

BWC is assumed to employ 2,560 staff, serve 2 million customers in 960,000 properties (household and non-household) and places approximately 545 million litres per day of drinking water into the supply.

Extract from the Business Review: Key sustainability issues for our business

Introduction

As our Chief Executive has already detailed, the demands of modern lifestyles, the impact of climate change and the need to protect the environment and natural resources for future generations create a complex and demanding set of short and long-term challenges for us. Sustainability is at the very heart of meeting these challenges, not just to ensure that we remain a sustainable business, but to ensure that we operate in a manner that takes account of our impact on the environment and the society in which we operate. In order to do this effectively, we need to have a good understanding of the impact that sustainability issues will have on the achievement of each of our core objectives. An analysis of this is given below.

Provide an efficient, continuous supply of quality water

Ensuring an efficient, continuous supply of quality water is the top priority for our customers. We must ensure that we can meet this expectation against the backdrop of climate change, demographic changes and increasing long-term demand. Alongside this there are pressures on us to reduce our use of water from rivers and groundwater sources, while managing an ageing supply network. Several powerful trends have combined to affect supply; diffuse pollution has made some of our water sources more difficult to treat and natural storage of water has been eroded through increased urbanisation, leading to faster run-off of rainwater and lower recharge of groundwater. Weather patterns have also become noticeably more intense, with similar consequences.

Ultimately, this means that we will not have sufficient water available to meet long-term demand unless we invest in bridging the supply-demand gap. To meet these challenges we must replace ageing assets, accelerate the installation of metering, reduce leakage and increase water efficiency through work with the domestic and commercial sectors. We must choose flexible options to ensure that short-term demographic and economic fluctuations are balanced by the need to ensure that we use existing supplies in a sustainable way, using new technologies and a more integrated supply network.

Deal effectively with wastewater

It is critical to us that our customers have confidence that we will take away their wastewater and treat it to the highest environmental standards before returning it to our region's rivers. We have continued to show our ability to deliver this core service, as river water quality in our region has continued to improve over the last 15 years, with an increase in the proportion of rivers of good standard.

There are however significant challenges which will impact on our achievement of this business objective. The implications of the Water Framework Directive could lead to increased energy use and GHG emissions, which may outweigh the water quality benefits. We, our regulators and policy makers must consider the whole environment when assessing the impacts and solutions to meet this challenge.

We do however recognize that despite our work to improve river quality we still have some way to go in addressing our impact from unplanned pollution incidents. Alongside this we must educate our customers about the issues of disposal of fats, oils and grease, as well as other non-flushable products to the sewers.

One of the most serious service failures that our customers can experience is sewer flooding. Our customers have told us that they would pay for significant reductions in sewer flooding, particularly for internal flooding. We must therefore aim to eliminate flooding of properties from sewers, except as a result of exceptionally high rainfall that exceeds the design standards for our system. Our ability to meet this aim is inextricably linked with many of the issues discussed in respect of our climate change, provision of water and regulatory regime business objectives.

Deliver an affordable service

We recognize that while the majority of our customers can afford to pay their water bill, there are customers who have difficulty in settling their accounts, and this proportion has grown in the current economic climate. Increasing levels of bad debt and collection costs affect both our ability to deliver excellent returns to our shareholders and to fund the future investment required to achieve a sustainable future. Because of this, we must and will pursue those customers who are able to pay, but choose not to. This is in the interests of all our customers. For those who are genuinely in financial hardship, we must seek to identify them earlier in the collection process in order to offer help to enable them to manage their debt.

Respond to climate change

Climate change and how we respond to it has significant implications for all our other business objectives and therefore is at the very heart of our business planning. The last two years have seen unprecedented flooding, coupled with the need in some areas for hosepipe bans to address the issues of demand exceeding supply. These impacts are only an indication of the weather to be expected as our climate changes. We must address these challenges by ensuring the resilience of our network and assets to the effects of climate change and working with our customers and regulators to ensure that we can continue to supply water to meet demand.

We must also consider our impact on the causes of climate change. As a company we need to make our contribution to reducing carbon dioxide emissions through investing in renewable energy and achieving significant efficiencies in energy use. As a part of this we also recognize the role of water efficiency in reducing both our carbon footprint and that of our customers. In this respect, we are actively promoting water conservation and raising awareness of the link between domestic water heating and carbon emissions.

The Carbon Reduction Commitment is due to commence in April 2010. Given that we are already subject to regulatory quality drivers that increase energy consumption, and much work has been done on energy efficiency, it may be difficult for us to achieve significant reductions relative to other participants. We must therefore continue to work with government and regulators to understand the implications of the Carbon Reduction Commitment and communicate this to our customers and stakeholders to ensure that they are aware of the cost pressures the mechanism will exert.

Provide our people with the right skills to deliver

In order to deliver service improvements and efficiencies, we need to have the right people and resources available to us now and in the future. However, we face a high level of demand and competition for the skills that we need, particularly in engineering and sciences. Therefore, if we do not invest in attracting and transferring knowledge to new talent, we risk losing our corporate memory. We must be able to recruit and retain the right talent through modern pay structures and training and developing a motivated and diverse workforce that is appropriately rewarded. We must also provide our teams with the tools and techniques to identify efficiencies themselves.

Fund investment and operating expenditure whilst providing an acceptable return and capital growth

The scale of improvements since privatisation has meant that annual income from customers has been insufficient to finance the capital programme. As a result, borrowing has increased steadily. To continue to fund investment we need a stable regulatory regime that will provide confidence and an acceptable rate of return.

Alongside this, we are vulnerable to significant changes in cost which cannot be financed in the short term by higher prices, particularly energy costs. We recognize that we must increase our resilience to fluctuations in global energy prices. In response, we are focused on energy efficiency and diversification of supply, through increased renewable energy generation, and our target is to generate 20% of our own energy by 2020. This will help to increase security of energy supply and mitigate future price increases.

Promote an appropriate regulatory regime

Increasing expectations for good environmental performance through legislation such as the Water Framework Directive will have significant impact on treatment processes and the demand for resources such as chemicals and energy.

Achieving substantive change in the industry over the next decade and beyond will require a new approach to the regulatory regime in which we operate. This should be flexible in the setting of standards and consider novel treatment solutions that reduce our resource impact. It should also include supporting a move towards a regime based on integrated catchment management ensuring that one environment is not improved at the expense of another.

Whilst we work with our regulators to promote an appropriate regulatory regime we will continue to consider alternative technologies rather than use chemical dosing, further optimize our use of chemicals and energy where we can, and investigate new sustainable solutions to ensure we deliver on our other business objectives which are inextricably linked to this.

Material issues

In order to understand and prioritize our action on the sustainability issues that are most material to our business and our investors, we have considered two key criteria. The first is the significance of current impacts on the achievement of our strategic objectives, and the second is consideration of issues that currently represent costs that are external to BWC, but are likely to become internalized in the future through either additional regulation or impacts on the organization's reputation.

We have identified six issues which we feel are the most material to the organization and which are common themes in the analysis above. These are:

- 1. The need to respond to climate change**
- 2. The availability of water as our key resource**
- 3. Affordability of our services to our customers**
- 4. The availability of a skilled workforce**
- 5. Energy consumption, which constitutes a significant cost to our business**
- 6. The consumption of other key resources, such as chemicals**

We have reported on the actions taken in respect of each of these issues in our Connected Performance Report.

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1. Climate change

Issue and action	Desired outcome	Non-financial indicator								
<ul style="list-style-type: none"> Reduce total GHG emissions. Obtain an advantageous position in the Carbon Reduction Commitment (CRC) performance league table. 	<ul style="list-style-type: none"> A reduction in Greenhouse Gas emissions in line with national targets to reduce the company's impact on climate change and make BWC a low carbon company. 	<p>Total GHG emissions (tCO₂e)</p> <table border="1"> <caption>Total GHG emissions (tCO₂e)</caption> <thead> <tr> <th>Year</th> <th>Emissions (tCO₂e)</th> </tr> </thead> <tbody> <tr> <td>2008</td> <td>~195,000</td> </tr> <tr> <td>2009</td> <td>~200,000</td> </tr> <tr> <td>2020 Target</td> <td>~155,000</td> </tr> </tbody> </table>	Year	Emissions (tCO ₂ e)	2008	~195,000	2009	~200,000	2020 Target	~155,000
Year	Emissions (tCO ₂ e)									
2008	~195,000									
2009	~200,000									
2020 Target	~155,000									

2. Water availability

Issue and action	Desired outcome	Non-financial indicator	
<ul style="list-style-type: none"> Increase domestic metering. Meet the long-term supply demand balance in the most cost effective manner. 	<ul style="list-style-type: none"> Sufficient water to meet demand in the most efficient manner, whilst ensuring that customers are aware of what they are using. 	<p>Leakage (MI/d*)</p> <p>134MI/d 2009</p> <p>132MI/d Target 2015</p> <p>* Million litres per day</p>	<p>Meter coverage (%)</p> <p>60% 2009</p> <p>70% Target 2015</p>

3.

Issue and action	Desired outcome	Non-financial indicator
<ul style="list-style-type: none"> Actively manage levels of bad debt. Provide assistance to those customers who are unable to pay. 	<ul style="list-style-type: none"> Provision of an affordable service and the right assistance for those who cannot pay. 	<p>% of customers on social tariff or payment assistance</p> <p>2% 2009</p> <p><3% Target 2015</p>

Financial indicator

Yearly CRC payment: bonus/(penalty)

£1.936M: £136K

2011 projected (first year)

Remain in bonus position

Target 2020

Commentary

Non-financial:

(-) The increase in overall GHG emissions is linked to increased energy use and process emissions from the enhanced wastewater treatment at the Greywater plant.

Financial:

(+) Early action in gaining the Carbon Trust Standard and increased coverage of automatic meter readers should help produce a favourable performance ranking and result in a CRC bonus payment in the first year. Our carbon management plan should reduce emissions further and maintain this position in the future.

Financial indicator

Cost per customer to meet 2035 water demand

£75.5

2008

£75.3

2009

£58.0

Target 2015

Commentary

Non-financial:

(+) The installation of 20,000 water meters in 2009 has increased the overall coverage by 2%. The investment programme for the next five years will increase the percentage in line with the 2015 target. Communication on efficient consumption to customers with new meters has also helped to reduce overall use. The leakage target has been met for the seventh year running.

Financial:

(+) The increase in meter coverage has led to a slight reduction in demand, which helps to close the overall supply-demand gap. The investment programme also includes actions to reduce leakage and is on target.

Financial indicator

% level of bad debt from domestic customers

5%

2009

5%

Target 2010

3%

Target 2012

Commentary

Financial:

(-) Levels of bad debt have increased due to the economic climate. A debt management strategy is in place and is expected to keep bad debt level below target over the next few years.

Non-financial:

(+) There has been a good level of take up on the arrears allowance scheme allowing those who want to pay being able to contribute. The Assistance Trust fund is helping over 85% of those who apply.

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4. Skilled workforce

Issue and action	Desired outcome	Non-financial indicator	
<ul style="list-style-type: none"> • Provide employees with the right skills. • Retain corporate knowledge. • Maintain employee satisfaction. 	<ul style="list-style-type: none"> • A motivated and satisfied workforce that has the right skills to do the job. Successful planning ensures that corporate knowledge is retained. 	Overall employee satisfaction 76% <small>2009</small> 85% <small>Target 2012</small>	% employees through 'New Talent' schemes 3% <small>2009</small> 5% <small>Target 2015</small>

5. Energy consumption

Issue and action	Desired outcome	Non-financial indicator	
<ul style="list-style-type: none"> • Reduce energy consumption through efficiency and innovation. • Manage energy costs as a percentage of total costs. 	<ul style="list-style-type: none"> • Efficient use of energy at an affordable rate to provide the treatment required for our services. 	Energy use/million litres of water (Kwh/MI)	
		Wastewater 755kwh/MI <small>Target 2012</small>	Water 640kwh/MI <small>Target 2012</small>

6. Other resource consumption

Issue and action	Desired outcome	Non-financial indicator		
<ul style="list-style-type: none"> • Optimise use of chemicals to manage cost. • Find alternative chemicals to substitute finite resources. 	<ul style="list-style-type: none"> • High standards of treatment and compliance without excessive cost. A secure supply of chemicals from non-finite sources. 	Sourcing sustainable chemicals		
		Data in thousand tonnes	2008	2009
		Water treatment chemical tonnage – virgin sources (manufactured/mined)	19.43	19.70
		Water treatment chemical tonnage – co-product sources	2.90	3.05
		Water treatment chemical tonnage – bi-product sources	6.67	6.75
		Sewage treatment chemical tonnage – virgin sources (manufactured/mined)	3.75	3.75
		Sewage treatment chemical tonnage – co-product sources	0.56	0.65
		Sewage treatment chemical tonnage – bi-product sources	1.29	1.40
			Target	Target
			18.76	2.80
			6.44	3.62
			0.54	1.24

Financial indicator

Cost avoided as a result of absence rate below the national average

£128,472

2009

BWC rate = 7.52 days
UK average = 8 days

>£100,000

Target 2009

BWC rate = <7.61 days
UK average = 8 days

Commentary

Non-financial:

(+) An increase of 2% in levels of satisfaction due to the engagement programme and restructure of performance related bonus scheme. Improvement shown in eight out of ten categories.

(+) Increase in apprentice intake over the next two years will increase number of operational employees through the scheme.

Financial:

(+) The reduction in absence rates has saved us over £128,000 in comparison to last year and further improvements are expected to continue to create savings against a 2008 baseline.

Financial indicator

Energy cost as % of total costs

7.8%

2008

7.5%

2009

7.0%

Target 2013

Commentary

Non-financial:

(-) Water: There has been a decrease in pump efficiency at key sites, where pumps are due to be replaced in the next investment period.

(-) Wastewater: Commissioning of a new process at the Greywater treatment plant has increased energy use to meet new consent conditions. An optimisation process is also underway which is aimed at making the Greywater plant more efficient.

Financial:

(+) Energy costs increased in 2009, but proportionally less than other operational costs. Negotiations are underway with our energy providers to secure a competitive long-term price structure.

Financial indicator

Chemical cost as % of total costs

5.4%

2008

5.6%

2009

5.0%

Target 2013

Commentary

Non-financial:

(-) The level of chemicals for water treatment increased in 2009 due to weather conditions and an increase in river water turbidity. Advanced treatment for wastewater in the Greywater plant also increased chemical use for part of the year, with the full effects expected in 2010.

Financial:

(-) The cost of chemicals for wastewater treatment is expected to rise due to a reduction in available suppliers and new treatment processes.