



Water Companies' Capital Project Costs.

Introduction.

This report concerns the excessively high costs attributed to capital projects by the privatised water companies of England and Wales and the apparently poor value for money that is the result of a hands off, we say negligent, approach taken by Ofwat; a strategy that appears to be applied across every aspect of financial oversight by the regulator.

We focus on Thames Water (TW) which is Windrush Against Sewage Pollution (WASP)'s regional water company, to examine the predictable failure of Ofwat's monitoring of value for money in delivering capital projects by 'benchmarking' across the sector, comparing one company with another. We draw on three examples, employing other benchmarking comparisons including Denmark and the USA, as well as other building and engineering products and costs.

How does a mere upgrade to an illegally operating sewage treatment works (STW) for around 260K people, cost more than 725 brand new combine harvesters, 8,048 brand new Range Rovers or more to build than 1,549 brand new three bed houses?

In addition, we have included examples from across the water sector that show that poor value for money is not unique to Thames Water and suggest that the phenomenon may actually be a consequence of Ofwat's benchmarking creating a cartel of organisations, cooperating and communicating, as they do, through Water UK. This may also impact on the publicly owned Scottish Water as will become clear.

The interim aim of the report is to encourage Ofwat to investigate its own failure and take a swift retrospective as well as forward looking grip of a situation that has undoubtedly short changed the customer, failed to protect the environment and left the nation with a black hole in its infrastructure that is so damaging that it is now acting as a serious block to development, sustainable or otherwise.

The primary aim is to bring honesty, value for money and excellence into an industry that is failing in all of

2024 – new STW connected and old plant removed



those aspects, forcing its staff to accept appalling working conditions and stress that are being normalised, as revealed in the recent BBC 2 documentaries 'Inside the Crisis'. An important part of achieving this is to develop an empowered, professionally inquisitive and effective regulator; one that would have made the following piece of work unnecessary.

Context.

In 2019 WASP began communicating with Ofwat regarding water industry conduct, regulation and funding; where the money comes from, where it goes and what it buys. The following report is based on information derived from that correspondence, some obtained via freedom of Information requests, as well as conversations with Ofwat staff and executives. References to sources of information have been provided but not the messages and FOI responses which are available if required.

WASP and others have established that the only source of funding of water companies, as in other European countries, is from customers' bills. The remarkable loan burden, accumulated by the English companies to boost dividend payments, that are now the cause of a considerable part of the latest bill increases, has also been funded by billpayers who have received no benefit from those loans.

We were surprised to learn in 2020 that the economic regulator, Ofwat, has little or no knowledge of where or on what, billpayers' money is spent. We were also alarmed to discover that total and capital expenditure figures are regarded as satisfactorily monitored by Ofwat as long as the regulator sees some 'positive outcomes' from the companies. Ofwat cannot tell if, where, or when those outcomes were really achieved or if they actually exist yet it still uses them to fall back on, having made no enquiries or measures of its own. Ofwat relies on the Environment Agency (EA)'s demonstrably dubious interpretations of data, claimed to show improvements to phosphate, nitrate and ammonia levels in rivers and emerging from Sewage Treatment Works (STW)s at some stage, in some locations as proof that capital projects have been effectively delivered even though this does no such thing.

More recently we have established that although it has been claimed by the water industry, regulators and successive governments that over £200 billion has been invested by shareholders since privatisation, all of the investment in capital projects has been made using bill payers' money. When challenged, Ofwat was unable to identify any investment in the form of shareholder equity although it still maintains that it exists.

An important feature of regulation, notably affecting the valuation and 'impairment' assessment of water company assets that should take place, is that funding to return illegally operating assets to a lawful state must, according to Ofwat, be provided by shareholders. Whilst Ofwat insists that this is done, the regulator was unable to provide evidence that this has been achieved in the past.

In the specific example of Thames Water, a study conducted by former Audit Partner, Stanley Root, showed that there has never been a year since privatisation when shareholders injected more equity than they took outⁱ. Professor David Hallⁱⁱ demonstrated similar findings across the entire water sector.

All of the above merit further investigation and explanation but in this instance, serve only to provide the context in which the following findings exist in respect of what 'investment' means and whose money is being spent, diverted or wasted, as we will now illustrate, unaccountably.

Value for money.

The statutory duty for Ofwat to pay regard to value for customers' money spent by water companies is identified in the Water Industry Act 1991:

The Secretary of State or, as the case may be, the Authority shall exercise and perform the powers and duties mentioned in subsection (1) above in the manner which he or it considers is best calculated— (a) to further the consumer objective;

(2B) The consumer objective mentioned in subsection (2A) (a) above is to protect the interests of consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the provision of water and sewerage services.

Section 3(a) to promote economy and efficiency on the part of companies holding an appointment under Chapter 1 of Part 2 of this Act in the carrying out of the functions of a relevant undertaker;

We have discussed capital project funding on a number of occasions with Ofwat staff, drawing attention to the obviously excessively high costs attributed to them. We became interested in this issue, not just because costs were high, they were ridiculously, eye wateringly, and inexplicably high but they were just accepted by everyone concerned. We learned that Ofwat validates the costs provided by water companies through 'benchmarking' across the sector and although individual staff members have expressed concerns that the figures appear excessive, they have been unable to challenge them because they have not appeared exceptional under Ofwat's methodology. This concern is mirrored by water company staff with whom we have discussed the issue.

However, despite raising the issue at a senior level in Ofwat, we have seen no evidence that the regulator has undertaken any effective steps to assess the value for money being provided to customers or even the credibility of the figures presented. We hope, therefore, in this report, to provide some examples and information that Ofwat may find compelling or alarming enough to justify looking further into this situation, or for the Secretary of State, ultimately responsible for this failure, to order an investigation.

WASP Benchmarking and cost validation.

While we will focus primarily on Thames Water as our local water utility, about which we have detailed information and knowledge of many sewage works, we will also add examples concerning United Utilities, Scottish Water and a national proposal that indicate this is not a localised issue, showing why benchmarking between companies is both inappropriate and ineffective.

Thames Water's website, cross checked against other company sources, shows a range of project costs attributed to repairs and upgrades. These are accessed via a link from the Storm Overflows Discharge Map published by the company.

<https://www.thameswater.co.uk/edm-map>

Before proceeding, we will set our first benchmark with an example from Denmark where the cost of living is on average 13% above that of the UKⁱⁱⁱ and the cost of water/sewerage was the highest in 23 European countries (2017 -19 data) but represented 1.41% of annual living expenses (2022)^{iv}.

As a response to the developing myth that English and Welsh Bills have been kept low and that has restricted water company investment, at that time the cost of UK water/sewerage services was 5th highest in Europe, marginally behind the exceptionally high performing (in sewage treatment terms) Switzerland.^v

We have employed other cost comparisons which appear later in this report.

Assens Sewage Treatment Works, Denmark.

WASP's first benchmarking device. In 2023 a new STW was commissioned to consolidate eight smaller sewage works into one, state of the art plant. Work was started in 2020 and completed in 2023 at the converted cost of £29M. It was designed to cater for a population equivalent of 100K with capacity to upgrade to 150K.

The works was visited by one of WASP's unpaid researchers who has family in Denmark and took the opportunity of a visit to take a tour and to report on this impressive project - Appendix A



This is Assens Sewage Treatment Works, Denmark -completed in 2023 to replace 8 other sewage works and treat sewage to a very high standard in one location.

It cost around £29M

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Thus we have an idea of what can be achieved with under £30M pounds in the hands of an organisation highly incentivised to deliver the best possible service, rather than to sacrifice good business practice to focus on cash extraction for shareholders.^{vi}

This is our benchmark – a brand new, state of the art sewage works for over 100,000 people.

Thames Water Project Costs

The below screenshot of a spreadsheet prepared by WASP shows the figures quoted on the TW website, captured on 9th May 2024 and 15th March 2025. The dates in red represent a delay from the original completion projection. The costs in red represent an increase and in green, a decrease.

We understand that these numbers are rounded either up or down, often to the nearest £million.

	A	B	C	D	E	F	G	H
		STW	Improvement date as of 09.05.2024	Budget as of 09.05.2024	Improvement date as of 15.03.05.2024	Budget as of 15.03.2025	SOLAR24 PE	Nature of work
1		Alton	2025	£5,000,000	2025	£10,000,000	37,062	Upgrade to SPS
2		Appleton	2024	£5,000,000	2024	£7,000,000	7,047	Increase to FFT from 34 l/s to 47.5 l/s
3		Ascot	2026	£11,000,000	2027	£11,000,000	33,042	Increase to FFT from 157 l/s to 220 l/s
4		Aylesbury	N/A	£15,000,000	2030	£15,000,000	131,184	Improve treatment of sludge
5		Beckton	2024	£185,000,000	2024	£185,000,000	4,309,084	Increase capacity to allow for population growth
6		Benson	2024	£9,000,000	2024	£9,000,000	8,493	Increase to FFT from 58.7 l/s to 74.9 l/s
7		Bentley	2025	£6,000,000	2027	£8,000,000	2,889	Increase storm tank capacity and quality of TE
8		Berkhamsted	2024	£25,000,000	2025	£25,000,000	25,602	Increase to FFT from 247 l/s to 316 l/s and improve quality of TE
9		Buntingford	2024	£12,000,000	2024	£21,000,000	7,749	Increase to FFT from 40 l/s to 48 l/s
10		Burstow	2024	£23,000,000	2025	£29,000,000	11,362	Higher Quality of TE
11		Chalgrove	2024	£1,000,000	complete	£1,000,000	3,640	Increase storm tank capacity
12		Chertsey	2024/2025	£15,000,000	summer 2025	£17,000,000	108,951	Increase storm tank capacity and ability to treat incoming volumes
13		Chesham	2024/2025	£20,000,000	2025	£20,000,000	36,367	Increase FFT to 353 l/s and improve quality of TE
14		Chinnor	2024	£10,000,000	2025	£14,000,000	9,198	Increase to FFT from 47 l/s to 73.8 l/s
15		Chipping Norton	2025	£5,000,000	2027	£5,000,000	9,528	Improve ability to treat volume
16		Chobham	2024	£12,000,000	2025	£19,000,000	12,874	Higher quality of TE and improve ability to treat volumes
17		Cholsey	2024	£5,000,000	2025	£5,000,000	21,071	Increase to FFT from 74 l/s to 105 l/s and increase storm tank volume
18		Cirencester	2024	£22,000,000	2025	£27,000,000	33,896	Increase to FFT from 269 l/s to 484 l/s and increase storm storage in LTAs
19		Crawley	2024	£34,000,000	2024	£34,000,000	169,349	Improve ability to treat volumes
20		Cricklade	2024	£5,000,000	2025	£6,000,000	4,401	Increase to FFT from 26 l/s to 30 l/s and increase storm tank volume
21		Dorchester	2023	£2,000,000	2023	£2,000,000	2,180	New screening and storm tank (seen by WASP)
22		Dorking	2025/2026	£14,000,000	2025/2030	£16,000,000	28,105	Increase volume of storm tanks (2025) and ability to treat incoming flow
23		East Grafton	2024	£400,000	2023	£400,000	400	Increase volume of storm tanks
24		East Shefford	2025	£10,000,000	2025	£12,000,000	6,258	Improve ability to treat volumes of incoming sewage
25		Finstock	2024	£1,000,000	2025	£1,000,000	3,643	Higher quality of TE and increase storm tank capacity
26		Fyfeild (Wilts)	2023	£2,000,000	2023	£2,000,000	7,981	Increase in treatment capacity and higher quality TE (no change to FT)
27		Guildford	2026	£160,000,000	2026	£160,000,000	106,321	A brand new STW (Good to make comparison with Denmark).
28		Hanwell	2024	£1,000,000	2025	£1,000,000	289	Increase volume of storm tanks
29		Hook Norton	2025	£11,000,000	2025	£8,000,000	2,308	Higher quality of TE and increase storm tank capacity
30		Islip	2023	£300,000	2023	£300,000	863	Increase volume of storm tanks
31		Kingston Bagpuize	2027	£31,000,000	2027	£35,000,000	4,775	Higher quality of TE and increase storm tank capacity
32		Middle Barton	2025	£1,000,000	2025	£1,000,000	1,579	Increase volume of storm tanks
33		Oxford	N/A	£130,000,000	2031	£435,000,000	237,963	Significant increase in capacity, higher quality TE and storm tank capacity
34		Pangbourne	2026	£3,000,000	2026	£3,000,000	11,144	Improve ability to treat volumes of incoming sewage
35		Shabbington	2024	£1,000,000	complete	£1,000,000	531	Increase volume of storm tanks
36		Stanford in the Vale	2025	£3,000,000	2025	£4,000,000	2,914	Increase volume of storm tanks
37		Stone	2025	£1,000,000	2025	£1,000,000	3,449	Increase volume of storm tanks
38		White Roding	2025	£2,000,000	2025	£2,000,000	248	Increase volume of storm tanks
39		Willingale	2023	£2,000,000	2023	£2,000,000	773	Increase volume of storm tanks
40		Witney	2024	£17,000,000	2025	£17,000,000	48,983	Increase to FFT from 240 l/s to 399 l/s
41		Worminghall	2024	£7,000,000	2025	£7,000,000	3,772	Higher Quality of TE



Referring to the numbered projects above, from our experience of visiting many STWs over 8 years and gaining a broad understanding of the engineering processes and civil engineering of STWs, almost every example above appears to involve grossly excessive and inexplicable costs.

We will extract three examples about which we have detailed knowledge:

Witney STW - number 41 on the list.

Extract from TW website

Witney STW

Witney STW is being upgraded at a cost of more than £17 million. This work will provide a major increase in treatment capacity, from 240 to 399 litres per second. This will reduce the need for untreated discharges in wet weather. This work is expected to complete in 2025.

We're also investigating the impact of groundwater on the sewer network in this area. This will help inform our long-term planning.

See our [groundwater impacted system management plan for Witney](#).

We expect this location to meet all government targets for storm overflows by 2040 - 2045. Find out how we're [investing in river health](#).

Screenshot 2140 25th March 2025.

This is the largest STW on the River Windrush, serving a fast growing population, currently around 49K population equivalent (PE) – a water industry term comprising loading from people, industrial effluent and other factors.

It has an appalling untreated sewage discharge record which, the company admits, is the result of excessive groundwater infiltration. This is not a legal reason to dump untreated sewage and results in what are now commonly known as 'dry spills'. This has been known to be a major problem in the Witney sewerage network since before 2014. It results in very long periods of pollution, for weeks and even months with some small breaks, but has been ignored by the company and allowed to persist in this state by the Environment Agency and Ofwat.

In 2024 Witney STW dumped untreated sewage for 2800 hours^{vii} into the Colwell Brook, a short River Windrush Tributary. This regularly results in the loss (we believe, principally, migration - effectively escape, rather than death) of all fish life from the brook to the main river and the creation of extensive coatings of sewage fungus^{viii} to the entire 1.6km of brook leading to the main river.



**24th November 2024 –
Colwell Brook , Witney,
showing sewage fungus.**

WASP has engaged in detailed and helpful conversations with Thames Water staff to director level in respect of Witney STW and network over more than four years and we are aware of the outline of the intended works currently being conducted there. The company has chosen to tackle the problem by increasing capacity at the STW rather than dealing with the cause of high demand. However, it is a significant and welcome, if long overdue upgrade, increasing treatment capacity from 240 to 399 litres of treated effluent per second.

In brief, the project involves the construction of one extra primary settlement tank, two extra final settlement tanks with associated groundwork, filtering, plumbing, electrical work and metering. The tanks are the biggest feature in this capacity upgrade and the below image shows the site prior to upgrade and the work in progress.

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**Witney STW before upgrade -
showing where the three new tanks
are being built. Google Earth image.**



**The pair of final settlement tanks
and ancillary items under
construction - 4 April 2025**



**The primary settlement tank nearing
completion - 4 April 2025**

Obtaining pricing information for components is challenging as all of the companies and consultants we have approached rely upon the water industry for business and are reluctant to engage in public disclosure that may damage relationships. However, we have established that such concrete tanks cost in the region of £130K. That figure has been cross checked with water industry staff.

Whilst we accept there will be significant costs associated with installing the three main structures and ancillary equipment, it does appear important that Ofwat should have a very clear understanding of how the installation of £390K of principal hardware, (and we can be generous and add on £1M or even £2M of additional concrete, plastic pipes, filters and electrical equipment) can conceivably reach a total of £17M.

Our second example is Oxford STW, number 34 on the list.

Oxford STW

We're finalising plans for a major upgrade at Oxford STW, costing more than £435m. This will provide a significant increase in treatment capacity, larger storm tanks and a higher quality of treated effluent going to the river. We plan to complete this work by winter 2031.

We're also investigating the impact of groundwater on the sewer network in this area. This will help inform our long-term planning.

See our [groundwater impacted system management plan for Oxford](#).

We expect this location to meet all government targets for storm overflows by 2035 - 2040. Find out how we're [investing in river health](#).

Screenshot 0910 26 March 2025

Oxford STW's upgrade is a highly contentious project because the STW has been operating illegally since 2017 (Environment Agency records) and has an appalling untreated discharge record. The capital cost of its refurbishment was previously stated to be around £40M for the current 267K PE target by a Thames Water Director in a letter to the Cherwell and Ray Partnership. dated 26 November 2021. Quote follows:

"Over the next few years, Oxford STW will be upgraded with an investment of over £40m. We will be upgrading the flow capacity and phosphorous consent from the site whilst improving the sludge treatment process and refurbishment of existing assets to maintain compliance. The site currently treats a population

equivalent of circa 225,000 and will be upgraded to meet a 2031 design horizon which equates to roughly 267,000.”

This figure rose inexplicably through the five-year delivery period, Asset Management Plan (AMP)7 and was variously quoted at £130M, over £240M and then over £300M before finally arriving at the current £435M figure which may well increase due to current ‘urgency’ being forced to allow additional housing to be built. We understand Ofwat is not aware of the latest figure.

WASP was party to an explanation by Thames Water of the major upgrade plan to return Oxford STW to legality and to give it capacity for the additional housing being loaded to it. Its dramatic and sustained illegal, yet un-penalised and therefore profitable, operation, along with Thames Water’s failure to deliver the required and funded upgrade in AMP7 led the Environment Agency to make a highly unusual and robust objection to a planning application for 1450 houses^{ix}. The revised target for completion of the latest STW upgrade project was ‘winter 2031’. However, this obstruction to government housing targets has resulted in a promise to take more urgent action to arrive at a temporary solution of, as yet, undeclared cost.

Given the huge increase to £435M, it would appear reasonable to look further afield for other evidence of the price of building a new sewage works or a major upgrade.

The ‘state of the art’ Assens example from Denmark, remains valid with a cost of £29M attached to sewage works with a capacity to reach 150KPE and the obvious implication that it would not require anywhere near double the expenditure to double the capacity. Fifteen of the Assens STWs could be built for the price of the Oxford upgrade for an STW from 238K to 267K people (29k PE or £15k per extra person equivalent).

Another source of costing can be obtained from the USA ^x with a current price calculator for a large Urban Wastewater Treatment Plant. This is described for a metropolitan area with a population of 1 million, approximately, four times that of Oxford.

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The quote is outlined as; **Capital Costs - Land: \$5 million for 50 acres.**

Construction: \$200 million for extensive infrastructure. Equipment: \$100 million for cutting-edge membrane bioreactor systems. Engineering and Design: \$20 million. Total CAPEX: \$325 million = £248M

Benchmarking engineering.

In order to consider the technical and more sophisticated engineering costs and benchmarking against other sectors, we have chosen items of sophisticated and robust hardware against which to pitch the technical equipment involved in sewage treatment; pumps, screens, filters and such for the Oxford sewage works upgrade and our other examples.

A modern Combine Harvester is priced at around £600K

For the price of the Oxford upgrade 725 of these machines could be purchased, and for the installation of three tanks and ancillary equipment at Witney, 28 combine harvesters could be bought.



**The New Hollander CR9.90
Combine Harvester.
Robust and sophisticated
engineering, built to
endure adverse conditions.**

**The costs applied to
upgrade Oxford STW would
buy 725 of these machines.**

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In terms of the civil engineering and comparing value for money with conventional building and using estimates to build a modern 3 bedroom house, without the economies of scale of a housebuilding company, a mid-benchmark estimate for the South West is £280,751^{xi}. At this value, the price set for Oxford STW's upgrade would build 1549 houses and for Witney STW's upgrade with three extra tanks and some technical equipment and plumbing, the figure is 60 x 3 bed houses, approximately what is on view in this image of a new housing estate in Oxfordshire.



Benchmarking Commercial viability.

Our final benchmarking observation relates to the claim that upgrading Kingston Bagpuize STW will cost £35M

Kingston Bagpuize STW

Kingston Bagpuize STW is being upgraded at a cost of over £35 million. This project will increase the capacity of the storm tanks, reducing the need for untreated sewage discharges during storm conditions. We'll be ensuring a higher quality of treated effluent going to the river. The schemes will be completing in 2027.

We expect this location to meet all government targets for storm overflows by 2040 - 2045. Find out how we're [investing in river health](#).

Screenshot 1132 26.3.2025

This very small STW currently serves a PE of 5000, due to increase to 6400 by 2030. The proposal is to spend £35M increasing the size of the storm tanks and to improve effluent standards. This would be ridiculous, and we have established a

broader upgrade is intended, using activated sludge technology, but it will still only be for a population equivalent of 6400.

We therefore refer again to the USA website quote which provides a figure for a Small Municipal Wastewater Treatment Plant, including the purchase of land as we understand that TW (or rather the TW customers) will have to buy back land it previously sold in this case.

The USA estimate states;

To cater for a small town with a population of around 10,000 - Capital Costs: Land: \$200,000 for 5 acres. Construction: \$2.5 million for basic infrastructure. Equipment: \$1.5 million for conventional activated sludge technology. Engineering and Design: \$500,000. Total CAPEX: \$4.7 million = £3.65M.

However, Thames Water claims to be set to spend almost ten times that at £35M.

If we assume that the current average annual sewage component for a Thames Water bill, taken from its website ^{xii} is £195.73 for a 3 bed house, plus standing charge of £128.73 = £324.56 and an average habitation figure of 2.4 occupants per house, Kingstone Bagpuize will raise bills from 2,083 properties currently, rising to 2,666 by 2030. To repay £35M at the projected additional population billing rate of £865,276 (6400 x £324.56) would take 40 years and projecting the bill to £500PA would still take 26 years to pay.

The obvious question here is what company would regard this as an acceptable investment, even though the funding is not shareholders' money but customers'.

It is worth noting that £35M would also buy 58 combine harvesters, or on a more domestic scale 90 three bedroom houses each with two Range Rover plug in hybrid SUVs, parked outside.

The Scottish Water example referred to in the introduction in respect of it functioning within the Water UK trade body is included here because the cost of replacing the sewage works at Winchburgh was also £35M.

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It stands out against the other Water UK members as it was completed well in advance of an anticipated population increase where the big 9 privatised companies tend to act well after the need has been established.

In this example, a new technologically advanced 'Nereda' plant was built to serve a population soon to be increased to 16,000 PE apparently with the capacity to increase to 40,000 PE. It was also built alongside the old plant to allow uninterrupted service and an easier transfer to the new system—images below. Whilst notably better value than the Kingston Bagpuize example, it still does not compare well with the Danish project, completed around the same time.



2021-existing STW bottom right.

2023 - New STW under construction

2024 – Completed and old STW removed

National benchmarking.

This is Ofwat's chosen benchmarking device and one which unsurprisingly fails as the other English Water companies quote similarly high figures. If Thames Water's figures have not rung alarm bells at Ofwat, then it can only be because the other 9 companies price projects similarly. To cross check this, we have a selected example from one of many by one company in the North West, United Utilities and one in the east – Anglian Water.

United Utilities (UU)

This information has been provided by the Save Windermere campaign group and relates to work relating to a sewage outfall pipe in Lake Windermere.

1.5 Scheme costing

A cost summary assessment is shown in the table below as part of our Best Value Cost assessment.

Table 4: Cost summary assessment

		Applies to this scheme (y/n)	Quantity	Cost
Standard items	Below ground storage	Yes	13,000 cu.m	49,955,334
	Excavated volume	Yes	23,282 cu.m	incl in storage cost
	Standard Items (Pipework, Fencing, Landscaping, Kiosk, Flow meter, Outfall Structure etc)	Yes	Item	2,898,120
	Standard item total			52,353,453
	Standard items unit cost			3,272
Scheme Specific items	Dewatering	Yes		2,336,937
	Rock excavation	Yes	21,823 cu.m	6,056,556
	Extend Outfall into Windermere	Yes	150 m	12,820,528
	AMP8 Enhancement Opex	No		0
	Total			77,387,200

Therefore, it is clear that the efficient best value solution costs are not fully reflected in Ofwat's cost assessment due to the following key factors:

In its 'Best Value Cost assessment' document the most obvious example of high cost for UU is the 150M extension to the outfall into Windermere stated to be £12,820,528 which results in a cost of the pipe presumably to be laid on the bed of the lake, with some support and fixings in a depth of water of less than 20 M. This results in a cost of £85,470 per metre, which WASP believes to be excessive for no other reason than that it seems unreasonable that for such an amount of money, at the high benchmark figure for Northern England, £295,204, forty-three 3 bed houses could be built for the price of putting a 150M sewage pipe into a lake.

Anglian Water

In a widely reported controversial story, Anglian Water has received approval to spend £400M replacing Cambridge STW at a new site which will also attract a government grant of £277M. This will release land at the existing site for housing and Anglian Water will benefit from the sale. There is a supposedly mandatory 50% of the profit return to the customer but establishing how that works will be another story.

It makes fittingly similar comparison to Oxford as Cambridge STW will also serve a PE of around 260K but this will be a brand new plant.

The entire sector.

To illustrate how price exaggeration appears to affect the entire sector, in January 2025 Water Minister Emma Hardy stated that fitting volume monitors to untreated sewage outfalls would cost £6Billion. Research by WASP's Prof Peter Hammond showed the true figure to be around £300M^{xiii}, Volume meters are already in place in many sewage works providing flow data and the cost of installation per site is estimated at a generous level by industry insiders at around £20K, not the £333K that the figures provided to Minister Hardy would imply.

Motive.

Why would Water companies spend, or claim to spend, such huge and apparently unlikely sums on largely upgrading, not even replacing, worn out assets, often long after such work is due? Are they really spending the money or are they gaming a system?

The gross exaggeration of costs has these important outcomes:

1. It increases the Regulatory Capital Value of the companies and this allows higher dividends to be issued.
2. It exaggerates the amount of money that has been spent on investment.
3. It allows massive margins for savings through 'efficiency' which Ofwat allows companies to harvest.



4. It amplifies the deterrent effect of 'cost' in cost benefit driven processes which have been a major blockage to improvements, for example in the Storm Overflow Assessment framework (SOAF). They have been exceptionally effective in averting expenditure in that respect.
5. Most importantly in the light of Thames Water's restructuring plan and Ofwat's assessment of the cost of ending privatisation, it over values the companies, positively influences gearing, and allows loans to be obtained against false asset values.

Conclusion.

Privatisation of water was supposed to bring a number of benefits that have not materialised and value for money is one of those. The remarkably high costs applied to capital projects may explain why the water industry and regulators talk about over £200Bn being invested in the companies' assets since privatisation but do not describe what that money delivered. It does seem remarkable that such a large sum, especially with so much being spent when building costs were lower, has led to such a very poor state in respect of the infrastructure.

If the situation described in this report has prevailed for many years, as we believe it has, the product of £200Bn investment may be embarrassingly small.

In respect of Thames Water, and this may apply to some or all of the other companies, it appears likely that at some stage, debts have been obtained against falsely inflated asset values and that process may be continuing (if the quoted figures have not been spent on the assets but on other factors or not at all).

Ofwat has failed in its statutory duties to serve and protect the customer and has relied on vague and almost certainly inaccurate claims of successful outcomes across the entire sector as a measure of value for money from each company. The regulator has seriously neglected its duties under Section 2 and 3 of the Water Industry Act by taking such a hands off, irrationally trusting approach to the regulation of profit focused businesses. The decision to do this and continue this strategy in the face of obvious evidence of failure must have been taken at Board level.



Oversight at government and parliamentary committee level has also failed to identify and address this issue.

The apparent excessive costs in an industry that has no competition driver to encourage service delivery but many incentives to cheat the system should have been closely supervised but it was not.

Specifically, in respect of Thames Water, the avoidance of Special Administration during this period has created a scenario where the effective transfer to new controlling interests has not been done with the benefit of a thorough and lengthy audit and review of true value balanced against the assessment of the 'impairment' of assets as required under the accounting rules, IAS36^{xiv}. This may have provided a highly exaggerated value of the company. We suggest that this makes the information in this report of urgent concern as the company asset value underpins Thames Water's entire £19Bn to be increased by £3Bn debt mountain. The same applies across the industry with less urgency

Thames Water avoided Special Administration, a process designed specifically to allow safe and thorough assessment of a complex situation before deciding what should happen to national infrastructure. Instead, it forced a hurried arrangement on the High Court that did not allow detailed examination of the true regulatory capital value (a questionable concept) or the true value of Thames Water for the incoming parties. In particular, the conduct and prices we have illustrated will, we believe, have grossly exaggerated increased value of its assets, in some cases by 10 or more times their true value.

Action

We believe that the evidence we have provided indicates an urgent requirement to establish what has really happened to customers' money and what is still happening to it. Do water companies really pay extortionate amounts to contractors or are they laundering operational expenditure into capital expenditure and benefitting from the falsely elevated amount? Or is there another explanation?



We realise that the findings of such an investigation and audit of accounts could be professionally uncomfortable for Ofwat in that it may reveal previous shortfalls. However, we know that the regulator has the specialist ability required to conduct this work and we believe that this is part of its statutory duty under the Water Industry Act. Therefore, rather than to be subject of another investigation, it would appear preferable and appropriate for the regulator to conduct such an investigation itself, albeit transparently and with public/NGO engagement, in order to recover the situation and ensure that the public is properly served in respect of how its money is spent.

An accurate valuation of water companies including their rate of gearing and the potential cost of taking the companies into public ownership should also be established in the light of such an investigation allied to the results of impairment adjustments which do not seem to have been applied accurately or at all.

In respect of the urgent case of Thames Water, we suggest a transparent investigation involving the project by project evaluation of the veracity of Thames Water's project costs and delivered projects completed in the past 5 years and proposed for the next 5 – AMPs 7 and 8

These components would ultimately result in Ofwat abandoning its hands off approach and conducting a thorough and transparent audit and investigation into what the over £200billion of customers' money (the investment since privatisation) bought and what current funding has been spent on and is due to be spent on, company by company. Ultimately it may result in the sort of value for money seen in other countries and dramatically drive down the extortionate costs being demanded of the billpayer to fix 35 years of neglect and the misappropriation of funds.

We request that Ofwat responds to these suggestions and/or makes its own proposals in respect of how to address the issues raised.

Windrush Against Sewage Pollution

Registered Charity number 1199418.



References

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Appendix A

Assens Sewage Treatment Works.

This is a purpose-built works constructed on a newly purchased site on the outskirts of the town of Assens. Assens is the main town and administrative centre for the municipality of Assens on the island of Funen in Denmark. The population is a little over 6,000.

The scope of the new treatment works was to build a central treatment facility to enable the closure of eight smaller rural works within the municipality and pump forward from the de-commissioned treatment works to the new facility. These closures were phased over a period of time. The new works started operating in early 2023. It is capable of treating a PE of 100,000 and is future proofed for easy upgrade to a PE of 150,000. The cost of the works is stated to have been DKK 250 million. That is roughly £30 million. This was only for the cost of building the new works at Assens and did not include the cost of closure of the eight de-commissioned works.

The works has sophisticated inlet screening for removal of both grit and rags. Measured chemical dosing for P removal down to levels of 0.18 mg/l. There is a high level deodorising facility and aeration plant to feed the activated sludge process. After initial screening and primary settlement biological treatment is carried out in two enclosed aeration tanks. There is also a smaller aeration tank for brewery effluent. Final settlement is carried out in two large settlement tanks. There is also a large bio-gas and sludge treatment facility on site.

[The largest and most ambitious wastewater treatment plant tendered in Denmark in recent times - Envidan](#)

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Panorama from roof of inlet works. Primary settlement to the right, two large aeration tanks in centre with smaller brewery specific tank to the right, two final settlement tanks to the left and office plus and workshop buildings to the left



Screens at inlet works

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Chemical dosing for P removal



Blowers for aeration lanes