

Climate Change Adaptation and Mitigation Working Group



PROJECT
ZERO
SWANSEA
PROJECT
SERO
ABERTAWE

NET **ZERO** SWANSEA

'Working together for a better future'

ABERTAWE **DI-GARBON** NET

'Gweithio Gyda'n Gilydd ar gyfer Dyfodol Gwell'

Methodology of Working Group

- General discussion as to what a strategy may have within it and what we would like to see from it:
 - Bringing everyone into the conversation is important
 - Knowing what's already going on and what will link – mapping
 - Knowing what legislations are in place and pending that will affect A&M
 - What are the likely costs of doing or not doing things
 - Identification of key priorities for Swansea
- Review of CCRA3 and identified risks for Wales in the Swansea context

Climate Change Risk Assessment 3

- The following 5 slides show tables from the latest CCRA3 report for Wales. The columns next to them labelled Swansea (with notes) are from the meetings with the Signatories Working Group to ascertain which are the least important for Swansea.
- This may be due to geography or the fact that something is not in our direct control/gift (other organisations will be looking closely at particular aspects as they are the experts eg, Dwr Cymru will have a strategy for water supply, and we need to access that rather than write something new that may not fit with their plans)
- We are more concerned about the RED highlighted issues but will remain mindful of the GREEN

Natural Environment and Assets			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
RISKS	N1. Terrestrial species and habitats	Changing climatic conditions and extreme events, including temperature change, water scarcity, wildfire, flooding, wind, and altered hydrology (including water scarcity, flooding and saline intrusion)	More action needed
RISKS	N2. Terrestrial species and habitats	Pests, pathogens and invasive species	More action needed
RISKS	N4. Soils	Changing climatic conditions, including seasonal aridity and wetness	More action needed
RISKS	N7. Agriculture	Pests, pathogens and invasive species	More action needed
RISKS	N8. Forestry	Pests, pathogens and invasive species	More action needed
RISKS	N10. Aquifers and agricultural land	Sea level rise, saltwater intrusion	Further investigation
RISKS	N11. Freshwater species and habitats	Changing climatic conditions and extreme events, including higher water temperatures, flooding, water scarcity and phenological shifts	More action needed
RISKS	N12. Freshwater species and habitats	Pests, pathogens and invasive species	More action needed
RISKS	N14. Marine species, habitats and fisheries	Changing climatic conditions, including ocean acidification and higher water temperatures	More action needed
RISKS	N16. Marine species and habitats	Pests, pathogens and invasive species	More action needed
RISKS & OPPORTUNITIES	N5. Natural carbon stores, carbon sequestration and greenhouse gas (GHG) emissions	Changing climatic conditions, including temperature change and water scarcity	More action needed
RISKS & OPPORTUNITIES	N6. Agricultural and forestry productivity	Extreme events and changing climatic conditions (including temperature change, water scarcity, wildfire, flooding, coastal erosion, wind)	More action needed
RISKS & OPPORTUNITIES	N17. Coastal species and habitats	Coastal flooding, erosion and climate factors	More action needed
RISKS & OPPORTUNITIES	N18. Landscape character	Climate change	Further investigation
OPPORTUNITIES	N3. Terrestrial species and habitats	New species colonisations	Further investigation
OPPORTUNITIES	N9. Agricultural and forestry productivity	New/alternative species becoming suitable	Further investigation
OPPORTUNITIES	N13. Freshwater species and habitats	New species colonisations	Sustain current action
OPPORTUNITIES	N15. Marine species, habitats and fisheries	Changing climatic conditions	Further investigation

Swansea	
	No real forestry in Swansea
	Med to Low priority – dealt with by ANOB?

Infrastructure			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
RISKS	I1. Infrastructure networks (water, energy, transport, ICT)	Cascading failures	More action needed
RISKS	I2. Infrastructure services	River and surface water flooding	More action needed
RISKS	I3. Infrastructure services	Coastal flooding and erosion	Further investigation
RISKS	I4. Bridges and pipelines	Flooding and erosion	Further investigation
RISKS	I5. Transport networks	Slope and embankment failure	More action needed
RISKS	I6. Hydroelectric generation	Low or high river flows	Further investigation
RISKS	I7. Subterranean and surface infrastructure	Subsidence	Further investigation
RISKS	I8. Public water supplies	Reduced water availability	Sustain current Action
RISKS	I9. Energy generation	Reduced water availability	Watching Brief
RISKS	I10. Energy	High and low temperatures, high winds, lightning	Further investigation
RISKS	I11. Offshore infrastructure	Storms and high waves	Sustain current action
RISKS	I12. Transport	High and low temperatures, high winds, lightning	More action needed
RISKS	I13. Digital	High and low temperatures, high winds, lightning	Further Investigation

Swansea

LOW - Welsh Water

LOW - LAEP

Health, Communities and the Built Environment				
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score	Swansea
RISKS	H1. Health and wellbeing	High temperatures	More action needed	Priority
RISKS	H3. People, communities and buildings	Flooding	More action needed	Priority
RISKS	H4. Viability of coastal communities	Sea level rise	More action needed	Priority
RISKS	H5. Building fabric	Moisture, wind and driving rain	Further investigation	Priority
RISKS	H7. Health and wellbeing	Changes in indoor and outdoor air quality	Further investigation	
RISKS	H8. Health	Vector-borne disease	Further investigation	Further investigation
RISKS	H9. Food safety and food security	Higher temperatures (food safety) and extreme weather (food security)	Further investigation	
RISKS	H10. Health	Poor water quality and household water supply interruptions	Further investigation	
RISKS	H11. Cultural heritage	Changes in temperature, precipitation, groundwater, land, ocean and coastal change	More action needed	
RISKS	H12. Health and social care delivery	Extreme weather	More action needed	
RISKS	H13. Education and prison services	Extreme weather	More action needed	
RISKS & OPPORTUNITIES	H6. Household energy demand	Summer and winter temperature changes	More action needed	
OPPORTUNITIES	H2. Health and wellbeing	High temperatures	Further investigation	

Business and Industry				
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score	Swansea
RISKS	B1. Flooding of business sites	Increase in flood risk	More action needed	
RISKS	B2. Coastal business locations and infrastructure	Coastal flooding, extreme weather, erosion and sea level rise	More action needed	
RISKS	B3. Business production processes	Water scarcity	Further investigation	
RISKS	B4. Business access to finance, investment and insurance	Extreme weather	Sustain current action	
RISKS	B5. Reduced employee productivity in businesses	Infrastructure disruption and higher temperatures in working environments	Further Investigation	
RISKS	B6. Disruption to business supply chains and distribution networks	Extreme weather	More action needed	
OPPORTUNITIES	B7. Changes in demand for goods and services	Long term climate change	Further investigation	

- Problems with ICT and connectivity – especially Gower
- Finding markets for local businesses
- Skills gaps

International Dimensions			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
RISKS	ID1. Food availability, safety, and quality	Decreasing yields from rising temperatures, water scarcity and ocean changes globally	More action needed
RISKS	ID4. The UK's international interests and responsibilities	International violent conflict resulting from climate change overseas	More action needed
RISKS	ID5. Changes to international governance affecting the UK	Reduced international collective governance due to climate change and responses to it	More action needed
RISKS	ID7. International trade routes	Climate hazards affecting supply chains	More action needed
RISKS	ID8. Risk to the UK Financial Sector from climate change overseas	Climate driven resource governance pressures and financial exposure	Sustain current action
RISKS	ID9. Risks to Public Health from Overseas	Increase in vector borne diseases due to climate change	More action needed
RISKS	ID10. Risk multiplication to the UK	Interactions and cascades of named risks across systems and geographies	More action needed
RISKS AND OPPORTUNITIES	ID3. Migration to the UK and effects on the UK's interests overseas	Climate-related international human mobility	Watching brief
OPPORTUNITIES	ID2. UK food availability and exports	Increases in productivity and areas suitable for agriculture overseas	Watching brief
OPPORTUNITIES	ID6. Increased trade for the UK	Arctic ice melt opening up new trading routes	Watching brief

Swansea

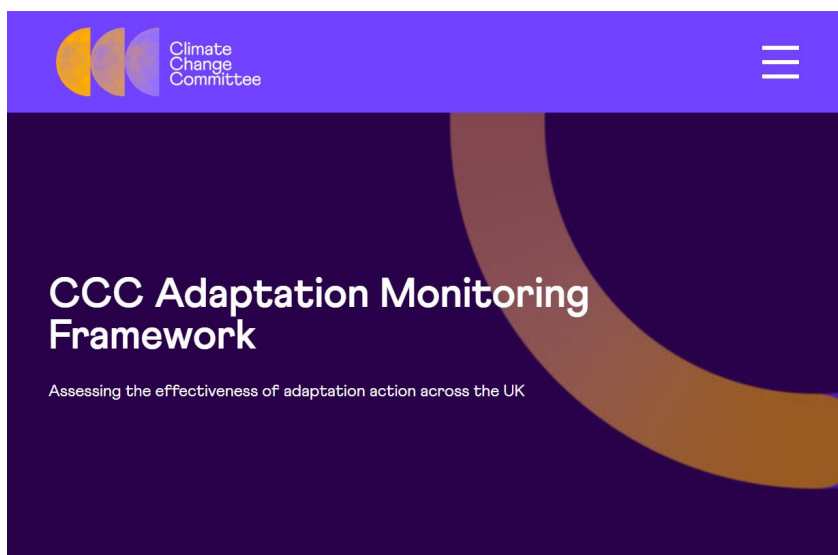
We can only advise for lobbying here

Immigration already a hot political topic and only set to worsen.

Likely worsen of famines and droughts in large areas first???

- Swansea historically linked with provided refuge for those in need
- Students – new legislation about spouses
- Climate change refugee status

Adaptation Framework.....



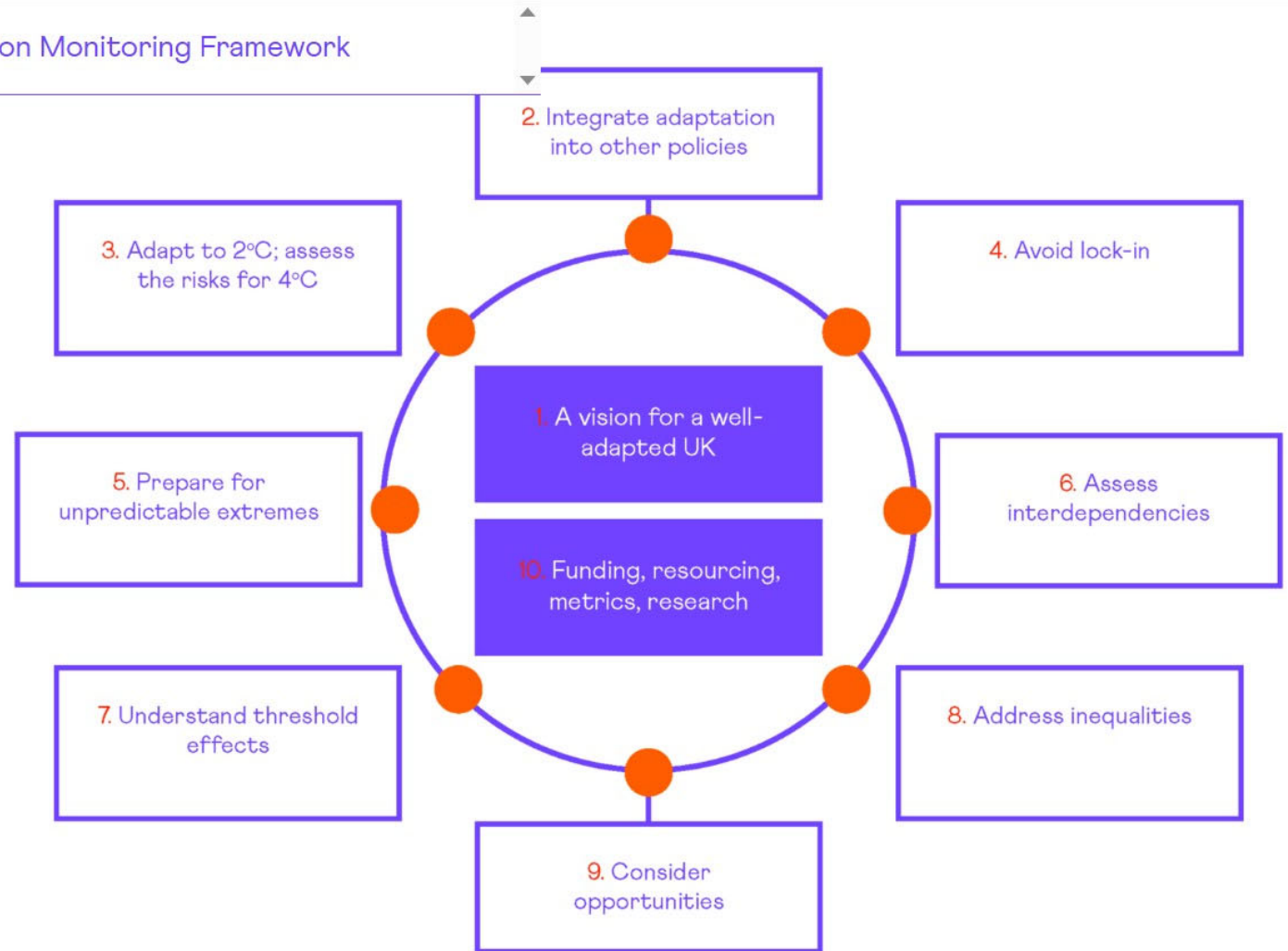
- New framework adopted by Wales will provide a strong guidance as to how and what to look at for A&M.
- The purpose of this document is to provide a guide to CCC current monitoring framework on adapting to climate change, used across the CCC's 2023 adaptation progress reports.
 - A stronger focus on delivery and implementation of adaptation action, rather than risk assessment and planning.
 - A more integrated response to systemic and interacting climate risks.
 - A more consistent framework for assessing adaptation progress across the UK and the Devolved Administrations.
 - A more forward-looking approach which focuses on key outcomes needed for a well-adapted UK.
 - A more aligned assessment framework across the CCC's mitigation and adaptation progress reporting.



on preparing for climate change

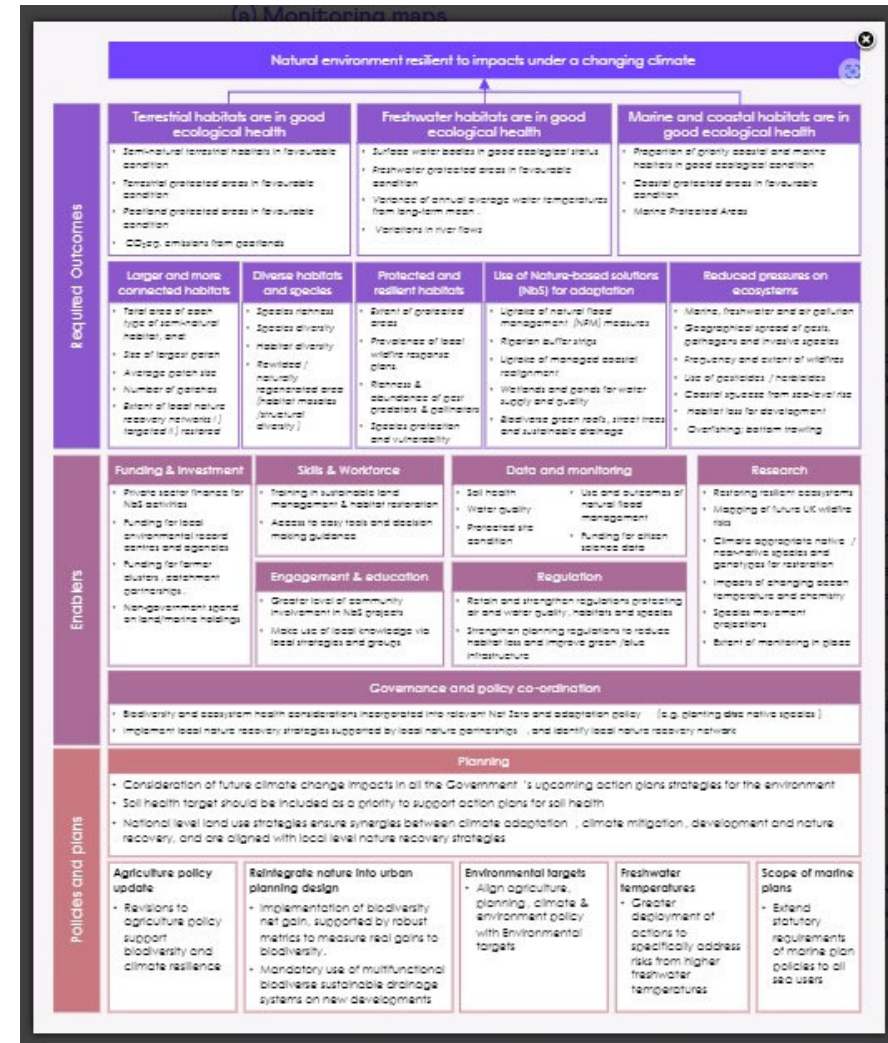
- (a) Monitoring maps
- (b) Evaluating progress
- (c) Recommendations

4. Challenges and looking ahead



Monitoring Maps

- Goal
- Required outcomes
- Enablers
- Policies
- Contextual factors

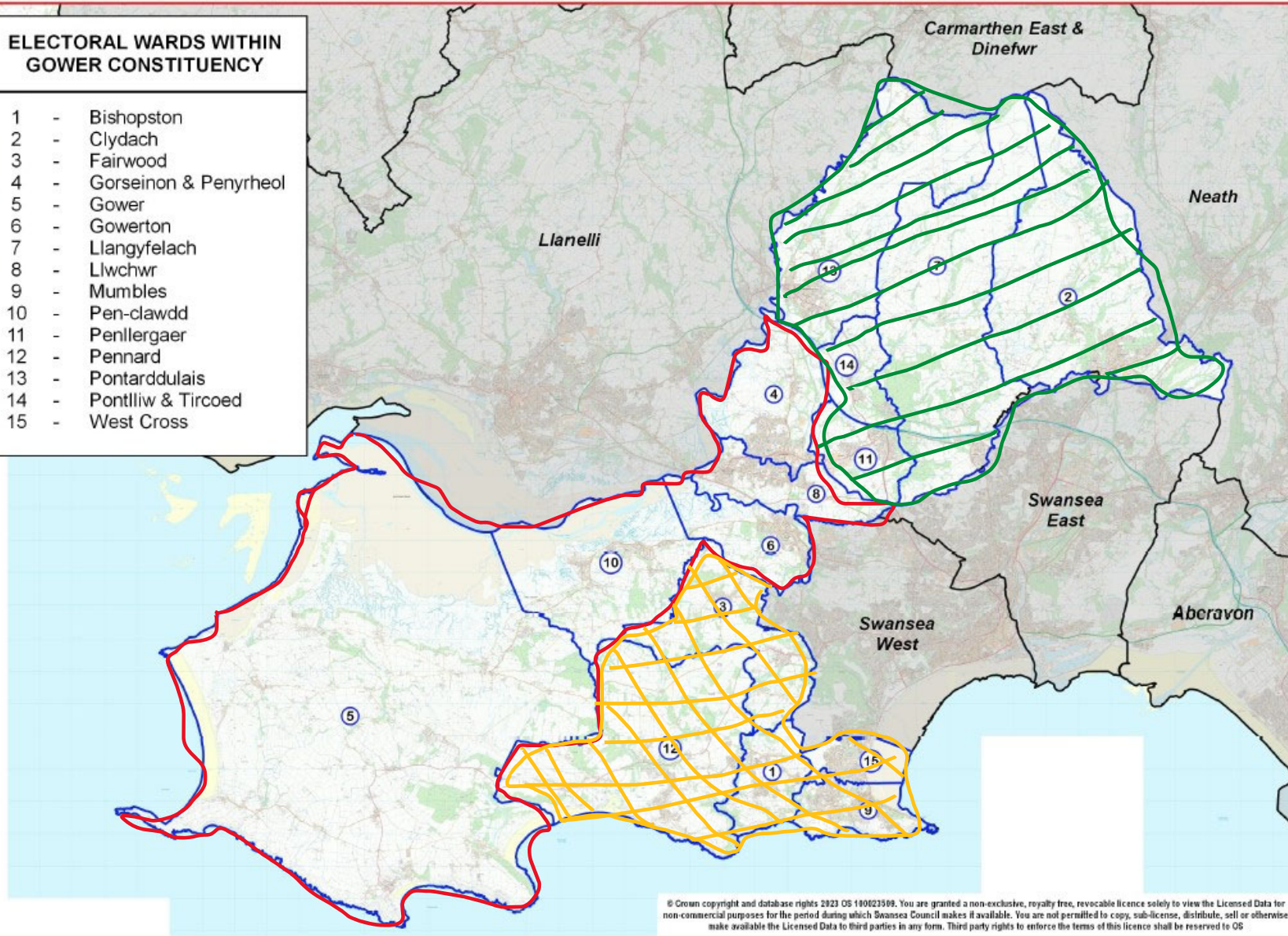


13 themes

- Natural environment resilient to impacts under a changing climate
- Sustainable and climate resilient working land and sea
- UK population has access to affordable, sustainable, high quality food, under future global climate conditions
- Plentiful supply of water for people
- Reliable energy supply in a net zero economy
- Reliable telecommunications and ICT services
- Reliable net zero transport systems
- Places are prepared for and resilient to future climate risks
- Buildings (fit for the future) adapted to current and future climate
- A healthy population in current and future climates
- Communities in UK are prepared for and can respond to weather and climate shocks
- Opportunities realised and a reliable supply of goods and services
- A stable financial system which enables adequate public and private investment in UK adaptation

**ELECTORAL WARDS WITHIN
GOWER CONSTITUENCY**

- | | | |
|----|---|-----------------------|
| 1 | - | Bishopston |
| 2 | - | Clydach |
| 3 | - | Fairwood |
| 4 | - | Gorseinon & Penyrheol |
| 5 | - | Gower |
| 6 | - | Gowerton |
| 7 | - | Llangyfelach |
| 8 | - | Llwchwr |
| 9 | - | Mumbles |
| 10 | - | Pen-clawdd |
| 11 | - | Penllergaer |
| 12 | - | Pennard |
| 13 | - | Pontarddulais |
| 14 | - | Pontlliw & Tircoed |
| 15 | - | West Cross |



- Swansea East
- Swansea West
- Gower #1 – 5, 10, 6, 8 and 4 taking in rural Gower and the estuary
- Gower #2 - 11, 14, 13, 7, and 2 – north Swansea
- Gower #3 – 12, 1, 15, and 9 – more urban fringe
- Likely now to have closer fit with LDP areas.