



## Direct Procurement Projects Review

South Staffs Water

v4

30 July 2018



South Staffs Water



## DPC Projects Review

**Direct Procurement Projects Review**

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## Executive Summary

Through our independent review and assessment and peer review of South Staffs Water’s potential projects for DPC, we have drawn the following conclusions (the remainder of this report reviews each principle in detail and provides a commentary against each):

- The individual projects at Hampton Loade and Seedy Mill are not considered appropriate, based on the information currently available, for DPC delivery:
  - Individually, these projects are some way from meeting the Ofwat Totex principle for DPC of £100m
  - Even if the projects were combined in a single project, they are still considered unsuitable for DPC delivery for multiple and significant reasons, despite the likely Totex being c£100m
- There are Ofwat principles where the projects do broadly align to DPC delivery
  - Whilst the Ofwat principles are not specifically “tiered” there are some that appear more fundamental than others and it is these principles that show the projects are less suitable for DPC delivery and that any benefits potentially gained are outweighed by the risks and difficulties encountered

Figure 1: Summary suitability criteria for projects delivery under a DPC model, below, highlights the Ofwat principles that show the projects’ appropriateness and suitability for delivery through DPC. Further detailed assessment across all of the Ofwat DPC principles can be found in Section 3.

Less appropriate for DPC	More appropriate for DPC
Totex (and Capex)	Contributions to supply
Stakeholder interactions – statutory obligations risk	Capacity to specify outputs
Interactions with the networks (scale)	Asset & operational – markets / technology
Asset & operational – failure risk	Asset condition at take-back
Risk allocation	Operational requirements specification
Step-in ability	Performance specification
Market attractiveness	
LDs	

Figure 1: Summary suitability criteria for projects delivery under a DPC model

# 1. Scope and methodology

South Staffordshire Plc (South Staffs Water) asked Jacobs to support them with a review of potential projects and provide an assessment and our advice as to whether we believe they are in line with the Direct Procurement for Customers (DPC) principles set out by Ofwat in their publication “*Delivering Water 2020: Our final methodology for the 2019 price review*”, its appendix “*Appendix 9: Direct procurement for customers*” and “*Direct Procurement for Customers: Technical Review*” a KPMG report for Ofwat.

Our review was not intended as assurance – it is not assuring the appropriateness of processes for DPC assessment by South Staffs Water or assuring the application and outcome of these processes - our review is a high level independent assessment of the projects’ suitability for Direct Procurement for Customers (DPC), based on the available information at the time.

Our methodology was to undertake a 3-stage assessment process, depicted in

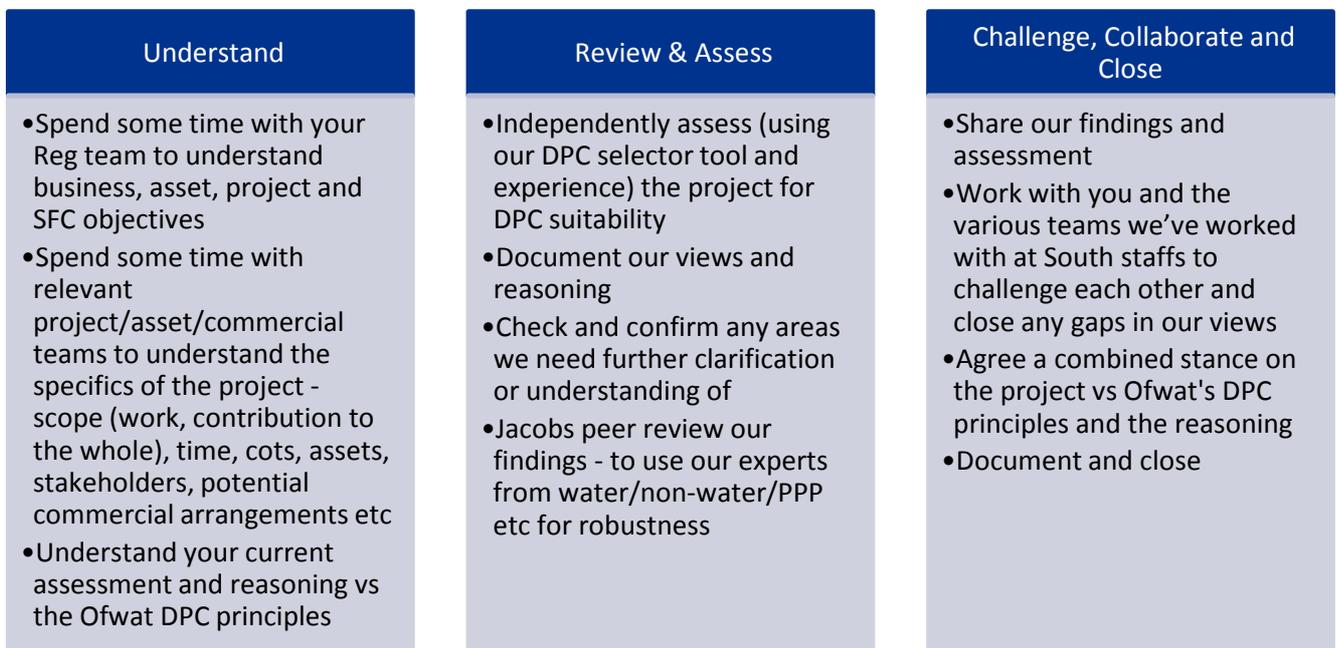


Figure 2, below:

**DPC Projects Review**

Understand	Review & Assess	Challenge, Collaborate and Close
<ul style="list-style-type: none"> <li>• Spend some time with your Reg team to understand business, asset, project and SFC objectives</li> <li>• Spend some time with relevant project/asset/commercial teams to understand the specifics of the project - scope (work, contribution to the whole), time, costs, assets, stakeholders, potential commercial arrangements etc</li> <li>• Understand your current assessment and reasoning vs the Ofwat DPC principles</li> </ul>	<ul style="list-style-type: none"> <li>• Independently assess (using our DPC selector tool and experience) the project for DPC suitability</li> <li>• Document our views and reasoning</li> <li>• Check and confirm any areas we need further clarification or understanding of</li> <li>• Jacobs peer review our findings - to use our experts from water/non-water/PPP etc for robustness</li> </ul>	<ul style="list-style-type: none"> <li>• Share our findings and assessment</li> <li>• Work with you and the various teams we've worked with at South Staffs to challenge each other and close any gaps in our views</li> <li>• Agree a combined stance on the project vs Ofwat's DPC principles and the reasoning</li> <li>• Document and close</li> </ul>

Figure 2: Methodology

**1.1 Interviews and data collection**

During the “Understand” stage of our methodology, we interviewed the following people at South Staffs Water on 10<sup>th</sup> May 2018:

- Regulation
  - Philip Saynor (throughout)
  - Caroline Cooper
  - Tim Orange (also for Procurement)
- Operations / Assets
  - Andrew Lobley
- Asset Delivery
  - Martin Vickers
- Procurement
  - Michelle Lane

During this stage of our work, we also requested to review the following datasets and documents:

- High level operational and systems review of sites and proposed solutions

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- Costs adjustment claim
- Schedule / programme for the projects’ delivery
- Basis of cost build up for the projects and cost estimating accuracy +/-%
- Break down / split of capex, opex and Whole life costs (WLC) for each site
- Outputs from South Staffs’ review of DPC criteria and principles

**1.2 Jacobs DPC selector tool**

During the “Review & Assess” stage of our work we applied the data we had gathered to our DPC Selector Tool. This tool takes the principles described in “*Direct Procurement for Customers: Technical Review*” a KPMG report for Ofwat and enables an assessment against each using the descriptors provided in the document. The DPC Selector Tool also enables a confidence level to be applied for the assessment against each of the principles. Each principle is treated equally. Through combining both the assessment and confidence grading, our DPC Selector Tool provides an assessment as to a project’s suitability for delivery under a DPC model and, if the model is either a “likely candidate for DPC but work to do to confirm it goes forward” or a “good candidate for DPC”, the tool provides a recommendation as to the “type” of DPC model that would be best suited (eg early, late, very late).

The confidence grades available in our DPC Selector Tool are:

- *Certain*
- *High*
- *Medium*
- *Low*
- *Unknown*

Outcomes available from our DPC Selector Tool are:

- *Good candidate for DPC*
- *Likely candidate for DPC but work to do to confirm it goes forward*
- *Unlikely candidate for DPC*
- *Poor candidate for DPC*

Figure 3, below, shows a screenshot from the Jacobs DPC Selector Tool. The image shows the principles heatmap page where the assessment of the alignment with a principle and the confidence grade are entered (Please note that the image shown is an example only and not the specific entry for the South Staffs Water projects assessed – the specific output of our assessment is shown in Section 3).

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Principle		Score		Confidence	
Ofwat Principles	Totex	<£90m	← III →	>£125m	CERTAIN HIGH MEDIUM LOW
	Capex	<£100M	← III →	>£100m	CERTAIN HIGH MEDIUM LOW
	Stakeholder interactions & Statutory obligations - risk	Asset materially contributes towards appointee meeting statutory obligations - complicated / difficult to mitigate through contracting process	← III →	Limited / marginal impact on appointees ability to meet statutory obligations	CERTAIN HIGH MEDIUM LOW
	Stakeholder interactions & Statutory obligations - complexity of stakeholder relations	Very complex interactions with stakeholders requiring significant involvement from the appointee to manage and/or likely to cause disruption, delay, excessive cost or risk to be incurred by customers, stakeholders or the appointee	← III →	Normal or simple stakeholder interactions that can be successfully managed by the CAP without excessive risk, cost or delay being incurred	CERTAIN HIGH MEDIUM LOW
	Interactions with the networks 1 (Complexity)	Assets where there is significant, complex and/or frequent interactions with the appointees network that cannot be sufficiently managed, planned and safety carried out in terms of performance and risk management	← III →	Assets where there limited or simple interactions with the appointees network and these interactions can be sufficiently managed, planned and safety carried out in terms of performance and risk management	CERTAIN HIGH MEDIUM LOW
	Interactions with the networks 2 (Scale)	Assets where capacity and performance is material to the appointee's overall network, system or business	← III →	Assets where there are limited economies of scale and scope with the rest of the appointees network system or where those economies of scale or scope could be maintained through contracts.	CERTAIN HIGH MEDIUM LOW
	Contributions to supply	Assets where capacity is infrequently or intermittently needed and/or supply requirements cannot be easily defined and priced	← III →	Assets where capacity is regularly needed and contracting requirements can be more easily defined and priced.	CERTAIN HIGH MEDIUM LOW
	Capacity to specify outputs	Schemes where outputs cannot be clearly defined	← III →	Schemes where outputs can be clearly defined and are not subject to substantial change from other factors or difficult to predict in the future (e.g. around asset condition at handback)	CERTAIN HIGH MEDIUM LOW
	Asset & operational failures - failure risk	Assets where there are no alternative back-up supplies and/or failure risk is poorly understood	← III →	Assets where operational failure risk is well understood and mitigations well established for similar assets.	CERTAIN HIGH MEDIUM LOW
	Asset & operational failures - markets/technical	Weak market or technical supply chains with limited experience of similar project delivery.	← III →	Well developed market or technical supply chains with strong experience of similar project delivery.	CERTAIN HIGH MEDIUM LOW
Ofwat contract & procurement principles	Pre-construction work transferable to CAP	Any required pre-construction (or pre-commencement) work is not transferable to the CAP, eg for operational, security or other requirements and/or cannot be commercially viable to transfer due to performance requirements	← III →	Any required pre-construction (or pre-commencement) work is commercially and operational viable to transfer to the CAP	CERTAIN HIGH MEDIUM LOW
	Contract duration	15 years or less is appropriate	← III →	25 years (max) is appropriate	CERTAIN HIGH MEDIUM LOW
	Asset depreciation & position at take-back	Asset condition, hand-back requirements and residual value to be paid at termination of the contract cannot be clearly specified and measured	← III →	Asset condition, hand-back requirements and residual value to be paid at termination of the contract can be clearly specified and measured	CERTAIN HIGH MEDIUM LOW
	Risk allocation	Risk allocation is not fair, viable, commercially appropriate and/or transfers excessive or unnecessary extra risk to customers. Risk transferred to the CAP is not sufficiently manageable operationally or commercially for the appointee in terms of performance requirements and/or licence conditions	← III →	Risk allocation is fair, viable, commercially appropriate and does not unnecessarily transfer extra risk to customers. Risk transferred to the CAP is manageable both operationally and commercially to the satisfaction of the appointee in terms of performance requirements and licence conditions	CERTAIN HIGH MEDIUM LOW
	Potential refinancing in period of contract	Refinancing within the contract period is likely to be required but deemed unattractive to the market and/or likely to cause excessive costs to customers, the appointee and/or the CAP	← III →	Refinancing within the contract period is not required or if it is required it can be achieved without unreasonable or excessive delays or cost	CERTAIN HIGH MEDIUM LOW
	Step-in ability	Step-in rights not easily quantifiable up front, can't be easily measured based upon performance or are unlikely to be agreeable with the CAP on a commercial basis	← III →	Step-in rights not likely to be required or can be easily defined up front, quantified, based upon measurable performance and likely to be agreeable commercially with CAP	CERTAIN HIGH MEDIUM LOW
	Asset condition at take back able to be specified	Asset condition and hand-back requirements at termination of the contract cannot be clearly specified and measured	← III →	Asset condition and hand-back requirements at termination of the contract can be clearly specified and measured	CERTAIN HIGH MEDIUM LOW
	Ability to agree and manage milestones	Delivery and operational milestones cannot be clearly and commercially identified, measured and/or are not deemed deliverable	← III →	Delivery and operational milestones can be clearly and commercially identified, measured and are deemed deliverable	CERTAIN HIGH MEDIUM LOW
	Operational requirement specification	Required asset performance cannot be clearly identified and measured	← III →	Required asset performance can be clearly identified and measured	CERTAIN HIGH MEDIUM LOW
	Performance spec can be identified and managed	Performance requirements of the asset difficult to quantify and measure, likely to flex inconsistently throughout its commercial life or unlikely to be commercially acceptable to CAP	← III →	Required performance of the asset can be determined, quantified and measured and is able to be commercially specified and negotiated and accepted by the CAP	CERTAIN HIGH MEDIUM LOW
Additional company principles	LDs applicable	Appropriate commercial remedies throughout the contract duration likely to be unacceptable to the CAP (eg LDs too high or too punitive) when they are set to meet the requirements of the appointee or do not relate sufficiently to the desired and deliverable performance of the asset	← III →	Appropriate commercial remedies throughout the contract duration likely to be acceptable to the CAP (eg LDs appropriate commercially) when they are set to meet the requirements of the appointee and relate sufficiently to the desired and deliverable performance of the asset	CERTAIN HIGH MEDIUM LOW
	Market attractiveness	DPC cost (financing, design, build, operate, maintain), performance requirements, asset specification, stakeholder management or asset interfacing likely to deter potential CAPs or a competitive process	← III →	DPC cost (financing, design, build, operate, maintain), performance requirements, asset specification, stakeholder management and asset interfacing likely to attract potential CAPs and a competitive process	CERTAIN HIGH MEDIUM LOW
	Security to be posted by CAP	Security is required but likely to be at a level that is too high/unattractive to the CAP when it satisfies the requirements of the appointee	← III →	Security not required to likely to be at a level that is commercially acceptable to the CAP and the appointee	CERTAIN HIGH MEDIUM LOW
	Opex	Opex cannot be fixed for the contract period or easily index linked	← III →	Opex can be fixed for the contract period or easily index linked	CERTAIN HIGH MEDIUM LOW

Figure 3: Screenshot of the Jacobs DPC Selector Tool

## 2. Projects Summary

The two projects to be reviewed were:

- Hampton Loade Water Treatment Works
- Seedy Mill Water Treatment Works

It is noted, and of importance, that the projects at Hampton Loade and Seedy Mill WTWs were combined for South Staffs Water’s recent cost adjustment claim. The sites themselves are approximately 30 miles apart and from an operational and service point of view will not be delivered in full concurrency. Whilst the projects themselves need to interact and be planned together, they will not necessarily be delivered together or under a single commercial package, due to operational risk and constraints.

### 2.1 Hampton Loade Water Treatment Works

Hampton Loade Water Treatment Works (WTW) near Bridgnorth – serves 700,000 of South Staffs Water’s customers delivering 140MI/d (plus 70MI/d for STW – Severn Trent Water – customers), supplying c40% of South Staffs’ total water daily (note that the percentage of water supplied flexes based on daily demand).



#### 2.1.1 Project details

**Capex:** £36m

**WLC / Totex:** £67m

**Risks to be addressed:** water quality, resilience.

**Solution Scope:** Second stage filtration, filter refurbishment, clarification and associated enabling works on site (eg connecting pipework, power, controls and pumping) plus strategic mains cleaning.

**Timescales:** 12 years (excluding strategic mains cleaning which is planned to run in parallel subject to operational needs and constraints).

**Other info:** UV treatments have been implemented at this site as an additional disinfection stage.

**Other info:** The new project aims to deliver step change in the benefits delivered to customers.

**Other info:** There is significant customer and stakeholder support for the outcomes of this project.

## 2.2 Seedy Mill Water Treatment Works

Seedy Mill WTW near Lichfield – serves 200,000 of South Staffs Water’s customers delivering 125Ml/d, supplying c20% of South Staffs’ total water daily (note that the percentage of water supplied flexes based on daily demand).



### 2.2.1 Project details

**Capex:** £31m

**WLC / Totex:** £42m

**Risks to be addressed:** water quality, resilience.

**Solution Scope:** Second stage filtration, filter refurbishment and associated enabling works on site (eg connecting pipework, power, controls and pumping) plus strategic mains cleaning.

**Timescales:** 7 years (excluding strategic mains cleaning which is planned to run in parallel subject to operational needs and constraints).

**Other info:** UV treatments have been implemented at this site as an additional disinfection stage.

**Other info:** The new project aims to deliver step change in the benefits delivered to customers.

**Other info:** There is significant customer and stakeholder support for the outcomes of this project.

### 3. Assessment of the projects against the DPC principles

Through our independent review and assessment and peer review of South Staffs Water’s potential projects for DPC, we have drawn the following conclusions (the remainder of this section reviews each principle in detail and provides a commentary against each):

- The individual projects at Hampton Loade and Seedy Mill are broadly not considered appropriate, based on the information currently available, for DPC delivery:
  - Individually, these projects are some way from meeting the Totex principle for DPC of £100m
  - Even if the projects were combined in a single project, they are still considered unsuitable for DPC delivery for multiple and significant reasons, despite the likely Totex being c£100m, for example:
    - Significant risk to South Staffs (and to some extent, STW) statutory obligations
    - High levels of network interactivity and the significance of the works’ contribution to the overall supply
    - Complex operational interaction both on the sites and with the wider networks
    - Likely disproportionate risk:reward relationship for any potential CAP and the likely punitive performance failure measures (on both sides of any relationship)
    - Difficulties around the required “step-in ability” and the likely impacts the need to “step-in” may have on any potential CAP’s construction and operational programmes
- There are principles where the projects do broadly align to DPC delivery
  - For example:
    - Contribution to supply will be required continually
    - Outputs and performance specification can be identified and measured
    - The market has delivered these kind of projects and assets previously (in terms of design and build, though less so operations)
    - Asset take-back condition requirements can be specified
  - Whilst the principles are not specifically “tiered” there are some that appear more fundamental than others and it is these principles that show the projects are less suitable for DPC delivery and that any benefits potentially gained are outweighed by the risks and difficulties encountered

#### 3.1 Summary output from our DPC selector tool

Figure 4, below, shows the dashboard output summary from our assessment using the Jacobs DPC Selector Tool. It shows that against a number of principles, South Staffs Water projects are unsuitable for delivery by DPC. The summary dashboard also shows that our assessment found that the projects were suitable for DPC delivery under a number of principles. A summary of these principles is in Figure 5.

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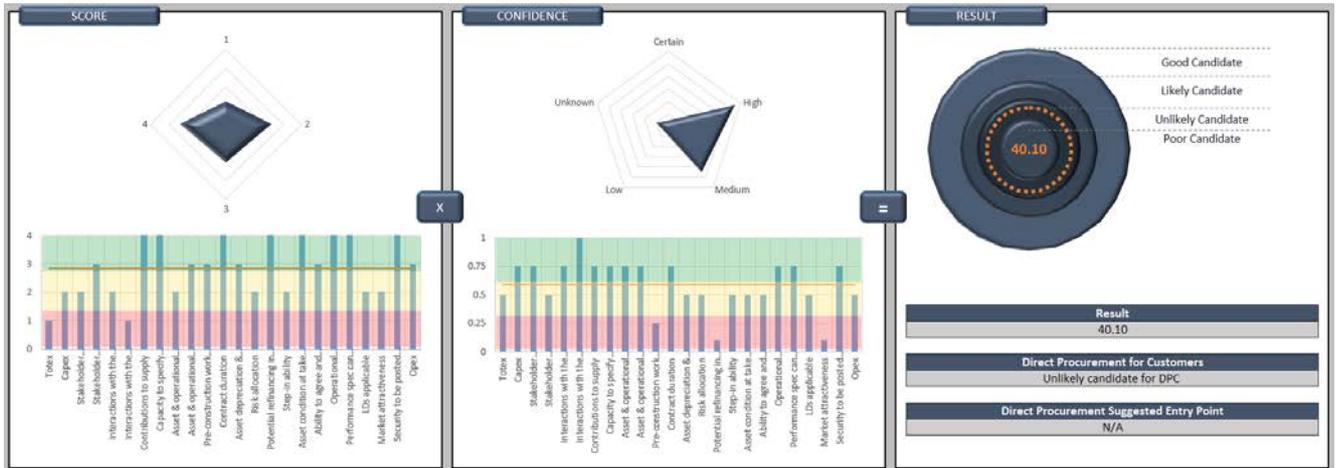


Figure 4: Dashboard output from the DPC Selector Tool

Less appropriate for DPC	More appropriate for DPC
Totex (and Capex)	Contributions to supply
Stakeholder interactions – statutory obligations risk	Capacity to specify outputs
Interactions with the networks (scale)	Asset & operational – markets / technology
Asset & operational – failure risk	Asset condition at take-back
Risk allocation	Operational requirements specification
Step-in ability	Performance specification
Market attractiveness	
LDs	

Figure 5: Summary suitability for projects delivery under a DPC model

The remainder of this section details our assessment of the suitability South Staffs Water projects at Hampton Loade and Seedy Mill against the DPC principles (Section 3.2) and also outlines some further points of note, not specifically related to the DPC principles but of relevance to the projects' suitability for delivery through a DPC model (Section 3.3).

### 3.2 Detailed commentary against each principle

Figure 6, below, shows our overall assessment of the Hampton Loade and Seedy Mill projects against the DPC criteria and the confidence grades established.

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Principle		Score		Confidence		
Owat Principles	Totex	<£90m		>£125m		
	Capex	<£100M		>£100m		
	Stakeholder interactions & Statutory obligations - risk	Asset materially contributes towards appointee meeting statutory obligations - complicated / difficult to mitigate through contracting process		Limited / marginal impact on appointees ability to meet statutory obligations		
	Stakeholder interactions & Statutory obligations - complexity of stakeholder relations	Very complex interactions with stakeholders requiring significant involvement from the appointee to manage and/or likely to cause disruption, delay, excessive cost or risk to be incurred by customers, stakeholders or the appointee		Normal or simple stakeholder interactions that can be successfully managed by the CAP without excessive risk, cost or delay being incurred		
	Interactions with the networks 1 (Complexity)	Assets where there is significant, complex and/or frequent interactions with the appointees network that cannot be sufficiently managed, planned and safety carried out in terms of performance and risk management		Assets where there limited or simple interactions with the appointees network and these interactions can be sufficiently managed, planned and safety carried out in terms of performance and risk management		
	Interactions with the networks 2 (Scale)	Assets where capacity and performance is material to the appointee's overall network, system or business		Assets where there are limited economies of scale and scope with the rest of the appointees network system or where those economies of scale or scope could be maintained through contracts.		
	Contributions to supply	Assets where capacity is infrequently or intermittently needed and/or supply requirements cannot be easily defined and priced		Assets where capacity is regularly needed and contracting requirements can be more easily defined and priced.		
	Capacity to specify outputs	Schemes where outputs cannot be clearly defined		Schemes where outputs can be clearly defined and are not subject to substantial change from other factors or difficult to predict in the future (e.g. around asset condition at handback)		
	Asset & operational failures - failure risk	Assets where there are no alternative back-up supplies and/or failure risk is poorly understood		Assets where operational failure risk is well understood and mitigations well established for similar assets.		
	Asset & operational failures - markets/technical	Weak market or technical supply chains with limited experience of similar project delivery.		Well developed market or technical supply chains with strong experience of similar project delivery.		
	Owat contract & procurement principles	Pre-construction work transferrable to CAP	Any required pre-construction (or pre-commencement) work is not transferable to the CAP, eg for operational, security or other requirements and/or cannot be commercially viable to transfer due to performance requirements		Any required pre-construction (or pre-commencement) work is commercially and operational viable to transfer to the CAP	
Contract duration		15 years or less is appropriate		25 years (max) is appropriate		
Asset depreciation & position at take-back		Asset condition, hand-back requirements and residual value to be paid at termination of the contract cannot be clearly specified and measured		Asset condition, hand-back requirements and residual value to be paid at termination of the contract can be clearly specified and measured		
Risk allocation		Risk allocation is not fair, viable, commercially appropriate and/or transfers excessive or unnecessary extra risk to customers. Risk transferred to the CAP is in not sufficiently manageable operationally or commercially for the appointee in terms of performance requirements and/or licence conditions		Risk allocation is fair, viable, commercially appropriate and does not unnecessarily transfer extra risk to customers. Risk transferred to the CAP is manageable both operationally and commercially to the satisfaction of the appointee in terms of performance requirements and licence conditions		
Potential refinancing in period of contract		Refinancing within the contract period is likely to be required but deemed unattractive to the market and/or likely to cause excessive costs to customers, the appointee and/or the CAP		Refinancing within the contract period is not required or if it is required it can be achieved without unreasonable or excessive delays or cost		
Step-in ability		Step-in rights not easily quantifiable up front, can't be easily measured based upon performance or are unlikely to be agreeable with the CAP on a commercial basis		Step-in rights not likely to be required or can be easily defined up front, quantified, based upon measurable performance and likely to be agreeable commercially with CAP		
Asset condition at take back able to be specified		Asset condition and hand-back requirements at termination of the contract cannot be clearly specified and measured		Asset condition and hand-back requirements at termination of the contract can be clearly specified and measured		
Ability to agree and manage milestones		Delivery and operational milestones cannot be clearly and commercially identified, measured and/or are not deemed deliverable		Delivery and operational milestones can be clearly and commercially identified, measured and are deemed deliverable		
Operational requirement specification		Required asset performance cannot be clearly identified and measured		Required asset performance can be clearly identified and measured		
Performance spec can be identified and managed		Performance requirements of the asset difficult to quantify and measure, likely to flex inconsistently throughout its commercial life or unlikely to be commercially acceptable to CAP		Required performance of the asset can be determined, quantified and measured and is able to be commercially specified and negotiated and accepted by the CAP		
Additional company principles		LDs applicable	Appropriate commercial remedies throughout the contract duration likely to be unacceptable to the CAP (eg LDs too high or too punitive) when they are set to meet the requirements of the appointee or do not relate sufficiently to the desired and deliverable performance of the asset		Appropriate commercial remedies throughout the contract duration likely to be acceptable to the CAP (eg LDs appropriate commercially) when they are set to meet the requirements of the appointee and relate sufficiently to the desired and deliverable performance of the asset	
		Market attractiveness	DPC cost (financing, design, build, operate, maintain), performance requirements, asset specification, stakeholder management or asset interfacing likely to deter potential CAPs or a competitive process		DPC cost (financing, design, build, operate, maintain), performance requirements, asset specification, stakeholder management and asset interfacing likely to attract potential CAPs and a competitive process	
		Security to be posted by CAP	Security is required but likely to be at a level that is too high/unattractive to the CAP when it satisfies the requirements of the appointee		Security not required to likely to be at a level that is commercially acceptable to the CAP and the appointee	
		Opex	Opex cannot be fixed for the contract period or easily index linked		Opex can be fixed for the contract period or easily index linked	

Figure 6: Assessment of Hampton Loade and Seedy Mill projects against DPC criteria and established confidence grades

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The following graphics and commentary (Sections 3.2.1 to 3.2.24) show the assessment we have made against each principle and the confidence grade we have determined South Staffs Water have based on the data they provided.

### 3.2.1 Totex



The expected Totex for both works is c£100m (or £85m to £115m with an estimating sensitivity of  $\pm 15\%$ ) which reaches the threshold for DPC. However, the works are separate, geographically distant projects and it is not operationally possible to deliver the upgrades completely concurrently. The individual Totex costs for each are £67m and £42m which, even when considering an estimating sensitivity, do not reach the £100m Totex DPC threshold. The key to using a DPC model is whether or not significant financing efficiencies could be achieved but as discussed in section 3.2.14 and in section 3.3 where it is noted that South Staffs have other ways of procuring innovative approaches and technologies that may be more suitable in this particular situation.

### 3.2.2 Capex



The cost adjustment claim for capex for both works is £57m. When considering each site independently, capex is c£25m and c£32m. Even by factoring an estimating sensitivity of  $\pm 15\%$ , a threshold of c£100m capex is not reached. In each of these situations, it is considered that the capex value appears too low for the projects to warrant a DPC model or for a DPC model to drive financing efficiencies.

### 3.2.3 Stakeholder Interactions & Statutory Obligations - risk



On average, the combined works contribute c60-65% of the water supplies to customers (volumes of water change on a daily basis). In terms of statutory obligations for South Staffs Water this is both significant and material. Individually, the works provide 40% and 20% respectively – still significant and material to South Staffs Water’s statutory obligations (note this is not including Cambridge Water region).

### 3.2.4 Stakeholder Interactions & Statutory Obligations - complexity



Whilst stakeholder relationships are likely to be complex, these are manageable with a plan and joint efforts and not therefore considered unusual or excessive for these activities.

### 3.2.5 Interactions with the networks 1 (Complexity)



Interactivity and materiality with South Staffs Water’s network is significant to customers, the company and the wider economy and environment, with the added complexity of up to one third of the water from Hampton Loade being supplied to STW (note that this varies daily depending on STW demand) and the performance of these

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works is heavily interactive with other ground water sources. Additionally, there are highly complex interactions on each site when building and commissioning the capability and in terms of maintaining service throughout.

### 3.2.6 Interactions with the networks 2 (Scale)



Interactivity and materiality with South Staffs Water’s network is significant to customers, the company and the wider economy and environment, with the added complexity of one third of the water from Hampton Loade being supplied to STW. The works provide c60% of the water supply at any one time and this is material to South Staffs Water with any failure of either or both works representing a serious statutory breach, license failure and an unacceptable impact to customers. Equally, if Hampton Loade was to fail, STW may well breach its statutory license conditions adding further complexity and scale to the risks of this particular site.

### 3.2.7 Contributions to supply



The supply capacity provided by these works would be required regularly and the range outputs could be defined, quantified and commercially priced.

### 3.2.8 Capacity to specify outputs



The supply capacity provided through these works would be required regularly and the required outputs could be readily defined, quantified and commercially priced. Other than the usual factors of growth and potential tightening of compliance standards, substantive and material change in these outputs appears unlikely in the future.

### 3.2.9 Asset & operational failures – failure risk



The combined works provide water to c60% of South Staffs Water’s customers (excluding the Cambridge Water region). The remaining 40% is supplied through 26 other groundwater sources. It is not operationally possible or permissible under licence to increase the supply from these alternative sources if one or both of the works’ outputs is reduced and as such back-up supplies and mitigations are not sufficient in the event of asset failure.

### 3.2.10 Asset & operational failures – markets / technology



The market is strong - there is significant experience across Tier 1 and Tier 2 suppliers in delivering design/construct activity of this type and scale for multiple AMPs and the likely required technologies and asset types are well recognised and have been delivered successfully on many occasions across the UK market. There is limited evidence of the supply chain providing long term operations to such assets and when looking at the second stage filtration alone, it would be considerably harder for a CAP to operate those process stages in isolation from the rest of the site (which may well remain under South Staffs Water’s control). It is also worthy of note that, the second stage filtration itself would need minimal operations (highly automated) and is therefore a

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target area of efficiency for South Staffs Water as it can manage resources across the whole site and wider portfolio but it may not provide sufficient efficiency scope for a CAP when viewed in isolation.

### 3.2.11 Pre-construction work transferrable to CAP



Pre-construction work (for example groundworks, pipework diversions and readiness) are currently being undertaken. Such work can be completed in advance and it should be commercially viable to transfer, although there is likely to be considerable operational concern (see Sections 3.2.5 and 3.2.6).

### 3.2.12 Contract duration



A contract duration of significant enough length to be attractive could be achieved under a DPC model.

### 3.2.13 Asset depreciation & position at take-back



Asset condition, hand-back requirements and residual value could be satisfactorily specified and measured. Although it should be noted that South Staffs Water have limited experience of doing so with assets of this size, particularly with regard to take-back, and would therefore likely need to procure additional commercial expertise to support them (thus increasing DPC procurement / management costs and reducing customer value benefits).

### 3.2.14 Risk allocation



Whilst risk allocations could be readily determined (and thus a positive towards DPC), the materiality of and contribution to the overall supply is such that South Staffs Water would determine risk levels to be extreme to its customers and licence threatening to itself. Due to this, any penalties applied for failure would likely be set at a punitively high level and thus from a market point of view the risk/reward of these projects as a DPC would be unattractive. It should be noted that South Staffs Water may need commercial / risk support in defining these arrangements thereby increasing their procurement / management costs

### 3.2.15 Potential refinancing in period of contract



Refinancing during this period is unlikely to be required, though this is subject to the commercial model of a CAP and of the contract between the parties. In addition, financing costs unlikely to yield significant customer savings. Any financing savings are likely to be consumed as South Staffs will need to develop capability (and likely increase capacity/resources) to design, procure and manage under a new model.

### 3.2.16 Step-in ability



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The required step-in rights and performance conditions are able to be defined and can be quantified and measured. However, due to material contribution of the works' outputs, South Staffs Water require a significant amount of operational flexibility and step-in rights may need to be exercised frequently and at short notice. This is likely to be detrimental to a CAP's programme (and thus costs) and it is therefore unlikely to be commercially acceptable.

### 3.2.17 Asset condition at take-back able to be specified



Asset condition, hand-back requirements could be satisfactorily specified and measured.

### 3.2.18 Ability to agree and manage milestones



Whilst on projects of this nature, determining and measuring milestones and managing them commercially is easily enough done, in this situation there are extenuating circumstances that could make this commercially more complex - South Staffs Water require a significant amount of operational flexibility and step-in rights may need to be exercised frequently and at short notice. This is likely to be detrimental to a CAP's programme and it is therefore unlikely to be commercially acceptable. Equally, the CAP may provide its own penalties for delaying processes, which ultimately could significantly erode any efficiency savings South Staffs Water had made through a DPC approach.

### 3.2.19 Operational requirement specification



The required asset performance (output quality and volume) of these works has been clearly identified and can be measured.

### 3.2.20 Performance spec can be identified and managed



The required asset performance (output quality and volume as well as engineering specification and asset standards) of these works has been clearly identified and can be measured. This performance could be specified commercially and is likely to be acceptable to the CAP.

### 3.2.21 LDs applicable



Due to the materiality of and contribution to the overall supply of these works, it is likely that South Staffs Water would determine risk levels to be extreme to its customers and licence threatening to itself. Due to this, any penalties applied for failure would likely be set at a punitively high level and thus from a market point of view the risk/reward of these project as a DPC would be unattractive. Liquidated damages are a commercial method of control and may not necessarily in themselves be an appropriate way to control critical operational performance as they are generally a retrospective tool.

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### 3.2.22 Market attractiveness



As DPC is a new model for the UK water industry, it is difficult to be sure how the market will react. There are, however, the required skills and experience in the market place to deliver this type and size of project under a design-build model. The financing and operating elements of DPC related to these specific projects could be seen to present an unbalanced risk/reward scenario, whereby the likely risks are high and the reward (potential profit), due to the low capex values of the projects, is unlikely to mitigate that risk. Furthermore, with the project information in the public domain, it is noted that no third parties have approached South Staffs offering their services. It is likely, therefore, the market may not see these opportunities as attractive under DPC.

### 3.2.23 Security to be posted by CAP



It is unlikely that security posting would be required.

### 3.2.24 Opex



Opex could be determined across the contracted period fairly readily and could be linked to the relevant indices throughout the period. However, when you take into account the level of power required by each project, the opex becomes increasingly harder to identify and fix due to the volatility of the supply / distribution markets, where simple index linking hasn't historically proved accurate in forecasting future costs.

## 3.3 Further points worthy of consideration in the assessment of alignment to DPC

During our review and assessment, we noted further points that, whilst not specifically related to the DPC principles, are worthy of consideration in assessing the alignment of the Hampton Loade and Seedy Mill projects to the DPC principles and in particular relate to approaches in procurement that do not limit innovative approaches to the design and/or delivery of these projects.

- South Staffs Water operates a broad engineering standards approach that allows for the consideration of other innovative approaches / technologies that could be deployed and that could warrant savings for customers at no reduced levels of service.
- South Staffs Water have highlighted through their PQQ (pre-Qualification Questionnaire) and ITT (Invitation to Tender) procurement steps, as well as to the wider public, the option which they consider the most suitable for the development of the new project. In reaching the desired option, South Staffs considered numerous alternatives to try and lower the cost of the project. However, they acknowledge that there may well be better and innovative ideas out in the market and they are open to these throughout and not limited themselves to the solution currently preferred. Indeed, within PQQ documentation they have specifically requested potential bidders to put forward innovative solutions and mutually beneficial incentivisation mechanisms for consideration, as well as clearly stating that providers that can demonstrate collaboration (including co-location) will be viewed positively.
- The design and implementation of BAF (Bid Assessment Framework) may bring alternative ideas to the table that could deliver for customers with further efficiency and no reduction in standards. South Staffs Water are currently actively undertaking development of BAF.

## 4. Challenge, collaborate, close

### Challenge:

- Following our independent assessment, we carried out an internal peer review
- The peer review was undertaken by Nigel Sanders, Director of Operations in Jacobs' Infrastructure Advisory business
- This peer review challenged and moderated our findings and assessment and the findings and appropriate amendments from that peer review are incorporated within this report

### Collaborate:

- We presented our findings and assessment to South Staffs Water on 23<sup>rd</sup> May 2018
- During this session we checked and confirmed our understanding of the projects, presented our findings and assessment for challenge and confirmation by the South Staffs Water team and described our recommended next steps (see Section 5)

### Close:

- Our assessment of South Staffs Water's potential DPC projects is closed out through this report, following the challenge and collaborate aspects of our scope

## 5. Recommended next steps

Based on our findings and assessment, we recommend the following next steps and timescales to South Staffs Water.

\* This timescale is for the next step completion only and does not incorporate time for the various governance and board assurance steps required

No.	Next Step	Completion Date *
1	Document your assessment, by DPC principle, of the projects (combined and individually) and formally sign off	July'18
2	Have the appropriateness, application and outcome of this process (1, above) independently assured	August'18
3	Confirm the cost estimating sensitivity for capex, opex and Totex WLC and triangulate with other sources / benchmarks	August'18
4	Address any feedback from Ofwat on your draft submissions in your final business plan, revising the sections on Cost Adjustment and DPC as appropriate	August'18
5	Explore alternative, innovative procurement options to drive purchasing value to pass on to their customers with the suggestion to investigate alternative financing options as well as technology, process, design and build	September 2018
6	Consider the implications of BAF (Bid Assessment Framework) and its principles on the scope of the Hampton Loade and Seedy Mill projects and how the application of BAF may support other innovative approaches to scope, deliver, service and costs	July'18
7	As design evolves, continue to review options for alternative operating approaches beyond the discounted notion of sectional operation of these two works, including the use of other providers who may be able to operate entire works on behalf of South Staffs Water and provide customer value	

## 6. Acronyms

Acronyms used within this report are defined as follows:

Acronym	Definition
BAF	Bid Assessment Framework
CAP	Competitively Appointed Provider (under a DPC procurement model)
DPC	Direct Procurement for Customers
ITT	Invitation to Tender
LD	Liquidated Damages
Ml/d	Mega-litres per day
PQQ	Pre-Qualification Questionnaire
STW	Severn Trent Water
UV	Ultra-Violet (treatment)
WLC	Whole Life Cost