

## **Wylfa Newydd Project**

**6.3.30 ES Volume C - Project-wide effects App**

**C6-1 - Local and regional waste  
management facilities**

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## 1 Summary of waste management facilities on the Isle of Anglesey and within Gwynedd

1.1.1 This appendix reviews the location, types and capacity of the waste management infrastructure on the Isle of Anglesey, within Gwynedd and in north Wales. Waste would be managed in accordance with TAN 21 and the nearest appropriate installation principle which requires waste to be disposed of or recovered (within TAN 21 recovery also includes recycling) using the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health [RD1]. While it is necessary for the assessment in chapter C6 (Application Reference Number: 6.3.6) to focus on regional capacity (north Wales and northwest England) it is also important to consider the potential impact of the Wylfa Newydd Project more locally.

1.1.2 In addition to the permitted capacities published by Natural Resources Wales (NRW), there is also available data on the waste tonnages received at waste management facilities in 2016. It is therefore possible to compare permitted capacity of relevant waste management facilities against the throughput of those sites on the Isle of Anglesey and within Gwynedd. This provides waste capacity and throughput in 2016 and is therefore only an indication of capacity and throughput in future years.

1.1.3 Table 1-1 below shows the relevant waste management facilities on the Isle of Anglesey and within Gwynedd. It shows details of total permitted capacity of each site in 2016 as detailed by NRW [RD2] and tonnage of waste received at the site in 2016 taken from the Waste Data Interrogator [RD3]. Permitted waste management facilities in Wales are required to make returns to NRW detailing the amounts and types of waste handled, treated or disposed of, this data for 2016 was published in the Waste Data Interrogator [RD3] in July 2017 and this information has also been used to inform table 1-1. The permitted capacity and waste received is used to calculate the potential spare capacity for each facility in 2016. The table also details the facilities location, distance from the Wylfa Newydd Development Area and operator. The Waste Data Interrogator [RD3] data shows that no waste was received by a number of facilities in 2016, this could mean that the facility is no longer able to receive waste or is yet to start receiving waste, for example Nant Newydd Inert Landfill has been issued a permit but is currently not accepting waste.

**Table 1-1 Waste received and potential available capacity at waste management facilities on the Isle of Anglesey and within Gwynedd in 2016 [RD3]**

Site Name	Operator	Capacity limit (tpa)**	Received in 2016 (tpa)**	Potential spare capacity (tpa)**	Local Authority	Postcode	Distance (km)
<b>Anaerobic Digestion</b>							
Llwyn Isaf Anaerobic Digestion Plant	Biogen Gwyriad Ltd	11,500	2,743	8,757	Gwynedd	LL54 5DF	58
<b>In-vessel Composting</b>							
Penhesgyn In Vessel Composting Facility	Isle of Anglesey County Council	25,000	11,628	13,372	Isle of Anglesey	LL59 5UR	27
Ffridd Rasus I V C Site	Gwynedd Council	24,999	1,141	53	Gwynedd	LL46 2UW	85
<b>Open windrow composting</b>							
Ty Mawr	I G Hughes and J G Hughes	4,999	3,007	1,992	Isle of Anglesey	LL63 5UR	29
Gwrtaith Gwynedd	Harri Morrus Parry	24,999	17,363	7,636	Gwynedd	LL53 6SJ	85
<b>Metal recycling site</b>							
Phoenix Metals and Colin Davies Non-ferrous Metals	Alwyn Davies & Colin Davies	24,999	7,268	17,731	Isle of Anglesey	LL60 6HR	39
G Lock Scrap Metal Processors	Philip Lock	149,998	9,344	140,654	Gwynedd	LL57 4YH	55
S & R Metals	Rosalind Jones	2,500	114	2,386	Gwynedd	LL53 6NH	84

Site Name	Operator	Capacity limit (tpa)**	Received in 2016 (tpa)**	Potential spare capacity (tpa)**	Local Authority	Postcode	Distance (km)
Non-hazardous landfill site							
Llwyn Isaf Landfill and Transfer Station*	Gwynedd Council	40,000	None		Gwynedd	LL54 5DF	74
Ffridd Rasus Landfill & Civic Amenity Site*	Gwynedd Council	4,999	None		Gwynedd	LL46 2UW	101
Use/treatment of inert waste for land reclamation or construction							
Events Parking Area*	Natural Resources Wales	50,000	None		Gwynedd	LL40 2HZ	116
Caer Glaw Quarry	Hogan Aggregates Ltd	74,999	56,087	18,912	Isle of Anglesey	LL65 4PW	29
Cae Uchaf Farm*	Glyngwyn Foulkes	35,000	None		Isle of Anglesey	LL59 5RY	35
Ty Mawr (East Quarry)	Watkin Jones and Son Ltd	49,999	1,650	48,349	Gwynedd	LL54 6BA	72
Inert landfill site							
Rhuddlan Bach Quarry Landfill Site	Clive Hurt (Plant Hire) Ltd	27,000	33,774	-6,774	Isle of Anglesey	LL78 7JJ	27

Site Name	Operator	Capacity limit (tpa)**	Received in 2016 (tpa)**	Potential spare capacity (tpa)**	Local Authority	Postcode	Distance (km)
Nant Newydd Quarry*	Owen Jean Tyrer and Gwilym Tyrer	5,000	None		Isle of Anglesey	LL78 7JJ	27
Nant Y Garth Landfill Site	Treborth Leisure Limited	75,000	46,199	28,802	Gwynedd	LL56 4QG	50

\*Waste Data Interrogator [RD3] indicates that no waste was received at these sites in 2016.

\*\*tpa - tonnes per annum

1.1.4 Table 1-2 summarises this information by facility type showing the totals for anaerobic digestion/ in-vessel composting, open windrow composting, metal recycling, inert use, treatment and landfill. The location of these facilities is shown in figure 1-1.

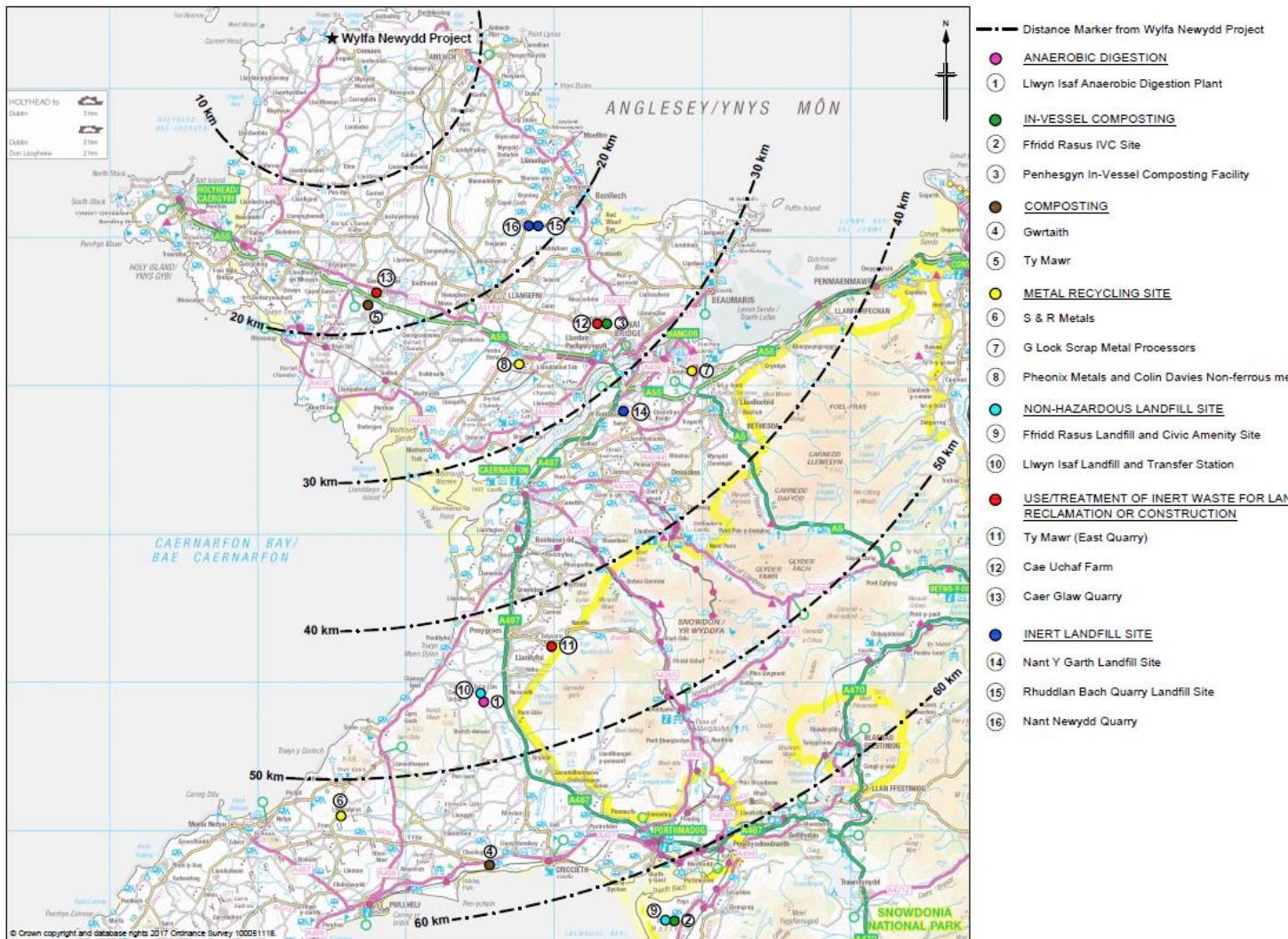
1.1.5 The capacity of non-hazardous landfills on the Isle of Anglesey and within Gwynedd have been excluded from table 1-2 as it is understood that while these sites are permitted they currently do not have available void space to accept non-hazardous waste. It should be noted that there are no hazardous waste landfills on the Isle of Anglesey or within Gwynedd.

**Table 1-2 Summary of waste received and potential available capacity by facility type on the Isle of Anglesey and within Gwynedd in 2016 [RD3]**

Facility Type	Capacity limit (tpa)**	Received in 2016 (tpa)**	Potential spare capacity (tpa)**
Anaerobic digestion and in-vessel composting	61,498	15,512	45,986
Open windrow composting	29,998	20,370	9,628
Metal recycling	177,497	16,726	160,771
Inert use, treatment and landfill	316,998	137,710	179,288
Total*	585,991	190,318	395,673
*the total excludes the non-hazardous landfill as this is not considered to be available.			
Non-hazardous Landfill	44,999		N/A
**tpa – tonnes per annum			

1.1.6 It should be noted that this appendix does not include any tonnage capacity for transfer facilities on the Isle of Anglesey and within Gwynedd as of 2016. While the transfer of waste is not considered it is acknowledged that transfer stations are commonly used for the bulking and onward transfer of waste to other regional facilities. The Isle of Anglesey had approximately 426,000 tonnes per annum of transfer facility capacity in 2016 [RD2] and Gwynedd had approximately 715,000 tonnes per annum of transfer facility capacity in 2016 [RD2]. It is likely that some of this capacity would be available and could potentially be used to manage some of the waste that would be generated by the Wylfa Newydd Project and taken off-site.

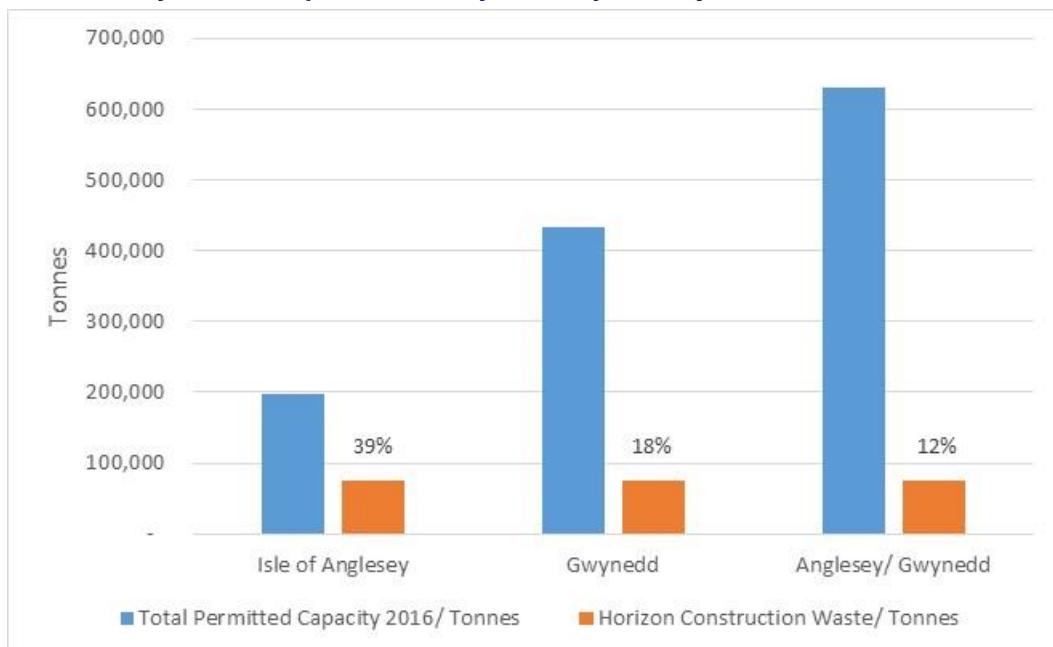
Figure 1-1 Location of waste management facilities on the Isle of Anglesey and within Gwynedd



1.1.7 A review of the information on waste management capacity and throughput for the Isle of Anglesey and within Gwynedd shows that most of the relevant facilities were not operating at full capacity in 2016 and may therefore have spare capacity to receive additional wastes. However, the review highlights that there are no recycling facilities, other than for metals, and there is limited inert and non-hazardous landfill permitted capacity on the Isle of Anglesey and within Gwynedd. It has also been noted that a number of waste management sites located on the Isle of Anglesey currently only accept waste generated and collected by the local authority therefore have limited or no capacity available for use by the Wylfa Newydd Project contractors.

1.1.8 Figure 1-2 shows the permitted capacity of waste management facilities on the Isle of Anglesey and within Gwynedd compared against the percentage of construction waste generated by the Wylfa Newydd Project. Details of total permitted capacity of each site shown in figure 1-2 have been obtained from NRW [RD2].

**Figure 1-2 Total permitted capacity of waste management facilities on Isle of Anglesey and within Gwynedd compared with Wylfa Newydd Project construction waste**



1.1.9 The data presented in figure 1-2 and the assumption that all construction waste is generated in one year is consistent with that used in the assessment presented in chapter C6. This shows that if all of the waste produced during the construction of the Wylfa Newydd Project (76,095 tonnes) assumed to be taken off-site was sent to waste management facilities on the Isle of Anglesey in one year then 39% of the capacity would be taken up. If all waste generated during the construction of the Wylfa Newydd Project was sent to waste management facilities within Gwynedd in one year, then 18% of the capacity with Gwynedd would be used up. However, if the construction waste was sent to waste management facilities on both the Isle of Anglesey and Gwynedd then overall only 12% of capacity would be used. This indicates that waste

generated during the construction of the Wylfa Newydd Project could have a significant impact on waste management facilities on the Isle of Anglesey and within Gwynedd if all the construction waste was treated locally over one year and the permitted capacity remains at 2016 levels throughout the construction period. It is also acknowledged that the nature of the current capacity on the Isle of Anglesey and within Gwynedd may not be appropriate for the types of waste generated by the Wylfa Newydd Project.

- 1.1.10 The availability of capacity in 2016 does not mean this will be available when required by the Wylfa Newydd Project. Available capacity may decrease as new contracts are signed or increase as a result of contracts ending, additional permitted capacity being agreed at a site or new infrastructure being developed.
- 1.1.11 From this review it is clear that there is limited appropriate waste management capacity on the Isle of Anglesey and within Gwynedd for the types of waste generated by the Wylfa Newydd Project. There is a risk that the waste produced could affect existing local waste management facilities by using a significant proportion of the permitted capacity. Experience has shown that waste management companies are adaptable and keen to take advantage of opportunities that present themselves within the waste market. The proposed approach to the management of waste from the Wylfa Newydd Project is carried out in accordance with the Wylfa Newydd Code of Construction Practice (CoCP) (Application Reference Number: 8.6) and Wylfa Newydd Code of Operation Practice (CoOP) (Application Reference Number: 8.13), which sets out the framework for the management of all the wastes that would arise from the Wylfa Newydd Project.
- 1.1.12 Horizon have regularly engaged with stakeholders including NRW, Isle of Anglesey County Council, Flintshire County Council, CL:AIRE, Constructing Excellence in Wales and other waste industry representatives. This early engagement and transparent approach has been put in place to ensure that the local waste management infrastructure is aware and where appropriate able to adapt to support the Wylfa Newydd Project.
- 1.1.13 Horizon will ensure that the appropriate plans, procedures and contractual arrangements are in place so that waste is managed in an environmentally sustainable manner, minimising any potential negative impacts on the local waste infrastructure. It should also be acknowledged that local waste management operators will see the Wylfa Newydd Project as a potential opportunity for investment, infrastructure development and additional employment.

## 2 Summary of waste management facilities in north Wales

2.1.1 Table 2-1 below shows details of the waste management facilities in north Wales and the total permitted capacity in 2016 as detailed by NRW [RD1]. The table also details the facilities location, distance from the development site and operator.

2.1.2 Although the waste management facilities permitted capacity in 2016 for north Wales as shown in table 2-1 is known for the current waste infrastructure, it is not possible to confirm at present which specific waste facilities or combination of waste facilities would be used for the Wylfa Newydd Project. The total permitted capacity listed in the table below is not the available capacity of these waste management facilities but demonstrates the overall capacity in the market in 2016 within north Wales. It should be noted that there are no hazardous waste landfill sites located in north Wales.

2.1.3 Permitted waste management facilities in Wales are required to make returns to NRW detailing the amounts and types of materials handled, treated or disposed of, this data for 2016 was published in the Waste Data Interrogator [RD3] in July 2017 and this information has also been used to inform table 2-1.

**Table 2-1 Annual waste management capacity for facilities in north Wales [RD2]**

Site name	Operator	Permitted capacity (tpa)****	Local authority	Postcode	Distance (km)
<b>Anaerobic digestion</b>					
Llwyn Isaf Anaerobic Digestion Plant	Biogen Gwyriad Ltd	11,500	Gwynedd	LL54 5DF	58
<b>In-vessel composting</b>					
Penhesgyn In Vessel Composting Facility	Isle of Anglesey County Council	25,000	Isle of Anglesey	LL59 5UR	27
Ffridd Rasus I V C Site	Gwynedd Council	24,999	Gwynedd	LL46 2UW	85
Bryn Lane Composting Facility	FCC Recycling (UK) Ltd	25,000	Wrexham	LL13 9UT	145
<b>Open windrow composting</b>					
Ty Mawr	I G Hughes and J G Hughes	4,999	Isle of Anglesey	LL63 5UR	29
Caerhun Farm	Sion Roberts	4,000	Conwy	LL32 8UZ	82
Gwrtaith Gwynedd**	Harri Morrus Parry	24,999	Gwynedd	LL53 6SJ	85
Llannodlas Composting Facility	3 C Waste Ltd	20,000	Conwy	LL22 8HP	87
Greenfield Recycling Park*	Flintshire County Council	15,000	Flintshire	CH8 7GJ	122
Bank Farm	D J Huxley (Farms) Limited	24,999	Wrexham	SY13 3BU	175

Site name	Operator	Permitted capacity (tpa)****	Local authority	Postcode	Distance (km)
<b>Construction and demolition waste materials recycling facility</b>					
Parry's Quarry Waste Transfer & Reprocessing Centre	Mold Investments Limited	100,000	Flintshire	CH7 6NY	137
<b>Commercial and industrial waste materials recycling facility</b>					
Gofer Bulking Station	Conwy County Borough Council	24,999	Conwy	LL22 9SE	95
Unit 103	Parry and Evans Limited	250,000	Flintshire	CH5 2LR	140
<b>Metal recycling site</b>					
Phoenix Metals and Colin Davies Non-ferrous Metals	Alwyn Davies & Colin Davies	24,999	Isle of Anglesey	LL60 6HR	39
G Lock Scrap Metal Processors	Philip Lock	149,998	Gwynedd	LL57 4YH	55
S & R Metals	Rosalind Jones	2,500	Gwynedd	LL53 6NH	84
Point of Ayr Treatment Facility	Delyn Metals Ltd	24,000	Flintshire	CH8 9UU	114
Delyn Metals Ltd	Delyn Metals Ltd	24,999	Flintshire	CH8 9LH	119
Lelo Metal Recycling Ltd	Lelo Metal Recycling Ltd	24,999	Denbighshire	LL21 9SD	121
Spencer Industrial Estate Scrapyard	Spencer Industrial (North Wales) Ltd	4,999	Flintshire	CH7 3LY	135
Trident Commercial Holdings Limited trading as Trident Metals	Trident Metals	24,999	Flintshire	CH5 2QJ	137
J Chadwick's Scrapyard	J Chadwick's Scrapyard	16,000	Flintshire	CH5 2QS	138
S P A Davies & Sons	S P A Davies & Sons	24,999	Flintshire	CH7 4TG	143
P Dobbins Chester Ltd	P Dobbins Chester Limited	15,000	Flintshire	CH4 0BP	143
W H Chaloner & Son Ltd	W H Chaloner & Son Limited	24,999	Wrexham	LL12 0PJ	145
I Hayward Ltd	I Hayward Limited	24,999	Wrexham	LL14 6RG	166
<b>Inert landfill site</b>					
Nant Newydd Quarry	Owen Jean Tyrer and Gwilym Tyrer	5,000	Isle of Anglesey	LL78 7JJ	27
Rhuddlan Bach Quarry Landfill Site***	Clive Hurt (Plant Hire) Ltd	27,000	Isle of Anglesey	LL78 7JJ	27
Nant Y Garth Landfill Site	Treborth Leisure Limited	75,000	Gwynedd	LL56 4QG	50

Site name	Operator	Permitted capacity (tpa)****	Local authority	Postcode	Distance (km)
Ty Mawr Farm Landfill	Griffiths Griffith Wyn, Edward Lloyd and Gwenfrai Rees	99,000	Conwy	LL22 8AA	97
Non-hazardous landfill site					
Llwyn Isaf Landfill and Transfer Station	Gwynedd Council	40,000	Gwynedd	LL54 5DF	74
Ffridd Rasus Landfill & Civic Amenity Site	Gwynedd Council	4,999	Gwynedd	LL46 2UW	101
Use/treatment of inert waste for land reclamation or construction (not included within the assessment, provided for information only)					
Morfa Uchaf	Alwyn Jones Limited	49,999	Conwy	Not available	
Caer Glaw Quarry	Hogan Aggregates Ltd	74,999	Isle of Anglesey	LL65 4PW	29
Cae Uchaf Farm	Glyngwyn Foulkes	35,000	Isle of Anglesey	LL59 5RY	35
Ty Mawr (East Quarry)	Watkin Jones and Son Ltd	49,999	Gwynedd	LL54 6BA	72
Foryd Harbour	Denbighshire County Council	99,999	Denbighshire	LL18 5AS	98
K M Environmental Ltd	K M Environmental Ltd	75,000	Denbighshire	LL17 0DS	106
Events Parking Area	Natural Resources Wales	50,000	Gwynedd	LL40 2HZ	116
Maes Mynan Quarry	Breedon Southern Limited	80,000	Flintshire	CH7 5UB	117
Isfryn Field	Hywel Glyn Roberts	49,999	Denbighshire	LL21 9DE	117
I T Williams Ltd	I T Williams Co Ltd	74,999	Denbighshire	LL15 1NA	122
Cambrian Concrete	Cambrian Concrete	74,999	Flintshire	CH7 6PE	129
Moel-Y-Faen Quarry	Jones Bros Ruthin (Civil Engineering) Co Ltd	385,000	Denbighshire	LL20 8DP	130
Alltami Soil & Aggregate Recycling Facility	Brock Plc	75,000	Flintshire	CH7 6NZ	137
P M Dromgoole & Sons Agricultural Ltd	P M Dromgoole & Sons Agricultural Ltd	75,000	Flintshire	CH4 0EW	138
Alan's Skip Hire Ltd	Alan's Skip Hire Ltd	116,500	Flintshire	CH5 2LL	142
Ballswood Quarry	Inertia Recycling Limited	74,999	Wrexham	LL12 0NU	146
Foregolf Golf Course & Driving Range	Fore Golf Discount (Wrexham) Ltd	99,999	Wrexham	LL12 0PW	146

Site name	Operator	Permitted capacity (tpa)****	Local authority	Postcode	Distance (km)
* Includes Household Waste Recycling Centre (HWRC) with total capacity of 74,999tpa, reduced to 15,000tpa for composting only					
** Includes Transfer with total capacity of 24,999tpa, waste interrogator shows only organics accepted so full capacity included					
*** Includes Household, C&I Transfer Stations and Inert Landfill Site, the Waste Interrogate [RD2] shows it only accepted C&D waste for inert landfill in 2016, therefore included here					
**** tpa – tonnes per annum					

2.1.4 It should be noted that this appendix does not include any tonnage capacity for transfer facilities within north Wales as of 2016. While the transfer of waste is not considered it is acknowledged that transfer stations are commonly used for the bulking and onward transfer of waste to other regional facilities. North Wales had approximately 2,462,300 tonnes per annum of transfer facility capacity in 2016 [RD2]; it is likely that some of this capacity would be available and could potentially be used to manage some of the waste that would be generated by the Wylfa Newydd Project and taken off-site.

### 3 References

Table 3-1 Schedule of references

ID	References
RD1	Welsh Government. 2014. <i>Technical Advice Note 21: Waste</i> . [Online] [Accessed: 11 October 2017] Available from: <a href="http://gov.wales/docs/desh/publications/170223technical-advice-note-21-en.pdf">http://gov.wales/docs/desh/publications/170223technical-advice-note-21-en.pdf</a>
RD2	Natural Resource Wales (NRW). 2016. <i>Find details of permitted waste sites</i> . [Online] [Accessed: 24 April 2017] Available from: <a href="https://naturalresources.wales/evidence-and-data/maps/find-details-of-permitted-waste-sites/?lang=en">https://naturalresources.wales/evidence-and-data/maps/find-details-of-permitted-waste-sites/?lang=en</a>
RD3	Natural Resource Wales (NRW). 2016. Waste Permit Returns Data Interrogator 2016. [Downloaded: 25 September 2017] Available from: <a href="http://l1e.gov.wales/catalogue/item/WastePermitReturnsDataInterrogator/?lang=en">http://l1e.gov.wales/catalogue/item/WastePermitReturnsDataInterrogator/?lang=en</a>