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DRIVING BEST VALUE DECISION MAKING WITHIN THE WATER INDUSTRY USING A MULTI-CAPITALS APPROACH



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FOREWORD

In November 2020 the Water Industry Forum, working with Water UK's Environment Policy Advisory Group members and supported by Atkins, launched the first set of Natural Capital Principles for the Water Industry¹. These principles were the outcome of a workshop held in October 2020 with a wide range of government, regulator and water company participants. They were a response to growing recognition that the water industry depends on the benefits provided by natural capital assets to sustainably deliver affordable and reliable water supplies and wastewater services to customers. The water industry has also recognised the opportunity to improve the environment through investments that deliver multiple benefits to customers, the environment, and society.

The water industry has been pioneering the use of natural capital approaches in recent years to support decision making, although these have not yet been applied on a consistent basis across the sector. Building on this adoption of natural capital approaches, some water companies have been exploring the use of a 'multi-capitals' approach to decision making.

This approach enables organisations, such as water companies, to understand their impacts and dependencies on additional capitals – including natural, social, human, intellectual – as well as financial and manufactured capital. The aim of this approach is to inform more holistic decision making that recognises trade-offs and supports the development of sustainable long-term value creation.

This thought leadership paper explains what is meant by a multi-capitals approach and the drivers and potential benefits of this approach. It also aims to demonstrate commitment across the industry, by both water companies and regulators, to ensuring that we are making better decisions that reflect the wider benefits and impacts of the water industry's services and activities.

This paper is based on the views and ideas expressed by individuals within the Water Industry Forum and was developed through a deliberative process over several months in late 2021 and early 2022. It should be noted that it does not necessarily represent the views of individual organisations or the industry as a whole.

THE FOLLOWING INDIVIDUALS CONTRIBUTED TO THE DEVELOPMENT OF THIS PAPER:

- | | |
|--------------------------|-----------------|
| > Affinity Water | Sarah Sayer |
| > Anglian Water | Andrew Brown |
| > Dwr Cymru Welsh Water | Stan Simms |
| > Northern Ireland Water | Keith Scott |
| > Northumbrian Water | Carol Cairns |
| > South West Water | Louise Rowe |
| > Southern Water | Kate Rice |
| > Southern Water | Jo Smallwood |
| > Thames Water | Keith Colquhoun |
| > United Utilities | Gordon Rogers |
| > United Utilities | Luke McLaughlin |
| > Yorkshire Water | Phillip Blaen |
| > Yorkshire Water | Helen Slinger |
| > Ofwat | Joel Atherton |
| > CCW | Steven Hobbs |
| > Atkins | Monica Barker |
| > Atkins | Rhys Davies |
| > Atkins | Claire Wansbury |
| > Water Industry Forum | Peter Drake |

1. http://www.waterindustryforum.com/documents/uploads/WIF_Natural_Capital_Principles_for_the_Water_Industry.pdf

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01 THE NEED FOR BETTER DECISION MAKING

Society is facing a climate emergency and biodiversity crisis which have fundamental consequences for water and wastewater services.

As well as the water industry's dependence on the natural capital assets that are under threat from these crises, the sector has the potential to both exacerbate and mitigate their impacts. Furthermore, the water industry is contending with complex and evolving risks from population growth, ageing infrastructure, growing inequality and the short and long-term impacts of the Covid-19 pandemic. Alongside these risks, customers, stakeholders, investors and regulators are increasingly demanding that

water companies operate in accordance with their public value ethos and deliver on the social contract set out by Ofwat in 2018² and in Ofwat's recently published Final Public Value Principles³.

A multi-capitals approach could form part of the solution to these challenges. Many water companies are already incorporating elements of, and metrics relevant to, a multi-capitals approach within their existing decision making and reporting. A key challenge and opportunity is going beyond this and facilitating a consistent and systematic approach across the industry in a way that can help address the pressing challenges companies are facing in striving to maintain and improve affordable and resilient services.



2. See <https://www.ofwat.gov.uk/wp-content/uploads/2018/11/Speech-from-Rachel-Fletcher-A-social-contract-for-the-water-sector.pdf>
3. See <https://www.ofwat.gov.uk/publication/ofwats-final-public-value-principles/>



02 WHAT IS A MULTI-CAPITALS APPROACH?

A multi-capitals approach extends the traditional focus on financial capital to other forms of capital, including natural, social, human, intellectual and manufactured capital.

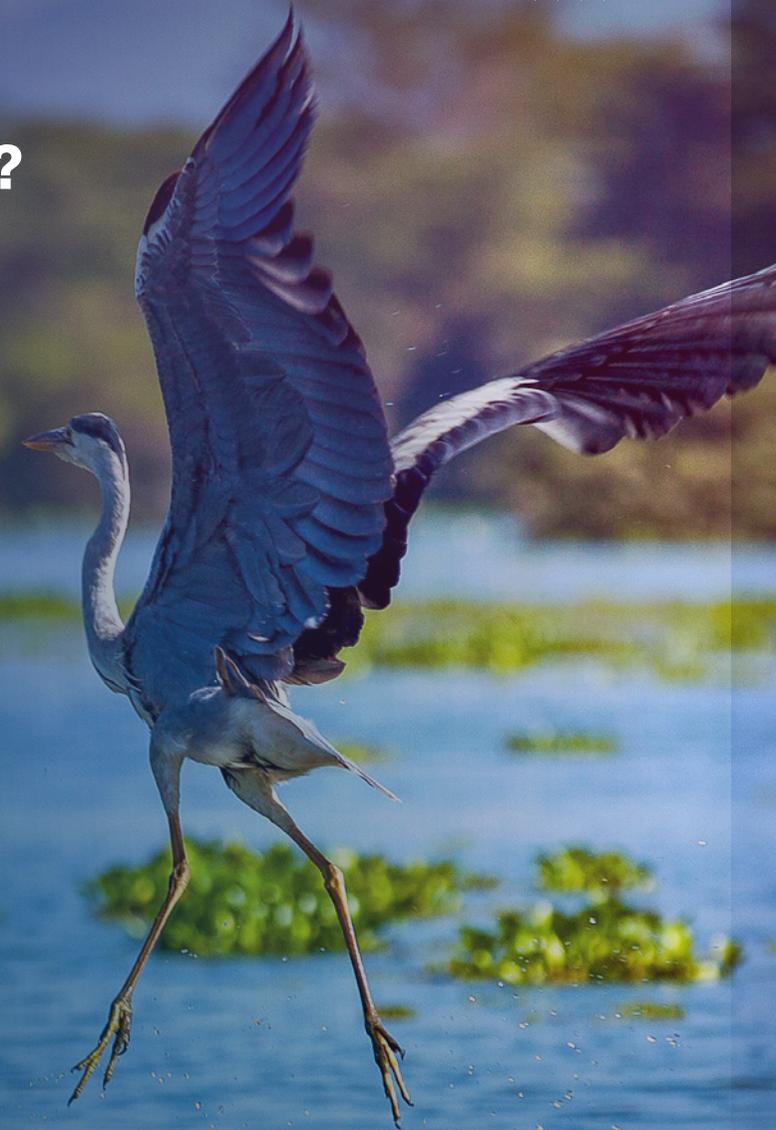
Each of the capitals represent different types of assets or resources that society and organisations rely on for their success.

There are several different multi-capital models, with different numbers of capitals. *Box A* provides a summary of the Value Reporting Foundation's⁴ six capitals model as an example. Common to these is the concept that the capitals are interlinked and nested within one another, with natural capital critically underpinning all other forms of capital. The key aspect of this is not the particular model but the need for a broader

consideration of what constitutes value and how this can be incorporated into decision making.

For the water industry, a multi-capitals approach represents a way of broadening the approach to decision making and investment choices beyond the traditional focus on the short-term financial implications of actions. Some examples of what the capitals mean to water companies are shown in *Box B*.

There are a range of good practice frameworks already in place to support companies in taking a multi-capitals approach, including the Value Reporting Foundations' Integrated Reporting Framework³, the Capitals Coalition's Natural and Social and Human Capital Protocols⁵ and the UKWIR Future Asset Planning Framework (see *Box C* and *Box D*). It is also important to note that different companies within the industry are at varying stages with respect to consideration of the different capitals.

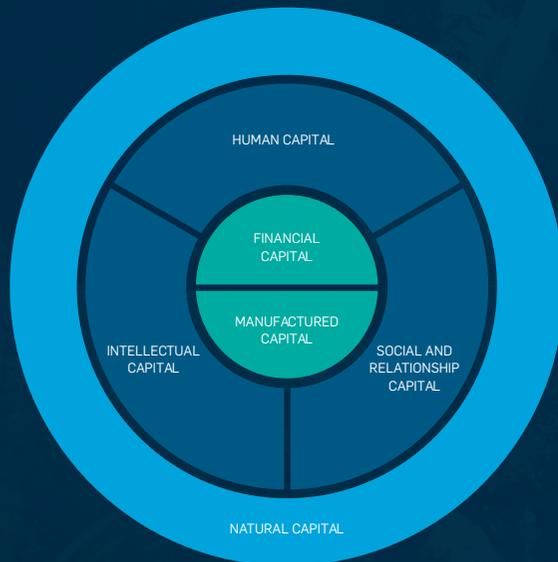


4. <https://www.valuereportingfoundation.org/resources/resources-overview/#integrated-reporting-framework>
5. <https://capitalscoalition.org/>



A. THE SIX CAPITALS USED BY THE VALUE REPORTING FOUNDATION

- › Natural - all renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organisation. This includes air, water, land, minerals and forests as well as biodiversity and ecosystem health.
- › Human - people's competencies, capabilities and experiences, and their motivations to innovate.
- › Intellectual - organisational, knowledge-based intangible aspects such as intellectual property, and systems, procedures and protocols.
- › Social and relationship capital - the institutions and relationships within and between communities, groups of stakeholders and other networks and the ability to share information to enhance individual and collective wellbeing.
- › Financial - the pool of funds that is:-
 - › available to an organisation for use in the production of goods or the provision of services;
 - › obtained through financing, such as debt, equity or grants, or generated through operations or investments.
- › Manufactured - manufactured physical objects available to an organisation for use in the production of goods and or the provision of services, including buildings, equipment and infrastructure.



An example of the representation of the six capitals model. This figure is included in the Integrated Reporting Council background paper on capitals as an example of the way the six capitals can be depicted: <https://www.integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf>

B. WHAT DO THE CAPITALS MEAN TO WATER COMPANIES?

Water companies can increase, decrease or transform the value of each of the capitals upon which they depend and influence through their activities and outputs. For example:

- › A water company's financial capital is increased when it makes a profit.
- › A water company's manufactured capital is increased through creation of new physical assets, which can be represented by an increase in the company's Regulatory Capital Value (RCV).
- › The quality of natural capital assets upon which a water company depends to deliver a clean water supply to customers can be increased through investment in catchment management solutions to improve raw water quality.
- › Provision of staff training by a water company can improve the value of its human capital.
- › Investment in research and development by a water company can increase its intellectual capital.
- › Stakeholder engagement and inclusion in decision making by a water company can enhance the social and relationship capital required to operate successfully.



03 THE BENEFITS OF A MULTI-CAPITALS APPROACH

Using a multi-capitals approach for decision making within the water industry can benefit both water companies and a wide variety of stakeholders. Below we outline some of the key benefits.

BENEFITS FOR CUSTOMERS

Customer expectations of water companies have shifted in recent years. While affordability remains a priority, particularly in light of the current 'cost of living' crisis being reported by many organisations⁶, customers are increasingly focused on wider issues such as environmental protection and social value⁷.

A multi-capitals approach can help companies reflect and manage all of these customer priorities in their decision making and reporting.

A multi-capitals approach can help to ensure better value for customers by expanding the focus of decision making from traditional and relatively short-term financial considerations towards a broader consideration that includes

long-term value creation and optimisation. It can help to ensure recognition of the trade-offs and less visible impacts associated with further improving performance in certain areas; for example, improvements in water quality through enhanced treatment can result in increased embodied and operational carbon emissions.

A multi-capitals approach can also provide water companies with a richer understanding of business dependencies, impacts, risks and opportunities. Such insights can help strengthen organisational resilience and support a systems-thinking approach, which in turn benefits customers, investors and stakeholders through efficient and effective delivery of services.

BENEFITS FOR THE ENVIRONMENT

Public water service providers are stewards of the natural environment and have formal duties to conserve biodiversity under the Natural Environment and Rural Communities Act 2006⁸. Water companies are also directly dependent on water quality and quantity, and other resources from nature. At the same

time, these resources are deteriorating from a range of different pressures, including climate change, biodiversity loss and population growth. The water industry has committed to net zero operational carbon emissions by 2030. Under the government's flagship Environment Act, new developments now require delivery of a minimum 10% Biodiversity Net Gain (BNG). Many individual companies have also agreed their own biodiversity targets and performance commitments with customers and regulators.

A multi-capitals approach can help to protect and enhance stocks of natural capital, and the ecosystem services they provide, by considering impacts (both positive and negative) on natural capital when assessing investment options. Accounting for these impacts in decision making ensures that natural capital assets are recognised and valued appropriately, rather than being treated as a 'free' and/or infinite resource. This ensures that natural assets continue to provide benefits to people.

6. For example, see <https://www.theweek.co.uk/news/uk-news/955313/cost-of-living-crisis-five-changes-that-will-hit-households-in-2022>

7. For example, see recent customer research as reported in <https://www.ccwater.org.uk/research/public-views-on-the-water-environment/>

8. <https://www.legislation.gov.uk/ukpga/2006/16/contents>

BENEFITS FOR INVESTORS AND SHAREHOLDERS

For the water industry, there is a strong and growing demand from investors to better understand the connection between sustainability and financial risk and opportunity, as demonstrated by the recent growth in Environmental, Social and Governance (ESG). Many investors are maturing and formalising the inclusion of ESG matters in their own decision-making processes, with potential opportunities and risks for the UK water sector⁹. This is partly driven by the growing body of evidence demonstrating the financial benefits of integrating ESG considerations into investment decision making¹⁰. A multi-capitals approach can provide investors with a more detailed and transparent view of companies' impacts and risks. It can also help align investment decisions with relevant reporting frameworks¹¹ and may improve companies' access to sustainable finance, which can be the most cost-efficient way of securing finance. Many companies in the sector have been reporting on ESG impacts for many years; however, a multi-capitals approach can provide a systematic and consistent framework for reporting wider impacts (for example, through use of integrated reporting frameworks, such as the Value Reporting Foundation's Framework¹², which a number of water companies have used).

BENEFITS FOR GOVERNMENT AND REGULATORS

There is a consensus within government, water industry regulators and the National Infrastructure Commission that the water sector needs to deliver greater value for customers, the environment and wider society. A multi-capitals approach can help government and regulators to achieve their ambitions by incentivising water companies to focus on net value creation across a range of capitals¹³. Alongside other metrics and data already reported by water companies, multi-capitals reporting could provide a consistent way of comparing performance and value across companies. Through tailored communications, this information could be useful for government and regulators as well as customers and investors to be able to better understand companies' relative performance, risks and the value for money they are delivering.

BENEFITS FOR LOCAL COMMUNITIES AND WIDER SOCIETY

In addition to the industry's core service provision, water companies manage wider value and opportunities in their functions as large regional employers, investors, infrastructure custodians, and – in some cases – significant land owners.

This has been recognised by water companies through the industry's Public Interest Commitment¹³. Currently, however, this wider value can often be partially missing from decision making and reporting. A multi-capitals approach could help water companies and stakeholders to recognise and understand these wider impacts and dependencies when making investment decisions.

In turn, by shaping investment and operational approaches, this could strengthen community relationships (e.g. through even stronger local partnership working), build trust, and help water companies maintain their social 'licence to operate'. A multi-capitals approach could also support greater collaboration across different types of infrastructure providers (such as water, energy, telecoms, transport and housing) to benefit consumers¹⁴ through improved resilience and efficiency.

9. For example, see Major investor will target bosses at firms failing on climate - BBC News

10. For example, see Whelan, T., Atz, U., Van Holt, T., and Clark, C. (2021). ESG and Financial Performance: Uncovering the Relationship by Aggregating Evidence from 1,000 Plus Studies Published between 2015-2020. Available from: NYU-RAM_ESG-Paper_2021 Rev_0.pdf

11. For example, in early November 2021 the International Financial Reporting Standards Foundation (IFRS) announced establishment of an International Sustainability Standards Board (ISSB) to develop comprehensive global baseline sustainability reporting standards.

BEIS has also recently published draft legislation on climate related financial disclosures: <https://www.iasplus.com/en-gb/news/2021/10/beis-published-its-draft-legislation-on-mandatory-climate-related-financial-disclosures>

12. <https://www.valuereportingfoundation.org/resources/resources-overview/#integrated-reporting-framework>

13. As an example of how this might work in practice, the Water Industry Commission for Scotland has put in place a ring fenced £143m fund for Scottish Water to access for solutions which are optimal on a multi-capitals basis but are more expensive in financial terms: <https://wics.scot/publications/price-setting/strategic-review-charges-2021-27/determinations/2021-27-final-determination>

14. <https://www.water.org.uk/news-item/water-industry-reaffirms-pledge-to-work-in-the-public-interest/>



04 HOW ARE MULTI-CAPITALS APPROACHES CURRENTLY BEING DEVELOPED, ADOPTED AND IMPLEMENTED?

A multi-capitals approach can be used at a variety of levels, including corporate and strategic, investment plan and scheme level.

Box C and Box D provide summaries of existing multi-capitals decision-making frameworks that can be used to support the implementation of this approach.

C. THE CAPITALS COALITION'S PROTOCOLS

The Capitals Coalition has published two decision-making frameworks that enable organisations to identify, measure and value their direct and indirect impacts on different forms of capital and is moving towards integrated approach. The Natural Capital Protocol and the more recent Social and Human Capital Protocol are available from <https://capitalscoalition.org/capitals-approach/>. These are relevant to all organisations and are therefore important to consider in the development of a common framework for the water industry.

D. UKWIR FUTURE ASSET PLANNING FRAMEWORK

In parallel to this paper, in 2021 UK Water Industry Research (UKWIR) commissioned a team led by Atkins to develop a future Asset Planning Framework based around multi-capitals thinking, which provided its findings at an UKWIR Knowledge Transfer Workshop in March 2022. The project aims to provide a common framework for asset planning and investment decision-making.

EXAMPLES

The following three examples illustrate how multi-capitals approaches are currently being adopted and used within the water industry.

YORKSHIRE WATER: CORPORATE LEVEL SIX CAPITALS ASSESSMENT

Yorkshire Water publish an annual impact and public value report called 'Our Contribution to Yorkshire'¹⁵.

The report is based on a corporate-level assessment of the impacts of Yorkshire Water's business activities and investments across six types of capital (financial, manufactured, natural, human, intellectual, social). This includes information on the condition and extent of assets across all six capitals, with metrics to reflect annual impacts on each capital, as well as estimates of the economic value of these impacts.

The results of the assessment highlight positive examples of the value Yorkshire Water generates for society, such as by supporting vulnerable customers and protecting and enhancing the environment. However, it also reveals areas where further work is needed to reduce negative impacts, such as by minimising waste and reducing greenhouse gas emissions.

The report is closely linked to Yorkshire Water's Sustainable Finance Framework, and the underlying methodology – which is freely available – provides a means for debtholders to calculate the impacts of their investments in Yorkshire Water.

ANGLIAN WATER: EMBEDDING SIX CAPITALS INTO DECISION MAKING

Having enshrined public interest into the heart of its business, **Anglian Water** is now working to embed it into decision making.

To achieve this Anglian Water's Board committed to using the six capitals framework, as published in their Social Contract¹⁶.

Anglian Water has developed a set of metrics for each of the capitals to help understand, track and report on the company's impact on them for the capital investment programme. Anglian Water has been testing these during AMP7 and is now bringing them together with the company's Value Framework and Benefits Realisation process to create a single aligned and streamlined approach. Anglian Water is now looking at how this process can inform Price Review (PR) 24 business case development and how a similar approach can add value across all the company's strategic decision-making processes.

Using a six capitals lens will help Anglian Water keep its responsibility to customers, communities and the environment at the front of the company's mind when making business decisions.

15. For more information visit: yorkshirewater.com/capitals

16. <https://www.anglianwater.co.uk/siteassets/household/about-us/aw-social-contract.pdf>



EXAMPLES

UNITED UTILITIES: SETTING A MULTI-CAPITALS APPROACH AND SECURING CULTURAL BUY-IN

United Utilities has created a strategic roadmap for embedding a multi-capitals approach across the business.

This roadmap sets out what is needed to incorporate multi-capitals into decision making, with the aim of making better decisions which drive greater value for its customers and other stakeholders.

The roadmap has been developed alongside an agreed level of ambition and common end goal for embedding the multi-capitals approach. It is proving a useful way to engage internal stakeholders on the opportunities, costs and benefits of further maturing the approach to integrated thinking.

Key steps in the development of the roadmap were:

- › Collaborative webinars with internal key stakeholders;
- › External research into best practice, stakeholder perspectives and sector analysis;
- › Maturity assessment of current activities against multi-capitals; and
- › Dissemination activities and focus groups.

The actions in the roadmap are broken down into the following themes:

- › Endorsement and governance;
- › Frameworks, tools and assessments;
- › Culture, skills, education and training; and
- › External communications and engagement.

The creation of the roadmap provides the foundation as United Utilities matures its multi-capitals approach.

05 FACTORS INFLUENCING THE SUCCESSFUL USE OF A MULTI-CAPITALS APPROACH

The following factors play a role in how successfully the water industry is able to rise to the challenge of adopting and implementing a multi-capitals approach within their decision-making processes.

Understanding of relevance and objectives

All water companies and their employees understand how a multi-capitals approach relates to them, the questions that the organisation is seeking address through this approach, and how this approach builds on and relates to other activities.

Common framework

A common framework is developed for use by the water sector that is recognised by multiple regulators. The framework can be used at organisational, plan and project level to identify multi-capitals impacts and dependencies.

Recognition by regulators

Water sector regulators recognise the use of a multi-capitals approach within investment decision making and the associated trade-offs¹⁷.

Incentive structures

The right incentive structures – both internally and externally, including regulatory¹⁸ – are in place.

Senior leadership buy-in and internal champions

Senior water industry leaders are bought into the approach. An executive sponsor and internal champions are identified within each company to build internal understanding, develop appropriate governance processes, and promote application of the approach.

Effective internal and external stakeholder engagement

Internal and external stakeholders are successfully engaged to ensure their input into multi-capital decision-making approaches.

Evolving approaches

There is recognition that any approach used will not be perfect, at least in the beginning,

but can and should be fit for purpose. Methodologies and metrics (as well as organisations) will continue to evolve and mature over time, often in an iterative manner.

Transparency

Companies, regulators and supply chain partners provide transparency in the levels of confidence associated with assessments and the limitations of approaches used.

Acknowledgement of trade-offs

Companies, regulators, customers and stakeholders acknowledge that some trade-offs will be required but that other aspects are non-tradeable (e.g. staff and public safety or irreplaceable habitat).

Building on existing data sources

Companies build on existing data and information to quantify multi-capital metrics (for example, customer surveys, ecological data, Outcome Delivery Incentives, Human Resources data, etc).

17. Ofwat's 2021 Asset management maturity assessment recommended that "Companies should systematically consider wider aspects of social and environmental value in decision making and monitor whether delivered interventions provide the benefits expected in their planning": <https://www.ofwat.gov.uk/publication/asset-management-maturity-assessment-insights-and-recommendations/>

18. Wessex Water and Frontier Economics recently published a paper (November 2021) highlighting that the current approach to economic regulation is not aligned to supporting nature-based solutions and is arguably biased against them. It proposes that outcomes based environmental regulation (OBER) could meet the goals of the government's 25 Year Environment Plan (25YEP) in a more efficient way and deliver a range of benefits to society and the environment.

06 KEY MILESTONES

Within the water industry, the first Water Resource Management Plan (WRMP), Drainage and Wastewater Management Plan (DWMP) and PR24 milestones are fast approaching.

The government recently held a consultation on the guidance for the Water Industry National Environment Programme (WINEP)¹⁹. This set out the government's ambitions for updating the WINEP for PR24 to have a greater focus on delivering wider environmental outcomes, including the natural environment, net zero, catchment resilience, and access, amenity and engagement. Acceptance of the approach by regulators for PR24 is therefore an important milestone in meeting companies' short and medium-term targets, challenges and expectations. This paper has also been developed with the intention of supporting the development of the multi-capitals approach for the water industry over the longer-term; for future price reviews, WINEPs, and any wider requirements under the new Environment Act, such as delivery of Biodiversity Net Gain targets.

19. See <https://www.gov.uk/government/consultations/review-of-the-water-industry-national-environment-programme-winep>



07 NEXT STEPS

We have identified the following next steps for the deployment of a multi-capitals approach within the water industry:

- › Promote understanding of relevance and objectives. Continue to promote a multi-capitals approach within the water industry and our stakeholders to ensure that all water companies understand how a multi-capitals approach relates to them and can drive best value decision making.
- › Build a common framework. Build on the UKWIR Future Asset Planning project, and leading work by different water companies, to work towards a common approach by agreeing priority metrics that can form a golden thread from strategic purpose and direction through to the next round of investment planning, including WRMPs, DWMPs and WINEP.

- › Gain recognition by regulators. Engage with regulators to work towards recognition of a multi-capitals approach as a way of demonstrating and maximising public value within the water sector, and to support alignment and exploration with other organisations and sectors to achieve further benefits.

It is the intention of the group that developed this paper to meet to discuss and agree actions to take forward these next steps. We would welcome engagement and participation from other interested parties in companies, regulators or the supply chain. Interested parties should register their interest at the following email address: multicapitalsapproach@waterindustryforum.com



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ABOUT THE WATER INDUSTRY FORUM AND ATKINS

The **Water Industry Forum** tackles challenges facing the UK water sector through thought leadership and facilitated collaborative working. It does this by providing a forum which is both independent and neutral, enabling multiple stakeholders to come together to share ideas and develop solutions.

The Water Industry Forum now operates as an independent subsidiary of British Water - a cross sector membership organisation which provides leadership, support and best practice for the UK water sector, and helps to address the challenges faced by the sector.

Atkins is one of the world's most respected design, engineering and project management consultancies.

As a global fully integrated professional services and project management company, we help our clients plan, design and enable major capital projects, and provide expert consultancy that covers the full project lifecycle. Our breadth of capability is the core of our strength and we bring our global expertise together to deliver solutions to local challenges; putting resilience, sustainability and productivity at the core of everything we do.

Atkins' understanding of multi-capitals concepts and applications is informed by our extensive experience in environmental economics, social value and natural capital assessment.