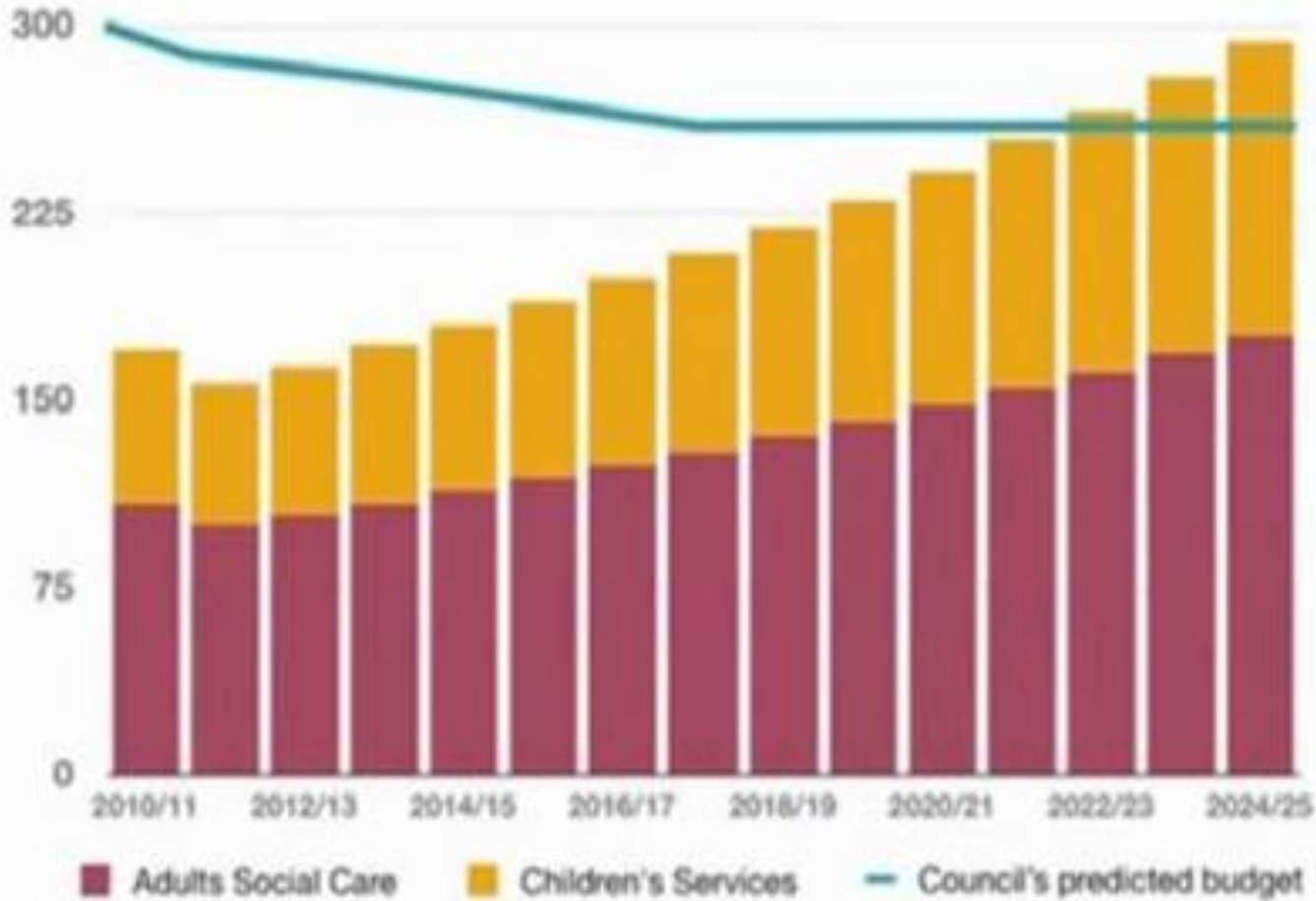


LED installation in Street Lighting and other Energy projects in Gloucestershire

Peter Wiggins
Outcome Manager, Community Infrastructure
Commissioning 'Place'

The 'Graph of Doom'



BBC NEWS POLITICS

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27 June 2012 Last updated at 12:18

Tough times in local government

By Mike Sergeant
Local government correspondent, in Birmingham

They have been calling it "the graph of doom", which pretty much sums up the atmosphere at the Local Government Association conference this year.

It lays bare the prediction that the rising costs of social care could overwhelm all other council services by 2020.

Councillors are determined that this bleak vision of a future without libraries, leisure centres or properly maintained parks does not come to pass. But how?

Twelve months ago, the mood at the annual gathering of council leaders and local authority executives was very different.

Yes, they knew that times were hard. But there was a sense that they were rising to the challenge, and keen to prove they could find cheaper ways of operating on a tight budget.

"It's an exciting time to be in local government," was a catch phrase often heard last year. Not so now.

The hope that local authorities could grit their teeth for four or five lean years before resuming normal service has gone.

Robert Chote, the chairman of the independent Office for Budget Responsibility, told the LGA hall the "pain would go on" until at least 2017.

To many that seemed optimistic.

Demographic pressures

Local government finds itself squeezed in two ways. Most obviously, by the "cuts" - councils say they have had to absorb a disproportionate share of the implementation of the government's austerity plan.

But authorities are also on the wrong side of long-term, demographic pressures that have nothing to do with tackling the deficit - because

Related Stories

- Councils face social care squeeze
- Care costs could close libraries



How we got here.....

- 60,000 street lights – costing £2m per year to keep lit
- Electricity costs expected to rise, 57% of service spend and requiring annual growth bids
- Energy efficiency projects – dimming, part night lighting (gone about as far as we could go)
- 53% of CO₂ footprint (excl schools)
- Carbon reduction target, 60% by 2020/21 – not achievable without significant change in street lighting



LED Technology

- Mainstream solution
- Up to 50% energy saving, can then be dimmed
- 70% reduction in maintenance cost, fewer faults
- Better light quality – whiter so easier to see
- Less light pollution – better focussed
- Lighting for residential areas relatively mature
- Traffic routes need brighter lighting – more expensive but also more energy efficient, cost still likely to fall as matures

Example of LED Scheme



Before

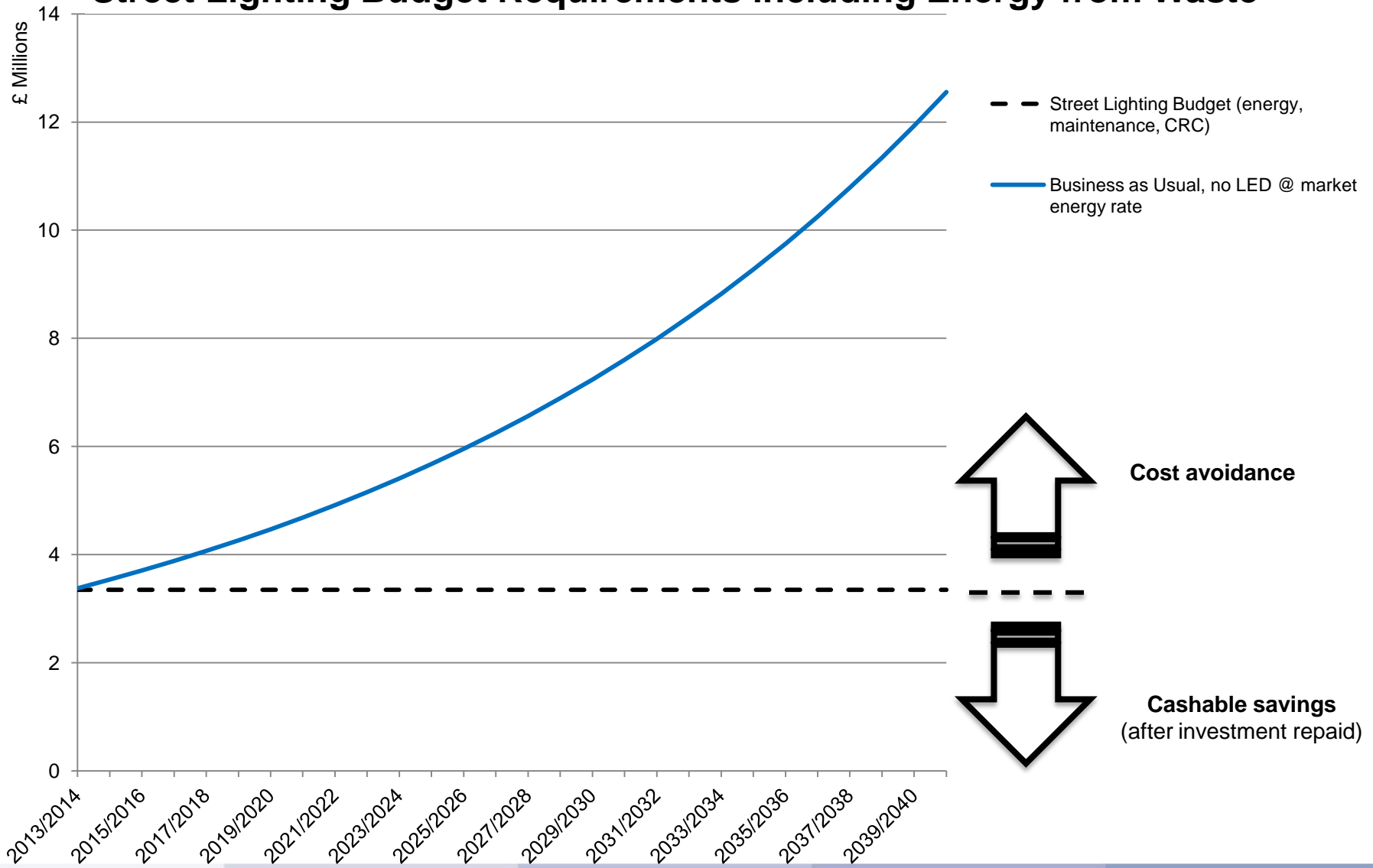


After

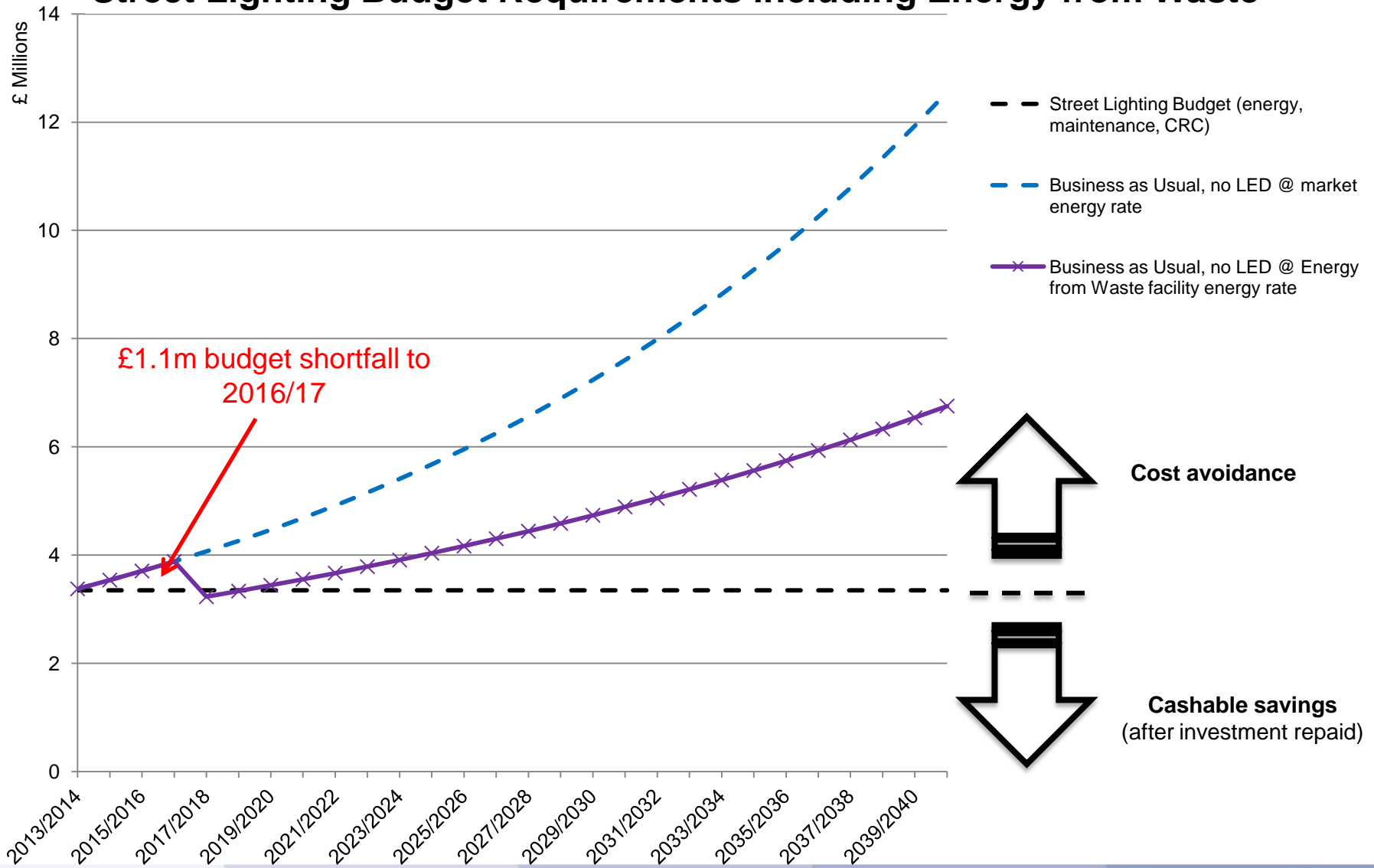
Market Engagement Event

- Test our assumptions
- Whether right to time to enter market
- Scale – county-wide, market towns, Glos & Chelt
- Whether CMS advanced enough, eg common TALQ platform
- Financial modelling, PWLB rates

Street Lighting Budget Requirements including Energy from Waste

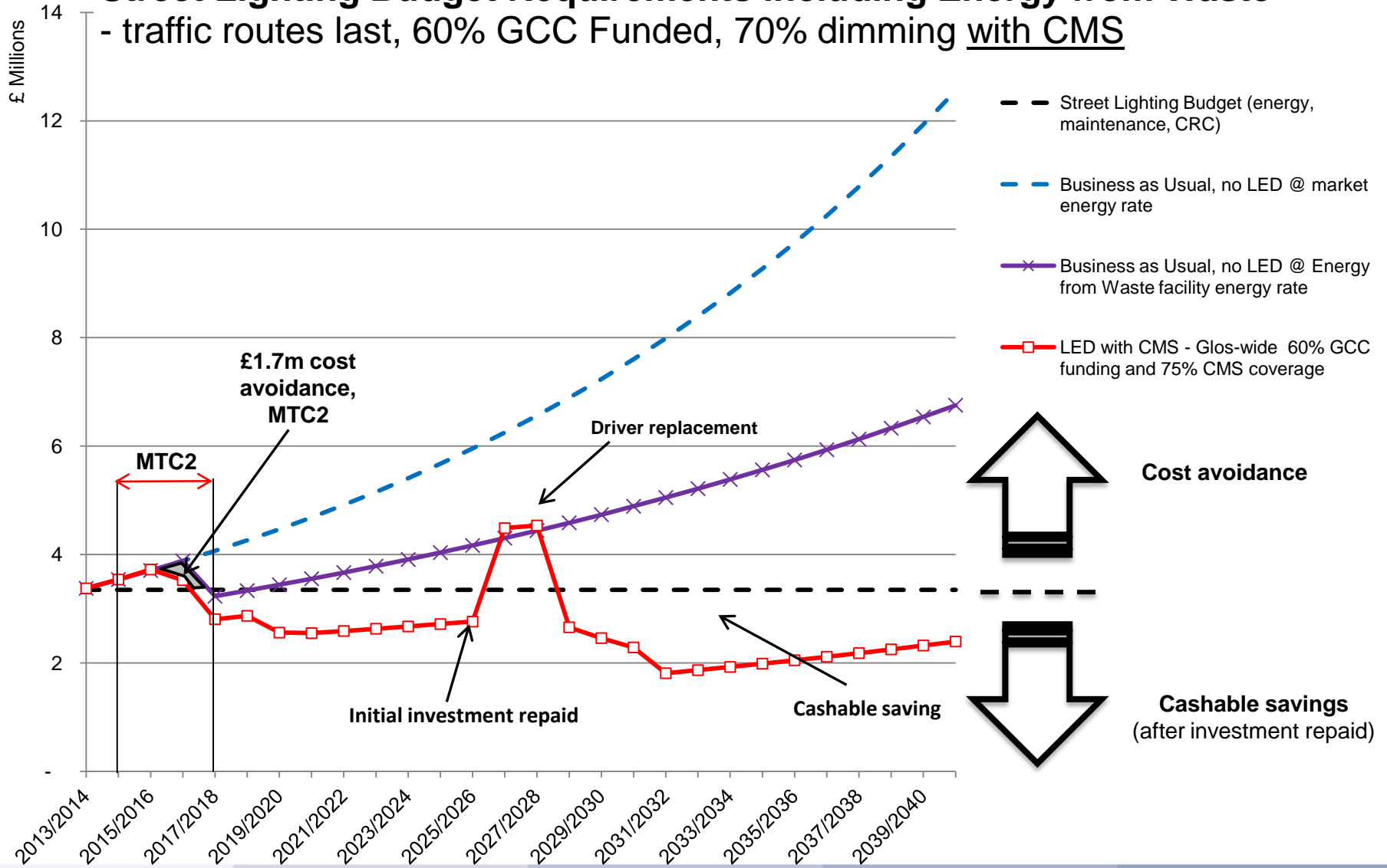


Street Lighting Budget Requirements including Energy from Waste



Street Lighting Budget Requirements including Energy from Waste

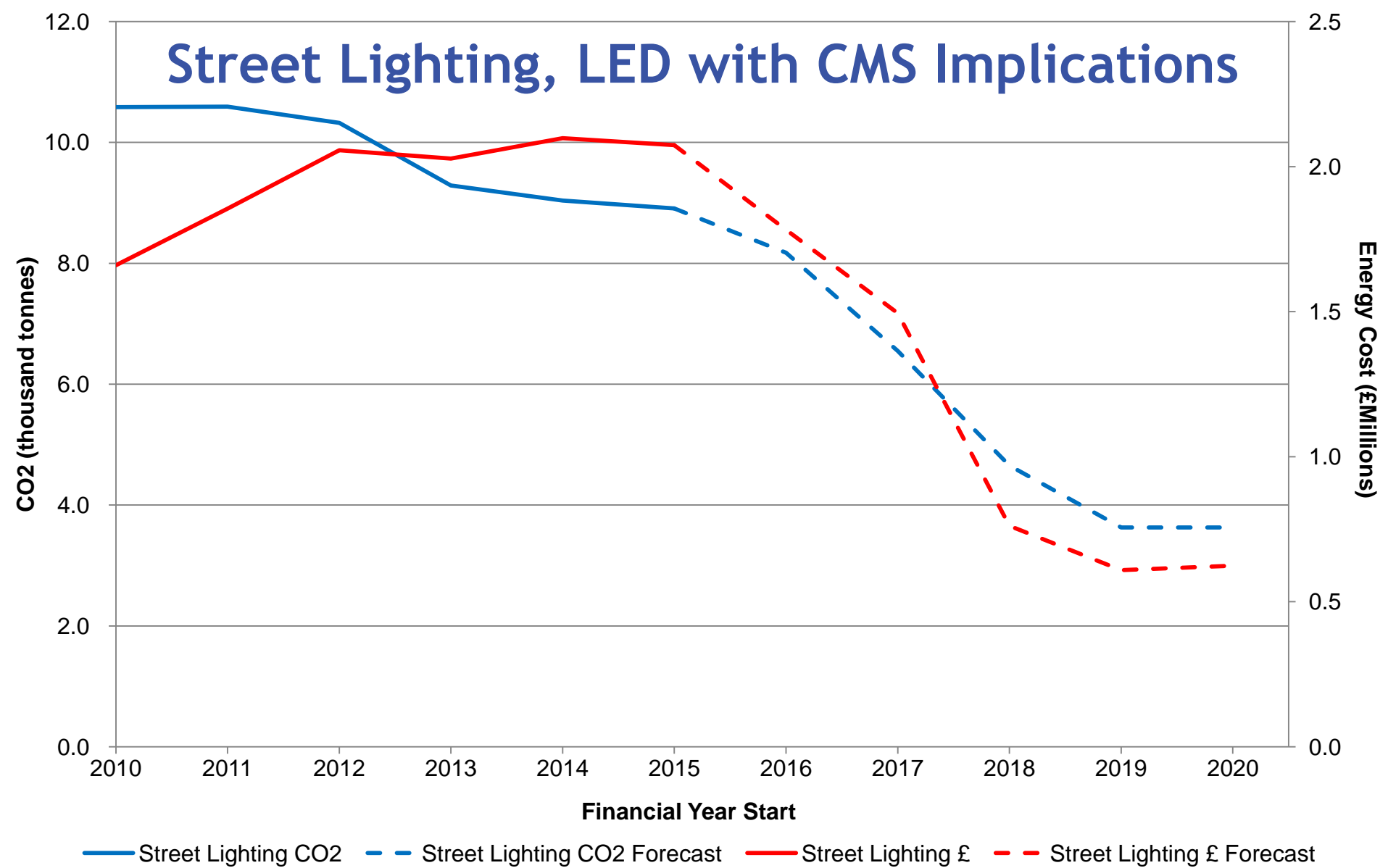
- traffic routes last, 60% GCC Funded, 70% dimming with CMS



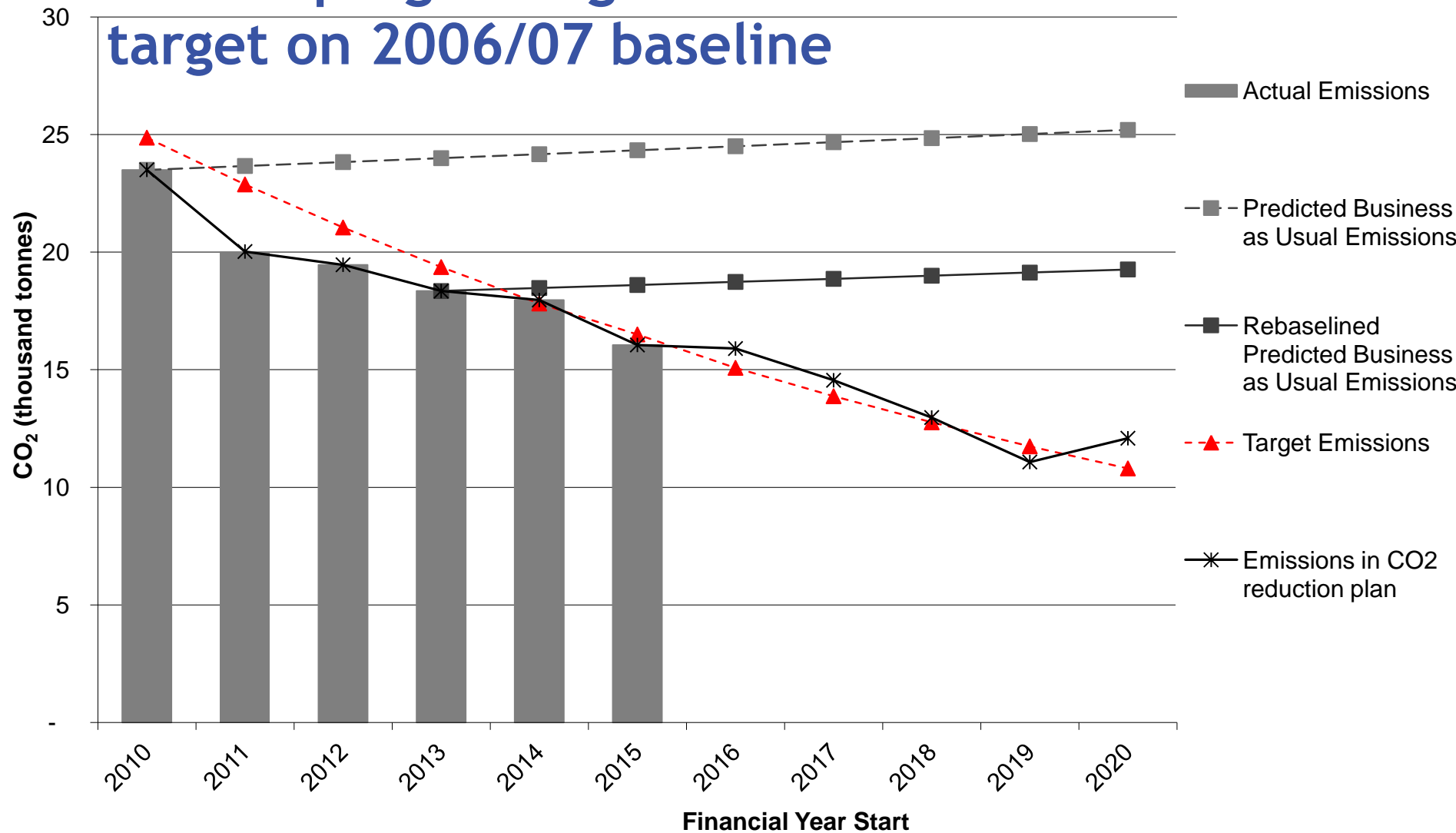
Funding

	£m
DfT Challenge Fund	5
Salix Energy Efficiency Loans (SEELS)	4.7
GCC Salix Recycling Fund	1.5
GCC Capital Receipts	2.5
Total	£13.7m

Street Lighting, LED with CMS Implications



Carbon progress against 60% reduction target on 2006/07 baseline





Further Energy Work

Done almost all we can energy efficiency-wise

- Insulation – loft, wall, pipes
- Heating & lighting upgrades and controls, remote BEMS
- Office rationalisation
- Shire Hall refurbishment, inc cladding, new windows, open plan, thin client
- ICT – server virtualisation, moved off-site, upgrades
- LED street lighting with CMS, bollard de-illumination, LED signs & bollards

Saving over £1m a year

Further Energy Work

Now set to become a net electricity producer

- Residual Waste Project, Energy from Waste plant 2019
 - 116,000 MWh generation
- Renewable energy generation
 - £12.7m for ground-mounted solar (GMS), approved by Cabinet on the day DECC published subsidy consultation
 - Now putting in grid connections for battery storage, some with GMS to follow, plus solar car ports inc private wire
 - Working with APSE Energy

Local Advisory Adaptation Partnership (LAAP)

- Established 2011 - forum for Local Government, Central Government and arm's length delivery bodies
 - Key role in shaping the Local Government Chapter of the National Adaptation Programme report (NAP), published in July 2013
- Now chaired by Gloucestershire County Council
 - Inc reps of Climate UK; Local Authorities; DEFRA; the Environment Agency and the Local Government Association (LGA)
- Series of meeting to better understand the risks to areas that are being impacted by climate change
- ADEPT will help to input technical advice, with political input via the LGA



**UK
2017** | Climate
Change
Risk
Assessment

UK Climate Change Risk Assessment 2017

Evidence report: priorities for the next five years

@theCCcuk
#UKClimateRisk



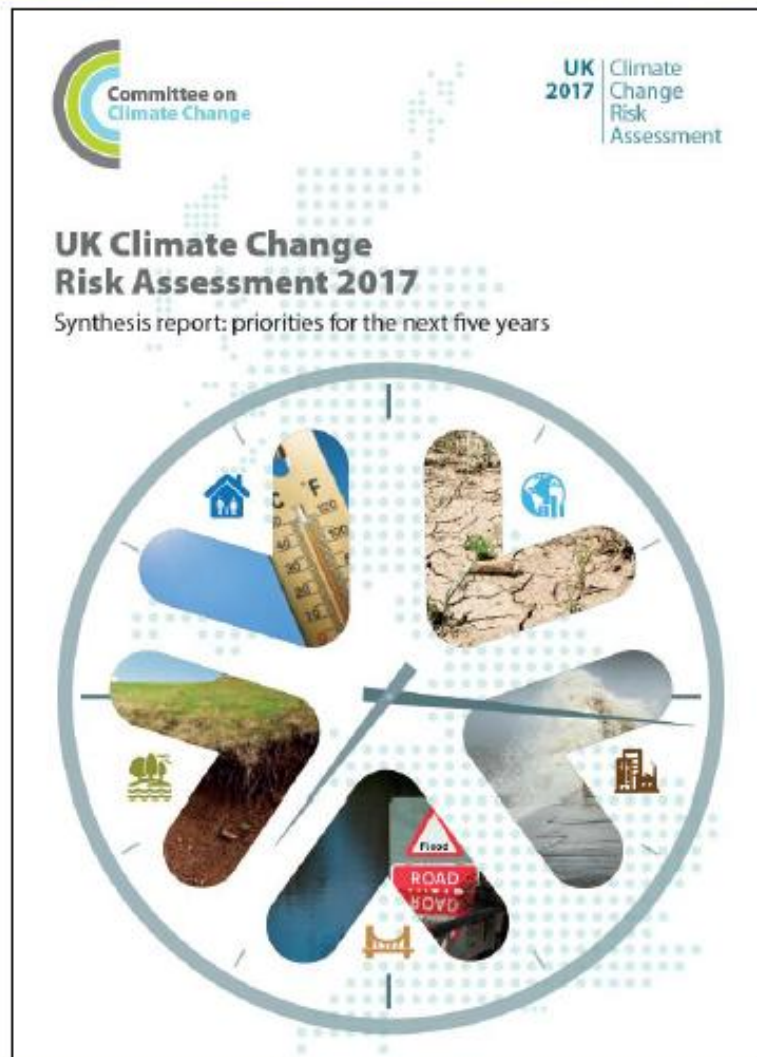
Six priority areas

<p>Flooding and coastal change risks to communities, businesses and infrastructure (Ch3, Ch4, Ch5, Ch6)</p>	<p>MORE ACTION NEEDED</p>
<p>Risks to health, wellbeing and productivity from high temperatures (Ch5, Ch6)</p>	
<p>Risk of shortages in the public water supply, and for agriculture, energy generation and industry (Ch3, Ch4, Ch5, Ch6)</p>	
<p>Risks to natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity (Ch3)</p>	
<p>Risks to domestic and international food production and trade (Ch3, Ch6, Ch7)</p>	
<p>New and emerging pests and diseases, and invasive non-native species, affecting people, plants and animals (Ch3, Ch5, Ch7)</p>	<p>RESEARCH PRIORITY</p>
<p>NOW -----> FUTURE</p>	

RISK MAGNITUDE: LOW MEDIUM HIGH

Next steps

- CCRA2 research conference:
 - joint with Government and the research councils (November)
- CCRA presented to Parliament:
 - by the Government (January 2017)
- Updated adaptation programmes:
 - UK (England): summer 2018
 - Scotland, Northern Ireland: 2019
 - Wales: as part of Wellbeing Act
- Next ASC statutory progress reports:
 - Scotland: September 2016
 - UK (England): June 2017



LAAP

- Meetings around the CCRA receptors
 - July 2016 Infrastructure
 - Sep 2016 Heat & Built Environment
 - Nov 2016 Natural Capital
 - Jan 2017 Public Health
- Outputs will help to identify any gaps in existing Government policy and suggest modifications to policy to improve the country's resilience to climate change
- Submit for inclusion within the next iteration of the National Adaption Programme (NAP) due to be published in 2018

LAAP

If anyone is interested in becoming more involved or have colleagues who might assist, please contact Nigel Riglar, LAAP Chair at nigel.riglar@gloucestershire.gov.uk

Thank you

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