



Trusted partners in the global water community

# Service, Quality and Environment: Building a sustainable service

**Dr Mark Williams Head of Environmental Science and Regulation** 



#### Legacy... 2002

Water quality and water resources challenges

78 failing wastewater works

**Bathing Waters performance poor** 

**Pollution Incidents** 

Flooding risks to customers







## **Delivering Services**

Achieving quality standards
Investing in assets (£6bn over 11 years)





#### ...All require resources and emit carbon:

- Power
- Chemicals
- Pounds



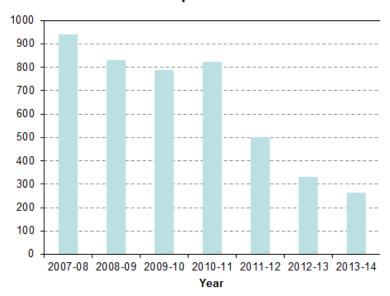
#### 2013 – 14: Major Quality Issues Addressed

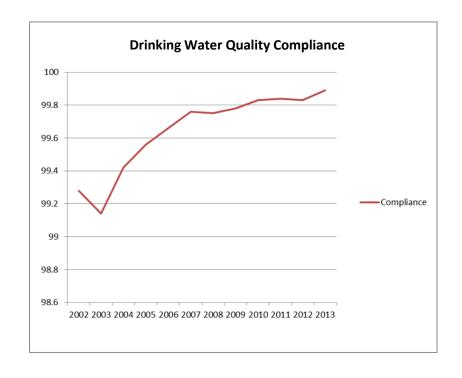
Best ever drinking water quality

**Environmental enhancement** 

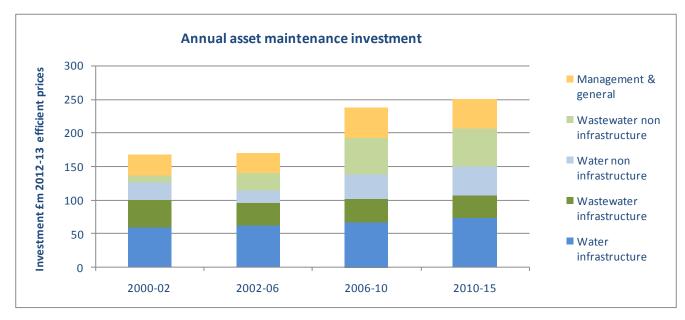
Improved environmental and asset knowledge

#### Wastewater pollution incidents





## But enhancement has a legacy





# Challenges









#### Morning 30th July 2002 River Clyde at Glasgow Green

On 30 July 2002 Glasgow's average monthly rainfall fell in just 10 hours. This led to significant flooding across the city as the sewerage and drainage systems struggled to cope with the extreme weather conditions.



# Customer and environmental impacts











# MGSDP Partnership

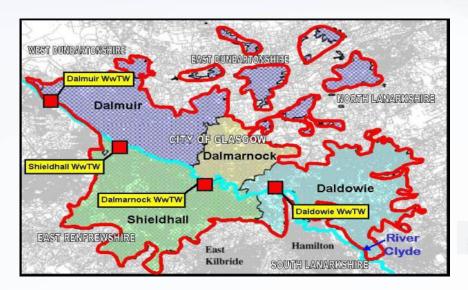






Partnership through Collaboration











Scottish Canals



# Hard engineering to Surface Water Management



**Large diameter tunnels** 



**GCC Flood Prevention Scheme - Ruchill** 



# **Carbon Strategy**

"We will always act responsibly to proactively manage and reduce carbon in our operations and capital investment, and to meet the expectations of the Climate Change (Scotland) Act."

#### Reduce carbon across all areas of our business

Reduce 'demand'

Cost effective energy efficiency

Cost effective renewables

Investment: 'whole life carbon'



# Sustainable approaches to drinking water quality





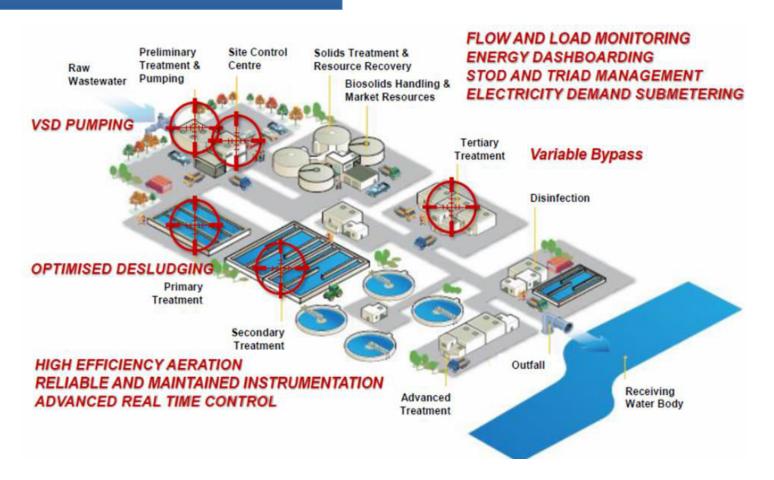
#### The 'ideal' – resilient, natural watercourses



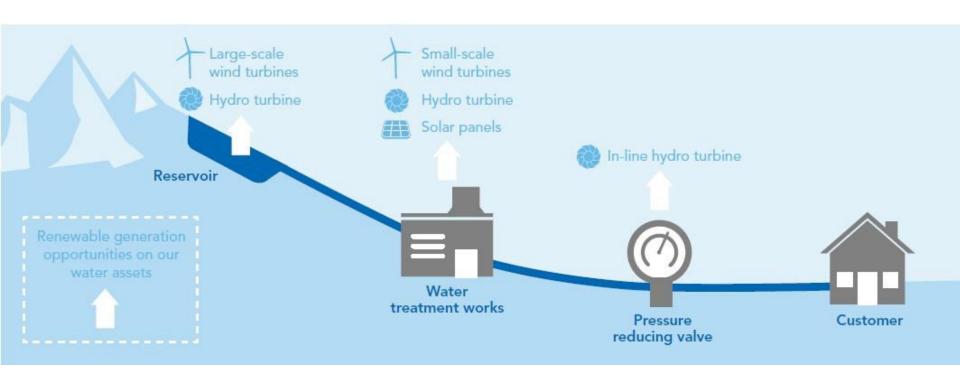


Trusted to serve Scotland

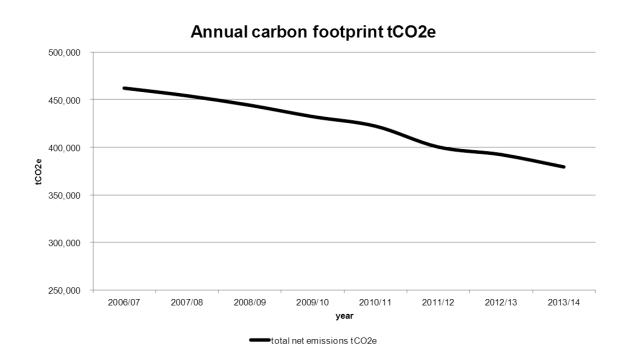
### **Energy Efficiency**



### Renewables



## **Carbon performance to date**

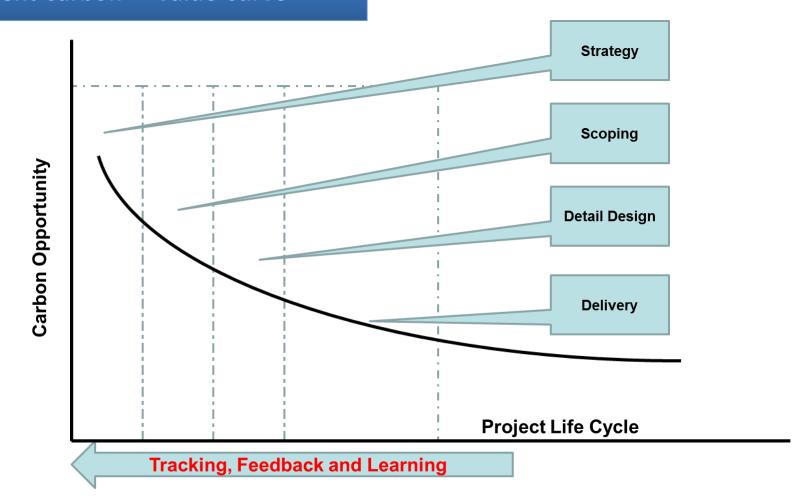


vs
Enhancement
Renewables

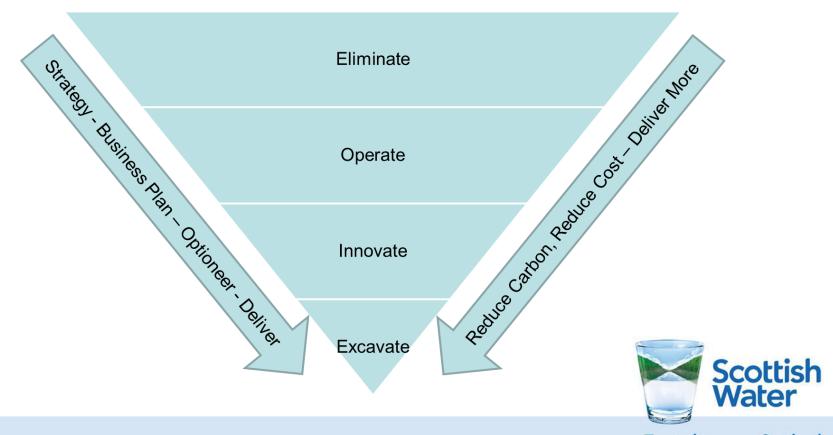


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#### **Investment Carbon – 'Value Curve'**



#### Making the right investment choices



# A sustainable society













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# **Thank You**

