



Suite One | No 3 Mitton Road Business Park Mitton Road | Whalley | Lancashire | BB7 9YE 01254 377622

mbuckley@bekenviro.co.uk | bekenviro.co.uk

SELDONS GOLDEN GATE HOLIDAY CENTRE TOWYN ROAD, TOWYN, ABERGELE LL22 9HU

New Activity Hub & Change to Seasonal Occupancy Flood Consequences Assessment & Drainage Strategy



Prepared for: Seldons Golden Gate Holiday Centre

Report Ref: BEK-RB20034-1 August 2022 (Revised July 2023)





Suite One | No 3 Mitton Road Business Park Mitton Road | Whalley | Lancashire | BB7 9YE 01254 377622

 $mbuckley@bekenviro.co.uk \mid bekenviro.co.uk$

Project Quality Assurance Information Sheet

	Site	Seldons Golden Gate Holiday Centre Towyn Road, Towyn, Abergele LL22 9HU
Rep	oort Title	New Activity Hub & Change to Seasonal Occupancy Flood Consequences Assessment & Drainage Strategy
Repo	ort Status	FOR PRE-APPLICATION CONSULTATION
	port No	BEK-RB20034-1
	Date	August 2022 (Revised July 2023)
		Seldons Golden Gate Holiday Centre
Duran	and Fan	Towyn Road,
Prep	pared For	Towyn,
		Abergele LL22 9HU
		BEK ENVIRO LIMITED
		Suite One
		No 3 Mitton Road Business Park
Pre	pared By	Mitton Road
		Whalley
		Lancashire
		BB7 9YE
Author	Richard Broun BSc (Hons) CEng MICE FC	ІНТ
Checked	David Emmott BSc (Hons) MSc MIEnvSci	
Authorised	Michael Buckley BSc (Hons) MSc MIEnvSci	i CEnv
Contact		0bekenviro.co.uk www.bekenviro.co.uk 01254 377622 Mobile: 07836 568911





Suite One | No 3 Mitton Road Business Park Mitton Road | Whalley | Lancashire | BB7 9YE 01254 377622

mbuckley@bekenviro.co.uk | bekenviro.co.uk

SELDONS GOLDEN GATE HOLIDAY CENTRE TOWYN ROAD, TOWYN, ABERGELE LL22 9HU

New Activity Hub & Change to Seasonal Occupancy Flood Consequences Assessment & Drainage Strategy

PROJECT NO: RB20034

REPORT REF: BEK-RB20034-1

DATE: AUGUST 2022 (Revised July 2023)

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked
00	16/08/2022	Draft to Client / Cadnant Planning for review	RCTB	-
01	21/07/2023	For Pre-Application Consultation	RCTB	

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's standard Terms and Conditions as included within our proposal to the Client.

The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.



CONTENTS

1.0 INT	RODU	CTION
---------	------	-------

1.1 Purpose

2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT

- 2.1 Location
- 2.2 Development Advice Map (DAM) Classification
- 2.3 Existing Site Levels
- 2.4 Existing Pedestrian / Vehicular Access Routes
- 2.5 Estimated Tidal Flood Levels
- 2.6 Existing Classification / Use
- 2.7 Proposed Classification / Use
- 2.8 LDP27: Coastal Flood Risk Protocol
- 2.9 Justification for Proposed Development

3.0 EXISTING DEFENCES

- 3.1 Type
- 3.2 Distance from Proposed Development Site
- 3.3 Potential Methods of Flooding

4.0 FLOOD RISK ANALYSIS

- 4.1 Coastal Inundation
- 4.2 Flood Water Velocities
- 4.3 Global Warming / Climate Change
- 4.4 Overloading of the Existing Highway Drainage System
- 4.5 Emergency Access & Egress

5.0 DRAINAGE STATEMENT

- 5.1 Existing Drainage Arrangement
- 5.2 Proposed Foul Drainage
- 5.3 Proposed Surface Water Drainage

6.0 **PROPOSED MITIGATION MEASURES**

- 6.1 General
- 6.2 Emergency Access / Evacuation

7.0 **SUMMARY**

7.1 General

APPENDICES

A: Development Proposals

B: Tide Level Calculations

C: Extract from 2017 JBA Report: Pages 33 & 34

D: Caravan Park Flood Plan: Seldons Golden Gate Holiday Centre

(Job Ref: RB20034/Rev 01 - July 2023)



1.0 INTRODUCTION

1.1.1 Purpose

- 1.1.1 The existing leisure facilities at Seldons Golden Gate Holiday Centre comprise a clubhouse, arcade, indoor play area, swimming pool, shops and ancillary facilities (as shown on drawing 1100_GGA-AKA-01-00-DR-A-1100-S2-P5 in **Appendix A**).
- 1.1.2 It is proposed to extend these facilities by the addition of a new bowling alley, rooftop bar, outdoor play area, an extended arcade, a new reception / office building, together with parking and servicing areas (as shown on drawing GGA-AKA-01-00-DR-A-1200-S2-P6 in **Appendix A**).
- 1.1.3 The owners of the site (who also own the adjacent Whitehouse Caravan Park) are proposing to submit a planning application for this new activity hub, along with amendments to the seasonal caravan permissions and also to vary the condition in relation to the swimming pool building and children's play area, so that these are not restricted to users who are staying at Golden Gate.
- 1.1.4 It is intended that the proposed activity hub along with the existing swimming pool and children's play area be open to the general public. This is key from the business's point of view, and from the discussions with local members, it appears that they would be supportive of an indoor attraction that would accommodate the general visitor population in the Towyn / Abergele area during the busy summer months and when the weather may not be favourable for outdoor activities and trips to the beach.
- 1.1.5 The investment to provide the hub can, however, only be justified if the owners get the changes to the operation period to allow the management of the Park to be rationalised.
- 1.1.6 There are three components to the development which, it is proposed, will be submitted alongside each other, but as separate planning applications.
 - 1. Full planning application for the new activity hub.
 - 2. S73 application to remove condition 3 of planning permission 0/45888 to allow use by the public of the swimming pool and children's play area so that these facilities can be used by persons not staying at Golden Gate Holiday Park.
 - 3. S73 applications to vary the seasons on the following permissions from 8 months to 10.5 months on a permanent basis whilst requesting that the 12-month season on the other permissions across the site are reduced to 10.5 months.
 - a. 5/2176
 - b. 0/25445
 - c. 5/2149
 - d. 5/1969
- 1.1.7 This would seek to achieve a 10.5-month operating season across the entire park.
- 1.1.8 The key issue for both the proposed activity hub and the change to the operating season is "flood risk". The object of this report, therefore, is to record the results of a Flood Consequences Assessment in support of the planning application.
- 1.1.9 The assessment, which has been undertaken at the instruction of the owners of the site, has been prepared in accordance with the Planning Policy Wales Technical Advice Note 15: Development and Flood Risk, which was issued by the Welsh Assembly Government in July 2004.



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT

2.1 Location

- 2.1.1 Seldons Golden Gate Holiday Centre is located to the north of Towyn Road (A548) in Towyn, near Abergele, OS Grid Reference E296495, N379379. The site lies approximately 120m south of Pensarn Beach and 2.95km (2,950m) east of the River Clwyd.
- 2.1.2 NRW's indicative assessment of flooding shows that the site is within Flood Zone 3. See **Figure 1** below.

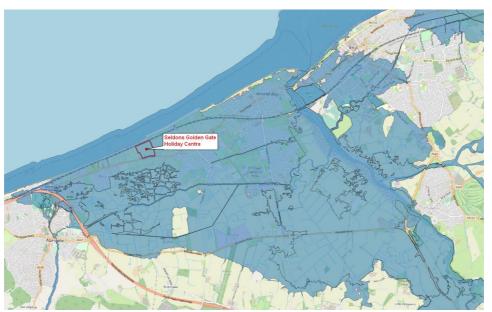


Figure 1: Site Location within Flood Zone 3

2.1.3 The Flood Zones are defined as follows:

Flood Zone 1 - low probability and comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%). (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3).

Flood Zone 2 – medium probability and comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%). (Land shown in light blue on the Flood Map).

Flood Zone 3 – high probability and comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%). (Land shown in dark blue on the Flood Map).



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT (continued)

2.2 Development Advice Map (DAM) Classification)

2.2.1 **Zone C1:** defined by TAN 15 as "areas of the flood plain which are developed and served by significant infrastructure including flood defences" (land shown in green on the DAM map). See **Figure 2** below.



Figure 2: Site Location within Welsh Government's Development Advice Map

2.3 Existing Site Levels

2.3.1 Ground levels within the site range from approximately 4.00m AOD to 4.50m AOD. Levels at the existing access from Towyn Road are approximately 4.00m AOD. See **Figure 3** below.

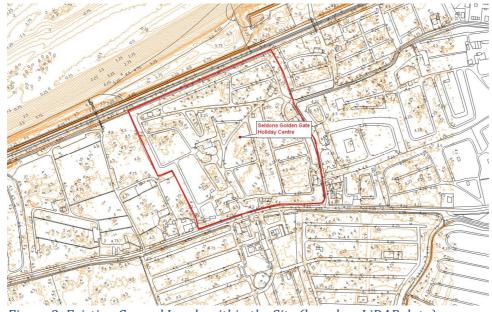


Figure 3: Existing Ground Levels within the Site (based on LiDAR data)



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT (continued)

- 2.4 Existing Pedestrian / Vehicular Access Routes
- 2.4.1 Pedestrian and vehicular access onto the site is currently via an entrance off Towyn Road.

2.5 Estimated Tidal Flood Levels

- 2.5.1 This report considers both the situation predicted to exist by recent hydraulic modelling (2017 JBA Report 2016s4979 (Point of Ayr to Pensarn Tidal Flood Risk Analysis Final Main Report) and that predicted to exist in approximately 100 years' time (depending on the availability of modelling results).
- 2.5.2 An Extreme Sea Level dataset released in 2008 adjusted to reflect the current prediction of climate change / sea level rise over the lifetime of the proposed properties. This resulted in the following predictions:
 - 0.5% annual probability tide level adjacent to the site (including 95% Confidence Bound) (2022) is 5.92m AOD.
 - 0.5% annual probability plus 100 years of climate change tide level adjacent to the site (including 95% Confidence Bound) (2122) is 7.05m AOD.
 - 0.1% annual probability tide level adjacent to the site (including 95% Confidence Bound) (2022) is 6.23m AOD.
 - 0.1% annual probability plus 100 years of climate change tide level adjacent to the site (including 95% Confidence Bound) (2122) is 7.36m AOD.

See **Calculations** in **Appendix B** (based on information obtained from NRW).

- 2.5.3 In 2017 a new Extreme Sea Level dataset was released which provides the following predictions:
 - 0.5% annual probability tide level adjacent to the site (including 97.5% Confidence Bound) (2022) is 5.65m AOD.
 - 0.5% annual probability plus 100 years of climate change tide level adjacent to the site (including 97.5% Confidence Bound) (2122) is 6.79m AOD.
 - 0.1% annual probability tide level adjacent to the site (including 97.5% Confidence Bound) (2022) is 5.99m AOD.
 - 0.1% annual probability plus 100 years of climate change tide level adjacent to the site (including 97.5% Confidence Bound) (2122) is 7.12m AOD.

See **Calculations** in **Appendix B** (based on information obtained from NRW).

- 2.5.4 These latest tide levels are between 0.24m and 0.26m **lower** than those derived from the 2008 dataset.
- 2.5.5 The flood levels which would result from overtopping or breach of the coastal or River Clwyd defences are discussed in Section 4.1 below.



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT (continued)

2.6 Existing Classification / Use

- 2.6.1 The existing leisure facilities comprise a clubhouse, arcade, indoor play area, swimming pool, shops and ancillary amenities and are considered to be "Less Vulnerable Development" as defined by Section 5 TAN 15.
- 2.6.2 There are 512 caravans on the site which are considered to be "Highly Vulnerable Development" as defined by Section 5 TAN 15. These are regulated by Site Licences 43 (dated 31/12/1962), 60 (dated 09/03/1964), 26 (dated 21/02/1968) and 50 (date unknown). Of these, 398 caravans can only be occupied between 1st March and 31st October in any year. The remaining 114 caravans have no conditions or restrictions on the season and so can be occupied for 12 months of the year.

2.7 Proposed Classification / Use

- 2.7.1 It is proposed to extend the existing leisure facilities by the addition of a new bowling alley, rooftop bar, outdoor play area, an extended arcade, a new reception / office building, together with parking and servicing areas. This will not alter the "Less Vulnerable" nature of the facilities or increase the occupancy within a flood risk zone. There is no residential element within the development.
- 2.7.2 Allowing the use of leisure facilities by the general public does not materially increase the flood risk as it is considered likely that the additional users will already be seasonal residents of the Towyn and Kinmel Bay area.
- 2.7.3 The proposals to amend the restrictions to the operating period to allow all of the caravans to be occupied for 10.5 months of the year has been tested against the criteria set out in LDP27: Coastal Flood Risk Protocol. This matter is discussed in greater detail in **Section 2.8** below.

2.8 LDP27: Coastal and Flood Risk Protocol

- 2.8.1 The Coastal and Flood Risk Protocol (LDP27) was adopted by Conwy County Borough Council (CCBC) in July 2015 "to inform potential applicants, interested parties and those determining planning applications of the controls on and constraints to development within the coastal flood risk area of the North Wales Coast, from Pensarn to Kinmel Bay with specific reference to tidal flood risk along this part of the coastline".
- 2.8.2 Section 5 of the Protocol sets out the **Flood Risk Management Strategy** for the tidal Clwyd (the most significant flood risk to Towyn and Kinmel Bay) and states that: "..... all properties in this area should be protected to their current standard or better. This should be through a combination of improvements to the existing defences in the short term, and by realigning defences in the medium to long term".
- 2.8.3 Section 6 deals with planning applications in the protocol area relating to the following:
 - a) Vulnerable and New Development
 - b) Replacement and Extensions to Dwellings
 - c) Change of Use
 - d) Seasonal Occupancy
 - e) Existing Park Homes & Mobile Homes/Caravans



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT (continued)

2.8 LDP27: Coastal and Flood Risk Protocol (continued)

2.8.4 The sections relevant to the use of the caravans at the Seldons Golden Gate Holiday Centre are d) and e) which, for ease of reference are reproduced below:

d. Seasonal Occupancy

Extensions to the holiday season will only be considered provided the site is suitable for such an extended use for holiday purposes. In line with TAN15, extending the holiday season to sites that are highly vulnerable to flood risk will be resisted to ensure safety and overall risk.

Reason: To prevent the use of developments during annual periods where the risk of flooding is increased.

e. Existing Park/ Mobile Homes and Caravans

Proposals for the extension of existing sites or location of new sites for caravans, mobile homes or park homes within the area defined by the Tidal Flood Zone as designated on the CCBC CTFRA Climate Change Maps will not be supported by the Council.

Reason: To prevent increased occupancy and therefore risk to life in a high flood risk area.

Advice: Proposals for the 'improvement' of existing sites will be permitted provided the remodelling results in the overall improvement of the facilities, layout and landscaping and does not result in an increase in the site area or the number of static caravans or chalet units. A reduction in the number of caravans and/or chalets units, through the improved remodelling scheme, will be encouraged where it results in a reduction of the number of people residing on site and incorporates flood risk mitigation measures (including flood resistance / resilience techniques and flood warning / evacuation plans and signage).

- 2.8.5 The proposal to amend the restrictions to the operating period for Seldons Golden Gate Holiday Centre is intended to provide business consistency rather than to increase the occupancy of the site.
- 2.8.6 In order to quantify the existing flood risk the current occupancy of the site has been calculated in terms of caravan-months / year as follows:

Planning Ref	Site Licence	Licence Date	Number of	Number of	Occupancy Type	Period	Existing Occupancy	Existing Flood Risk
			Caravans	Chalets		Months	Caravan- months	Jan/Feb Caravan- months
Golden Gate								
5/49	43	31/12/1962	60	-	Unrestricted	12	720	120
5/2149	60	09/03/1964	230	22	Restricted	8	2,016	0
5/2176	26	26/10/1962	164		Restricted	8	1,312	0
5/48	50		54		Unrestricted	12	648	108
0/25445	??		4	-6	Restricted	8	-16	0
Golden Gate Total			512				4,680	228
Whitehouse	42	03/01/2013	348		Unrestricted	12	4,176	696
Grand Total			860				8,856	924



2.0 EXISTING SITE USAGE / PROPOSED DEVELOPMENT (continued)

2.8 LDP27: Coastal and Flood Risk Protocol (continued)

2.8.7 The construction of the activity hub would reduce the number of caravans on the site from 512 to 500 and the proposed flood risk (again in terms of caravan-months / year) would therefore be as follows:

Planning Ref	Site Licence	Licence Date	Number of Caravans	Number of Chalets	Occupancy Type	Period Months	Existing Occupancy Caravan- months	Existing Flood Risk Jan/Feb Caravan- months
Golden Gate			500	16		10.5	5,418	258
Whitehouse			339			10.5	3,560	170
			9		Unrestricted	12	108	18
Grand Total			860				9,086	446

- 2.8.8 Despite this reduction in numbers the flood risk resulting from the change to the operating period would increase from 4,680 to 5,418 caravan-months / year and the occupancy within the January / February period (when NRW advise that there is a statistically higher risk of tidal inundation) would increase from 228 to 258 caravan-months / year.
- 2.8.9 To address this increase the owners of Golden Gate Holiday Centre would be prepared to reduce the seasonal occupancy of the caravans on the adjacent Whitehouse site (which they also own) from the permitted unrestricted use to 10.5 months.
- 2.8.10 Whilst the overall risk would still increase slightly (from 8,856 to 9,086 caravan- months / year) the occupancy in the January / February period would approximately halve.
- 2.8.11 It is considered that this complies with the Advice given against Section 6 e of LDP27 in that the overall number of caravans on the Seldons Golden Gate Holiday Centre and the Whitehouse would reduce and the occupancy in the higher risk months (January and February) would approximately halve. As such it is considered that the proposals do not contravene the criteria set out in the Protocol.
- 2.8.12 Given that proposals would not significantly increase the annual occupancy of the sites above their lawful use there seems no reason to object to the proposals on the grounds of flood risk, which would not materially change over the next 100 years. This matter is discussed in greater detail in **Section 4.1** below.

2.8 Justification for Proposed Development

- 2.8.1 Section 6 of TAN 15 sets out "tests" for justifying the location of the development.
- 2.8.2 As the site is already developed it is considered that these "tests" have already been satisfied.
- 2.8.3 The potential consequences of a flooding event in terms of the criteria contained in Sections 5 & 7 and Appendix 1 of TAN 15 are considered below.



3.0 EXISTING DEFENCES

3.1 Type

- 3.1.1 The defences in the immediate vicinity of the site (i.e. along Pensarn Beach) comprise a natural shingle bank extending to the seaward side of a sloping grouted stone/concrete revetment with upper crest wall. In sections there is additional armour stone revetment which was placed in front of the wall following the Towyn flood of 1990. The crest level of the wall is approximately 8.2m AOD ('Conwy Tidal Flood Risk Assessment (TRFA) Report EX 4667'). The wall is in good structural condition.
- 3.1.2 The existing defences at the River Clwyd consist predominantly of mud flats and salt marshes leading to a mixture of earth embankments and sloping stone walls. The Coastal and Flood Risk Protocol states that "Recent works have been completed on the embankments to raise the embankment to an intermediate level whilst longer term solutions are investigated (these works have been incorporated into the latest release of the CTFRA). These short term works have provided an increased level of protection to the existing community but do not cater for flood risk in the future and are not sufficient to comply with the requirements of TAN15 in respect of new development. The strategy confirms that additional works will be needed at some point in the future to ensure an appropriate level of protection for the existing community".

3.2 Distance from Proposed Development Site

3.2.1 The site is approximately 120m from the defences along Pensarn beach and approximately 2.95km (2,950m) from those along the River Clwyd.

3.3 Potential Methods of Flooding

- Overtopping of the coastal defences.
- Breach of the coastal defences.
- Overtopping and breach of the River Clwyd defences.
- Increase in sea levels due to global warming/climate change.
- Overloading of the existing highway drainage system.



4.0 FLOOD RISK ANALYSIS

4.1 Coastal Inundation

- 4.1.1 The crest level of the coastal defences along Pensarn Beach is approximately 8.2m AOD which compares with the 2017 dataset predicted 0.1% AEP tidal level (2122) of 7.12m AOD. Even when wave action is considered, the risk of significant overtopping of the sea wall is therefore considered to be low.
- 4.1.2 Since the Towyn Floods in 1990 the structure of the coastal defences has been improved and they are now considered by NRW to be in "good" condition. The risk of a breach or other type of failure of these defences is therefore low.
- 4.1.3 The main risk of coastal inundation to the site is from a breach in the defences along the River Clwyd.
- 4.1.4 NRW have made available the 2017 JBA Report 2016s4979 (Point of Ayr to Pensarn Tidal Flood Risk Analysis Final Main Report) which was commissioned by them to "deliver a clearer understanding of tidal flood risk along the North Wales frontage from Point of Ayr to Pensarn".
- 4.1.5 The results of this study show that for the 200 year (0.5% AEP) "defended" scenario the Seldons Golden Gate Holiday Centre site remain flood free over the period up to 2067 (report date of 2017 plus 50 years) See **Figure 4** below.

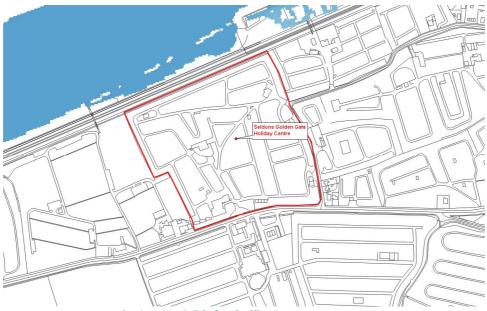


Figure 4: 200 year (0.5% AEP) "defended" scenario 2067

4.1.6 The importance of this date, apart from the fact that it was considered by the Point of Ayr to Pensarn Study, is that it represents the timescale at which significant overtopping of the Clwyd embankments starts to occur during extreme storm events. The Flood Risk Management Strategy outlined in LPD27 states that "..... all properties in this area should be protected to their current standard or better," and in order to achieve this objective NRW would need to have undertaken improvements to the Afon Clwyd defences.



4.0 FLOOD RISK ANALYSIS (continued)

4.1 Coastal Inundation (continued)

- 4.1.7 These works would significantly reduce the risk of inundation of the site as after this date the primary cause of flooding, as things stand, results from overtopping of the Clwyd embankment. Whilst reconstructing / improving the defences will not eliminate the risk of a future breach (which has been considered by this FCA) the probability of such an event would be significantly reduced and, as such, would exceed the requirements of TAN15.
- 4.1.8 The site is also predicted to remain flood free for the 1,000 year (0.1% AEP) "defended" scenario over the period up to 2067. See **Figure 5** below.

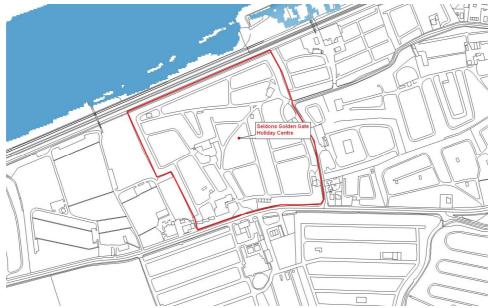


Figure 5: 200-year (0.1% AEP) "defended" scenario 2067

- 4.1.9 By 2092 small parts of the site are predicted to flood to shallow depths (less than 100mm) for the 200-year event with the surrounding area affected by inundation from the River Clwyd. By 2117 (report date of 2017 plus 100 years) overtopping of the River Clwyd defences become the principal cause of flooding of the site with the level of inundation predicted to increase to approximately 4.96m AOD.
- 4.1.10 For the 1000-year event the level of flooding of the site in 2117 is predicted to be approximately 5.44m AOD.
- 4.1.11 The question then arises as to the extent of the predicted flooding when a breach of the defences is also taken into consideration. The 2017 JBA report considers three breach scenarios in the Towyn & Kinmel Bay area as follows:
 - Breach 1: the funfair Towyn (which replicates the 1990 historical event)
 - Breach 2: Kinmel Bay
 - Breach 3: Pensarn Railway Embankment



4.0 FLOOD RISK ANALYSIS (continued)

4.1 Coastal Inundation (continued)

4.1.12 The flood outline for each of these scenarios is shown on Figures 6, 7 & 8 below.

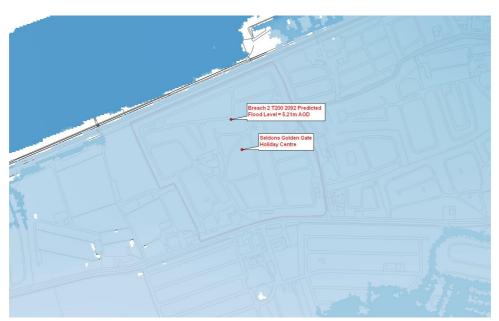


Figure 6: 200-year (0.5% AEP) Breach 1 scenario 2092

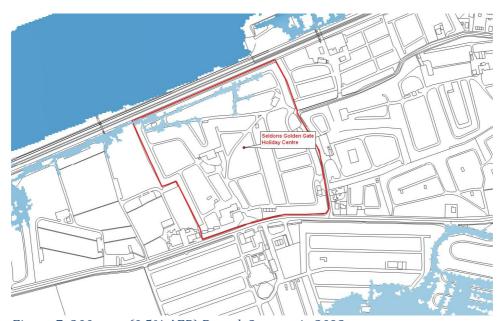


Figure 7: 200-year (0.5% AEP) Breach 2 scenario 2092



4.0 FLOOD RISK ANALYSIS (continued)

4.1 Coastal Inundation (continued)

4.1.12 continued

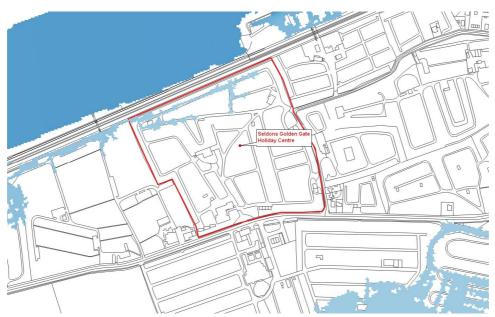


Figure 8: 200-year (0.5% AEP) Breach 3 scenario 2092

- 4.1.13 These relate to 2092 and show that the Seldons Golden Gate Holiday Centre site remains substantially flood free for the Breach 2 & 3 scenarios over this period and potentially floods to a depth of over 1.0m for the Breach 1 scenario.
- 4.1.14 It should be noted however that these outlines do not take account of the overtopping of the River Clwyd defences which is likely to occur in conjunction with these breach scenarios (unless the defences are improved over the next 50 years). It is therefore necessary to refer to the small-scale drawings within the 2017 JBA Report to assess the predicted flood extents for such occurrences.
- 4.1.15 The combined effect of a breach and overtopping of the River Clwyd Defences is shown on Figures 6-20, 6-21 & 6-22 on pages 33 and 34 of the JBA report (see **Appendix C**).
- 4.1.16 Whilst the depth of predicted flooding from these events is likely to increase from the figures quoted above it is not possible to quantify the precise values as there are no modelling results included for these scenarios. However it can be seen that the Seldons Golden Gate Holiday Centre site remains unaffected by the overtopping of the River Clwyd defences for the Breach 2 & 3 scenarios over the period up to 2092.
- 4.1.17 It is assumed that Breach 1 has been included in the 2017 JBA Report for comparison purposes, rather than in the belief that there is a realistic probability of a repeat of the 1990 floods. However, it is possible that a breach in the River Clwyd defences (which has not been considered by the 2017 JBA report) may result in more onerous flood than the Breach 2 scenario.



4.0 FLOOD RISK ANALYSIS (continued)

4.1 Coastal Inundation (continued)

- 4.1.18 JBA undertook further modelling in 2020 to establish the effect of a breach in the River Clwyd defences both with and without improvements to the defences themselves. This analysis concluded that the flood levels which result from overtopping and breach of the current defences in 2120 are almost identical at 4.80m AOD.
- 4.1.19 A breach of improved defences at the same date would result in flood levels on site of approximately 4.25m AOD, giving flood depths of approximately 250mm. However, the probability of the latter event occurring once the crest levels of the defences have been raised is however, far less.
- 4.1.20 The analysis confirms that, for the Seldons Golden Gate Holiday Centre, the site remains substantially flood free for all 0.5% AEP + CC scenarios for the period to 2092, including those that consider breaches of the defences at Kinmel Bay (Breach 2), Pensarn Railway Embankment (Breach 3) and overtopping of the River Clwyd Embankment.
- 4.1.22 By 2122 the River Clwyd defences will have been improved in order to comply with the Flood Risk Management Strategy outlined in LPD27. The argument that funding may not be available for such works by then is a nonsense as, if climate change progresses as currently predicted, it will be approximately 50 years since significant overtopping of the defences during extreme storm events first occurred (in 2067).
- 4.1.23 When considering the above flood levels it should be noted that the JBA model includes an anomaly in that the ground levels at the mouth of the River Clwyd (left bank looking downstream) are evidently not an accurate representation of the existing conditions (ie in the model they are too low). JBA's analysis therefore appears to over-estimate the flooding in Towyn and Kinmel Bay. It is understood that NRW is discussing any changes required to the model directly with JBA.
- 4.1.24 In summary therefore, based on the results of the 2017 & 2020 JBA analysis the Seldons Golden Gate Holiday Centre site has been shown to be substantially flood free for all 0.5% AEP + CC scenarios during the period up to 2092. Thereafter, with improvements made to the River Clwyd defences the principal risk to the site is from a breach. The modelling results show that for Breach 2 & 3 or a breach of the River Clwyd defences the predicted flood level on the site would be approximately 4.25m AOD.
- 4.1.25 There is therefore no reason why the proposed activity hub and changes to the seasonal occupancy should not be considered.

4.2 Flood Water Velocities

- 4.2.1 In the event of a breach of the defences, as considered in Section 4.1 above, high velocities/flows would be expected to occur in the immediate vicinity of the breach. These effects would dissipate as the flood water spreads out over the wider area with lower velocities at the edge of the predicted outline near to the proposed development site.
- 4.2.2 Since the site has been shown to remain flood free during all scenarios up to 2092 and thereafter to only flood to shallow depths, the velocity of flood water will only affect the emergency access and egress routes. This matter is discussed in detail below.



4.0 FLOOD RISK ANALYSIS (continued)

4.3 Global Warming / Climate Change

- 4.3.1 Climate change predictions currently used by NRW are based on the FCDPAG3 scenario.
- 4.3.2 Welsh Government require proposals to be tested against the 0.1% AEP + climate change tidal event. The results of the latest JBA report show that the site remains flood free for such a scenario for the period to 2067. Thereafter the site is susceptible to flooding from the River Clwyd with flood levels of 4.70m AOD predicted in 2092 and 5.45m AOD in 2017.
- 4.3.3 The improvement works to the River Clwyd defences which will be required to comply with the Flood Risk Management Strategy outlined in LPD27, will protect the site from flooding past the 2067 date.

4.4 Overloading of the Existing Highway Drainage System

- 4.4.1 Centreline levels along Towyn Road are relatively level and fall from east to west. In the event that the existing highway drainage system becomes overloaded during extreme storm events, the Seldons Golden Gate Holiday Centre is unlikely to be affected as the site is generally elevated above back of footway.
- 4.4.2 NRW's Indicative Assessment of Flooding from Surface Water that the Seldons Golden Gate Holiday Centre generally remains unaffected by other scenarios although parts of the site roads and the A548 fronting the site are shown to flood to a Low Extent.

4.5 Emergency Access & Egress

4.5.1 Even for the worst-case scenario predicted by the latest JBA report for the period up to 2067, an emergency access / egress route exists for both vehicles and pedestrians either towards Abergele or Bodelwyddan (depending on the location of the breach). See **Figure 9** below. Although it may be necessary for users of these routes to wade through shallow depths of flood water. It is therefore considered that the maximum flood depths recommended by TAN 15 will not be exceeded.



Figure 9: 200-year (0.5% AEP) Breach 2 & 3 scenario 2092



5.0 DRAINAGE STATEMENT

5.1 Existing Drainage Arrangement

5.1 Drainage investigations have confirmed that both the foul and surface water from the existing buildings drain into the combined public sewer which is located to the north of the site The majority of the site area is hard paved with the result that surface water run-off discharges at an unrestricted rate.

5.2 Proposed Foul Drainage

5.2.1 The foul drainage from the proposed development will discharge by gravity at an unrestricted rate into the existing combined sewer, subject to agreement with Dwr Cymru Welsh Water (DCWW).

5.3 Proposed Surface Water Drainage

- 5.3.1 In accordance with Section 8 of TAN 15 the discharge of surface water should be as high up the discharge hierarchy as possible. The hierarchy is as follows:
 - 1. Surface water runoff collected for use
 - 2. Surface water runoff infiltrated to ground
 - 3. Surface water runoff discharged to a surface water body i.e. watercourse
 - 4. Surface water runoff discharged to a surface water sewer, highway drain, or another drainage system
 - 5. Surface water runoff discharged to a combined sewer
- 5.3.2 Permeability tests undertaken by RBA Ltd in 2017 indicate that the existing ground conditions are unsuitable for the use of soakaways. Despite this it is anticipated that some form of SuDS techniques will be incorporated into the design of the proposed development.
- 5.3.3 At this stage it is considered that the surface water drainage strategy will involve the provision of permeable paving to all hardstanding areas. Roof water from the new buildings will be attenuated in underground storage tanks before discharging into the combined public sewer at a rate equivalent to the 1 in 2-year unrestricted rate from the existing site. This will be subject to approval from DCWW.
- 5.3.4 Stormwater from up to a 1 in 30-year return period event with an allowance for climate change will be contained by using above ground SuDS features or underground storage.
- 5.3.5 Stormwater from a return period event up to and including 1 in 100 years with an allowance for climate change will be contained within the site boundaries, by above ground SUDS features including temporary ponding in parking areas and other areas not used for emergency access / egress.
- 5.3.6 These measures will ensure that the development of the site will not increase flood risk elsewhere.



6.0 PROPOSED MITIGATION MEASURES

6.1 General

6.1.1 The proposals are to extend the existing leisure facilities and change the seasonal occupancy period so that both the Seldons Golden Gate Holiday Centre and the Whitehouse Caravan Park operate for 10.5 months per year. It is clear from the assessment that the site is predicted to remain substantially flood free during the 0.5% AEP plus 75 years of climate change events. Despite this the following measure should be incorporated into the operation of the site to minimise the impact of any future inundation caused by modelling uncertainty.

6.2 Emergency Access / Evacuation

- 6.2.1 The proposed development site lies within the NRW Flood Warning Area. As the site remains flood free for scenarios up to 2092 it may be unnecessary for properties to be evacuated. However, in the event of extreme events residents should follow NRW Flood Warning advice.
- 6.2.2 In addition Seldon Golden Gate Holiday Centre have compiled a Caravan Park Flood Plan (approved by NRW) which details the actions required in the event of an emergency. The Plan has been regularly updated (last update March 2020) which demonstrates that the Owners take their H&S responsibilities extremely seriously.
- 6.2.3 It is particularly important that this process continues in order to record any changes to the flood risk.

7.0 SUMMARY

7.1 General

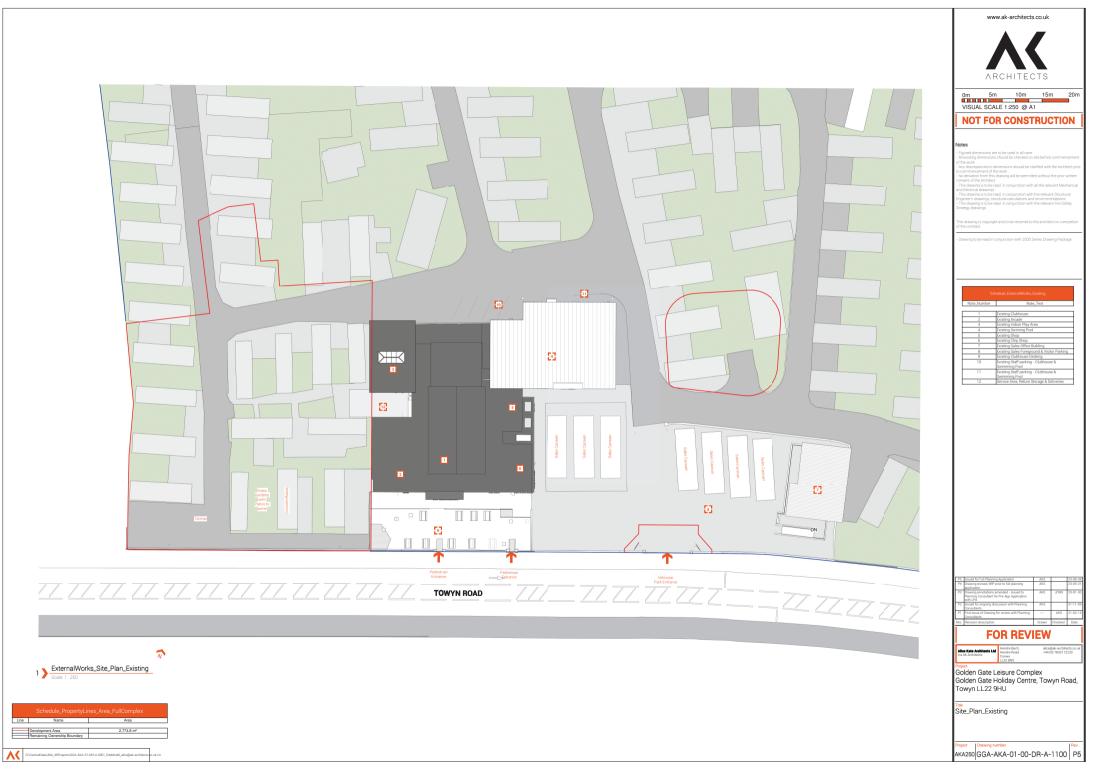
- 7.1.1 This Flood Consequences Assessment indicates that the site is within an area which is at risk of flooding during extreme storm conditions. The site itself, however, is predicted to remain substantially flood free for all scenarios during the period to 2067 and thereafter will be protected by the improvements to the River Clwyd Embankments that are comply with the Flood Risk Management Strategy outlined in LPD27.
- 7.1.2 Consideration has been given to the justification for developing the site, in view of the potential flood risk and it has been concluded that the tests set out in Sections 5 and 7 and Appendix 1 of TAN 15 can be satisfied.
- 7.1.3 The consequences of any future flooding have been assessed and mitigation measures incorporated into the development proposals to reduce the impact of any future inundation in the vicinity of the site. The extent of these works is detailed in **Section 6.0** of this report.

For BEK LTD July 2023

miled Hour

APPENDIX A

Development Proposals



A1



2 > ExternalWorks_Site_Plan_Proposed

TY MAWR CARAVAN

Line	Name	Area
	Development Area	2.774.8 m²
	Remaining Ownership Boundary	2,774.0111

PARK

www.ak-architects.co.uk



0m	5m	10m	15m	20m

NOT FOR CONSTRUCTION

Note_Number	Note_Text
1	Existing Clubhouse
2	Existing Arcade
3	Existing Indoor Play Area
4	Existing Swiming Pool
5	Existing Shop
6	Existing Chip Shop
7	Existing Sales Office Building
8	Existing Sales Foreground & Visitor Parking
9	Existing Clubhouse Decking
10	Existing Staff parking - Clubhouse &
	Swimming Pool
11	Existing Staff parking - Clubhouse &
	Swimming Pool
12	Service Area, Refure Storage & Deliveries
20	Proposed New Complex Entrance
21	Proposed Complex Circulation & Extended Arcade
22	Proposed 6No Lane Bolwing Alley at Ground Floor
23	Proposed Rooftop Bar
24	Proposed Services on Roof behing Parapet
25	Proposed New Reception & Office Building
26	Proposed New Outdoor Play Area
27	Proposed Access to Adjacent Park
28	Proposed Staff & Visitor Parking (6 No + 2Ni Disabled)
29	Proposed Staff Parking (6No)
30	Proposed Visitor Parking (10 No + 1 No Disabled)
31	Proposed Solar Panels
32	4No Proposed Pergola structures (4m x 4m
33	Cycle Storage 10No
34	Proposed Motorcycle Parking (2 No 2300 x 900mm)
35	Proposed Pedestrian Crossing - Line Markings
36	SuDS Strategy under Play Area - Scheme ye to be determined

Bev.	Revision description	Drawn	Checked	Date
P1	First Issue of Drawing for review with Planning Consultants		AKS	21-02-15
P2	Issued for ongoing discussion with Planning Consultants	AKS		21-11-09
P3	Container Club - Issued to Planning	AKS		22:11:28
P4	Drawing revised, WIP prior to full planning application.	AKS		23-05-31
P5	Issued to Landscape Architect for review.	AKS		23-08-01
P6	Issued for Full Planning Application	AKS		23-08-28

FOR REVIEW

Vice Kate Architects Ltd	Her
/a AK Architects	Cor

alice@ak-architects.co +44 (0) 7833112220

Project Golden Gate Leisure Complex Golden Gate Holiday Centre, Towyn Road, Towyn LL22 9HU

Site_Plan_Proposed

Project | Drawing number | Rev. | AKA250 | GGA-AKA-01-XX-DR-A-1200 | P6

Dr.CertzralData/AKA_AllProjects/pga-AKA-01-M3-A-0001_SteModel_allce@ak-architects.co.uk.rvt

APPENDIX B

Tide Level Calculations

CALCULATION SHEET



	ONS GOI DAY CEN		ATE		ACTIVITY HUE		ТО	Job No 200 3
RB	Date	08.22	Chkd	Element TIDE L	EVELS (2008	Base Year)		Sheet No T/L 1
DATA		•		CALCUL	ATIONS			RESULTS
1	EXTRE	EME SE	A LEVELS I	FOR ADJACEN	T NODES (200	<u>08)</u>		
	NO	DE	T25	T50	T75	T100	T200	T1000
	11	28	5.380	5.470	5.520	5.560	5.650	5.850
	11	30	5.410	5.500	5.550	5.590	5.680	5.890
2		DE DE	A LEVELS I	NTERPOLATED	D BETWEEN I	NODES T100	T200	T1000
			•					
	1 51		5.403	5.493	5.543	5.583	5.673	5.880
3	95% CE	EVEL R	5.403 0.100 ISE (mm PE	0.100	0.100	5.583 0.200	5.673 0.200	5.880
3	95% CE SEA L As curr ASS	EVEL R rent guid	0.100 ISE (mm PE dance on clir	0.100 ER YEAR) mate change from	0.100 m DEFRA (200	0.200 06):	0.200	
3	95% CE SEA L As curr ASS	EVEL R rent guic	0.100 ISE (mm PE dance on clir VERTICAL VEMENT	0.100 ER YEAR) mate change from	0.100 m DEFRA (200 2025-2055	0.200 06): 2055-2085	0.200 2085-2115	
3	95% CE SEA L As curr ASS	EVEL R rent guid	0.100 ISE (mm PE dance on clir VERTICAL VEMENT	0.100 ER YEAR) mate change from	0.100 m DEFRA (200	0.200 06):	0.200	
3	95% CE SEA L As curr ASS LA	EVEL R rent guic UMED V ND MO -0.	0.100 ISE (mm PE dance on clir VERTICAL VEMENT	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 95% CONFID	0.200 06): 2055-2085 11.5	0.200 2085-2115 14.5 D)	
	95% CE SEA L As curr ASS LA	EVEL R rent guic UMED N ND MO	0.100 ISE (mm PE dance on clir VERTICAL VEMENT	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0	0.200 06): 2055-2085 11.5	0.200 2085-2115 14.5 D)	
	95% CE SEA L As curr ASS LA	EVEL R rent guid UMED V ND MO -0.	0.100 ISE (mm PE dance on clir VERTICAL VEMENT 5	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 95% CONFID	0.200 06): 2055-2085 11.5 ENCE BOUNI	0.200 2085-2115 14.5 D)	0.300
	95% CE SEA L AS CUIT ASS LA EXTRE	EVEL R rent guid UMED V ND MO -0. EME SE (m)	0.100 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS I	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTF	0.100 m DEFRA (200 2025-2055 8.0 95% CONFID REME EVENT T75	0.200 06): 2055-2085 11.5 ENCE BOUNI SEA LEVEL (T100	0.200 2085-2115 14.5 D) mAOD) T200	0.300 T1000
	95% CE SEA L AS CUIT ASS LA EXTRE YEAR 2022	EME SE (m) (m) (m) (m) (m)	0.100 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS I T25 5.552	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTF T50 5.642	0.100 m DEFRA (200 2025-2055 8.0 95% CONFID REME EVENT T75 5.692	0.200 06): 2055-2085 11.5 ENCE BOUNI SEA LEVEL (T100 5.832	0.200 2085-2115 14.5 14.5 T200 5.922	71000 6.229
	95% CE SEA L As curre ASS LA EXTRE YEAR 2022 2047	EVEL R rent guid UMED V ND MO -0. EME SE (m) 0.049 0.236	0.100 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS I T25 5.552 5.738	0.100 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTF T50 5.642 5.828	0.100 m DEFRA (200 2025-2055 8.0 95% CONFID REME EVENT T75 5.692 5.878	0.200 06): 2055-2085 11.5 ENCE BOUNI SEA LEVEL (T100 5.832 6.018	0.200 2085-2115 14.5 14.5 T200 5.922 6.108	T1000 6.229 6.416

CALCULATION SHEET



	ONS GOLD	RE			ACTIVITY HUE ONAL OCCUP		ТО	Job No 200 3
RB	Date 08	8.22	Chkd	Element TIDE L	EVELS (2017	Base Year)		Sheet No T/L 1
DATA				CALCUL	ATIONS			RESULTS
1	EXTREM	ME SE.	A LEVELS	FOR ADJACEN	T NODES (20	<u>17)</u>		
	NOD	E	T25	T50	T75	T100	T200	T1000
	1128	3	5.210	5.290	5.340	5.370	5.460	5.670
	1130)	5.230	5.310	5.360	5.390	5.480	5.690
2	NOD		A LEVELS	T50	D BETWEEN I	NODES T100	T200	T1000
	SITE	= 1	5.225	5.305	5.355	5.385	5.475	5.685
	0112	-	5.225	5.505	5.355	5.385	5.475	0.000
3	97.5% CB ((+/-m)	0.060 ISE (mm PI	0.090	0.100	0.120	0.160	0.280
3	97.5% CB (SEA LE) As currer	VEL R nt guic	0.060 ISE (mm Pl	0.090 ER YEAR) mate change from	0.100 m DEFRA (200	0.120	0.160	
3	97.5% CB (SEA LE) As currer	VEL R nt guic	0.060 ISE (mm Plance on clire VERTICAL VEMENT	0.090 ER YEAR) mate change from 1990-2025	0.100 m DEFRA (200 2025-2055	0.120 06): 2055-2085	0.160 2085-2115	
3	97.5% CB (SEA LE) As currer	VEL R nt guic	0.060 ISE (mm Plance on clire VERTICAL VEMENT	0.090 ER YEAR) mate change from	0.100 m DEFRA (200	0.120	0.160	
3	97.5% CB (SEA LE) As current ASSUI LANI EXTREM	VEL R nt guic MED \ D MO' -0.	0.060 ISE (mm Plance on clire) VERTICAL VEMENT 5	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF	0.120 06): 2055-2085 11.5	0.160 2085-2115 14.5 ND)	
	SEA LEV AS curren ASSUI LANI EXTREM	VEL R nt guic MED V D MOV -0.	0.060 ISE (mm Pt dance on clir VERTICAL VEMENT 5	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF	0.120 06): 2055-2085 11.5 IDENCE BOU	0.160 2085-2115 14.5 ND)	0.280
	SEA LEV AS curren ASSUI LANI EXTREM	VEL R nt guic MED V D MOV -0.	0.060 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF	0.120 06): 2055-2085 11.5 IDENCE BOU	0.160 2085-2115 14.5 ND) mAOD) T200	
	SEA LEV AS CURREN ASSUI LANI EXTREM YEAR 2022 0	VEL R nt guic MED \ D MO' -0.	0.060 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS T25 5.303	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTE T50 5.413	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF REME EVENT T75 5.473	0.120 06): 2055-2085 11.5 IDENCE BOU SEA LEVEL (T100 5.523	0.160 2085-2115 14.5 ND) T200 5.653	0.280 T1000
	97.5% CB (SEA LE) As current ASSUI LANI EXTREM YEAR 2022 0 2047 0	MED NO.	0.060 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC.	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF	0.120 06): 2055-2085 11.5 IDENCE BOU	0.160 2085-2115 14.5 ND) mAOD) T200	71000 5.990
	97.5% CB (SEA LEV AS current ASSUI LANI EXTREM YEAR 2022 0 2047 0 2072 0	VEL R nt guic MED \ D MO' -0.	0.060 ISE (mm PE dance on clir VERTICAL VEMENT 5 A LEVELS 5.303 5.489	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTE T50 5.413 5.599	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF T75 5.473 5.659	0.120 06): 2055-2085 11.5 IDENCE BOU SEA LEVEL (T100 5.523 5.709	0.160 2085-2115 14.5 ND) T200 5.653 5.839	T1000 5.990 6.177
	97.5% CB (SEA LEV AS CURREN ASSUILANI EXTREM YEAR F 2022 0 2047 0 2072 0 2097 0	VEL R nt guic MED \ D MO' -0. ME SE (m) 0.018 0.204	0.060 ISE (mm Plance on clir VERTICAL VEMENT 5 A LEVELS 5.303 5.489 5.749	0.090 ER YEAR) mate change from 1990-2025 3.5 FOR SITE (INC. EXTE T50 5.413 5.599 5.859	0.100 m DEFRA (200 2025-2055 8.0 97.5% CONF T75 5.473 5.659 5.919	0.120 06): 2055-2085 11.5 IDENCE BOU SEA LEVEL (T100 5.523 5.709 5.969	0.160 2085-2115 14.5 ND) T200 5.653 5.839 6.099	T1000 5.990 6.177 6.436

APPENDIX C

Extract from 2017 JBA Report: Pages 33 & 34



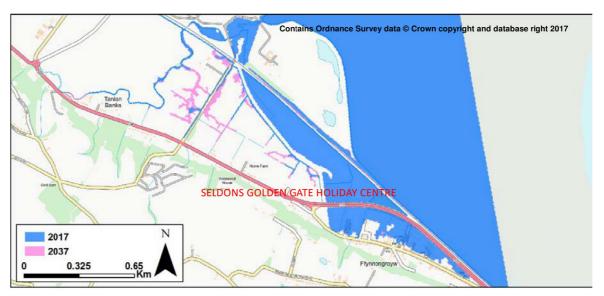


Figure 6-19: 200-year Ffynnongroyw Main Drain Tidal Gate failure climate change comparison

6.8 Breach scenarios

Ten breach locations were supplied by NRW. The breach scenarios were simulated for the 200-year event in 2017, 2092 and 2117. All breach scenarios were simulated in TUFLOW only and do not include the flood risk from water weiring over the River Clwyd Embankments. The results can be compared to the defended results shown in Figure 6-8.

As expected the breach simulations show a large increase in the flood outline compared to the defended scenarios with significant increases to flood depth, hazard and impact in all cases.

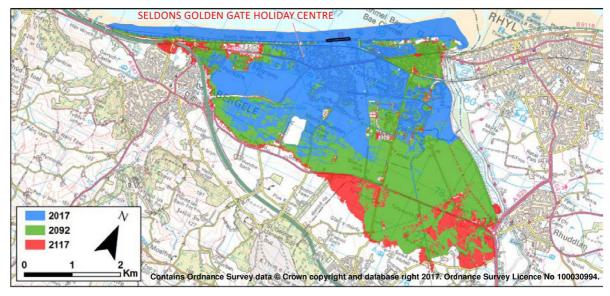


Figure 6-20: Breach 1 – the funfair Towyn (area shown in black), 200-year climate change comparison (epoch in legend)

Breach one replicates the 1990 historical event and leads to a much larger flood outline for all epochs compared to the defended scenario.



SELDONS GOLDEN GATE HOLIDAY CENTRE

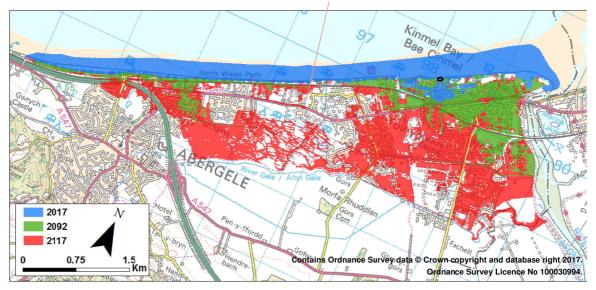


Figure 6-21: Breach 2 – Kinmel Bay (area shown in black), 200-year climate change comparison (epoch in legend)

The effect of breach two is constrained to the area around the breach: increasing the flood outline here for each epoch.

SELDONS GOLDEN GATE HOLIDAY CENTRE

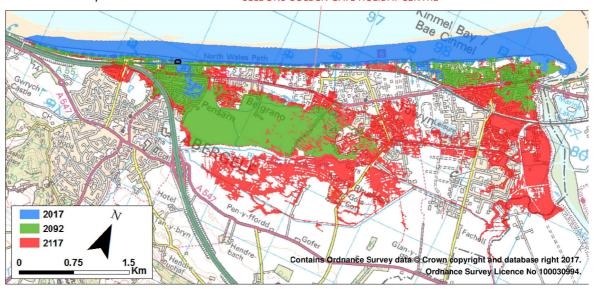


Figure 6-22: Breach 3 – Pensarn Railway Embankment (area shown in black), 200-year climate change comparison (epoch in legend)

Breach three significantly increases the flood outline particularly for later epochs, and affects areas further east due to the drainage network.

APPENDIX D

Caravan Park Flood Plan: Seldons Golden Gate Holiday Centre



Caravan Park Flood Plan

Site Name

Seldons Golden Gate Holiday Centre

Address

Towyn Road, Towyn, Abergele, LL22 9HU

Which Flood Warning Service are you registered to receive? North Wales Coast (Flood Alert)

Towyn, Belgrano and Pensarn

Clwyd Left Bank

Floodline

Quickdial number

- Phone Floodline
- Select 1 and then hold
- Enter guickdial number
- Listen to the recorded message

0345 988 1188

North Wales Coast: 501036

Towyn, Belgrano and Pensarn: 601006

Clwyd Left Bank: 192211

Local flood warning trigger (if applicable)

Flood Warning / Severe Flood Warning

Evacuation Assembly Point

Clubhouse

Person(s) responsible for the plan Customer Reference Number Number of caravans on site Flood Plan Completion Date Jonathan Seldon 22270300 505 Static Caravans January 2012

- Contents

Section Number	Section Name	Page Number
-	Front Page	1
-	Contents Page	2
1	Amendment Record	2
2	Staff Contact List	3
3	Useful Telephone Numbers	4
4	Map showing the Towyn, Belgrano and Pensarn Flood Warning Area	5
5	Map showing the Clwyd Left Bank Flood Warning Area	6
6	Seldons Golden Gate Holiday Centre Site Plan	7
7	Flood Alert – Definition and Actions	8
8	Flood Warning – Definition and Actions	9
9	Locations at risk and flood actions	10
10	What YOU will need to do if evacuation is required	11-12
11	Key locations and protective actions	13
12	Severe Flood Warning – Definition and Actions	14
13	Remove Warning – Definition and Actions	15
14	Recovery and clean up	16

1. Amendment Record

Amendment Date	Amendment Details	Version Number	Date of next amendment (if applicable)
01/2012	Flood Plan Completed	1.0	01/2013
02/2013	Flood Plan Updated	2.0	02/2014
03/2014	Flood Plan Updated	3.0	03/2015
03/2015	Flood Plan Updated	4.0	03/2016
04/2017	Flood Plan Updated	5.0	07/2018
02/2018	Flood Plan Updated	6.0	02/2019
03/2019	Flood Plan Updated	7.0	03/2020
04/2020	Flood Plan Updated	8.0	04/2021

2. Staff Contact List

Name and Position	Address	Telephone	Mobile	Email
Jonathan Seldon <i>General Manager</i>		01745 833 048 (Office) 01492 545 624 (Home)	07919 523 352	enquiries@seldonesgoldengate.co.uk jonathan@northwalescaravans.co.uk
Oliver Seldon Sales Manager		N/A	07919 523 335	N/A
Jake jones Maintenance Department		N/A	07808217822	N/A
Mike Terlecky Maintenance Department	Caldona Caldon Cata	N/A	07771 622 715	N/A
Ben kelbrick Sales Department	Seldons Golden Gate Holiday Centre, Towyn Road,	N/A	07957268173	N/A
Alice Seldon	Towyn, Abergele, LL22 9HU	N/A	07833 112 220	N/A
Ronald Seldon Managing Director	LLZZ SITO	N/A	07824 364 327	N/A
Geraint Barnes-Hughes Maintenance Team			N/A	N/A
Sue Roberts		01745 583 048	N/A	N/A
			N/A	N/A

Contact details in **bold** have been registered to receive the North Wales Coast Flood Alert, as well as the Towyn, Belgrano and Pensarn and the Clwyd Left Bank Flood Warning Services from the Flood Warning System.

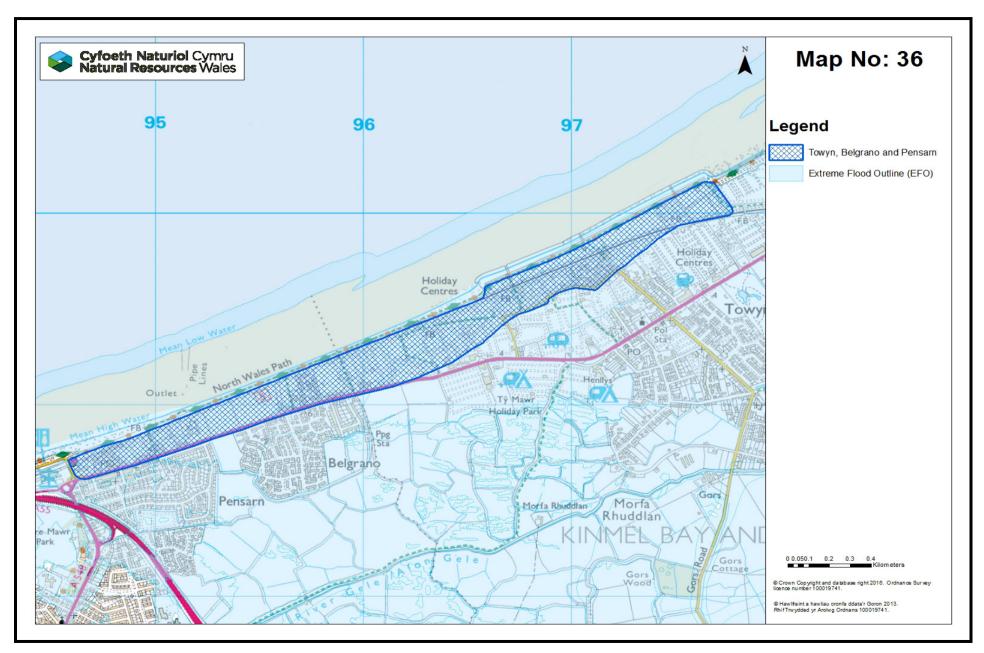
If there are any changes to the registered contact details, you **must** contact Floodline on 0345 988 1188 or the Bangor office on 0300 065 4431 in order to amend these details.

A full Staff Contact List is held by the General Manager.

3. Useful Telephone Numbers

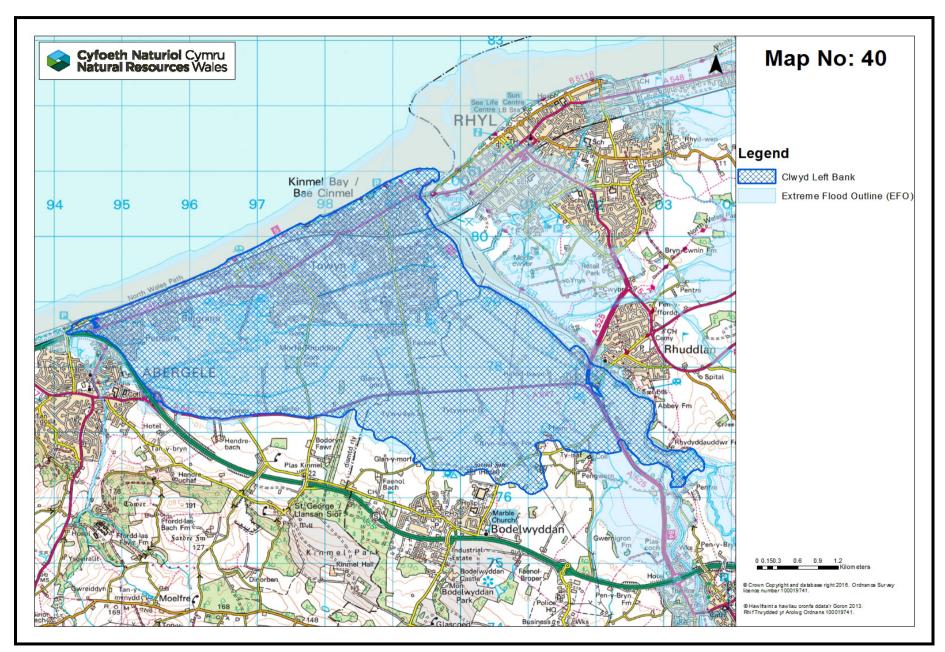
Organisation	Reason for calling	Contact number	Availability
Natural Resources Wales:			
Floodline	 Register to receive the Flood Warning Service Receive advice on flood risk in your area Up to date information following the issue of Flood Warnings 	0345 988 1188	24/7
Report it	Report environmental incidents, which includes blocked main watercourses or other blockages that might pose a risk of flooding, and collapsed or badly damaged river or canal banks	0300 065 3000	24/7
Conwy County Borough Council:			
Switchboard	General enquiries and flooding issues	01492 574 000	Office Hours
Emergency Flood Line	For flooding issues	01492 577 999	24/7
Emergency Services:			
North Wales Police North Wales Fire and Rescue Service	Emergency	999	24/7
Wales Ambulance Service			_ ,, .
Dŵr Cymru / Welsh Water:			
Report	 Report a leak Report a wastewater problem Report sewer pollution Report an odour 	0800 052 0130	24/7
SP Energy Networks (Electrical Emerger	ncies):		
National Freephone Number	Report an electrical emergency or power outage	105	24/7
Wales & West Utilities (Gas Emergencies	s):		
National Gas Emergency Service	Report if you smell gas, think you have a gas leak, or are worried that fumes containing Carbon Monoxide are escaping from a gas appliance	0800 111 999	24/7
Additional Contact Details:			
Plumber: Jimmy / Stuart / Keith (in house)		01745 833 048	
Electrician: Mark Williams		07734 591 675	
Insurance Company: Abergele Insurance Policy Number: 609/BHH/A/9ENL/11		01745 825 441	

4. Map showing the Towyn, Belgrano and Pensarn



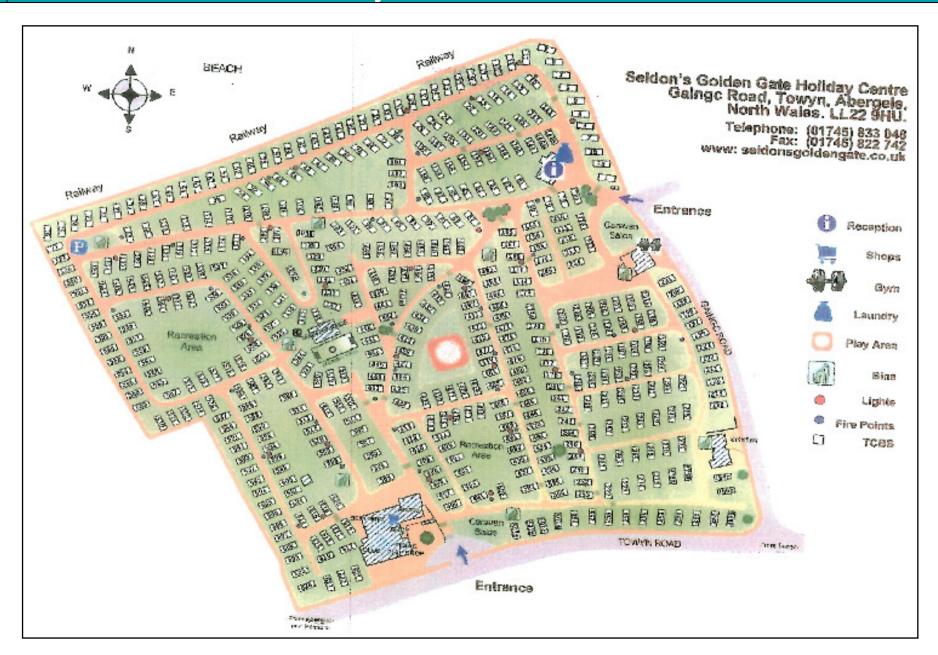
PAGE 5

5. Map showing the Clwyd Left Bank Flood Warning Area



PAGE 6

6. Seldons Golden Gate Holiday Centre Site Plan



PAGE 7

7. Flood Alert – Definition and Actions

Level of warning	Definition	Action	Notes
Flood Alert	Flooding is possible. Be prepared. Low lying land and roads will be affected first. Be prepared to protect yourself, family, pets and property. Farmers should consider moving livestock and equipment away from areas likely to flood. Ring Floodline for up to date flooding information.	Call Floodline on 0345 988 1188 and key in quickdial number 501036 for the times of high tides. Alternatively, look on the Natural Resources Wales website www.naturalresources.wales the times of high tides. Remain vigilant of local conditions.	There should be no need to activate the flood plan on this level of warning unless conditions are forecasted to deteriorate.

8. Flood Warning – Definition and Actions

Level of warning	Definition	Action	Notes
Flood Warning	Flooding is expected. Immediate Action Required. Take action now to prevent water getting into your home, move family pets and valuables to a safe place. If caught in a flash flood, get to high ground. Stay away from flood water and don't take risks. Ring Floodline for up to date flooding information.	Call Floodline on 0345 988 1188 and key in quickdial number Towyn, Belgrano and Pensarn (601006) or Clwyd Left Bank (192211) for the times of high tides. Alternatively, look on the Natural Resources Wales website www.naturalresources.wales for the times of high tides. Consider activating the flood plan. If you have decided to activate the flood plan, perform evacuation procedures as shown in Section 10 (Pages 11 and 12) and protective actions as shown in Section 11 (Page 13) as long as it is safe to do so.	Be prepared to evacuate the site as quickly and as safely as possible before the time of high tide. Report any incidents of flooding to Natural Resources Wales and Conwy County Borough Council.

9. Locations at risk and flood actions

Priority	Assets on Site	Action by staff members	Equipment Required	Time Required
1	Static Caravans No. 1 - 100			1 hour
2	Static Caravans No. 101 – 200			1 hour
3	Static Caravans No. 201 – 400	Staff members to inform visitors to make their way to the Evacuation Assembly Point at the Clubhouse.	N/A	1 hour
4	Static Caravans No. 401 – 500			1 hour
5	Static Caravans No. 501 – 625			1 hour

10. What YOU will need to do if evacuation is required

Any decision to evacuate the area will be made by North Wales Police and other organisations. These organisations will need to risk assess the probable flooding impact and decide which areas / properties / caravan parks require to be evacuated. If evacuation takes place then properties / caravan parks etc. will be evacuated to their appropriate allocated areas. More details can be found by contacting Conwy County Borough Council.

Actions	Notes
When the North Wales Coast Flood Alert is issued, phone Floodline and / or visit the Natural Resources Wales website for further information.	Remain vigilant of local conditions.
When the Towyn, Belgrano and Pendarn or Clwyd Left Bank Flood Warning is issued, phone Floodline and / or visit the Natural Resources Wales website for the times of high tides.	If you decide to activate the flood plan, (and depending on the time of high tide), arrange for evacuation procedures / protective actions to be performed. Allocate tasks for staff members to perform.
Consider activating the flood plan.	At no time should staff carry out any task that may put their life at risk.
Evacuate the site in order of priority. Staff members to inform visitors to make their way to the Evacuation Assembly Point at the Clubhouse.	There will be a need to evacuate a maximum of 625 Static Caravans. Evacuate areas at greatest risk first. Ensure a list of residents / visitors is taken to the Evacuation Assembly Point. Ensure that a First Aid Kit is taken to the Evacuation Assembly Point.
Receive confirmation from staff members that the whole site has been evacuated and that all protective actions have been performed (as long as it is safe to do so).	Perform a roll call of everyone present at the Evacuation Assembly Point to ensure that no one is missing. If anyone is missing, inform the emergency services immediately.
If it is safe to do so, inform visitors to make their way out of the flood risk area by their own means.	Keep a list of all visitors that have decided to leave the site.

10. What YOU will need to do if evacuation is required (continued)

Contact Conwy County Borough Council to see if a rest centre has been set up.	If a rest centre is available, inform residents to make their way to the rest centre. If they are unable to make their way to a rest centre, move residents to a safe area and contact the emergency services for assistance.
If the Towyn, Belgrano and Pensarn or Clwyd Left Bank Severe Flood Warning has been issued / conditions have deteriorated before visitors have evacuated from the flood risk area, contact the emergency services immediately to request assistance.	Ensure that visitors are located in a safe area and wait for the emergency services.
If the Towyn, Belgrano and Pensarn or Clwyd Left Bank Remove Warning is issued / floodwater has receded, make sure that the site is safe prior to entering and beginning recovery actions.	Take photographic / video evidence of all damage prior to contacting your insurance company.

11. Key locations and protective actions

Source or Item	Location	Action Required	
Gas Shutoff	- Main Gas Point next to Plot 66 - Reserve Gas Tank next to Plot 464	Switch off at mains	
Electricity Shutoff	Main substation situated in field by Plot 616	Switch off for whole of site	
Water Shutoff	On main road outside caravan park (Towyn Road)	Lift manhole cover and switch off	
First Aid Kit(s)	- Maintenance Building - Reception	Staff members to keep hold of at all times	
Chemical (Cleaning Products)	Maintenance Building	Keep all chemical high on maisonette floor	
Gas Cylinders	Calor gas bottles located on each caravan	Attempt to switch off / inform visitors to switch off gas tanks and secure	
Office Equipment	- Computer at Reception - Files at Reception	Move to upstairs meeting room	
Recycling Bins	Located around site	Secure bins	
Emergency Generator	Maintenance Building	Switch off and secure until needed	
Sandbags	Maintenance Building	Create flood barriers to protect site buildings	
Metal sheeting / plywood board	Maintenance Building	Create flood barriers to protect site buildings	

12. Severe Flood Warning – Definition and Actions

Level of warning Definition Action No.	otes
Severe Flood Warning Severe Flooding. Danger to Life. Continue to call Floodline or look on Natural Resources Wales' website for the times of high tides. Engure everyteen has everyteed off	lents of flooding to ses Wales and

13. Remove Warning – Definition and Actions

Level of warning	Definition	Action	Notes
Remove Warning	No further flooding is currently expected for your area. Flood Warnings and Alerts may still be in force for surrounding areas. Flood water may still be around for several days.	Check the times of the next high tides in case conditions are forecasted to deteriorate again. Ensure floodwater has receded and that the site is safe prior to entering and beginning recovery actions.	Take photographic / video evidence of any damage prior to contacting your insurance company. Report any incidents of flooding to Natural Resources Wales and Conwy County Borough Council.

14. Recovery and clean up

Action	Trigger	Notes
Verify the weather forecast. Check the time of the next high tide in case conditions are forecasted to deteriorate.		
Contact Natural Resources Wales and Conwy County Borough Council to report that you were affected by flooding.	Remove warning message received from Natural Resources Wales.	
Contact staff members / volunteers available to assist in the recovery.		Do not enter flooded area until water has receded and the area is deemed to be safe.
Take photographic / video evidence of flood damage for insurance purposes. List damage caused to property and belongings.	Once flood water has receded and it is safe to enter the site / area.	
Contact your insurance company.	Once photographic / video evidence has been taken of all flood damage.	



