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Flood and Water Management Bill

Impact Assessment - large infrastructure projects in the water sector

Last updated: 15 October 2009

Summary: Intervention & Options

Department /Agency: Defra	Title: Impact Assessment of proposal for a new legislative framework/licensing regime for large infrastructure projects in the water sector	
Stage: Introduction of Bill	Version: 14	Date: 15 October 2009
Related Publications:		

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

Capital investment by water companies is currently financed from revenue allowed in price limits over five-year periods. Some future environmental and water-resource projects may need to be undertaken over longer periods, may be much larger than past projects, or may cross service-area boundaries. They will require capital investment with project risks that differ from the risks of water companies' current portfolios of investments. We want to enable these large projects to be financed and undertaken separately from water companies' other activities, separating the project risk so as to protect customers better. This requires change to the regulatory framework.

What are the policy objectives and the intended effects?

The objective is to enable the development of a regime to allow project companies to enter into a competitive bidding process to finance, build and maintain an individual large investment project for a water company. The project company would be regulated by Ofwat. The intended effect is to achieve cost-effective funding and delivery solutions for large projects that are needed to meet the requirements of Community obligations and other investment drivers in the water sector. The overall cost of investment paid for by customers in their water bills should be lower, either because of lower financing costs, or because the regime offers greater protection from cost overruns.

What policy options have been considered? Please justify any preferred option.

With no change to the existing regime (option A) it is likely that, because of a project's specific characteristics, a water company could experience difficulty in raising the necessary capital to finance the project. A number of policy options were considered including adapting the existing regime (option B) or developing a project-based approach (options C1 and C2). A project-based approach would involve full market-testing of the costs of the projects, provide transparency in delivery costs, and enable project specific funding structures. The preferred policy option is C1 because the benefits can be maximised if the project company is regulated.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects? A decision on whether to apply the new regime to an individual project would follow a project-specific consultation with stakeholders including water companies that would include a detailed cost benefit analysis. Ofwat will review the regime after five years.

Ministerial Sign-off For SELECT STAGE Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:

.....Date:

Summary: Analysis & Evidence

Policy Option: C1

Description: New Large Infrastructure Projects regime (direct regulation)

COSTS	ANNUAL COSTS		Description and scale of key monetised costs by 'main affected groups' The costs to be recovered from customers' bills would comprise incremental procurement costs, incremental regulation costs during procurement and construction, and overhead costs associated with a new project company. Although some of these costs are fixed, overall these costs are expected to be around 1% of capital investment for a large project.
	One-off (Transition)	Yrs	
	£ -	30	
	Average Annual Cost (excluding one-off)		
	£ Project specific		Total Cost (PV) £ Project specific
Other key non-monetised costs by 'main affected groups' Requirement for relevant water company to run a project-finance-type procurement exercise.			

BENEFITS	ANNUAL BENEFITS		Description and scale of key monetised benefits by 'main affected groups' Illustrative The financing benefits of using a project cost of capital range from 5% to 20% reduction of the water sector cost of capital under the existing regime. The PV of savings over 30 years to water customers is in the range 2% to 9% of capital investment, based on a 5.1% project cost of capital (after tax)
	One-off	Yrs	
	£ -	30	
	Average Annual Benefit (excluding one-off)		
	£ Project specific		Total Benefit (PV) £ Project specific
Other key non-monetised benefits Other non-monetised benefits include reduced project delivery risk, reduced risk of cost overruns and transparency in project delivery. Significant additional benefits could result from improved allocation of construction risk.			

Key Assumptions/Sensitivities/Risks. Assumes risk during construction under option C1 is no greater for shareholders of a water company than if the project were subject to the current regime. Project financing costs will depend on project risk profile, risk allocation for individual projects and potential long-term changes to capital availability due to the economic downturn.

Price Base Year 2008	Time Period Years 30	Net Benefit Range (NPV) £ Project specific	NET BENEFIT (NPV Best estimate) £ Project specific
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What is the geographic coverage of the policy/option?		England and Wales		
On what date will the policy be implemented?		April 2010		
Which organisation(s) will enforce the policy?		Ofwat		
What is the total annual cost of enforcement for these organisations?		£ 0m		
Does enforcement comply with Hampton principles?		Yes		
Will implementation go beyond minimum EU requirements?		N/A		
What is the value of the proposed offsetting measure per year?		£ N/a		
What is the value of changes in greenhouse gas emissions?		£ N/a		
Will the proposal have a significant impact on competition?		Yes		
Annual cost (£-£) per organisation (excluding one-off)	Micro N/a	Small N/a	Medium N/a	Large N/a
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Evidence Base (for summary sheets)

1 SUMMARY

1.1 Existing legal and funding framework

By 2010, the water sector in England and Wales will have delivered around £80 billion of investment since privatisation. This capital investment has typically consisted of a number of projects that individually are relatively small in proportion to the overall programme in aggregate. For example, the 2004 Price Review for water and sewerage companies in England and Wales included £5.5 billion funding for a total of 3,920 quality-improvement projects.

How capital expenditure is currently funded in the water sector is well understood. Currently, as part of the periodic review process, Defra issues a statement of statutory obligations, and both Defra and Welsh Ministers issue social and environmental guidance to outline priorities for water and sewerage companies. Ofwat, the Environment Agency, the Drinking Water Inspectorate and the water companies all then have a role in turning this guidance into the detailed outputs and costs to be included in price limits. The water company must then deliver the capital investment programme in their geographically licensed area.

As well as capital investment for quality improvements, price limits allow for capital expenditure to maintain the balance between supply and demand and to provide other service enhancements. Price limits also allow undertakers to maintain existing assets to achieve stable serviceability (*i.e.*, fitness for purpose). Annual capital expenditure is not passed through pound for pound in the respective annual bill. Instead the cost is recognised over the period that the assets will be used. This is either through the current-cost depreciation charge or the infrastructure-renewals charge (together termed “capital charges”), together with a return on the capital invested (the cost of capital) that has not yet been remunerated through capital charges. In this way the costs are shared by the generations of customers that will benefit from the investment.

Once price limits are set, the water companies are legally bound to deliver the outputs within the price setting package. The water companies have an opportunity to appeal their price limits to the Competition Commission once price limits have been set. It is then for the water companies to manage the risks associated with delivery of the capital programme including cost overruns.

The regulatory framework has enabled the water companies to deliver the investment programme efficiently and effectively since privatisation. The transparent regulatory approach, with price limits reset every five years, has enabled the water industry to be perceived as having relatively low overall business risk with a consequently relatively low cost of capital.

1.2 Rationale for looking at alternative delivery models for large projects

Since privatisation, the great majority of investment projects have been on a relatively small scale; there have been few major long term projects which have spanned price setting periods and no projects with an individual funding requirement of the size that as envisaged could be captured by an alternative approach. The challenges of the future—including an increased focus on long term planning against a backdrop of ever-greater focus on environmental quality, water as a valuable resource, the impact of climate change, weather volatility and carbon impacts—mean there may be more mandated large projects in the future. As such, the regulatory framework of the water industry should be adapted to accommodate large projects that introduce novel solutions and/or joint ventures between two or more water companies.

The current regulatory approach for investment in water and sewerage services is based on the assumption that planning and construction risks for capital projects are largely borne (or shared

with contractors) by the relevant water company. However, these tend to involve well-established solutions within the confines of a water company's area built within the timescale of the Ofwat five-yearly price-review process. However, it is likely that some large projects will raise issues of planning, financing, interface and construction risk that are greater than those normally associated with water-company capital investment programmes and are likely to require construction over two or more asset management periods. They may also straddle companies' existing areas of appointment. Such projects may have a very different risk profile, both in the construction and operational phases, from the programmes of investment undertaken by the sector to date.

The general duties of water companies set out in the Water Industry Act 1991 are framed in terms of a duty to provide and maintain a system within the water company's geographical area. This does not easily support the delivery of investments that straddle licensed areas or the provision of an infrastructure service to a water company. In addition, the current legislation does not provide powers to ministers or Ofwat to appoint companies other than undertakers that will operate within specified areas.

Particular issues arise where an individual project is so large that it is out of proportion with the remainder of the capital programme. In these circumstances it could be that the risks associated with the construction of the project become the key factor in determining the overall business risk of the company. This could be potentially detrimental to any credit assessment of the water company such that investors consider the industry cost of capital to provide insufficient reward for the risks associated with construction of the asset. This judgment could in turn jeopardise the delivery of the project and the remainder of the capital investment programme. Once constructed, the project—which may constitute a significant proportion of the water company's capital base—could have a lower operational and maintenance risk profile compared with the remainder of the business. Drawing on well established risk-allocation and project-finance principles in other sectors (e.g., the approach being developed by Ofgem for offshore transmission), the industry cost of capital, when applied to the capital value of all of the water company's assets could potentially under-reward investors for the construction phase of the project and over-reward investors in its operational phase. Such issues would be considered when ministers and Ofwat make their decisions on whether the new regime should be applied to individual projects.

Three possible approaches to the delivery of such large projects are described in this Impact Assessment:

- Option A is the delivery of a large project with no changes to the existing regulatory regime (*i.e.*, do nothing).
- Option B is an adapted regulatory approach.
- Option C is the creation of a specific large-projects regime which would require (following consultation) all aspects of the provision of large infrastructure projects, including asset ownership, to be considered for competitive tendering. It is currently envisaged that one or more water companies would normally be best placed to manage this procurement process. Within this option we considered two variants.
 - Option C1 is based on direct regulation of the entity delivering the project. The successful tenderer would be awarded a new type of licence regulating the infrastructure service provision. We refer to this licence in this Impact Assessment as an infrastructure service provider ("ISP").
 - Option C2 is based on indirect regulation of the entity delivering the project and would rely on contractual relationship between the project company and the existing undertaker.

More detail on these options is provided in Table 1 and in sections 2 and 3 of this Impact Assessment.

1.3 Comparison of approaches

In Table 1, we set out the possible risks, costs and benefits of delivering large projects under each of the options considered. The costs and benefits that would fall on customers through their water bills, and the risks of each option are summarised below and compared against option A, the 'do-nothing option'.

The Government's view is that option C1, the creation of a specific new large-projects regime (with direct regulation), could offer the most economic and efficient approach for the most complex projects. Relative to the base case (option A), option C1 may be preferable because it has the capacity to:

- allocate construction and financing risk for specific projects optimally, and to market-test investors' risk appetite for investing in specific projects;
- ensure that risk allocation for the project is transparent and occurs up front in the procurement process.
- expose costs to competition, including the debt and equity financing costs, thus facilitating an optimal approach to funding costs for specific projects;
- reveal a market-tested project cost of capital, including the cost of capital in the project's operational phase, based on the specific risks of the project.
- provide transparency in the sharing of refinancing benefits that may be associated with specific projects as they move from construction to operation;
- provide potentially greater discipline and transparency in project delivery;
- incorporate a longer term framework for large projects; and
- allow new entrants into the delivery of water and sewerage infrastructure and to introduce strategic and innovative approaches to the delivery of improvement schemes in the water industry that are capable of delivering schemes across existing licensed water company boundaries. These benefits are explained further in section 3.

The public consultation on the draft Flood and Water Management Bill asked whether a project-based approach (options C1 and C2) would reveal optimal funding structures. Ten water companies responded but were split on the issue. Some opined that it would work for very large projects, whereas others did not think it would.

Table 1

	Key features	Costs/Benefits/Risks compared with the base case
Option A Existing regime "base case"	Existing water company is responsible under the existing licence to design, build, finance, operate and maintain the asset within the existing regulatory regime.	Costs and benefits of the other options are compared to option A as the base case. Delivery regime + uses the existing regulatory framework, which includes clear allocation of responsibilities Project delivery - lack of a single-project focus - existing regime not suited to dealing with cost overruns on large projects - limited market testing of who is best placed to bear the risks of project delivery Financing - large projects may not be financeable at the industry cost of capital

<p>Option B</p> <p>Adapted regulatory model</p>	<p>Same as Option A, except that an approach to sharing the risks associated with delivery of the project is agreed between Ofwat and the water company in advance of project construction.</p>	<p>Delivery regime</p> <ul style="list-style-type: none"> = minimal incremental project set-up costs compared with option A, as the regulatory burden on the water company and the regulator is broadly the same under both approaches = ‘evolutionary’ changes to the existing regime are relatively easy to explain to customers and investors <p>Project delivery</p> <ul style="list-style-type: none"> = lack of a single-project focus for delivery of the project + improved process for dealing with risks such as cost overrun + contractors’ risk appetite for risk tested in the market but = determination of overall risk-allocation mechanism for delivery of the project by negotiation between the company and the regulator is sub-optimal compared with a fully market-tested approach <p>Financing</p> <ul style="list-style-type: none"> + p for allocating project-specific risk of cost overruns should improve the financeability of the large project in construction phase = no guarantee that discussions between the regulator and the water company will reveal the appropriate cost of capital for the operational phase of the asset + corporate finance
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<p>Option C1</p> <p>Project finance - Direct regulation</p>	<p>A value-for-money competitive procurement exercise is undertaken to establish the costs and to market-test the risk-allocation mechanism for delivery of the project.</p> <p>The winning consortium enters into a contract with the water company and has responsibility to finance (including equity finance) and deliver the project.</p> <p>It is directly regulated by Ofwat.</p> <p>The consortium’s revenue stream is received from the water company/companies</p>	<p>Delivery regime</p> <ul style="list-style-type: none"> - incremental regulatory costs associated with consulting on the delivery approach, developing the new regime, and overseeing the procurement exercise. - incremental administrative costs associated with registration of a new company + direct regulation of the ISP under a bespoke ‘infrastructure’ licence provides transparency to customers and investors and minimises interface risks + full benefits of project-based project structures realised <p>Project delivery</p> <ul style="list-style-type: none"> - greater complexity arising from a project-finance approach increases procurement costs + single-project focus helps to reduce delivery risk + market testing is the process that can best determine the appetite for allocating project-specific risks = because a licence is granted, the specific provisions of the Water Industry Act should apply to the ISP = Ofwat will be able to directly regulate project delivery <p>Financing</p> <ul style="list-style-type: none"> + procurement exercise should deliver project specific
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	that will benefit from the asset. This is a legitimate operating cost to the water company/companies that is funded in price limits.	<p>funding structure best suited to the risks of individual projects</p> <ul style="list-style-type: none"> + potentially significant cost of capital discount in the operational phase of the project should reduce total costs to customers over the life of the asset = direct regulation can be credit-enhancing + customers may be less exposed to cost overruns as a result of the risk-allocation process + project finance
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<p>Option C2</p> <p>Project finance - Indirect regulation</p>	<p>A value-for-money competitive procurement exercise is undertaken to establish the costs and to market-test the risk-allocation mechanism for delivery of the project.</p> <p>The winning consortium enters into a contract with the water company and has responsibility to finance (including equity finance) and deliver the project.</p> <p>Ofwat relies on its powers over water companies to oversee project delivery (indirect regulation)</p> <p>The consortium's revenue stream is received from the water company/companies that will benefit from the asset. This is a legitimate operating cost to the water company/companies that is funded in price limits.</p>	<p>Delivery regime</p> <ul style="list-style-type: none"> - incremental regulatory costs will be greater than option C1 due to administrative complexities in making revisions to water companies' licences to accommodate this delivery option. All other incremental costs of this option are broadly the same as for option C1. + some benefits of project-finance type structures realised but: <ul style="list-style-type: none"> - indirect regulation of the ISP lacks transparency to customers and investors - regulatory oversight of the project is limited to the powers the regulator has over the appointee(s) involved in procuring the project - concerns arise over regulating the entity responsible for delivery, operation and maintenance of the asset <p>Project delivery</p> <ul style="list-style-type: none"> - greater complexity arising from a project-finance approach increases procurement costs. + single project focus helps to reduce delivery risk + market testing is the process that can best determine the appetite for allocating project-specific risks - the ISP is not appointed under the Water Industry Act 1991 <p>Financing</p> <ul style="list-style-type: none"> + project finance + financing benefits identified for option C1 may apply - the value of these would be lower (vs. option C1) because the ISP raising capital to deliver the project is not regulated.
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1.4 Which projects?

We require legislative changes to be able to develop this regime for suitable projects.

The primary legislation will require subsequent regulations that detail the qualifying criteria, as well as the production of guidance by Ofwat on how it will identify a project that meets the criteria. Once it has identified a potential project for the new regime, Ofwat will then consult as to whether the project-based approach should be implemented in that case, based on a cost-

benefit analysis of the case. The regulations and guidance will refer to a non-exhaustive list of factors that should be considered, but which are not determinative, including for example: the magnitude of the investment required, technical complexity, risk profile, timeframe for delivery and the geographic area the project serves. The regulations and guidance will also include a *de minimis* cost-level threshold to bring some larger projects into consideration for the regime. However, this is likely to be one of a range of qualifying criteria.

The chief objective of the secondary legislation and guidance will be to enable identification of projects that represent large-scale novel or radical engineering solutions that have not previously been used to deliver water and sewerage projects on an unprecedentedly larger scale. Therefore, at this stage we are not establishing what the cost-level threshold might be, nor are we providing a definitive list of the types of infrastructure or projects that might be included in the new regime.

An example of where the project-based approach could deliver benefits is in relation to a specific component of the Thames Tideway scheme – the “Thames Tunnel”. The overall Tideway scheme has been required in order for the UK to discharge its Community obligations. Although the funding approach has generally been established for two of the three aspects of this scheme (the Lee Tunnel and the work at Beckton sewage treatment works), the approach for the Thames Tunnel is still to be agreed. The cost estimate for the Thames Tunnel that informed the decision to go ahead with the scheme is £1.5bn in 2004-05 prices. It is estimated that it will take until 2020 to complete. This is a significant, complex and risky project when compared with the £3 billion cost of Thames Water’s entire capital programme, or indeed the capital programme of the industry of £17 billion, assumed in price limits for 2005-2010. The project on its own is nearly 50% of the Thames Water’s entire programme for 2005-2010.

It may be appropriate to implement options without changes to legislation in some cases, but the Government’s view is that the proposed new regime will be optimal for some projects. The particular delivery options that may be feasible at any time will depend on many factors, including the scale of the project required, the possible engineering and operational solutions, and the project-specific risks (and the funding environment for projects with such risks). However, there is a strong rationale for the legislative changes required to underpin option C1 in order to enable the full range of approaches to be available in the future.

The public consultation on the draft Floods and Water Bill asked what type of projects should be covered by the regime. There was a general consensus that the provisions included in the draft Bill would apply only to a limited number of very large projects. However, respondents wanted to pin down the criteria. It was suggested that the criteria should include only a financial threshold, and should not be based on project characteristics such as risk or complexity.

The Government will consider these responses as it develops the broad criteria for projects and the draft regulations in consultation with stakeholders in early in 2010.

1.5 Consultation process

In the methodology paper on the framework and approach for setting price limits for PR09 (published March 2008), Ofwat stated that there may be a case for adopting a different approach to regulating the investment associated with very large, discrete, long-term capital projects with a different risk profile from typical water-company capital programmes. This is consistent with developments in the energy and rail sectors where there is a need to deliver new types of infrastructure. The energy sector’s offshore-transmission regime, for example, is designed to strike an appropriate balance between protecting consumers’ interests and facilitating the connection of offshore generation in a timely, economic and efficient manner

There is a real possibility that, with no change to the existing funding framework, the water companies could find it difficult to raise the capital to deliver this type of project, even if such projects are mandated by Government.

To address this, we are seeking provisions in the Bill to allow for the possibility of a project-based approach that could be developed for suitable projects in the future. It does so by providing the Secretary of State (and Welsh Ministers as appropriate) with a power to introduce regulations that will require water companies to engage in a competitive tendering exercise to own, finance and deliver specific projects.

The UK and Welsh Assembly Government will carry out full public consultations on their respective regulations and on the criteria to determine which projects which might be captured by the regulations. Ofwat will similarly consult on its guidance on how to carry out its statutory functions under the legislation.

Once the regime is in place Ofwat will consult on individual projects early in the planning stage of each project to determine whether it should be brought into the regime on the grounds of a likely net benefit. This would involve a full consultation process on the options for delivery of the specific project which might include the options discussed in this Impact Assessment and others. Only following this detailed consultation process will a decision then be made by Ofwat, with the consent of ministers, on the approach to delivering the project. Secondary legislation and project-bespoke licences may then need to be developed. This will require that a decision on whether to apply the new regime be made well in advance of any procurement timetable for the project.

The rest of this Impact Assessment sets out further detail on Ofwat's analysis of the options.

2 DELIVERING LARGE PROJECTS UNDER EXISTING REGULATIONS

2.1 Option A: No change to the existing model (the base case)

Delivery within the existing regime would require the construction costs of the project to be recognised in price limits through the established regulatory mechanisms; for example, through the capital incentive scheme policy adopted for the 2009 price review. This approach is described as the 'base case'.

Under the base case, the water company would remain responsible for the design, construction, financing, operation and maintenance of the large project in its licensed area together with the rest of its five-year capital investment programme. The water company would bear the construction risks associated with the delivery of the project. The water company would finance the project in the same manner as it would all of its capital investment projects. The water company would also be responsible for the operation and maintenance of the asset once constructed.

The usual regulatory mechanisms for delivering the project would apply, including the regulator's allowing for the financing of the project through the industry cost of capital applied to the asset additions necessitated by the project. The water company would have the opportunity to appeal its price limits to the Competition Commission once price limits are set, but this appeal would relate to the whole of the price-setting package. Existing regulatory mechanisms, including the mechanism that allows price limits to be reopened and potentially for customers' bills to be increased due to circumstances beyond prudent management control, would provide a degree of protection to the water company in the event of significant downside events that are outside the control of the water company. Ofwat would also need to consider providing a commitment that future price limits would include provision to ensure delivery of the project should it span price-review periods.

However, there are a number of issues with the base case:

- The level of risk (e.g., the construction, financial, interface and regulatory risk) associated with the large project may be different from the risks of delivering existing capital programmes. With no change to the existing regulatory mechanisms, this discrepancy could have significant detrimental financial implications for the water company and its customers. Where an individual project comprises a large proportion of a water company's capital programme, this could have a significant impact on the financial ratios, particularly in a downside scenario, and hence the credit rating of a water company. A deterioration in the credit quality of a water company may raise the cost and/or reduce the availability of debt financing. In addition, the potential downsides on very large schemes could lead to significant losses to equity holders and, in a more severe scenario, jeopardise the ability of the water company to make interest payments, triggering a default event.
- Under the existing regime, it is unlikely that the risks associated with the delivery of a large project will be best allocated between the water company, contractors, investors and customers in a manner such that individually identified risks are placed with those stakeholders that are best able to manage them.
- The mechanisms in place for funding the efficient costs of delivering capital projects and for dealing with cost overruns under the existing regime may not be 'fit for purpose' for large projects that could potentially dwarf the size of other investments.

Although the current regime provides clear lines of responsibility for the deliverability of individual projects, the Government considers that it may be sub-optimal for the delivery of large projects, except in certain instances where (i) it is possible to clearly identify phases of work with defined outputs that could be accommodated into the current five-year price-setting cycle and (ii) the project risks are consistent with the overall business-risk profile of the water company.

It is also unlikely the industry or its investors would view large projects to be financeable within the existing regulatory framework without changes that accommodate the specific risks of the project such that there is no significant detrimental impact on the overall business risk of the water company.

2.2 Option B: Adapted regulatory approach

This approach would build on the existing regulatory model. The key difference from option A is that a specific approach to allocating the incremental risks associated with design, construction, financing, operation and maintenance of the project would need to be agreed between Ofwat and the water company in advance of project commencement through a process of negotiation between Ofwat and the water company. Contractors' appetite for construction risk could be tested in the market as a part of the process to determine the most appropriate method of risk allocation, but there would be limited testing of other stakeholders' risk appetite. This approach explicitly recognises the fact that the large project is different from the portfolio of other projects that must be delivered within the price-setting package.

This approach would encompass detailed analysis of project-specific risks by the undertaker and the regulator in advance of construction. This involves a process of identifying events or circumstances likely to affect the delivery and operational risk of a project and assessing each in terms of likelihood and magnitude of their impact. Ofwat and the water company must then negotiate an appropriate mechanism to share costs associated with construction risks between the water company, contractors and the customers.

Ofwat has been developing this approach in respect of the Lee Tunnel component of the Thames Tideway scheme; the project-specific risks have been subjected to detailed analysis by Thames Water and consultants appointed by Ofwat. This analysis has the objective of capping the level of risk that Thames Water bears in the construction phase of the project within the cost of capital set by normal means at the price review.

In addition, a regulatory mechanism could be agreed between Ofwat and the water company in advance to ensure that customers receive the benefit of the lower operating risk through lower water bills once the construction phase is complete and the asset is operational.

An alternative “developed regulatory approach” was adopted by the Civil Aviation Authority (CAA) in respect of construction of Heathrow Terminal 5. In this instance, the CAA allowed a higher return than would otherwise have been the case in order to allow for the increased risk associated with construction of the asset; at 7.75%, the return (the real, pre-tax cost of capital) was higher than other regulated sectors. In addition, a significant element of contingency was included in the allowed costs. This approach has been put forward as best practice in contract management in NAO case studies.

In both the instance of construction of the Lee Tunnel and of Heathrow Terminal 5, the adapted regulatory model approach might suffer from the fact that the level at which risks are capped and the mechanism by which risks are shared have to be agreed by discussion between the regulator and the company. Although the model provides for some market testing of the appetite of contractors to accept construction risks, this approach is unlikely to facilitate the market testing of investors’ capacity to bear and be rewarded for the risks in delivering the project. An approach where Ofwat has to determine the allocation of risks between a water company, contractors and customers is almost inevitably sub-optimal to a thorough market appraisal where entities bid to own and deliver the project.

It is not certain, therefore, that such an approach would be effective for the delivery of all large projects in the water industry. Alternative delivery and financing models may deliver better value overall for customers. However, it is acknowledged that some of the other features of the Heathrow Terminal 5 approach—in particular contract management—may be applicable in the overall delivery model adopted for large projects in the water sector

3 DELIVERING LARGE PROJECTS UNDER A LARGE-PROJECTS REGIME

The creation of a specific, project-based regime might provide a better delivery approach for suitable large projects in the water sector.

3.1 Competitive tendering exercise

A key element of a project-based approach would be a full competitive tendering procedure that would allow the bidding consortia to own, build, finance and potentially maintain the large project. The tendering process would determine the income stream for an infrastructure service provider (“ISP”) for the life of the project. The ISP would charge the water company for the services being provided and the water company would be able to include these as a legitimate regulated cost to be recovered from consumers. The ISP’s revenue would therefore ultimately come from customers of the water company. It is envisaged under this approach that the ISP’s income stream would be established for the life of the project, subject to any bespoke risk-sharing mechanisms established through the competitive procurement exercise.

We envisage that this procurement exercise would normally be run by the water company that requires the service provision, because this would seem to be the entity best placed to specify the service required. There would need to be new conditions in the water company’s licence to ensure Ofwat can exert a supervisory role in the process. For strategic assets that serve more

than one water-company area (e.g., a new reservoir), another authority, such as the Environment Agency, might be better placed to run the procurement exercise.

The ISP would own the asset and would be responsible for raising the finance necessary to construct the asset from the capital markets on its own commercial terms.

3.2 Focus on risk allocation

A focus on the allocation of all of the risks associated with delivery of the project would be at the heart of the project-based approach. It would involve a well tested process to assign the specific risks associated with the delivery of a project to the stakeholder that is best placed to manage those risks. This means that attention would be focused on the detail of these specific risks. Thus, a process of due diligence and risk evaluation would be undertaken by equity investors, lenders and contractors throughout the bidding and negotiation phases. Although this would extend the procurement timescales for project-finance schemes, the benefit is that the increased focus should reveal the best approach for specific projects, including (i) the best allocation of risk in the construction phase and (ii) the price of what can be a very significant reduction in the risk of the project once the construction phase is complete.

3.3 Market-tested cost of capital

In addition to the market appraisal of risk, this approach should yield a market-tested cost of capital for the project that incorporates a different, likely lower, cost of capital in the operational phase of the project. Such an approach should present a better outcome for customers, either through a lower overall cost of capital over the life of the project or through lower customer exposure to the impact of cost overruns (compared to options A and B above).

Evidence from the project finance markets, where project sponsors often undertake refinancings once projects become operational (e.g., replacing existing debt on better terms), suggests that the risk profile for discrete projects can reduce substantially in the operational phase. That is, once the project is operational, its risks are lower, as the risks associated with constructing the project and bringing it into operation are no longer relevant. This creates opportunities to reduce the annual financing costs, as capital providers are prepared to offer better terms for projects with demonstrably lower risks. For example, the NAO update (published April 2006) on PFI debt refinancing and PFI equity markets sets out this evidence. On the other hand, because integrated water companies continually undertake new or replacement capital works, they never move conclusively from a construction phase to an operational one. Thus, a water company undertaking even a large project as part of a bigger, ongoing portfolio of construction would not experience the same reduction in perceived risk that a stand-alone project might. This point is supported by Treasury guidance referred to in the April 2006 report from the NAO. Specifically, this guidance states that for projects financed through the corporate funds of the service provider (i.e. where the ISP would be both service provider and financier) rather than through finance obtained specially for the project, it is difficult to identify any refinancing benefit that the contractor may secure over the life of the project. This is exactly the risk if particular large projects are funded alongside the rest of an integrated water company's investment (i.e., option B above).

Water customers would benefit under the project-based approach if the cost of capital revealed for individual large projects in their operational phase, net of the additional costs of this approach, is lower than the cost of capital that Ofwat sets every five years when it takes into account the whole spectrum of the risks of an integrated water company. This could arise from the single purpose of the project and the nature of the risks in the operational phase. Section 4.2 sets out an analysis informing the illustrative 5% to 20% range for the potential reduction in the cost of capital for a project in its operational phase compared to the industry cost of capital.

In the construction phase, the project-based approach provides discipline, transparency and the potential for greater efficiency by testing the allocation of risk between the water company, contractors and customers such that the risks of the project lie with the party best placed to bear them. It may be that, for a particular project, capital providers deem project risks to exceed the risks of investing in an integrated water companies. In that scenario, the cost of capital during the construction may be higher than the cost of capital for an integrated water company. However customers would be protected to a greater degree from cost overruns that they otherwise might be exposed to because the ring-fencing of the large project's delivery and financing from the water company's other capital projects means that the water company would not need to approach Ofwat for an interim price fixing determination to recover these additional costs.

The overall cost of capital for the project would be determined by the specific risks of the project. The Government's view is that for large projects customers would be better protected under a project-based approach, but this would be looked at on a case-by-case basis.

3.4 Focus and transparency

There could also be considerable merit in terms of demonstrating transparency to a wide range of stakeholders in ring-fencing the delivery and financing of an individual project (and its risks) from the delivery and financing of other capital projects. The ISP would report on the delivery of the project in the same manner as a company under the existing regulatory regime; however, the fact that the project is ring-fenced from the delivery of other investment projects suggests the administrative burden associated with regulatory reporting could be marginally below that under the existing regime.

The use of this project-based approach for the procurement of capital projects by a regulated company is not without precedent. For example, in Northern Ireland, 50% of the upgrades in water supply and 20% of the wastewater treatment capacity is to be delivered via Public Private Partnership contracts. In addition, Ofgem is in the process of implementing a regime whereby consortia would bid for the right to finance and deliver offshore electricity-transmission assets. In this case, Ofgem would have a role in the competitive procurement process and the successful bidder would be granted a licence.

3.5 Summary

In summary, key benefits of a project-based approach for the delivery of large projects in the water industry are that:

- It provides a framework to maximise competition in the tendering process for the construction and maintenance contracts as well as in debt and equity.
- It should reveal a market-tested project cost of capital, including the cost of capital in the project's operational phase. The cost of capital in the operational phase should be lower than that for a typical water company. The project-based approach will allow customers to benefit from this lower cost of capital in the operational phase.
- It fosters a discipline that ensures that allocation of all risks associated with construction and operation of the asset is transparent and occurs upfront in the procurement process.
- Rigorous analysis by contractors and by debt and equity providers allows the price of construction, financing, operation and maintenance risks to be factored into the procurement process.

- It may offer greater certainty of outturn costs and project timetables, which would reduce the risk of major cost overruns and ease financeability concerns.
- A single-project focus isolates all of the risks associated with delivery of the large project from the existing undertaker. Separation of the large project from the rest of a water company's capital investment programme would allow a clear distinction between the cost of capital applicable to the water company's regulated business and an equivalent risk-adjusted cost of capital applicable to the project.
- It could allow new entrants (*i.e.*, ISPs that are not water companies) into the delivery of water and sewerage infrastructure and may introduce strategic and innovative approaches to the delivery of improvement schemes in the water industry that are capable of delivering schemes across existing licensed water company boundaries. For example, new entrants from the energy sector have recently entered the water market by providing developers with multi-utility services for new housing developments. This occurred as a result of introducing competition in pipe-laying for water supply.

There are two variants to this approach set out in this Impact Assessment. In the first (option C1), Ofwat would have the ability to award the successful bidder a new type of regulated licence ("direct regulation"). In the second (option C2), the regulator's oversight would be indirect and limited to the powers over those water companies directly involved ("indirect regulation").

3.6 Option C1: Direct regulation of the Infrastructure Service Provider

This option would require changes to primary legislation to provide the Secretary of State and Welsh Ministers, or Ofwat under a delegated power, the ability to grant a new type of licence to an ISP.

Following a competitive value-for-money procurement exercise, where consortia bid to design, build, finance and possibly operate and maintain the asset, a bespoke infrastructure licence for delivery of the large project would be granted to the successful bidding consortium. Changes to the Water Industry Act 1991 would allow the infrastructure service provider to take full advantage of the powers conferred by the Water Industry Act 1991, including the compulsory purchase provisions. The assets would be owned by the ISP. The ISP's income would be determined by the value-for-money procurement exercise, which would be enshrined in the ISP's licence, and recovered from the existing water company.

The ISP would be responsible for delivery of the project, and the value for money procurement exercise would inform the sharing of risks between the ISP, contractors and water customers.

The licence granted to the ISP would be bespoke to achieve proportionate regulation. It is envisaged that regulation of the ISP would be 'light touch' given the contractual arrangements that would be established between the ISP and the water company as a result of the competitive procurement exercise.

The Government considers that option C1 could be included in the existing legal and regulatory regime with minimal changes. The new licence would be governed in broadly the same way as water and sewerage licences, would not require a different variation or enforcement regime and should easily be tailored to fit the existing regime, especially in relation to special administration and, as a reserve power, control over what the ISP is allowed to charge the water company.

Ofwat would be unable to achieve direct regulation of the ISP under the existing legal framework. Whilst the existing inset-appointment licensing approach could potentially be applied to award a licence to the ISP, there are significant definitional and conceptual issues

that could not easily be overcome, in part because the existing regime supports regional monopolies. In addition, the inset appointment regime presents a risk of introducing 'unintended' consequences which might result from the application of the appointment approach in a process for which it was not originally intended.

3.7 Option C2: Indirect regulation of the Infrastructure Service Provider

It might be possible to implement a new large-projects regime without changes to primary legislation. However, the approach would rely on the water company's consent to licence conditions to require it to engage in a competitive procurement process and to allow Ofwat to supervise the procurement exercise. It would then rely on indirect regulation of the ISP over the life of the project (*i.e.*, through both construction and operation).

Indirect regulation would be exercised through a combination of contractual provisions between the existing undertaker and an unregulated ISP as well as possible amendments to the water company's conditions of appointment to allow Ofwat to take action in certain circumstances.

Similarly to option C1, the ISP would be responsible for the design, construction, financing, and possibly operation and maintenance of the large project under contract with the existing undertaker. The assets associated with the large project would be ring-fenced, possibly within a wholly owned subsidiary of the water company. This would mean that the asset itself would not be within the appointed business (and hence not directly covered by the undertaker's licence).

Again like option C1, under its contract with the undertaker, the ISP would be responsible for delivery of the project. The approach to the sharing of risks between the contractor, the undertaker and the undertaker's customers would be determined by the procurement process in which consortia bid to deliver the project.

Option C2 may deliver better overall value for money compared to the base case and the adapted regulatory approach but has weaknesses compared to option C1. These are set out below.

3.8 Rationale for direct regulation of the ISP (*i.e.*, option C1)

- Indirect regulation relies on ensuring that contractual terms that compel the ISP to act in a way acceptable to Ofwat are included at the beginning of the project. Ofwat would only have a single opportunity to 'influence' these contractual terms. Should the contractual terms prove inadequate, Ofwat would not easily, if at all, be able to insist on changes to the contractual terms. Moreover, Ofwat would not be able to enforce the contractual terms directly and would have to rely on action by the existing water company. In order to force the water company to take action, Ofwat might need to make considerable changes to the water company's licence. Even if the licence were amended, there is no guarantee that Ofwat would be able to compel the water company to enforce the contractual terms. Finally, if the ISP were to sell its assets, then there would be no guarantee that the contractual terms originally agreed would be transferred.
- Compared with the indirect regulatory approach, direct regulation facilitates a more straightforward approach to the delivery of a large project where the project spans undertakers' operating boundaries.
- If the ISP were a directly regulated entity for the purposes of the Water Industry Act 1991 then it could take advantage of the powers conferred by the Act, such as the compulsory purchase provisions.

- Under option C1, the ISP would be a directly regulated entity for the purposes of the Water Industry Act 1991, such that the special administration regime would be invoked should the ISP become insolvent. If the ISP were subject to the special administration process then its assets which that are necessary to perform its functions would be ring-fenced, thereby allowing the special administrator to ensure timely delivery of the project. The absence of the special administration regime under option C2 might open the existing water company to a difficult situation where it would be reliant on the ISP to discharge its functions, and it would have no other means of complying with its obligations to deliver the requirements of the investment project. This might open the existing water company to legal action and also might result in a breach of EU law by the UK.
- If the ISP were a directly regulated entity for the purposes of the Water Industry Act 1991, then it would have the power to charge for services related to its functions. This would enable greater certainty around its cash flows and reinforce the funding structure envisaged. In addition Ofwat's reserve power over the infrastructure service provider's charges should support an efficient cost of finance. For these reasons, direct regulation would be credit-enhancing compared to indirect regulation and therefore would result in a lower cost of capital.

4. COST BENEFIT ASSESSMENT

Where costs and benefits have been monetised in this assessment, they have been stated as a percentage of capital investment in a typical large investment project, assuming a two-year procurement phase and seven-year construction period. The costs and benefits considered here are those that are incremental to the base case (option A). The capital investment is assumed to have a similar composition to the investment in new assets in the water industry in the period 2005-2010, in which 55% of new assets were depreciable and 45% of new assets were non depreciable. A discount rate of 3.5% has been used, consistent with that recommended in the Green Book.

Options C1 and C2 would allow for the full market testing of investors' and contractors' appetite for risk and for a project-specific risk allocation mechanism to be employed. This could deliver significant benefits if, for example, the mechanism allocated construction risks to those entities best placed to manage risk during the construction phase. Optimising risk allocation in this way would therefore minimise customers' exposure to cost overruns through their water bills. However, the exact nature of the risk-allocation mechanism can only be determined on a project-specific basis. Therefore, for the purpose of this assessment, it is assumed that the risks borne by equity providers (*i.e.*, shareholders) during the construction phase would be no greater than those accepted by a shareholder in an existing water company. Consistent with this, it is assumed that the risk that cost overrun and the risk that these costs are passed on to customers are the same under each option.

4.1 Comparison of the adapted regulatory approach (option B) to the base case

Costs

There are minimal incremental costs associated with this approach compared with the base case because, under both the base case and the adapted regulatory model, the existing water company is responsible for the design, construction and operation of the asset. In both instances, the administrative burden on the water company is the same.

This model would require Ofwat to enter into negotiations with the water company to determine the nature of the risk-sharing mechanism to be put in place for delivery of the project. The extent of these negotiations would be determined by the nature and complexity of the project.

However, incremental costs associated with such negotiations are expected to be minimal compared with the base case.

Benefits

The key benefit associated with the adoption of alternative delivery models is the possibility of cheaper financing costs over the lifetime of the project, compared with the base case. However, the financing-cost benefits of the adapted regulatory model (*i.e.*, option B) would be minimal compared with the base case. This is because Ofwat would determine the appropriate financing cost for the project with the existing undertaker through negotiation. In the absence of any market testing of the financing costs of the project, there is no guarantee that the discussions between the regulator and the water company would 'reveal' the appropriate cost of capital for the assets specific to the project in their operational phase. As a result, benefits relative to the base case could be zero.

4.2 New specific large projects regime (direct regulation, option C1) compared to the base case

Costs

The procurement process would typically be a much more complex and costly process than traditional procurement and would be carried out over a much longer timescale. The range of skills required by bidders, which include financing, designing, building and possibly operating and maintaining the assets once constructed, means that companies might have to form consortia to meet all of the requirements. Evidence of direct comparison of procurement costs between a traditional procurement project and a project-finance approach is limited, but is likely to be of the order of 0.4% of total project costs over two years.

Incremental regulation associated with consulting on the alternative approach to delivery of the large project, developing the new licence, and implementing the procurement exercise would introduce additional costs compared with the base case. Additional costs would also be incurred as a result of consulting on this approach to delivery of the project, setting up the large-project licence, and implementing the procurement phase. Some of these costs will be fixed, but for this Impact Assessment, incremental regulatory costs associated with Ofwat staff and the costs associated with legal, engineering and financial consultancy have been estimated to cost around 0.3% of the capital investment requirement associated with a typical project.

Compared with the base case, the project finance approach would require the ISP to be a registered company. Over 30 years, for a typical investment project, incremental costs associated with the administrative burden of the ISP above the base case are assumed to be around 0.3% of the capital value of the investment project.

Thus, the total present value of costs incurred over 30 years is approximately 1% of the capital investment.

Benefits

For a specific large-projects regime, the key monetary benefit is a potentially lower cost of capital in the project's operational phase compared with the base case. Ofwat's assessment, based on the cost of capital set at the 2004 Periodic Review (5.8% pre-tax, 5.1% fully post-tax), is that cost-of-capital savings lie in the range of 5% to 20%, which results in a reduction in overall project cost in the range 2% to 9% over 30 years (in present-value terms). The reduced cost of capital compared to the base case reflects a view that the risks in the operational phase for discrete projects would be lower than the risks associated with the other activities of a water company.

Ofwat have undertaken two high-level analyses that support the illustrated reduction in the cost of capital in the operational phase. The data underpinning these analyses is included in the table and summarised below. In practice, the present value of the benefit would depend on the specific project risks, the scale of the project, the mix of assets required and the nature of the risk-sharing mechanism.

As described above, the risk during the construction phase is project-specific. Because project-specific details are currently unknown, it is instead assumed that the project cost of capital in the construction phase would be equal to the water-sector cost of capital and that this would be achieved through the risk-sharing mechanisms.

	PR04	Project finance benefits	
		Credit rating	Gearing & credit rating
Cost of debt	4.3%	3.8%	4.0%
Cost of equity	7.7%	7.7%	10.7%
Gearing	55%	55%	90%
Cost of capital (pre-tax)	5.8%	5.6%	4.7%
Cost of capital (post tax)	5.1%	4.9%	3.6%
Financing discount (pre-tax)		5%	20%
Financing costs (30yr PV) as a percentage of project cost	61%	59%	52%
Financing discount (30yr PV) as a percentage of project cost	0%	2%	9%

Assumptions

Project cost	100%
Proportion depreciable	55%
Construction period (yrs)	7
Average asset life (yrs)	25
Discount factor	3.5%

Credit rating impact

Once constructed, the asset would likely benefit from lower operational risks than those associated with a typical integrated water and sewerage company. It is possible therefore that the project would sustain a higher credit rating for a given level of gearing. These lower operational risks would therefore be reflected in a lower cost of finance via a lower debt premium in the operational phase, relative to the water sector's cost of debt.

To assess the impact of the lower financing cost in the operational phase, Ofwat has considered evidence from bond yields for bonds with an A and a BBB rating. (Bonds rated "A" are deemed of higher credit quality than bonds rated "BBB".) The typical yield on bonds with a BBB rating is higher than bonds of an equivalent maturity with an A rating, which suggests investors require a higher return for assets with greater risk. For a selection of sterling corporate bonds with maturities in excess of 10 years, Ofwat's assessment concluded that the difference in the average yield for BBB and A rated bonds was 0.5% for the period June 2001 to February 2009.

The table above demonstrates that a 0.5% reduction to the debt premium compared with that assumed at PR04 results in a reduction in the pre-tax cost of capital (assuming no change to the gearing assumption or the cost of equity) assumed at PR04 of 5%. Ofwat considers this to be the minimum financing discount available for a project-finance approach.

Gearing and credit rating impact

Project-finance structures can offer a lower overall cost of capital because they tend to be much more highly geared than the gearing assumption of 55% that underpinned Ofwat's 2004 assessment of the water sector's achievable cost of capital.

Investors tolerate a higher degree of leverage for two key reasons. First, a stand-alone project is generally judged to be lower-risk than a project that is part of an integrated water company's larger portfolio of projects. Secondly, and perhaps more importantly, a licence that allows for the ring-fencing of regulated assets provides significant protection for debt holders if things go wrong. These projects, particularly in their operational phase, could benefit from the structured-finance techniques employed in recent securitised structures in the water sector. These examples suggest that it may be possible to sustain gearing as high as 90% in the operational phase.

This approach recognises that the financial risks of higher gearing would need to be taken into account. For consistency with the 90% level of gearing, a net 0.3% lower cost of debt and a 3% higher cost of equity have been considered compared to the PR04 industry cost of capital assumption. The table above demonstrates the resulting 20% reduction to the pre-tax cost of capital assumed at PR04.

The analyses do not reflect what may or may not be permanent changes to the project-finance markets—in particular, sustainable project gearing levels—as a result of the credit crunch. The costs and benefits of alternative options for specific projects that may meet the criteria for competitive tendering will be assessed on a case-by-case basis and will be based on a view of the capital markets at that time.

30 year financing benefit

On the basis of this high-level analysis and under the assumptions stated in the table above, Ofwat has concluded that the total present value of 30-year benefits lie in the range 2% (5% discount to the cost of capital in the operational phase) to 9% (20% discount to the cost of capital in the operational phase) of total capital investment.

Other benefits

In addition to the monetised costs and benefits described above, there would be a significant number of benefits that are not easily quantifiable in monetary terms. These relate to the full set of benefits of a specific regime for large projects, described in section 3, and which are beneficial to all water customers.

There might be a trade-off for customers between financing benefits and the extent of exposure to cost overruns, depending on the market-revealed, optimal risk allocation for individual projects. For example, the cost of capital might be higher than the base case because investors would be prepared to take on higher risks. This could still benefit customers overall because their exposure to cost overruns would be significantly reduced.

An additional key benefit is that the ISP would be subject to the special administration regime under the Water Industry Act 1991 in the event of financial distress. The special administration regime provides a clear set of procedures to ensure that the assets of the ISP are secured in the unlikely event of insolvency.

4.3. New large projects regime (indirect regulation, option C2) compared to base case

Costs

As in option C1, the ISP would be responsible for the design, construction, financing, and possibly operation and maintenance of the large project under contract with the existing undertaker. This approach would require a procurement process similar in scope and duration to the direct regulatory approach. The incremental procurement costs compared with the base case are thus considered to be the same as those under the direct regulatory approach.

This approach would require the ISP to be a registered company. The incremental overhead costs compared with the base case would therefore be the same as option C1.

In addition to the incremental costs of regulation identified in option C1, indirect regulation might require significant revisions to the licence conditions of one or a number of existing undertakers. Increased regulatory costs associated with ensuring appropriate regulatory protection would be included in the terms of the contract between the undertaker and the ISP. The legal costs associated with revisions to the licence and with the introduction of contract terms would be incurred as one-off costs at the start of each large project and could be significant.

Option C2 also lacks the clarity provided by the special administration regime in the event of the insolvency of the ISP. This could lead to significant incremental costs which must ultimately be passed to customers in the event of insolvency of the ISP.

Benefits

As with option C1, there should be reduced financing costs compared with the base case, reflecting investors' likely assessment of lower risk in the operational phase of the project. The value of this benefit would depend on the specific project risks, the scale of the project and the nature of the risk-sharing mechanism. The value of this benefit is expected to be smaller than that offered by option C1, however, because, without the licence that the direct regulatory regime would provide, the ISP under option C2 would have less certainty over its cash flows.

Other benefits

In addition to the costs and benefits described above, there are other benefits that are not easily quantifiable in monetary terms. These are largely similar to those set out for the direct regulatory approach. However, the lack of protection afforded by the award of a licence to the ISP under the terms of the Water Industry Act 1991 suggests that the benefits offered by the project finance approach would not be fully realised under option C2.

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	Yes
Small Firms Impact Test	No	Yes
Legal Aid	No	Yes
Sustainable Development	Yes	Yes
Carbon Assessment	No	Yes
Other Environment	No	Yes
Health Impact Assessment	No	Yes
Race Equality	No	Yes
Disability Equality	No	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	Yes

Annexes

Competition assessment

The proposed approach would act to increase competition in the ownership and delivery of large investment projects in the water industry in England and Wales, as detailed in the evidence base.

Small firms impact test

Small firms will benefit if the preferred approach is adopted (option C1). This is because this option should result in the lowest bills for all water service customers, including small firms, as set out in the evidence base.

Sustainable development, carbon assessment and other environmental benefits

Introduction of a new licensing regime for large projects in the water sector would enable a more integrated and sustainable approach to the delivery of the capital investment programme in England and Wales.

Legal aid, health impact, race equality, disability equality, gender equality, human rights, rural proofing

The proposed policy options have no impact.