



CYNGOR SIR  
YNYS MÔN  
ISLE OF ANGLESEY  
COUNTY COUNCIL

## Assessment of Horizon's proposals for on-site leisure facilities

 ioacc

 @angleseycouncil

Final Report

[www.ynysmon.gov.uk](http://www.ynysmon.gov.uk)  
[www.anglesey.gov.uk](http://www.anglesey.gov.uk)



**CYNGOR SIR  
YNYSS MÔN  
ISLE OF ANGLESEY  
COUNTY COUNCIL**

**AECOM**

Rev	Date	Details	Prepared by	Checked by	Approved by
1	18th July 2017	Interim Draft	Simon Long and Gareth Brown	Gareth Brown / Bob Perkins	Bob Perkins
2	3 <sup>rd</sup> November 2017	Draft Final	Simon Long and Gareth Brown	Gareth Brown / Bob Perkins	Bob Perkins
3	3 <sup>rd</sup> November 2017	Final Report	Simon Long and Gareth Brown	Gareth Brown / Bob Perkins	Bob Perkins

The Report and the information within it is confidential and may be privileged. If you have received the Report in error please notify AECOM immediately. You should not copy it for any purpose, or disclose its contents to any other person. The Report is qualified in its entirety by and should be considered in the light of AECOM's Terms of Engagement and the following:

1. AECOM has used its reasonable endeavours to ensure that the data contained in the Report reflects the most accurate and timely information available to it and is based on information that was current as of the date of the Report.
2. The Report is based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry and consultations with you, your employees and your representatives. No warranty or representation is made by AECOM that any of the projected values or results contained in the Report will actually be achieved.
3. Any Reports issued or conclusions reached by AECOM may be based upon information provided by and on your behalf. We assume no responsibility and make no representations with respect to the accuracy or completeness of such information provided by you. No responsibility is assumed for inaccuracies in reporting by you, your employees or your representatives or for inaccuracies in any other data source whether provided in writing or orally used in preparing or presenting the Report.
4. In no event, regardless of whether AECOM's consent has been provided, shall AECOM assume any liability or responsibility to any third party to whom the Report is disclosed or otherwise made available.
5. Without the prior written consent of AECOM, the Report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it might be relied upon to any degree.
6. All intellectual property rights (including, but not limited to copyright, database rights and trademarks rights) in the Report including any forecasts, drawings, spreadsheets, plans or other materials provided are the property of AECOM. You may use and copy such materials for your own internal use. The Report is provided solely for your use and benefit unless expressly permitted and then only in connection with the purpose in respect of which the Report is provided. Unless required by law, you shall not provide the Report to any third party without AECOM's prior written consent, which AECOM may at its discretion grant, withhold or grant subject to conditions. Possession of the Report does not carry with it the right to commercially reproduce, publish, sale, hire, lend, redistribute, abstract, excerpt or summarise the Report or to use the name of AECOM in any manner without first obtaining the prior written consent of AECOM.

AECOM's copyright notice and disclaimer must in all cases remain intact.

## Contents

1.	INTRODUCTION .....	4
1.1	Background to the study .....	5
1.11	Accommodating the temporary construction workforce.....	5
1.12	Proposals for on-site leisure facilities.....	5
1.13	Amlwch Leisure Centre.....	6
1.14	Holyhead Leisure Centre .....	6
1.15	Summary .....	7
2.	SCENARIOS .....	8
2.11	Scenario 1 – On-site leisure facilities provided by Horizon meet the needs of the construction workforce.....	8
2.12	Scenario 2 – On-site leisure facilities provided by Horizon do not meet space requirements of the temporary construction workforce .....	11
2.13	Scenario 3 – A capital contribution to ensure quality leisure facilities are provided that consider the capacity of existing provision .....	13
2.14	Scenario 4 – Leisure provision to meet the needs of temporary workers and the resident population.....	17
2.15	Scenario 5 – A revenue contribution to swimming facilities.....	18
2.16	Scenario 6 – A 60-year commitment to leisure facilities for the operational workforce .....	20
	Appendix 1 – Assumptions.....	22

### 1. INTRODUCTION

AECOM was commissioned by Isle of Anglesey County Council (IACC) to undertake an assessment of Horizon's proposals for providing leisure facilities as part of the construction phase of Wylfa Newydd. The study sought to understand the potential impact of these proposals on IACC's leisure facilities and the financial contribution they should seek from the developer in order to mitigate any potential impact. The Instruction for Work identified the following aims:

- Undertake a baseline assessment of existing capacity at Amlwch Leisure Centre;
- Assess the proposals for on-site leisure provision associated with the Temporary Workers Accommodation (TWA) to assess whether it is sufficient to meet the needs of 4,000 workers;
- Identify and assess scenarios for future leisure centre demand as a result of Wylfa Newydd, both during construction and operation;
- From this detailed assessment and using evidence from elsewhere, establish what provision or financial contribution is required to mitigate against any potential adverse impacts on Amlwch Leisure Centre (for each identified scenario) as a result of Wylfa Newydd; and
- Consider the future leisure implications associated with the potential relocation of local schools to a site adjacent to Amlwch Leisure Centre.

The scope of the study was subsequently expanded to assess the impact of the temporary construction workers expected to reside in North Anglesey and West Anglesey on IACC managed leisure facilities in Amlwch and Holyhead.

This report presents a number of scenarios outlining the potential financial contribution that could be sought from Horizon to mitigate the impact of Wylfa Newydd's temporary construction workforce on leisure facilities in Anglesey. The report assesses the following 6 scenarios:

- Scenario 1 – On-site leisure facilities provided by Horizon meet the needs of the construction workforce;
- Scenario 2 – On-site leisure facilities provided by Horizon do not meet space requirements of the temporary construction workforce;
- Scenario 3 – A capital contribution to ensure quality leisure facilities are provided that consider the capacity of existing provision;
- Scenario 4 – A leisure provision to meet the needs of temporary workers and the resident population;
- Scenario 5 – A revenue contribution to swimming facilities; and
- Scenario 6 – A 60 year commitment to leisure facilities for the operational workforce.

## 1.1 Background to the study

The following information provides the context to this study:

### 1.11 Accommodating the temporary construction workforce

Horizon's proposals for accommodating the temporary construction workforce are outlined in the Pre-Application Consultation (PAC) documentation<sup>1</sup>. The following details are provided:

- There will be an estimated 4,000 workers housed at an on-site campus, located next to the Wylfa Newydd development. Workers will be housed in approximately 25 modular buildings, with each providing between 125 and 225 bed spaces. These will be constructed on a phased basis to reflect the project's demand for construction workers. Construction of the Site Campus is anticipated to begin in 2020 and be operational by the end of 2020 / start of 2021 until 2027. The following phasing is currently proposed:
  - Phase 1 provides 1,000 bed spaces, in line with the Site Campus being in operation from 2021;
  - Phase 2 provides 1,500 bed spaces (anticipated between 2021 and 2023);
  - Phase 3 provides 1,500, bringing the total to 4,000 bed spaces. This is expected to coincide with the peak occupation level from 2023 to 2024.
- The Site Campus is a temporary development that will be decommissioned and removed once the construction phase of Wylfa Newydd is complete.
- Non-home based workers are also going to be located off-site. An estimated 3,000 additional off-site workers will be located in Anglesey and the Menai Mainland<sup>2</sup>. A total of 1,200 workers, partners and dependants will be accommodated In Anglesey North. There will be 1,040 workers, partners and their dependants in Anglesey West.

### 1.12 Proposals for on-site leisure facilities

Horizon's proposals for leisure facilities are outlined in the Pre-Application Consultation (PAC) documentation<sup>3</sup>. The following detail is provided:

- The central hub of the Site Campus will form an amenity and welfare building. The current proposal for the Centre includes a cafeteria, reception area, gym, bar and other social space. It is unclear what Horizon mean by 'gym' but it could be interpreted in the two following ways:
  - A gymnasium – e.g. a sport hall that could be used for activities such as badminton, volleyball and five-a-side football; or
  - A gym – e.g. a fitness facility with weights and cardiovascular stations. Both scenarios have been considered in this report.
- The amenity and welfare building will be constructed in three phases, in line with the number of construction workers on site for the Wylfa Newydd project. The three phases of development are summarised in Table 1 below.

<sup>1</sup> Source: Horizon (2017) Wylfa Newydd Project Pre-Application Consultation Stage 3.

<sup>2</sup> Source: Jacobs (2017) Home Based and Non-Home Based Worker Travel Gravity Models

<sup>3</sup> Source: Horizon (2017) Wylfa Newydd Project Pre-Application Consultation Stage 3

**Table 1: Amount of amenity space used for sports hall**

	Anticipated Timing	Dimensions	Total floorspace
Phase 1	2020 / 2021	45m x 45m x 9m	2,025m <sup>2</sup>
Phase 2	2021 to 2023	45m x 90m x 9m	4,050m <sup>2</sup>
Phase 3	2023 / 2024	60m x 90m x 9m	5,400 m <sup>2</sup>

Source: Dimensions from Table 5-5, PAC3 Main Consultation Document (Horizon, 2017). Anticipated timescales are also based on the information provided within the PAC3 documentation.

- PAC3 only provides the dimensions of the amenity and welfare building in total. The exact size and size of indoor leisure facilities within the amenity centre are therefore unclear.
- Horizon also proposes to provide two Multi-Use Games Areas (MUGA). Each of these areas will be 20m x 40m in size, providing a total of 1,600m<sup>2</sup> of outdoor activity space. The MUGA will be complemented with outdoor seating and informal amenity spaces.
- The PAC documents issued by Horizon do not reference plans to install a swimming pool alongside the on-site temporary construction worker accommodation.
- The Draft DCO documents issued by Horizon to IACC do not provide any further detail on the sizes or specific uses proposed at the onsite leisure facilities.

#### 1.13 Amlwch Leisure Centre

Amlwch Leisure Centre is owned and operated by IACC. The Leisure Centre includes a four-lane, 25m swimming pool with changing facilities. The centre's fitness offer includes a room for cardiovascular exercise with treadmills, static bikes, rowing machines and cross-trainers. Two squash courts have been refurbished as a multi-purpose room and a 56 piece free weights room. Amlwch Leisure Centre also includes a four court sports hall suitable for basketball, volleyball and 5-a-side football. Outside, there is a 3G 5-a-side football pitch and a multi-use tarmac court which can be used for tennis or netball. Both of the outside courts are floodlit. The centre is served by a 22 space car park at the front of the building and four additional disabled parking spaces.

Amlwch Leisure Centre had 116,431 participants in the year to March 2017. The centre has latent demand for health and fitness of 1,077 members<sup>4</sup>, the estimated number of members the centre could achieve based on the catchment. However the actual number of members is greater than this latent demand, at 1,306 members.

A headcount analysis was conducted at Amlwch Leisure Centre between the months of January to May 2017 to understand usage of facilities. Overall, facilities were used 32,814 times over the five month period. The pool was identified as the most used facility for the time period with 13,034 uses. This was followed by the fitness room with 10,302 uses and the sports hall with 7,828 uses. The multi-use games area had 576 uses and the multi-purpose training room was used.

#### 1.14 Holyhead Leisure Centre

Holyhead Leisure Centre is the largest leisure centre run by Isle of Anglesey County Council, with 143,384 participants in the year to March 2017. The centre features a café, fitness suite, multi-purpose room, sports hall and two squash courts. The Centre has a five-lane, 25m swimming pool and adjacent training pool. The latent demand for health and fitness at Holyhead Leisure Centre is 1,863 people<sup>5</sup>, the anticipated number of members the centre can achieve. However, latent demand is exceeded by the number of members at the centre – 2,385 members, the largest number of members at any of IACC's centres. The recorded number of participants using Holyhead leisure centre during the 2016/17 stood at 143,384 – 107.7% of the forecast participation numbers and a 4.2% increase on participation numbers from 2015/16.

<sup>4</sup> Leisure DB (2016) Isle of Anglesey Leisure Centres – Assessment of Latent Demand for Fitness

<sup>5</sup> Leisure DB (2016) Isle of Anglesey Leisure Centres – Assessment of Latent Demand for Fitness

### 1.15

### Summary

Horizon is proposing to locate up to 4,000 temporary construction workers at the on-site Campus with additional 1,200 workers, partners and dependents residing offsite in North Anglesey<sup>6</sup> (1,200 people) and West Anglesey<sup>7</sup> (1,040 people). Horizon's current proposals include the development of an amenity and welfare building that will provide a number of uses including indoor gym facilities. The exact leisure facilities to be provided are unknown at this point in time meaning there is uncertainty regarding Horizon's proposals for leisure facilities in terms of whether the facilities provided will be sufficient for the size of the workforce. This document uses the available information to establish the impact of the construction workforce on the local leisure.

---

<sup>6</sup> North Anglesey is comprised of the following wards: Llanfaethlu, Llannerch-y-medd, Mechell, Llanbadrig, Amlwch, Amlwch Port, Lanelian, and Moelfre.

<sup>7</sup> West Anglesey is comprised of the following wards: Parc a'r Mynydd, Porthyfelin, Maeshyfryd, Holyhead Town, Morawelon, London Road, Kingsland, Trearddur, Valley, Llanfair-yn-Neubwll, Rhosneigr, Aberffraw, Bodffordd, and Bryngwran.

## 2. SCENARIOS

This section of the report outlines the scenarios that have been developed as part of this study. The scenarios seek to understand if a financial contribution towards IACC managed leisure facilities can be justified from Horizon. The scenarios have been developed based on:

- Horizon's workforce assumptions as outlined in the Pre-application consultation documents;
- Information provided by IACC regarding the facilities and usage of IACC's leisure provision; and
- Industry benchmarks outlining participation rates in sport as well as benchmarks for the size and cost leisure facilities.

### 2.11 Scenario 1 – On-site leisure facilities provided by Horizon meet the needs of the construction workforce

Scenario 1 is based on Horizon's proposal for on-site leisure facilities fully meet the needs of the construction workforce residing both on-site and within North and West Anglesey. This includes the partners and dependents expected to join them<sup>8</sup>. This would mean that no direct financial contribution is required.

#### Indoor sports hall

As discussed above, the exact size of the indoor leisure facilities provided by Horizon is currently unclear given the number of potential uses identified for the Amenity Centre. The potential scale of indoor leisure facilities is presented in Table 2: Amount of amenity space used for sports hall, based on a range of scenarios for the size of the leisure facility:

**Table 2: Amount of amenity space used for sports hall**

% Amenity Space	100% of amenity space is sport hall	75% of amenity space is sport hall	50% of amenity space is sport hall	25% of amenity space is sport hall	5% of amenity space is sport hall	No sports hall, or gym is provided
m <sup>2</sup> space used for sports hall	5,400	4,050	2,700	1,350	270	0

Source: Figures are based on the amenity centre dimensions set out in Table 1. 5,400sqm is the floorspace provided by Horizon in the PAC3 Main Consultation Document (Horizon, 2017).

The extent to which these scenarios provide a surplus or shortfall of indoor leisure facilities is presented in Table 3 below.

<sup>8</sup> Partners and dependents are estimated in the Socio-economic assumption log – version 3 (Horizon). Additional information is available in Appendix 1.

**Table 3: Surplus / deficit of sports hall court space based on amenity centre (m<sup>2</sup>)**

	100% of amenity space is sport hall	75% of amenity space is sport hall	50% of amenity space is sport hall	25% of amenity space is sport hall	5% of amenity space is sport hall	No sports hall, or just gym provided
On site workers	+4,891	+3,541	+2,191	+841	-239	-509
Off site (North & West Anglesey Total)	+5,117	+3,767	+2,417	+1,067	-13	-283
- <i>North Anglesey only</i>	+5,247	+3,897	+2,547	+1,197	+117	-153
- <i>West Anglesey only</i>	+5,270	+3,920	+2,570	+1,220	+140	-130
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>+4,608</b>	<b>+3,258</b>	<b>+1,908</b>	<b>+558</b>	<b>-522</b>	<b>-792</b>

Source: AECOM assumptions based on dimensions of the amenity centre stated in the PAC3 Main Consultation Document (Horizon, 2017). Rounding used.

When considering all onsite workers and those off-site in North and West Anglesey, up to a maximum of 792 m<sup>2</sup> of additional sports hall space is required whereas 509 m<sup>2</sup> is required to accommodate the onsite workers only.

Table 3 shows how the potential sports hall space (ranging from using 100% of the amenity centre to 0% of the amenity centre) will satisfy the needs of construction workers. It shows that sports hall space accounting for over 25% of the Amenity Centre will be sufficient to meet the needs of the construction workforce (including the partners and dependants of non-home based off-site workers). Therefore, a contribution to leisure facilities is likely to be required if only a small proportion of the amenity centre is allocated as a sports hall.

## Swimming pool

Horizon's proposals for on-site leisure facilities do not include the provision of a swimming pool. This means there will be a deficit of swimming pool facilities for workers residing both on and off site. This includes the partners and dependents of non-home based off-site workers. The scale of deficit is outline below in Table 4 which shows, in total, a deficit of 71m<sup>2</sup> of swimming pool space for workers located in both North and West Anglesey. The lack of swimming facilities will place increased demand and pressure onto IACC-owned swimming facilities at both Amlwch and Holyhead.

**Table 4: Deficit of swimming pool space based on amenity centre (m<sup>2</sup>)**

	Deficit of swimming pool facilities (m <sup>2</sup> )
On site workers only	-45
Off site (Total)	-26
- <i>North Anglesey only</i>	-14
- <i>West Anglesey only</i>	-12
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>-71</b>

Source: AECOM assumptions based on information with Horizon PAC documentation (2017)

## Outdoor sports facilities

Horizon's Amenity Centre proposals include the provision of two Multi-Use Games Areas (MUGA), totalling 1,600m<sup>2</sup> of floorspace.

**Table 5: Surplus of Multi-Use Games Area space (m<sup>2</sup>)**

	Surplus of Multi-Use Games Area space (m <sup>2</sup> )
On site workers only	487
Off site (Total)	932
- <i>North Anglesey only</i>	1,229
- <i>West Anglesey only</i>	1,303
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>-181</b>

Source: AECOM assumptions based on information with Horizon PAC documentation (2017)

- The size of the proposed facilities means there is expected to be a deficit of outdoor sports facilities when all the on-site workers, and offsite workers are taken into account. This means that some mitigation could be justified.
- At this stage, the quality of the MUGA Horizon intends to provide is unclear based on the information provided in the PAC 3 documentation. If the facility provided by Horizon is not of suitable quality, further mitigation can be justified, as presented in Scenario 3.

**2.12 Scenario 2 – On-site leisure facilities provided by Horizon do not meet space requirements of the temporary construction workforce**

Scenario 2 is based on Horizon providing a financial contribution to mitigate the shortfall in space identified in Scenario 1. This scenario assumes that the facilities outlined in the Pre Application Consultation (PAC) documents will be available for use when the on-site temporary construction workforce first arrives in Anglesey. If this is not the case then a contribution towards existing facilities should be sought to account for any temporary shortfall in facilities.

**Indoor sports hall**

This scenario assumes there is no sports hall provision at the Amenity Centre and instead, that a gym (fitness suit) is provided for the temporary construction workforce. In this case, the full amount of indoor sports hall space would need to be mitigated.

**Table 6: Estimated contribution for the shortfall in indoor sports halls**

	Deficit of indoor sports hall space (m <sup>2</sup> )	Benchmark Cost (£ per m <sup>2</sup> of 4 court sports hall)	Cost to mitigate deficit
On site workers only	-509	£1,446	£736,014
Off site (Total)	-283	£1,446	£409,218
- North Anglesey only	-153	£1,446	£221,238
- West Anglesey only	-130	£1,446	£187,980
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>-792</b>	<b>£1,446</b>	<b>£1,145,232</b>

Source: Sport Facility Calculator and AECOM assumptions based on information with Horizon PAC documentation (2017) – (subject to rounding errors)

**Swimming pool**

Horizon does not intend to provide a swimming pool as part of the on-site Campus, meaning mitigation is required. The deficit in swimming pool size is shown in Table 7.

**Table 7: Estimated contribution for the shortfall in swimming pool provision**

	Deficit of swimming pool facilities (m <sup>2</sup> )	Cost to mitigate deficit (Sport Facility Calculator)
On site workers	-45	£784,772
Off site (Total)	-26	£448,347
- North Anglesey only	-14	£240,186
- West Anglesey only	-12	£208,161
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>-71</b>	<b>£1,233,119</b>

Source: Sport Facility Calculator & AECOM assumptions based on information within Horizon PAC 3 documentation (2017)

## Outdoor sports facilities

A financial contribution to mitigate Horizon's proposed outdoor sports facilities can be justified on the basis of the space provided by Horizon's Multi Use Games Area. There is a small deficit of outdoor sports space provided when on-site workers and off-site workers are taken into account. As discussed in Scenario 3, there is the further possibility of mitigation if the quality of pitch provided is not the required quality level.

**Table 8: Estimated contribution for the shortfall in outdoor sports provision**

	Deficit of outdoor sports facilities (m <sup>2</sup> )	Cost to mitigate deficit (Sport England facility cost <sup>9</sup> )
On site workers only	487	£0
Off site (Total)	932	£0
- North Anglesey only	1,229	£0
- West Anglesey only	1,303	£0
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>-181</b>	<b>£33,561</b>

Source: Sport England facility cost, second quarter 2017 & AECOM assumptions based on information within Horizon PAC 3 documentation (2017)

## Summary of Scenario 2

Table 9 below provides a summary of the financial contribution required to mitigate the impact of Scenario 2.

**Table 9: Summary of financial contribution required to mitigate Scenario 2**

	Indoor sports halls	Swimming pools	Outdoor sports facilities	Total
On site workers only	£736,014	£784,772	£0	£1,520,786
Off site (Total)	£409,218	£448,347	£0	£857,565
- North Anglesey only	£221,238	£240,186	£0	£461,424
- West Anglesey only	£187,980	£208,161	£0	£396,141
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>£1,145,232</b>	<b>£1,233,119</b>	<b>£33,561</b>	<b>£2,411,912</b>

Source: AECOM assumptions based on information with Horizon PAC documentation (2017)

<sup>9</sup> Using a cost of £185.42 per square metre, as per Sport England facility cost second quarter 2017

**2.13 Scenario 3 – A capital contribution to ensure quality leisure facilities are provided that consider the capacity of existing provision**

**Multi-use games area**

Horizon's proposals for on-site leisure facilities include the provision of two multi-use games areas (MUGA), each of which are 20m x 40m in size. This provides two games area of 800m<sup>2</sup> in size, providing 1,600 m<sup>2</sup> of space in total.

The multi-use games areas are adequate in size to meet the population of on-site and off-site workers, based on estimates provided by the Sport England Calculator. However, it is unclear as to whether to facilities will meet the needs of the workers in terms of:

- **The quality of the facilities provided** – Information is not currently provided by Horizon that indicates the quality of surface and facilities provided at the MUGA. A number of playing surfaces are available for outdoor games areas which vary in quality, price and versatility. These include:
  - **Macadam** – Such surfaces are typically used for ball rebound sports where tennis is the priority and sports such as mini-tennis, netball, and basketball are secondary users<sup>10</sup>. Macadam surfaces can also be used for small sided games of football.
  - **Sand (either sand filled or sand dressed) or water based artificial grass** – Both of which are best suited to hockey<sup>11</sup> but are also suitable football. However, in recent years there has been a shift in priority and booking preference towards higher quality 3G surfaces for football uses. Water based artificial grass pitches are also suitable for football if irrigated.
  - **3G surfaces (rubber crumb surfaces)** – Available in short pile (40mm), long pile (55-60mm) and long pile with a shock pad (65mm with shock pad), all of which are most suitable surfaces for football. 65mm surfaces with shock pads are most suitable for rugby whilst short pile pitches are most suitable for hockey. Both the Welsh and English FA support the shift towards higher quality 3G surfaces with the English FA<sup>12</sup> now considering it to be the only suitable surface for 'mini soccer' (5-a-side and 7-a-side). Football Association guidance recommends all 3G pitches are constructed with a 4.5m perimeter fence and a floodlight system suitable for weekly usage levels and demand in the evening particularly during the football season. Guidance states that support would not be provided for 3G pitches where floodlights are not provided.
- A number of factors support a contribution towards high quality outdoor sports facilities based on the likely demand for appropriate football facilities:
  - A Macadam-based MUGA would provide a facility that is most suitable for tennis, netball and basketball, all of which have low participation rates (see Table 10), although it would still be suitable for football;
  - The size of the outdoor courts Horizon propose to provide are smaller than the FA's recommended size (including run-off) for both a 5-a-side (43m x 33m) and 7-a-side courts (61m x 43m)<sup>13</sup>.
  - Demand for outdoor games areas - Sport England's Active People Survey provides the following results in terms of participation in sports<sup>14</sup> that could be played in a Mixed Use Games Area:

<sup>10</sup> Source: Outdoor surfaces for outdoor sport. Updated guidance for 2013. Sport England

<sup>11</sup> Source: Selecting the Right Artificial Surface for Hockey, Football, Rugby League and Rugby Union. Sport England, 2010

<sup>12</sup> Source: The FA Guide to 3G football turf PITCH design principles and layouts. Building, enhancing and sustainable football facilities.

<sup>13</sup> Source: The FA Guide to 3G football turf PITCH design principles and layouts. Building, enhancing and sustainable football facilities. The sizes quoted are based on the recommended pitch size including run-off rather than total site footprint. Total site footprint includes space for spectators which is not considered necessary in this instance.

<sup>14</sup> Participation rates in sports (Oct15-Oct16) – once a week participation in funded sport (aged over 16). Similar figures are not available from

**Table 10: Once a week participation in sports suitable for a mix use games area**

Sport	Participation rates (once a week)
Football	4.21%
Tennis	0.90%
Netball	0.42%
Basketball	0.35%
Hockey	0.22%

Source: England Active People Survey. Sport England, Oct15-16.

- In summary, football is by far the most popular participation sport in the UK that could feasibly be played on a MUGA. It is likely that participation rates for football would be higher among the temporary construction workforce given an expected demographic profile that is skewed towards working age males.
- Anecdotal evidence provided by football clubs in Anglesey outlines how the quality of outdoor leisure facilities can influence the demand for facilities and how far residents are willing to travel to access high quality sports pitches. Demand for all-weather football pitches has been displaced from Anglesey to better quality facilities in Gwynedd since 3G facilities were opened in Bangor. For instance, Llangefni Town Football Club's first team, reserves and numerous youth teams all travel to Bangor City Football Club's 3G pitch to train. This approximately ten mile journey is made despite a sand based astro-turf pitch being available in Llangefni demonstrating that teams are willing to travel for better quality facilities.
- A similar situation could occur if Horizon's mixed use games area is not of sufficient quality to prevent demand being shifted to Amlwch Leisure Centre's 3G pitch. This local view is supported by The All Wales Artificial Turf Pitch Vision<sup>15</sup> which outlines a continued shift towards 3G surfaces, stating "over the next ten years, the demand for 3G surfaces (and later 4G and so on) will also dominate the sporting and activity landscape".
- On this basis, a contribution towards the provision of 3G pitches could be justified. The scale of this financial contribution is broken down below.
- For the size of the local population, including on-site workers and Anglesey North off-site workers (with partners), 0.58 full sized 3G pitches are required<sup>16</sup>. This translates to 4,304 m<sup>2</sup> of 3G pitch required. With the existing 3G pitch at Amlwch providing 628m<sup>2</sup> of space, this leaves a deficit of 3,676m<sup>2</sup>.
- Alliance Leisure's report on upgrading Amlwch Leisure Centre suggests converting the existing multi-use games area (MUGA) into a 3G surface. This cost is estimated at £36,000 plus additional fees of approximately £4,250<sup>17</sup> - a total of £40,250. This is an affordable way to mitigate the lack of 3G pitch space for the North Anglesey population. However, this does not cover all the required space needed for the local population and worker population, as per the Sport Facility Calculator. The size of this pitch will be 34.5m by 18.35m, providing an additional area of 633m<sup>2</sup> of 3G pitch space.
- The remaining 3,043m<sup>2</sup> of required 3G pitch space should be mitigated to ensure the local population's access to 3G facilities. The cost of mitigating this deficit if 3G pitch space is £222,169<sup>18</sup>.

<sup>15</sup> Source: All Wales artificial turf pitch vision and guidance: Issue 1. Prepared for the Welsh Rugby Union, Hockey Wales & Football Association of Wales by Just Solutions Leisure Consultants. January 2015

<sup>16</sup> Sport Facility Calculator (Sport England, 2017)

<sup>17</sup> Additional fees for the 3G pitches are based on IACC estimates. A midpoint of £4,250 has estimated from the stated £3,500 to £5,000 fees

<sup>18</sup> Based on the cost from Sport Facility Calculator of £73 per square meter for 3G pitch facility.

### Car parking at Amlwch Leisure Centre

Amlwch Leisure Centre currently offers surface car parking comprising 22 parking bays and four additional bays for disabled leisure centre users at the side of the side of the leisure centre. A further 7 additional parking bays are provided at the rear of the leisure centre. Anecdotal evidence



provided by IACC representatives and reported in recent Health and Safety Report<sup>19</sup> stated the car park is often full at peak times, leading to vehicles parking outside of designated spaces and on grass verges. Any increase in usage of Amlwch Leisure Centre generated by the temporary construction workforce will only exacerbate existing capacity issues. This problem could be addressed by both extending parking provision onto an existing tennis court and reconfiguring the existing space.

A development proposal for Amlwch leisure centre has identified a cost of improving and extending car parking facilities of **£20,124**.

### A future increase in use of leisure facilities by schools

This study was asked to consider the future leisure implications associated with the potential relocation of local schools to a site adjacent to Amlwch Leisure Centre. This option was considered given primary and secondary school with the vicinity of Amlwch use the leisure centre for swimming lessons.

Feedback from IACC Education Department states the plans to assess education provision in the Amlwch area are at a very early stage, with approval to undertake an options assessment yet to be granted by Welsh Government. A review of school provision, if approved, would take place between 2019 and 2024. However, any change in school provision resulting from the options assessment will not affect the number of schools or school children that use Amlwch leisure centre. This is because the schools reviewed in the options assessment already use the pool facilities and no significant changes to the school population are expected in the foreseeable future.

It should be noted that any increase in adults (e.g. construction workers on shifts) using the swimming pool during the daytime may result in a need for improved, remodelled or expanded changing facilities at Amlwch Leisure Centre. This is because schools require the sole use of segregated changing facilities from other members of the public to ensure safeguarding standards are met.

### The impact of temporary construction workers on IACC managed gym facilities

Both IACC managed leisure centres at Holyhead and Amlwch provide gym facilities. A recent study conducted on behalf of IACC<sup>20</sup> identified a total of 60 stations available at Amlwch whilst the IACC website suggests there are currently 58 at Holyhead.

The table below provides a number of scenarios assessing if a contribution towards IACC owned gym facilities could be provided, based on a benchmark of 25 members per station<sup>21</sup>. The number of off-site workers and dependants expected to reside in North Anglesey are used to assess Holyhead leisure centre whilst the West Anglesey figures are used for Amlwch leisure centre. Forecast participation from off-site workers and their partners is assumed based on a 21%<sup>22</sup> participation rate.

<sup>19</sup> Source: Amlwch Leisure centre carpark report. Health and safety report 14/06/17. Isle of Anglesey County Council.

<sup>20</sup> Source: Amlwch Leisure Centre – Developing Leisure Centres for Future Generations (Alliance Leisure, 2017)

<sup>21</sup> 25 members per station is the UK industry average, This average has been used in multiple gym feasibility reports including those for Tamworth Council, Barnet Council and Denbighshire County Council.

<sup>22</sup> Source: Active Adults Survey 2014. Participation rate is based on participation in exercise and fitness.

It has been assumed that on-site workers attending an external gym will go to Amlwch due to its closer proximity to the Site Campus. The drive time between the proposed location of the Site Campus and Amlwch Leisure Centre is estimated to be half of the driving time between the Site Campus and Holyhead Leisure Centre<sup>23</sup>.

**Table 11: Estimated surplus and deficit of gym facilities**

	Holyhead leisure centre (deficit / surplus)	Amlwch leisure centre (deficit / surplus)
Current members only		
Current members (excluding swim only packages)	2385	1306
Current number of stations provided	58	60
Expected number of machines	95	52
Surplus / deficit stations	-37	+8
Current members and off-site workers (including partners)		
Current members and expected participation	2603	1558
Current number of stations provided	58	60
Expected number of machines	104	62
Surplus / deficit stations	-46	-2
Current members plus off-site workers (including partners) and on-site workers		
Current members and expected participation	2603	2398
Current number of stations provided	58	60
Expected number of machines	104	96
Total deficit of gym stations	-46	-36

In Summary, Table 11 estimates the forecast or deficit amount of gym facilities for three scenarios. The following conclusions can be drawn:

- There is currently a small surplus of stations at Amlwch Leisure Centre (+8) which will reduce to a deficit of 2 stations if the additional demand from off-site workers (with their partners) based in Anglesey North is considered. This will increase to a deficit of 36 gym stations when on site workers are considered too. There is great uncertainty regarding how many on-site workers will travel to use gym facilities at Amlwch, particularly as Horizon's proposals for leisure facilities at the amenity centre are assumed to provide gym facilities for the temporary construction workforce. However, the provision of other leisure facilities at Amlwch (e.g. swimming pool) could encourage on-site workers to travel to Amlwch.

<sup>23</sup> Proposed Site Campus location to Holyhead Leisure Centre is estimated to be 28 minutes' drive time. The Site Campus to Amlwch Leisure Centre is estimated to be 14 minutes.

- There is currently a deficit of 37 gym stations at Holyhead Leisure Centre. When potential users from Anglesey West's off-site workers (and their partners) are considered, this deficit will increase to 46 gym stations. Workers from the Site Campus are not expected to use Holyhead Leisure Centre, due to them being located closer to Amlwch Leisure Centre.
- The deficit of stations identified above (36 at Amlwch Leisure Centre and 46 at Holyhead Leisure Centre) accounts for a deficit of space<sup>24</sup> for gym stations of 162m<sup>2</sup> for Amlwch Leisure centre 206m<sup>2</sup> for Amlwch and Holyhead. This would require mitigation<sup>25</sup> of £647,226 (£284,148 for Amlwch and £363,078 for Holyhead) to compensate for the deficit in gym space from the influx of workers at the leisure centres.

## 2.14 Scenario 4 – Leisure provision to meet the needs of temporary workers and the resident population

The influx of temporary construction workers will result in both North and West Anglesey experiencing a noticeable increase in their resident populations. For instance, the resident population of Anglesey North is 13,608<sup>26</sup>, a figure that will increase to population of 18,808 at the peak construction period (including partners and dependants).

The resident population of West Anglesey is 24,760<sup>27</sup>, a figure that will increase to 25,800 when non home based workers (including their partners and dependents) are included. The Sport England Calculator provides an estimate of the facilities required to meet the needs of the resident and temporary construction workers in both North and West Anglesey.

**Table 12: Estimated shortfall of facilities at Amlwch and Holyhead leisure centre**

	Holyhead leisure centre (deficit / surplus)	Amlwch leisure centre (deficit / surplus)	Cost of deficit <sup>28</sup>
Sports Hall cost	-1.32 courts	-3.3 courts	£2,702,182
Swimming Pool cost	0 lanes	-1.2 lanes	£1,072,060
Artificial Grass pitches cost (3G)	-0.53 3G pitches	0 3G pitches	£541,841
Cost of deficit (Total)	£1,314,023	£3,002,020	£4,316,043

Source: Sport Facility Calculator and AECOM analysis

Table 12 above shows the surplus and deficit of sports hall, swimming pools and artificial pitches resulting from the resident and temporary construction workforce in North and West Anglesey. In summary, a deficit of over £3m is estimated for Amlwch leisure centre driven by demand from the on-site temporary workforce, resulting in the under provision of sports hall and swimming pool space. A much smaller, but still significant shortfall is estimated at Holyhead leisure centre. In summary, a financial contribution of £4.3m is required to address the shortfall in provision at the point of peak population in across North and West Anglesey.

<sup>24</sup> Based on industry standard minimum 4.5 m<sup>2</sup> per gym station - Affordable Sports Centres Options (Sport England, 2014). Please note, the cost associated with providing new gym equipment has not been calculated.

<sup>25</sup> Based on cost per m<sup>2</sup> of small sports facility (Sports Facility Calculator, 2017)

<sup>26</sup> Source: Census (2011), ONS (Lower Super Output Areas that make up Anglesey North)

<sup>27</sup> Source: Census (2011), ONS (Lower Super Output Areas that make up Anglesey West)

<sup>28</sup> Source: Sport England Facilities Calculator

**2.15 Scenario 5 – A revenue contribution to swimming facilities**

A revenue contribution towards existing swimming facilities is recommended to provide free access to swimming facilities for the temporary construction workforce. The request for a revenue contribution is justified given the lack of swimming facilities in Horizon's plans for on-site leisure facilities. A revenue contribution would allow the construction workforce to access to IACC managed pool facilities and promote health and well-being in Horizon's workforce. The following points should be considered when establishing a revenue contribution:

- The Active Wales Survey has identified that 15.5% of the adult population in Wales participated in swimming activity within the past four weeks. The survey does not provide information on the number of times within the past month that respondents participated in swimming nor does it provide data for Anglesey;
- The use of swimming facilities at Holyhead Leisure Centre currently costs £5.15 per session or £10.95 for a weekly swimming pass; and
- Table 13 below outlines the level of revenue contribution required to provide access to existing swimming facilities for the temporary construction workforce expected to reside both on and off-site.

**Table 13: Scenarios for revenue contribution to swimming facilities – one swimming session per week**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
On site workers only	£0	£0	£0	£41,509	£62,264	£124,527	£166,036	166,036	£155,451	£0	£0	£715,823
Off site (Total)	£0	£0	£22,966	£70,665	£82,443	£76,058	£92,980	£79,529	£16,923	£35,612	£21,851	£499,027
- <i>North Anglesey only</i>	£0	£0	£12,303	£37,856	£44,166	£40,745	£49,811	£42,605	£9,066	£19,078	£11,706	£267,336
- <i>West Anglesey only</i>	£0	£0	£10,663	£32,809	£38,277	£35,313	£43,169	£36,924	£7,857	£16,534	£10,145	£231,691
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>£0</b>	<b>£0</b>	<b>£22,966</b>	<b>£112,174</b>	<b>£144,707</b>	<b>£200,585</b>	<b>£259,016</b>	<b>£245,565</b>	<b>£172,374</b>	<b>£35,612</b>	<b>£21,851</b>	<b>£1,214,850</b>

Source: AECOM assumptions based on information with Horizon PAC documentation (2017) and Leisure centres fees from IACC

**Table 14: Scenarios for revenue contribution to swimming facilities – two or more swimming sessions per week**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
On site workers only	£0	£0	£0	£88,257	£132,386	£264,771	£353,028	£353,028	£330,522	£0	£0	£1,521,992
Off site (Total)	£0	£0	£48,831	£150,249	£175,290	£161,715	£197,696	£169,096	£35,981	£75,717	£46,458	£1,012,202
- <i>North Anglesey only</i>	£0	£0	£26,159	£80,490	£93,905	£86,633	£105,908	£90,587	£19,275	£40,563	£24,888	£568,410
- <i>West Anglesey only</i>	£0	£0	£22,671	£69,758	£81,385	£75,082	£91,787	£78,509	£16,705	£35,155	£21,570	£492,622
<b>On-site and off-site (N&amp;W Anglesey) Total</b>	<b>£0</b>	<b>£0</b>	<b>£48,831</b>	<b>£238,506</b>	<b>£307,676</b>	<b>£426,486</b>	<b>£550,724</b>	<b>£522,124</b>	<b>£366,503</b>	<b>£75,717</b>	<b>£46,458</b>	<b>£2,534,194</b>

Source: AECOM assumptions based on information with Horizon PAC documentation (2017) and Leisure centres fees from IACC

## 2.16 Scenario 6 – A 60-year commitment to leisure facilities for the operational workforce

Horizon's proposed approach for accommodating with construction workforce has the following overarching aims:

- Avoiding adverse effects on Anglesey's residents and accommodation markets;
- Delivering Horizon's commercial and productivity requirements; and
- Providing a positive legacy where possible and appropriate.

The approach of accommodating the majority of workers in temporary on site accommodation seeks to avoid adverse impacts and delivers Horizon's commercial requirements. However, the impact in terms of providing a positive legacy appears more limited. One way in which a positive legacy could be generated is via a financial contribution to mitigate the impact of the increased population in Anglesey placing a demand on leisure facilities during both construction and operation. In summary:

- Operational workers will be present on the Wylfa Newydd site from 2018 Q1<sup>29</sup>.
- An estimated 850 workers are expected to be on-site during the operational phase, 15% of these which are anticipated to be non-home-based workers<sup>30</sup>.
- The peak number of operational workers, including their partners and dependents, that are present in 2025, peaks at 1,033 operational workers. With 15% of operational workers being non-home-based, this means an additional 155 workers moving to Anglesey.
- It is estimated that 68 operational workers will reside in Anglesey North at this period. Based on information from Horizon<sup>31</sup>, this will result in 39 partners and dependents joining them in Anglesey North.
- It is estimated that 38 operational workers will reside in Anglesey West at this period. Based on information from Horizon<sup>32</sup>, this will result in 20 partners and dependents joining them in Anglesey West.
- Providing leisure facilities for these workers and their families moving to Anglesey could form part of Horizon's legacy. The costs associated with this option are summarised in Table 15.

**Table 15: Contribution to leisure facilities for the operational workforce**

	Anglesey North	Anglesey West	Total
<i>Operational workers at peak</i>	68	38	106
<i>Including partners and dependents</i>	107	58	158
Sports Hall Cost	£20,666	£11,202	£31,868
Swimming pool cost	£20,645	£11,191	£31,836
Artificial grass pitch cost	£3,933	£2,132	£6,065
<b>Total cost</b>	<b>£45,244</b>	<b>£24,525</b>	<b>£69,769</b>

Source: Sport Facility Calculator, Sport England. Socioeconomic assumptions (Version 3 - April 2017), Horizon.

<sup>29</sup> Source Worker Number Data (April 2017), Horizon. Figure 11 – Worker breakdown by site.

<sup>30</sup> Source: PAC3 (2017), Horizon.

<sup>31</sup> Based upon the partners and dependent estimates of operational workers in Anglesey North (Socio-economic assumptions Version 3)

<sup>32</sup> Based upon the partners and dependent estimates of operational workers in Anglesey West (Socio-economic assumptions Version 3)

### 3. Summary

This report has assessed Horizon's proposals for the provision of on-site leisure facilities for the temporary construction workforce at Wylfa Newydd. The report has used the information known about Horizon's proposals, industry benchmarks for the size and quality of leisure facilities required to mitigate the expected increase in population in West and North Anglesey. It should be noted that the analysis presented in this document includes a number of assumptions given that limited information is available from Horizon regarding the size, quality and timing of their leisure facilities. Table 16 summarises the scenarios presented in this document. Some of these scenarios are not exclusive to each other and so could be combined. For instance, scenarios 2, 3, 5 and 6 could be combined to provide a scenario that addresses the shortfall in space and quality whilst also providing a revenue contribution to IACC Leisure service.

**Table 16: Summary of the proposed for mitigating the impact of the temporary construction workforce on IACC managed leisure facilities**

Scenario	Cost
<b>Scenario 1:</b> On-site leisure facilities provided by Horizon meet the needs of the construction workforce	<b>Total - £0</b>
<b>Scenario 2:</b> On-site leisure facilities provided by Horizon do not meet space requirements of the temporary construction workforce	Sport halls - £1,145,232 Swimming pool - £1,233,119 Outdoor sports facilities - £33,561 <b>Total - £2,411,912</b>
<b>Scenario 3:</b> A capital contribution to ensure quality leisure facilities are provided that consider the capacity of existing provision	3G football 7-a-side facilities - £222,169 MUGA pitch upgrade to 3G - £40,250 Improvements to car parking - £20,124 Gym facilities - £647,226 <b>Total - £930,211</b>
<b>Scenario 4:</b> Leisure provision to meet the needs of temporary workers and the resident population	<b>£4,316,043</b>
<b>Scenario 5:</b> A revenue contribution to swimming facilities	
<ul style="list-style-type: none"> <li>- One session per week</li> <li>- Two or more sessions per week</li> </ul>	<b>£1,214,848</b> <b>£2,534,194</b>
<b>Scenario 6:</b> A 60 year commitment to leisure facilities for the operational workforce	<b>£69,769</b>

## Appendix 1 – Assumptions

The following assumptions inform the scenarios developed in this study:

**Demand** - In the Sport England Sport Facility Calculator (SFC), it is possible to adjust the demand for facilities “to reflect change in participation trends (i.e. due to specific sport development policies)”. This has been set to ‘0%’ in the calculator to reflect a lack of sport development policies initiatives. This approach was adopted to provide a conservative estimate of leisure centre usage.

**Demographics and interpretation** - The demographics used in the SFC represented the profile of construction workers in Wales. The workforce profile from the CITB Construction Skills Report Wales (2015) was adopted in this study. The demographics have been adapted to include the partners and dependents anticipated to join the non-home-based off-site workers.

**MUGA** - Horizon do not specify the surfacing that will be used in the multi-use games areas. To calculate the required space needed for the workers, the ‘artificial pitch’ option of the Sport Facility Calculator has been used. The SFC provides estimates for the number of pitches required and the anticipated visits per week (at peak) to the pitches. The cost of the pitch is also estimated. AECOM have used the cost per square metre of a typical MUGA<sup>33</sup> rather than a 3G pitch to ensure the cost of providing a comparable facility is provided.

**Swimming pool** – The provision of swimming facilities is not referenced in Horizon’s PAC3 documentation. This document therefore assumes the Site Campus will not provide swimming facilities.

**Off-site workers** – A breakdown of off-site workers across both time and location was not available during the study. In its place, the peak figure for each year has been estimated based on the peak number of on-site workers and how this relates to the overall peak. For instance, when the on-site workers are at their peak of 4,000 in 2023 and 2024, off-site worker numbers are also considered to be at their peak too. In 2022 when the on-site workers are at 75% of the peak level, a corresponding number of off-site workers have been assumed.

**Accounting for the partners and dependents of the temporary construction workforce** – Horizon assume that some off-site workers are going to bring partners and dependents when they move to the area. As stated in Horizon’s Socio-Economic Assumptions Log (version 3 – 19<sup>th</sup> April 2017), Table 1.6 estimates the number of partners and dependents likely to be moving to each of the geographic areas:

Additional Population	Anglesey North	Anglesey West
Non-home based workers	1,030	890
Estimated partners	95	85
Estimated dependants	75	65
<b>Total</b>	<b>1,200</b>	<b>1,040</b>

Source: Horizon (2017) Socio-economic Assumptions log –Version 3 (19<sup>th</sup> April 2017)

The Sport England Calculator has been adjusted when considering the impact of off-site workers by increasing the number of dependents (fitting into the younger than 18 categories) to reflect the figures presented in the table above.

**Revenue Contribution for swimming pools** – This scenario has been calculated by using the average participation rate of swimming (15.5%<sup>34</sup>). This figure was applied to each group of workers (on-site and off-site (including partners and dependents), based on the peak level of workers per year of the construction period. The revenue contribution was calculated based on cost of one swimming session (for one swimming session per week for each participant) and the cost of a weekly pass (based on two or more swimming sessions for each participant) at an IAAC managed leisure centre.

<sup>33</sup> Sport England, Facilities Cost second quarter 2017

<sup>34</sup> Sport Wales, Active Adults Survey (2014)

**3G football pitch provision** – The cost estimated for a 3G 7-a-side pitch is based on published estimates from Sport England. These cost estimates have been used to address the deficit in pitches once the existing MUGA has been converted to a 3G surface. This provides a more affordable solution to addressing the deficit compared to the costs of developing new 3G facilities. It should be noted that the costs associated with the ongoing maintenance of the 3G pitch and floodlights have not been considered in this document.