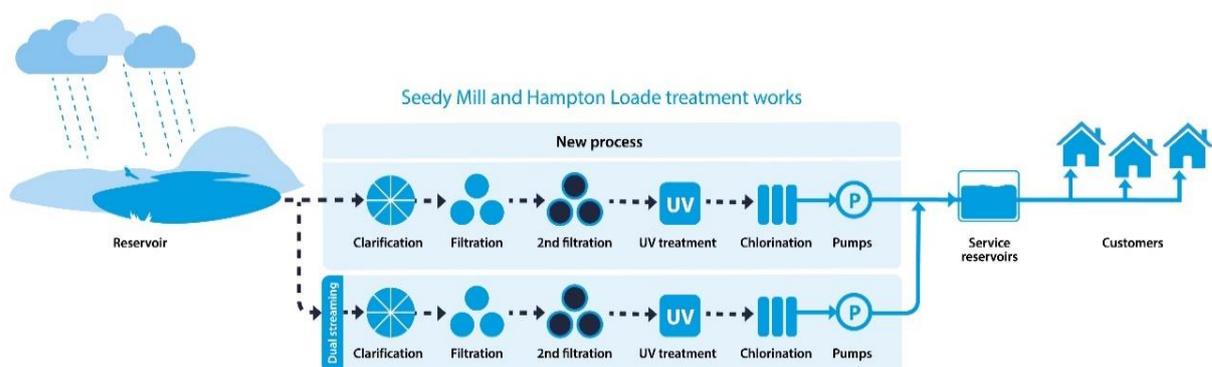
“I learnt a lot. It was informative. It was great to take part and give my opinions. I felt as though I helped to share my generation's views”

The Approach

- To ensure we evaluated the need in a rounded way we used a multi-criteria analysis (MCA) approach.
- This enabled us to look wider than just cost and take into account those areas that are traditionally hard to monetise – such as resilience and customer preference.
- We engaged with **600** customers across both regions and used gamification techniques to understand their preferences as to how to solve our supply/demand balance.
- We found that customers had strong preferences for increased leakage reduction above and beyond the economic level of leakage, greater support to manage their own demand and also the need to work more closely with our neighbours and utilise trades more effectively.
- They were also supportive of solutions that enhanced resilience both for customers now and for future generations.
- Through the MCA we were able to take these customer views and include them within our analysis, optimising portfolios that delivered greater levels of preference.
- We think this goes further than just utilising willingness to pay data, and actually takes the outputs of co-creation workshops and beds them in to a statistical approach.

Headline outputs

- We appraised **more than 1,000 options** for the South Staffs region and considered the streamlined options over an **80-year** timeframe.
- We ran scenarios on least cost, alternative increased levels of resilience and customer preference.
- We then honed our analysis down to a preferred portfolio through extensive scenario analysis and stakeholder engagement.
- When looking at our wider supply/demand balance, our preferred portfolio included increased reduction in leakage, increased demand management activities and exploring a trade to increase resilience together with ensuring our existing groundwater portfolio was maintained and reliable.
- When looking specifically at the treatment works our analysis concluded that an incremental refurbishment, with dual streaming to increase the operational resilience of both works, starting with the provision of an additional stage of filtration was the most cost beneficial option that delivered our customer priorities.
- We have worked with industry leading engineering experts to further improve our cost confidence; this analysis supported the **£63m totex** included within our claim.
- We carried out further customer engagement to quantify how happy they were with the proposed solution and also how acceptable the **£3 bill impact** was – overall **83%** acceptable.
- We also worked with our customers to co-create a performance commitment to ensure that they are protected if we didn't deliver – they preferred a delivered on time in full measure.
- To undertake this work we require a step change in investment; therefore, we submitted a cost adjustment claim in May, with some minor revisions included in our September submission.



Visual representation of additional stage of filtration and dual streaming

- We have carefully considered the appropriateness of the direct procurement mechanism for this scheme. We were supported in this analysis by Jacobs, and concluded that this approach was not suitable;
- We have already started the procurement process for this work; we are committed to being ready to start work as soon as possible and are in consultation with proven leading industry experts.