



Llywodraeth Cymru
Welsh Government

Fairbourne Coastal Risk Management Learning Project

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Fairbourne Coastal Risk Management Learning Project

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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Glossary

Acronym / Key word	Definition
ACC	Arthog Community Council
AMP	Asset Management Plan
ASC	Adaptation Sub-Committee to the Committee on Climate Change
BIS	(Former) Department for Business Innovation and Skills
CCC	Committee on Climate Change
CIC	Community Interest Company
CIRIA	Construction Industry Research and Information
CIWEM	Chartered Institute of Water and Environmental Management
COA	Census Output Area
CRMP	Coastal Risk Management Programme
CSG	Client Steering Group
Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
ERDF	European Regional Development Fund
FaCIP	Flood and Coastal Investment Programme
FCERM	Flood and Coastal Erosion Risk Management
FCIC	Fairbourne Community Interest Company
FFC	Fairbourne Facing Change
FMF	Fairbourne Moving Forward
FRMP	Flood Risk Management Plan
GC	Gwynedd Council
GIS	Geographical Information Systems
GSR	Government Social Research
HTL	Hold the Line
IMS	Integrated Management System
IROPI	“Imperative Reasons of Overriding Public Interest”
JRF	Joseph Rowntree Foundation
LA	Local Authority
LDP	Local Development Plan

Acronym / Key word	Definition
LFRMS	Local Flood Risk Management Strategy
LiCCo	Living with a Changing Coast Project
LLFA	Lead Local Flood Authority
LRQA	Lloyd's Register Quality Assessment
LSOA	Lower Super Output Area
LSB	Local Service Board
MCA	Multi-Criteria Analysis
MR	Managed Realignment
NAI	No Active Intervention
NRW	Natural Resources Wales
OGC	Office of Government Commerce
OHSAS	Occupational Health and Safety
PSB	Public Services Board
RMA	Risk Management Authorities
ROAMEF	Rational, Objectives, Appraisal, Monitoring, Evaluation and Feedback
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
SMP	Shoreline Management Plan
SMP2	The most recent iteration of the Shoreline Management Plan
TAN	Technical Advice Note
WAG	Welsh Assembly Government
WAO	Welsh Audit Office
FCEC	Flood and Coastal Erosion Committee
WG	Welsh Government
WIMD	Welsh Index of Multiple Deprivation
DCWW	Dŵr Cymru Welsh Water
WWRBMP	West of Wales River Basin Management Plan
YGC	Ymgynghoriaeth Gwynedd Consultancy

1. Introduction

- 1.1 Fairbourne is a small community village in the ward of Arthog in Gwynedd of approximately 420 residential and business properties. Located at the mouth of the Afon Mawddach, Fairbourne was built as a seaside retreat on newly defended and reclaimed land during the late 19th and early 20th Century.
- 1.2 Whilst Fairbourne is currently defended from the sea on both its estuarine and coastal frontages, rising sea levels mean that much of the village of Fairbourne would be below normal high tide levels within the next 50 years. There are also high groundwater levels and a high risk of surface water flooding in the village. The Shoreline Management Plan (SMP2) policies for the area for periods 2055 to 2105 may require part, if not all of the village to relocate or disperse elsewhere. The implications of these policies have generated significant concerns for the local community, Gwynedd Council and Welsh Government.
- 1.3 There have also been concerns around the way that engagement associated with SMP2 policy development and delivery had been carried out and a need to learn from the improved engagement approaches that had been put in place in Fairbourne.
- 1.4 A key driver for this project therefore was learning from the experience of Fairbourne to better understand how to plan for and manage climate change and adaptation, so that key findings could be applied to other vulnerable coastal areas of Wales facing similar challenges. The findings from the research should contribute to a wider evidence base that in turn would support the planning and implementation of community and stakeholder engagement in other coastal communities.

Aims and objectives of the project

- 1.5 The Fairbourne Coastal Risk Management Learning Project was research commissioned by the Welsh Government that focused on a review of the issues facing the Fairbourne community and their impacts since the adoption and on-going implementation of the SMP2 policies. The two principal aims of the research were:

- To undertake a reflection and review of the effect and impact on the Fairbourne community in relation to the SMP2 policy and related engagement activities to date
- To work alongside the engagement activities of the Fairbourne Moving Forward (FMF) initiative, in a "critical friend" role, providing insights and learning to the on-going planning, research and decision-making and implementation of engagement activities in Fairbourne

1.6 The research was conducted between October 2015 and August 2018. Any developments undertaken in Fairbourne since then were out of scope and were not been taken into account.

1.7 The project's objectives were:

- To review the effect/impact on the Fairbourne community of the SMP2
- To assess and provide a critical reflection and make recommendations in relation to Gwynedd Council and the Fairbourne Moving Forward's approaches to engaging with the community to date
- To draw out learning and recommendations that will inform the ongoing management and decision making within the Fairbourne Project
- To maximise the impact of the research.

1.8 This report summarises the active learning undertaken through the project period (October 2015 and August 2018) and sets out the overall findings and conclusions drawn from the research.

Relevant past research

1.9 Whilst Fairbourne was the first community in the UK to be identified as unsustainable in the long term in policy documentation, evidence from research undertaken in relation to other locations facing issues associated with coastal realignment was drawn upon for the purposes of this project. The Defra (2012) *Coastal Change Pathfinder Review*, for example, identified that appropriate engagement increased the ability of communities to adapt, or understand the need to adapt, to coastal risks. It highlighted the importance of engaging early with communities facing change and giving them time to accept adaptation as an alternative to defence. The *Shifting Shores +10* research completed by The

National Trust and CH2MHill (2015) identified a significant shift in UK coastal adaptation policy in the last ten years and highlighted strong parallels and links to other lessons relating to expectations and perceptions, gaps between existing policies and plans, potential options of leaseback or buy-to-rent, public understanding and future funding and capacity issues for implementation of SMP2.

- 1.10 Other previous work reviewed for this research included the *Coastal Communities 2150* EU project, which identified success factors for collaboration, delivery and engagement learning, and included case studies from the UK, Belgium and Netherlands. Significantly, the Coastal Communities project examined engagement and awareness-raising around longer term coastal change and explored how progressive learning approaches could contribute towards successful longer term outcomes. A case study of Solent Breezes, Hampshire, identified the importance of sustaining constructive conversations that focused on future options rather than past problems and recognised the full spectrum of shared or collective responsibility for managing coastal risk.
- 1.11 Participation Cymru developed the *National Principles for Public Engagement* (2011) which established an over-arching set of principles aimed at public service organisations across all sectors in Wales. Endorsed by the Welsh Government, these principles aimed to offer a consistent approach and good standard for public engagement across Wales, and included relevant themes for the Fairbourne community.

Target audience

- 1.12 This report is intended for the Welsh Government, Gwynedd Council and the Fairbourne community, including local stakeholders. It may also be of interest to other coastal authorities in Wales and elsewhere, as well as to UK Government and the devolved administrations. Structure of the report
- 1.13 The remainder of the report is structured as follows:
- Section 2 details the local context
 - Section 3 sets out the methodology utilised
 - Section 4 presents key findings from the research

- Section 5 summarises the conclusions and key lessons learned from the research.

2. Context

2.1 This section summarises the policy and research context.

Overview

2.2 Fairbourne was built as a seaside retreat on newly defended and reclaimed land during the late 19th and early 20th Century. The concept of the resort and early construction was led by Victorian entrepreneurs, Solomon Andrews, Sir Arthur McDougall and Sir Peter Peacock following the arrival of the Aberystwyth and Welsh Coast Railway around 1864.

2.3 It is currently defended from the sea on both its estuarine and coastal frontages. Over the last decade the village has benefitted from significant investment in river/estuarine flood and coastal defence schemes, a ground water monitoring system and community flood plan, supported locally by volunteer flood wardens.

2.4 However, rising sea levels mean that much of the village of Fairbourne would be below normal high tide levels within the next 50 years. There are also high groundwater levels and a high risk of surface water flooding in the village. As a result of the increasing risk of flooding, and limited scope to sustain or enhance defences, the relevant SMP2 policies for the area from 2055 to 2105 advocate realigning the current defences which may require the village to relocate or move back to a safer location.

2.5 The implications for Fairbourne in the context of climate change risks and adaptation approaches have potentially far-reaching implications on policy and delivery across Wales and further afield. The principles and purposes underpinning the Well-being of Future Generations (Wales) Act 2015 offer a basis to progress new and inclusive ways of working to deliver complex and long-term adaptive changes.

The West of Wales Shoreline Management Plan

- 2.6 The West of Wales SMP2 provided a high-level strategy for managing flood and erosion risk for the coastline between St Anne's Head, at the entrance to Milford Haven, and the Great Orme. It assessed the risks to people and the developed, historic and natural environment, then considered how management of these risks could be developed into the future in a sustainable manner, to ensure that this would not tie future generations to costly and unsustainable management regimes. Although SMP2 focused on the management of risk and defences, it had to take account of the broader issues of coastal management. It provided a framework for broader management and had to identify and highlight issues that needed to be addressed. In particular, and most relevant to areas such as Fairbourne, it highlighted the increasing risk due to climate change and the future difficulties and dangers of attempting to manage the risk by continuing with the existing approaches. Critically, by highlighting the future risk, it opened the opportunity to discuss plans for the future.
- 2.7 SMPs are non-statutory policy documents. They do not set policy for anything other than flood and coastal erosion risk management. However, from this perspective, SMPs provide the context to, and consequence of, management decisions in other sectors of coastal management. SMP2 provided a timeline for policy and management changes; i.e. a 'route map' for decision makers, including individuals and communities, to move from the present situation towards the future. In setting out the approach to management, the SMP2 had to be realistic about what was likely to be funded and what could be sustained. It set out guidance and highlighted the need to address issues that were identified and then adopted by local authorities.
- 2.8 The relevant SMP2 policies and their associated epochs are set out in the following table:

Table 2-1: Relevant SMP2 policies

Policy Boundaries	Preferred Policies			
Policy Name	Policy Comments	2025	2055	2105
Friog Cliffs		HTL	HTL	HTL
Ro Wen Coast	This would involve relocation of property owners and business from Fairbourne	HTL	MR	NAI
Ro Wen Spit		MR	MR	NAI
Fairbourne Embankment		HTL	MR	NAI
Friog	This refers to railway line behind Fairbourne.	HTL	HTL	HTL
Morfa Mawddach	This would secure a cut off defence to the back of the area to the rear of Fegla Islands.	HTL	HTL	HTL
Fegla	Local consideration would be given to defence of properties on the Fegla Islands and to Arthog	HTL	MR	MR
Mawddach South		MR	MR	MR
Penmaenpool		HTL	HTL	HTL
Key HTL - Hold the Line MR - Managed Realignment NAI - No Active Intervention				

The policy boundaries are shown on the map overleaf:

Figure 2-1: SMP2 policy areas relevant to Fairbourne



- 2.9 The SMP2 policy for Ro Wen Coast and Fairbourne Embankment over the first epoch (to 2025) was to "Hold the Line", over the second epoch (to 2055) was for "Managed Realignment" and over the third epoch (to 2105) was for "No Active Intervention". The policy for Ro Wen Spit was for "Managed Realignment" over all three epochs and for Friog Cliffs, the policy to "Hold the line" over all three epochs relates to protection of the railway line and road. Thus, the policy scenario for the second and third epochs effectively required the relocation of the village.
- 2.10 The policies have changed since the first SMP was produced for the area as a result of findings from detailed studies of the coastline that, together with academic research and monitoring by the responsible authorities, improved understanding of how the coast behaves. The revised SMP2, looking over a period of 100 years, has identified how climate change could affect the area in the long term. Rates of sea level rise will increase and, although the amount of change was uncertain, a rise in the region of 1m might reasonably be anticipated. Due to the uncertainty of climate projections over the long term, there would be a realistic chance that it might be higher or lower than this. The SMP2 has, therefore, considered the implications of 0.5m, 1m and 2m over the next 100 years. There would also likely be increased intensity of rainfall and increased storminess. The SMP2 identified that in the future there would be increased risk to the community in the following ways:
- The risk that the embankment would be overtopped will increase over time as a direct result of rising sea levels.
 - There would be increased erosion of the shingle bank. Even without sea level rise there is erosion, and this will increase as sea levels rise. There would be an increased risk that the defence might fail, as well as increased wave overtopping.
 - Increased rainfall would mean increased flows in the watercourses. Increased flows combined with sea level rise mean water would not drain as quickly and would increase the risk of flooding.
 - With increasing sea level, there was the possibility that ground water levels would be higher. Eventually, the whole area would be below the level of normal tidal levels.

2.11 In terms of long-term management, there were actions that could be taken to defend the village, however the potential for defence failure could lead to severe consequences including risk to life and such actions would be very expensive. The embankment could be raised, shingle could be brought in to defend the shoreline, and pumps could be installed to deal with increased rainfall and increased ground water. The standard of protection provided by existing defences could be maintained, although this would require very significant ongoing investment. The costs associated with maintaining the defences would continue to increase over time. Furthermore, maintaining the existing standard of protection in the face of increasing flood and erosion risk mean the consequences of the defences failing, or being exceeded, would be severe. If defences were overwhelmed, flooding across the whole area could be in excess of 2m in depth, which would pose an unacceptable risk to life.

Current flood and coastal erosion risk

2.12 Fairbourne has been built on land that was reclaimed from the sea. The village is defended from the sea by a shingle bank that has developed naturally since the end of the last ice age 14,000 years ago. On the estuary side the village is protected by defences that were originally built by McDougall in 1868. In 1891 the village did not exist, other than a few properties; by 1901 there were a handful of houses and therefore it is only in the last 100 years that Fairbourne has developed. Why is this important? The village footprint, the enclosed between the sea defence, the embankment and the railway line at the back of the village is very flat. The level of the ground is only just above normal sea level. Before it was reclaimed and defended, this land would have regularly flooded on higher tides. The shingle bank would naturally try and roll inland, as it has done slowly over thousands of years. The shingle is moved by waves. By fixing the shingle bank through artificial defences and active management, this has meant that the shingle bank has reduced in size overall. This can be seen particularly at the southern end, where the bank is lowest. Before the village was developed and before defences were built, the streams flowing off the hillside would have flowed across the open intertidal marsh. Over high tide, they would back up, draining away as the tide fell. By defending the area, these flows have had to be managed and the land drained.

Water flowing off the hillside can still back up within the water courses over high tide and drain through the sluice as the tide goes out. As there are no significant areas of high ground, major flooding would affect the whole village.

- 2.13 Flooding could arise from several sources: wave overtopping, sea level, water flowing off the hillside and from rising ground water. The village is built on low ground and would flood regularly were it not for the current defences. Without the sea wall, waves would overtop the shingle bank; without the embankment, water would flood in from the estuary and water building up in the water course could overtop the edges of the drainage channels. But in each case, at the moment, this risk is managed. Under extreme conditions there could still be flooding but the defences and management of the watercourse stop flooding under all but the very worst conditions. Recent storms have resulted in some wave overtopping. However, the defences held and the areas flooded were relatively localised. Similarly, when there has been heavy rainfall, there has been some localised flooding but the main area of the village was protected. The recent strengthening of the embankment on the estuary side of the village and improvements to the drainage through the village currently provide Fairbourne with a relatively good standard of protection. The new reinforced embankment has been designed such that there would be only a 0.5% chance it would be overtopped from the estuary in a given year. However, without raising the crest height of the embankment, the standard of protection along that frontage would diminish as the impacts of climate change progress. Defining a similar standard of protection from shingle bank overtopping or erosion and watercourse flooding is more complicated without clear design standards.
- 2.14 The flood risk at Fairbourne depends on a combination of factors. The risk of flooding from watercourses increases significantly when heavy rainfall coincides with high tides. In the case of the coastal defence it depends upon the combination of wave height, direction and period, storm intensity and the level of the tide. It also depends on the degree to which the shingle bank is eroded during a storm. At the date of drafting, from the data presented in NRW's published Long-Term Flood Maps, taking account of current defences, Fairbourne was considered to be at high risk, with a risk of flooding from rivers and sea greater than 3.3%. Although the defences have been continually improved over the years, the village has flooded in

the past such as in November 1938 and most recently work has been undertaken to improve protection at Friog Corner, following storm events causing significant erosion and overtopping.

- 2.15 Despite the current standards of protection for the village, there remained a need to plan for potential major flooding events, to ensure that people might remain safe. An emergency plan has been developed through the Community Council and the North Wales Regional Emergency Planning Group. Both NRW and Gwynedd Council have permissive powers that allow these organisations to defend communities from flood and coastal erosion. The recent improvements to the embankment and the watercourse were undertaken by NRW. Funding for works is supported by the Welsh Government. These organisations work collaboratively in providing defence and risk management. Gwynedd Council also undertakes monitoring of the coast. The powers that allow work to be undertaken are permissive. This means that the operating authorities have to take account of the economic justification in undertaking works and also have to consider the sustainability of risk management in the future.

Implications of the SMP2 policy for the future of Fairbourne

- 2.16 The SMP2 raised significant concerns over the future sustainability of defence of Fairbourne. There would remain a need to maintain existing defences and reduce flood risk to the area in the short term. Future changes in sea level and increased rainfall increase the risk of flooding and coastal erosion in the future. There was little practical opportunity evident for adaptation through enhanced defences nor realistic local protection to individual properties and limited opportunity for rollback of the community further inland. Snowdonia National Park Planning Policy did not make provision for a new or expanded settlement to accommodate these housing numbers inland. Relocation adjustments would fall outside of the current plan period and the Local Planning Authority may resist this scale of single new development within the National Park. This made Fairbourne different to many other areas facing similar increasing risk from flooding and erosion.
- 2.17 SMP2 reflected the understanding that it would not be viable to maintain the current standard of protection from flooding and erosion indefinitely. Its best estimate was

that the costs associated with defending Fairbourne would become unsustainable in 40 to 50 years' time (2052 – 2062). The range of uncertainty was considered to be between 2042 and 2072. These dates relate to future estimates of sea level rise and were ranges due to the uncertainty associated with climate change projections. The timeline for change will become more certain over time, through factors including:-

- improved certainty over climate change projections
- better understanding of the immediacy of risk through monitoring of the condition and effectiveness of defence infrastructure by Gwynedd Council, NRW and utilities and service providers
- local circumstances and responses to flood risk and coastal erosion or inundation events within the Fairbourne community.

Local engagement pre and post development of SMP2

- 2.18 SMP2 was adopted by the Gwynedd Council Cabinet in January 2013. Arthog Community Council was given a presentation on the adopted SMP2 on 1 May 2013. The draft SMP2 was consulted on with local stakeholders such as Barmouth Town Council, Arthog Community Council and the general public via the local media and public meeting. There was no written feedback from the local residents, although concerns were raised and discussed at the public meeting. These views were incorporated within the SMP2 which highlighted the need for detailed discussion and planning.
- 2.19 To help address the issues raised, Gwynedd Council decided to work with local stakeholders to develop a management plan for the village. This involved several organisations working alongside the community and looking at what needed to be done, what additional information was needed and how they collectively needed to plan for the future.
- 2.20 Many of the residents considered the consultation process to be inadequate, and these concerns were exacerbated by BBC Wales' 'Week in Week Out' programme, broadcast February 2014, which sensationalised the future demise of Fairbourne, leading to widespread local concern.

- 2.21 A multi-agency Project Board (Fairbourne Moving Forward) was established in 2013 with objectives around supporting the community in the transition towards long term relocation. Accepting the need for change, the principles upon which the project was established were based around ensuring the viability of the community in providing a secure place to live, where businesses continue to thrive and basic infrastructure and services are maintained.
- 2.22 The Fairbourne Facing Change Community Action Group (FFC) was established in direct response to the media attention given to Fairbourne in February 2014 and inevitable concerns for both the future of the village and immediate impacts on residents in terms of property blight, leading to depressed house prices and removing choices for individuals to move away from or to invest in the area. FFC's objectives were to, *'inform, engage and involve the people whose lives have been deeply affected by the situation, which could have been considerably lessened, had we been consulted and engaged at the time stated in the Council's timeline.'*
- 2.23 The FFC had observer status on the FMF Board, with speaking rights at its request. This status demonstrated that it was not signed-up to the environmental and socio-economic premises that underpinned the SMP2, and it allowed its members freedom to provide independent challenge. According to the FFC, it represented the community's interest on the Board and FMF-facilitated task-and-finish groups.
- 2.24 Additional frameworks for governance were also provided under the legislative requirements of the Well-being of Future Generations (Wales) Act 2015, which challenged how public bodies deliver services. Under the Act, public bodies must take account of the 'five ways of working' with stakeholders. These are:
1. looking to the long term so that they do not compromise the ability of future generations to meet their own needs
 2. taking an integrated approach so that they look at all the well-being goals in deciding on their well-being objectives
 3. involving a diversity of the population in the decisions that affect them
 4. working with others in a collaborative way to find shared, sustainable solutions

5. understanding the root causes of issues to prevent them from occurring or getting worse.

2.25 The Act also established Public Service Boards (PSBs) for all Local Authority areas in Wales; PSBs being comprised of public sector organisations (Local Authorities, Health Boards and Fire and Rescue Authorities) and responsible for setting local well-being objectives and drafting local well-being plans. In this way, the Act provided a strong statutory foundation for considering any wider implications arising from this research.

3. Methodology

Introduction

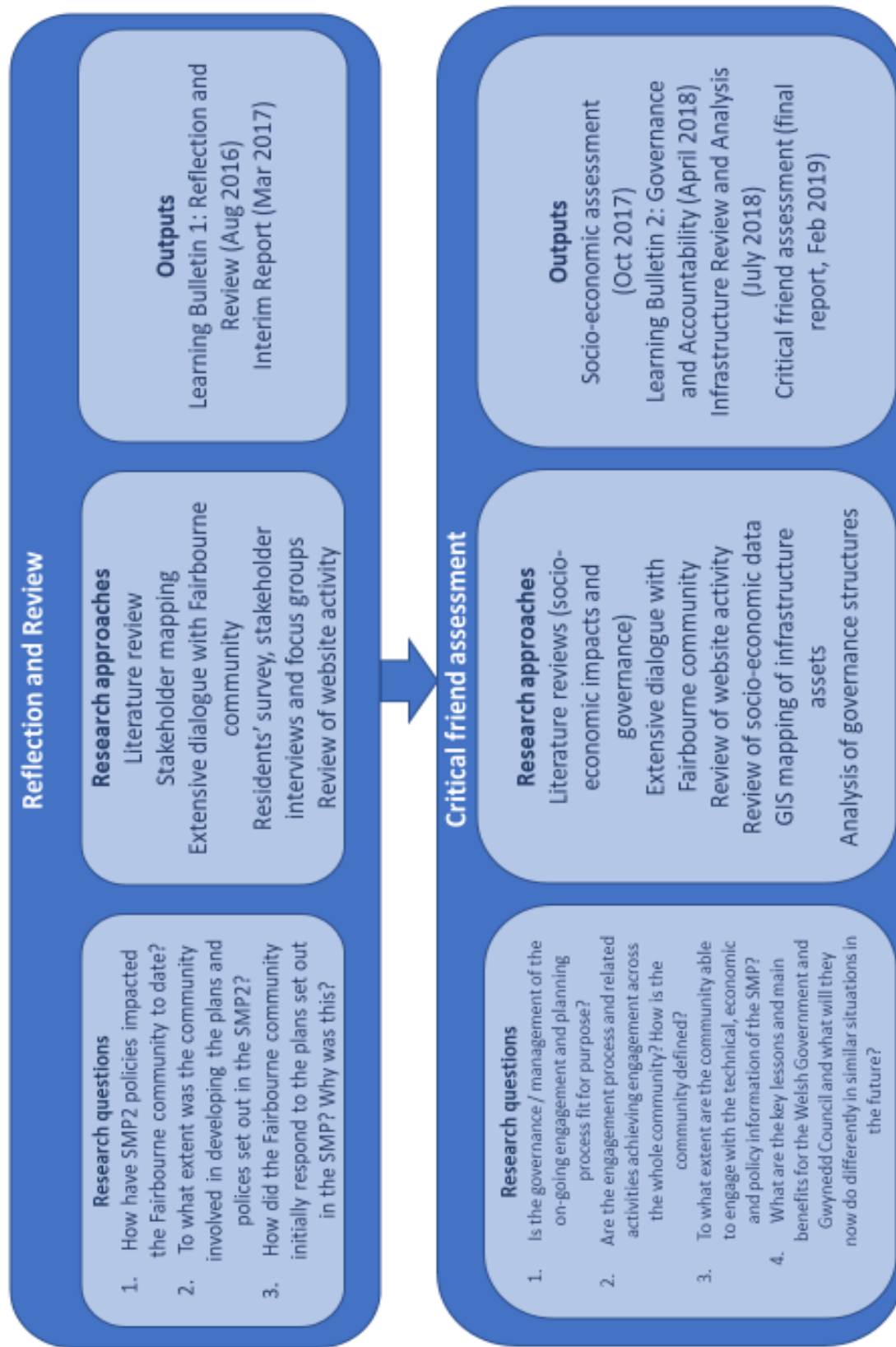
- 3.1 This section sets out the overall methodology adopted and the rationale behind the individual research techniques employed. The limitations have also been summarised. The project was iterative and focused on action research. This meant the methodology evolved and changed over time in accordance with locally identified requirements. The project had to balance the sensitive timing of the analysis for the Fairbourne community and draw out, where applicable, the lessons learnt at local scale for more strategic learning that could be applied to other communities at risk in Wales. The findings from this approach are set out in Section 4.
- 3.2 The pace of engagement and intervention was dictated by the timetable of the wider Fairbourne Project, including the work of the various technical groups delivering material to inform the 'Masterplan' process. This was intended to determine the ambitions, actions, responsibilities and critical decision pathways for change management towards ultimately "decommissioning" the village.
- 3.3 The research was identified by Welsh Government as a "Learning Project". This enabled analysis and feedback on action as it occurred rather than after the event. This approach was also intended to help build good relations and trust with stakeholders to facilitate the ongoing delivery of change and help achieve constructive outcomes within Fairbourne.
- 3.4 This approach also allowed the researchers to reflect on both processes (how and when things were done) and impacts (the results or consequences) associated with the development and implementation of the SMP2. In addition, it helped to identify areas for further guidance and support in Fairbourne along with issues with a wider and more strategic application.
- 3.5 This largely qualitative analysis usefully explored a range of factors that could influence outcomes and impacts. The approach for Fairbourne was fundamentally non-comparative, since the scenario, range and combination of influencing factors affecting Fairbourne were unique. However, this research could be relevant to other contexts. The research could contribute to the wider evidence base by helping

to build a better understanding of the complexities of relationships between stakeholders, actual and potential responses to engagement approaches and effective ownership of issues, problems and outcomes.

Methodology overview

- 3.6 Research questions were developed relating to the objectives and focusing on the reflection and review, and critical friend aspects of the work. The research approach, methods and outputs for each part of the project are summarised in Figure 3.1.

Figure 3-1: Research outputs and approaches



Reflection and review - Research Questions

3.7 The reflection and review element was the focus for the first year of the research project and was intended to investigate the impact of the SMP2 policy on the community of Fairbourne, the engagement processes undertaken with the community to keep them informed of the policy and its implications and their responses to the plans set out in the SMP. The overall research questions related to this element of the work were:

- i. How have SMP2 policies impacted the Fairbourne community to date?
- ii. To what extent was the community involved in developing the plans and policies set out in the SMP2?
- iii. How did the Fairbourne community initially respond to the plans set out in the SMP? Why was this?

3.8 The critical friend element was an ongoing action research process that involved:

- observing local engagement;
- providing advice to key stakeholders, particularly Gwynedd Council and members of FMF on how engagement could be improved;
- detailed exploration of local governance specifically focusing on roles, responsibilities and accountability; and
- using findings from the critical friend element to support the Masterplan development process.

Reflection and Review - Research Approaches

3.9 The detailed research approaches adopted for the reflection and review phase were drawn from the research specification and refined following an inception meeting with key Welsh Government stakeholders and after feedback from the community, FMF and FCC.

- *Literature review* – this examined engagement approaches for other coastal change, and adaptive projects to understand how other areas experiencing similar situations have managed the situation to support ongoing learning. The review also helped to build a picture of how the findings from this project might

inform delivery of coastal change and flood risk adaptation policies more widely. This approach was adopted to provide the context to the study and learning from elsewhere. Literature sources were shared with Welsh Government prior to the review being conducted.

- *Stakeholder mapping* – to understand the key players locally, regionally and nationally and how they work together.
- *Residents' survey* (January 2016) – a survey aimed at exploring residents and businesses' perceptions of the SMP2 engagement process and their feelings about the future was sent to all residents and business in the area (approx. 450). Sixty one responses were received. The survey was intended to obtain a broad view of opinions.
- *Face to face and telephone interviews with key stakeholders* (February 2016) – the interviews aimed to obtain the views of those involved in managing the ongoing engagement process. The sample was identified in collaboration with Welsh Government policy officials and Gwynedd Council, and included representation from Arthog Community Council, FFC, NRW and Gwynedd Council. From the sample of 20 stakeholders invited to participate in this element of the research, nine interviewees were recruited.
- *Three focus groups* (March/April 2016) – one each with residents, businesses and FFC to obtain further views on the engagement process and perceptions on the future of Fairbourne. The focus groups were also an opportunity for participants to deliberate and discuss the topics covered together which provided additional insights. .
- *Review of website material and activity* – the FMF and FFC websites were reviewed at the outset and then periodically throughout the project to gain an insight into the views of the local community. Later on in the project a Facebook site 'I Love Fairbourne' was established that was reviewed to provide further insight into community activities rather than opinions.
- *Dialogue* – this occurred throughout the project, and included discussions with the local community, participation in FMF and FFCS meetings and with Arthog Community Council activities, and one-to-one discussions with individual stakeholders, including Gwynedd Council officers. In total, the researchers

attended nine sessions facilitated by Gwynedd Council/YGC to conduct participant observation. These sessions covered:

- meetings held for the FMF working group;
- Buy-to-let' and 'Masterplan' sub-group meetings (November/December 2015);
- a public event held in Fairbourne Village Hall (January 2016);
- Masterplan and Board meetings (March, June and September 2016); and
- Community Action Group and Community Council meetings (August 2016).

Reflection and Review - Outputs

3.10 Research outputs produced during this reflection and review stage of the research were:

- *Reflection and Review Learning Bulletin* (JBA and Icarus, August 2016)
- *Interim Report* (JBA and Icarus, March 2017).

These documents are available on request from the Welsh Government.

Critical Friend Assessment - Research Questions

3.11 The critical friend role was intended to draw out learning and recommendations that would inform the ongoing management and decision making within the Fairbourne Project. The research questions for this component of the project were:

- Is the governance / management of the on-going engagement and planning process fit for purpose?
- Are the engagement process and related activities achieving engagement across the whole community? How is the community defined?
- To what extent are the community able to engage with the technical, economic and policy information of the SMP?
- What are the key lessons and main benefits for the Welsh Government and Gwynedd Council and what will they now do differently in similar situations in the future?

Critical Friend Assessments - Research Approaches

- 3.12 The critical friend role commenced from the outset of the project and helped inform the findings in the Learning Bulletin 1; Reflection and Review (see Figure 3.1).
- 3.13 Following the first Learning Bulletin and feedback on the Interim Report, the research approach was adapted to take into account the issues around engagement and in developing the Masterplan. It was agreed the project scope should be extended to include identifying mechanisms to provide practical support to FMF and Gwynedd Council.
- 3.14 Additional practical support was requested from FMF and Gwynedd Council in relation to gaining a better understanding of
- i) the socio-economic impacts of the SMP2 policy,
 - ii) local governance, and
 - iii) the potential vulnerabilities and risks associated with forward planning for local infrastructure and utilities.

The research approach was adopted to inform these areas as follows:

Socio-economic assessment

- *Literature review of experience elsewhere* – this built on that undertaken for the reflection and review stage and focused specifically on socio-economic impacts related to the relocation of communities due to climate risks and other reasons (e.g. housing market renewal).
- *Review of socio-economic data* – pre- and post-SMP2 publication to better understand if and how any changes to key socio-economic characteristics (such as employment, health, and house prices) had changed as a result of the policy.
- *Assessment of community facilities* – review of community facilities and whether the provision of such facilities had been affected by the SMP2 policy in ways that could then potentially impact on community cohesion.
- Assessment of findings from primary research conducted to inform the Reflection and Review and Critical Friend aspects, plus consultation with the Fairbourne community during the summer of 2017. The consultation included a

survey at the Fairbourne Festival over August Bank Holiday weekend. This provided an opportunity to speak to residents who may not have been involved in the institutional framework regarding the implementation of the SMP2 policy (FFC, FMF, regular attenders at public meetings) and visitors to Fairbourne, both day visitors and those on holiday in the area.

- 3.15 Whilst the community, for the purposes of this research, was principally defined as the people living within the village of Fairbourne, for some of the desk-based research, different boundaries were analysed to explore impacts (e.g. Lower Super Output Area for the examination of socio-economic impacts).

Governance review

- Literature review of evidence on local governance models and the relocation of communities. Learning points relevant to Fairbourne and at a national level were identified.

Infrastructure review and analysis:

- *GIS mapping* - of infrastructure assets.
- *Gap analysis* – to identify where infrastructure assets and responsibilities were unknown (e.g. unadopted roads, some combined or private sewers) and gaps or inconsistencies in the mapping data provided by utilities providers. Where possible, asset owners were consulted to try to obtain missing data, examine potential infrastructure vulnerabilities and review owners' strategic plans for any infrastructure maintenance and enhancements affecting Fairbourne.

Critical Friend Assessments - Outputs

- 3.16 Outputs produced from the critical friend stage were:

- Socio-economic assessment (Oct 2017)
- *Learning Bulletin 2: Governance and Accountability* (April 2018)
- Infrastructure Review and Analysis (July 2018)
- Critical friend assessment and continuous learning recommendations (incorporated within this final report).

Limitations and caveats

- 3.17 There were some limitations to the research methodology. For example, from the outset, the researchers sought to achieve an adaptive approach where the learning and critical friend roles would evolve to meet the needs of changing circumstances. It could prove problematic to describing and confidently delivering outcomes when these were dependent upon a highly fluid and untested series of processes and decision-points beyond the control of this project. The complexity and extent of ongoing uncertainties was challenging and this factor limits the conclusions that can be drawn from the research.
- 3.18 Stakeholder and community engagement was inevitably challenging due to the emotions raised by SMP2, the distrust in public authorities resulting from perceived or actual lack of appropriate engagement and the prospect of a legal challenge was initiated by Fairbourne Facing Change during the course of the research.
- 3.19 Extensive opportunities were provided to engage with those who were receptive. As part of the critical friend role, the authors explored the principle of seeking to engage with hard to reach groups and individuals, through participation within the full spectrum of events in the community, giving as much visibility of staff as practicable and maintaining open opportunities for people to communicate by all usual means (phone, email, letter). Inevitably, there were people who chose not to participate and those who perhaps were less able to engage. Leaflets, newsletters, drop-in sessions, and the overall extent of sustained physical local presence of the researchers on this project provided a broad spectrum of opportunities for people to be informed and participate and contribute.
- 3.20 In addition, as the flood and coastal risk management research community became aware of Fairbourne being the first location in the UK with uncertain prospects that was likely to be replicated elsewhere in the future, it became extensively researched by a range of organisations, leading to 'consultation fatigue'. The refusal by some stakeholders to engage in the research and the consultation sessions, where stakeholders did not want their attendance or views to be reported was a finding in itself. The latter served to illustrate the importance of building trust and effective dialogue with stakeholders early on in the SMP2 process and recognised the spectrum of factors that contributed to an individual's desire to engage or not.

3.21 The above limitations should be considered when reading the findings of this research, which are summarised in the next section.

4. Findings

4.1 This section summarises the overall findings from the research. Findings are set out in relation to the project's objectives and are structured around *reflection and review* and *critical friend* phases, and the outputs produced within. The research approach, adapted during fieldwork to account for the active learning, was also referenced to help contextualise the findings and any lessons learned which could be applied to wider policy.

Reflection and review

4.2 An objective of the research was to review the effect/impact on the Fairbourne community of the SMP2. A retrospective reflection of how the SMP2 policies had impacted the community was undertaken as one of the first steps of the action research. The findings from this phase of the research can be found in *Learning Bulletin 1: Reflection and Review* and the *Interim Report* (available on request). They highlighted a broad range of actual, potential and perceived impacts around well-being, health, community cohesion, social justice and understanding the local and strategic factors affecting change and the associated decision-making.

4.3 From the outset, the precise path of this project was dependent on feedback from and the changing dynamics of stakeholders, including the developing priorities of the FMF partnership. Developing *Learning Bulletin 1* provided an opportunity to establish dialogues with a wide spectrum of stakeholder groups, individuals and organisations involved with, living or working in Fairbourne, including the FMF Board. The draft, on what was a highly sensitive topic, provoked comment and discussion and the final version sought to incorporate these further views to produce a bulletin that reasonably reflected both the evidence of actual events and people's perceptions about their impacts.

Learning Bulletin 1 evaluated engagement approaches over five phases:

- SMP2 plan preparation
- Public examination of the draft SMP2
- SMP2 Plan finalisation
- Impacts from SMP2 adoption (including the formation of Fairbourne Facing Change (FFC))

- Subsequent collaborative planning (including the evolution of Fairbourne Moving Forward (FMF)).

4.4 The bulletin identified some forty learning points across four key themes of:

- approach to engagement
- impacts on the community
- governance and decision-making, and
- project resources

4.5 Key findings and learning points under each of these thematic headings are summarised in Table 4.1 and are set out in more detail below, referencing the research questions listed in the previous section. The reflection and review sub-sections conclude with an overview of the action research process and the outputs produced for this phase (i.e. *Learning Bulletin 1, Interim Report*); and how the findings from the reflection and review helped inform the critical friend role and the refinement of the research approach.

Table 4-1: Summary of Reflection and Review Learning Points

<p><i>Approach to engagement</i></p> <ul style="list-style-type: none"> • Importance of whole system commitment • Learn lessons or take guidance from others • Set a realistic budget • Know your stakeholders and engage appropriately • Building relationships and trust. 	<p><i>Impact on the community</i></p> <ul style="list-style-type: none"> • Economic impacts: property values, business viability, tourism, development blight and lack of confidence • Health and Wellbeing: stress and anxiety and health related issues • Planning and engagement resources: collaborative planning • Community capacity: commitment, community building/organising; collective purpose and community conflict; contentious issues • Relationships with government agencies and partnerships: better relationships • Media interest and focus • Building knowledge and understanding • Community legal challenge • Monitoring and mitigation of impacts.
<p><i>Governance and decision making</i></p> <ul style="list-style-type: none"> • Key questions and concerns on challenging the data, lack of understanding • Clarity of roles, remits and responsibilities • Issues on decisions to set up FMF and FFC, accountability and support • Impact of committed individuals and organisations • Status of the SMP2 plan • Local and strategic issues • Benefits of good governance. 	<p><i>Project Resources</i></p> <ul style="list-style-type: none"> • Sources and level of funding • Wider service delivery required to mitigate impacts • Governance model options • Capacity building and collaboration • Communication of roles, timing and methods.

Approach to engagement

To what extent was the community involved in developing the plans and policies set out in the SMP2?

- 4.6 In addressing this research question, this project explored the extent to which the community was involved in developing the plans and policies set out in the SMP2. The main findings and learning points are summarised here under the theme of *approach to engagement*.
- 4.7 A key finding from the research was that Fairbourne's involvement in developing SMP2 and its associated policies had a wide range of shortcomings, despite the overarching processes being undertaken "by the book." Consultations were undertaken but, inevitably, the strategic nature of the SMP2 did not lend itself to effective local dialogue and less so to enable local influence of outcomes or to examine the implications arising from the policies at a local level. Defra guidance on SMP policy consultation was followed. During 2011-2012, the content and process adopted to develop SMP2 policies were scrutinised through an independent Quality Review Group comprising officers from the Environment Agency, the Countryside Council for Wales, Monmouthshire Council and the former Halcrow independent consultancy.
- 4.8 Nonetheless, evidence from stakeholder interviews and a review of documentation suggested that there was a perceived lack of coherence in the planning and implementation of public and stakeholder engagement at the strategic plan preparation level. Some engagement work was undertaken and there was a stakeholder consultation strategy appended to the SMP2 plan. However, there was little evidence of effective and well-planned communication and discussion in the framing of the plan's objectives or the development of its content. This was particularly the case regarding public and community level engagement as this related to the stages of the SMPs development.
- 4.9 For Fairbourne specifically, the stakeholder engagement strategy had limited integration with or influence over the latter stages of the SMP2 plan preparation process. It appeared to focus on consultation rather than genuine engagement. Priority stakeholders were not consulted sufficiently early on in the process and there was some confusion around roles and responsibilities for public decision-

making. The limited capacity for engagement in the SMP2 preparation phase, compounded by a long delay in the approval and adoption process, impacted on the delivery phase in terms of community and stakeholder knowledge and understanding of the content, function and status of SMP2. In Fairbourne, a number of residents and businesses fed back during this research that there was a lack of trust in the local authority and other agencies. Whilst building trust and confidence as part of the SMP policy preparation was resource intensive, a shift in engagement resources towards the start of the planning process may well have saved time in the later stages, as illustrated by the quote below:

“If engagement had taken place from day one and the SMP explained properly to people we’d be in a different place. Without that early explanation, it created an ‘us and them’ environment”
(business owner, Fairbourne).

Impacts on the community

How have SMP2 policies impacted the Fairbourne community to date?

- 4.10 The main findings under the theme, “Impacts on the community,” are summarised over the following paragraphs, which also help address the first research question in section 3.7. When exploring the how the SMP2 policies had impacted Fairbourne, feedback suggested the availability and accessibility of the draft SMP2 and the public meeting in May 2011 was too little too late. Research participants criticised the extent to which this meeting was publicised and reported that it was the first time most local people had heard anything about the SMP2 process and its potential impact on Fairbourne. Potential impacts identified during fieldwork included a reduction in property values, business viability and tourism for Fairbourne, blight, increased stress and anxiety amongst the local population and limited capacity to address the issues raised in the SMP. It was clear from the review that the engagement guidance for SMP2 may not be suitable for the context and complexities associated with delivery and action-planning for change-management projects.
- 4.11 Literatures reviewed for the purposes of this research (see Section One) found that good engagement design and delivery was very much about making judgements

about how much engagement, with whom and when. Drawing from the case of Fairbourne, a finding from this research was that these decisions have to be based on a quality 'situational analysis' that considers the impact the SMP2 may have in terms of impact on lives and livelihoods, the likely range of perspectives and politics that will emerge, the degree of certainty and confidence in data and the planning deadlines. A retrospective analysis of each of these dimensions in Fairbourne's case suggested it was extremely likely that there would be contention and conflict that outcomes were uncertain, data would be challenged and there would be the potential for significant impact on people's lives and livelihoods. From this finding, a key learning point was that an engagement strategy should start early in the planning process, be sufficiently thorough and be appropriately resourced.

How did the Fairbourne community initially respond to the plans set out in the SMP? Why was this?

- 4.12 The research also explored how the Fairbourne community initially respond to the plans set out in the SMP, and why this was the case. The initial responses to the SMP2 from the Fairbourne community did not reflect the status of the plan and the potential consequences to the community. As a largely detached and very technical strategic document it was not particularly accessible to non-specialists. The media's headline-grabbing re-interpretation of policies and impacts also illustrated how misunderstandings could arise. Whilst Defra's recommended processes for engagement were followed, these did not support the foreseeable policy consequences or genuinely inform or engage the community. *Learning Bulletin 1* states:

"Given Fairbourne's vulnerable location and demography, viewed alongside existing studies and review data from SMP1, a broader examination of policy consequences during the plan preparation stages could have been productive".

The consultations and dialogue underpinning *Learning Bulletin 1: Reflection and Review* drew out a long list of 40 learning points that were refined and supported by the community and partners within FMF (see Table 4.1). The messages within these were subsequently supported through the critical friend role, with the authors

inputting into FMF dialogues, helping to shape the growing constructive relationship between the community, FFC and the FMF partnership as part of the action learning approach. This is discussed in more detail later in this section.

Governance and decision-making

- 4.13 This research found that whilst the SMP2 engagement process and approach was consistent with other SMPs, for the local community, it was not apparent who was taking responsibility for stakeholder engagement, either locally or strategically. When questioned about the SMP2 engagement process for example, according to one interviewee:

“...[from the SMP2] it’s not clear where decision making lies. It’s more an outline document; less on what should happen and who should be doing the work. Who’s going to pay and who’s going to authorise is not laid out in the SMP2”

- 4.14 In 2013, the FMF Project Board was established with representation from Gwynedd Council, YGC, NRW, Welsh Government, Royal Haskoning DHV, Arthog Community Council, North Wales Regional Emergency Planning Group, the Emergency Services, Welsh Water and FFC (as observers with speaking rights). The establishment of the Project Board was a positive step in relation to community and stakeholder engagement. It represented an acknowledgement that the implications of the SMP2 needed to be addressed through a more coordinated, multi-agency and collaborative approach, including representatives from the community and local stakeholders. In this respect, Gwynedd Council went beyond the guidance requirements for engagement by convening this planning and coordinating group (the governance issues in relation to the Project Board are commented on later in this section).
- 4.15 Ensuring that the community was well represented at Project Board level and well engaged in the planning process, has been contentious. Interviews with members from the Arthog Community Council, residents and key stakeholders suggested that the Community Council’s role and remit was not clear with regard to the SMP planning process and that there needed to be a better assessment of the capacity

and ability of the Community Council to take a central role in community engagement.

- 4.16 *Learning Bulletin 1: Reflection and Review* and *Learning Bulletin 2: Governance and Accountability* both explored the extent of engagement to influence and inform decision-making and develop support or challenge to the approaches taken. This deeper understanding of how the SMP2 was prepared and adopted alongside the critical friend roles adopted by the researchers during fieldwork helped to shape how FMF developed and supported constructive dialogues with and between stakeholders, whether local residents or service providers.

Project resources

- 4.17 From the analysis of the face-to-face interviews with stakeholders, it was evident that they recognised Gwynedd Council's lack of core resources to support engagement around SMP2 policies.
- 4.18 In addition, the social and economic impacts went beyond the functions of a single department and had the potential to be informed by wider service delivery of Gwynedd Council.
- 4.19 However, the FMF project had attracted a significant amount of Welsh Government funding in addition to the Coastal Protection Authority Coastal Flood Risk resources, provided through NRW and Gwynedd Council, for their respective responsibilities towards Fairbourne's flood and coastal erosion risks. Concerns were expressed regarding the ongoing funding provided, given the extent of other pressures on the public purse and potential reorganisations that may impact on the project.
- 4.20 At a more localised level, from the focus group session with members of the FFC core group members, residents and businesses, feedback indicated that the resources of the community were positively recognised. For example:
- "I've been amazed at the competency of my neighbours. Individually we are not much good but collectively we are a force to be reckoned with".*

Learning Bulletin 1- Reflection and Review

- 4.21 Given the very public nature of the work undertaken by the authors to assemble *Learning Bulletin 1* under the reflection and review phase of the research, the variety of engagement approaches taken and the consequent high levels of interest generated, a draft version was distributed to the FMF Board (see 4.3). This was discussed at their meeting on 29 June 2016 as well as with Arthog Community Council on 6 July 2016 and individuals within the community at drop-in events. As part of the action research approach adopted during fieldwork, it was important that these stakeholders had early sight of the findings of the bulletin prior to publication and given the opportunity to comment. As well as input to the final draft from Welsh Government, the published version reflected the feedback from these groups.
- 4.22 With a high level of public and stakeholder interest, *Learning Bulletin 1: Reflection and Review* was published in various forms, including a summary, English and Welsh versions and in different formats (including web).
- 4.23 Consultation feedback on the bulletin was largely positive and supportive. The learning points on governance and decision-making, were identified as key areas of work to take forward. The extensive discussions about the learning points and their relative merits provided opportunities to establish a greater level of trust and better working relationships between parties.

Interim Report

- 4.24 An *Interim Report* (March 2017) was also produced. Its purpose was to present to Welsh Government the findings from the Reflection and Review phase, including the learning points identified in *Learning Bulletin 1*. The Interim Report was not intended to replicate the learning or analysis within the learning bulletin, but to look at how the themes and emerging findings identified to date could inform the role and activities of the next steps of this project (i.e. the critical friend role).
- 4.25 Issues around governance and decision-making were mutually identified by the authors and the FMF board as key areas of work to take forward and to be the topic for the second Learning Bulletin. The FMF Board and its sub-groups had no terms of reference and functioned through a “best endeavours” approach. Whilst this had

enabled significant progress in some areas, FMF members identified that accountability problems were liable to surface.

4.26 The sub-groups of the Board comprised the following:

- Technical Group
- Infrastructure Group
- Socio-economic Group, and
- Community Interest Company Group.

The FMF's Technical Group led on the analysis of physical risks from all sources of flooding and erosion, and there were also exemplar procedures and exercises undertaken for emergency response planning. However, this research found the progress was erratic around the work of the Infrastructure and Socio-economic Groups. Greater understanding was needed on the location and vulnerabilities of critical infrastructure. Baseline socio-economic information was also considered by the FMF Board as necessary to underpin the impact assessment of the evolving Masterplan and to help improve engagement with stakeholders providing potential or actual social or economic support and development to the Fairbourne community.

4.27 The ongoing dialogues within and affecting Fairbourne continued to develop through the FMF partnership and its priorities to deliver a Masterplan. This introduced challenges around the nature of this action research project and how it could be adapted to provide more direct support for FMF, especially through the critical friend role adopted by the authors and drawing on some of the wider capabilities within JBA Consulting (the lead organisation commissioned to undertake this research). Working alongside FMF, the learning approach supported a reacting defensively to a threat and speculations about consequences, to one that was substantially better informed and reasonably engaged in the formative change management and masterplanning processes. Whilst sustaining a purposeful degree of challenge, the ongoing engagement was substantially less adversarial and more central to problem-solving approaches than at the start of this project.

Critical friend role

- 4.28 Building on the *Interim Report* recommendations, the critical friend role involved a more hands on approach to support the development of the Masterplan in relation to **governance and accountability, understanding socio-economic impacts and infrastructure analysis**. Findings from these were presented in *Learning Bulletin 2: Governance and Accountability* (April 2018) (see Figure 3.1; output available on request) internal socio-economic and infrastructure reports supplied to the FMF board. The following paragraphs bring together findings from these outputs to set out what the critical friend role identified and achieved throughout the course of the project. This includes a summary of the authors input into the Masterplan for Fairbourne.

Approaches towards community engagement

- 4.29 An objective of the research was to assess and provide a critical reflection and make recommendations in relation to Gwynedd Council and FMFs approaches to engaging with the community. This included exploring whether the governance and management of the on-going engagement and planning processes were fit for purpose.
- 4.30 *Learning Bulletin 2* aimed to address a recurring area of concern around accountability and the mandate(s) to pursue delivery of the SMP2 policies. This was in the context of a growing awareness of the scale of complexity around decision-making from multiple bodies and individuals along with equally complex decision pathways. Governance was a recurring theme at FMF Board meetings and the critical friend role helped to inform these discussions and build a better understanding amongst the stakeholders. Central to taking forward the Masterplan was building an understanding of the complexity of decision-making, where accountabilities lay and identifying appropriate mechanisms for transparent scrutiny.
- 4.31 In developing *Learning Bulletin 2*, extensive conversations were held with officers of Gwynedd Council / YGC to establish the current governance framework and the potential interventions and decisions that might be necessary to take forward the masterplanning process. Research was also undertaken to capture a number of

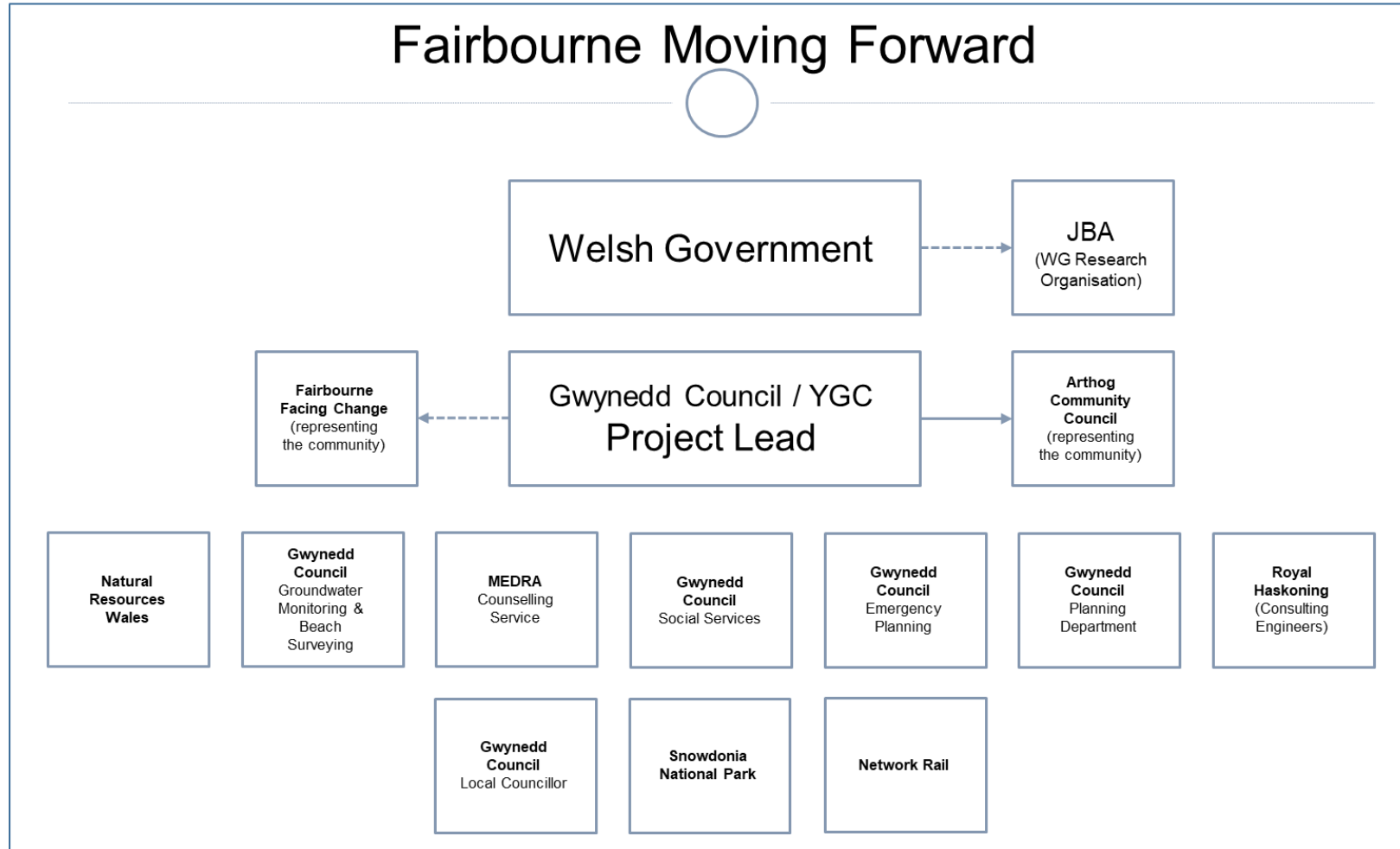
relevant studies and publications that might help to inform the evolution of Fairbourne's governance model from the first FMF Board meeting in 2013.

- 4.32 The bulletin reviewed a range of research and discussions around governance theory and models and highlighted both the importance of analysing decision pathways and of clarity when mapping decision consequences and interrelationships between bodies or individuals.¹ It explored the issues and challenges facing FMF and identified wider lessons for coastal adaptation management in Wales and the UK.
- 4.33 Throughout the development of *Learning Bulletin 2*, the research topics were shared with Gwynedd Council officers and discussions were held around how the emerging themes might help to shape governance structures and accountability for FMF and the development and delivery of the Masterplan. FMF produced an organogram to represent the range of interests represented through the partnership. This was published on its website and is reproduced at Figure 4.1. The organogram illustrated a broad perspective of the key organisations involved on the FMF board structure, but did not signify ownership or accountability.
- 4.34 Taking the organogram work further forward, Gwynedd Council organised an independently facilitated governance workshop (March 2018) to explore in more detail those issues associated with the Masterplan by stakeholders. The authors helped brief the facilitator and participated at the event, including providing facilitation support on the day. This workshop had been postponed several times and there was concern over the extent of participation, but overall it delivered constructive debate and learning across the themes of:
- Housing and Infrastructure

¹ For the purposes of this research, the function of governance was understood as "... to ensure that an organisation or partnership fulfils its overall purpose, achieves its intended outcomes for citizens and service users, and operates in an effective, efficient and ethical manner" (The Independent Commission on Good Governance in Public Services. 2004). Governance and accountability can be defined as, "The set of policies, regulations, functions, processes, procedures and responsibilities that define the establishment, management and control of projects, programmes and portfolios." (Association for Project Management).

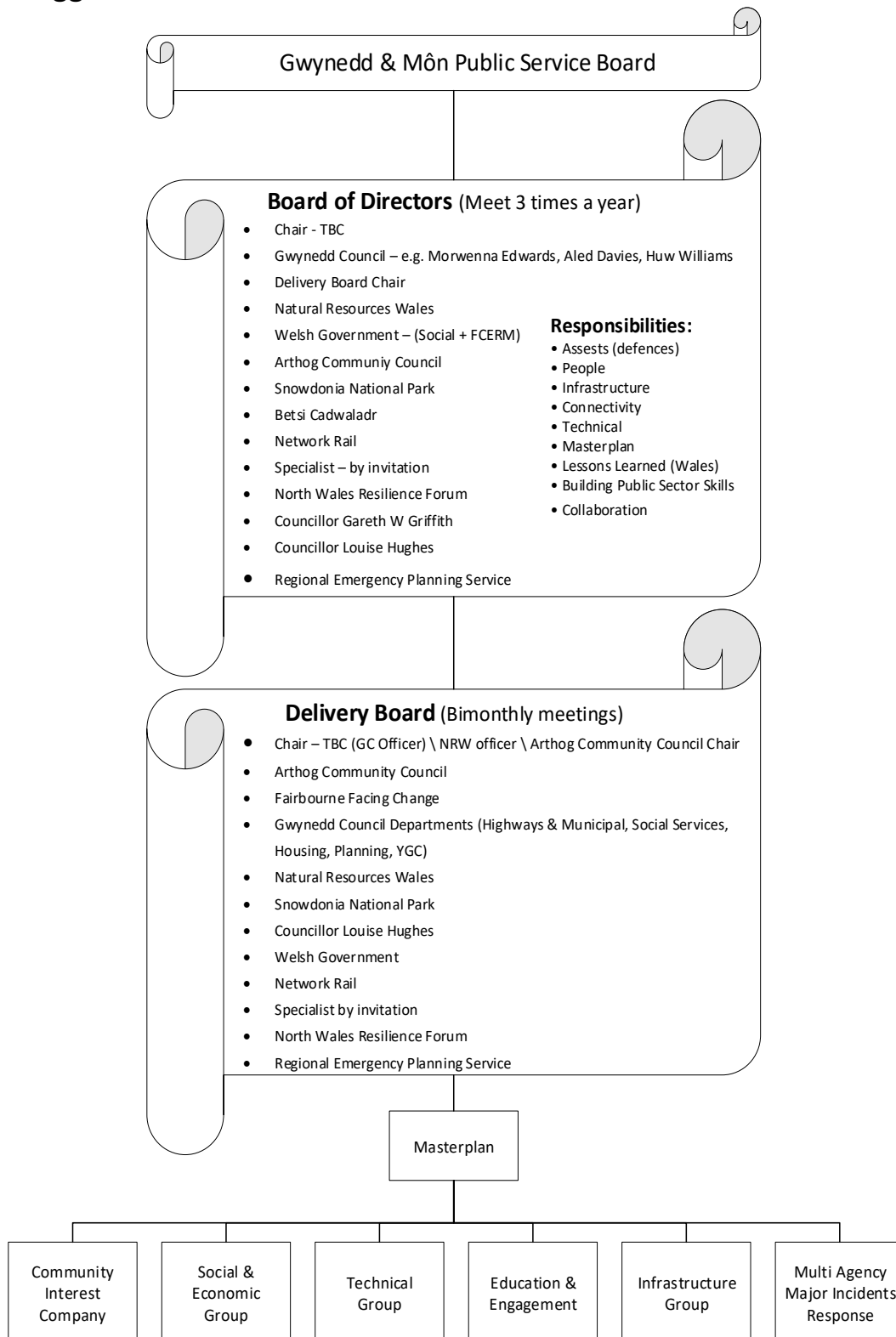
- Financial impacts and compensation
- Government and National participation
- Physical infrastructure and defence
- Planning and risk
- Engagement including community and public awareness
- Well-being
- Infrastructure management (including decommissioning and associated costs).

Figure 4-1: Organogram - FMF Board Structure (2018)



4.35 An earlier governance framework (figure 4.2) proposed a clearer oversight role for the Public Service Board (PSB), given the extensive cross-cutting issues that the Masterplan would need to address and the strong climate change adaptation themes within the local well-being plan. Subsequently, and with support from NRW and Gwynedd Council, the Gwynedd and Anglesey PSB held a climate change workshop (July 2018) with a follow-up in September 2018. These captured the wider climate change issues relevant to the PSB, including the need to sustain oversight on change management programmes such as those at Fairbourne.

Suggested draft Fairbourne Governance Structure November 2017



4.36 From the work undertaken in developing *Learning Bulletin 2: Governance and Accountability*, fourteen learning points emerged under four themes:

- Ownership
- Relationships
- Anticipating change – decision points and pathways
- Short-term clarity, long term vision.

- 4.37 Following extensive discussions around the governance of FMF and the masterplanning process, at the time of concluding the fieldwork, work remained ongoing to secure more robust strategic ownership and scrutiny of the process and outcomes. A presentation was delivered to the Anglesey and Gwynedd PSB (January 2018) jointly by NRW and Gwynedd Council, setting out the PSBs potential roles in addressing the diverse and integrated approaches needed to adapt to climate change, including coastal realignment. This was followed up by a climate change workshop (July 2018) and follow-up meeting (September 2018).
- 4.38 Whilst the PSB has competing short and medium-term priorities, there was constructive engagement with the Board to provide strategic oversight and scrutiny for climate change adaptation planning, as undertaken at Fairbourne, which drew on the analysis and findings from this learning project.
- 4.39 On whether the governance and management of the on-going engagement and planning processes were fit for purpose, a key finding from this research was that there had been a substantial transformation in the extent to which members of the community were better informed. This included key stakeholders feeling better informed about shoreline management planning, the risks associated with flood and coastal erosion and the need for measured and evidence-based forward-planning. Overall, the community was more receptive to exploring options for change, including suggestions to set up a Community Interest Company and buy-to-let approaches to property/equity release, supported with funding and business-planning advice from NESTA. The development of a Masterplan and its purpose was also better understood, with updates being presented to Arthog Community Council and discussions at monthly drop-in sessions and at public events.

- 4.40 This project also found that as a result of improvements in engagement, relationships and trust between the parties had grown; supported by a clear and visible presence of key parties in the village through meetings, regular drop-in and tea and cake sessions and participation in events, from the Fairbourne Festival to emergency planning events, and political engagement from the local Council Member. Whilst the engagement approaches used by Gwynedd Council had mixed results, the sustained opportunities for dialogue with individuals through the regular drop-in and tea and cake sessions were a valuable mechanism to maintain “conversations” and allow people the time they needed to consider and discuss what the impacts of change could mean to them. FFC and Arthog Community Council were also significantly better informed and involved in the Masterplan development, and consequently better placed to support the community.
- 4.41 Some statutory undertakers and public service providers however, whose roles would be critical to supporting change, had been rather more detached, despite efforts to gain buy-in and support. Other service-providing stakeholders, such as NRW were much clearer about the importance of local dialogue and understanding peoples worries and frustrations (e.g. managing expectations around the evolving plans and works for Friog Corner (see Table 2.1)). In other important areas, principally around utilities’ infrastructure, JBA Consulting undertook data-gathering, gap analysis and strategy review to kick-start an understanding of the issues and vulnerabilities around infrastructure management and forward planning.
- 4.42 Fundamentally, the changes in engagement approaches have been towards more focused, locally visible and hands-on methods. A better-informed community is understood to be a more empowered community (as evidenced through the developing roles of FFC, from campaigning and championing, to dialogue, dissemination and problem-solving). As referred to in *Learning Bulletin 2*, the effectiveness of the necessary changes would, to a substantial extent, be down to the many collective and individual decisions community members take over the short, medium and longer term.
- 4.43 Overall, the range of approaches used in relation to Gwynedd CC and FMF approaches to engaging with Fairbourne, and the resources needed to deliver this, appeared to have been adequate.

- 4.44 One area identified which might create vulnerabilities however was around dependency on specific individuals. A finding from this research was that, whilst establishing trust and rapport with individuals responsible for delivering the engagement objectives around the Masterplan was very important, this should not become too personal. The representative individuals involved must be able to remain just that, as representative, whilst trust-building forms at a more organisational level. With a very small team there was a risk that delivery becomes too personal, which could create tensions for succession-planning, ensuring appropriate accountability and sustaining corporate ownership.
- 4.45 In addressing the objective relating to Gwynedd Council and FMFs approaches to engaging with the community, as part of the action learning approach, this research also explored whether the engagement process and related activities achieved engagement across the whole community.
- 4.46 As noted previously, engagement surrounding SMP2 offered very limited opportunities for community engagement and was principally focused on delivering a strategic plan rather than a consideration of community impacts. Similarly, the process of adoption of the SMP2 took place at a more strategic level, although some questions on local engagement at Gwynedd Council's Cabinet were raised. It was telling that some feedback collected for this project pointed towards a perception amongst research participants that the community may have been superficially consulted but were not engaged.
- 4.47 However, since then, the FMF partnership had gone to considerable lengths to understand the community, its needs, concerns and profile, and had also sought to engage with the whole community within Fairbourne village. Arthog Community Council also fulfilled a stronger role and there was significantly greater mutual support between individuals and organisations.
- 4.48 Key learning points on approaches towards community engagement were identified around knowing stakeholders and engaging appropriately, building relationships and trust, understanding community capacity and building knowledge and understanding. This learning had all been progressed to good effect.

- 4.49 At the time of concluding the fieldwork, it was yet to be seen how this engagement had helped shape the Masterplan, as the drafting process to that date had been less open to public scrutiny, albeit that many of the issues the Masterplan sought to address had been aired.
- 4.50 This project was also concerned with the extent to which the community was able to engage with the technical, economic and policy information of the SMP. As noted already, early engagement at the SMP2 preparation stage was very limited and did not provide opportunities for community input, beyond a wider Elected Members' Forum. Similarly, the public examination of the draft SMP2 at Fairbourne was limited, with a small turnout for an event and suggestions it was not well publicised.
- 4.51 By contrast, the outputs from the Technical Group supporting the Masterplan development were made more widely available, with community representation on the group and ongoing public events, which provided opportunities to discuss their findings. This project's critical friend role supported the group considered the best approaches for making complex and technical information more accessible to the community; for example, with the use of clear graphics, non-technical language and a range of formats that enabled feedback, responses and constructive dialogue. FFC remained a vocal element within the community, although there was a significant silent or unengaged sector, including the business sector.
- 4.52 Overall therefore, this project found that the community was considerably better equipped to understand the technical, economic and policy issues and implications of the SMP. From informal interviews, conducted as part of the socio-economic assessment (discussed in more detail below), stakeholders were both aware of the SMP2 and its implications and broadly accepted the findings, although this was not the case during the earlier interviews undertaken with residents.
- 4.53 Nonetheless, there still remained many, arguably more complex, challenges to sustaining the cross-sector engagement associated with the Masterplan, where buy-in was needed not only from the community but also from many service and infrastructure providers. Whilst planning for the longer-term changes at Fairbourne may not have represented the most pressing priorities or fell within their asset management planning timeframes, these providers, equally, would need to hold

dialogues with the community, collectively and individually. The work undertaken through this project on developing the infrastructure and asset GIS and dataset would enable a focused dialogue on the most significant areas, the interdependencies between providers and the importance of climate adaptation planning. This aspect of the project is discussed in more detail below, as part of an overview of the work undertaken by the authors inputting into the development of the Masterplan.

Input into the Masterplan development

- 4.54 Following *Learning Bulletin 1* and feedback on the *Interim Report*, the overarching research approach was adapted. Key stakeholders had identified challenges around developing the Masterplan and reflecting the action learning approach, the project scope was extended to include the authors providing additional support to FMF and Gwynedd Council on the Masterplan. During the period of this research, the Masterplan for Fairbourne remained a somewhat elusive goal. Whilst aspects of the content involved extensive dialogue alongside the production of a robust technical evidence base, its production had less visibility. The critical friend role was adapted following requests from FMF and Gwynedd Council for additional support in relation to gaining a better understanding of local governance, discussed above, and also:
- the *socio-economic impacts* of the SMP2 policy, and
 - potential vulnerabilities and risks associated with forward planning for local infrastructure and utilities, as part of an *infrastructure review and analysis*.
- 4.55 The approaches adopted during this aspect of the research were wide and varied and included telephone conversations, one-to-one meetings, participation in the FMF Board meetings and sub-groups, attendance at FMF's stand at the Fairbourne Festival 2017, support at a number of drop-in sessions and participation in the governance workshop.
- 4.56 The subject areas addressed were diverse but primarily focused on:
- The engagement learning points, especially community involvement and local ownership of the Masterplan (it needed to be their plan, first and foremost).
 - Assessing the accessibility of information emerging from the Technical Group.

- Supporting discussions around how the Masterplan might promote social justice.
- Supporting the requirements for a structured approach to understanding statutory undertakers' infrastructure and its management (leading to the Infrastructure Review report).
- Participating in the Socio-Economic Group meetings and supporting efforts to establish effective engagement from socio-economic stakeholders. The socio-economic report provided some foundation for this, as well as for a socio-economic impact assessment of the Masterplan.

4.57 In addition, a case study of the Godre'rgraig and Panteg landslips explored how these communities reacted to the loss of their homes and abandonment of the community. Subsequently, Gwynedd officers liaised with Neath Port Talbot Council to explore similarities and lessons that could be applied to Fairbourne and vice versa.

Socio-economic impacts

4.58 The socio-economic assessment developed an initial consideration and baseline of the potential social impacts that could result from a future decommissioning of Fairbourne, and involved a review of Fairbourne-relevant evidence from cases elsewhere and of socio-economic data (see Section Three). This review examined potential socio-economic, health, vulnerability and resilience impacts and potential behavioural change. Whilst the majority of the evidence reviewed focused on the impacts of flood events and actual relocation, as opposed to the risk of flooding and potential relocation at some point in the future, three key insights were gained that should be taken into account in future planning and community engagement:

- Socio-economic and health impacts related to the risk of flooding and potential relocation are extensive and likely to have different effects on different people depending on their level of vulnerability (personal characteristics as well as physical location).
- Keeping affected communities informed and abreast of all decisions and enabling them to have a say in decisions and developments, could help minimise the socio-economic and health impacts for individuals.

- Community impacts can be negative or positive depending on the degree to which communities become more or less cohesive as a result of actual or potential events. This, in turn, depends on the varied ability of different sections to prepare and respond and the degree to which impacts are likely to affect different sections of the community more or less severely.

4.59 Using a suite of relevant datasets (including data from: the Census (2011) for relevant Lower Super Output Areas (population, country of birth/language, household composition, income/employment, crime, health, housing tenure/house prices, Council Tax banding, HM Land Registry); the Health Profile of Gwynedd (NHA Wales 2017); and the Coastal Community Typology Report (2015)), an extensive socio-economic baseline was prepared from which future impacts could be assessed and to support future socio-economic impact assessments and reviews of the Masterplan.

Infrastructure Review and Analysis

Through the critical friend role, it was identified that understanding the resilience and adaptability of key utilities, transport and public infrastructure was central to understanding decision pathways and the extent of engagement required from these sectors, including how asset management planning could impact on the long-term changes planned for Fairbourne. Therefore, analysis was undertaken using GIS mapping software and datasets provided by utilities companies, published plans and direct correspondence with these companies. An analysis was also undertaken of critical service issues or forward planning considerations that could impact on infrastructure resilience, adaptability to change and interrelationships between services.

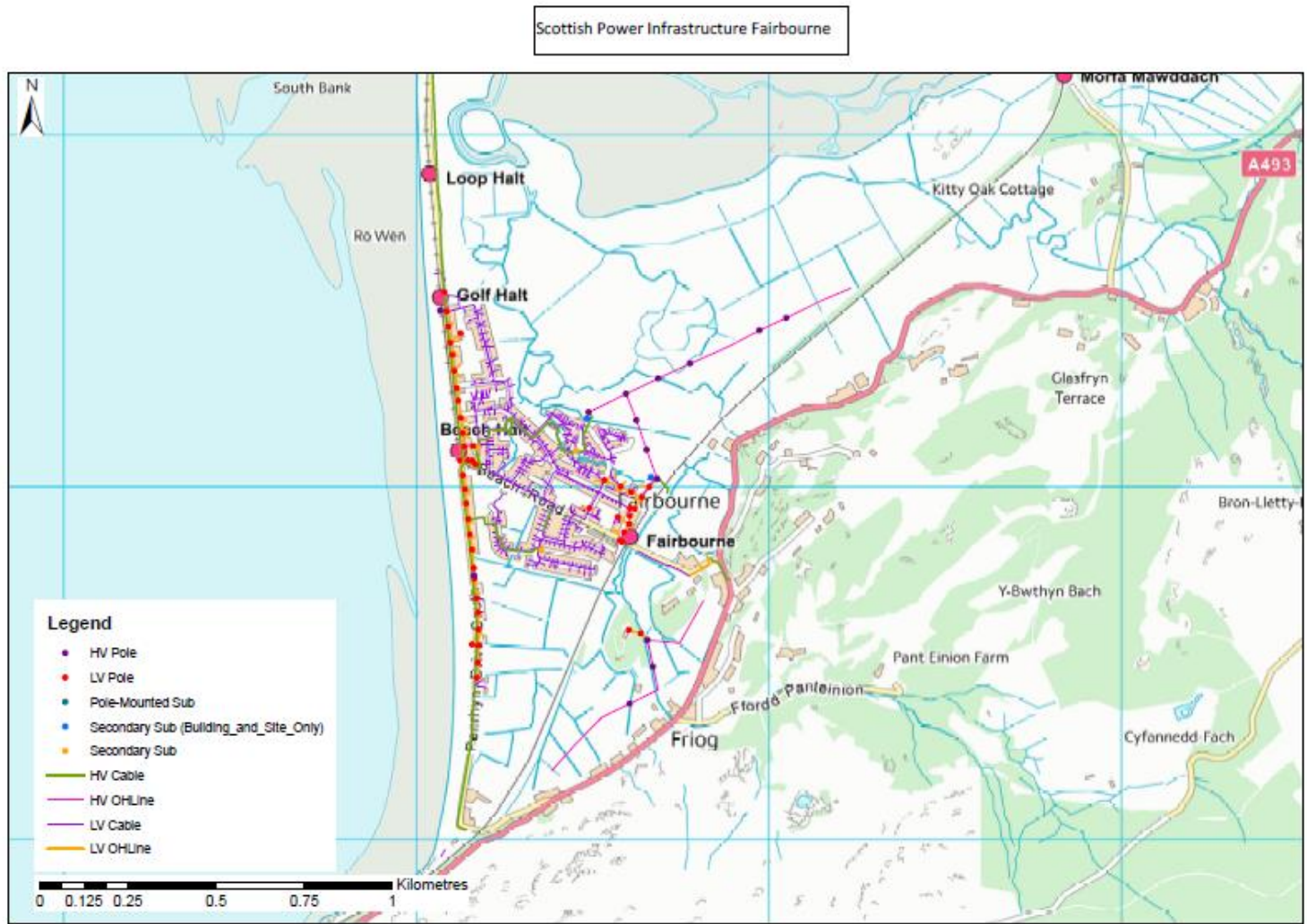
4.60 The Infrastructure Review report was produced to support the Masterplan development and explore engagement and critical decision pathways relevant to utilities and infrastructure providers. It identified a complexity of decision pathways, with each organisation having competing demands for capital investment and operational expenditure; and the time horizons for asset management plans would be different and decision-points would not coincide. The interrelationships between utility providers - whether for electricity supply for treatment works or pumping

stations, reliance on telecom or transport services, or ownership and rights associated with assets - would create a complex matrix of interdependencies. At the time of publication, many of these could be of little consequence, but may become increasingly important as the processes of change are implemented or trigger points are reached.

- 4.61 The Infrastructure Review report provided summary PDF maps for illustrative purposes (for an example, see Figure 4.3) and the complete file layers within the GIS were provided to Gwynedd Council, along with associated permissions to use the data, to input directly into the Masterplan development process.
- 4.62 The Fairbourne adaptation Masterplan would need to include a clear understanding of the complexity, and the implications stemming from it, highlighted in the Infrastructure Review. Asset owners and managers would need to engage collectively to identify ways of streamlining decision pathways and getting sufficient convergence of approaches to support the effective delivery of the Masterplan. A recommendation from this project was that a collaborative approach between the bodies analysed for the Infrastructure Review report should be undertaken, to map decision pathways and identify synergies, weaknesses and areas where constructive change would improve or eliminate strategic bottlenecks or gaps that could constrain delivery of the Masterplan.
- 4.63 When decommissioning infrastructure, visible or valuable assets could be removed relatively easily, but there would likely be a legacy of infrastructure to deal with, where a single utility or service provider may consider it to be prohibitively expensive to remove or to address residual issues such as those related to contamination. Equally, the decommissioning of one asset (e.g. a highway) may have a significant bearing on another (e.g. a combined sewer). Once again, co-ordination of actions between responsible bodies would be essential and could go beyond current normal parameters for co-operation and co-ordination
- 4.64 In addition, regarding residual infrastructure, facilities physically located within the "footprint" of adaptive management but that would need to continue to be maintained due to their strategic importance beyond Fairbourne would require careful management. The longer-term implications of accessibility, liabilities and

costs for maintenance, resilience and environmental impact would require consideration. If property tenure, rights and responsibilities change (including public highways), this could trigger changes to easements, wayleaves and reversions of property ownership.

Figure 4-3: Scottish Power Infrastructure Mapping



Objective Three: To draw our learning and recommendations that will inform the ongoing management and decision making within the Fairbourne Project and Objective Four: To maximise the impact of the research.

- 4.65 What are the key lessons and main benefits for the Welsh Government and Gwynedd Council and what will they now do differently in similar situations in the future?**
- 4.66 Whilst there were no formal mechanisms to routinely evaluate feedback and learning about engagement, most public engagement events included “exit” questionnaires and the effectiveness of engagement was discussed at FMF board meetings. With community representation at these meetings, and the potential for active networking through Arthog CC and FFC, there was greater scope for feedback and learning and to be able to respond to this individually and collectively.
- 4.67 For the duration of this assignment, the Project Team was able to participate in Board meetings and discuss the findings from its engagement research activities.
- 4.68 To the point of drafting the Masterplan and providing the baseline data and analysis, the “little and often” on the ground engagement approach alongside newsletters to all households and a Facebook group proved largely effective. An engagement plan would help with this, as recommended within the first learning bulletin (learning point 29), but had not explicitly been produced.
- 4.69 Records of FMF meetings have been published on the FMF website, however the agendas and minutes of more recent meetings had not, at the date of this report, been published (29/09/2016 was the most recent board meeting published).
- 4.70 There was evidence of ongoing updated dialogue with Arthog CC through its records of meetings and minutes that appear largely constructive and supportive.
<http://www.cyngorarthogcouncil.cymru/index.php/en/the-council/minutes>
- 4.71 In this regard, the learning points around community scrutiny, building relationships and trust have effectively been taken on board. Informal dialogue continued, with regular “drop-in” sessions held in the village and these provided useful opportunities to engage with people who might not otherwise want to participate in the more

auditable engagement processes (see 4.62 above) nor wish to associate with the more vocal elements of the community (see 4.78 below).

- 4.72 The FMF Board was encouraged to produce an engagement plan to support the ongoing development, adoption and delivery of the Masterplan. There are clear lessons from the SMP2 process that a transparent evidence trail of engagement would be very important to provide a robust response to scrutiny and challenge to the plan-making process. Whilst one can point to a number of useful and effective engagement activities and there has been extensive ongoing learning along the way, some structure should be applied to this to provide context, rationale and effectiveness of approaches outcomes. An engagement plan can remain responsive and subject to change, but the reference point was a very useful component to target resources where they are most needed.
- 4.73 There was a risk that the most vocal participants to the Masterplan development process form a “clique” that becomes increasingly less representative of the wider community. However, it was reassuring to see (above) that Arthog Community Council was being more inclusive and that the Masterplan was routinely on their agenda, with participation from Gwynedd Council from both the local Member and council officers and across a range of service areas.
- 4.74 FMF presented its progress to the Flood and Coast Conference 2018. It highlighted the multi-agency approach that was becoming embedded in its structure, whilst acknowledging that engagement challenges remain along with ownership of issues within certain sectors. The presentation drew out the importance of meaningful communication, management of expectations and transparency of process, as well as recognising that the various agencies involved do not have all the answers.
- 4.75 New and more robust governance processes have been put in place to take the programme forward, with a clear understanding that this will need to remain adaptive to changing circumstances. However, the FMF Board still needed clear terms of reference, to which all of the participants are accountable.
- 4.76 An engagement plan was needed for the on-going Masterplan development and delivery, both to direct these activities and to monitor effectiveness. Such a plan would also enable costs and resource needs to be better understood and prioritised.

- 4.77 At the date of this report, adaptation measures remain largely hypothetical. The Local Authority did not put forward a bid to progress the Masterplan through the Coastal Risk Management Programme (CRMP), which was established to support more innovative coastal management, including adaptation and realignment. The Masterplan was supported by Welsh Government outside of this programme.
- 4.78 However, there has been a Community Interest Company (CIC) proposal, to establish funding to purchase a number of houses in the village to facilitate re-letting. The intention was for the CIC to be run through community members and key relevant stakeholders. This was a useful starting point to release equity for a number of residents and sustain a viable and diverse community. Whilst the initial bid was declined, the CIC received feedback from the Welsh Government including recommendations for an alternative grant stream. A revised business case is awaited.
- 4.79 Recent investments have gone some way to give a clear signal to the community that they will continue to be supported. These have included the management of coastal protection along the estuary and at Friog Corner by NRW, re-opening of the public toilets through a partnership with the community, upgrading and modernising the community hall, emergency planning events and flood warden support.
- 4.80 The analysis of governance has helped to identify appropriate “themes” of ownership and responsibility to take forward the Masterplan (Kick start - who initiates a programme of change; Investment – delivering a multi-sector investment programme; Clarity of ownership – defining responsibility and degrees of autonomy or delegation; Leadership – multiple levels, both hierarchical and non-hierarchical. See 6.1 in Governance Learning Bulletin). There was a greater understanding of decision-making pathways associated with a broad suite of actions required to deliver the Masterplan and how these interact and recognition that, whilst the trigger for change might be coastal risk management policy, the interventions are far more diverse than coastal engineering and flood risk management.
- 4.81 Socio-economic considerations are extremely important, alongside the full suite of physical and service-led infrastructure that underpins any community facing this scale of change.

- 4.82 For such a programme of change, a lot was expected from a small number of individuals, who have developed a great deal of knowledge and understanding of the issues and established high levels of trust and co-operation with the community and stakeholders. Reinforcing this stakeholder support and ensuring scrutiny whilst making provision for effective succession-planning will be vital to ensure knowledge, momentum and relationships can be sustained.
- 4.83 Publication of the learning bulletins as a resource to support public bodies nationally will enable learning points to be disseminated more widely and indeed to test these points over a broader spectrum of cases. Fairbourne and the issues it faces already holds a high public profile, with several of those involved in the change management programme presenting the findings from this work and the wider activities to audiences nationally and internationally at seminars and conferences, maximising the audience to the issues raised. There is always the potential for more to be done. To extend the impact of this research further, new opportunities should be explored to disseminate and apply its learning to other communities and wider FCERM adaptation initiatives.
- 4.84 As more is understood about coastal processes and risks to coastal communities from climate change, SMP policies may need to be revised. The learning points from this project should be incorporated into any such review, to gain a clearer understanding of the implications arising from its policies and to enable the communities affected to contribute actively in the process of defining those impacts.
- 4.85 Coastal risk management and the implications from SMP realignment policies go far beyond engineering and environmental considerations and understandings of coastal processes. It is imperative that future development of SMPs incorporates a deeper analysis of the wider implications of policies and the consequences to infrastructure, socio-economic, well-being and social justice. The consultation and engagement processes need to be significantly broadened to incorporate this.
- 4.86 In Wales, the Well-being of Future Generations Act, through its 5 Ways of Working with stakeholders, challenges how public bodies delivered services and provides a strong foundation for considering these wider impacts. The Gwynedd and Anglesey PSB Climate Change Adaptation sub-group has been exploring these issues in

greater depth, whilst being informed by the findings from this project (maximising impact - see also para 4.48). Whilst further work is needed to determine how best the PSBs can support SMP review and policy delivery, the findings from this learning project should be disseminated to the PSBs along with an appropriate briefing for the Future Generations Commissioner for Wales.

- 4.87 Appropriate governance mechanisms for coastal change management are essential. It is clear that there is no “one-size-fits-all” model, but such potentially far reaching and potentially controversial impacts from no active intervention or managed realignment policies require robust governance from the outset. At the date of this report, the situation in Fairbourne continues to be evolutionary and steered by a Board with no formally adopted terms of reference. Early oversight from the local PSB could significantly improve this situation and help to shape locally relevant and accountable decision-making structures and provide long-term scrutiny of policy delivery.
- 4.88 The research and engagement processes were, necessarily, liable to change given the evolving nature of the wider programme at Fairbourne and the learning approach taken.
- 4.89 Whilst a key focus was on community engagement, it became clear that the varying degrees of buy-in to the masterplanning process from other areas such as health, social care, statutory undertakers and utility providers would have significant implications to the deliverability of such a plan. Our work to draw together a clearer evidence base to through the infrastructure analysis and social impacts report sought to provide a foundation for closer engagement with these sectors.
- 4.90 With very limited buy-in from these wider sectors, it was not possible to create a decision-pathway matrix that could take account of factors such as lead-in periods, asset management review implications, level and timing of decisions, relational and consequential impacts from decisions and responsibilities arising from these. Our social impact and infrastructure reports have flagged up key vulnerabilities which will need addressing as the Masterplan unfolds.
- 4.91 There is greater understanding that, whilst remaining a non-statutory document, the influence of SMPs goes significantly beyond the “flood and coastal erosion” remit.

The Welsh Government recognised this and established a new Coastal Risk Management Programme to help address the wider context and response required. NAI and MR policy delivery can carry substantial costs, but the liability for costs are diffuse, uncertain and complex, with the social demands heightening this complexity further. MR also presents a challenge to traditional economic appraisal and the benefit-cost analysis traditionally used to justify new publicly funded FCERM schemes. MR policies will tend to initiate a change-management programme as opposed to the delivery of a scheme underpinned by a single business case. Thus, the difficulties should not be underestimated, of simply defining and assigning what, where and how costs and benefits might be described or attributed. Then presenting a calculated justification for public expenditure, potentially from multiple sources and alongside private and voluntary sector contributions compounds these difficulties further. In addition, the discretionary exercise of powers, rather than application of statutory duties, and the short-term nature of resource planning in the UK create an environment where the long-term management of realignment and planned adaptation to FCERM risk within a community remains vulnerable to reverting to more reactive, short-term and uncoordinated actions.

5. Conclusions and Lessons Learned

5.1 This final section reflects on the project's findings to identify lessons for similar research projects conducted in future, for Fairbourne and for the management of similar situations that are likely to arise in the future as climate change threatens the viability of more coastal communities.

5.2 Critical friend assessment/action learning

5.3 Action learning has largely been informal, through dialogue, challenge and collective problem-solving. The project team has worked throughout with local stakeholders to discuss, understand and consider the implications of the various research outputs. For example, feedback and dissemination from the engagement learning bulletin. This included a meeting with Arthog CC to discuss the draft bulletin to identify and refine the critical points relevant to the Council and similar discussions with the FMF Board.

Headline issues identified through the action research were:-

5.4 Participation and evaluation of governance research applied to Fairbourne was extensive and helped to develop the current proposed governance model and ongoing evaluation of the PSB's role, both for Fairbourne and to address its role in providing oversight of the wider implications of climate change adaptation.

5.5 Challenge came in the form of "what if" worst case scenarios, exploring how and who might be held to account if delivery of the Masterplan started to fragment at a cost to businesses, service providers, regulators and the community. Was a "best endeavours" approach through a FMF board without terms of reference appropriate to the scale of the problem and ensuing risks?

5.6 How well prepared and informed is the Community Council to take on a representative role of the community and act as a voice on their behalf? Many of the tensions between FFC and Arthog CC have been reconciled and Gwynedd CC officers and members play an active role in supporting the Community Council, disseminating information and participating in meetings.

5.7 Ownership of the Masterplan is critical to its success. Drafting a plan in isolation can sometimes feel easier and quicker, but fundamentally this plan must "belong" to the

community rather than be something that is done to it. Residents will have their own personal understanding of what it means to them and how they might respond to it.

- 5.8 Understanding infrastructure – getting to the bottom of just what infrastructure is present in Fairbourne, how it is managed and where the vulnerabilities lie in succession planning. This understanding will help to “pull” the providers into the Masterplan development process and engage in analysing critical decision pathways that will be essential to the plan’s success.
- 5.9 Engagement of the socio-economic sectors (including local businesses) has been slow and a range of efforts, including developing the socio-economic assessment may help to target actions in the future.
- 5.10 The complexity of decision pathways and how best to represent a great number of scenarios has been a topic of debate throughout the governance review. Successful formative learning will hopefully see this topic taken this forward with organisations and individuals from all the key stakeholders participating. The learning dialogue has enabled a deeper understanding of how the many decision routes interact and need to align in order to deliver the Masterplan.
- 5.11 Succession-planning is becoming more critical the longer the project runs for. Discussions around reliance on small numbers of highly informed individuals, potentially within organisations for whom this work might only represent a small component of their overall responsibilities leaves a potentially fragile future for the project. Clearer understanding of the importance of sound organisational oversight and robust governance are the best insurance policies against this. It is hoped that the ongoing work with the local Public Service Board and internally within and between the stakeholder organisations will help to reduce this highly significant risk.

Lessons for similar research projects conducted in future

- 5.12 The research methodology involved a range of primary and secondary, quantitative and qualitative research approaches including literature reviews, governance model assessments, interviews and focus groups with residents and stakeholders and GIS mapping and assessment of infrastructure. This range of research approaches has combined independent evidence with individual and specific views, some of which

were very passionate and emotive. This balance of approaches has enabled some rich insights into the perceptions of residents and those stakeholders aiming to support them.

5.13 The critical friend role required the project team to become well known by the Fairbourne community and to earn its trust in order to obtain candid views and for the community to accept the support on offer. The community had been affected by a major shock and had become something of a 'demo lab' as the first community in the UK that had been identified in policy terms as not having a sustainable future, so these sensitivities needed to be taken fully into account throughout the research. It was important to get to know the community, but also to maintain impartiality and objectivity throughout and enable an environment where impact evaluation and learning could take place effectively.

5.14 The key lesson for similar research is to allow a lot of time for engagement and observation – face to face time and dialogue is essential.

Lessons for Fairbourne

5.15 At the point of reporting, FMF was still a collective with no formally established terms of reference. The overall governance review recommended that these be drafted and signed up to by all relevant parties to support a greater clarity of roles and responsibilities.

5.16 The Masterplan needed greater visibility and the community as a whole still needs to be able to provide greater input and help to understand the complex and technically challenging factors at play.

5.17 It is suggested that Gwynedd Council, in collaboration with FMF stakeholders, should prepare and agree an engagement plan to underpin the ongoing engagement work to deliver FMF's roles and emerging responsibilities to deliver the Masterplan. This plan should also incorporate an analysis of resource requirements over the short and medium term

5.18 Utilities and infrastructure providers need to better engage with the masterplanning process and the development of decision pathways. The same applies to social, health and welfare providers. Senior representatives at Gwynedd Council and other stakeholders need to engage appropriately in the masterplanning processes.

Lessons from Fairbourne can be applied to other communities in Wales in this regard.

- 5.19 Succession-planning is critical to the success of this project. One certainty over the lifespan of the Masterplan is that organisations will change, people will move on and knowledge will evolve. There is a risk of too much reliance on a small number of people to the success of the Masterplan. This can often be the case when relying upon or key individuals, voluntary organisations or where bodies don't necessarily have a clear mandate to participate. Giving FMF a more formal constitution may help in this regard. Succession-planning also needs to be developed to increase the robustness of resource management, especially where significant voluntary capacity is needed in the short, medium and longer term.
- 5.20 A sufficiently detailed engagement plan is an essential next step at this critical point in the development of the Masterplan and resources will be needed both to assemble this and deliver it, potentially with external expert support.

Lessons for application elsewhere

- 5.21 There are clear points to take forward into any review of SMPs, especially surrounding the policies of NAI or MR where they impact on communities or represent a shift from previous policy direction. A closer examination of the processes and consequences around policy-setting and policy implementation needs to be undertaken to inform how to engage with these communities and wider stakeholders affected by these policies.
- 5.22 It is recommended that the earlier published engagement guidance for SMP development is reviewed and the learning points incorporated. Critical issues currently relate to the implementation of policies, but consideration also needs to be taken to inform any subsequent review of SMPs, whether wholesale or targeted.
- 5.23 Governance and decision-making has emerged as a key area of concern. The Fairbourne project has broken a great deal of new ground and learning has been continuously evolving. Whilst the SMP2 has been the trigger for the change-management processes underway, the mandate goes far wider than traditional

coastal risk management and cuts to the heart of the Well-being of Future Generations legislation, well-being planning and the role of PSBs.

- 5.24 There needs to be further consideration of how PSBs can play an active role in the oversight and championing of climate change adaptation planning consistently across Wales, learning lessons from the work currently being undertaken through the Gwynedd and Anglesey PSB and being supported by Gwynedd Council and NRW. Equally, PSBs could be well placed to stimulate ongoing discussion and debate within communities and across relevant stakeholders and professional disciplines. This will enable better informed and co-ordinated forward-planning and limit the pitfalls of “stop/start” consultative or engagement exercises.
- 5.25 The analysis and findings from this learning project are intended to provide a basis for wider and ongoing discussion and understanding that will help to inform the development of progressive and inclusive engagement to support adaptive coastal risk management. Every community will present unique challenges but, by critically considering the learning points drawn out in this research, those involved in developing and delivering adaptive FCERM change measures can be better prepared to support communities facing potentially uncertain futures.

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Annexes

Data Collection and Engagement Questionnaires

The reflection and review work took a step-by-step approach, incorporating action research methods for data collection, including:

- a participative design session
- timeline-mapping of SMP2 engagement and decision-making actions
- stakeholder mapping
- face-to-face interviews
- three focus groups
- a residents' survey
- short literature reviews
- participant observations (action research)

The participative design session had three aims:

- a) introduce and explain the purpose of the project,
- b) gain some inputs into the research questions and
- c) map all relevant stakeholders to develop appropriate research and communication methods.

The final form of the research questions was drawn from the brief, start-up meeting, participative design session with key stakeholders and the aims and objectives set out at the inception report. The key themes and approaches taken were discussed and agreed with the Welsh Government steering group.

The data from the reflection and review activities were collected and analysed to draw out key themes, headings and quotes along with potential learning points to incorporate into the first Learning Bulletin, reflecting the issues and views of those who participated.

Questionnaires and responses (redacted) are provided in the following Annexes:-

1. Focus Group Guide
2. Stakeholder Interview Guide
3. FFC Newsletter promoting participation
4. Residents' Survey Flier (English)
5. Residents' Survey Flier (Welsh)
6. Focus Group responses (redacted)
7. Stakeholder compiled responses (redacted)
8. Residents' Survey responses
9. Residents' Survey Word Cloud

All annexes are available on request from Welsh Government Flood and Coastal Erosion Risk Management Branch.

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