

SRN-DDR-039: Market-Based Delivery

28th August 2024



from
**Southern
Water** 

Glossary	11
1. Executive summary	13
1.1. Projects at PR24 identified for market-based delivery	13
1.2. Ofwat's response at draft determination	14
1.2.1 DPC schemes	14
1.2.2 DPC-lite	14
1.2.3 Enhancement mechanisms	15
1.3. Our DD proposals	15
1.4. Market engagement	17
1.5. Value for money assessments	18
1.6. Amending our proposal for a market-based delivery model	19
2. Market interest	20
2.1 Our approach	20
2.2 Outcomes and feedback from each market engagement	20
2.2.1 Smart metering	20
2.2.2 Bioresources	21
2.2.3 Local Authority Highway SuDS	22
2.2.4 Informal market engagement on alternative delivery	22
2.3 Summary feedback from market engagement	23
3. Value for money analysis	25
3.1 Quantitative VfM	25
3.2 Qualitative VfM	26
3.3 Summary conclusion on VfM	27
4. A market-based delivery route	29
4.1 Our responsibilities	29
4.2 A framework that enables market-based delivery	30
4.2.1 Enhancement mechanisms	30
4.2.2 Ofwat oversight	30
4.2.3 A mechanism that aligns our revenues and payments to third parties	31
4.2.4 A mechanism to provide further certainty of payments	31
4.2.5 Risk allocation, cost sharing mechanism and incentives	31
5. Our identified projects and proposed delivery route	33
5.1 Our decision-making process	33
5.2 Summary of re-evaluated delivery route	35

6.	Project specific cases	38
6.1	Aylesford Re-use and Ford Re-use	40
6.1.1	Aylesford progress	40
6.1.2	Ford progress	41
6.1.3	Updated costs	41
6.1.4	Market engagement summary	42
6.1.5	VfM analysis	42
6.1.6	Proposed delivery	44
6.2	Sandown Re-use	45
6.2.1	Progress and updated costs	45
6.2.2	Market engagement summary	46
6.2.3	VfM analysis	47
6.2.4	Proposed delivery route	49
6.3	Sittingbourne Industrial Re-use	50
6.3.1	Progress and updated costs	50
6.3.2	Market engagement summary	51
6.3.3	VfM analysis	52
6.3.4	Proposed delivery	53
6.4	Smart Metering	55
6.4.1	A single solution provider	55
6.4.2	Market engagement and procurement update	57
6.4.3	Summary of Commercial Strategy	58
6.4.4	Activities not included in the AMS contract	59
6.4.5	Updated costs	60
6.4.6	VfM analysis	60
6.4.7	Enabling the Alternative Metering Service	61
6.5	Bioresources: Ham Hill and Ashford	62
6.5.1	Progress and updated costs	62
6.5.2	Market engagement summary	63
6.5.3	VfM analysis	64
6.5.4	Proposed delivery	66
6.6	CSO: Local Authority Highway SuDS	67
6.6.1	Our preferred solution	67
6.6.2	Our progress	68
6.6.3	Updated costs	69
6.6.4	VfM analysis	70
6.6.5	Proposed delivery option	70
6.7	Whitfield WwTW	71
6.7.1	Progress, updated costs and timeline	71
6.7.2	Market engagement summary	72
6.7.3	VfM analysis	72
6.7.4	Proposed delivery	74
6.8	CSO: Wetlands	75
6.8.1	Updated costs	75

6.8.2	Market engagement summary	75
6.8.3	VfM analysis	76
6.8.4	Proposed delivery option	77
Appendix A – Value for money studies		78
Executive Summary		78
Quantitative Assessment		78
Qualitative Assessment		79
	Aylesford & Ford and Sittingbourne	79
	Sandown	79
	Bioresources, Whitfield, and Wetlands	80
	Local Authorities Highway SuDS	80
Quantitative VfM methodology		80
	Quantitative VfM Assessment	80
	Quantitative VfM model assumptions	83
	Quantitative VfM sensitivity analysis	86
Qualitative VfM methodology		87
Combined assessment		90
Aylesford and Ford re-use		91
Combined assessment		91
Quantitative VfM		91
Qualitative VfM		93
Sandown re-use		98
Combined assessment		98
Quantitative VfM		98
Qualitative VfM		100
Sittingbourne re-use		105
Combined assessment		105
Quantitative VfM assessment		105
Qualitative VfM		107
Bioresources (Ashford and Ham Hill AAD)		113
Combined assessment		113
Quantitative VfM		113
Qualitative VfM		115
Local Authorities Highway SuDS		119

Combined assessment	119
Quantitative VfM	119
Qualitative VfM	121
Whitfield WwTW	127
Combined assessment	127
Quantitative VfM	127
Qualitative VfM	129
Wetlands	135
Combined assessment	135
Quantitative VfM	135
Qualitative VfM	137
Appendix B – Alternative Metering Service – VfM	141
Executive summary	141
Introduction	145
Context	145
Purpose and approach	146
Structure of the paper	147
Regulatory environment and WRMP targets	148
Smart meters – a key enabler to increase water resilience	148
WRMP requirements and linkages to business plans	148
A resilient water sector	149
Using markets and promoting competition	150
Description of options	151
How we arrived at the two options we consider in this VfM business case	151
Description of the VfM model, assumptions, and commercial parameters	153
Definition of Value for Money	153
Structure of the financial model underpinning the VfM analysis	153
Smart meter costs – capital expenditure and operating expenditure	154
Financing costs	154
Revenues	155
Model calculation flow for In-house PR24 traditional cost recovery route	156
Model calculation flow for the third-party Alternative Metering Service Route	158
Benefits	160

Evaluation Assumptions	160
Timing Inputs	160
Costs differentials	161
Commercial levers in the Alternative Metering Service model	161
Results of VfM Modelling and scenario testing	163
Comparison of NPV between the shortlisted options	163
Sensitivity Analysis	165
Scenarios	166
Risks and mitigations to protect consumers	168
Risk management	168
Conclusion	168
Appendix B-1 to Smart Meter – VfM conceptual model structure and assumptions summary	171
Appendix B-2 to Smart Meter – efficiency and financing cost benchmarks	174
Efficiencies in capital expenditure and operating expenditure	174
PR24 Benchmarks	174
Market Request for Information (RFI)	175
Cost of financing	175
Appendix C – Market engagement report	177
Executive summary	177
Introduction	181
Context and Objective	181
Approach	181
Stakeholders involved for the informal market engagement	182
Key topics discussed at informal market engagement	183
Differences between delivery via DPC and alternative market-based delivery	183
Investment value minimum requirements	185
Project bundling	186
Risk allocation	186
Standardised contracts and bidding process for lower value projects	186
Ability to add value	187
Tender model	188

Contract length	188
Feedback for individual projects	188
Sandown re-use	190
Aylesford re-use and Ford re-use	191
Sittingbourne re-use	193
Whitfield	194
Wetlands	194
Bioresources	196
Appendix D – Letter from Kent County Council	198

List of Tables

Table 1 – Projects, their delivery route and contract model proposed in our PR24 plan in Oct-23	13
Table 2 – DPC proposed projects and their delivery route determined by Ofwat at DD	14
Table 3 – DPC-lite proposed projects and their delivery route determined by Ofwat at DD	15
Table 4 – Our DD updated project delivery route proposal	16
Table 5 – Summary of market sentiment	18
Table 6 – Summary of VfM analysis and assessment	19
Table 7 – The regional Local Authorities in our region responsible for highways	22
Table 8 – Summary of market sentiment	23
Table 9 – Summary quantitative VfM analysis focused on NPV savings	25
Table 10 – Qualitative VfM chosen dimensions	26
Table 11 – Summary VfM analysis	27
Table 12 – Summary VfM analysis	27
Table 13 – Updated project delivery route proposal	35
Table 14 – Updated project delivery route and model	38
Table 15 – Project business case reference locations and summary rationale	39
Table 16 – Summary VfM assessment for a bundled Aylesford and Ford project	42
Table 17 – Aylesford and Ford base case VfM	43
Table 18 – Qualitative VfM analysis – Aylesford and Ford	43
Table 19 – Summary VfM assessment for Sandown	47
Table 20 – Sandown base case VfM	47
Table 21 – Qualitative VfM analysis – Sandown	48
Table 22 – Summary VfM assessment for Sittingbourne	52
Table 23 – Sittingbourne base case VfM	52
Table 24 – Qualitative VfM analysis – Sittingbourne	53
Table 25 – The overall smart metering scheme	57
Table 26 – Summary VfM assessment for the Bioresources project	64
Table 27 – Bioresources base case VfM	64
Table 28 – Qualitative VfM analysis	65
Table 29 – Summary VfM assessment for the LA Highways SuDS project	70
Table 30 – Summary VfM assessment for the Whitfield project	72
Table 31 – Whitfield base case VfM	73
Table 32 – Qualitative VfM analysis – Whitfield	74
Table 33 – Summary VfM assessment for the Wetlands project	76
Table 34 – Wetlands base case VfM	76
Table 35 – Qualitative VfM analysis	77
Table 36 - Summary of VfM analysis	78
Table 37: Quantitative VfM model assumptions	83
Table 38: qualitative assessment outcome range	87
Table 39: Qualitative VfM dimensions	88
Table 40: Factors to consider for qualitative dimensions	89
Table 41: Aylesford and Ford VfM analysis	91
Table 42: Aylesford and Ford base case VfM	91
Table 43: Aylesford and Ford sensitivity analysis	92
Table 44: Aylesford and Ford qualitative VfM assessment	93
Table 45: Sandown combined VfM analysis	98
Table 46: Sandown base case VfM	98
Table 47: Sandown quantitative VfM analysis	99
Table 48: Sandown qualitative VfM analysis	100
Table 49: Sittingbourne combined VfM analysis	105
Table 50: Sittingbourne base case VfM	105
Table 51: Sittingbourne quantitative VfM analysis	106
Table 52: Sittingbourne qualitative VfM analysis	107
Table 53: Bioresources combined VfM analysis	113

Table 54: Bioresources base case VfM	113
Table 55: Bioresources quantitative VfM analysis	114
Table 56: Bioresources qualitative VfM analysis	115
Table 57: SuDS combined VfM analysis	119
Table 58: SuDS base case VfM	119
Table 59: SuDS quantitative VfM analysis	120
Table 60: SuDS qualitative VfM analysis	121
Table 61: Whitfield combined VfM analysis	127
Table 62: Whitfield base case VfM	127
Table 63: Whitfield quantitative VfM analysis	128
Table 64: Whitfield qualitative VfM analysis	129
Table 65: Wetlands combined VfM analysis	135
Table 66: Wetlands base case VfM	135
Table 67: Wetlands quantitative VfM analysis	136
Table 68: Wetlands qualitative VfM analysis	137
Table 69: Summary of informal market engagement	178
Table 70: Objectives of informal market engagement	181
Table 71: Stakeholder types	182
Table 72: Summary of market sentiment for projects proposed for market-based delivery	189
Table 73: Summary of informal market engagement for Sandown	190
Table 74: Summary of informal market engagement for Aylesford project	192
Table 75: Summary of informal market engagement for Ford project	192
Table 76: Summary of informal market engagement for Sittingbourne project	193
Table 77: Summary of informal market engagement for Whitfield project	194
Table 78: Summary of informal market engagement for Wetlands project	196
Table 79: Summary of informal market engagement for Bioresources project	197

List of Figures

Figure 1 – Our decision-making framework and outcome	33
Figure 2 – Our decision-making framework for the right delivery mechanism	34
Figure 3 – Aylesford and Ford value drivers	43
Figure 4 – Sandown value drivers	48
Figure 5 – Sittingbourne value drivers	53
Figure 6 – Smart metering using a single provider	56
Figure 7 – Boundary boxes	60
Figure 8 – Bioresources value drivers	65
Figure 9 – Whitfield value drivers	73
Figure 10 – Wetlands value drivers	76
Figure 11: Quantitative VfM calculation flow	82
Figure 12: Aylesford and Ford value drivers	92
Figure 13: Sandown value drivers	99
Figure 14: Sittingbourne value drivers	106
Figure 15: Bioresources value drivers	114
Figure 16: SuDS value drivers	120
Figure 17: Whitfield value drivers	128
Figure 18: Wetlands value drivers	136
Figure 19: VfM test	142
Figure 20: Southern Water and industry average meter penetration 2021-2022	145

Glossary

Term	Explanation
AAD	Advanced Anaerobic Digestion
ADBA	Anaerobic Digestion & Bioresources Association
AMI	Advanced metering infrastructure
AMP	Asset Management Period
AMR	Automated Meter Readings
ARD	Allowed Revenue Direction
ATC	Advanced Thermal Conversion
BAS	Biosolids Assurance Scheme
CAP	Competitively Appointed Provider
CAPA	Competitively Appointed Provider Agreement
Capex	Capital Expenditure
CHP	Combined Heat and Power
Comms	Communications network
CSO	Combined Sewer Overflow
DB	Design-Build
DBF	Design-Build-Finance
DBFOM	Design-Build-Finance-Operate-Maintain
DD	Draft Determination
DPC	Direct Procurement for Customers
DWI	Drinking Water Inspectorate
DWMP	Drainage and Wastewater Management Plan
EA	Environmental Agency
EIA	Environmental Impact Assessment
EPA	Environmental Performance Assessment
FOM	Finance-Operate-Maintain
FRfW	Farming Rules for Water
HRA	Habitat Risk Assessment
HWTWRP	Hampshire Water Transfer and Water Recycling Project
IED	Industrial Emissions Directive
IT	Information Technology
ITT	Invitation to Tender
LA	Local Authority
MI/d	Mega Litre per Day
N/A	Not Applicable

Term	Explanation
NM	Not Meaningful
O&M	Operations and Maintenance
ODI	Outcome Delivery Incentives
OFTO	Offshore Transmission Owners
Opex	Operational Expenditure
PC	Performance Commitments
PCC	Per Capita Consumption
PCD	Price Control Deliverable
PE	Population Equivalent
PFI	Private Finance Initiative
PIN	Prior Information Notice
PPP	Public Private partnership
PQQ	Pre-qualification questionnaire
PR	Price Review
PWLB	Public Works Loan Board
RFI	Request For Information
RISD	Regulatory / Required In-Service Date
SEA	Strategic Environmental Assessment
SPV	Special Purpose Vehicle
SuDs	Sustainable Urban Drainage Systems
SW	Southern Water
TDS	Tonnes Dried Solids
Totex	Total Expenditure
TRS	Tender Revenue Stream
UK	United Kingdom
UKIB	United Kingdom Infrastructure Bank
WaSCs	Water and sewage companies
WFD	Water Framework Directive
WFLH	Water for Life Hampshire
WINEP	Water Industry National Environment Programme
WRMP	Water Resources Management Plan
WRP	Water Recycling Plant
WRSE	Water Resources South East
WTW	Water Treatment Works
WwTW	Wastewater Treatment Works

1. Executive summary

This document includes our market-based delivery draft determination response followed by 4 appendices providing all our supporting evidence.

We have done significant further work following our PR24 business plan in October 2023, mainly focusing on three areas:

- Extensive market engagement to identify strength and depth of market interest using four different routes reflecting the projects’ specific circumstances.
- Quantitative and qualitative value for money assessments for each project.
- Developing each project to improve understanding of project scope that could be carried out by a Competitively Appointed Provider or equivalent, and where Southern Water would need to carry out preliminary work.

We have also amended the proposal for a market-based delivery model using the additional evidence.

We are now more confident about where the proposal could work and where it should be altered or projects revert to in-house delivery. We have also considered the position set out in the Draft Determination.

1.1. Projects at PR24 identified for market-based delivery

In our plan we proposed 4 projects we had identified that met the criteria to be delivered via DPC. An additional 5 enhancement projects were also proposed to be delivered by a similar alternative market-based delivery route.

Our proposal was based on the size of our capital programme and the need to provide value for money for customers while delivering more enhancement programmes than ever before. Projects were identified based on size and separability outside the strict DPC criteria where it would be feasible and beneficial to deliver these schemes via a third-party provider. Our decisions included the following considerations:

- Our belief that we could create a market that could benefit our customers from the cost efficiencies and innovations offered via this delivery route;
- Accelerating innovation in project delivery;
- Unlocking of economies of scale across the sector;
- Incentivising timely delivery of major projects and programmes;
- Mitigating deliverability concerns given the large increase in our AMP8 programme compared to previous AMPs; and
- Diversifying our delivery risk.

Table 1 – Projects, their delivery route and contract model proposed in our PR24 plan in Oct-23

Projects	Delivery route	Contract model	Proposed tender model
Aylesford re-use	DPC	DBFOM	Late
Ford re-use	DPC	DBFOM	Late
Sandown re-use	DPC	FOM	Very late



Projects	Delivery route	Contract model	Proposed tender model
Sittingbourne industrial re-use	DPC	DBFOM	Late
Smart metering	DPC-lite	DBFOM	Late
Bioresources: Ham Hill and Ashford	DPC-lite	DBFOM	Late
Local Authority Highways SuDS	DPC-lite	DBFOM	Late
Whitfield WwTW	DPC-lite	DBFOM	Late
Wetlands	DPC-lite	DBFOM	Late

1.2. Ofwat’s response at draft determination

At Draft Determination, Ofwat decided on the DPC schemes it would take forward and our proposed DPC-lite schemes.

1.2.1 DPC schemes

Ofwat determined that the Aylesford re-use and Ford re-use projects should be delivered as a bundled DPC scheme. It further determined both Sandown and Sittingbourne to be delivered in-house.

Ofwat’s concern for Sandown is our proposal for a “very late” DPC, tendering only a FOM contract to finance, operate and maintain. The proposal was for us to design and build the assets, selling them to a third party to own, operate and maintain. Ofwat raised concerns that an FOM contract would be unlikely to attract interest from the market.

Ofwat’s concern for Sittingbourne is that it is more complex and there is material uncertainty around the project compared to other water recycling projects due to its reliance on agreements with both a paper mill and the EA.

Table 2 – DPC proposed projects and their delivery route determined by Ofwat at DD

Projects	Delivery route	Detail
Aylesford re-use	DPC	To be bundled with the Ford re-use scheme
Ford re-use	DPC	To be bundled with the Aylesford re-use scheme
Sandown re-use	In-house	Concerns about FOM contract make it unsuitable for DPC. We agree with the in house delivery decision
Sittingbourne industrial re-use	In-house	Concerns about complexity of agreements, making it suitable for DPC

1.2.2 DPC-lite

Ofwat determined that the DPC-lite model would need to be considered and discussed further to determine the approaches and models to deliver greater benefits for customers. Ofwat stated:

“We welcome suggestions and proposals for innovation from companies where it could offer better value for customers, and we investigated Southern Water’s proposal at length. We believe the existing regulatory framework allows Southern Water to go ahead with the proposed schemes without further regulatory adaptations but will continue to discuss the approaches and whether alternative models are likely to deliver greater benefits for customers.”



Table 3 – DPC-lite proposed projects and their delivery route determined by Ofwat at DD

Projects	Delivery route	Detail
Smart metering	In-house	In-house, but welcome suggestions and proposals to delivery approaches and models to offer value for customers
Bioresources: Ham Hill and Ashford	In-house	In-house, but welcome suggestions and proposals to delivery approaches and models to offer value for customers
Local Authority Highways SuDS	In-house	In-house, but welcome suggestions and proposals to delivery approaches and models to offer value for customers
Whitfield WwTW	In-house	In-house, but welcome suggestions and proposals to delivery approaches and models to offer value for customers
Wetlands	In-house	In-house, but welcome suggestions and proposals to delivery approaches and models to offer value for customers

Ofwat highlighted the differences between DPC and our proposed DPC-lite projects stating that these were typically below the whole-life totex threshold or with a high number of lower value, shorter life assets. Our proposed DPC-lite projects would therefore be delivered in-house unless a new regulatory framework could be developed and agreed.

1.2.3 Enhancement mechanisms

Ofwat introduced a range of enhancement mechanisms at the Draft Determination, some of them applying to the projects we proposed for alternative delivery. The RAPID gated process remains a key mechanism to help accelerate the development of new water infrastructure projects. At the Draft Determination none of our projects were proposed to be delivered via this route other than the existing SROs. However, in a letter from RAPID dated 19 April 2024 it was proposed that Aylesford and Ford re-use projects would also progress through RAPID's gated process. We have requested a meeting with Ofwat to discuss how the DPC and RAPID processes combined can be streamlined in order not to overburden relatively small projects compared to most SRO schemes.

For certain projects with a value of over £100m with inherent uncertainty, Ofwat has established a large scheme gated process to provide allowances, generally aligned with the RAPID process. At Draft Determination the projects considered for inclusion in the large scheme gated process we had proposed for alternative delivery were Sittingbourne industrial re-use and Sandown re-use.

For two companies, including us, Ofwat introduced a delivery mechanism to allow the delivery of our plans. It is an additional oversight and monitoring regime to allow early sight of issues. Allowances can then be adjusted during the AMP.

The proposed uncertainty mechanism for storm overflows applies solely to grey/hybrid schemes. The schemes allow changes in the overall scope and costs. The enhancement engagement and cost sharing mechanism provides oversight and customer protection and funding for larger than £100m value, but non-complex schemes.

1.3. Our DD proposals

We have submitted data tables in line with Ofwat's requirements. However, market-based delivery is an important feature of our plan that supports deliverability and financeability and we also believe offers best customer value over time. It is our intention to maximise the use of alternative delivery and we would like to engage with Ofwat on this ahead of Ofwat finalising its Final Determination. We have assessed deliverability and financeability on the basis of continuing with market-based delivery in some cases. Our updated SUP12 table shows the required data for the two new DPC schemes, Aylesford and Ford, but also for those projects

where we continue to believe market delivery is the right approach. For the avoidance of doubt, all costs of these schemes are included in the relevant data tables, notwithstanding that the cost information is repeated in SUP12. This is different from our approach in the October 2023 business plan, where costs for schemes identified in SUP12 were excluded, except for the costs that would be incurred by Southern Water in any event.

Since our submission in October 2023, we have developed and re-assessed all our alternative delivery projects, updating costs, project scope and reconsidered our possible options to deliver each project. The assessments have been based on:

- Ofwat’s challenges raised in response to our plan and in the Draft Determination;
- Information provided and issues raised by investors and other market participants during our four separate market engagements;
- Value for money analyses for each project;
- Each project’s continued developments; and
- Our approach to ensure we protect customers and deliver value for them.

We have amended our proposed market-based delivery model as a result. Additionally, we have assessed and, in some cases, propose additional projects to be included in Ofwat’s new enhancement mechanisms.

Table 4 – Our DD updated project delivery route proposal

Project	Ofwat decision at DD	Our proposed delivery route	Treatment in data tables	Treatment for deliverability and financeability
Aylesford and Ford re-use	DPC	DPC	DPC	DPC
Sandown re-use	In-house, large scheme gated process	In-house, propose moving from large scheme gated process to enhanced engagement and cost sharing mechanism	Costs included in plan	Costs included in plan
Sittingbourne industrial re-use	In-house, large scheme gated process	Large scheme gated process, progress market-based delivery	Costs included in plan	Market delivery
Smart metering	In-house	Market-based delivery and engagement with Ofwat	Costs included in plan	Market delivery
Bioresources	In-house	Progress market-based delivery	Costs included in plan	Market delivery
Local Authority Highway SuDS	In-house	Progress market-based delivery in collaboration with local authorities	Costs included in plan	Market delivery
Whitfield WwTW	Ofwat error – missing in DD	Inclusion in large scheme gated process, progress market-based delivery	Costs included in plan	Market delivery
Wetlands	In-house	In-house, part of storm overflows which we propose to be included in the enhanced engagement and cost sharing mechanism and the delivery mechanism	Costs included in plan	Costs included in plan
HWTWRP	DPC, SRO	Continue as SRO	DPC, development only	DPC



Project	Ofwat decision at DD	Our proposed delivery route	Treatment in data tables	Treatment for deliverability and financeability
T2ST	DPC, SRO	Continue as SRO	Development only	DPC
SESRO	SIPR, SRO	Continue as SRO	DPC	DPC

Our market engagement and VfM evidence supports Ofwat’s view that the Aylesford re-use and Ford re-use projects are suitable for DPC, particularly when delivered as a pair to increase market interest.

Our evidence also supports Ofwat’s view that Sandown re-use is most appropriate for in-house delivery, as it does not attract sufficient interest and there is a low likelihood that market-based delivery would enable value for customers.

On the other hand, our evidence differs from the Ofwat conclusion for several projects, notably for smart metering and bioresources. In both cases there was strong market interest who would build and operate the assets, and a good or very good likelihood they could deliver value for money. Hence for both projects we continue to propose that market-based delivery is the best route.

For other wastewater projects, we consider Ofwat has neglected to include the Whitfield WwTW project in its wastewater growth allowance (see SRN-DDR-48 Wastewater Treatment Growth Enhancement Cost Evidence Case). Since our business plan we completed further design and scope work and have revised the overall scheme cost to £103m and whole life costs to £182m. In our market engagement investors indicated clearly to us that at our previous cost of £50m was too small to attract interest, while at nearer to £100m it might. Following a VfM analysis we re-assessed the Whitfield WwTW project and continue to believe that it is worth progressing market-based delivery and also propose its inclusion in the large scheme gated process.

All the relevant Local Authorities have expressed interest in partnerships to deliver and provide benefits from joint working on delivering SuDS solutions. One of our two original proposed approaches was for a third party to deliver, which in general is more complex and not viable. We are in discussions with LAs to identify and design schemes together and the LAs would then finance and deliver the schemes.

For wetlands our evidence suggested there could be a case for market delivery, but due to the uncertainty over changes in consenting and therefore the deliverability of these wetlands in AMP8, we are proposing wetlands to be delivered inhouse and included as part of the storm overflows in the enhancement and cost sharing mechanism and the delivery mechanism.

1.4. Market engagement

We have engaged with the market in four separate areas. We chose these market engagements to suit each project’s needs and maturity of development or to allow us to understand the potential market interest. The four market engagements were:

- Smart metering. Formal market engagement in 2024. We completed the PQQ phase in June 2024 and are now in the ITT procurement phase. We have met with Ofwat prior to the Draft Determination responses to update on progress and intended next steps.
- Bioresources. Formal market engagement with a PIN issued in February 2024, comprising a “town hall” market engagement event and bilateral meetings with 15 interested companies.
- Local Authority Highways SuDS. We have met with all 10 of the relevant LAs since February 2024, including technical and commercial meetings to discuss a collaborative approach to deliver our SuDS programme. This dialogue continues.

- Informal market engagement for alternative delivery in general. Meetings with 12 investors and large contractors in May and June 2024.

We have had strong feedback from all these market engagements. The bilateral meetings and RFI responses highlighted the differences and issues specific to each project and raised some general issues mainly focused on the proposed alternative market-based delivery model and how it would work. We have assessed and categorised the outcomes and feedback for each specific project. Each market engagement activity is separately described in more detail in Section 2 and Appendix C – Market engagement report.

Table 5 – Summary of market sentiment

Project	Market sentiment	Comment
Aylesford re-use and Ford re-use	Positive sentiment	As a DPC project, delivered via a well understood framework, there was significant interest to participate.
Sandown re-use	Negative sentiment	The sentiment from the market for the project was, in the majority of cases, low. Investors see limited scope to add value in the very late model.
Sittingbourne industrial re-use	Positive sentiment	As a DPC project, and a well-understood framework, there was significant interest to participate.
Smart metering	Positive PQQ submissions	Market engagement completed. The PQQ phase closed with 6 submissions, 4 of which have been taken forward to the ITT stage.
Bioresources	Positive sentiment	Most parties are very interested in a DBFOM contract, shown in both the engagement specific to bioresources and the informal general alternative delivery market engagement. None were interested in a gate-fee outsourcing contract.
Local Authority Highways SuDS	Positive sentiment	We have amended our delivery strategy and are in discussions with LAs to jointly carry out initial work, with LAs to deliver and finance SuDS.
Whitfield WwTW	Positive sentiment	A small project size was a main concern, but would be reduced if the costs for the project substantially increased, or if a more standardised contract is used for a number of projects to allow reduced bidder costs.
Wetlands	Positive sentiment	There was market interest, but with limited experience.

1.5. Value for money assessments

We have taken a broad perspective on VfM assessments given that most projects are not sufficiently developed to test VfM directly with the market. We have used both a quantitative and qualitative approach and have developed a method of comparing the two approaches side by side. See SRN-DD-039-Appendix A V&F for descriptions of the methods. The summary of the VfM assessments is below, including an overall conclusion for each project. The NPV represents the difference in total costs between market-based and in-house delivery. A positive NPV represents VfM from the customers’ point of view. The qualitative approach can score between -12 and +12, with higher numbers being better from the customers’ point of view.

Table 6 – Summary of VfM analysis and assessment

	Quantitative VfM			Qualitative VfM		Overall
	NPV saving	Range -14 to +14	Outcome	Range -12 to +12	Outcome	
Aylesford and Ford	£23.4m	+14		+7		Likely to deliver VfM
Sandown	(£13.5m)	-12		+1		Unlikely to deliver VfM
Sittingbourne	£4.3m	+10		+7		Likely to deliver VfM
Smart metering	£15.9m	n/a		n/a	n/a	Likely to deliver VfM
Bioresources	£11.8m	+13		+6		Likely to deliver VfM
Local Authority Highway SuDS	(£15.0m)	-7	nm	+4	nm	nm
Whitfield	(£1.4m)	-8		+6		Neither likely nor unlikely to deliver VfM
Wetlands	£2.1m	+6		+6		Neither likely nor unlikely to deliver VfM

While we have carried our VfM assessments for LA Highways SuDS. For reasons explained in sections 3 and 11.4 we have identified that this assessment does not provide a true representation and is therefore not meaningful. We believe that partnerships with LAs will deliver VfM, as these solutions have been chosen as part of our overall storm overflow programme, as identified in our DWMP.

1.6. Amending our proposal for a market-based delivery model

As a result of issues raised in our market engagement, we are proposing an amended market-based delivery model. We propose a number of key features to ensure the best VfM solution can be delivered for our customers. The key features include:

- We proposed the use of enhancement mechanisms to allow some projects to progress and potentially revert to in-house delivery if at the decision points there is no case for market-based delivery;
- Regulatory oversight;
- A mechanism that can align our revenues and payments to third parties;
- A mechanism to provide further certainty of payments; and
- Further consideration of risk allocations, cost sharing mechanisms and incentives.

Our proposals on the regulatory mechanism are in Section 4 and should be read together with SRN-DDR-6 - Enhancements.

2. Market interest

We have done significant work engaging the market on all our projects. We have used four separate engagements, depending on the nature and maturity of the projects. The market engagements are in more detail described in SRN-DDR-0039 – Appendix C – Market Engagement, SRN-DDR-0016 – Bioresources AAD Cost Adjustment Claim and each project specific section.

2.1 Our approach

We have engaged with the market for:

- **Smart metering.** Issued a Pre-qualification Questionnaire (PQQ) and received initial responses from ■ interested parties. We completed the PQQ phase in June 2024, receiving ■ submissions. We selected the ■ best qualified parties and began the ITT phase on the 22 July. We have met with Ofwat prior to the Draft Determination response to update on progress and intended next steps.
- **Bioresources.** We issued a Prior Information Notice (PIN) under the name Kent Bioresources Project, along with information about our long-term strategy and AMP8 focus and a Request For Information (RFI). The aim of the PIN and RFI was to understand if the project would generate interest in the market and gather feedback on current thinking. The PIN was released on both Jaggaer and FindATender websites. A market engagement event was held online on the 5 March 2024 and was attended by 25 companies. Overall, ■ companies expressed interest directly through RFI responses. We additionally held ■ bilateral meetings with interested parties to continue the discussion and inform our plans further.
- **Local Authorities.** We have reviewed our delivery strategy for the LA Highways SuDS programme and are in talks with all relevant LAs in our region. The aim is to explore with them how to collaborate and jointly deliver a programme to alter highway drainage systems to reduce volume of rainwater entering our sewers. We have held initial meetings with all 10 local authorities and completed 9 technical workshops. We have also held 8 initial meetings to discuss any commercial arrangements, generally including our CFO and the LAs' Finance Director / Section 151 Officer.
- **Informal market engagement for alternative delivery in general.** We held 12 informal bilateral meetings with investors, contractors with investor arms and large contractors in May and June 2024. The meetings were focused on general interest in alternative delivery models and project-specific feedback on the level of potential interest in each project. We also asked for feedback on our proposed alternative delivery model and what would need to happen to maximise market interest and scope for VfM. We received 5 written responses to questionnaires.

2.2 Outcomes and feedback from each market engagement

2.2.1 Smart metering

Market engagement

There is extensive market appetite to provide this service. Our RFI in 2023 had over 40 responses, of which ■ parties were interested in offering an end-to-end, financed service.

PQQ phase

We entered the PQQ phase in June 2024 and received ■ credible submissions. All bidders have:



- decades of experience funding and operating multi-million meter portfolios in the energy sector;
- expressed support for an outcomes-based approach, from their experience in other water tenders;
- established their view of credible supply chain partners to deliver on our ambition;
- reviewed and verified commercial models and requirements; and
- the desire to establish themselves in the UK smart meter (water) market.

ITT phase

On the 22 July we entered the ITT phase, inviting the ■■■ strongest bidders into the next phase of the bidding process, ensuring we are benefitting from strong competitive tension, which in turn has a strong likelihood of generating VfM. The costs incurred by the bidders during this tendering process are at their own risk with no bidder reimbursement of costs offered, again showing the significant interest by the bidders in our approach.

2.2.2 Bioresources

Most parties were interested in supporting the bioresources project with some having experience with PPP/PFI type contracts.

DBFOM/ DBF/ service agreement contract

We asked which contract would be seen as most favourable: DBFOM, DBF or a service only agreement. All investors and contractors with investment arms replied that DBFOM was the most favoured contract. None were interested in a service agreement (e.g., gate fee model).

Understanding the difference between DPC and our proposed market-based delivery

Potential investors were interested in understanding our proposed market-based delivery route. Many were already familiar with the DPC framework. Some investors raised concerns about the potential risk if there were no certainty that payments would be made to the SPV. If the payments were only part of our general price control with no additional measure to ensure we would pay, the associated risks may result in higher prices and potentially decrease overall interest in the project (see Section 2.2.4).

Risk allocation

Some participants highlighted the need to consider risk allocation between parties as a key driver of both interest in competing and creating possibilities for VfM.

Landbank

The use of a landbank to recycle our treated sludge through agricultural land was highlighted as a key risk in the near future. All investors made clear that they were not interested / very concerned about bearing the risk of reduced rights to dispose to land and would seek for us take back the final biosolids and manage the risk. Not only would an inclusion of these risks cause a significant price increase, but also could sharply reduce the appetite to bid.

Combining capacities of water companies into a single site

We asked investors whether building a new site capable of receiving sludge from two (or more) neighbouring water companies under a single contract would be of interest. Once again, concerns were raised about the landbank risk and the acceptability and liability of two (or more) water companies effectively accepting the

quality of sludge, the potential impact on yields and the risk and acceptance of each other's biosolids from a single process where the input was mixed.

Planning permission

A number of participants made clear they would not be prepared to enter the bidding process without certainty over key risks, for example uncertainties remaining over the approval of the project from planning authorities. Outline planning permission, if provided ahead of the bidding process, would also allow bidders to understand and cost the requirements better which could improve the outcomes of the bid.

2.2.3 Local Authority Highway SuDS

We considered the best delivery option with the relevant LAs. We have a joint interest in collaboratively delivering a programme of works to reduce surface water flooding, which also triggers storm overflow releases. We are engaging with the following LA responsible for highway assets across our region.

Table 7 – The regional Local Authorities in our region responsible for highways

Local Authorities	
Kent County Council	Portsmouth City Council
Hampshire County Council	Southampton City Council
East Sussex County Council	Brighton and Hove City Council
West Sussex County Council	Isle of Wight Council
Surrey County Council	Medway Council

We have had initial meetings between our CEO with all ten councils' chief executives and / or council leaders (or delegates). Responses were positive, expressing a keen interest in resetting the partnership between the council us and, as well as collaborating to better serve residents / customers and the environment. The meetings discussed at executive level the project's scope and objectives, as well as explain how SuDS can provide benefits to several challenges faced by councils and water companies.

We are conducting technical workshops with all councils, having completed 9 out of 10 at the time of writing. It allows us and the councils to explore the feasibility, solutions, timelines and understanding of the overall magnitude and work required. The outcome is a long list of roads for further exploration to understand if / when SuDS would be suitable to combat surface water in that area.

Additionally, we have now completed initial commercial meetings with 8 LAs, with all others due by early September, to discuss the feasibility of the financing model we have proposed. This process has allowed us to send a draft Memoranda of Understanding (MOU) to each LA. All LAs continue to consider our proposal. We are planning to hold a general meeting with all key executives at the councils to agree on a streamlined process, ensuring that all contracts will be of an equivalent nature with none being given preferential terms.

2.2.4 Informal market engagement on alternative delivery

The overall response from investors was positive, with variations on the degree of interest between different parties, and between different projects. Market participants' knowledge of DPC models was good and so many were interested in better understanding the market-based delivery model and the extent to which the regulatory framework could be adjusted to support this type of delivery.

Payment certainty

For the market-based delivery model, several participants raised issues regarding the certainty of payments. Key feedback was the mechanism to ensure payments to the third-party would actually be paid by Southern Water. A key issue for some was the periodic price control framework, that may result in a change in the allowances by Ofwat to Southern Water to pay the SPV, potentially increasing the risks of the SPV and its debt providers. Concerns about the seniority of debt, including in the event of insolvency were also raised. Others were less concerned about the availability of some form of revenue direction from Ofwat, suggesting that it would mainly influence the overall cost of the project.

Overall, a mechanism to assure payment for the life of the contract was seen to provide greater comfort to lenders and investors, increasing interest and reducing the overall cost.

Investment appetite

We explored the investment appetite for our projects, excluding smart metering as this was subject to a formal process running at the same time. Most participants demonstrated flexibility or had past experiences with investing in smaller projects with capex as low as £50m. Equity investors, while indicating flexibility, expressed a preference for projects with capex exceeding £100m. Contractors, on the other hand, emphasised the importance of evaluating projects on a case-by-case basis. Their focus was on the complexity of the scheme and their potential to add value through design optimisation, innovation, and risk management via their own processes.

Standardised contractual terms

Some participants proposed the adoption of a more standardised set of contractual terms. They highlighted the advantages of helping to reduce bidding costs, particularly when legal and bid costs can be proportionally significant for smaller value projects. Both the drafting and negotiating for each contract with a more standardised approach would be beneficial for both us and potential bidders.

Project grouping

Both investors and contractors advocated the bundling of projects of a similar nature to allow a more efficient bidding process with the potential to reduce associated costs. This was particularly suggested to facilitate the participation in smaller scale projects. It could also increase the attractiveness by increasing the overall value of the project bundle. One contractor mentioned that it could enable efficiencies in construction, operation, and maintenance if the same teams can be used across multiple projects, therefore driving further VfM.

2.3 Summary feedback from market engagement

We have assessed and categorised the outcomes and feedback for each specific project. In summary we have categorised the overall market sentiment as positive, mixed, or negative sentiment, providing some detail for each.

Table 8 – Summary of market sentiment

Project	Market sentiment	Comment
Aylesford re-use and Ford re-use	Positive sentiment	As a DPC project, delivered via a well understood framework, there was significant interest to participate. Would be more attractive and interesting if bundled with other projects for delivery as a package.
Sandown re-use	Negative sentiment	The sentiment from the market for the project was in the large majority of cases low. Investors see limited scope to add value, reducing the interest for many to bid, especially contractors and investors with contracting arms. Some parties could be interested, but would seek warranties and other

Project	Market sentiment	Comment
		guarantees from us that would lead to additional cost and risk being borne by us and / or our customers.
Sittingbourne industrial re-use	Positive sentiment	As a DPC project, delivered via a well understood framework, there was significant interest to participate. Some parties questioned ability to bundle with other WRP projects.
Smart metering	Positive PQQ submissions	Market engagement completed. The PQQ phase closed with 10 submissions, 4 of which have been taken forward to the ITT stage.
Bioresources	Positive sentiment	Most participants are very interested in a DBFOM contract, shown in both the engagement specific to bioresources and the informal general alternative delivery market engagement. None were interested in a gate-fee outsourcing contract. All the parties we spoke to in the specific bioresources engagement wish to continue dialogue.
Local Authority Highways SuDS	Positive sentiment from local authorities	We have amended our delivery strategy, with LAs to deliver and finance SuDS, rather than via a SPV typical of DPC / PPP projects. We have significant interest from the LAs, having held initial meetings with council leaders and chief executives and then follow up meetings with their finance directors. Each of the 10 councils have received an MOU which they are reviewing.
Whitfield	Positive sentiment	Small project size was a main concern, but would be reduced if the costs for the project substantially increased, making it a more attractive project. Questions asked including the potential for bundling or more standardised contract to allow reduce bidder costs which could increase interest. A suitable market-based delivery model would need to be agreed with Ofwat. This could make the project attractive.
Wetlands	Positive sentiment	There was some market interest, but with limited experience of many participants. Decisions by the EA and Defra in July 2024, after we had spoken to the market, have resulted in significant uncertainty for the project that is likely to reduce the level of interest.

3. Value for money analysis

We have taken a broad approach to identify the potential to create VfM. We recognise that for most of these projects they are at an early stage where significant market-derived VfM analysis are not practicable so we are being transparent about the assumptions made. Nevertheless, by providing quantitative and qualitative VfM assessments, we believe they show evidence where appropriate that some projects have a high likelihood of being able to deliver VfM via market-based delivery.

The full documents on the methodology of the VfM analysis can be found in SRN-DDR-039 – Appendix A – V&F and for the Smart Metering project in SRN-DDR-039 – Appendix B – Alternative Metering Service - Value for Money. Additionally, in the sections specific to each project we present the VfM cases in more detail.

3.1 Quantitative VfM

For each project, analyses have been conducted using Ofwat's VfM input assumptions. This includes the standard assumptions used to demonstrate VfM for PR19 and, where applicable, updates based on subsequent guidance from Ofwat. For each project we considered a third party's abilities to deliver capex and opex efficiencies. For financing efficiencies that could be brought by a third party we assumed that a new delivery model is agreed with Ofwat that will provide comfort to possible equity and debt providers and result in reduced financing costs. We then consider the potential NPV saving or cost and its percentage of the total project costs as an indicator of whether there is potential for VfM or its very limited ability for value to customers.

Additionally, as part of our quantitative analysis we considered the sensitivity of eight variables for our VfM analysis for both a low and high case. These eight variables were: contract period, equity IRR, gearing, capex efficiency, opex efficiency, competitive delivery costs and bidder costs. Each variable was given a score of -1, 0 or 1. The aggregated score of between -14 and +14 is to provide additional evidence. An aggregated score of between -14 and -5 would indicate a project unlikely to deliver VfM. A score of -4 to +4 was assessed to be neutral with a score of between +5 and +14 to be considered likely to deliver VfM.

Table 9 – Summary quantitative VfM analysis focused on NPV savings

	NPV in-house	NPV market delivery	NPV saving	% difference	Aggregate score	Outcome
Aylesford re-use and Ford re-use	£299.6m	£276.1m	£23.4m	8.5%	+14	Likely to deliver VfM
Sandown re-use	£165.7m	£179.3m	(£13.5m)	-7.6%	-12	Unlikely to deliver VfM
Sittingbourne industrial re-use	£141.2m	£136.9m	£4.3m	3.2%	+10	Likely to deliver VfM
Smart metering	£207.1m	£191.3m	£15.9m	8.3%	n/a	Likely to deliver VfM
Bioresources:	£248.6m	£236.8m	£11.8m	5.0%	+13	Likely to deliver VfM
Local Authority Highways SuDS	£235.2m	£249.8m	(£14.5m)	-5.8%	-7	nm
Whitfield WwTW	£80.1m	£81.6m	(£1.4m)	-1.8%	-8	Neither likely nor unlikely to deliver VfM
Wetlands	£122.9m	£120.8m	£2.1m	1.7%	+6	Neither likely nor unlikely to deliver VfM

The first projects in the quantitative VfM analysis are in line with our market engagement findings, indicating that all projects could potentially deliver NPV savings, and which are also of interest to the market, with the exception of Sandown. However, for LA Highway SuDS, Whitfield, and Wetlands the findings do not align.

For the LA Highways SuDS project, we used the standard benchmarking VfM assumptions, but we have identified that these no longer align with how we would deliver the projects. The quantitative VfM assessment included assumptions that an SPV would be the delivery vehicle and would require a risk-based return on their investment. Further assumptions include the standard competitive delivery and bidder costs if delivered via market-based delivery. This was compared to our counterfactual assumption of in-house delivery. In our discussions with LAs, we have identified that inserting an SPV between the LA and delivery of projects is not viable. We have also stated that all costs associated with the delivery of our SuDS programme would be our responsibility to pay. They would also wish to use their existing delivery routes, which would not incur the additional costs assumed, neither the risk-based returns nor the additional bid costs. We think it is likely the VfM assumptions overstate the costs of this route but cannot verify it. We have also identified a problem with the counterfactual – there is no route where we could deliver highway SuDs ourselves without collaborating with the LAs. We therefore consider that in this case the analysis does not provide meaningful results. We describe in section 11 why we think that use of Highway SuDs is a good value for money solution for our customers.

The assessment for Whitfield WwTW shows a small NPV cost, rather than a saving. However, at a potential cost of just £1.4m, accounting for less than 2% difference, we have concluded that the VfM currently shows that the project shows neither a likely nor unlikely case to deliver VfM. The small value and difference in costs has let us to conclude similar for the wetlands project.

3.2 Qualitative VfM

We have used precedents from literature to establish a qualitative VfM approach. These include the Green Book’s qualitative approach for considering Public Private Partnership (PPP) project delivery¹, the cost benefit assessment (CBA) methodology developed by the Electricity System Operator (ESO)², the Department for Transport’s Value for Money Framework document³; and the World Bank compared VfM analysis practices applied to PPP projects globally⁴. We chose 12 qualitative dimensions, having eliminated a number of other possible dimensions as unlikely to differentiate between projects or not sufficiently distinct from the final list.

Table 10 – Qualitative VfM chosen dimensions

Chosen dimensions	
Deliverability capability	Flexibility
Deliverability capacity	Risk identification and mitigation
Access to supply chain/ contractors	Innovation in technology and delivery
Commercial attractiveness	Environmental and social
Price discovery	Management and coordination
Access to capital	Consumers bill impact

¹ [The Green Book, Box 28](#)

² [The Green Book, Box 28](#)

³ [Department for Transport, Value for Money Framework](#)

⁴ [World Bank Institute, Value for Money Analysis – Practices and Challenges](#)



As with the quantitative analysis we assigned scores of -1, 0 or 1. Projects can achieve an aggregated score between -12 and 12. An aggregated score of between -12 and -5 would indicate a project unlikely to deliver VfM. A score of -4 to +4 was assessed to be neutral with a score of between +5 and +12 to be considered likely to deliver VfM.

We have assessed each project using this methodology. After an initial assessment the choice of dimensions, the way they were interpreted and the actual scoring of each project was reviewed by an independent group of Southern Water SMEs, to enable as robust and objective a process as possible with a qualitative analysis. Smart meters were excluded from this process. While we have carried out a quantitative VfM study for smart meters, the PQQ process was underway when the work was carried out and we concluded the results of the PQQ process would provide stronger qualitative evidence than the approach described here. The table below provides a summary of results.

Table 11 – Summary VfM analysis

	Aggregate score	Outcome
Aylesford and Ford re-use	+7	Likely to deliver VfM
Sandown re-use	+1	Neutral
Sittingbourne industrial re-use	+7	Likely to deliver VfM
Bioresources: Ham Hill and Ashford	+6	Likely to deliver VfM
Local Authority Highways SuDS	+4	Neutral
Whitfield WwTW	+6	Likely to deliver VfM
Wetlands	+6	Likely to deliver VfM

As highlighted before the LA Highways SuDS scheme again did not provide the same evidence in the qualitative VfM assessment. However, as the LAs are the owners and responsible for highways, their inclusion in the delivery is evident. By using an agreement just between the two parties and not seeking to add further complexities with another delivery partner is the least complex and allows for better outcomes for customers and the LA's residence.

The multiple benefits from this approach are reduced discharges from storm overflows, reduced sewer flooding (internal and external), reduced surface water flooding, better use scare of water resources across our region, greener cities (tree planting, wetlands, green spaces), biodiversity net gain, improved ecosystems services, improved social wellbeing and health. Collaboration with local Councils will reduce costs, provide better public services, ensure SuDS are maintained by the most appropriate organisations and reduce overall costs to taxpayers and our customers.

3.3 Summary conclusion on VfM

The VfM assessment outcome is determined through a combination of both the quantitative NPV and individual variable assessments as well as qualitative assessments. The summary assessments are below:

Table 12 – Summary VfM analysis

	Quantitative VfM			Qualitative VfM		Overall VfM
	NPV saving	Range - 14 to +14	Outcome	Range - 12 to +12	Outcome	Outcome
Aylesford and Ford	£23.4m	+14		+7		Likely to deliver VfM
Sandown	(£13.5m)	-12		+1		Unlikely to deliver VfM

	Quantitative VfM			Qualitative VfM		Overall VfM
	NPV saving	Range - 14 to +14	Outcome	Range - 12 to +12	Outcome	Outcome
Sittingbourne	£4.3m	+10		+7		Likely to deliver VfM
Smart metering	£15.9m	n/a		n/a	n/a	Likely to deliver VfM
Bioresources	£11.8m	+13		+6		Likely to deliver VfM
Local Authority Highway SuDS	(£15.0m)	-7	nm	+4	nm	nm
Whitfield	(£1.4m)	-8		+6		Neither likely nor unlikely to deliver VfM
Wetlands	£2.1m	+6		+6		Neither likely nor unlikely to deliver VfM

4. A market-based delivery route

Ofwat has created a delivery framework for large infrastructure projects having established DPC. However, a number of projects that have been excluded from DPC delivery, investors are nevertheless interested in. We are therefore proposing that a market-based delivery route is enabled for identified projects for which we can create a market, and which could offer VfM. We are seeking from Ofwat that an alternative market-based delivery route is provided, and a framework established that will allow these projects to be delivered using this new approach. As with delivery via DPC, it includes responsibilities on us and Ofwat involvement to enable best value for customers and customer protection.

4.1 Our responsibilities

Ensuring customers are protected and delivery of projects are timely and cost efficient will be key. This will require us to develop projects and contracts that are commercially attractive to the market, enable competitive tension and ensure the delivery of the assets and services efficiently by third parties.

Protecting customers

We need to ensure customers won't be paying twice, so any cost allowances provide to us are used to develop the projects and later to pay the CAP or equivalent. We also need to allow sufficient flexibility to ensure our customers can benefit from future changes such as technology improvements where to do so would not significantly impact commercial attractiveness of a contract.

Ensuring commercial attractiveness

To create a competitive market, we need to ensure an appropriate risk allocation. This can both ensure value for customers and enable competitive tension by identifying risks that bidders would be best placed to manage and can price competitively. By engaging with the market and creating interest in the project, we can ensure that the project and the contract terms address key concerns by the market and develop the project accordingly.

Incentivising good quality bids

We further need to consider the payment mechanism and incentives provided to enable the best outcome for customers. We further need to consider other options that will improve the attractiveness to potential bidders to bid, such as standardising contracts and risk allocation where appropriate to reduce the overall bidding costs.

Efficient project development

We need timely and efficient completion of workstreams to enable the development of all areas of the project and contract to the level where a tender can commence. The SPV would be provided with contractual incentives to deliver timely, high-quality services to the required specifications, with significant penalties for failure.

More standardised contract

Our informal market engagement showed us that it would be beneficial to adopt standardised contractual terms where possible. Standardised aspects, including risk allocation, Southern Water being responsible for permitting and consents, land acquisition and planning permission among others all granted ahead of tendering the project were frequently mentioned as key elements.

To enable a smoother, faster process we propose that we should aim to use some standardised contract considerations. With the existing HWTWRP project to be delivered via DPC, there are lessons for both Aylesford re-use and Ford re-use that can be used to deliver via DPC. Additionally, our proposed delivery under the market-based delivery model, Sittingbourne, Bioresources and Whitfield WwTW could also substantially benefit from a common approach to risk allocation and contract terms. This would ensure reduced work and may offer some cost efficiencies for us and bidders.

4.2 A framework that enables market-based delivery

We have considered key aspects of a market-based delivery model following our market engagement which have been raised as potential concerns by the market. We therefore propose to find a solution together with Ofwat that can enable a market-based delivery to enable for us to deliver value for customers and successful outcomes. The key elements of our amended market-based delivery model are:

- Use of the most appropriate enhancement mechanism;
- Regulatory oversight;
- A mechanism that can align our revenues and payments to third parties;
- A mechanism to provide further certainty of payments; and
- A clear risk allocation, cost sharing mechanisms between us and the CAP or equivalent and incentives for the CAP to provide timely and high-quality delivery.

4.2.1 Enhancement mechanisms

We are proposing several changes to our initial version of our proposed model. Our amended route includes the use of Ofwat's newly introduced enhancement mechanisms (see [SRN-DDR-6 – Enhancements](#)), customised to assist in the development of these projects. The new enhancement mechanisms have introduced new processes allowing decisions to be taken later on appropriate future funding allowances. We consider that some of them could also be used for our market-based delivery projects. We would welcome the opportunity to work with Ofwat to ensure that schemes in the mechanisms are progressed in an efficient and effective manner, allowing adjustments later.

The inclusion of the large scheme gated process is a key part of a mechanism that will allow Ofwat and us to reconsider the delivery via a market-based route where significant uncertainty, options selection and scope remain uncertain. We seek where we have provided evidence that market-based delivery can offer value to customers, to continue our development of the project via this route. This can be reassessed during the first gate of the process if significant changes could impact both market interest and VfM.

We propose this delivery route for two projects: Sittingbourne re-use and Whitfield WwTW. This would require Ofwat to add Whitfield to the large scheme gated process. We note that our forecast of the capex costs for Whitfield have increased to a level that investors indicated is significant for them to be interested in the project.

4.2.2 Ofwat oversight

Market feedback showed that the more certainty that can be provided about the contract and the resulting payments to a third party, the higher the level of market interest and the higher the VfM case is likely to be. Originally in our business plan we proposed projects to be designated for market-based delivery earlier than would be the case for DPC projects. Investors wanted to be sure that once a tender process had been started it would reach a conclusion without being withdrawn by us or being required to be withdrawn by

Ofwat. With a gated process for some schemes and an agreement confirming our delivery approach with Ofwat ahead of the tendering process. This would reduce or remove this concern.

Using this approach would reduce the uncertainty over a number of key aspects:

- The whole tender process would have been reviewed and agreed by Ofwat;
- Whether there would be a successful outcome without any understanding of Ofwat's stance on the draft contract;
- The possible final value of payments to be made effectively and whether Ofwat would be able to provide a guaranteed revenue stream via the equivalent of Allowed Revenue Direction (ARD).

We are therefore amending our proposal for delivering market-based delivery projects. Depending on the project specific enhancement mechanism or similar approach we believe a potential process to allow oversight by Ofwat ahead of tendering of projects is needed. For other projects we would need to agree a process enabling regular communications with Ofwat, to ensure agreement as to the approach ahead of the tendering of the project with Ofwat.

4.2.3 A mechanism that aligns our revenues and payments to third parties

We proposed a mechanism similar to the ARD provided by Ofwat to DPC projects that would allow the payments to a third party to align with the revenues received from customers. It would ensure that income for costs payable to a third party are made available as payments are due. It would require the costs of the contract to be agreed with Ofwat and the profiling of costs and charges to customers agreed for the duration of the contract. Feedback from investors confirmed that this was an important component of delivering VfM, as it helps increase attractiveness to bidders and could potentially be the route to lower financing costs. There are a number of mechanisms that would be capable of providing this alignment.

4.2.4 A mechanism to provide further certainty of payments

We also seek a mechanism to further assure potential bidders on the certainty of payments. Market engagement participants, especially potential investors, repeatedly emphasised that they are interested in projects, but would consider their interest significantly higher if certainty for their payment stream could be provided. The income from an ARD is not ring-fenced to ensure it is used to pay the CAP and for nothing else. We therefore believe that a mechanism, such as a license change enabling Ofwat to compel us to pay if required, could enable VfM.

Without the certainty of a dedicated revenue stream for potential bidders, the cost of finance is likely to increase as payments are not guaranteed and will be more dependent on our credit rating and presumed ability to pay.

As with regular payments during the contract, any final payments that are due at the end of the concession period are likely to be a key concern if not guaranteed in advance to offer certainty. A licence change could enable Ofwat to consider how the funds for termination payments should be raised.

4.2.5 Risk allocation, cost sharing mechanism and incentives

For projects delivered via DPC, risks are explicitly allocated to the CAP, us, or our customers. We will need to carry out a similar risk allocation for any market-based delivery projects. From our market engagement we are aware that the third-party bidders are unlikely to accept commercial risks that they cannot control or mitigate.

This means that these risks would fall with us. During the development of the contract and as some scope of the projects are excluded for delivery by the CAP equivalent, we will need to agree together with Ofwat to a mechanism that will allow us to carry and pay for costs arising from the risk allocation where we bear a risk.

5. Our identified projects and proposed delivery route

5.1 Our decision-making process

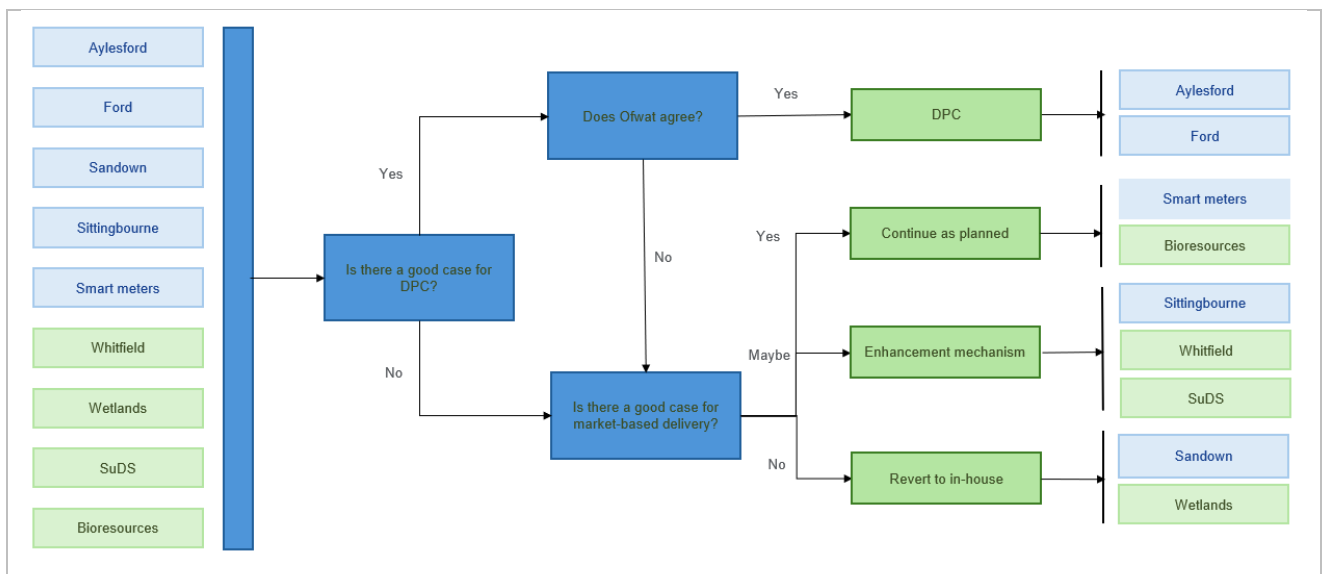
We have established a simple framework to decide systematically on the best delivery solution for each project, considering all new developments, progress, and our outcomes from market engagement and VfM analysis.

Initially, each project was assessed to identify if it is eligible for DPC under Ofwat’s criteria. Of the four such projects, the draft determination confirms that two projects which had been previously identified as DPC are to be delivered by that route (Aylesford and Ford re-use schemes).

For all other projects, both where we did not consider the projects to be eligible for DPC delivery or where Ofwat disagreed with our assessment, we reassessed each project on its merits. We considered the outcome from market engagement, a detailed VfM analysis for each project and any other progress and updates from the project itself. Three possible outcomes were identified:

1. Projects for delivery via our alternative market-based delivery route with evidence strong enough to assess that for these projects this delivery route would offer the best solution.
2. Projects where we assessed significant potential in being delivered via a market-based delivery model. These cases were not as strong and we believe that due to the early stages in the development of the projects, we and our customers would benefit from a proposed enhancement mechanism. It would allow us and our regulators to ensure that the market-based delivery route is the best solution.
3. Projects where in our assessment a case for market-based delivery was not met, we propose that projects should be delivered via in-house delivery.

Figure 1 – Our decision-making framework and outcome



Strong case for an alternative market-based delivery route

For projects where all key aspects were identified as positive or high, we decided we could provide evidence for projects to be delivered via a market-based delivery route. Our criteria were:

- Strong evidence of market interest;
- Strong VfM analysis in support for a market-based delivery; and
- No significant concerns raised by Ofwat, both during our conversations and at draft determination that could not be mitigated.

For two projects we can show strong evidence for delivery via this route based on all criteria: Smart Metering and Bioresources.

Case for an alternative market-based delivery route

Using the same criteria as above we considered the evidence of each project. In the case of three projects, Sittingbourne industrial re-use, Whitfield WwTW and LA Highways SuDS, we can show some positive outcomes in favour for a market-based delivery.

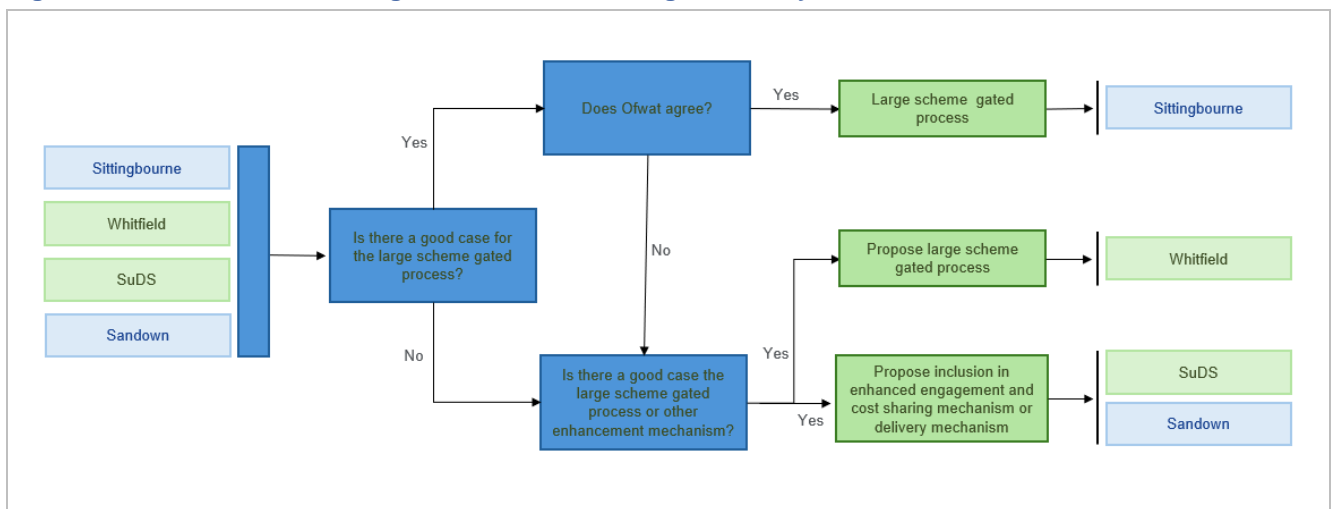
Case for reverting back in-house

Using the same criteria, Sandown re-use was singled out as a project that showed there would be significant difficulties in delivering the project via marked-based delivery. We have also decided to deliver Wetlands in house. Doubt of us receiving the necessary consents and therefore our ability to progress and deliver these projects, have resulted in too many uncertainties for this project to be tendered and delivered by a third party in AMP8. The approach may still have merit in AMP9 if the uncertainties are resolved.

Further decision framework for projects further we identified for an enhancement mechanism

As detailed in section 1.2, Ofwat introduced several enhancement mechanisms at the Draft Determination. We considered the different proposed mechanisms and their suitability for the projects we considered could benefit.

Figure 2 – Our decision-making framework for the right delivery mechanism



Sittingbourne industrial re-use has been identified as being delivered through the large scheme gated process. We are additionally proposing Whitfield to be also included in the large scheme gated process. Our proposal is that at the first gate in the large scheme gated process when the preferred solution is confirmed, the decision for delivery via a market-based route can be reassessed if required. Significant changes in scope and costs could impact market interest and VfM which could then be reassessed through new market engagement and VfM assessments to confirm the preferred solution.

The Local Authority Highways SuDS are high volume, lower cost schemes with a mix of delivery dates from 2027 through to 2035. Overall, there are 156 schemes to be delivered via the LAs. As part of our determination, we would seek to agree with Ofwat in principle on a mechanism, which would enable us to sign agreements with LAs and begin the works. To provide the necessary oversight from Ofwat we propose to agree on regular meetings to enable oversight and review progress. We would welcome discussions with Ofwat how to best manage the process and enable a successful outcome.

5.2 Summary of re-evaluated delivery route

Ofwat's decision at DD and our response

We have considered Ofwat's decision of delivery model and use of enhancement mechanisms. Below we are summarising our conclusions based on the decision framework described above. For completeness, the table records our conclusions on the three existing SRO schemes we participate in. Further information on these projects is provided in SRN-DDR-32 Water Resources - Strategic Resource Options Enhancement Cost Evidence Case.

Table 13 – Updated project delivery route proposal

Project	Ofwat decision at DD	Market-based delivery opportunity	Our proposed delivery route
Aylesford and Ford re-use	DPC	Possible market interest and potential VfM benefit	DPC
Sandown re-use	In-house, large scheme gated process	Limited market interest and limited potential VfM benefit	In-house, propose moving from large scheme gated process to enhancement engagement and cost sharing mechanism
Sittingbourne industrial re-use	In-house, large scheme gated process	Possible market interest and potential VfM benefit	Large scheme gated process, progress market-based delivery
Smart metering	In-house	PQQ outcome and potential VfM benefit	Market-based delivery and engagement with Ofwat
Bioresources	In-house	Possible market interest and potential VfM benefit	Progress market-based delivery
Local Authority Highway SuDS	In-house	Possible market interest and potential VfM benefit	Progress market-based delivery in collaboration with local authorities
Whitfield WwTW	Ofwat error – missing in DD	Possible market interest and potential VfM benefit	Inclusion in large scheme gated process, progress market-based delivery
Wetlands	In-house	Possible market interest and potential VfM benefit, but significant uncertainties in AMP8	In-house, Part of storm overflows which we propose to be included in the enhanced engagement and cost sharing mechanism and the delivery mechanism
HWTWRP	DPC, SRO		Continue as SRO

Project	Ofwat decision at DD	Market-based delivery opportunity	Our proposed delivery route
T2ST	DPC, SRO		Continue as SRO
SESRO	SIPR, SRO		Continue as SRO

DPC projects

Aylesford re-use and Ford re-use should be bundled and delivered via DPC. The three existing SROs should continue.

Projects proposed to be delivered via a market-based delivery with no enhancement mechanism

Both the Smart Metering and Bioresources projects have been identified as being strong candidates for market-based delivery. Although both are excluded from the Ofwat guidance for delivery via DPC, both have been identified as projects with strong investor interest and high potential to deliver VfM via a market-based delivery route.

With the need for the roll-out of new smart metering assets to begin from the start of AMP8, the project is in the tendering stage already. The project completed its PQQ phase in June, receiving a total of [redacted] submissions, and progressed to ITT in July, taking [redacted] bidders to the next phase. The VfM analysis further substantiates our evidence for delivery via our market-based approach. We met with Ofwat in July 2024 to discuss our approach to deliver the project.

The Bioresources project is planned to include two sites and has also received very strong interest, indicating we can create a competitive market for the project. The VfM analysis is also positive.

Projects proposed to be delivered via a market-based delivery route with an enhancement mechanism

In the cases of our Sittingbourne re-use and Whitfield WwTW projects we can show significant positive assessments in favour for a market-based delivery. However, the projects are at the early stages of development. We therefore propose that we continue to develop these to be competitive tendered and also progress via the large scheme gated process. If needed, a reassessment is to be conducted for the best delivery approach if changes to the scope and cost may impact market interest and VfM.

In the case of Local Authority Highways SuDS, we can also show a significant positive assessment in favour of the delivery in cooperation with the LAs, who are the owners and are responsible for their local highways.

We have met with all 10 local authorities responsible for highways assets within our region and received a positive reaction to working cooperatively to find the right solutions for storm overflows and surface water flooding. We are together seeking to identify and deliver mutually beneficial solutions to not only benefit us, but also the community. We consider that what would otherwise be construction capex is a payment flow to LAs to repay their costs for delivering SuDS.

Projects to revert back in-house

The Sandown re-use project was singled out as a scheme that showed there were significant difficulties in delivering it via a market-based delivery route. Proposed to be tendered as an FOM contract only, there were clear concerns raised at market engagement. The VfM analysis further suggested that this may not be VfM for our customers. Sandown should be delivered in-house, but we consider it is not appropriate for inclusion in the large scheme gated process.



In the case of Wetlands, although we can show some positive assessments in favour for possible benefit for market-based delivery, changes in regulatory requirements around the development of wetlands do not provide the certainty required to allow us to tender the projects in AMP8. We therefore propose the development of any wetlands for delivery in AMP8 to be done in-house.

6. Project specific cases

The following sections are detailing each project specific case, its development, our findings from market engagement, our conclusions on the VfM assessment and our conclusion as to the best delivery approach.

Below we highlight the summary proposed delivery route, its proposed contract model and provide updated whole life costs and third-party construction capex estimates in AMP8.

We have completed further work on whole life costs for each project. The calculations in SUP12 in our business plan were based on a cut-off point of 2055 which in the majority of cases produced an unrealistically short operation life. We propose that for our market-based delivery projects we receive an equivalent market-based delivery-related cost allowance. We have now based the calculation on assumptions that extend operating life and where necessary renewal capex to either asset life or contract life.

For example, we have reconsidered the total assumed asset life for Bioresources, reducing its assumed asset life to 20 years and SuDS, reducing assumed asset life to 30 years. At the time of our PR24 submissions, we included renewal and opex costs up to the end of 2055 only. Now we have included our renewal capex and opex profiling up to the end of life. This has made significant differences for some projects. Additionally, we have also updated our cost estimates for projects where further work has resulted in a reassessment of the costs.

Table 14 – Updated project delivery route and model

Project	Proposed delivery route	Proposed contract model	Proposed tender model	Updated whole life cost	Updated third-party construction capex in AMP8
Aylesford re-use and Ford re-use	DPC	DBFOM	Late	£1,295m	£281m
Sandown re-use	In-house	-	-	£623m	£173m
Sittingbourne industrial re-use	Market-based delivery option, gated process	DBFOM	Late	£853m	£115m
Smart metering	Market-based delivery	DBFOM	Late	£356m	£154m
Bioresources: Ham Hill and Ashford	Market-based delivery route	DBFOM	Late	£267m	£150m
Local Authority Highways SuDS	Market-based delivery route	DBFOM	Late	£289m	£241m
Whitfield WwTW	Market-based delivery option, gated process	DBFOM	Late	£182m	£78m
Wetlands	In-house	DBFOM	Late	£171m	£113m
HWTWRP	DPC	DBFOM	Late	£3,031m	£169m
T2ST	DPC	DBFOM	Late	£2,188m	-
SESRO	SIPR	-	-	n/a	n/a

Table 15 – Project business case reference locations and summary rationale

Project	References in our DD response
Aylesford re-use and Ford re-use	SRN-DDR-28 Water Resources – Supply Enhancement Cost Evidence Case
Sandown re-use	SRN-DDR-28 Water Resources – Supply Enhancement Cost Evidence Case
Sittingbourne industrial re-use	SRN-DDR-28 Water Resources – Supply Enhancement Cost Evidence Case
Smart metering	SRN-DDR-31 Water Resources – Smart Metering Enhancement Cost Evidence Case
Bioresources: Ham Hill and Ashford	SRN-DDR-016 Bioresources AAD Cost Adjustment Claim
Local Authority Highways SuDS	SRN-DDR-44 WINEP - Storm Overflows Enhancement Cost Evidence Case
Whitfield WwTW	SRN-DDR-47 Wastewater Treatment Growth Enhancement Cost Evidence Case
Wetlands	SRN-DDR-44 WINEP - Storm Overflows Enhancement Cost Evidence Case
HWTWRP	SRN-DDR-32 Water Resources - Strategic Resource Options Enhancement Cost Evidence Case
T2ST	SRN-DDR-32 Water Resources - Strategic Resource Options Enhancement Cost Evidence Case
SESRO	SRN-DDR-32 Water Resources - Strategic Resource Options Enhancement Cost Evidence Case

6.1 Aylesford Re-use and Ford Re-use

The Aylesford re-use and Ford re-use projects are needed to meet the drought required resilience standard measure in our revised draft WRMP24. Both schemes are to recycle treated water from a wastewater treatment works to supply clean recycled water into the environment to supplement other sources of water and enable abstraction.

The use of the new technology in the UK will enable the reduction of abstraction from existing sources to preserve freshwater resources and protect sensitive ecosystems. It also provides a sustainable and continuous source of water which can be used to ensure shortages during droughts.

Using a market-based delivery route is to enable innovation and efficiency gains. By tendering a DBFOM contract we aim to allow a single focused entity to deliver the design, construction and the operations and maintenance of a facility for the long term. It also provides us and our customers with potential access to international suppliers and contractors that will ensure learnings from their international operations can be harnessed to achieve the best outcome for our customers.

The Aylesford re-use and Ford re-use projects were identified as individual DPC projects and proposed to separately be delivered via DPC at our PR24 submissions. Based on Ofwat's decision at draft determination, our informal market engagement outcome and our VfM analysis, we propose to deliver Aylesford and Ford as a single DPC project where one CAP will deliver both projects.

Our market engagement for our proposed alternative delivery projects highlighted that the market was interested in the projects especially as a single project where similar assets and technologies are bundled. Our VfM assessment further shows potential benefits if the projects are delivered via DPC.

The development of the project, the scope and contract will be key to ensure interest from the market and competitive tension. We appreciate that by delivering the project via DPC, Ofwat will have oversight of the development of the project and assist in its delivery of the project, enabling an ARD and other key benefits enabling value to our customers.

Below we provide detail of the progress made by the projects, more detail from our market engagement and our VfM analysis.

6.1.1 Aylesford progress

The project was first identified as a key solution for our customers in our Kent West water resource zone in WRMP19. It has also been consistently selected across the many scenarios and tested in the WRSE investment model. It would provide drought resilience to allow customers to continue using water in a 1-in-200-year drought. It has since been reconfirmed as a selected option in our rdWRMP24, including selection in the least costs and best value modelling work carried out by WRSE, and reflected in our own rdWRMP24, as part of our overall plan for the area to achieve 1-in-500-year drought resilience. The solution provides a 14.0 Ml/d drought resilient water resource to the Kent West water resource zone.

The choice of a preferred option is still being considered. The project has progressed with several options including various discharge locations for the recycled water for consideration. These options were discussed with our regulators including the EA, Natural England (NE) and the DWI. Currently the option being developed for Aylesford is to discharge the recycled water into Eccles Lake (a bankside storage location), for which EA have expressed a preference. There has been sampling in the catchment and EQS at the differing discharge locations to enable any future changes or amendments.

The option comprises a water recycling plant and associated pipework and pumping facilities. Treated wastewater from the Aylesford WwTW would be transferred via a new pipeline to a new water recycling plant. The recycled water would then be transferred via a new pipeline and released into nearby Eccles

Lake. The purified, recycled water would be blended with the Springfield abstraction pumping station's feed water before release into the lake. The water in Eccles Lake would continue to be transferred through the existing pipework to the Burham Water Supply Works, where it would be treated again to become drinking water. The reject stream produced by the water recycling plant would be transferred via a new pipeline to Ham Hill WwTW.

Timeline

Our rdWRMP24 has a first year of benefit in 2030/31.

6.1.2 Ford progress

The project comprises a water recycling plant and associated pipework and pumping facilities. Treated wastewater from the Littlehampton WwTW would be transferred via a new pipeline to the water recycling plant where it would be purified using advanced treatment technology. The recycled water would then be transferred via a new pipeline through the South Downs National Park and released into the River Western Rother. The purified, recycled water will be blended with the river water downstream from the [REDACTED] abstraction.

[REDACTED] will continue to abstract river water for treatment and when required the water level will be maintained by the flows supplied from the advanced water treatment plant, which will be discharged at the river gauging weir downstream of the [REDACTED] abstraction point. The reject water stream produced by the water recycling plant will be transferred via the long sea outfall at Littlehampton.

The project has since reconfirmed as a selected option in our rdWRMP24, including selection in the least costs and best value modelling work carried out by WRSE, and reflected in our own rdWRMP24, as part of our overall plan for the area to achieve 1-in-500-year drought resilience.

The Ford project has progressed with several options including various discharge locations for the recycled water. These options were discussed with our regulators including the EA, NE and the DWI. The preferred option currently being developed for Ford is to discharge the recycled water downstream of the [REDACTED] supply works intake. A programme of seasonal sampling of the catchment and at the differing possible discharge locations has been in progress for 18 months to establish a baseline of river water quality and to inform required water quality parameters for a discharge consent.

Timeline

Our rdWRMP24 has a first year of benefit in 2030/31.

6.1.3 Updated costs

As the project has developed, we have updated the expected key costs for Aylesford and Ford. The construction costs for the Aylesford re-use project have been updated from £99m to £139m with construction costs for the Ford re-use rising from £63m to £142m as the project has progressed. We have updated the costs of these projects in line with our most recent CIT estimates, which have been refined based on continued progression of the schemes and the complex scope required. Our submitted construction cost for Ford has also increased, as in our October submission, our WRMP24 plan was incorrectly apportioning construction cost to AMP9. This has now been rectified. For more detail see SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case. Additionally, we have identified work for both Aylesford and Ford which need to be delivered by us and not the CAP. These costs include land acquisition costs, land compensation costs and power connection costs.

In the draft determination Ofwat determined total indicative allowances of £20.31m. With the increased construction costs and reassessment of whole life costs, we have updated the project’s development costs to £16.4m and DPC related costs to £16.1m.

We assume that as a DPC project payments to a CAP to only begin once the assets have been commissioned in 2030. We have not included any payment in AMP8 in the data table RR9.

6.1.4 Market engagement summary

As part of the informal market engagement for our alternative delivery projects, we spoke about the Aylesford and Ford projects. Of the 12 participants, 11 were interested in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of project. All the participants we engaged with were familiar with the DPC framework through their involvement in projects with other water companies and interactions with Ofwat. All participants found the tender model of DBFOM attractive.

There is a positive sentiment from the market for the Aylesford and Ford projects as a bundle. With Aylesford and Ford being of a similar nature, a bundled project would allow reduced bidding costs and offer better value for money. Bundling could therefore increase the overall attractiveness, increase investment size and efficiencies realised by the CAP.

Our assessment of the market engagement for interest in the Aylesford and Ford reuse project is that the overwhelming majority considered the bundled project attractive and may be interested to bid. A detailed summary of the findings is described in SRN-DR-0039 - Appendix C –Market engagement report.

6.1.5 VfM analysis

We have considered the VfM, both using quantitative and qualitative assessments. Ofwat’s decision for the Aylesford re-use and Ford re-use projects to be delivered via DPC will enable a single focused entity to deliver the design, construction, finance and the operations and maintenance of a facility for the long term. It enables the CAP to provide the innovation and efficiencies and can include international suppliers and contractors to harness their international experiences for a technology that is relatively new to the UK.

Our assessments show that the bundled Aylesford and Ford projects are likely to deliver VfM. Our findings suggest that for delivery in-house the NPV to be £300m, compared to an NPV of £276m for a market-based delivery, suggesting a possible saving of £23.4m. The full details of the VfM analysis are in SRN-DDR-039 - Appendix A Value for Money.

Table 16 – Summary VfM assessment for a bundled Aylesford and Ford project

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV saving £23.4m Aggregate score of +14	Likely to deliver VfM
Qualitative VfM	Aggregate score of +7	Likely to deliver VfM

Quantitative VfM analysis

The quantitative VfM considers the sensitivity of eight selected variables for both a low and high case sensitivities. Delivery through DPC may offer a positive VfM, with cost of DPC delivery 8.5% lower and a

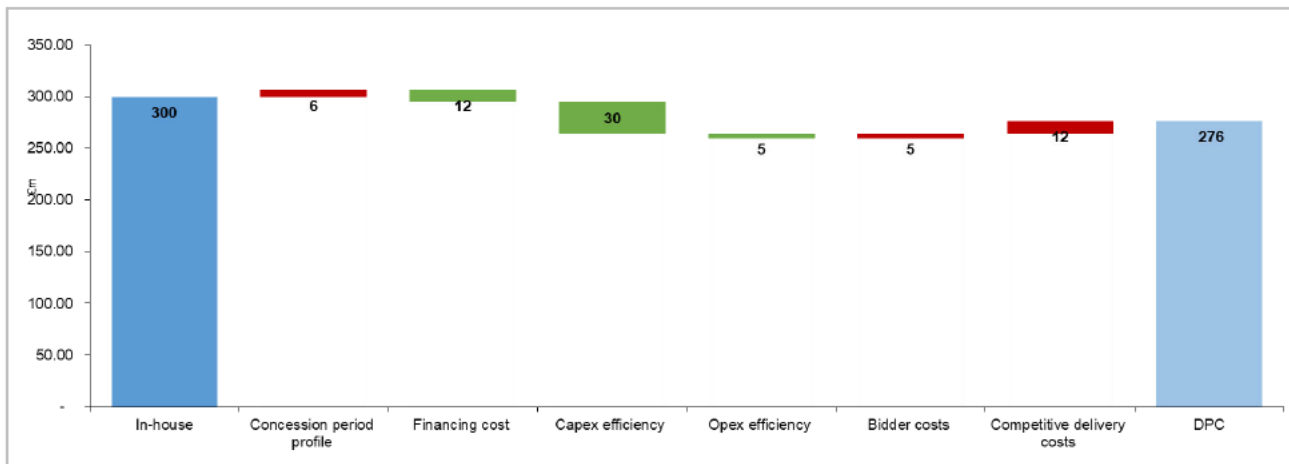
saving of £23m compared against the cost of in-house delivery. Varying the assumptions under different cases for the bundled projects continues to indicate that DPC offers better VfM.

Table 17 – Aylesford and Ford base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£299.6m
NPV of cost of delivering the project under market-based delivery	£276.1m
Difference in NPV	£23.4m
Percentage difference in NPV	8.5%

This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period.

Figure 3 – Aylesford and Ford value drivers



The key value drivers under the DPC model are the benefits from cost efficiencies (£30m from capex and £5m from opex efficiencies) and cheaper financing by £12m. The benefits are to some extent offset by additional bidder and competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house. The NPV for the DPC model appears to remain positive in all sensitivity scenarios, providing a positive VfM.

Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the market-based delivery compared to the in-house delivery. The aggregated score of +7 (of a range between -12 and +12) indicates that the Aylesford and Ford re-use projects are likely to deliver value under the DPC model.

Table 18 – Qualitative VfM analysis – Aylesford and Ford

Dimension	Score
1. Deliverability capability	0



Dimension	Score
2. Deliverability capacity	1
3. Access to supply chain/ contractors	1
4. Commercial attractiveness	1
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	1
9. Innovation in technology and delivery	1
10. Environmental and social	1
11. Management and coordination	-1
12. Customer bill impact	1

6.1.6 Proposed delivery

Ofwat draft determination decision

Ofwat has determined that the Aylesford and Ford re-use projects are to be bundled into a single DPC project.

Proposed delivery route

Aylesford re-use is to be delivered via DPC, bundled as a single project with our Ford re-use scheme.

6.2 Sandown Re-use

The Sandown re-use project on the Isle of Wight is required as part of our wide-ranging WfLH programme. The project is for a new water recycling plant at Sandown's WwTW and a new pipeline and pumping station to transfer the recycled water to a discharge point at the Eastern River Yar. This is to supply clean recycled water into the environment to supplement other sources of water and enable additional abstraction volumes downstream at the Sandown water supply works.

The use of the new water recycling technology in the UK will enable the reduction of abstraction from existing sources to preserve freshwater resources and protect sensitive ecosystems. The addition of the WRP at Sandown is part of the programme to provide a sustainable and continuous source of water and reduce reliance on Hampshire's chalk rivers, including at the River Test and Itchen. This is part of our Section 20 agreement with the EA.

In our PR24 submissions we identified the Sandown re-use project as a DPC project and proposed to tender and award a Finance-Operate-Maintain (FOM) contract only.

Based on Ofwat's decision at draft determination, our informal market engagement outcome and our VfM analysis, we propose to deliver Sandown in-house. The informal market engagement outcome and our VfM analysis shows there is little market appetite for this model, and it has a low likelihood of creating VfM.

Ofwat further decided that the project should be delivered via the large scheme gated process. We disagree with the decision as the project now is too far advanced. The project's preferred solution has already been selected and extensive work is underway. We therefore propose for Sandown to be included in the enhanced engagement and cost sharing mechanism. Additionally due to the progression of the project and the current ongoing work, we do not consider the funding allowance of 6% at this stage to be sufficient. We have described our evidence and proposal in SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case.

6.2.1 Progress and updated costs

Progress

Our preferred process solution remains as identified a new WRP with a capacity of 10.5MI/d recycled water and up to 14.8MI/d of preliminary treated effluent. The out-of-specification recycled water and waste flow will be returned to the WwTW.

Since our PR24 submissions the project team has completed several key workstreams. For the land we will need to purchase, we have held meetings with the Isle of Wight council, who is the landowner of the preferred WRP site. The council is amenable to selling.

The project has completed the outline site layout plan and we are progressing the design to best mitigate constraints. Ongoing work includes the design of individual structures within our site layout plan. We are in pre-app consultation with the Local Planning Authority. An assessment has been made on the required electrical network to facilitate the power demands of the new WRP with the DNO, which indicates that some of the power is currently available, and the remaining required power supply may be available from 2029.

We have identified the preferred discharge location on the river Yar and the transfer pipeline route. The route includes a trenchless crossing of a railway and local watercourse. We are in discussions with landowners and affected third parties, including Network Rail.

Ground investigation, archaeological and topographical surveys to both the WRP site and the pipeline easement are ongoing. Landfill remediation remains a key discussion area with the EA, who may require trials to demonstrate that our proposal does not adversely impact groundwater or the local watercourse.

We have completed the Environmental Impact Scoping and submitted it to the Local Authority for review. This will assist in the development of the Environmental Statement (ES) to support our planning application. The environmental and ecological surveys and assessments are ongoing. Our permitting team is in discussions for an agreed preferred approach to permitting the WRP. We have completed marine surveys to establish the nature of habitat at the LSO discharge as well as river surveys to inform the assessment of the WRP impact on the river Yar and our existing LSO. We have further prepared outline process calculations and established the key components of the WRP process.

We are in regular engagement with the EA, NE and other key stakeholders. We are aiming for a modification to the existing Sandown new WwTW permit to introduce an additional discharge location (River Yar) and to detail relevant discharge parameters.

Timeline

Our rdWRMP24 shows that commissioning should begin in 2029 with the assets fully in operation in 2030.

Updated costs

The costs for the Sandown project have been updated. Construction costs have increased from £98m for a delivery via a third party in our PR24 submissions in October to £161m for delivery in-house. Changes in capex costs are due to increases in costs for complexities around landfill remediation, ecological and environmental constraints, permitting requirements and planning. Further details on the cause of the increased costs can be found in SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case.

6.2.2 Market engagement summary

The overall sentiment from the market for an FOM contract for Sandown was negative. Although 11 out of 12 participants showed interest in re-use projects in general and all participants expressed interest based on its size and delivery model as a DPC project, only 7 of 12 participants may be interested in an FOM model.

Most participants highlighted that the FOM contract type, driven by the very late tender model, as the crucial factor influencing the project's appeal. Especially for some potential bidders such as developers, they would seek to add value by providing their own specialist expertise and value add. The very late delivery model does not allow this. Participants expressed a preference for a late tender model where they would build, aligning with their long-term interests and ability to add value to project delivery.

Five investors stated they would not be interested in the Sandown project with most others stating they would have reservations. In the very late tender model, the CAP would have no control over the design and build of the assets. Potential bidders would therefore seek clear risk allocation and warranties for the constructed assets. Two equity investors particularly emphasised the need for clear project boundaries and guarantees for the quality of constructed assets to attract investment at procurement for an FOM contract. They raised concerns around the consequences of the quality of infrastructure built by another party not being up to the required standards, or not performing as expected. Since we are responsible for the construction of the asset, there could be significant disagreements over who is responsible for any problems that arise during operations. For example, if a design or construction fault is the cause, the CAP may be at risk in the absence of appropriate guarantees. However, if the problem is due to lack of maintenance or improper operation, the CAP will be responsible.

The need for due diligence once the assets were fully commissioned would be essential. Additionally, concerns were raised over the use of an availability payment with potential issues arising due to the initial construction. Two equity investors indicated an interest on account of their knowledge in the UK's Offshore Transmission projects.

Our assessment of the market engagement for interest in the Sandown reuse project is very limited and likely attract fewer bidders due to its FOM model. Five of the twelve participants would not bid. The other seven participants highlighted significant risks and issues that are of key concerns. A detailed summary of the findings is described in SRN-DDR-029 - Appendix C Market engagement.

6.2.3 VfM analysis

We have considered VfM, both using quantitative and qualitative assessments. Our assessments show that the project is unlikely to deliver VfM. The full details of the VfM analysis are in SRN-DDR-039 – Appendix A – Value for Money.

Table 19 – Summary VfM assessment for Sandown

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV cost £13.5m Aggregate score of -12	Unlikely to deliver VfM
Qualitative VfM	Aggregate score of +1	Neither likely nor unlikely to deliver VfM

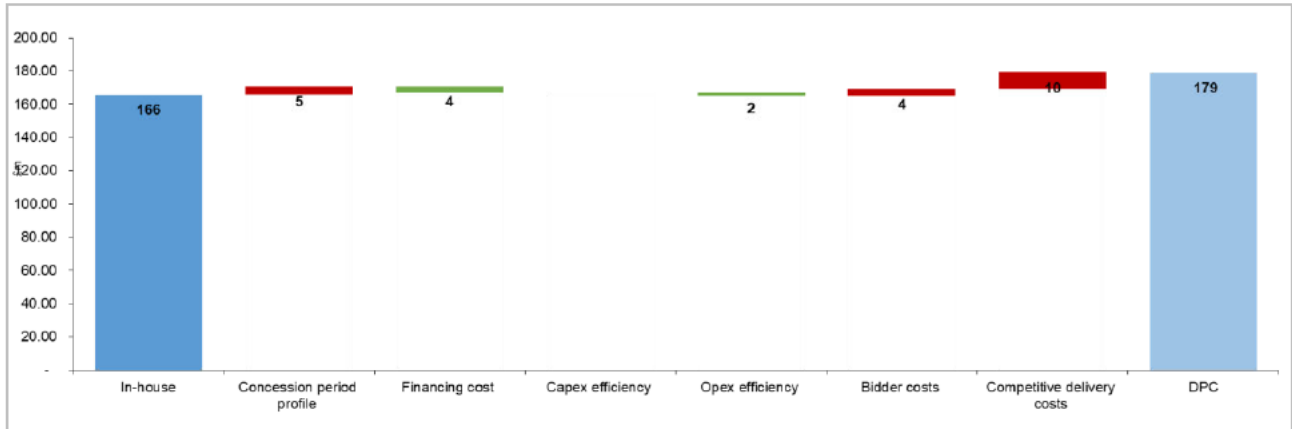
Quantitative VfM analysis

The quantitative VfM considers the sensitivity of eight selected variables for both a low and high case sensitivities. It shows that without capex efficiencies gains possible from a competitive tendered FOM contract, delivery via DPC, would at an NPV of £179m, have higher costs than of delivered in-house.

Table 20 – Sandown base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£165.7m
NPV of cost of delivering the project under market-based delivery	£179.3m
Difference in NPV	-£13.5m
Percentage difference in NPV	-7.6%

Figure 4 – Sandown value drivers



This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. Under the very late tender model we will design and construct the asset; therefore, we are not assuming any capex efficiencies under the DPC model.

Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under market-based compared to in-house delivery. With an aggregate score of +1 from a range of -12 to +12, Sandown is neither likely nor unlikely to deliver value under the DPC model.

Table 21 – Qualitative VfM analysis – Sandown

Dimension	Score
1. Deliverability capability	0
2. Deliverability capacity	0
3. Access to supply chain/ contractors	0
4. Commercial attractiveness	0
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	0
9. Innovation in technology and delivery	0
10. Environmental and social	0
11. Management and coordination	0
12. Customer bill impact	0

6.2.4 Proposed delivery route

Our market engagement and our VfM assessments show that Sandown is unlikely to offer VfM if only an FOM contract was tendered. The need for prompt delivery precludes other contract model options and we therefore propose the project is to be delivered in-house.

At the Draft Determination, Ofwat decided that the Sandown re-use project is to be delivered via the large scheme gated process. We disagree with the decision as the scheme is too far advanced. Instead, we propose for Sandown to be included in the enhanced engagement and cost sharing mechanism. We have described our proposal in SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case.

We have further considered the 6% development costs provided at the DD with its inclusion in the large scheme gated process. We do not consider a funding allowance of 6% at this stage in its development is sufficient. We have also described our evidence further in SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case.

6.3 Sittingbourne Industrial Re-use

The Sittingbourne Industrial Re-use project is part of our revised draft WRMP24. It involves the construction of a new WRP at Sittingbourne to supply a commercial user with recycled water. This is to free up existing borehole abstraction owned by the same commercial end user to allow us to supply water to our customers.

The focus is on not increasing abstraction levels but enable the replacement of abstracted water with recycled water for the commercial end user. The abstracted water for our customers and the proposed replacement would be to effectively maintain the current abstraction levels.

The Sittingbourne Industrial Re-use project was identified as a DPC project and proposed as an individual project to be delivered via DPC at our PR24 submissions. There are several risks about the commercial model involving industrial re-use which we highlighted in our PR24 submission.

Ofwat concluded in its draft determination that the project should be delivered inhouse due to its material uncertainty. Ofwat further concluded that the project should be included in the large scheme gated process.

We propose that the project should be included in the large scheme gated process. We additionally maintain that delivery via a market-based delivery would allow best value for customers. Our market engagement has demonstrated that there is interest in the project. Our separate VfM assessments further show the potential to deliver value for our customers.

Value can be offered by a third party by enabling innovation and efficiency gains. By tendering a DBFOM contract we aim to allow a single focused entity to deliver the design, construction and the operations and maintenance of a facility for the long term. It also provides us and our customers with potential access to international suppliers and contractors with the expertise to achieve the best outcome for our customers.

Our previous discussions with the industrial end user and recent agreements between the EA with other water companies further encourages us to believe that this solution is viable. As the project has not been chosen to be delivered via DPC, we propose that the Sittingbourne project continues to progress via market-based delivery. If the scope and cost changes are material at the first gate of the large scheme gated process, we propose further market engagement and VfM assessments to confirm that the market-based delivery route remains the preferred solution. Until gate 1 we are not asking for an allowance for the equivalent of DPC-related costs.

Further details on this project can be found in SRN-DDR-028 – Water Resources – Supply Enhancement Cost Evidence Case.

6.3.1 Progress and updated costs

Discussion with the commercial user of water

We have had positive discussions with the commercial end user. In 2018 the user could have potentially provided headroom ground water from their boreholes as allowed in their abstraction licenses. These proposals would be subject to EA consent. The user was also open to using recycled water instead of ground water for process steam during their manufacturing process.

Previous discussions included an initial information exchange, including information on assets (configuration, health & performance), abstraction volumes and water quality. This data provides confidence in the sustainability of abstractions, the anticipated raw water quality (to define treatment requirements to achieve drinking water quality) and the likely costs required to upgrade and maintain assets.

Our current proposals would only require a minority proportion of the average abstraction to be used for drinking water. We may therefore not require a transfer of the industrial end user's abstraction licence. Instead, we may be able to agree that they supply us with the ground water in return for recycled water. This



could remain under review and require renegotiation if the exchanged volumes need to be significantly modified, it may trigger the need for a transfer of an abstraction license.

A possible agreement with the EA

Initial discussions with the EA in 2018 indicated that the EA would not consider an increase in the existing abstraction license and transfer of the license and rather encouraged the use of recycled water. However, since then the use and/or transfer of abstraction licences from an industrial user to a water company to support domestic supplies are being negotiated. Within the southern region a neighbouring water company has been successful in transferring an existing abstraction licence from a former paper mill and is currently developing treatment facilities to provide up to 20 Ml/d of drinking water to its customers by March 2025⁵. It is also currently in the process of negotiating the transfer of another licence from a different industrial user, again with the aim of providing additional supplies of drinking water to its customers.

Although in each of these cases, the industrial users of the water have ceased operations, we plan to provide an alternative recycled water supply to the current industrial user. For this aspect we have initially selected a wastewater treatment site near the industrial user which has adequate capacity to supply the replacement volume of 7.5 Ml/d required. We also have an alternative source option from a different location which not only offers a level of contingency but could also offer further opportunities to expand the offering of recycled water for industrial use. We recognise that there are clear benefits in progressing water recycling for industrial use as it obviates drinking water quality risk and customer acceptability associated with indirect potable water recycling.

Timeline

In our rdWRMP24 the project is required to be in service for first utilisation from 2030-31.

Updated costs

The estimated construction costs all in AMP8 are estimated to total £114.8m.

We assume that project payments to a third-party provider would only begin once the assets have been commissioned in 2030. We have not included any payment in AMP8 in the data table RR9.

6.3.2 Market engagement summary

The market sentiment for this project is positive. The scope in general aligns well with 11 of the 12 participants' areas of interest and expertise, with two contractors specifically highlighting their experience with similar projects. The discussions underscored the importance of leveraging past experiences and expertise, along with key contractual terms allocating risks appropriately, in managing complex stakeholder relationships for the project's successful delivery.

Despite the unique interfaces presented by the involvement of a paper mill as an additional stakeholder in the project, most participants expressed no concerns at this stage. Two stakeholders (one equity investor and one equity investor with a contractor arm) highlighted that any interfaces or exposure to payment risk from the single commercial entity directly between them and the paper mill would be a key risk and a

⁵ [South East Water invests more than £50m to future-proof network - Kent Live](#)

deterrent to the investment decision. There is a clear preference for us as contract counterparty to insulate them from the commercial user.

All participants were interested in the proposed delivery of a DBFOM contract via DPC. Although all participants were interested in the project due to its size, two equity investors highlighted interest in projects with a capital expenditure of approximately £150m. However, this was not considered a significant issue at this stage.

Our assessment of the market engagement for interest in the Sittingbourne re-use project is that the overwhelming majority considered the project attractive depending on key contract terms. A detailed summary of the findings is described in SRN-DDR-0039 - Appendix C –Market engagement.

6.3.3 VfM analysis

We have considered VfM, both using quantitative and qualitative assessments. A single focused entity to deliver the design, construction, finance and the operations and maintenance of the assets for the long term. It enables the innovation and efficiencies by an experienced single provider. Our quantitative and qualitative VfM assessments show that the Sittingbourne project is likely to deliver VfM. The full details of the VfM analysis are in SRN-DDR-039 – Appendix A –Value for Money.

Table 22 – Summary VfM assessment for Sittingbourne

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV saving £4.3m Aggregate score of +10	Likely to deliver VfM
Qualitative VfM	Aggregate score of +7	Likely to deliver VfM

Quantitative VfM analysis

The quantitative VfM considers the sensitivity of eight selected variables. Delivery through DPC may offer a positive VfM, with DPC NPV 3.2% lower at £137m, than in-house delivery for the base-case as shown in the table below.

Table 23 – Sittingbourne base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£141.2m
NPV of cost of delivering the project under market-based delivery	£136.9m
Difference in NPV	£4.3m
Percentage difference in NPV	3.2%

This value driver analysis considers a 3-year construction period, followed by a 20-year operation period. The 20-year operation period is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period.

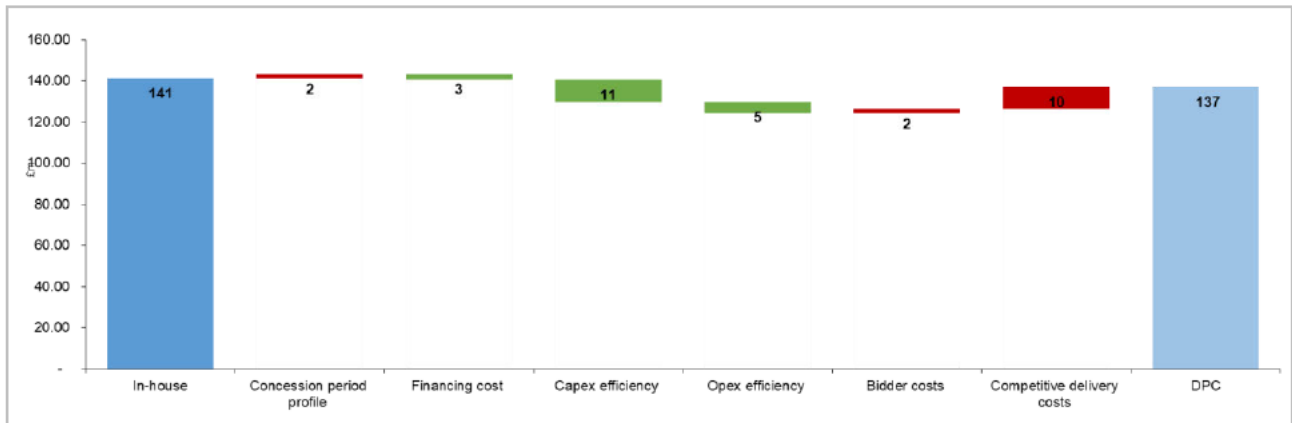
The key value drivers under the DPC model are the benefits from cost efficiencies (£11m from capex and £5m from opex efficiencies) and cheaper financing costs by £3m. However, these benefits are to some



extent offset by the additional bidder and competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house.

The NPV for the DPC model appears to remain positive in all sensitivity scenarios, providing a positive VfM, except in the low-case equity IRR and capex efficiency sensitivities where in-house delivery is more favourable.

Figure 5 – Sittingbourne value drivers



Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions. With an aggregate score of +7 from within a range of -12 to +12, Sittingbourne is likely to deliver value under the DPC model.

Table 24 – Qualitative VfM analysis – Sittingbourne

Dimension	Score
1. Deliverability capability	0
2. Deliverability capacity	1
3. Access to supply chain/ contractors	1
4. Commercial attractiveness	1
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	1
9. Innovation in technology and delivery	1
10. Environmental and social	1
11. Management and coordination	-1
12. Customer bill impact	1

6.3.4 Proposed delivery

Ofwat draft determination decision

At draft determination Ofwat decided that the Sittingbourne industrial re-use project would not be delivered via DPC and should be delivered in-house via the large scheme gated process.

Proposed delivery route



Despite Ofwat's concerns about uncertainties, with updated costs the value of the project's whole life costs is now £853m, significantly above the threshold for delivery via DPC. Our market engagement and VfM analysis shows that the project could create interest in the market and provide value for customers. The project could be delivered via our proposed market-based delivery route, instead of via DPC if it enables us to deliver the same value to customers using this route.

We propose that up to the first gate of the large scheme gated process the project is developed to be delivered via a market-based route. We have shown significant market interest in the project and that it has the potential to offer VfM. At the first gate in the process when the preferred solution is confirmed, the decision for delivery via a market-based route can be reconsidered if changes to the design and cost estimates could have a material impact. We would then complete further market engagement and VfM assessment to confirm the delivery approach remains the preferred solution.

For now, we propose that we continue to develop the project for delivery via a market-based route without asking for the equivalent of DPC-related costs for this project. Instead, we propose to ask Ofwat to confirm the additional allowances, equivalent to DPC-related costs, at the first gate with costs incurred earlier to be included in the allowances. We believe this is the best approach to enable value for our customers.

6.4 Smart Metering

The Smart Metering projects is a key part of our revised draft WRMP24 and involves the comprehensive replacement and installation of existing conventional basic and AMR (automated meter readings) meters with new smart meters. This new approach will substantially increase the volume and frequency of meter data. The programme is a key part of the wider demand management programme, providing better bill information for customers and supporting our drive to reduce consumption and leakage. Using smart metering data, we believe we can transform our approach to customer engagement, driving proactive and timely interventions with customers. To achieve this, it is critical that we get this right and our interactions with customers need to be precise and data-led, to ensure that customers trust in smart meters and most crucially, act.

In our business plan smart metering was identified as suitable for market-based delivery. We met with Ofwat on 29 July 2024 to discuss an approach to deliver the Alternative Metering Service project using a market-based delivery approach.

We now have the unique opportunity to deliver our new smart metering programme and its benefits using the experiences from the energy sector, instead of delivering a metering rollout conventionally in-house, requiring separate contracts for different providers.

Our market engagement has showed significant interest in delivering smart meters through this route. We have started procurement and completed the PQQ phase in June 2024. The ITT phase began in July 2024.

The development of the project had progressed quickly since our PR24 submissions, and we are seeking continued discussion with Ofwat on how to enable this approach.

6.4.1 A single solution provider

We need to begin our rollout of smart meters immediately in 2025. As part of our preparation in 2023 we met with the smart metering teams of Anglian Water, Thames Water, Severn Trent Water, Northumbrian Water, and United Utilities. We have used these insights to support the designs for securing meter read data, to support billing and customer service, and the capabilities necessary to identify leaks and reduce consumption. Additionally, we completed extensive market engagement to inform the right approach and we have now completed our commercial and sourcing strategy.

We are proposing an approach to Smart Metering that is proven to work

An alternative approach to metering was adopted and embedded successfully in the energy sector. The approach was first established in 2006-2007, when the first meter funding arrangements were established to support MeterFit SPVs by Calvin Capital and Centrica. Over the following 15 years, it became the default model for both traditional and smart meters. There are now more than 25 million meters in the UK funded by this model.

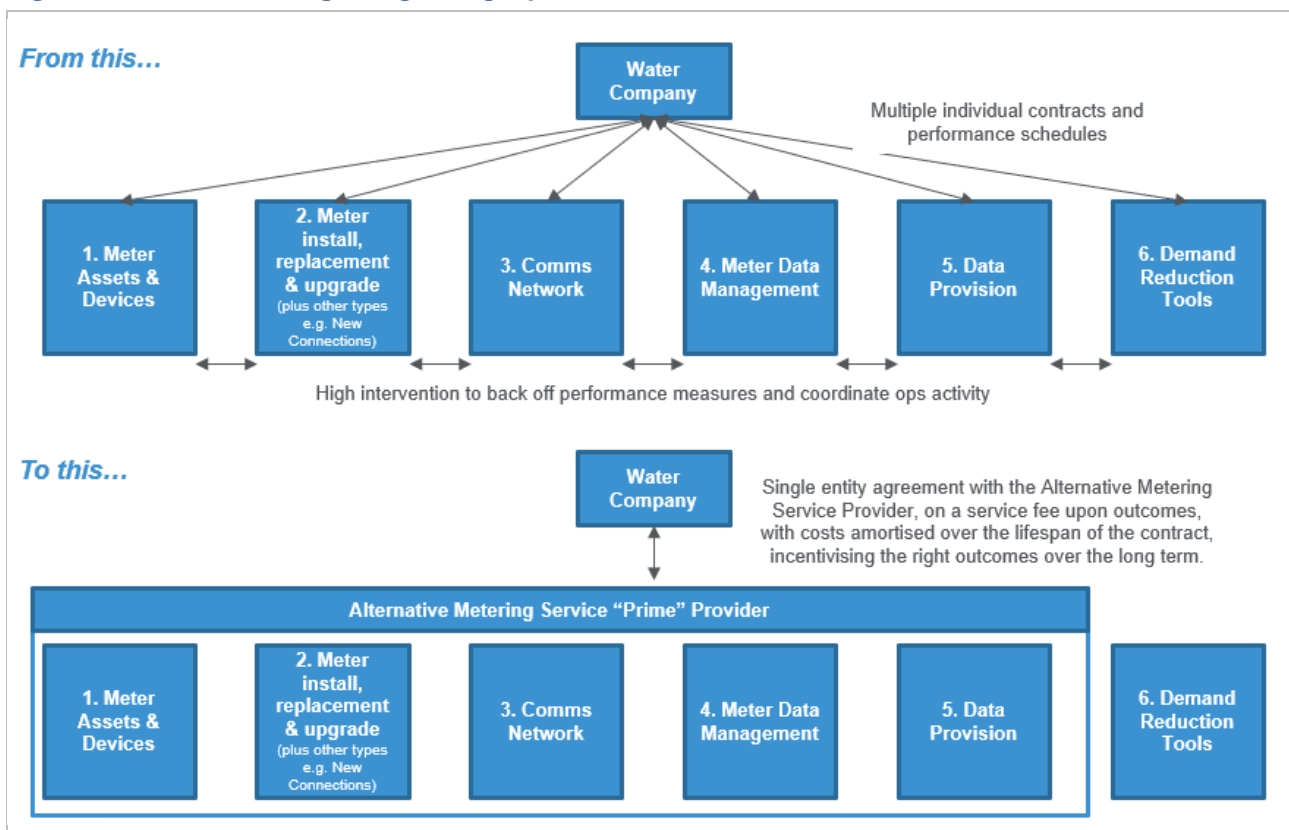
The model succeeded because competition and scale enabled efficiencies through a step-change in the level of technical due diligence of metering assets, reductions in meter failure rates over time, and supply chain resilience. There are cost benefits through achieving more competitive funding rates and other benefits, including the increased transparency in metering to Ofgem, and more ecological treatment of meters at end of life.

We are proposing an approach that can benefit Ofwat and water companies in delivering outcomes for customers

We believe this model can drive benefits for our customers via reduced long-term costs by achieving the right balance on longevity of assets and flexibility of response, supply chain efficiencies, and the scale funders can achieve by supplying a larger scale provider.

Successfully delivering smart metering requires the end-to-end supply chain to work effectively. This has proven to be highly challenging in the water sector, as the traditional model has been to contract each part of the chain individually with separate outcome-based measures. Our discussions with other water companies have identified challenges such as low meter to communications network connectivity, hard to resolve issues between contracting parties, and meters that are underperforming (either in battery life or accuracy). Vendors have told us that they could have installed significantly more meters to date if they could take a holistic project approach to smart metering.

Figure 6 – Smart metering using a single provider



Our approach enables the Alternative Metering Service provider to take a whole project approach to funding and delivering the programme. The provider would finance, design, build, operate and maintain the service. The contract would span all components that are appropriate for delivery via a market-based approach. Using incentives to ensure the right outcomes, we aim to ensure that the arrangement enables long-term planning and decision making by the provider for the delivery of the service for the full 20-year term.

Table 25 – The overall smart metering scheme

	Description	Candidate for Alternative Metering Service
1. Meter Assets & Devices	Meter devices capable of operating to Ofwat's definitions of "AMI", with associated local communications equipment.	Yes
2. Meter Install, Replacement & Upgrade	Field-force to remove meters, replacing them with smart capable meters and upgrading them to Smart AMI meters.	Yes
3. Communications Network	Fixed network capable of communicating with meters to secure reads in line with Ofwat's definitions of "AMI".	Yes
4. Meter Data Management	Storage of meter read data, other data from the meter, and reporting on performance.	Proposed
5. Data Provision	Providing us with secure access to meter read data.	Yes
6. Demand Reduction Tools	New digital and data analytics tools to interact with customers to analyse consumption patterns, reduce usage, and interact with customers if they have a leak.	Optional
7. IT Integration	Modifications to interfaces with our wider business to enable other functions to benefit from Smart Meter read data, providing timely data to areas such as customer service and billing, and water operations.	In-House Delivery
8. Smart Metering Operations	New capabilities within our business to enable demand reduction (with the right data science and analytical, behavioural, and technology skills and expertise). We will continuously improve customer journeys to support an enhanced customer experience. Our Smart Operations Centre will also fulfil our responsibilities in support of meter rollout, such as manage the provision of customer data, processing the volume of meter exchanges, and triaging issues during meter exchange. This function will manage customer enquiries relating to meter health and support the necessary transformation to our operational approaches to usage reduction and customer side leakage.	In-House Delivery
9. Alternative Delivery Management	This is a new approach to metering that has not been done before, we therefore expect to design, build, and operate new contract and commercial management capabilities to robustly manage the AMS Single Provider to ensure the outcomes as agreed in our contract.	In-House Delivery

6.4.2 Market engagement and procurement update

Market engagement

We have extensively engaged with the market before beginning the tender process. Our pre-market engagement activities have been highly successful in working together with the market to establish a viable model. Via early engagement in January 2022, we had extensive discussions with the market about the feasibility of our approach. Our PIN and RFI led to over 20 bilaterals with potential bidders on topics ranging from the viability of the service-based model, to the technical and operational considerations and risks of providing the service. In our market engagement in August 2023, we received over 40 responses to our RFI.

Our market engagement activities have proven that there is extensive market appetite to provide this service for us. This enables us to develop the appropriate delivery approach, including discussing the required service offering and providing clarifications to potential bidders.

PQQ stage

Our PQQ phase generated credible submissions to ensure robust competition at the ITT stage. These companies have decades experience of funding and operating multi-million meter portfolios in the energy sector. They all expressed support for an outcomes-based approach, and they have secured credible supply chain partners who bring experience operating at scale in the UK water sector. They were able to demonstrate how they could financially manage their proposition to deliver the service.

ITT phase

We have now entered our ITT phase, in which we expect highly competitive bids to secure the “first of its kind” offering for the UK water metering market. The remaining bidders are competing for the contract without having agreed any bidder reimbursement costs. The costs incurred by the bidders during this tendering process are at their own risk, again showing the significant interest by the bidders in our approach.

To date we have received over 150 clarification questions by all bidders on our ITT documents and specifications schedules, further demonstrating their commitment to submit valid competitive bids.

6.4.3 Summary of Commercial Strategy

Key terms of a contract

We have developed a model that protects value for money for customers over the long term

We are contracting over a 20-year service term, which allows for a 5-year installation phase, followed by a 15-year service term (for each meter). We are encouraging bidders to commit to assuring the lifetime of their assets, so that they complete their expected useful economic life before replacement, with risks allocated to the AMS Single Provider.

Within the model, the AMS Single Provider is to own and operate the smart meters and finance both the capital and operating expenditures. We will pay the third party a service fee as an ongoing operating expenditure for the duration of the 20-year service contract.

Part of our negotiations with the bidders will be insisting on a high burden of proof that the meter is successfully installed and achieving the desired performance measures sustainably before service payments per meter begin.

Our model incentivises outcomes which are aligned across their supply chain

We are seeking an “outcomes-based” model, on which we pay the AMS Single Provider for the provision of at least hourly meter readings. This model is robust to ensure that the bidders are incentivised in the right ways to perform effectively, over the lifespan of the contract term.

The AMS Single Provider will replace and upgrade 1 million household and non-household meters to Smart AMI Meters, install 34,000 Smart AMI meters to currently unmetered customers, and adopt and commission meters installed for New Connections. For the purposes of the VfM case, we have excluded new meter installs, and new connections. We have inserted four key protections to ensure sufficient performance from bidders, which we expect to negotiate during the tender:

1. Award of volume: there is no exclusivity. We will negotiate and contract upon a proportion of our portfolio, with further awards directly linked to performance outcomes.
2. Retention of volume: we will withhold volume of portfolio if the CAP is not delivering meter replacements, installs, and performance to the agreed timeframes.
3. KPI service credits: we will link incentives and penalties based on performance, tracked monthly.



4. Contract breach/termination: clauses to terminate the contract in instances of continued below threshold performance.

We are encouraging the bidders to consider value add opportunities to reduce overall costs for customers

To support our demand reduction objectives, we believe there is opportunity to leverage developed solutions as part of the model. Through our market engagement activities, we have validated that many offer data visualisation and analytics tools, that could accelerate our programme and reduce overall programme costs for customers. We have included this as a potential value add offering for bidders to provide.

Liability

Delivery risk will sit entirely with the AMS Single Provider which will include flow down costs for any penalties incurred by Southern Water such as guaranteed standards scheme and Highways/Local Authority penalties in addition to the key protections to ensure sufficient performance from the provider as described above.

As the AMS Single Provider will be both the provider and installer of metering equipment, we expect them to be responsible for all equipment failures, whether it be damage or batch failures.

Since we only pay the AMS Single Provider for (outcome) meter reads received, the risk is with the provider to be responsible for its chosen supply chain to deliver the service to enable a chargeable read.

Timeline

In July 2024 we launched the ITT phase, and we intend that the contract is awarded in January 2025. After financial close, we will require the AMS single provider to begin the installation phase of the smart metering roll out in 2025-26, in line with the submitted meter deployment profile.

By the end of AMP8 we need the installation phase to be completed. From April 2040 the first meters installed in 2025 are expected to have reached the end of their service term and new agreements will be required. By April 2045 we expect the current contract to have concluded with all meters installed in AMP8 having reached their end of service term.



6.4.4 Activities not included in the AMS contract

We are excluding items from the service that could undermine the service fee model

We have identified key risks as part of the AMS contract that cannot be cost efficiently provided and financed as part of contract by the AMS single provider. The cost of replacing a boundary box is significant compared to the replacement of the smart meter. It makes it approximately six times the price of a conventional meter replacement and upgrade. We have information that indicates that between 6.7% and 35% of meter replacements cannot be undertaken until a boundary box has been excavated and reinstated. This view derives from a combination of 7,100 site surveys, commissioned with Morrison Data Services in late 2023, and AMP7 operational data, which indicates 115,000 such replacements have been undertaken. Further details on the cost and volume evidence can be found in SRN-DDR-31 Water Resources – Smart Metering Enhancement Cost Evidence Case.

When the new meters are installed, a replacement of the boundary box may also be necessary. It will depend on the condition of the boundary box (e.g., it has deteriorated or is broken) and whether it is capable of receiving a Smart AMI meter. If at the time of installation, the boundary box is found to require to be replaced, this will be carried out at the time by the AMS provider. For additional information see SRN-DDR-31 Water Resources – Smart Metering Enhancement Cost Evidence Case.

Figure 7 – Boundary boxes

Clean	Minimal Work	May Require Excavation
Clean and requires little to no further work before the installation	Will require the removal of loose debris and/or ground water before installation	Repair/replacement of the asset will be required before installation
		
		

Boundary boxes will be excluded from the financing of the service. We have instead included this on a “rate-card” basis, such that the bidder can operationally deliver replacement boundary boxes, but with additional operational controls to prevent unnecessary replacements, manage a controllable level of replacements, and closely manage unit costs of replacements. This control step supports assurance that customers receive value for money, by preventing the overall increase of unit rates for standard replacements.

Given the high value and uncertainty of the costs to replace boundary boxes, we recognise that these risks cannot be borne by the AMS single provider. Instead, we propose direct compensation for the AMS single provider for the work on boundary boxes if circumstances mean they must carry out this work. For additional information see SRN-DDR-031 Water Resources – Smart Metering Enhancement Cost Evidence Case.

6.4.5 Updated costs

Further information can be found in our SRN-DDR-031 Water Resources – Smart Metering Enhancement Cost Evidence Case, which responds to the expenditure allowances, and associated price control deliverables. In our October 2023 business plan, we did not include the full costs of the smart meter programme in our plan. We will need to pay for the costs of the boundary boxes as well as other in-house development work. We have also included all the costs of installation and data process, whereas in reality we will pay the winning AMS provider under the terms of the contract. We wish to discuss with Ofwat how this proportion of the cost allowance could be converted into the equivalent of an ARD with provisions for potential other costs that occur during the contract term, including contract management costs.

6.4.6 VfM analysis

We have completed a detailed VfM analysis based on market-based delivery compared to in-house delivery. We assessed two alternative approaches to funding and financing our proposed proactive smart meter rollout programme:

- In-house delivery – this is a traditional approach where we will install and operate our smart meters;
- Alternative Metering Service – this involves procuring smart meter data as a service from a third-party provider or a consortium of service providers acting through a SPV, i.e., a company set up for the purpose of delivering smart meter services.

Delivering smart meters via an Alternative Metering Service single provider route will introduce competition into this service within the water sector. This has been done successfully in the energy sector for the benefit of customers.

The full summary of the VfM assessment can be found in SRN-DDR-039 – Appendix B – Alternative Metering Service – Value for Money. The findings suggest that for the in-house delivery the NPV for 20-year service is £207.1m. In the market-based delivery route using an Alternative Metering Service contract, the NPV of 20-year service is £191.3m.

Our findings suggest an Alternative Metering Service approach is VfM for our customers with a potential NPV saving over 20 years of £15.9m.

Key drivers

We found that the cost advantages of this approach are driven largely by:

- The cost efficiencies the third-party can achieve compared to in-house delivery; and
- The financing costs of the third party.

We expect third party providers to be specialists who can bring efficiencies at scale, by leveraging operational, financial, manufacturing and supply chain economies of scale and rigour, resulting in overall cost savings.

6.4.7 Enabling the Alternative Metering Service

Ofwat's Draft Determination

The need for replacing our meters and to upgrade Smart AMI Meters was confirmed as allowable by Ofwat, with adjustments applied to traditional base and enhancement allowances.

Our proposed delivery route

As our market-based delivery approach is different to the PR24 traditional funding model for Smart Metering, we would like Ofwat to consider the following items to enable better VfM and offer more certainty to bidders:

- To provide bidders with certainty and our customers the benefit of paying the service costs only as they arise, we would ask for a mechanism to enable the funding to SW and outflows to the third party to be aligned for the duration of the service contract. There are mechanisms, including the use of an ARD equivalent that could be used to achieve this.
- changes to in the funding allowance for all other enhancement activities that would remain to be delivered inhouse by SW during AMP8.

6.5 Bioresources: Ham Hill and Ashford

We have a unique opportunity to consolidate seven smaller existing sites with most assets coming to the end of their life in Kent into just two large facilities, increasing our capacity in the area and using the latest advanced digestion technology. The consolidation will allow both construction and operational efficiencies and savings. Additionally, while consolidating these sites, we can assess and identify our preferred technical solution for each site and how these can best mitigate a number of current and future challenges, including our biosolids quality and emerging contaminants risk in relation to our ability to recycle sludge to agriculture.

We have concluded that we can deliver future-proof, no regret facilities with the investments that will comply with other requirements (such as the Industrial Emissions Directive - IED). The assets include AAD plants, digestion facilities, biogas clean-up and beneficial use processes, dewatering assets and cake covering areas.

As detailed further in our SRN-DDR-016 Bioresources AAD Cost Adjustment Claim, we have considered the Bioresources Market Review by Jacobs and the potential revenue streams and scenarios identified to enable a competitive market. Many of the potential scenarios are not yet available or are at this time affected by key risks and uncertainties. In our October 2023 plan we proposed a 'project finance' bioresources market option to enable third parties to bring efficiencies and benefits to the project. Using a market-based delivery route and tendering a DBFOM contract would enable a single focused entity to deliver the design, construction and the operations and maintenance of 2 facilities for the long term. It also enables us and our customers to benefit from a third party bringing their expertise to all elements of the process to provide a single efficient solution.

Based on the outcome from our market engagement and VfM analysis, we continue to propose the projects should be delivered via market-based delivery. The development of the project, its scope and contract will be key to ensure interest from the market and competitive tension. We wish to discuss with Ofwat the delivery of the project and enable the benefits of a market-based delivery.

6.5.1 Progress and updated costs

The development of the project, including our needs case, considerations of the technical solutions, and market engagement can be found in more detail in SRN-DDR-016 Bioresources AAD Cost Adjustment Claim. The market engagement is further summarised in Section 2.2.2 and Section 10.2 in this document.

As a result of the market engagement, we are proposing to exclude all activities and assets relating to compliance with the Industrial Emissions Directive (IED) from the scope of the project to be delivered via a third party. Whilst implementation of IED at Ham Hill and Ashford was initially included in the project, we think it is likely that the added complexity of the market-based delivery model would increase the risk of not delivering the compliance work on time. For this reason, and as described in query OFW-OBQ-SRN-247, we are proposing to move this scope and cost back to in-house delivery.

The scope of the work for market-based delivery now includes:

- Conversion of current operation at Ashford and Ham Hill to Advanced Digestion (including increased capacity at these sites to enable treatment of all sludge produced in our Kent); and
- Additional Cake Storage facilities at both Ashford and Ham Hill, as per WINEP Bioresources plans under the Sludge Use in Agriculture Regulations Improvement driver.

Timeline

The required start of operations for both sites, Ham Hill and Ashford, is 2030.

Updated costs

The estimated total construction costs have not changed for the project. The new construction cost for the project in scope to be delivered by a third party is £150.3m. We have included the IED costs separately in the CWW3 data table. Additionally, we have further assessed the life of the assets to be 20 years with an estimated renewal capex over the lifetime of £14.8m. With the adjusted costs, we have reassessed the development costs. Due to the stage development of the project, we have included DPC-related costs to enable us to deliver the project via market-based delivery.

The operating and maintenance costs have also been reconsidered. The updated operating costs for the project are £5.1m a year. These include the use of energy generated from the bioresources assets for its operation. The potential income generated from energy sold to the grid or to WWN+ has not been included.

The nature of energy costs, and potential revenue generation that a third party would expect to benefit from, featured clearly in our discussions with investors. We need to carefully consider the ownership of the revenues available from energy generation, and how we can provide a good balance between the incentives on bidders in competing to own the assets, and the interests of our customers in benefitting from potential gains from improved generation of energy that raises revenues.

Discussions during market engagement also highlighted the need for us to manage the biosolids once treated, as investors have clearly indicated they would not take the risk related to use of landbanks to dispose of the final solids, given the uncertainty over whether discharge to land will continue, given the possibility of changes to environmental obligations on the disposal of final solids to land.

6.5.2 Market engagement summary

We have undertaken market engagement activities for this project, gaining insights from investors and potential contractors and suppliers.

Market engagement in 2024

We have spoken directly to the market, including 15 bilateral meetings. All 15 participants expressed keen interest in continuing to participate in future meetings and discussions for the bioresources project. A more detailed summary of the findings is described in SRN-DDR-016 Bioresources AAD Cost Adjustment Claim.

The brief takeaways included:

- None of the participants are interested in a service agreement only. They are interested in either a DBFOM or DBF model.
- Energy generation is of significant interest with interest in the generation of electricity, heat and biomethane.
- Several participants raised concerns about the certainty of payment provided under an alternative market-based delivery model, compared to the DPC model.
- The risk allocation of the project was highlighted by many. The landbank risk was highlighted as a key risk that all investors were clear they were either very concerned about or had no interest in being involved in the risk was included as part of their contract.

Market engagement for alternative delivery overall

The market sentiment for this project is notably positive. This was on account of the discrete nature and overall size of this scheme. Strong interest was noted, particularly from participants with experience in sustainable energy generation from wastewater.

During the bilateral engagement, one equity investor with a contractor business arm expressed keen interest in the bioresources assets. The participant highlighted the appeal of separate ring-fenced sites and a pipeline of upcoming projects that allow for participation in such projects in the long term. Another equity investor with a contractor arm mentioned their ongoing evaluation of other similar bioresources projects, indicating potential interest in upcoming projects. One equity investor with a contractor arm expressed a greater preference for projects with a scope containing a higher degree of civil works rather than a process plant. The participant also mentioned evaluating other similar bioresources projects proposed across the UK water sector.

All participants were interested in the project size, as the Ham Hill and Ashford sites were to be bundled. Additionally, all participants were attracted to the late tender DBFOM contract. All were interested in a proposed delivery via alternative market-based delivery. Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat. A detailed summary of the findings is described in SRN-DDR039 – Appendix B –Market engagement report.

6.5.3 VfM analysis

We have considered the value using both quantitative and qualitative assessments. Combining the two projects into one would allow for a single entity to deliver the design, construction, finance, operations and maintenance of the two facilities for the long term. Grouping the projects together provides more scope for one entity to bring its capabilities to bear on two similar but each relatively low value projects. Our quantitative and qualitative VfM assessments show that the bundled Aylesford and Ford projects are likely to deliver VfM. The full details of the VfM analysis are in SRN-DDR-039 – Appendix A – Value for Money.

Table 26 – Summary VfM assessment for the Bioresources project

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV saving £11.8m Aggregate score of +13	Likely to deliver VfM
Qualitative VfM	Aggregate score of +6	Likely to deliver VfM

Our findings suggest that for delivery inhouse the NPV is £249m, compared to an NPV of £237m for a market-base delivery, suggesting a possible saving of £11.8m. Additionally, as our current forecasts do not include any income generated from energy sold to the grid, as this remains very uncertain, the potential savings and therefore case for the bioresources' potential to deliver VfM could be stronger.

Quantitative VfM analysis

The quantitative VfM considers the sensitivity of eight selected variables for both a low and high case sensitivities that provide an output number that represents the difference in NPV of cost to deliver under market-based vs in-house delivery. Delivery through an alternative market-based delivery may offer a positive VfM, with cost of delivery NPV 5% lower than the cost of in-house delivery.

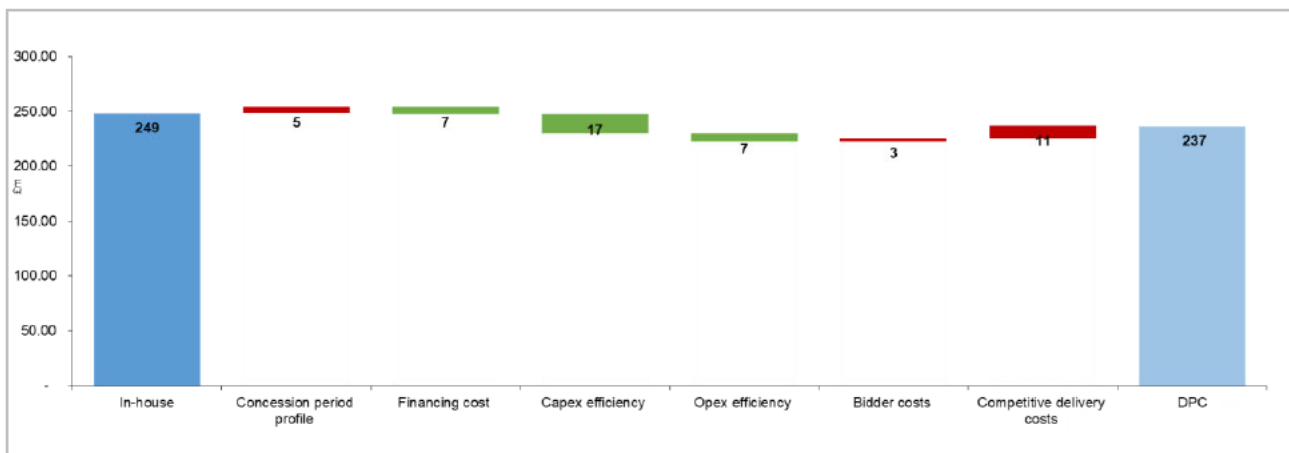
Table 27 – Bioresources base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£248.6m
NPV of cost of delivering the project under alternative market-based delivery	£236.8m
Difference in NPV	£11.8m
Percentage difference in NPV	5.0%

This value driver analysis considers a 3-year construction period, followed by a 20-year operations period, reflecting the 20-year useful life of the assets. Key value drivers under the alternative market-based delivery are the benefits from cost efficiency (£17m from capex and £7m from opex efficiencies) and cheaper financing costs by £7m. The 20-year operation period results in a smaller scope for potential savings for opex versus capex.

However, these benefits are to some extent offset by the impact of additional bidder and competitive delivery costs, which include both fixed and variable procurement expenses. The NPV for alternative market-based route remains positive in all sensitivities, providing a positive VfM assessment. However, the high-case contract period variable was not tested, as it exceeds the asset’s 20-year useful life.

Figure 8 – Bioresources value drivers



Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under market-based delivery compared to the in-house delivery. The aggregated score of +6 (of a range between -12 and +12) indicates that the Bioresources project is likely to deliver value under market-based delivery.

Table 28 – Qualitative VfM analysis

Dimension	Score
1. Deliverability capability	0
2. Deliverability capacity	1
3. Access to supply chain/ contractors	1
4. Commercial attractiveness	1
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	1
9. Innovation in technology and delivery	1
10. Environmental and social	1
11. Management and coordination	-1
12. Customer bill impact	0

6.5.4 Proposed delivery

Ofwat established the bioresources price control to enable greater competition and scrutiny of sludge treatment costs. We have analysed the possible scenarios and solutions available to us as sought by Ofwat. As described in our document [SRN-DDR-16 Bioresources AAD Cost Adjustment Claim](#), the two delivery options available to us in AMP8 are in-house delivery or delivery via project finance.

In-house delivery does not allow the same competitive tender process to establish a single solution provider focusing on the delivery of the project for the lifetime of the assets. Only the project finance route via our proposed market-based delivery would enable the competitively tendering of a whole DBFOM contract.

We understand Ofwat's concerns to ensure that customers are protected whatever the form of delivery. We will need to carefully consider the contract terms as they are being developed. This includes not only the considerations regarding protection from failure of the technology or whole project, but also the best utilisation of any potential income streams including for energy and potential nutrients recovery.

We would welcome working with Ofwat to identify ways that certainty of payment streams to the competitive provide could be maximised under the contract.

Although the project is in the early development phase, we propose to continue to develop the possibilities of market-based delivery to offer the best possible outcome for customers.

6.6 CSO: Local Authority Highway SuDS

We have identified a suite of solutions required to achieve the Government's Storm Overflow Discharge Reduction Plan targets overall for combined sewer overflows (CSOs). A significant proportion of our solutions are hybrid, incorporating our preferred solution, a programme of SuDS (Sustainable Urban Drainage Systems). As typically a green/grey or blue/green solution, SuDS allow for surface water separation through engineered or nature-based community solutions, as opposed to grey end of pipe solutions which are often carbon intensive and temporary fixes (e.g., storm tanks). SuDS also provide a wealth of additional benefits such as environment, climate resilience, biodiversity and placemaking. Furthermore, SuDS relate the guidance within the Storm Overflows Discharge Reduction Plan which outlines that rainwater should remain in the environment as close as possible to the point it falls. SuDS can be installed to alleviate surface water runoff from roofs, roads and impermeable surfaces within an area. For roads, surface water entering highway drainage (and ending up in the combined sewer) does not need to be completely removed but the flow slowed down or reduced.

In our PR24 submissions we identified the Local Authority Highways SuDS project as a DPC-lite project. As the project was in its very early stages, we identified two delivery options which we have since further assessed.

Our discussions with local authorities (LAs) have resulted in the identification of a preferred approach, involving a collaboration between the LAs and us to deliver and finance the scheme. Described below is how we have progressed the project and our conclusion as to its inclusion in market-based delivery.

6.6.1 Our preferred solution

Both the LAs and we are responsible for the issues caused by surface water. We are legally responsible for reducing storm overflow releases and preventing wastewater flooding. The LAs' legal responsibilities include the reduction and prevention of surface water flooding in communities.

We have analysed and identified the key causes of storm overflows across our region. Over 60% of the causes of storm overflows is due to the volume of rainwater with around a quarter due to the volume of groundwater. The rest is a combination of multiple impacts. Excess surface water entering our network is predominately from roads and roofs.

The LA's ownership and responsibilities for highways

The run-off from roofs we are seeking to solve as part of our overall programme. The run-off from roads is an issue that can only be solved together with the LAs. LAs own and maintain the highways assets. This includes the approval of any work on the assets and the designs used for delivery. As part of their duty to maintain their highways network, their work includes the appointment of contractors to complete work. These are generally tendered and completed from their approved frameworks, and often use different contractors than capital works carried out by water companies.

The LAs due to their ownership of the highways and land are also responsible for any work carried out on their assets. This is both to ensure that all work adheres to health and safety guidelines and a maintenance plan, but additionally for any planning and changes to their highways that need to be assessed including their potential risk to road users. Therefore, any work on highways requires permission from LAs but direct work on their assets such as gullies/drainage would be denied on liability grounds.

Overall delivery approach

We believe we have a unique opportunity to develop a solution together with the LAs that will deliver benefits to our customers and benefits to the environment and wider community.

Agreeing on the location and types of SuDS used before completing full design work to slow down or reduce the surface water flow is completed in cooperation with LAs. As the designs will impact their land/assets as well as residents, and require planning permission, developing and agreeing the solutions together is the preferred solution. It will further assist when the governance process needs to be followed to ensure the works can commence.

Delivery of SuDS

As the owner of the highways and the powers and rights to build in the highways, it is likely that LAs will want to use their existing contractors to deliver any works and/or set up new frameworks for this programme. Some LAs have already stated a preference for tendering these to smaller local firms to ensure local economic growth and support.

Financing of works

The SuDS, as part of the highways cannot be owned by us. We are therefore proposing that the LAs are financing the construction work which we will pay for over the lifetime of the assets.

Overall benefits for both our customers and residents of the LA

Our proposed overall delivery solution is the least complex approach, ensuring full alignment and approval by LAs. We aim to ensure that LAs are no worse off when cooperating with us to enable our work to ensure that we comply with storm overflow requirements. Our cooperation would additionally provide other benefits.

The construction of SuDS can provide environmental and local benefits, beyond the traditional end of pipe solutions. SuDS can improve the aesthetics of an area, better manage climate change and increase biodiversity and protect the environment.

Delivery via LAs allows the use of local firms, ensuring local employment. The close cooperation would also allow better alignment of the timing of works. In some circumstances where LAs plan modernising of highways, foot and cycle paths or other key construction work, we would seek to include any SuDS work at the same time, ensuring work to be completed once, reducing cost and inconvenience to the community.

6.6.2 Our progress

We have met with all 10 local authorities responsible for highways assets within our region (see section 2.2.3). The reactions and interest to engage and work together cooperatively with us to find the right solutions for storm overflow and surface water flooding has been very positive. We are in the building relationships, seeking to together identify and deliver mutually beneficial solutions through SuDS or surface water separation, to not only benefit us, but also the community. MOUs have been sent to each council following these meetings summarising our intention to work together.

Additionally, we have received a letter from the Leader of Kent County Council in support of our plan to jointly deliver a programme to reduce storm overflows, including the management of surface water entering our network from the highways. The letter is attached in our [Appendix 4 – Letter from Kent County Council](#).

Joint design work

There is agreement in principle with LAs that we share information and then jointly evaluate possible SuDS solutions and decide on the location and type of SuDS used. The development costs and additional staffing requirements by LA to enable to work up to construction has been agreed to be financed by us upfront. We expected some significant costs with all design and governance work before the go-ahead of schemes is granted by an LA for each scheme and ongoing monitoring requirements during the delivery and operational

phase. We generally estimate these to be up to three staff per LA depending on the volume of SuDS to be delivered.

For most of the highway SuDS programme, identification, feasibility and design will take place over the next two years, with potential further pilot studies included. Construction could begin in 2027 until March 2030. There are several catchments within the region which have a 2027 deadline for overflow reduction, predominately overflows impacting shellfish areas. For these, construction will need to begin earlier, potentially requiring earlier agreements with a few LAs in 2026 or before.

Discussions on financing by LAs

We have had discussions with all LAs about their willingness to finance the construction of the Highway SuDS programme. So far, in principle, the LAs have signalled their willingness to finance the construction costs upfront, using their available lending options at lower rates than generally available to us (only excludes Medway Council as the value of work required means we don't need the same commercial agreement as other LAs). We would pay the LAs in full for all construction and financing costs over the duration of the contract/ their lending arrangements.

Discussions on maintenance by LAs

As LAs are responsible and already maintain the highways/highways assets, we propose that any additional higher maintenance costs on their traditional assets would be covered and paid for by us for the lifetime of the assets.

Discussions on financing by LAs

LAs are keen to ensure that we will pay the full costs of our SuDS programme and that none of the costs will remain with them. Concerns raised by some was our price controls only lasting for 5 years and a more general concern of our ability to pay for the duration of the length of the contract. LAs will be seeking clarification and for us to provide certainty.

Possible Heads of Terms and contract

We are discussing with all LAs where it would be suitable to negotiate a single contract which would contain the standard contract terms for all, to ensure that each LA receives equal treatment and fairness. Changes could then be made to allow technical amendments as required for their area. This would ensure that all LAs are treated equally. We are currently drafting Heads of Terms which we plan to make available to councils in September.

Ongoing pathfinder projects

We are currently delivering Pathfinder projects in Kent, Isle of Wight, Hampshire and East Sussex, as part of a £45m accelerated funding programme. We have been trialling several pilots across the south to manage surface and groundwater entering the combined sewer, as well as optimising infrastructure, treating stormwater and building more assets. Several pilots have included installing SuDS, e.g., raingardens, swales. We have pilot highway schemes designed and commissioned on the Isle of Wight and Kent. We have taken the learnings from the Pathfinder projects and used these to build our Storm Overflow Reduction Plan.

6.6.3 Updated costs

The individual schemes in each area within a LA has not yet been fully identified and developed. Our current estimated construction costs are therefore highly uncertain and will only become firmer as schemes are

being agreed and progressed. Additionally, as work is being constructed, we expect some unexpected additional work may be required as unexpected services are likely to be uncovered during construction. Development costs, including the design work and resources we would provide to councils to enable the governance and planning to be delivered for our schemes, will be paid by us.

6.6.4 Vfm analysis

The Vfm analysis used for other projects has also been applied the SuDS programme for completeness with the full details of the Vfm analysis are in Appendix A – Market-Based Delivery - Value for Money. However, as the project cannot be delivered in-house and the standard benchmarking assumptions to not apply to this specific project, the output from the assessment is not meaningful (as described in section 3.1).

Table 29 – Summary Vfm assessment for the LA Highways SuDS project

Assessment	Detail on value/ score	Outcome
Quantitative Vfm	NPV cost £14.5m Aggregate score of -7	nm
Qualitative Vfm	Aggregate score of +4	nm

6.6.5 Proposed delivery option

Our LA Highways SuDS project is unlike other projects we propose for delivery via a market-based route. It is not a typical infrastructure project, and we won't own the assets. The project also won't be competitively tendered.

Nevertheless, we believe this approach best benefits our customers. Our customers will only pay as the benefits from reduced or slowed flow is realised over the life of the assets. As they are also the residents in the LAs regions, we are offering a partnership that aims to ensure the best solution based on the sought outcomes by both the LAs and us for our customers/residents.

To enable this approach, we are looking to agree long-term contracts with LAs. Due to the difficult financial position of many LAs, a key concern is to provide certainty of all payments and ensure that any costs agreed to be paid for by us will be paid for the duration of a long-term contract. We are seeking a mechanism enabled by Ofwat that will provide the certainty for the duration of the contracts and would welcome the opportunity to discuss a solution to support the delivery of our project and the mechanism to enable the oversight by Ofwat.

6.7 Whitfield WwTW

Whitfield is an urban expansion with a planned population equivalent of 15,000 to 20,000 which is under construction to the north of Dover in east Kent. The Whitfield development is a key part of the Dover District Council's plan to provide additional housing in their part of east Kent.

The Whitfield WwTW scheme will allow us to meet our obligation to provide sewerage connections for the new development. The existing sewerage network and wastewater treatment plant in Dover (Broomfield Bank WwTW) does not have sufficient capacity for this new development.

As a separable project that could be delivered via a third-party, we proposed the delivery of the project via alternative delivery in our PR24. Ofwat's decision at draft determination was for the project to be delivered in-house, although costs were not accounted for within the treatment works growth allowances.

As we have continued to develop the project and with the outcome from our informal market engagement and our VfM we have identified that a market-based delivery remains possible. With further work and costing completed, the overall scheme costs have increased to £103m. From our market engagement we have learned that this size of project is now in the range where the market could be interested in a tendering of a long-term DBFOM contract. Our qualitative VfM analysis further indicates some potential that the project could offer VfM, although at its current size the potential is marginal.

We therefore propose that as the project has a total value of over £100m, it be included in the large scheme gated process and for the project to be progressed to be delivered via a market-based route. As the preferred solution has not yet been identified and therefore the scope remains uncertain, we propose that if the project changes materially at the first gate of the large scheme gated process, we reassess the delivery approach. Until gate 1 we are not asking for an allowance for the equivalent of DPC-related costs.

In our DD response further information can be found in our SRN-DDR-048 Wastewater Treatment Growth Enhancement Cost Evidence Case.

6.7.1 Progress, updated costs and timeline

Our progress developing a preferred solution

Different solutions have been considered. We have recognized that it would be very difficult to add sufficient capacity to the existing network and treatment plant. The town of Dover already has serious traffic problems dealing with traffic to the port without the added complexity of extensive roadworks for new sewers. The existing Broomfield Bank WwTW is an underground treatment works enclosed in a concrete box which cannot be expanded without serious technical difficulty and planning challenges.

The proposed solution is to provide a new treatment works to serve the new development. Due to the lack of a suitable surface watercourse in the area, the new Whitfield WwTW will discharge to sea via a Long Sea Outfall, like the existing Broomfield Bank WwTW. By avoiding connection to Broomfield Bank sewerage network and WwTW, the solution will also enable retention of the current headroom in the existing sewerage network for use by other planned developments in the wider Dover and Folkestone area.

A storage tank and pumping station have already been completed and commissioned to take the flows from the Whitfield development dwellings completed to date. Progress on construction of the new town is proceeding at a slow pace, which has allowed us to develop an incremental plan to serve the development. Initially, effluent from the storage tank is being drained into the Broomfield Bank network for as long as there is available capacity, with tankers then being used to transfer any surplus flow to other treatment works until the new WwTW is completed. Feasibility work on the new WwTW is underway to look at options for the site of the WwTW, pipeline routes, and LSO location.

Timeline

We are required to meet the need of additional treatment capacity as part of our statutory duty. Although we have a short and medium-term solution, we are seeking to deliver the assets by 2031.

Updated costs

A feasibility study to look at options for Whitfield was prepared as part of PR19. The initial cost estimate that was provided in the business plan was based on his study. Since then, further design development has refined the scope of this option, and a new bottom-up cost estimate has been produced. This has increased estimated construction costs from £49.8m at our PR24 submissions to £97m now. The most significant amendment to scope has been a change in the location of the planned new LSO, which has moved northwards along the coast towards Deal to avoid the chalk cliffs in the Dover area. This has added to the length of the final effluent transfer pipeline between the new WwTW and the LSO.

We have updated the whole life costs of the project. With now estimates available for renewal capex of £46.4m and opex costs of £0.54m annually, the whole life cost for the project is now estimated to be £182m.

6.7.2 Market engagement summary

The market sentiment for this project was in general positive. The overall scope of the project aligns well with the area of interest and expertise of the participants we spoke to.

We discussed delivering the Whitfield project via market-based delivery, which was considered too small by financial value by most participants at a capex cost of £50m. 5 of the 12 contractors and equity investors with a contracting arm expressed comfort with the project size, with past instances of delivering projects of such scale. However, only if the project capex value were to increase to around £100m, the project would be of interest to 8 of the 12 participants. Alternatively, participants in general suggested bundling as a possible viable option.

All participants were interested in a tendered contract model for DBFOM. They all considered a market-based delivery model attractive with most participants understanding that we are seeking to align with DPC principles and the approach and framework still to be agreed with Ofwat.

Our assessment of the market engagement for interest in the Whitfield WwTW project is that most participants considered the project attractive if the overall construction costs was to increase. A detailed summary of the findings is described in Appendix C –Market engagement.

6.7.3 VfM analysis

We have taken two approaches to our VfM analysis, both quantitative and qualitative assessments. The overall VfM assessment shows the Whitfield WwTW project is neither likely nor unlikely to deliver VfM based on the quantitative VfM analysis. Based on the qualitative VfM the project is likely to deliver VfM. The full details of the VfM analysis are in Appendix A Value for Money.

Table 30 – Summary VfM assessment for the Whitfield project

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV cost £1.4m Aggregate score of -8	Neither likely nor unlikely to deliver VfM
Qualitative VfM	Aggregate score of +6	Likely to deliver VfM



Quantitative VfM analysis

The quantitative VfM considers the sensitivity of eight selected variables for both a low and high case sensitivities. Delivery through a market-based delivery may does not show a positive benefit, indicating a small additional cost of £1.4m.

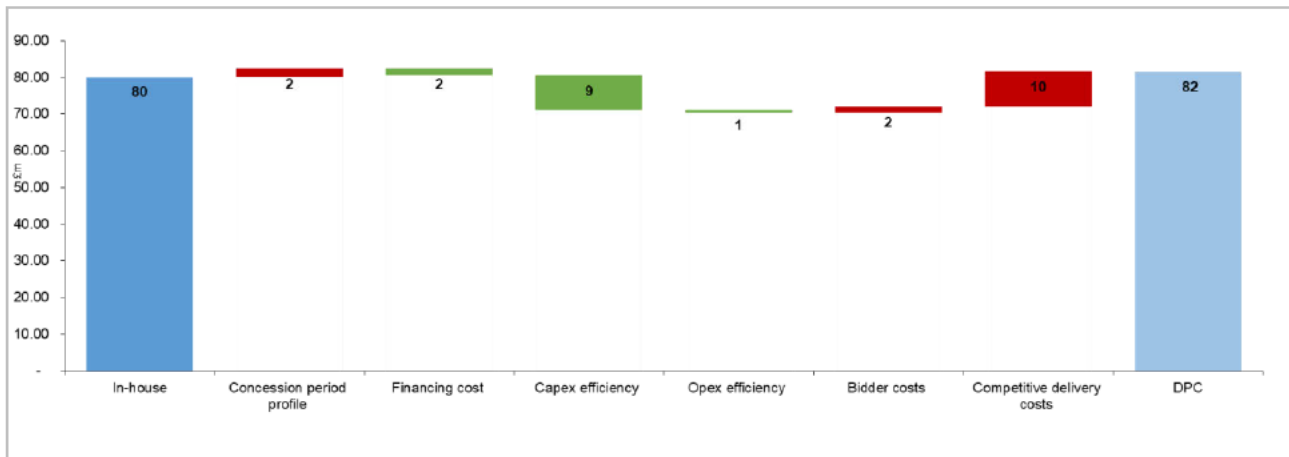
Table 31 – Whitfield base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£80.1m
NPV of cost of delivering the project under market-based delivery	£81.6m
Difference in NPV	-£1.4m
Percentage difference in NPV	-1.8%

This value driver analysis considers a 4-year construction period, followed by a 20-year operation period. The 20-year operation period is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period.

The key value drivers under the market-based delivery model are the benefits from cost efficiencies (£9m from capex and £1m from opex efficiencies) and cheaper financing by £2m. These benefits are offset by the additional bidder and competitive delivery costs.

Figure 9 – Whitfield value drivers



Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions. Whitfield has an aggregated score of +6 from within a range of -12 to +12, suggesting a potential that it is likely to delivery VfM under market-based delivery.

Table 32 – Qualitative VfM analysis – Whitfield

Dimension	Score
1. Deliverability capability	0
2. Deliverability capacity	1
3. Access to supply chain/ contractors	1
4. Commercial attractiveness	1
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	1
9. Innovation in technology and delivery	1
10. Environmental and social	1
11. Management and coordination	-1
12. Customer bill impact	0

6.7.4 Proposed delivery

Ofwat draft determination decision

At draft determination Ofwat decided that the Whitfield WwTW would be delivered in-house.

Proposed delivery route

Our market engagement has shown that the project could create interest in the market. Our quantitative VfM assessment shows a marginal cost if delivered via market-based delivery. However, the qualitative VfM assessment suggest there may be value in a third-party delivering the project beyond the current quantitative assumptions. We therefore propose that we continue to develop the project for delivery via a market-based route.

We are proposing that the project is included in the large scheme gated process due to its increased costs. During the development of Whitfield in the gated process, we propose that at the first gate the project be reassessed for its delivery route. If the scope or costs changes materially that could impact VfM and market interest, we would complete further market engagement and VfM assessment to confirm that the approach remains the preferred delivery route.

We therefore propose that we continue to develop the project for delivery via a market-based route without asking for the equivalent of DPC-related costs for this project at this stage. Instead, we propose to ask Ofwat to confirm the additional allowances, equivalent to DPC-related costs, at the first gate with costs incurred earlier to be included in the allowances. We believe this is the best approach to enable both value for our customers and for potential change to allow further reconsideration.

6.8 CSO: Wetlands

Our CSO: Wetlands project involves the development and construction of wetlands as part of our complete programme of work to solve combined sewer overflows (CSOs). We identified our preferred solution of using the nature-based solution of wetlands to tackle storm overflow issues. As a green solution, wetlands can allow highly effective filtration systems to treat wastewater, as opposed to grey alternative solutions which are often carbon intensive (e.g., storm tanks).

In our PR24 submissions we identified the CSO: Wetlands project as a DPC-lite project. As the project was in its very early stages. Since then, the EA, Defra and Ofwat have decided to only allow trials of wetland technologies in AMP8. Trials will not be permitted where discharges are in proximity to shellfisheries or bathing waters. We are currently assessing the impact of this decision on possible sites for AMP8. Based on Ofwat's draft determination, the decisions by the EA, Defra and Ofwat, we have concluded that due to uncertainties we propose delivery of wetlands in-house in AMP8.

6.8.1 Updated costs

We have included costs for wetlands for a total of £113m. We propose that the Wetlands project be included with other storm overflow schemes in the enhanced engagement and cost sharing mechanism. For details on costs please see SRN-DDR-044 WINEP - Storm Overflows Enhancement Cost Evidence Case.

6.8.2 Market engagement summary

The market sentiment for this project is positive. A contractor highlighted their expertise and resources in delivering wetlands at smaller sites, while an equity investor with experience in carbon offsetting schemes expressed interest in projects of such nature. A few participants with an asset-agnostic investment strategy also expressed interest, given the capital cost being in their investment range.

One of the participants (an equity investor with a contracting arm) highlighted the importance of a well-defined phased execution plan of the 32 proposed wetland sites and the need for a defined approach for payments to an SPV to make the project attractive to the market. Further interest was shown by a participant particularly if the project was packaged effectively (e.g., using a Mutual Investment Model ("MIM")) and planning risks were addressed.

The MIM is an innovative model developed by the Welsh Government for the procurement of public infrastructure in Wales. This model was designed in response to a scarcity of capital funding, with the aim of financing major capital projects. The participant highlighted a key benefit of the MIM model in relation to the wetlands project, noting the ability to allow for separate contractual closes for different sites. This means that planning consideration and construction can run concurrently for different sites. In their view, this alleviates the need to have planning and consenting completed before contract close. An MIM model could therefore potentially address some of the concerns raised about the project's phased execution.

At a size of an estimated £80m construction capex as submitted in our PR24 plan, only five of the 12 participants were interested in the project. These were contractors and equity investors with a contracting arm expressed who comfort with the project size as they evaluated aspects beyond the project value, considering each project on a case-by-case basis. However, many would consider the project if its size was around £100m.

All participants were interested in a tendered market-based delivery route and a late DBFOM tender model.

Our assessment of the market engagement for interest in the wetlands project is that most participants considered the project attractive if considered sufficiently as to certainty of enabling the delivery of the 32 separate sites. A detailed summary of the findings is described in Appendix C –Market engagement.

6.8.3 VfM analysis

We have considered VfM, both using quantitative and qualitative assessments. We have concluded that the project currently is neither likely nor unlikely to deliver VfM. The full details of the VfM analysis are in Appendix A –Value for Money.

Table 33 – Summary VfM assessment for the Wetlands project

Assessment	Detail on value/ score	Outcome
Quantitative VfM	NPV saving £2.1m Aggregate score of +6	Neither likely nor unlikely to deliver VfM
Qualitative VfM	Aggregate score of +6	Likely to deliver VfM

Quantitative VfM analysis

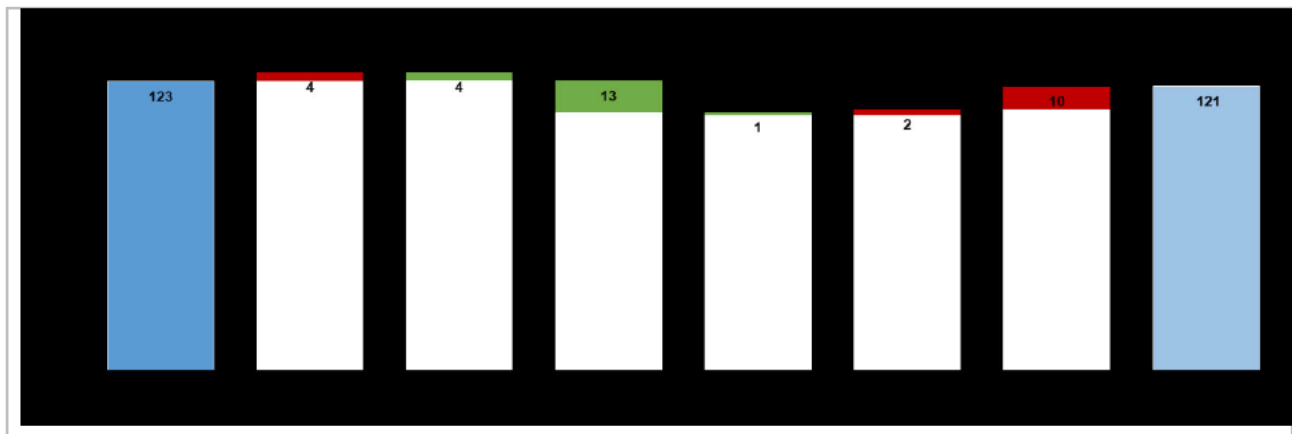
The quantitative VfM considers the sensitivity of eight selected variables. Delivery via a market-based delivery route may offer a positive VfM, with cost of delivery NPV 1.7% or £2.1m lower than the cost of in-house delivery as shown in the table below.

Table 34 – Wetlands base case VfM

Base case VfM result	
NPV of cost of delivering the project in-house	£122.9m
NPV of cost of delivering the project under market-based delivery	£120.8m
Difference in NPV	£2.1m
Percentage difference in NPV	1.7%

This value driver analysis considers a standard 25-year operation period. The key value drivers under the market-based delivery are the benefits from cost efficiencies (£13m from capex and £1m from opex efficiencies) and cheaper financing costs by £4m. These benefits are to some extent offset by the additional bidder costs and the competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house. The NPV for a market-based delivery model appears to remain positive in majority of the sensitivities.

Figure 10 – Wetlands value drivers



Qualitative VfM analysis

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under market-based delivery compared to the in-house delivery. With an aggregate score of +6 from within a range of -12 to +12, Wetlands is likely to deliver value under alternative market-based delivery.

Table 35 – Qualitative VfM analysis

Dimension	Score
1. Deliverability capability	0
2. Deliverability capacity	1
3. Access to supply chain/ contractors	1
4. Commercial attractiveness	1
5. Price discovery	1
6. Access to capital	1
7. Flexibility	-1
8. Risk identification and mitigation	1
9. Innovation in technology and delivery	1
10. Environmental and social	1
11. Management and communication	-1
12. Customer bill impact	0

6.8.4 Proposed delivery option

Although our market engagement and VfM assessment would support further considerations as to using this delivery model to enable value for customers, the recent decision to only allow trials of wetlands technology in AMP8 has introduced significant uncertainty.

We therefore propose to deliver any wetlands in AMP8 in-house. However, depending on our plans for AMP9 and how regulations develop we believe that market-based delivery could be an appropriate delivery route in AMP9.