| Title: Provision for Specified Water and Sewerage Infrastructure Projects in England | Impact Assessment (IA) |
|---|---|
| **IA No:** DEFRA 1033 | **Date: 1 OCTOBER 2012** |
| **Lead department or agency:** Defra | **Stage:** Final |
| **Other departments or agencies:** OfWAT | **Source of intervention:** Domestic |
| | **Type of measure:** Secondary legislation |
| | **Contact for enquiries**: John Manning (020 7238 2019) |

## Summary: Intervention and Options

**RPC Opinion:** Awaiting Scrutiny

| Cost of Preferred (or more likely) Option | | | | |
|---|---|---|---|---|
| **Total Net Present Value** | **Business Net Present Value** | **Net cost to business per year** (EANCB on 2009 prices) | **In scope of One-In, One-Out?** | **Measure qualifies as** |
| £237m | n/a | 0 | No | Out of Scope |

**What is the problem under consideration? Why is government intervention necessary?**

Climate change and population growth are expected to lead to larger or more complex water and sewerage infrastructure in future. Government intervention is necessary as some large or complex high risk projects such as the Thames Tideway Tunnel could threaten the ability of an undertaker to provide existing services to its customers. Intervention would help to isolate and contain within a distinct Infrastructure Provider (IP) the associated risks and subsequent costs of funding and delivering these types of projects; costs that are directly passed onto customers of water or sewerage undertakers.

**What are the policy objectives and the intended effects?**

The objective is to help deliver necessary large or complex high-risk infrastructures such as the Thames Tideway Tunnel whilst helping isolate, contain and minimise risks to undertakers, customers and UK taxpayers to provide overall better value for money so helping keep customers' bills as low as possible. The intended effect is to create a parallel regulatory regime for delivering large or complex high-risk infrastructures which provides value for money for customers and safeguards the ability of undertakers to continue delivering their required level of existing services. Another intended effect is to help promote innovation in the financing and delivery of future water and sewerage infrastructure projects.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

**0** (baseline)-Water or sewerage undertakers continue to finance and deliver all water and sewerage infrastructure projects under the existing regulatory regime.

**1** (preferred)-Make new regulations applicable to all undertakers which enable the creation of independent directly regulated Infrastructure Providers (IPs) which finance and deliver large or complex high-risk projects. This is considered most likely to best contain and minimise risks to undertakers' customers and UK taxpayers whilst providing the most clarity to all undertakers and other companies on the future delivery of large or complex high-risk water and sewerage infrastructure projects.

**2**-Modify a specific undertaker's operating licence to create a separate indirectly regulated IP which finances and delivers a large or complex high-risk project on behalf of the undertaker.

**Will the policy be reviewed?** It will be reviewed. **If applicable, set review date:** April 2018

| | | | | | |
|---|---|---|---|---|---|
| Does implementation go beyond minimum EU requirements? | | | No | | |
| Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base. | **Micro** No | **< 20** Yes | **Small** Yes | **Medium** Yes | **Large** Yes |
| What is the $CO_2$ equivalent change in greenhouse gas emissions? (Million tonnes $CO_2$ equivalent) | | | **Traded:** | **Non-traded:** | |

*I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.*

Signed by the responsible SELECT SIGNATORY: ..... Date: .....

# Summary: Analysis & Evidence

Policy Option 1

**Description:** Make new regulations applicable to all water or sewerage undertakers which enable the creation of independent directly regulated Infrastructure Providers (IPs) to finance and deliver large or complex high-risk projects

**FULL ECONOMIC ASSESSMENT**

| Price Base Year 2010 | PV Base Year 2010 | Time Period Years 30 | Net Benefit (Present Value (PV)) (£m) | | |
|---|---|---|---|---|---|
| | | | **Low:** 53 | **High:** 547 | **Best Estimate:** 237 |

| COSTS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---|---|---|---|---|
| **Low** | | 0-1 | 1.9 | **53** |
| **High** | | | 4.2 | **97** |
| **Best Estimate** | 17 | | 2.4 | **63** |

**Description and scale of key monetised costs by 'main affected groups'**

All estimates relate to the only major infrastructure project anticipated in the next 10 years – the Thames Tideway Tunnel. Costs accrue to OfWAT in terms of extra regulatory effort amount to £5m, averaging £0.08m pa over the period. The remainder of the annual costs (£2.3m pa best estimate, range £1.8-4.2m) relate to running the IPs as additional companies. Transitional costs represent the cost to undertakers of tendering the IPs: these are estimated at £17m spread over two years (which represents 0.4% of the total project cost of the Thames Tideway Tunnel).

**Other key non-monetised costs by 'main affected groups'**

Costs stated above accruing initially to water or sewerage undertakers and IPs will, to a large degree, be passed on to water customers (subject to regulatory decisions).

| BENEFITS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---|---|---|---|---|
| **Low** | | | 25 | **150** |
| **High** | | | 100 | **600** |
| **Best Estimate** | | | 50 | **300** |

**Description and scale of key monetised benefits by 'main affected groups'**

Benefit is isolation of project risk within the independent IP, avoiding this "spreading" to the undertaker. Such risk could manifest itself financially and/or in diversion of management attention, with increased risk of poor regulatory and financial performance. This may lead to market re-appraisal of the credit worthiness of the undertaker, leading to an increased cost of capital. The monetised benefit (for illustrative purposes) relates to avoiding an increase in cost of capital to the main (non-Thames Tideway Tunnel) Thames Water business of 0.25% - 1% during the TTT construction period. This is illustrative but based on confidential market advice.

**Other key non-monetised benefits by 'main affected groups'**

Avoided costs of risk "contagion" to the main Thames Water business are not limited to financial impacts: diversion of management attention could undermine service provision for water supply and waste water customers. Isolating the project within an independent IP would help prevent this.

**Key assumptions/sensitivities/risks** **Discount rate (%)** 3.5

The first main risk is that the criteria for determining that a project should be delivered by an IP are applied correctly. The second main risk is that the initial assessment of a competitive IP tendering process shows value for money but the actual delivery does not in practice produce value for money either because the assessment was flawed or because the tender was poorly implemented.

**BUSINESS ASSESSMENT (Option 1)**

| Direct impact on business (Equivalent Annual) £m: | | | In scope of OIOO? | Measure qualifies as |
|---|---|---|---|---|
| **Costs: 0** | **Benefits: 0** | **Net: 0** | No | NA |

# Summary: Analysis & Evidence

Policy Option 2

**Description:** Modify a specific water or sewerage undertaker's operating licence to create a separate indirectly regulated Infrastructure Provider (IP) which finances and delivers a large or complex high-risk project on behalf of the undertaker.

**FULL ECONOMIC ASSESSMENT**

| Price Base Year 2010 | PV Base Year 2010 | Time Period Years 30 | Net Benefit (Present Value (PV)) (£m) | | |
|---|---|---|---|---|---|
| | | | **Low:** -97 | **High:** 247 | **Best Estimate:** 87 |

| COSTS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---|---|---|---|---|
| **Low** | | 0-1 | 1.9 | **53** |
| **High** | | | 4.2 | **97** |
| **Best Estimate** | 17 | | 2.4 | **63** |

**Description and scale of key monetised costs by 'main affected groups'**

As Option 1, estimates relate to the Thames Tideway Tunnel. Costs to OfWAT in negotiating licence changes and contract terms total £5m, averaging £0.08m pa. The remainder of the annual costs (£2.3m pa best est.; range £1.8-4.2m) relate to running IPs. Transitional costs accrue to water undertakers in tendering IPs: these are estimated at £17m over two years. In general, costs are similar to those under Option 1, with OfWAT regulatory costs replaced with licence and contract negotiation costs of a similar magnitude.

**Other key non-monetised costs by 'main affected groups'**

Costs stated above accruing initially to water or sewerage undertakers and IPs will, to a large degree, be passed on to water or sewerage customers (subject to regulatory decisions).

| BENEFITS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---|---|---|---|---|
| **Low** | | | 0 | **0** |
| **High** | | | 50 | **300** |
| **Best Estimate** | | | 25 | **150** |

**Description and scale of key monetised benefits by 'main affected groups'**

Benefits in concept are similar to those under Option 1, but Option 2 will be much less effective in isolating project risk within the IP, because the latter will not be a truly separate, directly-regulated entity. This means there is more likelihood of risk "contagion" to the linked undertaker, for example through "consolidation by the market" (i.e. including the value of the IP within an Undertaker's accounts). It is assumed for illustration that risk-isolation benefits (estimated in terms of reduced cost of capital to the undertaker) are half those under Option 1, for a similar option cost. In practice however, benefits may be more limited even than this.

**Other key non-monetised benefits by 'main affected groups'**

Ultimately the option is only expected to realise a benefit for customers through helping minimise a project's overall costs by requiring a competitive tendering process for an IP to finance and deliver a large or complex high-risk infrastructure. Another benefit for regulator OfWAT is that IP costs of financing the project are determined by a market tendering exercise.

**Key assumptions/sensitivities/risks** **Discount rate (%)** 3.5

The main risk is that the initial assessment of a competitive IP tendering process shows value for money, but the actual delivery does not in practice produce value for money either because the assessment was flawed or because the tender was poorly implemented. An additional risk is the pressure on an undertaker to have a greater role in overseeing a large or complex high-risk project, compared to Option 1, in addition to delivering its day to day activities as provider of an essential service to its customers.

**BUSINESS ASSESSMENT (Option 2)**

| Direct impact on business (Equivalent Annual) £m: | | | In scope of OIOO? | Measure qualifies as |
|---|---|---|---|---|
| **Costs: 0** | **Benefits: 0** | **Net: 0** | No | NA |

# Evidence Base (for summary sheets)

## References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final, Enactment).

| No. | Legislation or publication |
|---|---|
| 1 | http://www.defra.gov.uk/consult/2011/02/22/water-sewerage-infrastructure-england-1102 |
| 2 | |
| 3 | |
| 4 | |

**+ Add another row**

# Evidence Base

**Problem under consideration**

Climate change, population growth and higher customer expectations of environmental standards and supply resilience are anticipated to require larger and more complex infrastructure than the existing regulatory regime was designed to provide for. For example, changing rainfall patterns are expected to result in wetter winters and drier summers, and to aggravate water-scarcity conditions in the south and the east. This may lead to an increased requirement for potentially complex arrangements for transporting water.

Moreover, heavy-rainfall events are likely to become more frequent. In London these events will further strain an already overtaxed sewerage system, leading to more discharges of untreated waste water containing raw sewage into the River Thames. Once ongoing sewage collection and treatment improvements are completed by the end of 2014, just over 18 million cubic metres of waste water will enter the Thames every year from London's combined sewer overflows (CSOs) when storm water capacity is exceeded. These discharges occur, on average, once a week and have a significant environmental impact on the river. They increase the likelihood of fish kills, create a higher health hazard for users of the river and damage the aesthetic appeal of the Thames.

The proposed Thames Tideway Tunnel is an example of a large and complex high-risk infrastructure expected to be constructed within the next ten years and is one of the Top 40 Priority Infrastructure Investments within the National Infrastructure Plan 2011. Its construction would intercept storm sewage overflows and ensure that the River Thames meets water quality objectives established by the 2006 Thames Tideway Strategic Study. The works would also ensure the UK continued to meet its obligations under the Urban Waste Water Treatment Directive and Water Framework Directive. The urgency of the project is increased by ongoing infraction proceedings being pursued against the UK by the European Commission for an alleged breach of the Urban Waste Water Treatment Directive.

Thames Water Utilities Ltd, as project sponsor, has undertaken two public consultations on the proposed Thames Tideway Tunnel: from September 2010 to January 2011 and from November 2011 to February 2012. Its public review of finalised proposals lasts from July 2012 to October 2012 in the expectation of submitting an application for Development Consent to the Planning Inspectorate in early 2013.

Such a project is large, complex and high-risk; it requires engineering and construction skills that have been rarely, if ever, deployed by UK water and sewerage undertakers. It is projects such as these that are considered better suited for delivery under a separate and parallel regulatory regime rather than under the existing single regulatory regime for Water and Sewerage undertakers.

Please note that throughout this Impact Assessment the "delivery" of infrastructure can mean the design, financing, construction and/or maintenance of such projects; in some instances, it can also include the operation of such projects.

**Rationale for intervention**

Infrastructure networks form the backbone of a modern economy and are a major determinant of growth and productivity. The UK has extensive and sophisticated infrastructure that has been developed over hundreds of years. However, historically the UK's approach to the development of these networks has been fragmented and reactive. Investment has not kept up with the needs of a growing population and opportunities to maximise infrastructure's potential as a system of networks have not been exploited. Most importantly, the UK has never before had a clear long term plan for maintaining and improving its infrastructure. To remain globally competitive, the UK needs to address these failures and develop an infrastructure capable of supporting a dynamic, modern economy.

The UK Government's *National Infrastructure Plan 2011* sets out a new strategy for meeting the infrastructure needs of the UK economy. This includes the proposed Thames Tideway Tunnel major sewer project within its Top 40 Priority Infrastructure Investments.

Intervention is necessary because the existing regulatory regime arises from statute that protects water and sewerage undertakers from direct competition in the procurement of finance for the provision of infrastructure. In short, without a change in the current regime, undertakers will continue to have a statutory monopoly on delivering infrastructure in their appointed areas, although existing regulation under the Water Industry Act 1991 and the Utilities Contracts Regulations 2006 can ensure competition for the actual construction contracts. In contrast, intervention would allow Government to require the competitive tendering of IPs to finance and deliver large or complex high-risk infrastructure which is currently the sole domain of undertakers. Intervention would help to isolate and contain within a distinct IP the associated risks and subsequent costs of financing and delivering these types of projects, helping prevent "contagion" of any increase to undertakers' weighted average cost of capital which would adversely affect the cost of delivery of other more "normal risk" infrastructure investments agreed by Ofwat. Tendering both the financing and delivery of such infrastructure via IPs is also expected to help contain and reduce the customer-borne costs and/or risks associated with these types of infrastructure projects.

For example, an IP tendering process should lead to a lower expected cost (*i.e.*, the cost quoted at the outset of the project) for delivering infrastructure, compared to an undertaker's expected cost for delivering the same infrastructure.

Alternatively, a competitive IP tendering process might not lead to a lower *expected* cost, but might produce a lower actual cost (*i.e.*, the cost calculated at the completion of the project) by reducing water customers' exposure to cost overruns. Under the proposed policy, it would be possible for an IP to assume part of the risk of any cost overruns, thus helping shield customers from bearing some of the risk of any delivery problems. This should help result in an actual cost *to customers* that is far closer to the expected cost than under the existing regime (Option 0). Also, compared to the existing regime, the competitive IP tendering process would allow the market to determine the risk that the IP should bear – assuming an effective market competition, the market should price risk more optimally than the regulator OfWAT.

Importantly, intervention in the delivery of water or sewerage infrastructure would be limited along two crucial dimensions. **First,** intervention would apply only to large or complex high-risk projects such as the Thames Tideway Tunnel, the sole project expected as affected by intervention in the next 10 years.

**Second,** intervention via new legislation or by modifying a water or sewerage undertakers' operating licence would not extend to actual project management, no matter how large or complex the high-risk project might be. In accepting their Secretary of State appointments to serve as water and/or sewerage undertakers, companies have a statutory duty to ensure that they comply with the law regarding the provision of water and/or sewerage services. This includes delivering the infrastructure necessary for such provision. As such, Government intervention at the project-management level is unnecessary and would be construed as interference in complying with this statutory duty. In short, even for very large or complex high-risk projects, Government will rely on the undertakers' strong motivation to deliver their obligations to ensure that they manage the contractual relationship with an IP so as to ensure the successful delivery of the project.

Provision is made for this new regime in Part 2A of the Water Industry Act 1991.

Intervention is also necessary to safeguard the undertakers' ability to provide other services to customers by ring-fencing the delivery and financing of some large or complex infrastructure projects. These projects may raise issues of planning, financing and construction risk that are far greater than those normally associated with undertakers' capital investment. Water and sewerage companies currently benefit from strong investment grade ratings enabling ready access to the capital markets. It is possible that if an undertaker had to take on a large, single-asset, high-risk construction, its credit rating could be downgraded, possibly to sub-investment grade. Intervention in the case of the proposed Thames Tideway Tunnel is justified because the project is very likely to be of a size or complexity that threatens the undertaker's ability to continue providing existing services to its customers. There is a high risk of project cost-overruns, delays and significant risk of damage to assets with such a large-scale tunnelling project across London. The estimated £4.1-£4.2 billion cost (at 2011 prices) [1]would seriously undermine the ongoing business of any undertaker, including Thames Water, which is the largest water and sewerage undertaker. Intervention would create a "ring-fence" between the undertaker and the large complex high-risk project resulting in more effective risk management and risk containment. The

[1] Project estimated to cost £4.1 to £4.2 billion using a P80 level – that is, there is an 80% probability that the project costs will be less than this figure, based on probability modelling of cost risks. This figure excludes financing costs.

specification of the Thames Tideway Tunnel as an eligible project is supported by the management team of Thames Water Utilities Ltd.

We do not expect intervention to apply to any other infrastructure project that will take place during the Water Industry's next "Asset Management Period 6 (AMP6)" which starts in 2015.

**Policy objective**

The policy aims to facilitate the delivery of required and necessary large or complex high-risk infrastructure, while containing and minimising the risks to customers of water or sewerage undertakers and UK taxpayers that is associated with such delivery. Because customers ultimately fund the water and sewerage industry's capital programmes, containing and minimising these risks should provide value for customers' money while still delivering the required or desired level of existing services. Another objective of the policy is to promote innovation in the delivery of potentially high-risk water and sewerage infrastructure projects. To achieve these objectives, the policy would enable a water or sewerage undertaker to have certain large complex high-risk infrastructure financed and delivered by a separate IP. This would isolate and contain the associated risks and subsequent costs of funding and delivering these types of projects plus should to some extent encourage new entrants to deliver water and sewerage infrastructure more innovatively or cheaply than the existing, monopolistic system. However the policy would only affect large or complex high-risk projects which will be very few, so there will not be any immediate widespread impact on competition as a result of introducing the new regime.

***Utilities Contracts Regulations 2006***

Much utility sector procurement is regulated by EU procurement rules. Directive 2004/17/EC, implemented in the UK by the Utilities Contracts Regulations 2006 (as amended) is the legal framework for procurement by utility companies. The purpose of the EU procurement rules is to open up the public procurement market and to ensure the free movement of supplies, services and works within the EU. In most cases they require competition. The Utilities Contract Regulations set out the procedures to be followed at each stage of the procurement process leading to the award of contracts above certain thresholds when utilities seek to acquire supplies, services, or works (e.g. civil engineering or building) as defined in the EC Directive.

In nearly all cases, the procedures as set out in the Utilities Contract Regulations (UCR) would apply to those projects where the policy objective requires a project to be financed and delivered by an IP put out to tender. However, there may be certain circumstances where such a project could be exempt from the competitive tendering requirements of the UCR; for example where a contract might be awarded to an undertaker's associate company or joint ventures with which it is associated. In cases such as these, for the sake of consistency and in keeping with the aim of the policy objective, undertakers would be required to apply the competitive tendering requirements of the UCR to cases in which EU competitive tendering requirements would not automatically apply.

***Water Industry Financial Assistance Act 2012***

Section 2 of this Act inserts Section 154B into the Water Industry Act 1991 (WIA). This creates a power for the Secretary of State to give financial assistance in connection with the construction of water or sewerage infrastructure or the carrying out of works in respect of existing water or sewerage infrastructure, if that, or the combination of the two, involves works which are exceptionally large or complex. The powers apply only in respect of water or sewerage undertakers whose areas are wholly or mainly in England.

The intended use of the infrastructure must include use by water or sewerage undertakers in the exercise of their duties to maintain a water supply and provide sewerage services under the WIA, but the financial assistance is not limited to cases where the undertaker is carrying out the construction or works or will have exclusive use of the infrastructure. Under this section the Secretary of State can provide assistance in any form, including grants, loans, guarantees and indemnities, the provision of insurance and by acquiring shares or securities in a body corporate.

The power is discretionary and may be exercised for such reasons as the Secretary of State feels desirable. The Secretary of State may make the assistance subject to terms and conditions.

The *Autumn Statement 2011* stated that the Government would, subject to affordability, consider using transparent forms of guarantee to support specific projects where this provides best value for money for taxpayers and users, recognising that the private sector cannot always bear every risk. This commitment

was in line with Government confirmation in a November 2011 statement to Parliament that it was willing in principle to provide contingent financial support for exceptional risks in the construction of the Thames Tideway Tunnel.

The policy objective of creating IPs separate to undertakers would help to target any Government financial support at a particular project, rather than at an undertaker with its broad range of services and ongoing low-risk infrastructure improvements.

***Summary of consultation responses***

Defra undertook a three-month consultation from February to April 2011 seeking views on new regulations applicable to large or complex high-risk infrastructures which would be made under section 36 of the Water Industry Act 1991. A summary of broadly positive responses was published in September 2011 (http://www.defra.gov.uk/consult/files/110222-sewerage-condoc-summary.pdf), in which Defra stated it would consider the responses and make a decision on the way forward in due course.

As a result of that consultation, an additional option is now included in this final Impact Assessment which would require no new primary or secondary legislation. This would see OfWAT modifying a specific water or sewerage undertaker's operating licence to create a separate indirectly regulated IP established through competitive tender to finance and deliver a particular large or complex high-risk project. This could only be achieved with the agreement of the water or sewerage undertaker or following a reference to the Competition Commission which would consider the merits on public interest grounds. In the next 10 years, the only project expected to fall within this category is the Thames Tideway Tunnel in the geographical area covered by Thames Water.

**Description of options considered**

Two main options are considered versus the baseline "do nothing" Option 0 whereby a large or complex high-risk infrastructure project would continue to be financed and delivered by the existing water or sewerage undertaker under the current regulatory regime.

***Option 0 ("do nothing" baseline) – Water and Sewerage undertakers continue to finance and deliver all water and sewerage infrastructure projects under the existing regulatory regime.***

Under this "do-nothing" option, all water and sewerage infrastructure would continue to be financed and delivered by water or sewerage undertakers under the existing regulatory regime. This provides undertakers with a protected monopoly in their appointed service areas, including the delivery of infrastructure. The regime has enabled undertakers to attract enough capital to fund almost £108 billion of infrastructure (in today's prices) since privatisation in 1989. For the vast majority of future infrastructure projects, the existing regime will suffice.

The ***advantages*** of this existing available option are:

1. The established system of funding water or sewerage investment via undertakers has been in place since 1989, successfully providing almost £108bn of private investment into the industry.
2. The avoidance of "time-consuming" new parliamentary legislation or changes to an undertaker's licence for urgently needed infrastructure.
3. No additional transaction costs between an undertaker and a separate IP are introduced.

Its ***disadvantages*** are:

1. The existing level and cost of services which customers receive could be detrimentally affected by undertakers having to include the financing and delivery of a large or complex high-risk project, for example by increasing the cost of capital for all of an undertaker's agreed projects which is subsequently passed onto customers, which could in turn also threaten or overwhelm an undertaker's ability to deliver their existing required level of service and already-agreed improvements to current infrastructure.
2. OfWAT does not have any objective means of testing whether the financing costs of a proposed (rare) large or complex high-risk infrastructure are appropriate or reasonable.

**Option 1** (preferred) **- Make new regulations applicable to all water or sewerage undertakers which enable the creation of independent directly regulated IPs which finance and deliver large or complex high-risk projects.**

In this option, new regulations would be made under section 36A of the Water Industry Act 1991.

The regulations would be applicable to all water or sewerage undertakers and enable the creation of independent IPs established through competitive tender to finance and deliver large or complex high-risk projects within the "normal geographical" areas corresponding to the existing undertakers. An IP would be in existence during a project's construction and operational phase, able to be directly regulated by OfWAT as a distinct entity from the main undertaker.

The ***advantages*** of Option 1 are:

1. Independent IPs would be distinct entities and enable the risks and costs associated with large or complex high-risk projects to be more transparently captured.
2. Independent IPs would ring-fence and contain the risks and likely higher costs of financing a large complex high-risk project and so help prevent those costs being transferred to all other "typical" and less risky projects for which an undertaker is responsible.
3. IPs established through competitive tender should help to minimise total final project costs, benefitting customers of undertakers.
4. OfWAT would be able to directly regulate an independent IP and its sole project, separate and distinct from the "main" undertaker.
5. New legislation would provide the most clarity to all undertakers and other companies on the delivery of all future large or complex high-risk water and sewerage infrastructure projects.
6. Any contingent Government financial support could be better targeted to a sole large or complex high-risk project, rather than directed at a specific undertaker with its range of services.

Its ***disadvantages*** are:

1. Establishing IPs for specific water and sewerage projects is an untried and untested model for this industry.
2. New legislation is time consuming, in competition with other Governmental legislative priorities and requires collective agreement across all Government departments before it can be introduced into Parliament.
3. There is no guarantee that creating independent IPs to finance and deliver particular large or complex high-risk projects would actually result in a project being delivered at a lower cost than one delivered under the current regime.
4. It involves complex interface issues between an undertaker and IP in the midst of an undertaker's network.

Further description of this preferred Option 1 follows below:

<u>Project Assessment</u>

The proposed regulations would first require the Minister's or OfWAT's opinion as to whether the size and/or complexity of a project is likely to threaten an undertaker's ability to provide services to its customers.

In addition, an assessment would be necessary on whether creating an independent directly regulated IP for a specified infrastructure would likely produce better value for money for customers, relative to delivering the infrastructure under the existing regulatory regime Option 0. The exact implementation of this assessment would be made in consultation with an undertaker on a project-specific basis.

Bidding Process

Following the above project assessment process, specified infrastructure projects would then undergo a competitive tender process for an IP to finance and deliver of the project. The exact nature of this process would be project specific and a matter for the undertaker to decide, in consultation with the Secretary of State and/or OfWAT. For example an undertaker might create a “pre-IP” with some initial contracts in place which would become the formal separate independent IP following its competitive tendering. Alternatively, companies/consortia might bid to become the IP and become responsible for establishing construction contracts which would enable a project to be delivered. The outcome of the competitive tendering process would be an IP that is separate and independent from the undertaker, able to be directly regulated by OfWAT and responsible for the delivery of a large or complex high-risk project. The IP would be responsible for the financing, construction and ownership of the infrastructure and could be responsible for both its operation and maintenance activities. The tender process would follow existing procurement rules, and if these do not apply, the regulations will impose a similar process based on those rules.

It is important to distinguish the existing regime for procuring infrastructure from the new proposed regime. Currently, undertakers already put many infrastructure projects out to competitive tender. However, they do so typically with respect to project construction and/or maintenance (and possibly its design); responsibility for all other aspects of the project delivery is retained by the undertaker. As a result, under the existing regime, the undertaker always owns the infrastructure and its investors bear the risks of its construction, being remunerated for their investment.

Under the proposed new regime’s tender process, the range of activities for which the winning bidder (rather than the undertaker) is responsible crucially includes the financing of the project. Financing and ownership typically go hand-in-hand. Thus, the winning bidder would own the works, at least until construction is completed, and bear the risks and/or enjoy the rewards that come with owning the infrastructure.

The tender process itself will be conducted by the undertaker whose customers will ultimately benefit from the delivery of the infrastructure, although in some cases there may be inset appointees of water only undertakers whose customers also benefit (although any associated costs should be passed on by the incumbent undertaker through bulk supply or wholesale charges). Moreover, section 36B(5)(c) of the Water Industry Act 1991 (as amended) requires the regulations to specify that the water or sewerage undertaker will choose which bid to accept. Although the proposed regulations would guide this choice through specifying factors to be considered, and although the undertaker would be required to consult the Secretary of State or OfWAT on how it will conduct the tender process, ultimately the undertaker will be responsible for selecting the winning bidder. The reason for this is that the undertaker would ultimately be responsible under the conditions of its appointment by OfWAT.

***Option 2 - Modify a specific water or sewerage undertaker's operating licence to create a separate IP which finances and delivers a particular large or complex high-risk project (e.g. the Thames Tideway Tunnel) on behalf of the undertaker***

In this option, OfWAT would make changes to an undertaker's operating licence to enable the financing and delivery of a large or complex high risk project be put out to tender. This would allow for competition in the provision of some infrastructure and give OfWAT an objective means of assessing whether the costs of the project are appropriate and reasonable.

The ***advantages*** of Option 2 are:

1. IPs established through competitive tender to finance and deliver a large or complex high-risk project should help keep the actual total final project costs down, benefitting customers.
2. The existing legislative framework would suffice and no new legislation would be required.
3. Whilst not as great as with Option 1, any contingent Government financial support could be better targeted to a sole large or complex high-risk project, rather than directed at a specific undertaker with its range of services as with Option 0.

Its ***disadvantages*** are:

1. It is an untried and untested option within the water and sewerage industry.
2. The regulator OfWAT would either have to agree or impose changes to a specific undertaker's operating licence. Agreeing amendments could potentially give rise to a lengthy negotiation period, whereas imposing changes would be a lengthy process with no guarantee of a successful outcome as the changes would have to be approved by the Competition Commission
3. It is not possible to establish a directly regulated independent separate IP: regulation would be indirect via the undertaker and it would not be possible to ring-fence the project to the extent which would occur for Option 1 from the rest of the undertaker's activities
4. As it is not possible to ring-fence the activities (and the associated risks) of the IP from the activities of the undertaker, the existing level and cost of services which customers receive could be detrimentally affected by undertakers having to include the financing and delivery of one large or complex high-risk project. This could also threaten or overwhelm their ability to maintain at a reasonable cost their existing required level of service and already-agreed improvements to current infrastructure.

Option 2 differs to the preferred Option 1 in the initial stage i.e. the initial assessment process detailed by Regulations would be instead replaced with OfWAT and the water or sewerage undertaker discussing and implementing a modification to the undertakers operating licence (or following a reference to the Competition Commission judging on public interest grounds). Following this, the bidding process described in Option 1 above would be the same for Option 2.

**Costs and benefits of each option**

***Option 0 – no change to existing regime***

The do-nothing scenario is used as the reference case in this analysis and has no (additional) costs or benefits.

***Option 1 – [Preferred] Make new regulations applicable to all water or sewerage undertakers which enable the creation of independent directly regulated IPs which finance and deliver large or complex high-risk projects***

<u>Costs</u>

The proposed new regulations under Option 1 will oblige the Secretary of State or OfWAT to consult on a proposal to specify a project. This will require the giving of reasons as to why the project is being specified. This assessment will likely require an expense which may be borne by the Secretary of State or OfWAT or by the relevant undertaker (if done by Ofwat and passed on to the undertaker through charges imposed through its appointment conditions). However, the completion of this assessment is an

important aspect of the policy because it is designed to ensure that customers receive value for money through the procurement process.

Once a project is specified, Option 1 will involve additional costs over and above the traditional procurement approach in Option 0 in respect of: additional regulatory activity (falling on OfWAT), running the tender process (falling on the undertaker) for procuring the finance and ownership of the IP, and ongoing running costs of the IP (falling on the IP). Costs falling on undertakers and the IP will, to a greater or lesser extent, be recouped from customers. More detail of costs falling on the various parties is set out below.

*Costs falling on OfWAT*

At this stage it is very difficult to give accurate figures on costs likely to be incurred by OfWAT in implementing the new regime as we don't know how many projects will be designated, how large they will be and whether they will require direct regulation. However, the first large infrastructure project expected to be captured under the new regime is the Thames Tideway Tunnel - this is a substantial, complex and high-risk infrastructure project estimated to cost around £4.1 to 4.2bn in total.[2]

The estimated costs for OfWAT in dealing with this particular, initial project under Option 1, where an independently-regulated IP is created, are in the broad region of £5m (undiscounted), or £4m (discounted at 3.5%). This figure has been derived by OfWAT and includes any development of non statutory guidance for designation of future projects (which would evolve over time), development of a bespoke regulatory regime, the two stage designation process, overview of the tendering process, and ongoing regulation of the IP. The total cost breaks down between pre-construction, construction and operation phases as set out in **Table 1** below.

**Table 1**
**Estimated costs to OfWAT under Option 1 – Thames Tideway Tunnel case study (undiscounted)**

| | | **£ million** |
|---|---|---|
| **Pre construction** | 1st Apr 2012 to 31st Dec 2016 | 3.3 |
| **Main construction** | 1st Jan 2016 to 31st Mar 2023 | 0.8 |
| **Operation** | 1st Apr 2023 to 1st Apr 2073* | 0.9 |
| **Total** | | **5.0** |

*: In the Present Value calculation, operation costs truncated to 2041 to give 30-year Present Value consistent with other costs.

For subsequent projects that may be designated, OfWAT's costs are expected to be lower as not only would any guidance have been produced but OfWAT will have had experience of operating the new regime and procedures can be more streamlined. However, much will depend on the nature and size of a project under consideration.

*Costs falling on undertakers/IPs*

Undertakers may incur some additional costs arising from the new regime that would ultimately be recoverable from customers. The process of tendering for an IP is thought to be broadly similar, in terms of the nature and level of market negotiations etc, to that of negotiating a Private Finance Initiative (PFI) procurement. If the project is put out to full tender following designation under the regulations they will need to conduct lengthy and detailed legal negotiations with not only the winning bidder but also the other participants in the bid, because the ultimate legal relationship between winning bidder and undertaker will be an important determinant of the quoted cost and cannot be left to decide post-bid. An assessment by OfWAT based on evidence from *The Future of the Private Finance Initiative* (Social Market Foundation 2004) suggests that tendering costs (in total) could make up around 0.4% of the total costs of undertaking the project, over and above a traditional procurement. Ultimately however, the magnitude of costs will depend on the number of bid participants. Undertakers will also incur costs of managing the contract with the winning bidder. However, in tendering out the project, they will avoid some costs associated with delivering the project themselves, although to the extent those costs are borne by the IP, they will be passed onto the undertaker (and hence customers) through wholesale

[2] Project estimated to cost £4.1 to £4.2 billion using a P80 level – that is, there is an 80% probability that the project costs will be less than this figure, based on probability modelling of cost risks. This figure excludes financing costs.

charges. As such, the relationship between costs under the existing regime and those under the new regime will be project-specific and thus difficult for us to establish precisely in this impact assessment – though the 0.4% estimate is used as a broad gauge.

The ongoing overhead costs associated with running the IP as a new company have also been estimated by OfWAT, by looking at average overheads as a proportion of capital investment within the water industry. As a proportion of total infrastructure project costs, the best estimate of overheads is 0.06% per annum during the construction phase, falling slightly to 0.05% per annum during the ongoing operational phase. Taking account of variation within the industry, the overhead percentage estimate is within a range 0.04-1%, and this range has been used to develop a range of IP overhead costs for this IA ("low" and "high" cases assume that the percentages for construction and operation are the same). All these figures are net of expected management overheads (within an existing water undertaker) associated with running a major infrastructure project in-house.

Using, again, the Thames Tideway Tunnel as a case study (and the only project currently envisaged to be designated in the next 10 years), tendering and overhead costs accruing to undertakers and IPs have been calculated using the above proportions (i.e. 0.4% for tendering and 0.05-0.06% pa for overheads in the "best estimate" case, with the overhead percentage varying as above for "low" and "high" cases) and then discounted at the social discount rate (3.5%) to generate a Present Value total. The resulting figure for total industry-borne costs of Option 1 (for the Thames Tideway Tunnel) is around **£59m** (Present Value, best estimate). The low-high range is £49-93m. The assumptions underpinning the best estimate are detailed in **Table 2** below.

**Table 2**
**Present Value costs to undertakers and IP, Option 1 (best estimate)**

| Item | Estimate | Notes |
|---|---|---|
| **Total cost of project (£m)** | 4,200 | Broad estimate for Thames Tideway Tunnel |
| **Procurement costs (% of project costs):** | | Source: SMF 2004 |
| **PFI** | 0.5% | |
| **Traditional** | 0.1% | |
| **Annual company overheads for construction phase (% of project cost)** | 0.061% | Average of selected WaSCs |
| **Annual company overheads for operational phase (% of project cost)** | 0.052% | Average of selected WaSCs |
| **Discount period - procurement (years)** | 2 | Based on Thames Tideway Tunnel |
| **Discount period - overheads (years)** | 30 | Based on Thames Tideway Tunnel |
| **Construction period (years)** | 7 | Based on Thames Tideway Tunnel |
| **Discount factor** | 3.5% | Treasury Test Discount Rate |
| **PV PFI vs Traditional procurement (£m)** | 16 | Difference between PFI and traditional, discounted for 2 yrs |
| **PV Additional company administration costs (£m)** | 43 | Overhead proportions applied to above periods and discounted |
| **PV total incremental costs to status quo (£m)** | **59** | |

*Total costs*

Based on the above assessment relating to the Thames Tideway Tunnel, and summing the costs to OfWAT and companies (undertakers and IP), the overall cost of Option 1 is therefore around **£63m** (Present Value over 30 years, best estimate). The low-high range is £53-97m.

Benefits

The key benefit of the IP route (Option 1) is containment of risk for very large and complex projects. The IP is a ring-fenced independent company, responsible for delivering the infrastructure project, with its own relationship with the regulator OfWAT. Whilst clearly the IP will have a relationship with the main water undertaker, this will be a clearly-defined customer-supplier relationship. Any project risks which cause difficulties for the IP, especially those which have financial implications (such as increased project costs or compensation claims) will not threaten the viability of the customer undertaker – though clearly they could delay that customer "taking delivery" of its infrastructure. This latter risk is less material than any threat to viability from a very large project running into difficulties, however.

The isolation of the undertaker from significant project risks will have benefits in terms of avoidance of disruption to key statutory day-to-day duties (e.g. supplying water), and is likely to lead to the avoidance

of adverse cost of capital impacts (and hence impacts on customers through bills). Given the risks associated with delivery of the Thames Tideway Tunnel, it is inappropriate to assume, for example, that Thames Water would be able to finance the asset at its *current* cost of capital. Furthermore, Thames Water would be responsible for the delivery of the project amongst its various other duties. Given the scale of the Thames Tideway Tunnel, there would be a significant risk that management attention would be diverted from existing priorities to the Tunnel, with a risk of consequential impact on performance in other areas. In turn this may affect market perceptions of the risk and credit-worthiness of Thames Water which in turn could drive up the required cost of capital across the whole of the company's asset base. In other words, the risk associated with delivery of a significant infrastructure project of the nature of the Thames Tunnel would almost certainly raise the cost of capital for the wider company. This risk is considered to be limited by using a ring-fenced structurally separate IP. Although the cost of capital achievable by the IP will tend to be higher than for a regular water undertaker, this increased cost is contained.

It is not possible to say definitively what the impact on Thames Water's average cost of capital would be if it attempted to deliver the Thames Tideway Tunnel in house. But for illustrative purposes, given Thames Water's existing Regulated Capital Value (excluding the TTT project) of around £10bn, each 1% increase in the cost of capital would equate to an increased cost (ultimately to customers) of £100 million per annum during construction, or around £15 in the average household bill. Over a seven year construction phase, this would equate to cost to customers of £611 million in present value terms (at a discount rate of 3.5%).

Although the above relates to the Thames Tideway Tunnel (as the only anticipated project to be covered by Option 1 in the next 10 years), the exact increment to the utility cost of capital under such circumstances would be project specific and dependent on the perception of risks that are inherent in the asset to be constructed. For the purposes of this Impact Assessment we have included a "central" monetised benefit estimate equivalent to a 0.5% increase in the average cost of capital on Thames Water's RCV, i.e. half the estimate above or broadly **£300m (Present Value)**. This can be thought of as (say) a 50% probability of a 1% increase in the cost of capital – or a 25% probability of a 2% increase, and so on. Whilst the exact likely outturn cost is unknowable, this broad overall figure (as a measure of expected avoided cost under Option 1) is felt to be plausible but conservative. (In practice, any market downgrading of Thames Water would probably actually require a significant equity injection which would be at much higher costs of capital). Given the uncertainty in benefit, a range around the central estimate has been derived, with the upper bound taken as the avoidance of a 1% cost of capital increase (a total benefit of £611m PV as above, rounded to £600m). The lower bound is assumed to be avoidance of a 0.25% increase in cost of capital (total benefit of £150m PV). These figures are essentially arbitrary (but plausible) and they should be viewed as illustrating the likely broad range of benefit. They show that Option 1 is very likely to be cost beneficial overall (given "best estimate" total present value costs of around £63m).

It should be noted though that the risk of Option 0's conventionally-procured large or complex high-risk project to a water or sewerage undertaker (like Thames Water) is not just about the increase in the cost of capital – there may also be instances where a project's risks could adversely affect, overwhelm and potentially threaten the delivery of other undertaker functions, e.g. because of diversion of management attention. –In some extreme cases, investors' perception of financial viability for the whole water industry could also be threatened more fundamentally

Requiring certain projects to be put out to competitively tendered IPs which both finance and construct large or complex high-risk projects should also produce other benefits for customers. For example, the competitive tender could deliver infrastructure finance at a lower price and a single focussed IP could deliver a project at lower risk compared with traditional procurement. The value-for-money assessment will be designed to prevent this new regime from being invoked in instances where it would not provide value for money to customers.

***Policy Option 2 - Modify a specific water or sewerage undertaker's operating licence to create a separate IP which finances and delivers a particular large or complex high-risk project on behalf of the undertaker***

Costs

Option 2 is the non-regulatory approach, developed to determine if there is a real need to implement the existing primary provisions of Part 2A of the Water Industry Act 1991 (as amended by the Flood and Water Management Act 2010), or whether modifying licences of existing water undertakers to set up IPs

without direct independent regulation would deliver similar net benefits, without the need for new legislation.

As for Option 1, the costs of Option 2 fall on the regulator OfWAT, and companies (existing undertakers and IPs). However, in Option 2 the crucial difference to Option 1 is that the IPs would, in effect, be more akin to undertaker subsidiaries i.e. companies with a contractual delivery relationship for the undertaker but with the undertaker continuing to retain responsibility within their licence for a project. This compares with Option 1 which would enable the IP to be a directly regulated body with responsibility for delivery of the project.

*Costs falling on OfWAT*

Compared with Option 1, OfWAT or the Secretary of State would not need to designate projects under this Option, nor develop a bespoke regulatory regime, introduce the two stage designation process, nor oversee the tendering process and regulate the IP directly. However, it would expend resources doing the following:

- Liaising with the undertaker (Thames Water in the Thames Tideway Tunnel case) regarding a modification of their licence to require it to engage in a competitive IP procurement process and to allow OfWAT to supervise the procurement exercise. This might be long and difficult and could ultimately involve a reference to the Competition Commission if the undertaker were unwilling;
- Scrutinise and influence the contractual terms developed by the undertaker for the IP. This is a vital part of the process and OfWAT's single opportunity to influence easily the impact of IP outcomes on the wider undertaker.
- Engage in ongoing "indirect regulation" of the IP which would have to be done via working with the undertaker to enforce contractual terms. This could be difficult and time-consuming with much less certainty that terms would actually be enforced, in comparison with Option 1's direct Ofwat regulation.

Overall, OfWAT advise that there is little net saving of regulatory effort and the costs to them under Option 2 for the Thames Tideway Tunnel case would be similar to those under Option 1 – i.e. **broadly £4m (present value)**.

*Costs falling on undertakers/IPs*

The existing undertaker would have to manage the IP tendering process in a similar way as under Option 1. Once the IP was set up, the overhead cost of operating it as a stand-alone company would also be similar as for Option 1. However, these would be balanced by additional costs falling on the parent undertaker (compared with Option 1) in terms of extra liaison with OfWAT as part of the latter's "indirect" regulation of the IP.

Overall therefore, the costs falling on undertakers/IPs are likely to be similar to those under Option 1, at around **£59m (present value, best estimate)**. In total, therefore, the costs falling on all parties (OfWAT, undertakers and IPs) are also broadly similar to Option 1 at **£63m (present value, best estimate).** The low-high range is also as for Option 1 (£53-97m).

Benefits

The key difference between Options 2 and 1 is in terms of the degree of benefit delivered, in terms of reducing the impact of project risks on the wider water business. Whereas Option 1 is likely to isolate risk from the infrastructure project from affecting the customer undertaker (in turn potentially affecting the latter's wider average cost of capital), the degree of isolation under Option 2 is arguably much more limited. This is for the following reasons:

a) OfWAT can only "regulate" the IP indirectly, through seeking to influence the contractual relationship between the undertaker and IP at the outset (assuming it has been successful in modifying the undertaker's licence to allow this in the first place), and thereafter, through seeking to apply pressure on the undertaker to enforce contractual commitments. Influence at each of these stages may be less than satisfactory, compared with direct regulation (under Option 1) in which OfWAT would have an ongoing and direct regulatory relationship with the IP. In turn this may imply that regulation of the project is ineffective and, as the undertaker would continue to

retain responsibility within its licence for a project, this could imply more risk on the undertaker too, in terms of financial and other liabilities.

b) If the IP was a directly-regulated independent entity it would enjoy the benefit arising from the Water Industry Act 1991, of a duty on the regulator OfWAT to ensure it could finance its functions. The absence of these benefits under Option 2 (indirect regulation) could imply risks on the IP. Again, because the parent undertaker continues to retain responsibility within its licence for a project, these risks could transfer from the IP to the undertaker.

The implication of risks not being as fully contained to the IP under Option 2, when compared with Option 1, is that markets are likely to see knock-on risks for the parent undertaker which in turn could lead to adverse credit ratings and higher borrowing costs, in a similar way as under the do nothing Option 0.

It is difficult to estimate the exact degree to which any lack of containment of IP risks might lead to an increase in the cost of capital under Option 2. In practice, it may be that cost of capital impacts may be somewhere between those under Option 0 (do nothing; where an undertaker manages a project fully in-house) and those under Option 1 (a fully isolated IP). As such, for the purposes of this impact assessment, it is assumed that the benefits of Option 2 (in terms of avoided cost of capital increase for the parent undertaker) are half way between those for the other two options. **As such, the monetised benefits of Option 2 are estimated at between zero (lower bound) and £300m (upper bound), with a central estimate of £150m (all figures Present Value)**. This position conservatively favours Option 2 to the extent that it is OfWAT's opinion that Option 2 may actually deliver very few benefits in terms of risk isolation over Option 0. Nevertheless, the overall conclusion of the cost-benefit analysis is that whilst there may be situations where Option 2 is net beneficial, it is likely to be less so than Option 1, which more successfully isolates risk for a similar cost.

**Risks and assumptions**

The main risk is that an initial assessment of a competitive IP tendering process for a large or complex high-risk project shows value for money, but the actual delivery does not in practice produce value for money either because the assessment was flawed or because the tender was poorly implemented.

A second risk is that the water or sewerage undertakers may be less inclined to propose necessary infrastructure if they believe that their ability to deliver it under the existing framework will be subject to the discretion of the Secretary of State. However, this risk is mitigated by the policy of the project's size or complexity must threaten an undertaker's ability to provide services. Moreover, with preferred Option 1, any decision to specify a project arising from the assessment process would be subject to appeal through the Judicial Review process; with Option 2, a licence modification would require negotiation between OfWAT and the undertaker leading to its implementation (or reference to the Competition Commission which would be subject to Judicial Review). Finally, industry participants will still be governed by quality regulations and licence conditions that require them to do what is necessary to deliver appointed services.

One of the main areas of assumption in this Impact Assessment, albeit backed by advice from Ofwat and market advisors, surrounds relative Weighted Average Costs of Capital (WACCs) for IPs versus undertakers. Once a major project such as the Thames Tideway Tunnel, delivered by an IP, is operational it would be expected to carry a lower risk profile than for existing undertakers and so the IP should have a weighted average cost of capital (WACC) lower than average for water or sewerage undertakers. This rests on the following:

a) that a single modern asset may have a lower operational and maintenance risk profile than a portfolio of assets, some of which are Victorian in origin in origin;
b) that the scope of an IP as a company with a single focus is less than compared to an undertaker and so it has a lower risk (e.g. of potentially "poisoning" people with drinking water);
c) that an IP would have greater cashflow certainty (and less volatility) than water or sewerage undertakers.

There are counter arguments that may negate some of the above, perhaps most importantly:

i. although an IP's revenue stream would be regulated by Ofwat, the IP would remain exposed to the credit risk of the undertaker;
ii. that the existence of a network of assets allows risk to be diversified and managed better than in a business reliant on a single asset;

iii. that significant risks would continue to remain with an IP e.g. those of major flooding or leaks.

In addition to the above, there is the issue of construction risk and its impact on WACC: the WACC of an IP during the construction phase of a project is likely to be larger than during the operational phase, depending upon the premium for taking construction risk charged by financiers. But the WACC may not be greater than an equivalent cost of capital for an undertaker conducting a project in house – for the reasons given in (a) in the first list given above.

Overall, this IA assumes that there is no cost of capital premium associated with an IP conducting a major project compared with an undertaker doing so.

The use of competition to establish the WACC is assumed to be the best a way of dealing with any "No Comparators" issues: the regulator Ofwat looks to build a view on the WACC for projects based on an assessment of comparable businesses; with no comparable large or complex high-risk projects, robust competition in the market for the cost of finance is considered better at determining the rewards that investors require for the risks inherent in large complex and high-risk projects. Using a competitive bidding process for an IP to finance and build such projects is seen as the best way of establishing the economic optimal WACC. It remains to be seen if there is sufficient competition, in the case of the Thames Tideway Tunnel, to achieve this goal.

The other main assumptions of this Impact Assessment include the following:

- delivery of large or complex high-risk projects via a separate IP would enable undertakers to better deliver their day to day activities as provider of an essential service to customers;

- regulations or licence modifications would be applicable to enable large or complex high-risk infrastructure projects be delivered by IPs which are established through a competitive tender process and deliver better value for money;

- that competitive tendering of IPs for the delivery of such projects has the potential to produce better value for money for customers than the existing regulatory regime; and

- that sufficient interest will actually exist among third parties to participate meaningfully in such tenders when they occur.

**Administrative burden and policy savings calculations**

Options 1 and 2 do not impose an extra administrative burden on business compared to Option 0.

**Specific Impact Tests**

Statutory equality duties – Options 1 and 2 will have no impact compared to Option 0. The main affected groups are Government (including OfWAT), water and sewerage companies and competing IP bidders.

Competition – Options 1 and 2 should act to improve/promote competition compared to Option 0.

Small Firms – Options 1 and 2 will have no impact compared to Option 0.

Environmental Impacts/Sustainable development – The introduction of IPs for large or complex high-risk infrastructure projects which are established through competitive tender could, via introducing potential new entrants, enable a more integrated and sustainable approach to the delivery of the capital investment programme.

Social impacts – Options 1 and 2 will have no impact compared to Option 0.

**Wider impacts**

There are unlikely to be wider impacts given the very few instances in which we anticipate water or sewerage infrastructure projects would actually be delivered by IPs established through competitive tender.

Options 1 and 2 would only affect those projects that, in the first instance, are deemed as large or complex and high-risk water or sewerage infrastructures. There would also be an assessment that

project delivery via a separate IP would likely provide value-for-money for undertaker customers relative to delivering the infrastructure under the existing regime (Option 0).

In the next 10 years, the sole large complex and high risk infrastructure identified is the Thames Tideway Tunnel. Thames Water's cost of capital under Option 1 should not be affected by this for two reasons. First, and most obviously, Thames Water would not bear the direct risk of the project. Secondly, the unitary charge that Thames Water would have to pay the provider of infrastructure in order to use such infrastructure would be recovered from customer bills.

Likewise, the rest of the industry should not experience a change to its cost of capital in the event that the financing and delivery of the Thames Tideway Tunnel is put out to tender. A project financing of an unusual water/sewerage infrastructure project will likely attract different investors from the usual investors in water or sewerage undertakers because the risk profile of such a project will be different from the risk profile of an integrated water and/or sewerage company.

**"One in one out (OIOO)" Statement**

The preferred Option 1's proposed regulations would not impose any additional direct costs compared to the baseline Option 0, as water or sewerage undertakers would still continue to be required to meet their existing statutory obligations, where necessary, by being responsible for providing any necessary large or complex high-risk infrastructure projects.

The proposed regulations in Option 1 would enable the creation of a separate directly regulated IP, established through competitive tender and which is responsible for a project's financing and delivery, in order to help isolate and minimise the overall net cost of such projects. The introduction of new IPs should help to drive down costs in the financing and delivery of large or complex high-risk infrastructure projects. In this respect the proposals would have wider benefits for customers of water or sewerage undertakers.

On this basis, the preferred Option 1 of making the proposed regulations is classed as 'Out of Scope' with a zero net cost.

**Summary**

In summary, the preferred Option 1 would create a new regime for delivering large or complex high-risk infrastructures via new Regulations that would enable the creation of separate directly regulated IPs established through competitive tender to finance and deliver such projects. This new regime would operate in parallel with the existing regulatory regime which requires existing water or sewerage undertakers to concentrate on their day to day activities of providing essential services to their customers.

For the great majority of delivering future infrastructure projects, the existing regime (Option 0) will suffice. However, customers of water or sewerage undertakers are considered to benefit most from the preferred Option 1 by it better containing and isolating the financing costs of delivering large or complex high-risk infrastructure, when compared to Option 0 and Option 2. Such costs are passed directly to customers, hence their reduction directly benefits customers.

Importantly, the legislation proposed by Option 1 would specify that before a large or complex high-risk infrastructure project would be eligible for delivery by an IP which finances the project, it would be considered as the most likely way to provide best value for money for customers of water or sewerage undertakers.

# Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

# Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

**Basis of the review:** [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review];

Political commitment to review and legal obligation in the proposed regulations.

**Review objective:** [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]

Has the application of the regulations approved by Parliament been successful? That is, has the Minister (or OfWAT, if so delegated) taken an opinion on whether the Thames Tideway Tunnel threatens Thames Water's ability to provide services to its customers, and-- if so-- has a value-for-money assessment been performed and does it show that the new regime could deliver value-for-money relative to the existing regime? If the regulations have not been applied, what was the rationale for that decision? (Is it, at least, consistent with the assessment provided for in the regulations?)

**Review approach and rationale:** [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]

To review this objective we will need to know whether the regulations were applied and the specific circumstances that followed from this application. This will require reviewing internal documents.

**Baseline:** [The current (baseline) position against which the change introduced by the legislation can be measured]

The baseline position is the existing position whereby water or sewerage undertakers finance and deliver all water and sewerage infrastructure projects under the current regulatory regime.

**Success criteria:** [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]

Success in this objective will be assessed by whether regulations produced a better outcome for consumers. If the regulations were applied and resulted in a parallel regime for procuring large or complex high-risk infrastructure, then the regulations may be judged a success. If the regulations were applied but without resulting in a parallel regime for procuring such infrastructure, then it may not be so easy to determine success. For example, were there valid expressions of interest from competing bidders when the tender conducted? Were they ignored or rejected because of a process failure? If the regulations were not applied altogether, then it may be a question of whether OfWAT took the decision as to the ultimate suitability of these generic regulations to the specific case. In all of these instances, internal documents will need to be reviewed.

**Monitoring information arrangements:** [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review]

Monitoring will be conducted through a review of the documentation and processes leading to the designation (or not) of large or complex high risk infrastructures as “specified projects” under the proposed regulations and OfWAT will conduct ongoing monitoring of any guidance to ensure that it remains fit for purpose.

**Reasons for not planning a PIR:** [If there is no plan to do a PIR please provide reasons here]