



# Annex H: Efficiency of Gate 3 Spend and Forecast for Gate 4

J698-AA-XXXX-ZZZZ-RP-ZD-100001

Standard Gate three submission for London  
Water Recycling SRO



## Notice – Position Statement

This report has been produced as part of the process set out by RAPID for the development of the Strategic Resource Options (SROs). This is a regulatory gated process allowing there to be control and appropriate scrutiny on the activities that are undertaken by the water companies to investigate and develop efficient solutions on behalf of customers to meet future drought resilience challenges.

This report forms part of a suite of documents that make up the 'Gate 3 submission'. Gate 3 of the RAPID programme represents a checkpoint on the way to solutions being prepared for consent applications. The intention at this stage is to provide RAPID with an update on activities being undertaken in preparation for consent application submission; activities' progress including programme through to completion; and consideration of specific activities to address particular risks or issues associated with a solution. The regulatory gated process does not form part of the consenting process and will not determine whether an SRO is granted planning consent.

Given the stage of the SROs in the planning process, the information presented in the Gate 3 submission includes material or data which is still in the course of completion, pending further engagement, consultation, design development and technical / environmental assessment. Final proposals will be presented as part of consent applications in due course.

### ***Disclaimer***

*This document has been written in line with the requirements of the RAPID Gate 3 Guidance and to comply with the regulatory process pursuant to Thames Water's statutory duties. The information presented relates to material or data which is still in the course of completion. Should the solutions presented in this document be taken forward, Thames Water will be subject to the statutory duties pursuant to the necessary consenting process, including environmental assessment and consultation as required. This document should be read with those duties in mind.*



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## 1 Introduction

### 1.1 Background

- 1.1.1 This annex provides details of our expenditure on the London Water Recycling (LWR) Strategic Resource Option (SRO) which comprises three schemes being progressed through the Regulatory Alliance for Progressing Infrastructure Development (RAPID) Gate 3 process by Thames Water.
- 1.1.2 The three schemes that make up the SRO progressed beyond Gate 2 include:
- Teddington Direct River Abstraction (DRA) scheme;
  - Beckton Water Recycling scheme; and
  - Mogden Water Recycling scheme.
- 1.1.3 We have taken a proportionate approach to the activities progressed for each scheme through Gate 3 based on the status of schemes set out in the Water Resources Management Plan 2024 (WRMP24).
- 1.1.4 Within WRMP24 our preferred scheme is Teddington DRA and so the majority of work progressed has focused on this Project and the activities required for planning and procurement aligned to those activities listed in Annex 2 of PR19 final determinations: Strategic regional water resources solutions<sup>1</sup>. Both Beckton and Mogden Water Recycling schemes are selected as alternative schemes in WRMP24 and so only selected activities aligned with Annex 2 of PR19 have been progressed to date.
- 1.1.5 The overall structure of this report is as follows:
- Section 2 sets out the basis of expenditure, cost basis and relevant correspondence with RAPID through Gate 3 to agree activities.
  - Section 3 provides the breakdown of our expenditure to Gate 3. All costs presented have been adjusted to reflect a 2017/18 price base.
  - Section 4 provides the breakdown of the proposed costs to Gate 4.



## 2 Gate 3 cost estimates

### 2.1 RAPID expenditure guidance

2.1.1 RAPID has stated in its Gate 3 guidance<sup>2</sup> that it will no longer be assessing efficiency of expenditure and has made two key changes in Gate 3 compared to Gate 2 relating to efficiency of expenditure. The first is to review expenditure as a cumulative spend against the total PR19 allowance; and the second is not assessing the level of expenditure at each Gate, but instead agreeing a list of activities that are required and proportionate to progress schemes.

2.1.2 Expenditure through Gate 3 should be against the indicative Gate 3 activities listed in Annex 2 of PR19 final determinations including:

- Updated finalised feasibility, data collection and developed design.
- Cross-comparison of updated solutions costs and benefits in regional and national models.
- External assurance of data and approaches supported by Board Statement.
- Confirmation of the procurement strategy.
- Pre-planning application submissions.
- Start development consent orders pre-planning application investigations.
- Planning permission related stakeholder engagement.
- Identify impacts of a solution on the current supply demand balance delivery.
- Identification of any changes in solution partner or solution substitutions.
- Develop solution programme plan to determine the activities that need to be undertaken prior to each subsequent gate.
- Proposal for gate four activities and outcomes and penalty scale assessments criteria and contribution.

### 2.2 PR19 allowance

2.2.1 The PR19 Final Determination maximum cost allowance for LWR SRO was £62.9m (17/18 price base), with a 35% allocation to Gate 3 equating to £22m.

2.2.2 RAPID confirmed in the Final Decision at Gate 1<sup>3</sup> and Gate 2<sup>4</sup> that savings made against those previous allowances could be carried over to subsequent gates.

- Our Gate 1 expenditure was £2.5m against a Gate 1 allowance of £6.2m (17/18 price base).
- Our Gate 2 expenditure was £5.5m against a Gate 2 allowance of 9.4m (17/18 price base)



2.2.3 Our Gate 3 budget for LWR therefore totals £29.6m (17/18 price base).

## 2.3 Gate 3 cost basis

- 2.3.1 We set out our proposed list of activities for Gate 3 in Annex F<sup>5</sup>(scheme delivery plan) and the associated costs in Annex H<sup>6</sup> (efficiency of G2 expenditure) at Gate 2. These annexes set out the activities proposed, and their cost estimate aligned to the RAPID work breakdown structure (WBS) for each scheme and set the basis of work agreed to progress through Gate 3.
- 2.3.2 In summary we estimated spend across each WBS totalling £14.4m<sup>7</sup> for Teddington DRA, £1.5m for Beckton, and £1.3m for Mogden Water Recycling schemes over a 12-month period to a Gate 3 submission date at the end of 2023.
- 2.3.3 In summer 2023 Thames Water wrote to RAPID to amend its Gate 3 submission date from winter 2023 to summer 2024 to take account of the revised draft WRMP, which set out the change in requirements for a scheme in 2033 rather than 2031 and incorporating feedback and new requirements from government and regulators within the SRO. This extension of works over a further 8-month period resulted in additional pro-rata expenditure over and above that presented within estimates at Gate 2.
- 2.3.4 Following non-statutory consultation on site options for Teddington DRA in autumn 2023, we revisited our Gate 2 concept design and made further amendments to directly address a number of concerns raised. We wrote to RAPID in late spring 2024 to inform it of the design changes and confirmed a further delay to our Gate 3 submission to winter 2024; a total extension of Gate 3 activities of 12 months from that originally proposed at Gate 2.
- 2.3.5 Since Gate 2 we have held a number of ‘check-in calls’ with RAPID to further provide an update on progress of key elements and changes proposed from the work set out at Gate 2. These check-in calls were held in March, October and December 2023 and April, May, July 2024 and covered progress against actions set at Gate 2, updates on work undertaken to develop a greater understanding of the potential impacts of schemes, and refinements in scheme design for Teddington DRA to address key issues raised through stakeholder engagement and scheme consultation.
- 2.3.6 In-line with Gate 3 guidance and to pre-agree changes in work scope set at Gate 2, we also wrote to RAPID as follows:
- In May 2022 seeking authorisation to undertake early Gate 3 spend aligned to developing proposals beyond a conceptual design, establishing an organisational capability and developing a portfolio management directorate to manage cost, programme, risk going into planning for our SROs.
  - In June 2023 notifying of a change in scope of planned works to undertake fish screening studies; and



- In October 2023 notifying and seeking authorisation for additional spend relating to a new scope for works for the commissioning of a pilot plant at Mogden which has now been implemented.
- 2.3.7 These programme changes to the baseline costs set at Gate 2 has resulted in total expenditure increasing on a pro-rata basis for the additional 12 months of work in addition to the increase in costs associated with the changes in work scope listed above.

### 3 Gate 3 costs

- 3.1.1 Our Gate 3 spend is summarised in Table 3.2 and split per scheme in Table 3.3, Table 3.4 and Table 3.5. We have provided a narrative of the expenditure for activities greater than £0.5m as required by the RAPID guidance within each table where relevant and also provided further information in a cost breakdown section.
- 3.1.2 For an accurate comparison with PR19, costs have been deflated back to a 2017/18 cost base using Thames Water’s Internal Business Plan (IBP) deflationary factors, based upon the CPIH (Table 3.1).

*Table 3.1. Deflationary factors used for actual cost calculations*

AMP7	Deflation Factors
Year 3 (2022/23)	0.8470
Year 4 (2023/24)	0.8025
Year 5 (2024/25)	0.7799

- 3.1.3 Total expenditure for LWR (actuals to September 2024 and forecast for October and November 2024) at Gate 3 totals £22.6m (17/18 price base) against the available allowance of £29.6m (17/18 price base). A total of £7m is proposed to be carried over to Gate 4 from underspend in previous gates.

*Table 3.2. Summary of total spend for LWR through Gate 3 (Teddington DRA, Beckton and Mogden schemes).*

RAPID WBS	Total WBS cost estimate (17/18 cost base)
Programme and Project Management	£3,161,585
Feasibility assessment and concept design	£4,053,659
Options benefit development and appraisal	£0
Environmental assessment	£4,154,360
Data collection, sampling and pilot trials	£5,169,327
Procurement	£2,141,619
Planning	£1,508,823
Stakeholder engagement	£1,906,416
Legal	£504,418
<b>Total</b>	<b>£22,600,207</b>



Table 3.3. Gate 3 costs for Teddington DRA calculated on a 2017/18 price base. All activities exceeding £0.5m have been identified and broken down further in the table

RAPID WBS	Activity	Expenditure	% of total	Description of activity
01 Programme & Project Management	Change control management	£115,306		Change management team - Thames Water
	Commercial and cost management	£366,606		Cost management team - Thames Water
	Estimating/Scheme Development	£172,127		Project capex/opex estimating - Thames Water
	Governance & reporting	£239,025		Gate 3 deliverables assurance
	Information management	£33,564		Digital project management
	PMO support	£470,945		Thames Water portfolio team
	Programming & scheduling	£299,109		Programme management team - Thames Water
	Project controls	£234,563		Project control teams - Thames Water
	Project Manager	£471,238		Project and Programme Manager for Teddington DRA
	Project office	£137,414		Rent for Project office
	Project production management	£31,197		Document production management for deliverables through Gate 3
	Risk management	£119,201		Risk management team - Thames Water
	SRO sponsor	£70,239		Sponsor input to Teddington DRA
	TW overheads	£282,830		Company overheads for contracted services under WBS
	Sub-total	£3,043,364	14%	
02 Feasibility Assessment and Concept Design	Basis of Design through Gate 3	£1,198,813		Development of design of Teddington DRA through Thames Water technical governance gates. Work has included: - £434,020 on investigating design options, sites, technologies - £103,989 on development of a construction methodology - £179,033 on development of operational protocols - £330,222 on investigation of tunnel construction, methods and confirmation of revised design for Gate 3 - £151,549 on engineering drawings, reports
	Engineering leadership & Principal Designer and technical engagement	£393,895		Engineering lead consultant managing workstream, supporting deliverables. Includes Project Designer and compliance with Construction Design and Management (CDM) Regulations
	Engineering studies	£213,511		Engineering modelling, process design, transport modelling and cost estimating
	Engineering/Scheme Development and reporting	£573,620		Teddington scheme design refinement which includes: - £457,555 for engineering consultants to develop and update the concept design - £116,065 for Thames Water engineering team to assure design and progress through stage gate approval
	Gate 3 deliverables / mid gate checkpoints	£56,642		Engineering support in the production of Gate 3 material
	Ground Investigations Supervision	£214,499		Principal Designer supervision and management role of GI works
	HSW Manager	£54,440		H&S manager
	Information Management	£237,249		Provision of digital platforms, GIS and production of figures, mapbooks etc through Gate 3
	Project Development Manager	£293,754		Lead Thames Water engineer
	SRO Sponsor Requirements	£180,434		Thames Water sponsor input to Teddington DRA
	TW overheads	£346,107		Company overheads for contracted services under WBS
	Sub-total	£3,762,965	18%	
03 Option benefits development and appraisal		£0		
	Sub-total	£0	0%	



RAPID WBS	Activity	Expenditure	% of total	Description of activity
04 Environmental Assessment	EIA and Process Modelling	£496,033		EIA modelling covering hydrodynamics, temperature and water quality modelling activities through Gate 3 to provide evidence-base for on-going impact assessment
	EIA scoping and coordination	£470,771		Production of EIA scoping report for Teddington DRA
	Environment Manager	£150,257		Environment lead for Gate 3
	Environmental Assessment and Mitigation	£655,281		EIA and mitigation development with scope influence by NAU - £367,000 covers modelling, assessment and reporting for priority actions - £288,281 covers investigations, on-going assessment and wider development of mitigation not linked to PAs
	Environmental Engagement	£313,714		Environmental engagement with regulators and stakeholders through Gate 3
	Environmental leadership	£187,514		Environmental coordination and leadership through Gate 3
	Gate 3 deliverables / mid gate checkpoints	£153,289		Environmental input to Gate 3
	Other Assessments and Licences	£296,923		Development of discharge licence pre-application
	PEIR production	£188,539		Initial production of preliminary environmental impact report for Stat Con in Gate 4
	Regulator input	£386,071		Regulator costs for Gate 3
	TW overheads	£337,061		Company overheads for contracted services under WBS
	Sub-total	£3,635,453	17%	
	05 Data Collection, Sampling, and Pilot Trials	Aquatic surveys	£383,866	
Ground Investigations		£802,279		Ground Investigations at for Teddington c.£ 60k per borehole with 13 of 20 locations completed by end of November 2024.
Pilot trials		£969,665		Tertiary treatment pilot trials at Mogden STW - £463,292 covers site setup - £320,334 covers water quality lab analysis - £186,039 covers staffing and sampling to end of November 2024
Principal contractor		£295,790		Appointment of a Principal Contractor for GI works and pilot trials
Smelt surveys 2023		£225,597		Smelt surveys 2023 as agreed with NAU
Smelt surveys 2024		£308,954		Smelt surveys 2024 as agreed with NAU, survey includes for increased eDNA sampling
Survey Management		£125,104		Management of all field work
Terrestrial surveys		£109,825		Land based surveys, including bat, badger, reptile and bird surveys
WQ surveys 2023		£656,883		Water quality sampling 2023 covering fluvial Thames, Lee valley reservoirs and Tideway. Methods, sites and determinands agreed with NAU and DWI.
WQ surveys 2024		£765,619		Water quality sampling 2024 covering fluvial Thames, Lee valley reservoirs and Tideway. Methods, sites and determinands agreed with NAU and DWI. Increase in expenditure the result of additional determinands monitoring in 2024 and the addition of algae sampling.
TW overheads		£486,833		Company overheads for contracted services under WBS
Sub-total		£5,130,415	24%	
06 Procurement Strategy	Commercial & Contract Management	£449,828		Management and leadership of all procurement and commercial works through Gate 3 for Teddington DRA
	Estimating/Scheme Development	£34,300		Commercial support for procurement
	Scheme design and build procurement management	£741,926		Thames Water procurement team leading on the implementation of the procurement strategy which has included: -£287,000 for market testing and providing feedback -£186,997 to implement the commercial strategy



RAPID WBS	Activity	Expenditure	% of total	Description of activity
				- £267,929 for the implementation of the procurement strategy
	Gate 3 and TP procurement activities	£332,740		Thames Water procurement of services for Gate 3 and the new TP from Gate 4
	Procurement Strategy	£211,465		Development of a commercial and procurement strategy
	Supply Chain Management	£120,814		Management of supply chain
	TW overheads	£193,292		Company overheads for contracted services under WBS
	Sub-total	£2,084,365	10%	
07 Planning Strategy	Consents Management	£102,826		Management of all consents work for Teddington DRA
	Land referencing	£299,468		Land referencing activities for Teddington in 2023 prior to non-statutory consultation and in 2024 prior to engagement events
	LPA fees	£191,098		Local planning authorities fees for engagement with the Project team
	Planning Deliverables	£439,579		Production of deliverables through Gate 3 including for Section 35, EIA scoping review and Gate 3 appendices
	Planning engagement	£239,229		Planning engagement activity with statutory consultee and stakeholders through 2023 and 2024
	Planning Leadership	£92,697		Planning lead
	TW overheads	£139,517		Company overheads for contracted services under WBS
	Sub-total	£1,504,413	7%	
08 Stakeholder Engagement	Consents Management	£95,310		Management of all stakeholder work for Teddington DRA including consents and education works
	Engagement – non-statutory events	£246,311		External fees to hold consultation events in 2023 and 2024
	Engagement Consultations	£436,887		Production of material and attendance at non-statutory consultation in autumn 2023
	Information Management	£336,943		Production of material and attendance at information events in autumn 2023
	Land Management	£131,700		Land management and liaison with persons potentially affected by the Project
	Public Liaison	£120,763		On-going public engagement through 2023 and 2024 by Thames Water team. Includes production of engagement material such as the Teddington DRA newsletter
	Regulations management	£136,046		Regulations support for Teddington DRA through 2023 and 2024
	Stakeholder engagement 2023/24	£173,580		Technical engagement through 2023/24 including public communications
	TW overheads	£171,745		Company overheads for contracted services under WBS
	Sub-total	£1,849,285	9%	
09 Legal	Legal Services	£443,877		Legal advice on various issues and policies including legal review of all published documentation
	TW overheads	£45,414		Company overheads for contracted services under WBS
	Sub-total	£489,291	2%	
10 Other		£0		
	Sub-total	£0	0%	
GRAND TOTAL		£21,499,551		



*Table 3.4. Gate 3 costs for Beckton Water Recycling Scheme calculated on a 2017/18 price base*

RAPID WBS	Total WBS cost estimate (17/18 cost base)
Programme and Project Management	£118,221
Feasibility assessment and concept design	£256,961
Options benefit development and appraisal	£0
Environmental assessment	£457,741
Data collection, sampling and pilot trials	£38,912
Procurement	£57,255
Planning	£4,409
Stakeholder engagement	£57,131
Legal	£15,127
<b>Total</b>	<b>£1,005,756</b>

*Table 3.5. Gate 3 costs for Mogden Water Recycling Scheme calculated on a 2017/18 price base*

RAPID WBS	Total WBS cost estimate (17/18 cost base)
Programme and Project Management	£0
Feasibility assessment and concept design	£33,733
Options benefit development and appraisal	£0
Environmental assessment	£61,166
Data collection, sampling and pilot trials	£0
Procurement	£0
Planning	£0
Stakeholder engagement	£0
Legal	£0
<b>Total</b>	<b>£94,898</b>



## 3.2 Cost breakdown

3.2.1 We have provided below a further explanation of the expenditure per WBS.

### Project and Programme Management WBS

3.2.2 The WBS captures the costs for the SRO project delivery team consisting of project managers, consultant and client project controls team, senior Thames Water managers, and technical advisors to provide both a strategic and tactical oversight of all procurement, work packages and deliverables.

3.2.3 The project managers have been responsible for the management of all work packages to ensure the overall Gate 3 requirements were delivered. Furthermore, the role of the project managers for Gate 3 has included additional input (compared to for example standard capital delivery project management) via leading stakeholder engagement activities, providing technical overview, authoring key documents through Gate 3 and the pre-application planning process and undertaking key governance and assurance roles.

3.2.4 Costs incurred under this WBS include for:

- The development of programme controls capability for both Portfolio and Project level including a SRO programme controls handbook and associated discipline management plans.
- Development of a Major Project operating model with appropriate organisational structure with functional accountabilities and clear Portfolio and Project roles and responsibilities.
- Governance & assurance of all Project deliverables aligned to RAPID and planning guidance. Portfolio team providing assurance of the project level deliverables.
- Risk management covering design, environmental, external, planning, procurement and stakeholder aspects. Management includes feedback to Project estimating and compiling risks for reporting to Thames Water board and RAPID.
- Information management covering Project digital platforms and licencing.
- Thames Water senior leadership and internal sponsor support of the SRO through Gate 3 including key stakeholder engagement on project and programme related issues.
- Reporting Project and Portfolio performance and associated change management.
- Thames Water overhead expense on contracting services which covers wider business support practices and IT.



## Feasibility assessment and concept design WBS

- 3.2.5 The feasibility assessment and concept design WBS captures all engineering activities associated with undertaking the feasibility assessment and development of the design for schemes. This includes for:
- Engineering consultants to update configuration/sub-option solution designs.
  - Investigations into design alternatives and options.
  - Develop the Basis of Design for the preferred solution including the Concept Design and costing for pre-application planning engagement and initial procurement activities.
  - Development of design principles and design vision.
  - Update costing and estimating of schemes supported by benchmarking evidence.
  - Development of the construction and operational philosophy for schemes.
  - Development of drinking water safety plans.
  - Development of scheme delivery programmes.
  - The evaluation of construction sites and conveyance corridors and site options.
  - Analysis of scheme carbon values.

## Environmental Assessment WBS

- 3.2.6 This WBS consists of two key components; the work led by our environmental consultants in the development of assessments and reporting; and the support and challenge provided by the National Appraisal Unit (NAU), Environment Agency (EA) and National England (NE).
- 3.2.7 Internal costs within this WBS include for:
- Technical engagement with key stakeholders to share assessments and address priority actions.
  - Development of environmental design mitigation.
  - Environmental modelling mainly focussed on aquatic modelling for the River Thames and Thames Tideway.
  - Environmental assessments to support the delivery of the Environmental Impact Assessment scoping opinion.
  - Updated regulatory assessments to include Habitats Regulation Assessment and Water Framework Assessments.
  - Initial environmental, social and economic valuations (or metric benefits) consistent with principles in the National Planning Statement and Water Resources Planning Guidelines.



- 3.2.8 The ACWG agreed a funding proposal for the NAU through Gate 3 with costs allocated per Water Company and then per SRO. Additional costs for specialist area staff within the EA and NE input are in addition to the NAU fixed cost.

### Data collection, sampling and pilot trials WBS

- 3.2.9 This WBS consists of costs for all field work activities undertaken through Gate 3. This involved both aquatic and land-based environmental surveys and was undertaken following established methodologies and in consultation with the NAU, EA, NE and, in the case of the water quality sampling, in consultation with the Drinking Water Inspectorate (DWI).
- 3.2.10 This WBS also includes the commissioning and implementation of a pilot plant at Mogden, which was an activity agreed with RAPID through Gate 3. The pilot plant was commissioned in July 2024 and will run through 2025. Costs captured to date include up to end of November 2024.
- 3.2.11 Costs are also captured for an extensive ground investigation programme covering boreholes at Mogden Sewage Treatment Works (STW), along the conveyance route and around the River Thames just upstream of Teddington Weir. A total of 13 boreholes are expected to be completed by the end of November 2024 with the remaining seven due through Q1 2025 and within Gate 4.

### Planning WBS

- 3.2.12 This WBS consists of costs for planning works through 2023 and 2024. This has included preparing a Section 35 application, preparing for a non-statutory consultation, liaising with the Planning Inspectorate and reviewing the EIA scoping report.
- 3.2.13 Costs have also been included for the three host local planning authorities in line with fees agreed through draft planning performance agreements.

### Procurement WBS

- 3.2.14 This WBS consists of costs to develop and implement the commercial and procurement strategy developed since Gate 2. This has included undertaking market engagement and preparing the commercial arrangement for the future design and build procurement through 2025 and 2026.



## Stakeholder engagement WBS

- 3.2.15 This WBS consists of costs for all the engagement work associated with our non-statutory consultation in autumn 2023 and information events through autumn 2024. Our engagement has been multifaceted and included a range of media outlets, publications, newsletters and face-to-face meetings with a range of stakeholders.
- 3.2.16 Additional costs have also been included for dedicated customer engagement in relation to water recycling and specifically the Teddington DRA Project.



## 4 Gate 4 forecast

- 4.1.1 We intend for Teddington DRA to progress through to Gate 4 following the submission of a development consent application in summer 2026. We expect the scope of work to be a continuation of activities progressed through Gate 3 and to include further engineering design, planning, lands, consultation and engagement, procurement activities and environmental assessment aligned to the requirements of the Planning Act 2008 and contracting a Design and Build contractor.
- 4.1.2 A total of £7m underspend from Gate 1, 2 and 3 is proposed to be carried over to Gate 4 making an available allowance of £32.2m (17/18 price base) for Teddington DRA progression. The forecast expenditure through Gate 4 is estimated as £31.4m (17/18 price base) (see Table 4.1).
- 4.1.3 We plan for Beckton and Mogden Water Recycling schemes (the alternative schemes) to progress as planned to the end of AMP7 (March 2025) with activities agreed through RAPID checkpoints. The forecast expenditure from December 2024 to end of AMP7 for Beckton and Mogden is estimated at £1.5m (17/18 prices base). At the end of AMP7 we recommend a checkpoint for the alternative schemes where work since Gate 2 is summarised and a recommendation is made on which alternative scheme is the preferred and should be progressed into AMP8 as the single alternative to Teddington DRA.
- 4.1.4 Once in AMP 8 we recommend annual checkpoints (April each year) for the preferred alternative scheme to set out and agree development activities. Key activities proposed for FY25/26 (AMP 8 Year1) would be further scheme design refinement, options appraisals, scheme engagement and environmental investigations.
- 4.1.5 The estimated expenditure for an alternative recycling scheme through AMP 8 Year 1 is £14.5m based on the progression of ground investigation works, the implementation of a pilot plant, continuation of environmental, engineering, procurement, stakeholder and planning activities and the project and programme management of works.

*Table 4.1. Estimated expenditure for Gate 4 for Teddington Direct River Abstraction SRO*

WBS	Total WBS cost estimate (17/18 cost base)
Programme and Project Management	£5,500,000
Feasibility assessment and concept design	£4,000,000
Options benefit development and appraisal	£50,000
Environmental assessment	£6,000,000
Data collection, sampling and pilot trials	£7,000,000



WBS	Total WBS cost estimate (17/18 cost base)
Procurement strategy	£3,000,000
Planning strategy	£2,000,000
Stakeholder engagement	£2,500,000
Legal	£850,000
Other (early Gate 4 spend September 24 to November 24)	£528,000
<b>Total</b>	<b>£31,428,000</b>

Table 4.2. Summary of future expenditure post Gate 3 submission

Post Gate 3 scheme progression	Total cost estimate (17/18 cost base)
Beckton and Mogden AMP7 development (Dec24 – March 25)	£1.5m
Teddington DRA – Gate 4 (Dec24 – Sept 26)	£31.4m
Preferred alternative water recycling scheme (either Beckton or Mogden) AMP 8 Year 1 (April 2025 – March 2026)	£14.5m

## 4.2 Gate 4 forecast assumptions and exclusions

4.2.1 Our forecasts include a number of key high-level assumptions including:

- Forecasts are based on the activities and timings that deliver on the outputs of Thames Water’s published WRMP24. Any changes to model outputs or plans will change the Gate 4 activities and forecasts.
- Forecasts are time and output bound and assume Gate 4 for Teddington DRA is autumn 2026 and an annual mid-checkpoint an alternative recycling scheme commencing in April 2025. Costs for the alternative recycling scheme are only included for AMP 8 Year 1 (to March 2026)
- Forecasts are generated in the absence of formal quotes and are based on experience of progressing schemes through planning, scheme development and procurement.
- Forecasts assume issues and concerns arising from stakeholders can be addressed and mitigated within the current programme and list of activities.
- The Teddington DRA scheme encompasses three key components; a tertiary treatment plant at Mogden STW; a conveyance from Mogden to a discharge in the River Thames at Teddington; and the abstraction of water upstream and discharge into the existing Thames Lee Tunnel (TLT).
- Costed risk has been included in estimates based on the risks identified through delivery of Gate 3.



4.2.2 Key exclusions to our forecasts at Gate 4 include:

- Land and property costs as stated in the Gate 3 guidance<sup>2</sup>.
- Any further ground site investigation works beyond the current works planned to finish in Q1 2025.
- Progressing separate special parliamentary procedures for open space land.
- Delays to the DCO application date due to key stakeholders not engaging or delaying responses beyond reasonable time frames.
- Internal and external costs associated with DCO examination which is scheduled beyond Gate 4 submission date.
- Extending the pilot plant works beyond 2025 and 60 sampling occasions.
- Legal or landowner fees required to permit access or undertake intrusive works on private land or commercial sites.
- Separate planning permission costs for any enabling works associated with London Water Recycling SRO.
- External stakeholder costs other than those agreed with RAPID for NAU, EA NE and reasonable costs for Planning Performance Agreements with local planning authorities and Planning Inspectorate under recent planning reforms.
- Corporate communications and public relations work.
- Business as usual activities.



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<sup>1</sup> PR19-final-determinations-Strategic-regional-water-resource-solutions-appendix.pdf (ofwat.gov.uk)

<sup>2</sup> January-2024-Gate-Three-Guidance-Version-3.pdf (ofwat.gov.uk)

<sup>3</sup> Strategic regional water resource solutions: Standard gate one final decision for London Effluent Reuse (thameswater.co.uk)

<sup>4</sup> lwr-gate-2-final-decisions.pdf (thameswater.co.uk)

<sup>5</sup> Microsoft Word - Annex F - Scheme Delivery Plan at Gate 2 (thameswater.co.uk)

<sup>6</sup> Annex-H---Efficiency-of-Gate-2-Expenditure.pdf (thameswater.co.uk)

<sup>7</sup> In 17/18 prices