

# Adaptation training for Universities and Colleges

20 April 2016

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Programme Manager  
Adaptation Scotland



Providing advice and support to help ensure that Scotland is prepared for, and resilient to, the impacts of climate change.



Adaptation Scotland is a programme funded by the Scottish Government and delivered by Sniffer



# Overview

- Introduction to adaptation
- Adaptation in practice
- Adaptation planning and reporting
- Building the business case for adaptation



# Introduction to adaptation

- Presentation
- Climate ready places exercise

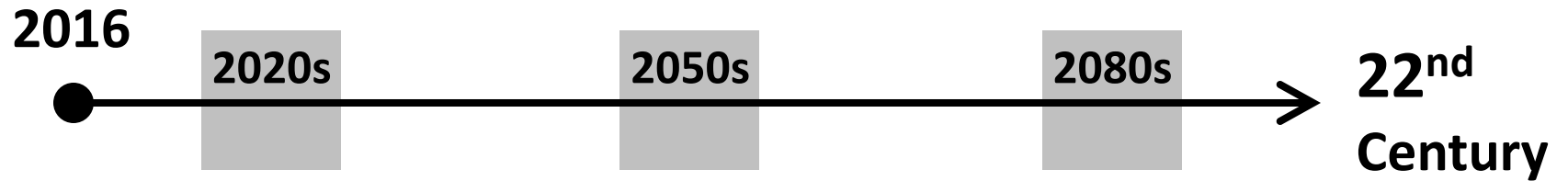


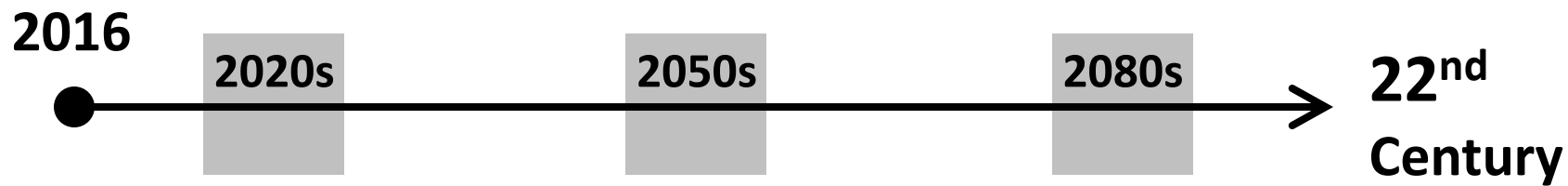
# Change is constant.

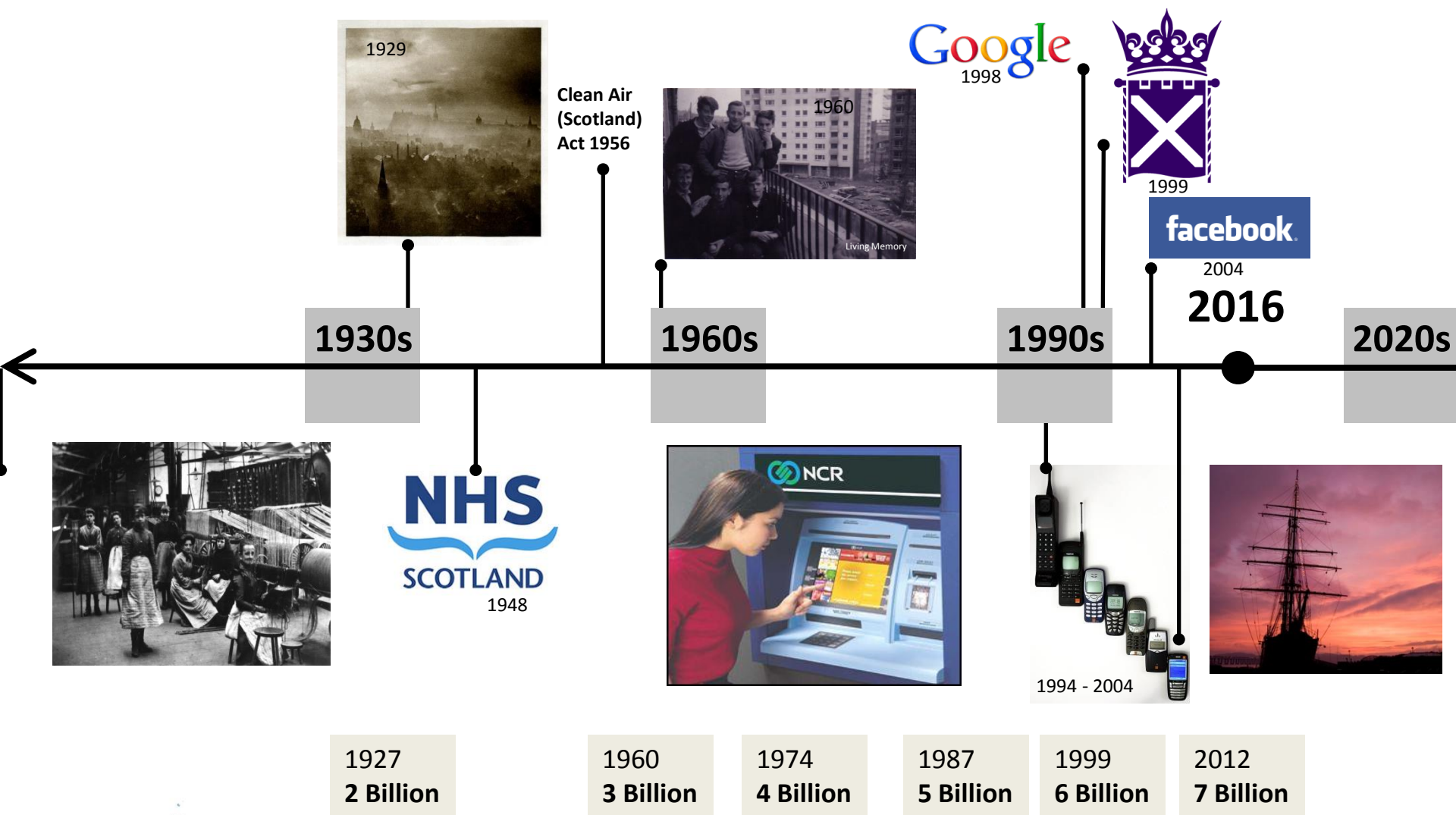
environmental  
social  
climate  
legal  
political  
economic  
technological



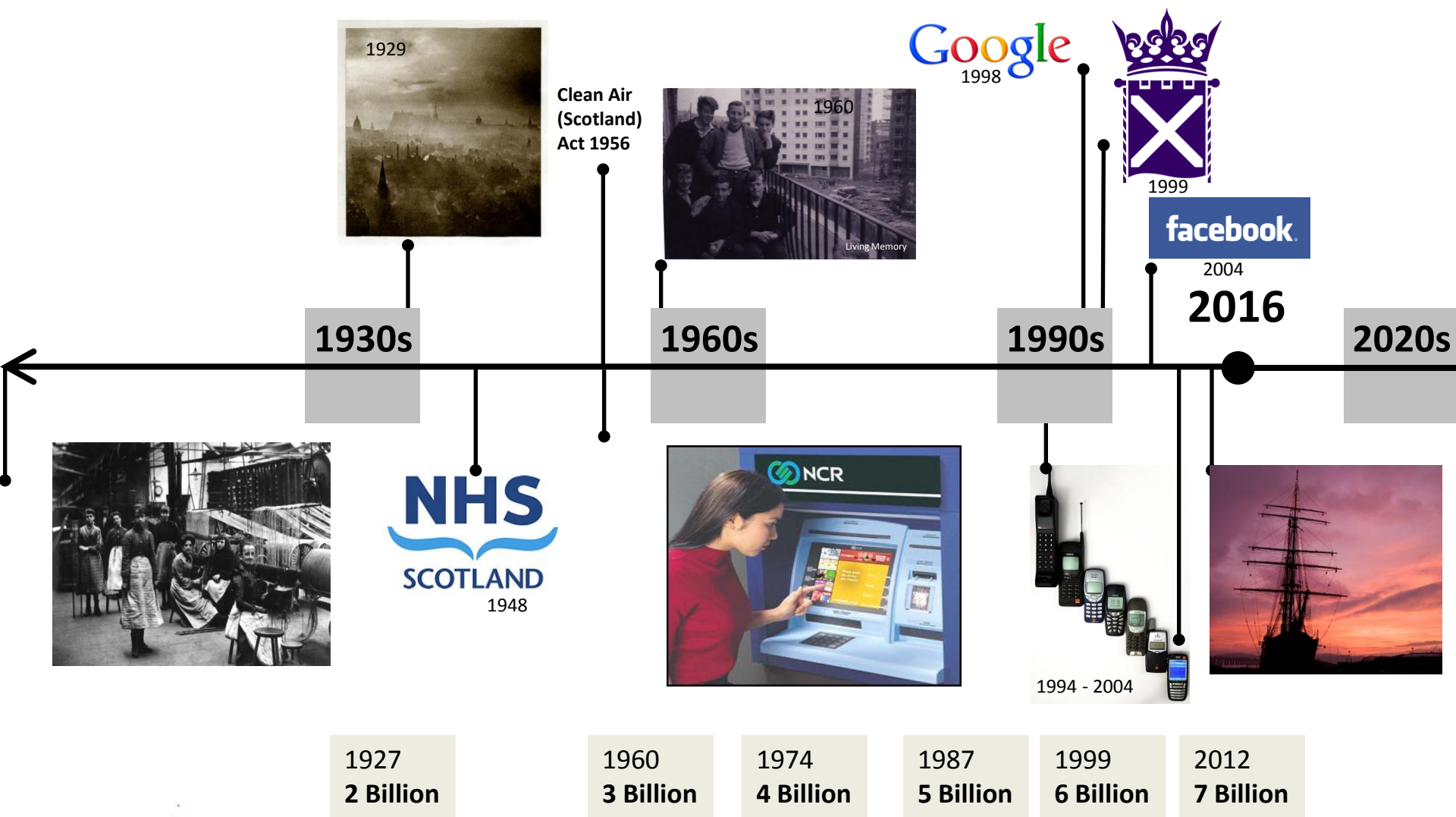
# The future? What timescale?











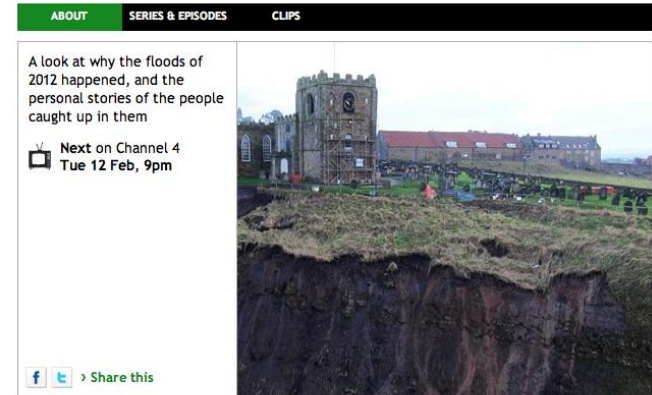
# How is Climate changing?



# Weather affects us.



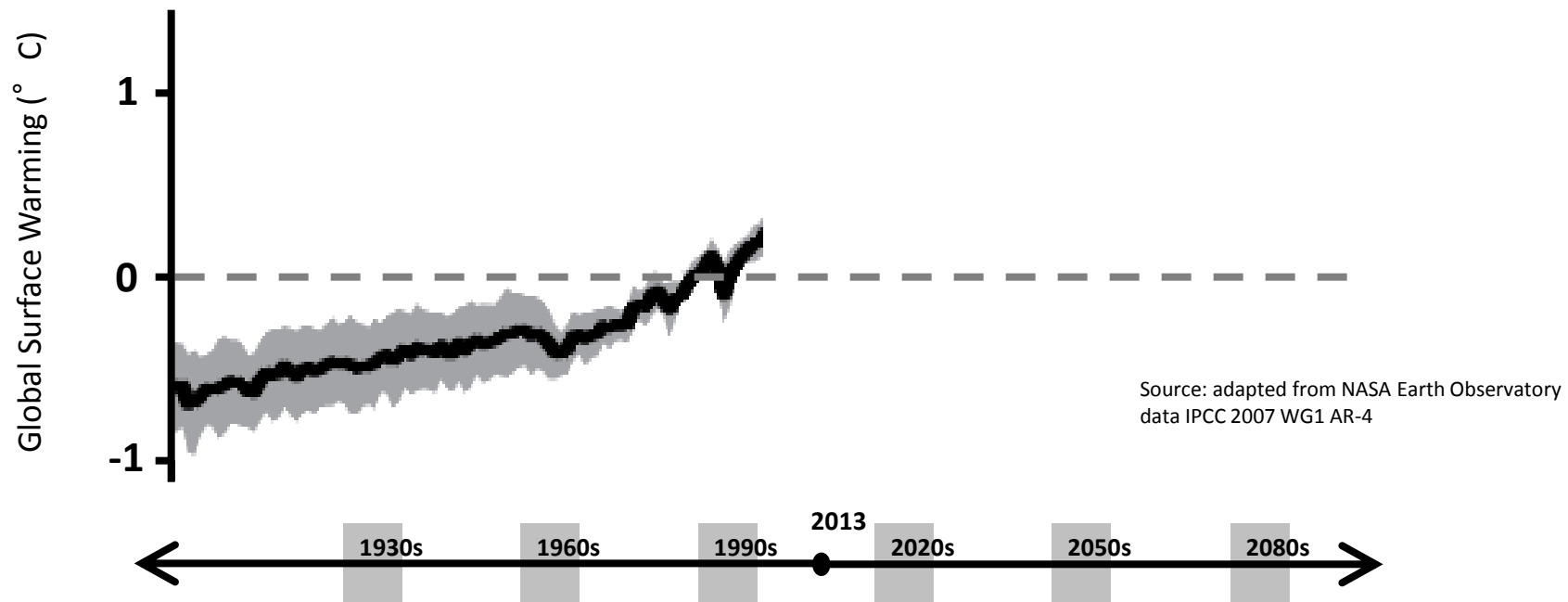
## The Year Britain Flooded



Adaptation Scotland is a programme funded by the Scottish Government and delivered by Sniffer

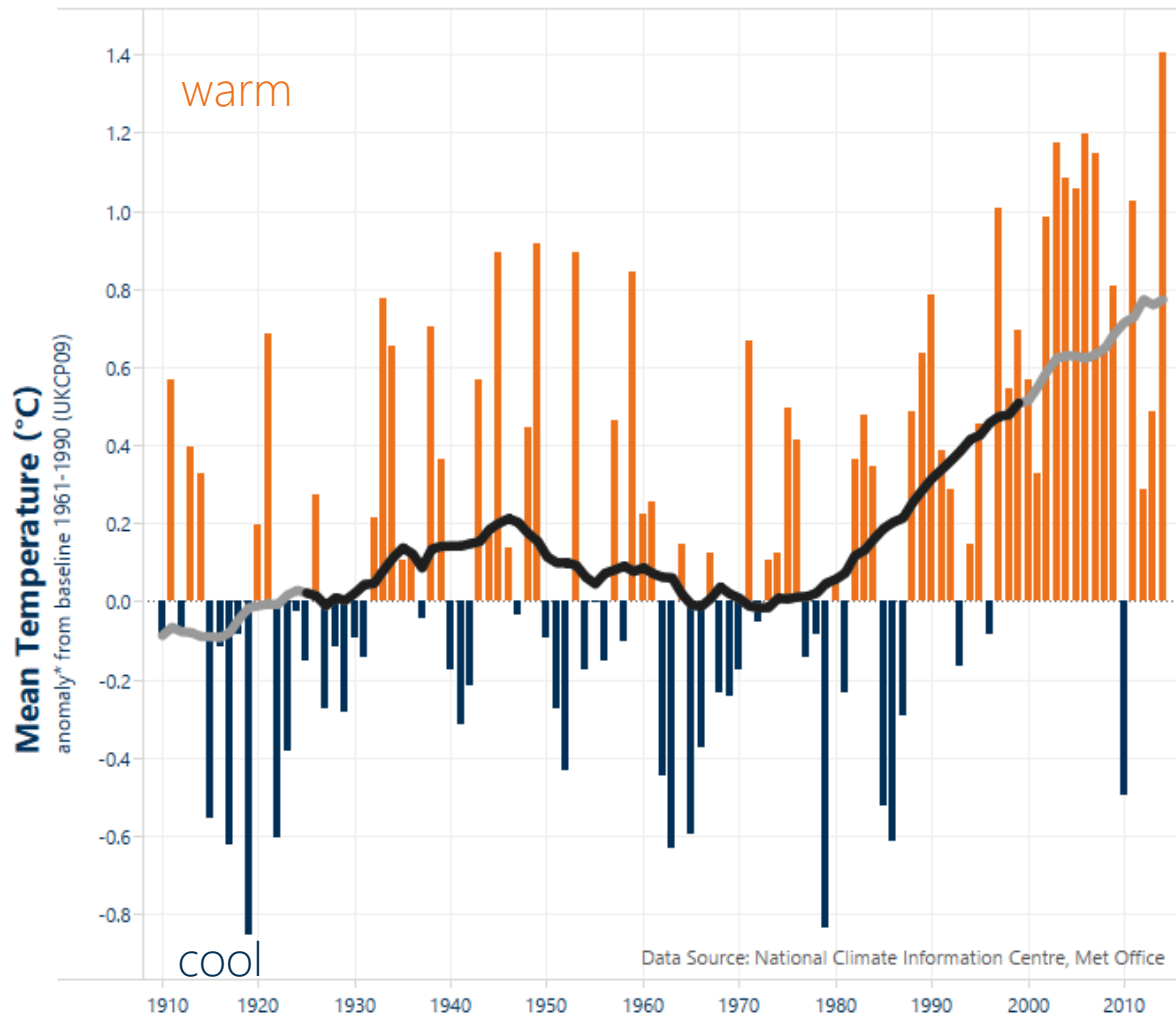
# 1. Understanding the Current Climate





# Climate Trends for Scotland

Scotland - Annual Mean Temperature (°C)

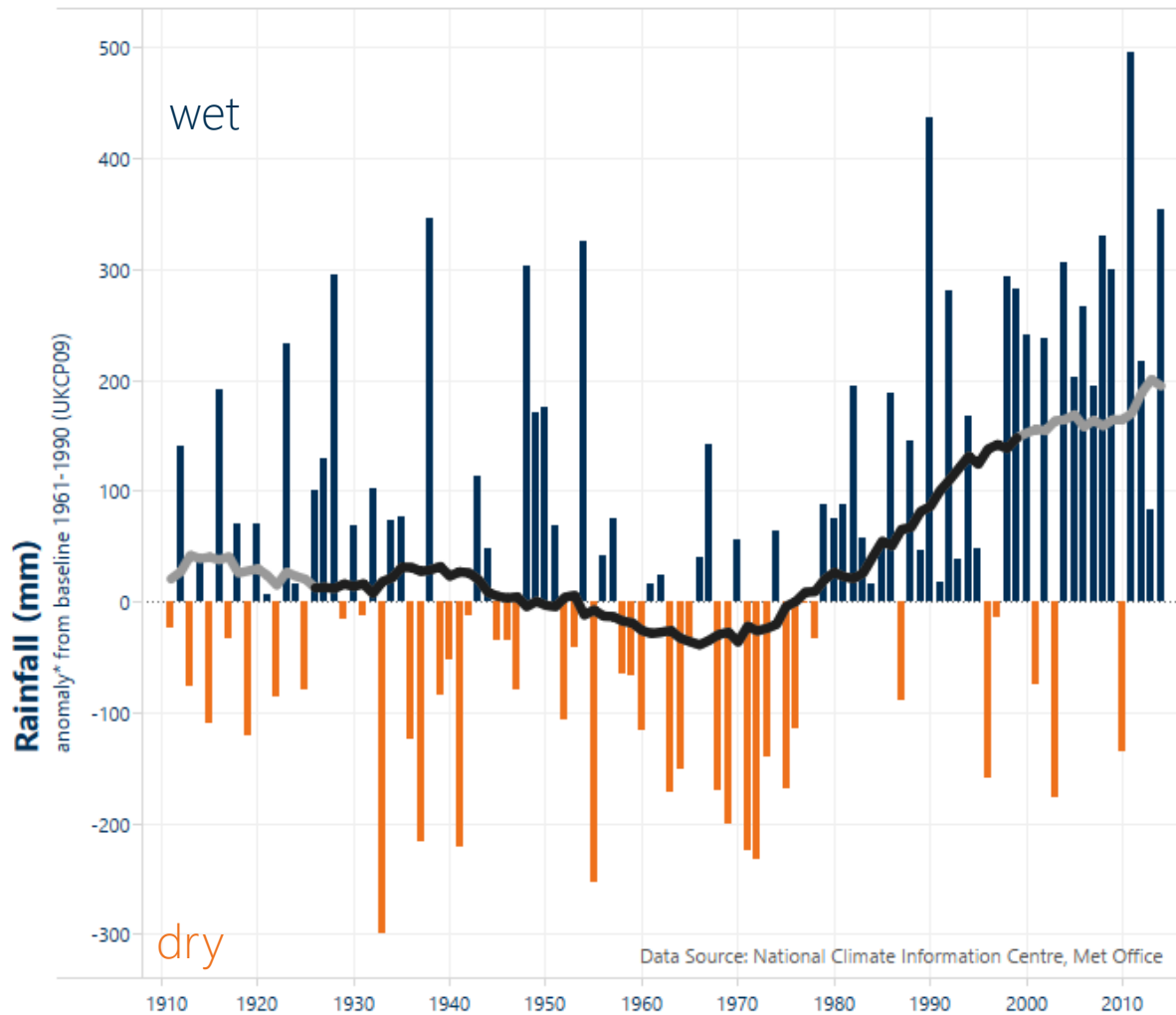


Mean Temperature

# Climate Trends for Scotland

## Scotland - Annual Rainfall (mm)

Adaptation  
Scotland  
supporting climate change resilience



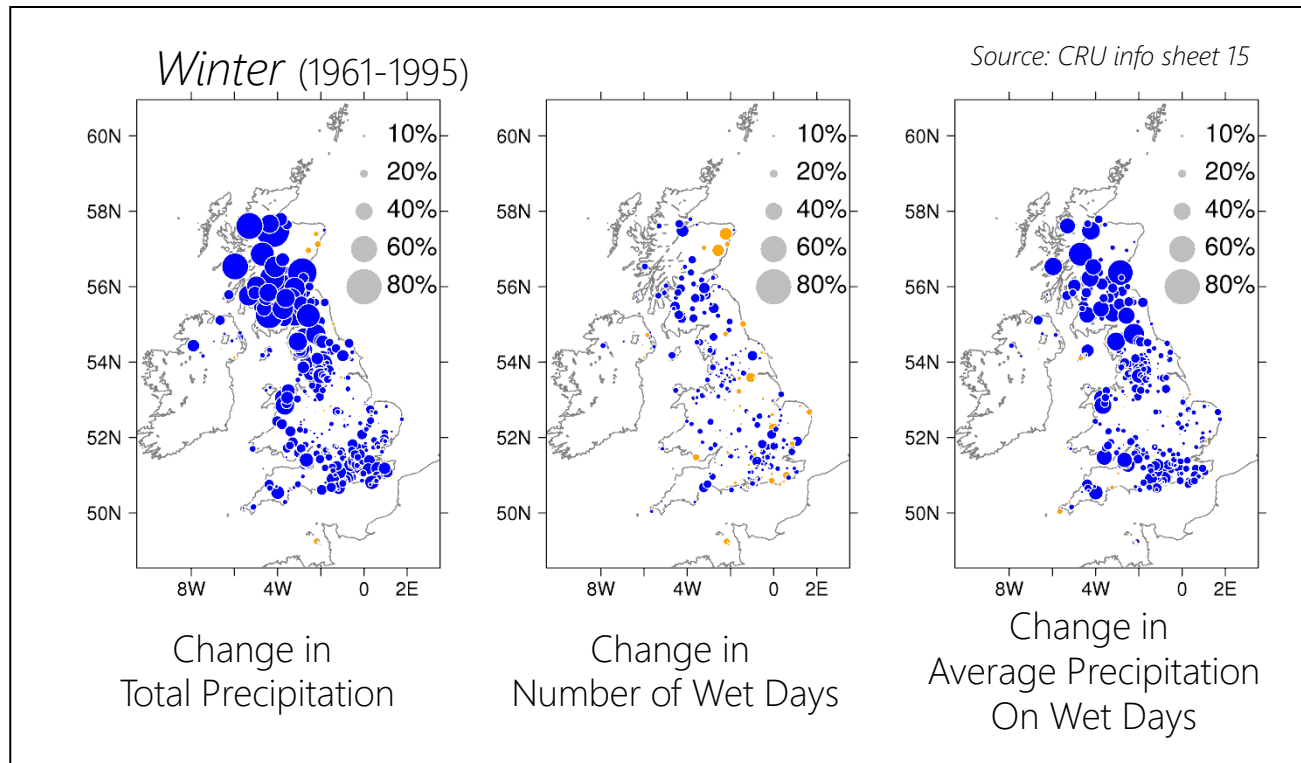
Rainfall (mm)

# What about the extremes?





Rainfall has increased over the last 50 years... This increase is mostly due to heavier rainfall on wet days (rather than more wet days)



In London extreme rainfall events occurred once every 30 years before 1960 - and once every 6 years since then...

source: Lloyds (2010)

water logging of soil, particularly due to increased winter rainfall and intense rainfall events

# Are we 'adapted' to today's climate?



**Adaptation to Present Climate or Weather**

**Adaptation to Future Climate Change**

## 2. Understanding The Future Climate



# What do we know about Scotland's future climate?

Over the last few decades we have seen remarkable progress in our understanding of climate – and how humans are changing it...

... and we continue to improve on this.



Scotland has access to world leading information – the UK Climate Projections - about how our climate is likely to change over this century.

<http://ukclimateprojections.metoffice.gov.uk/>

The key long-term climate change trends for Scotland are:

- Weather will remain variable, it may become more variable
- Typical summer is hotter and drier
- Typical winter / autumn is milder and wetter
- Sea level rise

We can also expect to see:

- Increase in summer heat waves, extreme temperatures and drought
- Increased frequency and intensity of extreme precipitation events
- Reduced occurrence of frost and snowfall



# 3. Policy and legislation





# Response

- Climate Change Act (2008)
- UK Climate Change Risk Assessment
- Climate Change (Scotland) Act 2009
- Scottish Climate Change Adaptation Programme
- Public Bodies Climate Change Duties
- Mandatory reporting – Public Bodies Climate Change Duties



# 4. Impacts of Climate Change





# How will changes in climate impact Universities and Colleges?

- **Systems:** Telecoms, transport, energy, water;
- **Assets:** Estates and Buildings - Built environment and natural environment.
- **Services:** Business continuity, research, innovation and teaching opportunities
- **People:** Health and wellbeing.
- **Global impacts** with local consequences.



# Systems: Telecoms, transport, energy, water

IT infrastructure and services commonly outsourced – how vulnerable are key services?

Surface water and fluvial flooding, landslides, overheating of roads and rails and, coastal erosion all threaten transport networks.

How will changes in climate affect energy demand?



# Assets: Estates and Buildings

University and college estates often include large areas of greenspace, woodlands, playing fields, gardens, farms rivers and lochs.

These will all be impacted by changes in climate:

- Pests and diseases
- Water logging
- Flooding
- Low water levels
- Drying out



# Assets: Estates and Buildings

These assets also have huge potential to help us cope with climate change:

Multi functional green spaces – provide additional flood storage

Greenspaces in cities – space for nature to adapt, slow the flow of water, cooling during warmer summer weather.



Braid Burn before the F

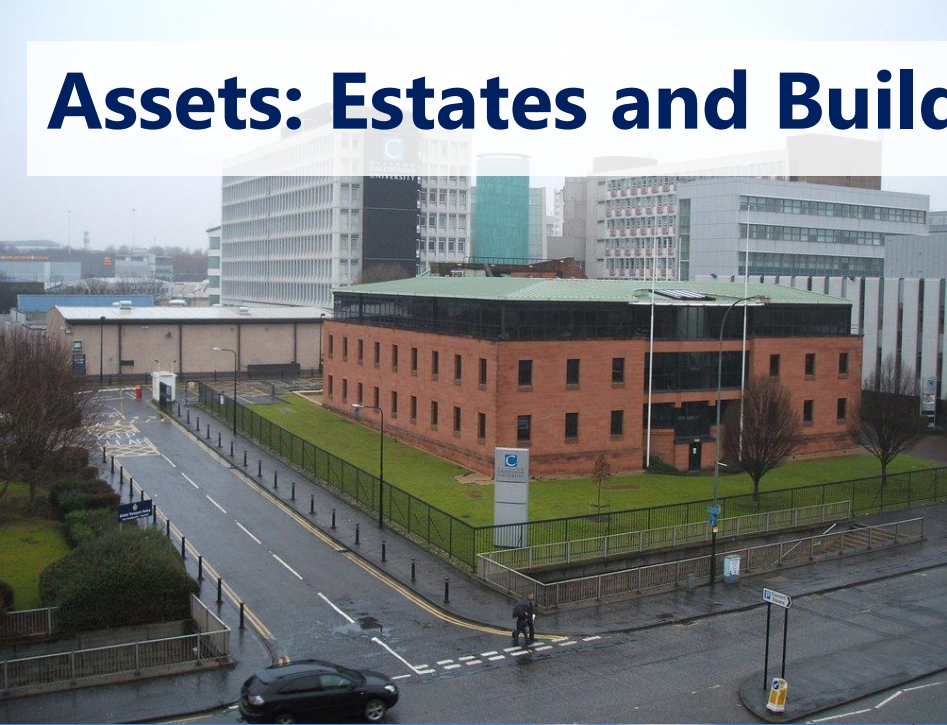


Braid Burn Flooding, Inch Park, March 2010





# Assets: Estates and Buildings





# Services: Business continuity Research



Scotland's Rural College

About SRUC

Research

Education

SAC Consulting

Veterinary  
Services

Rural Policy  
Centre

Alumni and  
friends

You are in > Home > SAC Consulting > Farming For A Better Climate > Adapting To Climate Change

## SAC Consulting

- > Farm Diversification
- > Scottish Government VAS Programme
- > Rural Business Management
- > **Farming For A Better Climate**

Climate Change

Focus Farms

Carbon Footprinting

Adapting To Climate  
Change

Case Studies – What  
Have Other Farmers  
Done?

About Us

Improving Farm

## Adapting To Climate Change

### Improve Business Resilience - Adapting to Climate Change

Under climate change, a trend towards wetter winters, and drier, hotter summers has been predicted. In reality we are beginning to see more variability in our weather patterns, with more extreme weather events.

It's easy to be sceptical about long-term projections of climate change as it can feel like they are confusing or lacking consistency and clarity. However, more farmers are finding that previously accepted weather windows for work are becoming shorter and more unpredictable. In February 2010, a survey carried out by Farming Futures suggested that 38% of all farmers surveyed said they were already affected by climate change and nearly 60% expect to be affected in the next ten years.

Both at home and overseas, agricultural production could be at risk; for example, excessive heat affecting both crop and livestock production or high rainfall or flooding preventing access to land at key times such as at planting or harvest. At home we are already seeing the effects of milder, wetter winters failing to reduce the numbers of some pests such as liver fluke in



# People: Health and wellbeing

Student > News

## Students evacuated from seafront Aberystwyth University accommodation after storms batter Welsh coast

Exams had been due to start today

Sophie Murray-Morris | @smurraymorris | Monday 6 January 2014 | 0 comments



# Global impacts with local consequences

*'Prices of everyday staples such as bread, flour and beer are set to rise sharply after Russia imposed a ban on grain exports'* *Financial Times, August 2010*



©EPA



How should we respond?

Over to you!!



## Imagining Climate Ready Places

- Form groups of 5 or 6
- Choose one of the landscape images

### Step 1 (15 mins)

- Use post it notes to describe how the location will be impacted by climate change.

### Step 2 (30 mins)

- Place tracing paper over your landscape.
- Use drawings and descriptions to show how you would adapt the landscape to make it resilient to the impacts of climate change.

# Climate Ready Places website

<http://www.sniffer.org.uk/climatereadyplaces/>

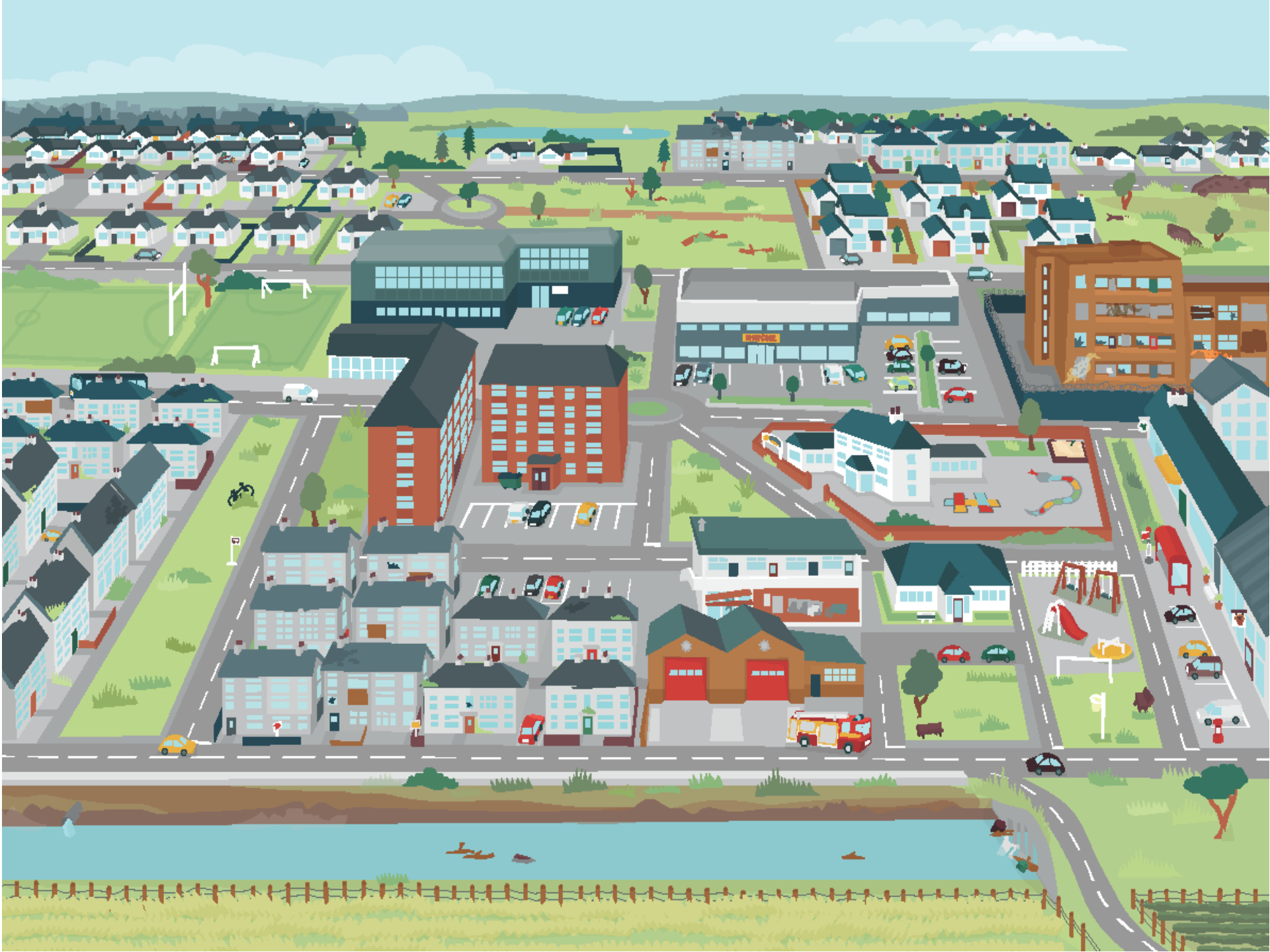


**Adaptation  
Scotland**  
supporting climate change resilience

**Adaptation Scotland** is a programme funded by the Scottish Government and delivered by Sniffer































# Adaptation in practice

David Stutchfield – St Andrews University

Roddy Yarr – Strathclyde University





# Discussion questions

Who needs to know about climate risks within your university / college? What is the most effective way of beginning to raise awareness?

What are the first steps you could take to better understand the climate risks relevant for your college / university?





# Climate Change Adaptation actions at St Andrews

David Stutchfield  
Energy Officer

## Adaptation Aims at St Andrews

1. Identify future climate vulnerability
2. Identify adaptation priorities
3. Respond to Climate Change Reporting Duties



## Adaptation Actions To Date

### Flood risk assessments of key assets

- North Haugh area
- Guardbridge
- East Sands area

# St Andrews Town

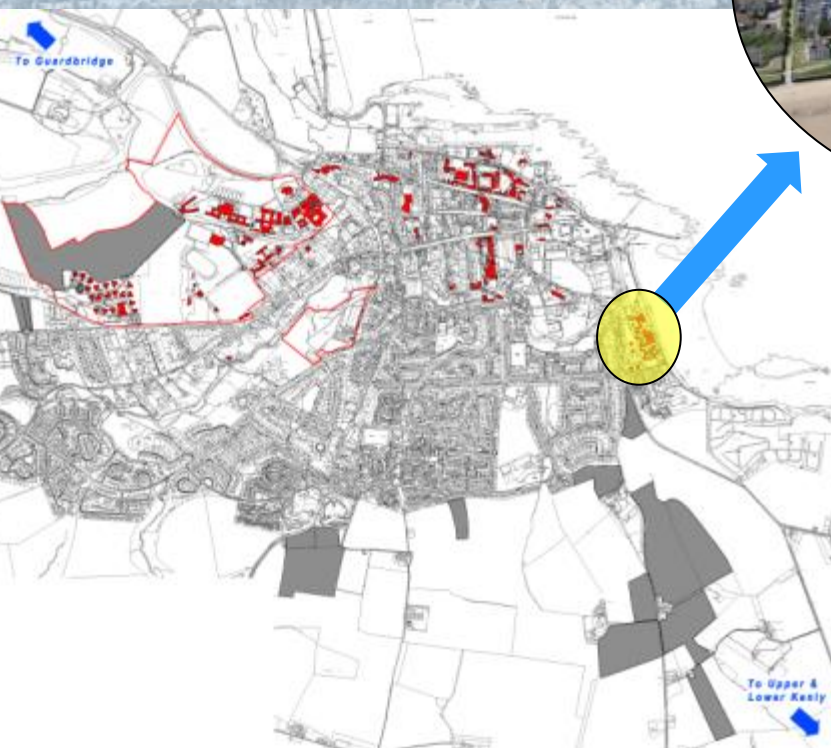
North Haugh





# St Andrews Town

East Sands





## Guardbridge

- Sea wall is part of the Fife Coastal Protection Programme
- University's Scottish Oceans Institute research interest in estuary and climate science







## Adaptation Actions To Date

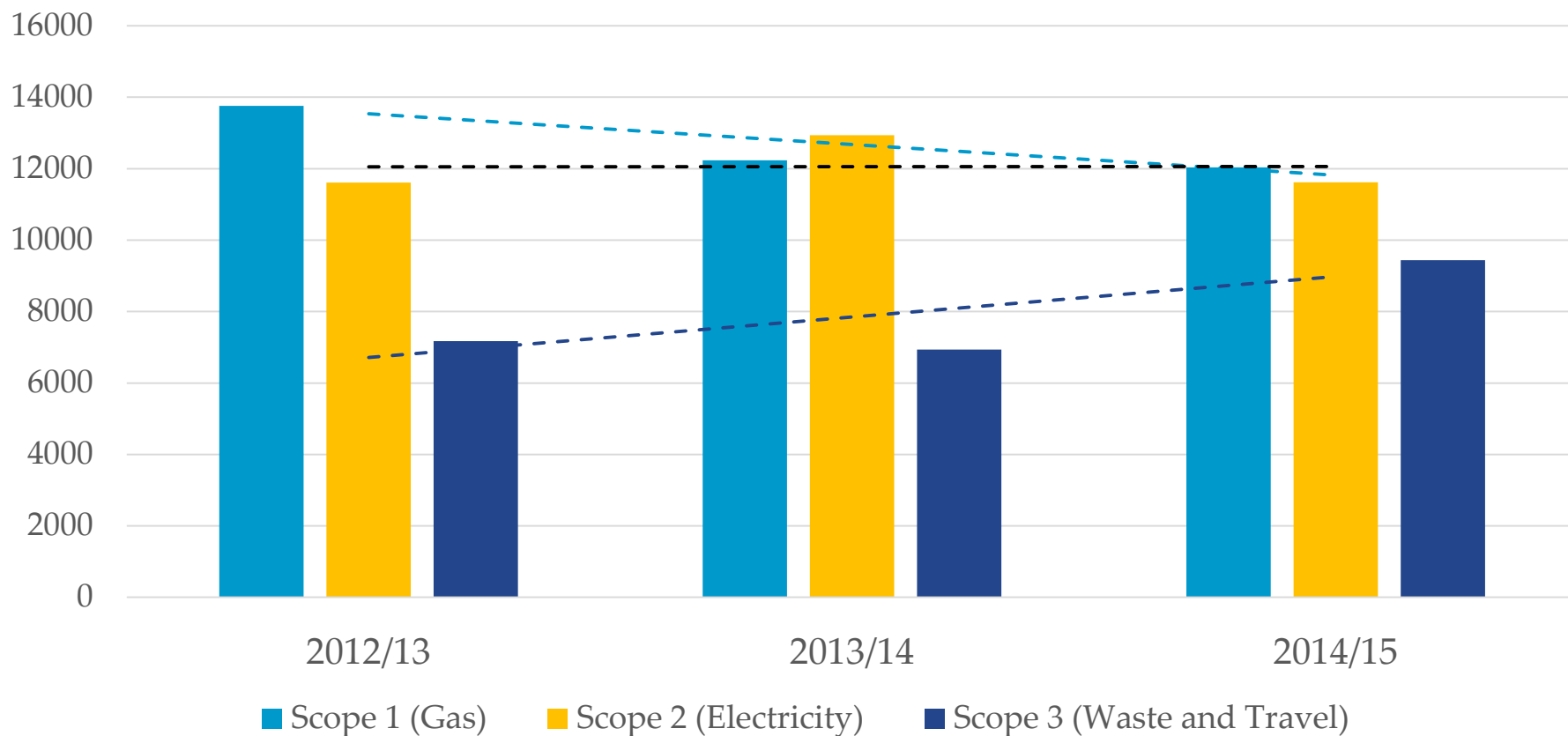
Flood risk assessments of key assets

Understanding climate impacts

- Carbon footprint (including travel)



## Carbon Footprint (tCO<sub>2</sub>) by Scope





## Adaptation Actions To Date

Flood risk assessments of key assets

Understanding climate impacts

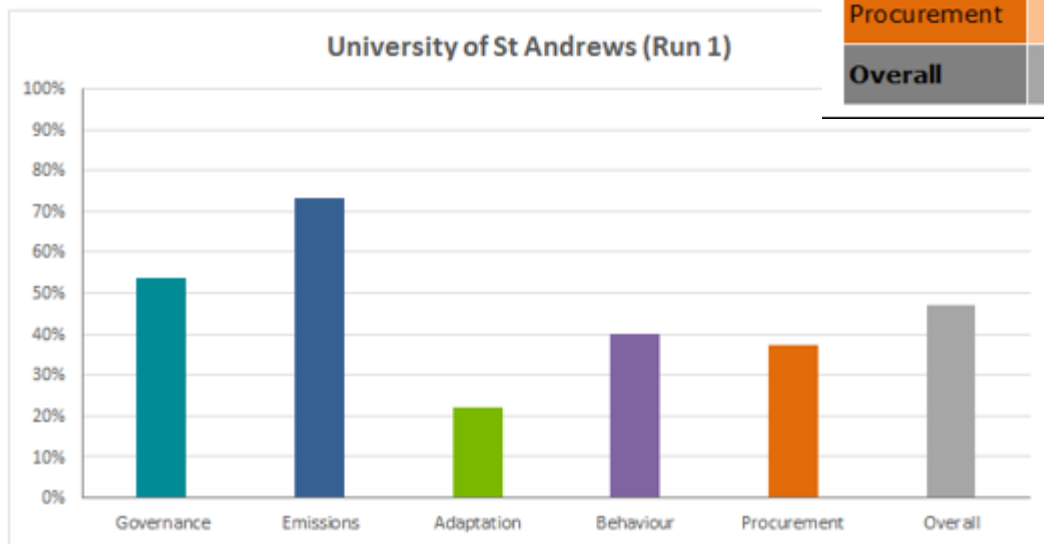
- Carbon footprint (including travel)

Working through Toolkit

- CCAT adaptation workshop at senior level

## Results of CCAT Tool

Overall results - Run 1				
	Organisation score	Total score available	Percentage score	Traffic light assessment
Governance	15	28	54%	54%
Emissions	22	30	73%	73%
Adaptation	6	27	22%	22%
Behaviour	8	20	40%	40%
Procurement	6	16	38%	38%
<b>Overall</b>	<b>57</b>	<b>121</b>	<b>47%</b>	<b>47%</b>



## Results of CCAT Tool

Results for Adaptation				
Question number	Question			
3a	Have you defined the challenges of Climate Change adaptation?	2 out of 5		Climate change on Risk Register, no monitoring of effects of climate change on University operation
3b	Have you assessed climate change threats and opportunities?	1 out of 5		No workshops organised, but perception of climate change trends, no SWOT
3c	Have you assessed climate change risks and identified actions?	0 out of 3		No risk assessment or action plans
3d	Which specific risk areas have you considered?	0 out of 6		BREEAM covers some of these points, but no formal University policy
3e	Have you reported and implemented your adaptation arrangements and do you have processes for monitoring and review?	0 out of 5		No process to do this (now required under our Scottish Climate Change Reporting)
3f	Has your organisation identified its responsibilities under the Scottish Climate Change Adaptation Programme (SCCAP) objectives?	0 out of 4		Detailed Objectives from the Scottish Climate Change Adaptation Programme



## Adaptation Actions To Date

Flood risk assessments of key assets

Understanding climate impacts

- Carbon footprint (including travel)

Working through Toolkit

- CCAT adaptation workshop at senior level
- Evaluated Risk Register + added climate risk



## Risk Register

- Increased insurance costs
- Power outages
- Major travel delays – getting to and from University and around world
- Harm to staff and students away from St Andrews
- Widespread staff absence
- Physical damage to buildings from flooding – now converted into a Climate Risk



## Adaptation Actions To Date

- Climate Risks on Risk Register – Risk Manager has identified two construction projects at risk so far.
- Identifying processes to map Local Climate Impacts. Where will information come from? ie Fife Council, Dundee Council, Tay Bridge, Forth Bridge, ScotRail, press clippings, staff memory.

## Adaptation Actions To Date

- Agreement for climate workshops in Estates and Residential Business Services
- Mandatory Climate Change Reporting – Nov 2015
- 2015-16 Outcome agreement with SFC under Aim 7 includes:
  - completion of initial LCLIP
  - completion of initial Adaptation Plans
  - review of CCAT

## Next Steps

1. Evaluate Local Climate Impacts – continued research.  
(no resource allocation or student help so far)
2. Run climate threat and opportunity assessment process  
with key stakeholders (Estates & RBS) to create initial  
Adaptation Plans

The objectives will be to:

- raise awareness of Adaptation within senior management,
- identify where climate change will affect the operation of the unit
- identify what data should be gathered to create a department adaptation report and action plan

## The objectives cont:

- identify further what data should be gathered to create a LCLIP, and where data may already be available in the University
- understand what resources will be required to take each of these actions forward and who the key contacts will be.

# CLIMATE CHANGE ADAPTATION

## UPDATE ON PROGRESS

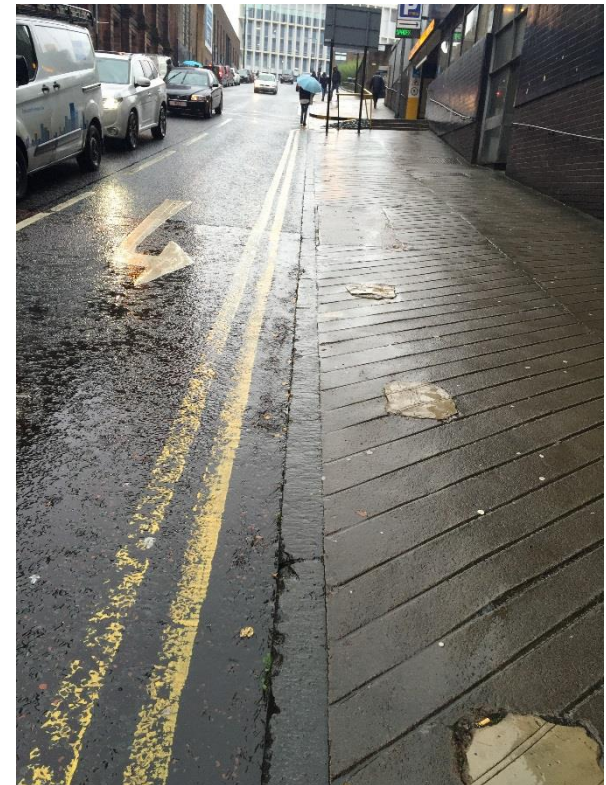
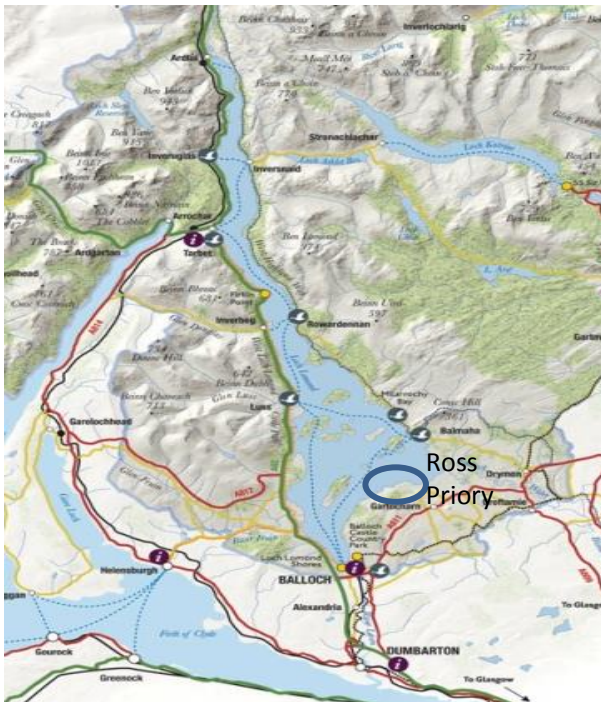
Roddy Yarr, Assistant Director  
(Sustainability and Environmental  
Management)



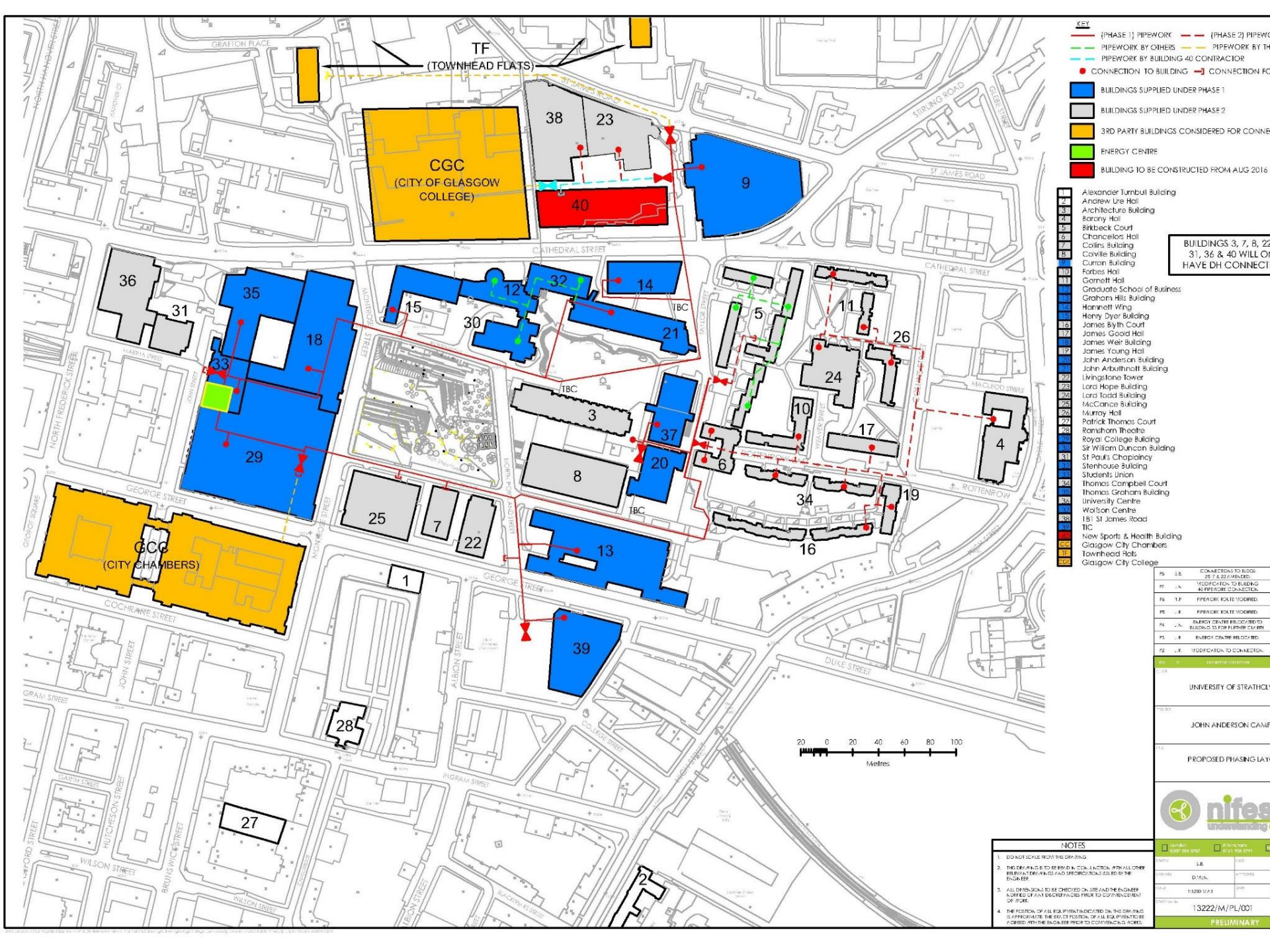


# Background

- Several sites across the west of Scotland
  - Glasgow City Centre (36 acres)
  - PNDC at Cumbernauld, North Lanarkshire (3 acres)
  - AFRC at Inchinnan, Renfrewshire (9 acres)
  - Ross Priory, Stirlingshire, Loch Lomond and Trossachs National Park (190 acres)







- CRY
- (PHASE 1) PIPEWORK
- (PHASE 2) PIPEWORK
- PIPEWORK BY OTHERS
- PIPEWORK BY THE CONTRACTOR
- CONNECTION TO BUILDING
- CONNECTION FROM BUILDING
- BUILDINGS SUPPLIED UNDER PHASE 1
- BUILDINGS SUPPLIED UNDER PHASE 2
- 3RD PARTY BUILDINGS CONSIDERED FOR CONNECTION
- ENERGY CENTRE
- BUILDING TO BE CONSTRUCTED FROM AUG 2018

BUILDINGS 3, 7, 8, 22, 31, 36 & 40 WILL NOT HAVE DH CONNECTION

- 1 Alexander Turnbull Building
- 2 Andrew Urie Hall
- 3 Architecture Building
- 4 Barony Hall
- 5 Birkbeck Court
- 6 Chancellor Hall
- 7 Collins Building
- 8 Cowie Building
- 9 Curran Building
- 10 Forbes Hall
- 11 Gornell Hall
- 12 Graduate School of Business
- 13 Graham Hill Building
- 14 Hannett Wing
- 15 Henry Dyer Building
- 16 James Byth Court
- 17 James Good Hall
- 18 James Weir Building
- 19 James Young Hall
- 20 John Anderson Building
- 21 John Arbuthnot Building
- 22 Livingstone Tower
- 23 Lara Hope Building
- 24 Lara Todd Building
- 25 MacCance Building
- 26 Murray Hall
- 27 Patrick Thomas Court
- 28 Rannam Theatre
- 29 Royal College Building
- 30 Sir William Duncan Building
- 31 St Pauls Chaplaincy
- 32 Sternhouse Building
- 33 Students Union
- 34 Thomas Campbell Court
- 35 Thomas Graham Building
- 36 University Centre
- 37 Walton Centre
- 38 181 St James Road
- 39 New Sports & Health Building
- 40 Glasgow City Chambers
- 41 Townhead Flats
- 42 Glasgow City College

- PS S.B. CONNECTIONS TO BUILDINGS 25, 7 & 22 (MODIFIED)
- PS S.B. MODIFICATION TO BUILDING 40 (PIPEWORK CONNECTION)
- PS T.F. PIPEWORK ISOLATE (MODIFIED)
- PS S.B. PIPEWORK ISOLATE (MODIFIED)
- PS S.B. ENERGY CENTRE RELOCATED TO BUILDING 33 FOR FURTHER CLARITY
- PS S.B. ENERGY CENTRE RELOCATED
- PS S.B. MODIFICATION TO CONNECTION

UNIVERSITY OF STRATHCLYDE

JOHN ANDERSON CAMPUS

PROPOSED PHASING LAYOUT



NOTES

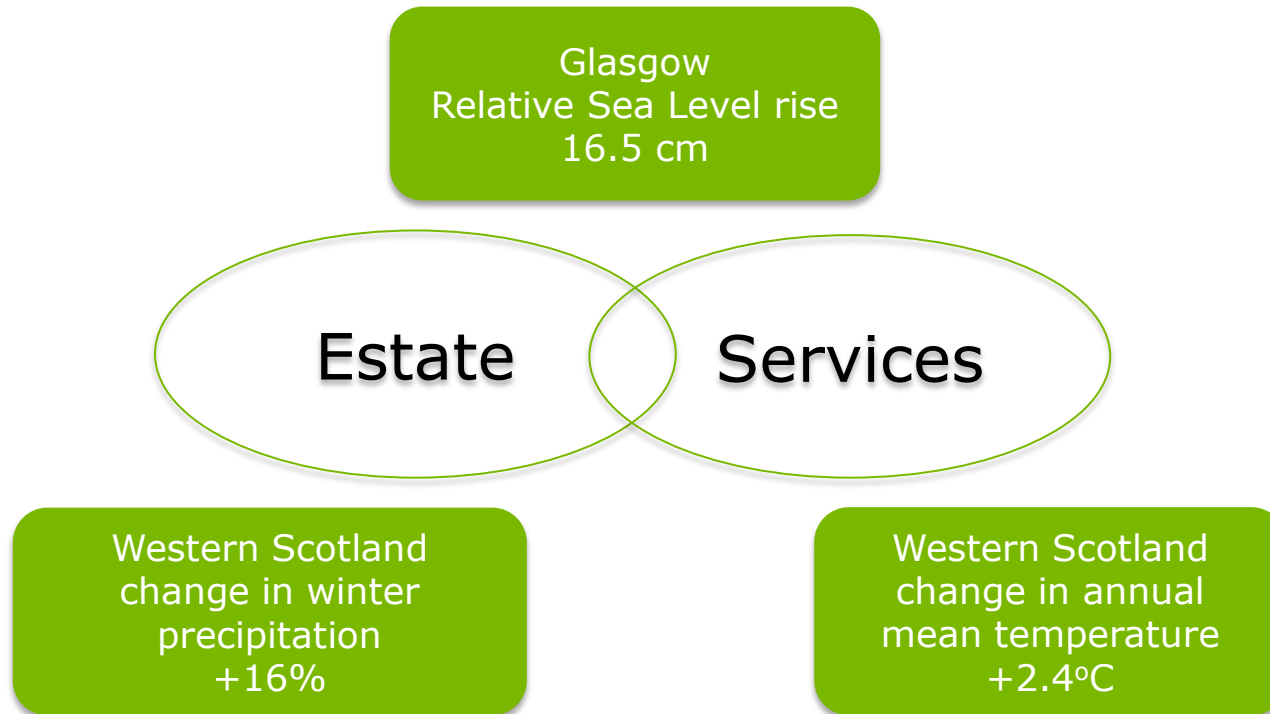
1. DO NOT SCALE FROM THIS DRAWING
2. THE DEVELOPER IS TO BE RESPONSIBLE FOR THE CONNECTION WITH ALL NECESSARY PERMITS AND APPROVALS AND SPECIFICATIONS TO BE USED BY THE ENGINEER
3. ALL DIMENSIONS TO BE CHECKED ON SITE AND THE BUILDING SURVEYED AGAIN TO BE CONFIRMED PRIOR TO COMMENCEMENT OF WORK
4. THE POSITION OF ALL EXISTING PIPELINES ON THE DRAWING IS APPROXIMATE. THE EXISTING POSITION OF ALL EXISTING PIPELINES SHOULD BE VERIFIED PRIOR TO COMMENCEMENT OF WORK

DATE	SUB	REV
10/01/2018	01	1
10/01/2018	02	1
10/01/2018	03	1
10/01/2018	04	1
10/01/2018	05	1
10/01/2018	06	1
10/01/2018	07	1
10/01/2018	08	1
10/01/2018	09	1
10/01/2018	10	1
10/01/2018	11	1
10/01/2018	12	1
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10/01/2018	14	1
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10/01/2018	41	1
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13222/K/PL/001

PRELIMINARY

# Impact of climate change on estate and services



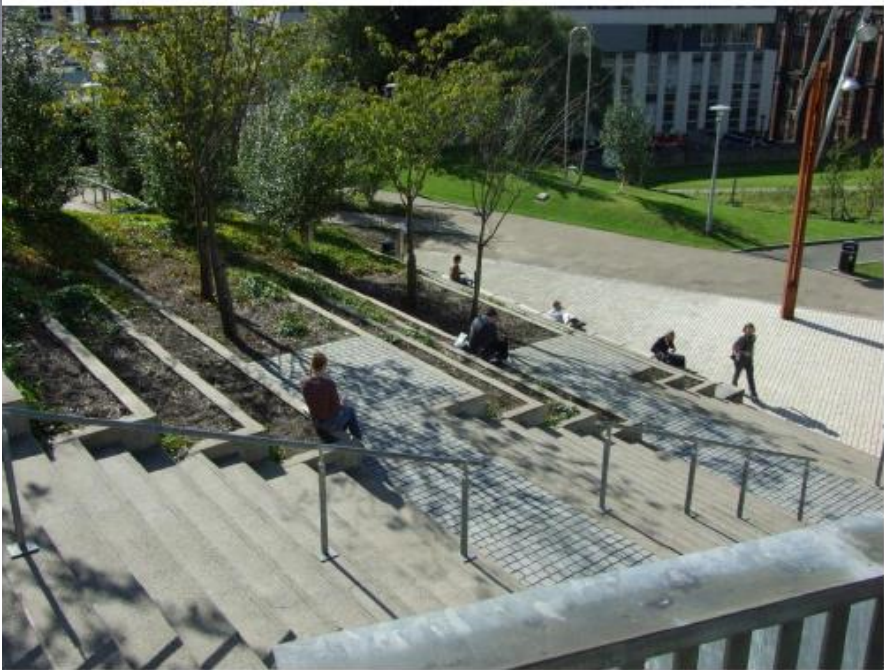


# CLIMATE CHANGE ADAPTATION -ISSUES AND DRIVERS

- Severe weather events already have an impact on the University in terms of travel disruption and fabric damage.
- Climate change will result in significant impacts on the built, natural, and social environments
- Adapting to climate change includes planning to reduce the risks while identifying and capturing opportunities.







# Local planning policy framework

- Glasgow aims to be one of the most sustainable cities in Europe over the next twenty years
- Sustainable Glasgow is the partnership for achieving that – delivering on environmental, social and economic aspects
- Climate adaptation planning and climate ready placemaking is one of the biggest challenges facing Glasgow

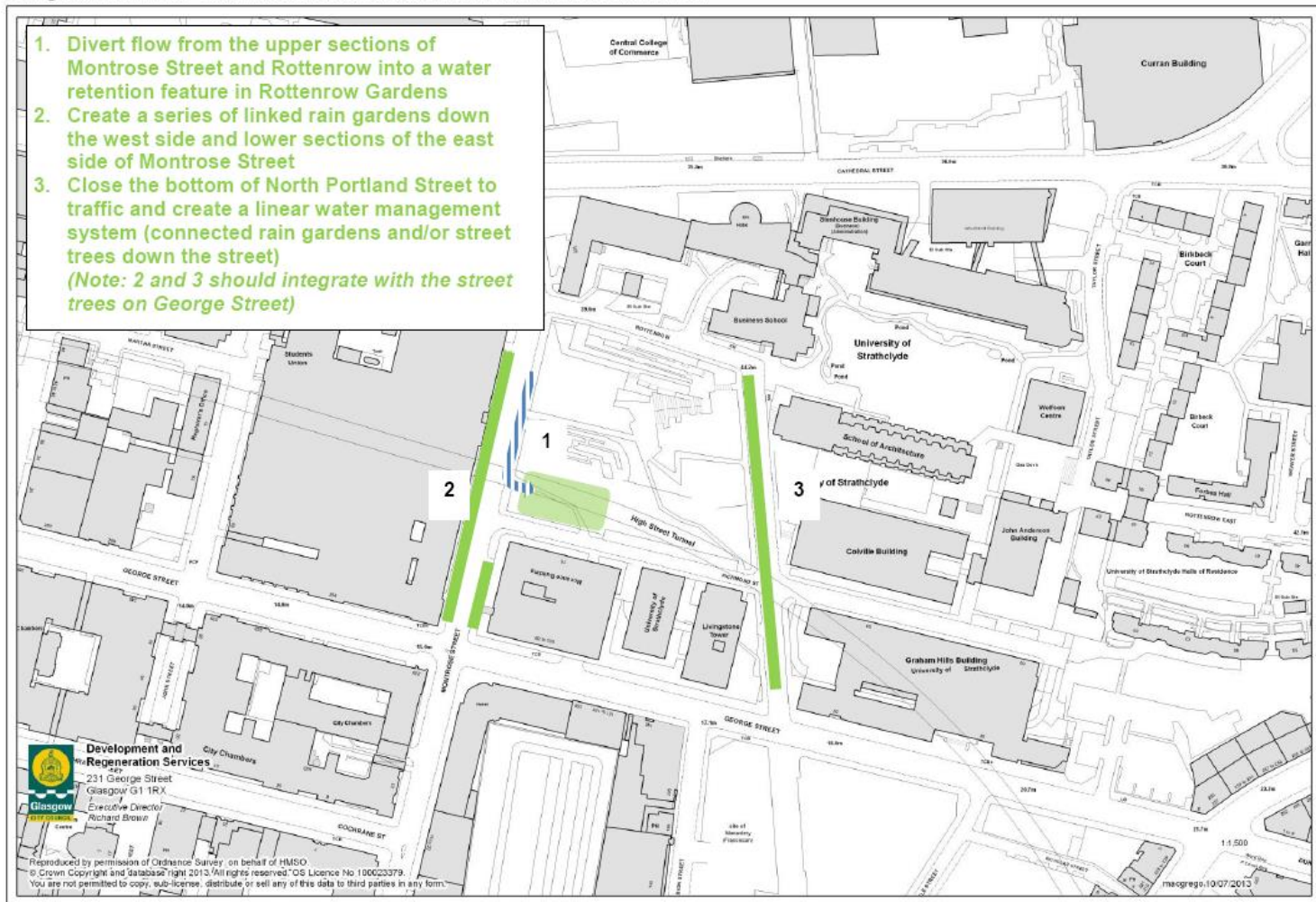


# What we are doing

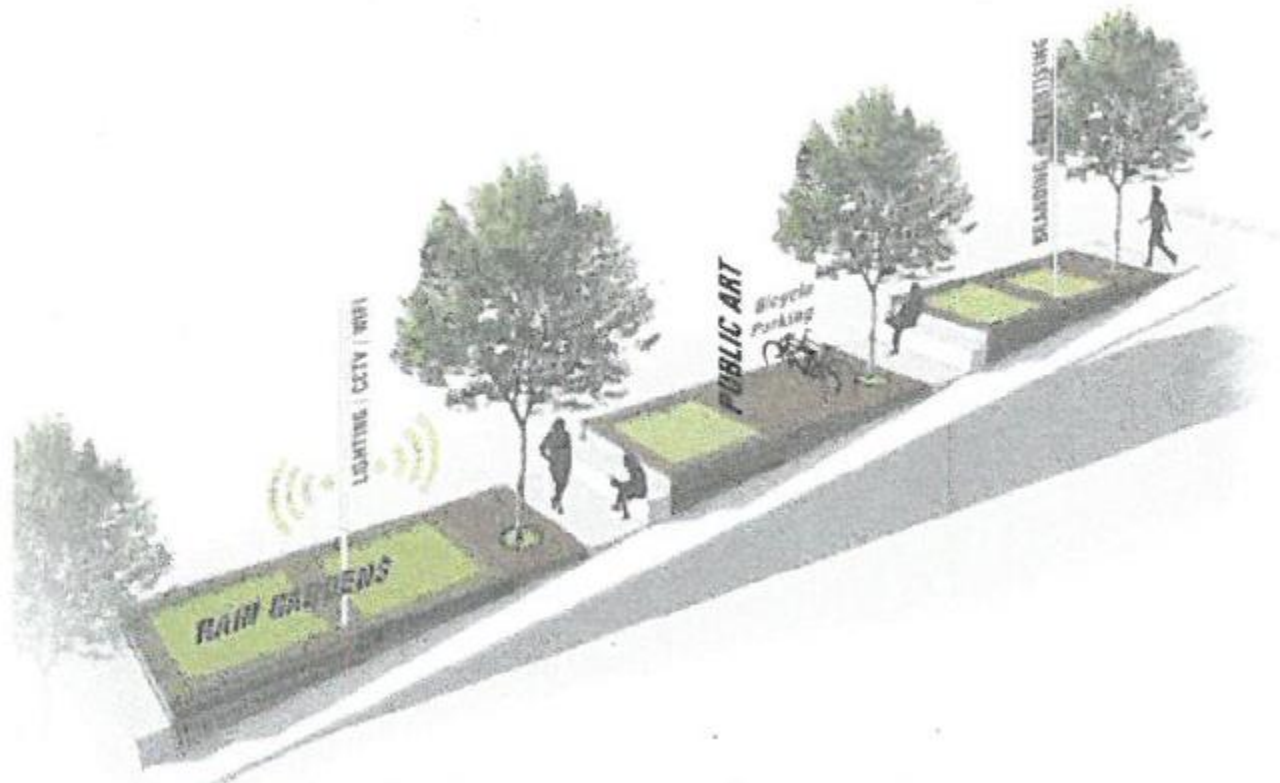
- Understanding what Climate Change and Climate Change Adaptation means for the University
  - Identifying future climate vulnerability and risks
- Identifying Adaptation priorities
  - Developing a Climate Adaptation Plan and business case
  - Build this into development masterplan
  - Integrating climate change issues into infrastructure works e.g landscaping to incorporate 'rain gardens'
- Complete Climate Change Assessment Tool and responded to CC Reporting Duties

## Long term actions – Montrose Street / Rottenrow / North Portland Street

1. Divert flow from the upper sections of Montrose Street and Rottenrow into a water retention feature in Rottenrow Gardens
  2. Create a series of linked rain gardens down the west side and lower sections of the east side of Montrose Street
  3. Close the bottom of North Portland Street to traffic and create a linear water management system (connected rain gardens and/or street trees down the street)
- (Note: 2 and 3 should integrate with the street trees on George Street)*



# Rain Garden North Portland Street



# Next Steps

- Identify Adaptation priorities in more detail
- Liaise with Glasgow City Council (and other Councils, Parks Authority as appropriate for other sites); Scottish Funding Council; Sustainable Scotland Network; SEPA etc
- Continue to raise awareness



# University of **Strathclyde** **Glasgow**



# Discussion questions

What are the first steps you could take to better understand the climate risks relevant for your college / university?

Who needs to know about climate risks within your university / college? What is the most effective way of beginning to raise awareness?



## Adaptation planning and reporting

**Sophie Turner**

Climate Resilient Project Coordinator  
Adaptation Scotland

# Outline

## Five steps to managing your climate risks

A Guide for Public Bodies in Scotland



Supporting compliance with the Climate Change (Scotland) Act 2009  
Public Bodies Climate Change Duties

### 4 Adaptation

#### Assessing and managing risk

- 4a Has the organisation assessed current and future climate-related risks?  
If yes, provide a reference or link to any such risk assessment(s).

- 4b What arrangements does the organisation have in place to manage climate change adaptation risk management?  
Provide details of any climate change adaptation risk management policies and actions included across policy areas.

#### Taking action

- 4c What action has the organisation taken to adapt to climate change?  
Include details of work to increase awareness of the need to adapt and stakeholders to assess risk and implement action.

*"Adaptation is a journey, not a destination"*



# 1 Define the challenge

- Identify aims and objectives
- Ascertain where your adaptation arrangements will sit within the University
- Find contacts working on adaptation
- Build the business case

**OUTPUT: Briefing paper for senior managers**





## 2 Assess climate threats and opportunities

- Understand recent and future climate trends
- Working with service heads to identify



vulnerable to climate change



Service or department	<i>Estates</i>	
Manager	<i>John Smith</i>	
Critical function, service or asset	<i>1: Maintain physical infrastructure</i>	
Key performance indicator or specific objective	<i>To continue the improvement and provision of student residential accommodation</i>	
Is this function, service or asset currently affected by the following? If so, explain how.		
Heavy rainfall and flooding	<i>Although the existing student accommodation is on high ground, access to the site does flood.</i>	
Drought	<i>No</i>	
Very hot days and heat waves	<i>No</i>	
High winds	<i>There have been a few minor damages caused by the wind speed of the recent storms.</i>	
Snow and ice	<i>One of the student halls has concrete steps that need to be gritted often in the winter months.</i>	
Sea level rise and coastal flooding	<i>No</i>	
With changes in the climate in the future, could this function, service or asset be affected by the following? If so, explain how.		
Increasingly mild, wet winters	<i>Yes. Increase in damp in older student <u>accomm.</u></i>	
Increasingly warm, dry summers	<i>No</i>	
Increased heavy rainfall	<i>Yes. Potential for more surface water flooding and issues with drainage.</i>	
Less frost and snow	<i>Less grit required for student halls.</i>	

## 2 Assess climate threats and opportunities

- Gather evidence of past severe weather events and the consequences they had on your service continuity.

OUTPUT: Weather impacts table



## Past weather impacts

## Affected services and communities

Weather variable	Description of impact	Location	Date	Consequences (costs, service disruption, injury, reputation)	Critical thresholds	Actions / plans / policies put in place to reduce this impact	Evidence of the effectiveness of these actions / plans / policies	Responsible department/ agency	Services/ communities that were affected
Frost/ice	Sub-zero ground temperatures lead to a series of road incidents	Dundee	Dec 2012	Council worker injured leading to reputational consequences; wall needing repaired – unforeseen costs	N/A	Safe winter driving plan introduced	Number of winter weather driving incidents has decreased	Transport and roads; Police	N/A



# 3 Assess climate risks and identify actions

- Prioritise the threats and opportunities you have identified in the previous step through a risk assessment process.
- Identify and prioritise the actions to respond to.

**OUTPUTS: Climate Change Risk Assessment and Action plan**





Weather or climate impacts			2013			Critical thresholds	Controls	2013			2020s			2020s		
Climate hazard	Threat or opportunity	Consequences	Inherent risk		Risk rating			Residual risk		Risk rating	Inherent risk		Risk rating	Residual risk		Risk rating
			Likelihood	Consequence				Likelihood	Consequence		Likelihood	Consequence		Likelihood	Consequence	
Heavy rainfall	Flooding blocks key roads and prohibits access to hospital	Emergencies diverted to another hospital; medical supplies delayed; loss of life; reputational impact	2	4	8	Major road closures must be limited to 2 hours	Road management contingency planning; emergency planning	2	3	6	3	4	12	3	3	9
High temperature	Buildings overheat causing discomfort and reduced productivity	Health and safety impacts; Reputational impacts	1	3	3	Internal temperature must not exceed 28°C	Risk not currently considered	1	3	3	2	3	6	2	3	6
High temperature	Buildings overheat causing problems in server rooms	Disrupted services Loss of critical data	1	3	3	Server room temperature must not exceed 27°C and relative humidity level must not exceed 60%	Risk not currently considered	1	3	3	2	3	6	2	3	6
High winds	Trees blown on to key road and rail links causing danger to staff and delays to the delivery of essential care to elderly residents	Financial losses; Reputational damage; Injury / loss of life	3	4	12	Staff should refrain from driving when winds exceeding 70mph are forecast	Driver training; Speed limits enforced; High-risk trees identified	2	4	8	3	4	12	3	3	9

Same controls as 2013

likelihood of  
an event

X

consequences  
of an event

=

Risk

verment an

niffer

## 4 Report and implement

- Implement, and collate and report your adaptation arrangements internally and externally.

## 5 Monitor and review

- Establish a process for monitoring and reviewing your adaptation arrangements.



# Are there any questions?



# How does this align with the Public Bodies Duties Climate Change Reports?

## 4 Adaptation

### Assessing and managing risk

- 4a Has the organisation assessed current and future climate-related risks?  
If yes, provide a reference or link to any such risk assessment(s).

- 4b What arrangements does the organisation have in place to manage climate-related risks?  
Provide details of any climate change adaptation risk management procedures, strategies, action plans and any adaptation policies and actions included across policy areas.

### Taking action

- 4c What action has the organisation taken to adapt to climate change?  
Include details of work to increase awareness of the need to adapt to climate change and build the capacity of staff and stakeholders to assess risk and implement action.

# Public Bodies Reports

## Section 2: Governance, Management and Strategy

- 2a How is climate change governed in the organisation?
- 2b How is climate change managed and delivered by the organisation?
- 2c Does the organisation have specific climate change mitigation and adaptation objectives in its corporate plan or similar document?





# Public Bodies Reports

[illegible]

# Public Bodies Reports

Assessing future  
climate change risk

Weather or climate impacts			2013			2013			2020s			2020s				
Climate hazard	Threat or opportunity	Consequences	Inherent risk			Critical thresholds	Controls	Residual risk			Inherent risk			Residual risk		
			Likelihood	Consequence	Risk rating			Likelihood	Consequence	Risk rating	Likelihood	Consequence	Risk rating	Likelihood	Consequence	Risk rating
Heavy rainfall	Flooding blocks key roads and prohibits access to hospital	Emergencies diverted to another hospital; medical supplies delayed; loss of life; reputational impact	2	4	8	Major road closures must be limited to 2 hours	Road management contingency planning; emergency planning	2	3	6	3	4	12	3	3	9
High temperature	Buildings overheat causing discomfort and reduced productivity	Health and safety impacts; Reputational impacts	1	3	3	Internal temperature must not exceed 28°C	Risk not currently considered	1	3	3	2	3	6	2	3	6
High temperature	Buildings overheat causing problems in server rooms	Disrupted services; Loss of critical data	1	3	3	Server room temperature must not exceed 27°C and relative humidity level must not exceed 60%	Risk not currently considered	1	3	3	2	3	6	2	3	6
High winds	Trees blown on to key road and rail links causing danger to staff and delays to the delivery of essential	Financial losses; Reputational damage; Injury / loss of life	3	4	12	Staff should refrain from driving when winds exceeding 70mph are forecast	Driver training; Speed limits enforced; High-risk trees identified	2	4	8	3	4	12	3	3	9

Same controls as 2013

# Public Bodies Reports

## Section 4: Adaptation

- 4b. What arrangements does the organisation have in place to manage climate-related risks?
- 4c. What action has the organisation taken to adapt to climate change?



# Public Bodies Reports

Objective N1 - Understand the effects resulting from climate change and their impacts on the natural environment

No.	Policy and description	How will this help deliver the Objective?	Who will deliver?
N1-2	Increase <b>understanding</b> of the implications of climate change for nature through data gathering, analysis and research.	Continuing research and data gathering is needed to detect, quantify and understand the impacts of climate change on nature to inform adaptation policy and management.	Scottish Government, ClimateXChange, BICCO-Net, <b>Universities</b> , Scottish Natural Heritage, Forestry Commission Scotland, Scottish Environment Protection Agency.



# Public Bodies Reports

## Section 4: Adaptation

- 4e. What arrangements does the organisation have in place to review current and future climate risks?
- 4f. What arrangements does the organisation have in place to monitor and evaluate the impact of the adaptation actions?







**Are there any questions?**

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# Adaptation Scotland

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🐦 @AdaptationScot

# 1 Define the challenge

## Building the business case

Purpose of the session:

Gather information for a briefing paper/ presentation for senior management that will make the case for why your organisation should take climate risks seriously.

Groups of 5/ 6

Three phases.



# 1 Define the challenge

## Building the business case

Three phases:

1. What are the challenges and solutions? (45 mins)
  - Explore how climate change impacts are/ will affect assets, systems, services and people.
  - Identify work already underway to address impacts.
2. How could climate risks and opportunities affect strategic priorities and risks? (20 mins)
  - Identify how climate change impacts will affect aims, objectives and activities identified in corporate level plans and policies.
3. What is the ask? (10 mins)
  - What would you ask senior management for?



# 1. What are the challenges and solutions?

a) What are some of the challenges that you are likely to face? Can you remember past impacts?

- **Assets:** Estates and Buildings - Built environment and natural environment;
- **Systems:** Telecoms, transport, energy, water;
- **Services:** Business continuity, research, innovation and teaching opportunities;
- **People:** Health and wellbeing.

b) What are some of the successful actions that you are already taking to reduce climate risks and benefit from opportunities? Are there any quick wins?  
Discuss and use post it notes to record your responses.





## 2. How could climate risks and opportunities affect strategic priorities and risks?

Identify how climate change impacts will affect aims, objectives and activities identified in corporate level plans and policies.

- Strategic plan
- Asset management plan
- Corporate risk assessment

*Nominate a note taker to record key bullet points*



### 3. What is the ask?

- Do you need to ask for leadership and / or governance to enable progress on adaptation within your organisation?
- Does your organisation have a corporate risk register? Could you seek to have 'failure to adapt to the impacts of climate change' included in your corporate risk register?
- Do you need time and support to assess climate impacts across different locations, assets and/ or services? Could your briefing paper make a case for this?
- Do you need to support for adaptation to be included in a priority planning / investment policy area?



# Actions to take away





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# Do one thing

Identify the **one thing** that you are going to go away and do.

*Research*\* shows that we are much more likely to do actions that we write down and are accountable to others for (makes sense really!!!).

*\*A book Anna recently read*





Please write down one thing (and only one) that you are going to do to progress your adaptation work.





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