



Background Paper for Local Development Plan 2:

Minerals

Pembrokeshire County Council

May 2019

Contents

<i>Section</i>	<i>Title</i>	<i>Page</i>
	Glossary of terms	2
1	Introduction	3
2	Legislative and policy background	4
3	Local evidence	17
4	Candidate Sites	32
5	Summary and conclusions	35
Appendix 1	Planning Policy Wales requirements for Development Plans	39
Appendix 2	Planning applications for minerals-related developments received and determined since LDP adoption on 28/02/13 (correct at 20/06/18)	40
Appendix 3	Mineral working at sites within Pembrokeshire County Council's planning jurisdiction	42
Appendix 4	Sites where production has taken place in the recent past but has now finished	46
Appendix 5	Recycled aggregate producers and secondary aggregate producers in Pembrokeshire	47

Glossary of terms

BGS	British Geological Society
LDP	Local Development Plan (the current Plan)
LDP 2	The Replacement Local Development Plan
MTAN	Welsh Government's series of Minerals Technical Advice Notes
NRW	Natural Resources Wales
PCC	Pembrokeshire County Council
PCNPA	Pembrokeshire Coast National Park Authority
POSW	Planning Officers' Society for Wales
PPW	Welsh Government's Planning Policy Wales
RTS for Aggregates	The Regional Technical Statement for Aggregates, 1 st Review, 2014
SWRAWP	The South Wales Regional Aggregates Working Party
TAN	Welsh Government's series of Technical Advice Notes
WNMP	Welsh National Marine Plan

1 Introduction

- 1.1 The review of the Council's Local Development Plan 'Planning Pembrokeshire's Future' (adopted February 2013) commenced on 5th May 2017. Welsh Government agreed the Delivery Agreement for the Replacement Local Development Plan on 7th June 2018. This background paper has been prepared to help inform the strategy on future minerals development for the Replacement Local Development Plan (LDP 2).
- 1.2 The paper identifies the requirements of national legislation and policy relating to minerals.
- 1.3 The paper also sets out regional and local evidence, primarily prepared by the South Wales Regional Aggregates Working Party (SWRAWP).
- 1.4 The paper should be read in conjunction with Welsh Government's planning policy on minerals. This is set out in Planning Policy Wales Edition 10 and a related series of Minerals Technical Advice Notes.
- 1.5 The regional position on minerals planning is presented in the Regional Technical Statement (RTS) for Aggregates for South Wales 1st Review. An important supplementary source of information is the series of SWRAWP Annual Reports. These are based on regular surveys completed by minerals operators. The RTS for Aggregates for South Wales 2nd Review has now commenced. It is likely that the final version of this will be published prior to the Council's Replacement Plan being finalised.
- 1.5 Mineral extraction includes all minerals and substances in, on, or under land. Extraction may take place through underground or surface working.
- 1.6 Minerals development is different from other forms of development because:
 - a) It can only take place where a mineral is found.
 - b) It is not a permanent land use, although operations may take place over a long period.
 - c) It will often have environmental and amenity impacts, which should be avoided if possible (where this is not possible, impacts must be monitored and controlled with care).
 - d) Once operations have ceased, land needs to be reclaimed to a high standard and to a beneficial after-use.
- 1.7 The ongoing need for extraction of a variety of minerals to meet society's needs has to be considered alongside the need to protect finite resources and to protect amenity and environment.

2 Legislative and policy background

Welsh Policy

- 2.1 Welsh Government's Minerals Planning Policy is set out in Planning Policy Wales (PPW), edition 10, December 2018. Several Minerals Technical Advice Notes (MTANs) remain in force alongside PPW.
- 2.2 Planning Policy Wales sets out a number of requirements for Development Plans relating directly to minerals. These are summarised in Appendix 1.
- 2.3 In addition to the above, Planning Policy Wales requires the safeguarding of economic mineral resources. This anticipates a possible need for their use by future generations. Maps prepared by the British Geological Survey (2012 update) provide the basis for mineral resource safeguarding in the Council's planning area. Safeguarding of the economic mineral resource forms an element of the current LDP. This will need to be carried forward into the Replacement Plan. However, a recent change to Welsh minerals safeguarding policy means that the requirement to safeguard the primary coal resource of the Plan has been removed, although Local Planning Authorities (except in National Parks) may still choose to do so.
- 2.4 Planning Policy Wales also advises that minerals development should not take place in National Parks or Areas of Outstanding Natural Beauty, other than in very exceptional circumstances. Minerals proposals within or likely to affect Sites of Special Scientific Interest and National Nature Reserves, potential and classified Special Protection Areas, designated, candidate or proposed Special Areas of Conservation or Ramsar sites must be carefully examined under the terms set out in paragraph 5.14.37. Similarly, mineral proposals within the setting of a Scheduled Ancient Monument need careful consideration, as explained in paragraph 5.14.38.
- 2.5 There is additional Welsh Government guidance on minerals planning in:
 - a) Minerals Technical Advice Note 1 – Aggregates (March 2004); and
 - b) Minerals Technical Advice Note 2 – Coal (January 2009).

MTAN 1 advises on delivery of aggregates extraction policies by Mineral Planning Authorities and by the aggregates industry. It also explains the purpose of buffer zones around quarries. Minimum distances for these are 100m for sand and gravel and 200m for hard rock. MTAN 2 provides similar advice on coal extraction. In this case, the minimum buffer zone distance is 500m.

- 2.6 The focus of this paper is on land-won hard rock and sand and gravel. The basis for the provision of these resources across south Wales is set out in the Regional Technical Statement 1st Review for South Wales, which is discussed in more detail later in this report (in the section on Regional Policy).
- 2.7 The emerging Welsh National Marine Plan includes Sector Policies for marine-won aggregates. The consultation draft of this document indicates that marine sourced aggregate is expected to continue to dominate supplies of sand and gravel in Wales compared to other sources. Current licenced reserves are in the Bristol Channel, Severn Estuary and off the North Wales coast (paragraph 396). It also notes that areas of potentially viable aggregate resource have been identified off West Wales and North Wales, adding that these could provide a supply for at least another 50 years (paragraph 397). However, this does not override the need to also find new sources of land-won sand and gravel production in Wales, including south west Wales.
- 2.8 Another aspect of national minerals policy and guidance relates to onshore and immediately offshore oil and gas with the potential to be removed by unconventional methods. There are oil and gas resources in onshore and immediately offshore locations in various parts of Wales. Such resources could potentially be removed in several different ways. These are generally referred to using the generic term 'unconventional methods'.
- 2.9 The resources include shale gas and coal bed methane and methods potentially available for extraction include hydraulic fracturing (fracking) and underground coal gasification.
- 2.10 In Wales, it is generally the case that the potential of these resources needs further exploration and research, as would the implications of the use of these technologies in terms of the environment, public safety and health.
- 2.11 Gas in particular is considered a transitional fuel in the long-term move towards low carbon energy systems in Wales. As such, its use would be considered an interim energy source pending more widespread use of low and zero-carbon energy sources.
- 2.12 The shales that might offer potential for fracking in the UK are generally at 2 to 2.5 km below the ground surface. The fracture zone typically spreads about 200 metres. There has been much concern about potential impacts on groundwater aquifers, although in the UK these are usually at a shallower level than the potential fracking zone. However, the safe disposal of the water used in the fracking process is technically complex to resolve. Other concerns have centred on environmental, health and safety aspects. Fracking is carbon technology rather than renewable energy and hence is generally considered an interim rather than long-term energy source.

- 2.13 There is some potential for fracking in south and south-west Wales, particularly in the Vale of Glamorgan and on the fringes of the South Wales coalfield (the westernmost extremities of which extend into Pembrokeshire). However, there seems to be limited interest in taking proposals forward in south and south-west Wales at present, with the main areas of interest for future extraction proposals being in other parts of the UK.
- 2.14 Energy policy is not currently devolved in Wales and hence Welsh Government has a limited role to play in this matter at the moment. However, it has advised that if, in considering planning applications for fracking proposals, a local authority is minded to grant permission, the application should be referred to Welsh Government, with Welsh Ministers making the final decision. Details of this provision are contained in the Town and Country Planning (Notification) (Coal and Petroleum) (Wales) Direction 2018, which applies to applications registered as valid on or after 5th December 2018.
- 2.15 Under the terms of the Wales Act, 2017, Welsh Ministers took over responsibility for licensing onshore petroleum extraction from the UK oil and gas authority on 01/10/18. That also included inshore estuary waters. Hence, Welsh Government is consulting on a draft policy on petroleum extraction in Wales and on the evidence that has informed the draft policy. The proposed approach reflects the provisions of the Well-being of Future Generations, the Environment (Wales) Act, 2016 and the Economic Action Plan. The key proposal is not to allow any new petroleum licensing in Wales and not to support fracking, an approach that is also embedded in the Welsh Government's 'Taking Wales Forward (2016 to 2021)' document. The consultation document does not cover every aspect of this topic – for instance, it does not consider Underground Coal Gasification to produce Syngas or the use of fossil fuels to generate electricity. However, it does refer to both Coal Bed Methane and Shale Gas and covers exploration and production.
- 2.16 There are references in the consultation document to the general position on use of oil and coal. In terms of the general context:
- Wales de-commissioned its final oil-fired power station in 1999;
 - Oil is imported into Wales through the Port of Milford Haven;
 - LNG comes into Wales from Qatar and Russia, with Milford Haven being the key landfall site;
 - There is an extant oil-refining terminal, together with various petro-chemical storage sites, adjoining and close to the Milford Haven Waterway;
 - Where oil isn't consumed in Wales, there is transfer of the raw material and oil products to England via pipeline or rail;

- The UK Government intends to close all unabated coal-fired power stations by 2025; and
- There is no large-scale oil and gas extraction at any onshore locations in the UK at present.

2.17 Energy demand in Wales is increasingly being met by imported gas, which is less polluting than coal but nonetheless still a fossil fuel. Welsh Government wants to generate 70% of electricity in Wales from renewable sources by 2030. Welsh Government thus sees gas as a transition fuel and there will also be an ongoing role for nuclear. Renewable energy is also intermittent by nature, so requires supplements from other sources.

2.18 In terms of licensing, from October 2018 Welsh Ministers have been responsible for granting and regulation of a) Petroleum Exploration and Development Licences, b) Landward Petroleum Exploration Licences and c) Methane Drainage Licences.

2.19 Welsh Government has concluded that there is no compelling case for the benefits of petroleum extraction when set against commitments to manage natural resources in a sustainable way. Its proposals are therefore:

- a) Not to undertake any new petroleum licensing in Wales; and
- b) Not to support applications for hydraulic fracturing (fracking) petroleum licence consents.

There are a few exceptional circumstances where the recovery of oil or gas is required for mine safety or scientific purposes and Welsh Government will support these.

The outcome of the consultation was not known at the time of drafting of this paper.

2.20 Supply of minerals to facilitate the construction of major projects is a significant issue, but one that is sometimes overlooked. Welsh Government's emerging National Development Framework is likely to refer to a number of these projects, but until it is published, information about such schemes needs to be sourced from elsewhere. When a major project reaches the construction stage, it will draw on available mineral resources and any resulting shortages may have an adverse impact on other important sectors, including housebuilding.

2.21 Supply of minerals for major projects should be undertaken in the most sustainable way possible. That tends to favour local sourcing wherever feasible and transportation by ship rather than road where longer-distance movements are involved. Major projects that might have a regional impact across south, west and mid Wales are listed in the SWRAWP Annual Report, 2017, as follows:

- M4 Newport Relief Road from Magor to Castleton;
- A465 Heads of the Valleys Road dualling;
- Cardiff Eastern Bay Link Road;
- Cardiff Capital Region Metro Project;
- A4226 Five Mile Lane Improvements (Weycock Cross, Barry to Sycamore Cross);
- Newtown By-pass;
- Swansea City Centre and Fabian Way Redevelopment;
- Student Accommodation and Office Developments in Cardiff;
- Major Housing Developments (approx. 14,000 houses) in Cardiff; and
- A40 Llanddewi Velfrey to Penblewin Road Improvements, Pembrokeshire.

Only one of the above schemes is in Pembrokeshire, but major projects can draw on supplies from a wide area.

Major schemes previously under consideration but now less likely to go ahead are:

- a) Swansea Bay Tidal Lagoon Power Plant;
- b) South Wales Rail Electrification Project (west beyond Cardiff); and
- c) Circuit of Wales.

The Hinckley Point C, Somerset, nuclear power project has sourced some of its mineral requirements from quarries in Wales.

Regional policy

The Regional Technical Statement for Aggregates 1st Review for South Wales and North Wales

- 2.22 The Regional Technical Statement for Aggregates 1st Review for South Wales and North Wales (RTS 1st Review) was published in August 2014. It provides recommendations on the following:
- a) The quantity of aggregates which should be supplied by Authority areas, or sometimes by groups of Authorities; and
 - b) The total tonnages required from existing production sites and new allocations made by Local Development Plans. This is to maintain minerals supplies throughout and at the end of the Plan period.
- 2.23 The RTS 1st Review post-dates adoption of the Council's LDP. Its provisions will need to be taken into consideration in preparing LDP 2.
- 2.24 The approach taken to apportionment by the RTS 1st Review is different to that of its predecessor. For hard rock, a single authority approach continues to be taken to the future supply of minerals in SW Wales. However, for sand and gravel, a joint reserve approach is now followed. This combines the reserves of four authorities (Pembrokeshire, Carmarthenshire, Ceredigion and the Pembrokeshire Coast National Park) to provide a basis for future supply.
- 2.25 The joint reserve approach to future supply of sand and gravel requires collaborative working. This has happened for some time through the South Wales Regional Aggregates Working Party (SWRAWP), the organisation that prepared the RTS 1st Review. There is also a POSW minerals and waste planning group, which considers strategic issues relating to these topic areas.
- 2.26 In addition to the above, a South West Wales Minerals Planning Group has been set up. This comprises representatives of Pembrokeshire, Carmarthenshire and Ceredigion County Councils and the Pembrokeshire Coast National Park Authority. Its main purpose is to ensure an adequate supply of hard rock and sand and gravel in SW Wales. It is also seeking, in line with Welsh policy, to reduce and eventually eliminate aggregates extraction within the Pembrokeshire Coast National Park.
- 2.27 There are plentiful supplies of hard rock in South West Wales in non-National Park locations. Although there is no current production of high specification aggregate in Pembrokeshire, Bolton Hill quarry has the potential to supply these. Additionally, some of the Pembrokeshire hard rock quarries produce limestone, which is a raw material for many industries.

- 2.28 In contrast, for sand and gravel, supplies in South West Wales are not plentiful. Current terrestrial sand and gravel production in SW Wales is primarily at quarries in the Pembrokeshire Coast National Park and in Ceredigion. However, the sand and gravel resource extends into other locations in the region. What is uncertain is whether production at these alternative locations would be economically feasible. New terrestrial production sources for sand and gravel now need to be found. This will ensure adequate sand and gravel supplies are maintained in the Region in the long term.
- 2.29 Marine-won sand and gravel supplies landed at wharfs within SW Wales make a modest contribution to meeting regional needs. They will continue to do so in the future. However, these supplies do not remove the need to find new terrestrial sand and gravel production sites in the region.
- 2.30 The RTS 1st Review also advises that existing and potential new wharves and railheads should be identified for safeguarding by LDPs. There is an existing sand and gravel wharf at Pembroke Dockyard, which is safeguarded by the current LDP. Landings are of a modest scale and have fluctuated in volume in recent years. These landings contribute to the overall provision of sand and gravel in the County and in SW Wales. The materials landed are dredged from sites in the Bristol Channel. On the basis of the RTS 1st Review requirement, the safeguarding of the Pembroke Dockyard wharf will be carried forward into the Replacement LDP.
- 2.31 The Regional Technical Statement for Aggregates for North and South Wales will be further reviewed in the near future. The review will commence during 2019, part of the way through PCC's LDP review process. It is uncertain when the RTS review process will conclude. However, it is possible that the emerging PCC LDP 2 will need modification to reflect the provisions of the RTS 2nd review.

The South Wales Regional Aggregates Working Party

- 2.32 Pembrokeshire County Council is a member of the South Wales Regional Aggregates Working Party (SWRAWP). This organisation is responsible for preparing the RTS, as discussed above. The SWRAWP comprises representatives from local authorities and the minerals industry, together with Welsh Government and Natural Resources Wales.
- 2.33 As well as preparing the RTS, the SWRAWP also prepares Annual Reports, the most recent of which is for 2017 (published January 2019). The report covers both terrestrial production and production of marine-won aggregates. It divides the resource into two main categories, known as a) crushed rock (which is referred to elsewhere as hard rock) and b) sand and gravel.

2.34 Some of the key conclusions in relation to Pembrokeshire and SW Wales are set out in the tables below. Each is derived from the 2017 Annual Report. References to 'Pembrokeshire' generally relate to the Council's area of planning responsibility, with Pembrokeshire Coast National Park elements usually referenced separately (although National Park and non-National Park figures are often aggregated). Some of the information is only available for larger groups of authorities.

Crushed rock sales by Mineral Planning Authority 2015-2017 (million tonnes)

<i>Sub-Region</i>	<i>Mineral Planning Authority</i>	<i>Crushed Rock Sales 2015</i>		<i>Crushed Rock Sales 2016</i>		<i>Crushed Rock Sales 2017</i>	
South West Wales	Carmarthenshire	0.82	1.81	0.77	1.69	0.89	1.80
	Neath Port Talbot	0.30		0.28		0.25	
	Pembrokeshire	0.53		0.46		0.56	
	Pembrokeshire Coast National Park						
	Ceredigion	0.16		0.18		0.10	
	Swansea	0		0		0	

2.35 The table above demonstrates a slight fall in levels of crushed rock sales in Pembrokeshire between 2015 and 2016, followed by a recovery between 2016 and 2017. Pembrokeshire sales form a significant component of the regional sales figures.

Crushed rock reserves and landbanks on 31/12/2017 by Mineral Planning Authority (million tonnes) based on 3-year average sales 2015-2017

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Crushed Rock Reserve 31/12/2017</i>	<i>Average Annual Sales 2015-2017</i>	<i>Landbank (years) based on 3-year sales average</i>
South West Wales	Carmarthenshire	76.75	0.83	>50
	Neath Port Talbot	16.27	0.28	>50
	Pembrokeshire	32.84	0.52	>50
	Pembrokeshire Coast National Park			N/A
	Ceredigion	5.76	0.15	40
	Swansea	0	0	0

2.36 The table above confirms that there is a significant reserve of crushed rock in Pembrokeshire. In the context provided by average annual sales over a 3-year period, there is a crushed rock landbank for Pembrokeshire of more than 50 years.

Crushed rock reserves and landbanks at 31/12/2017 by Mineral Planning Authority (million tonnes) based on 10-year average sales 2008-2017

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Crushed Rock Reserve 31/12/2017</i>	<i>Average Annual Sales 2008-2017</i>	<i>Landbank (years) based on 10-year sales average</i>
South West Wales	Carmarthenshire	76.75	0.79	>50
	Neath Port Talbot	16.27	0.42	35
	Pembrokeshire	32.84	0.67	46
	Pembrokeshire Coast National Park			N/A
	Ceredigion	5.76	0.17	33
	Swansea	0	0	0

2.37 The table above provides further confirmation that there is a significant reserve of crushed rock in Pembrokeshire. In the context provided by average annual sales over a 10-year period, there is a crushed rock landbank for Pembrokeshire of 46 years – less than is the case using the 3-year period, but still substantial.

Crushed rock reserves at Dormant Sites by Mineral Planning Authority (million tonnes)

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Crushed rock reserve 31/12/2017</i>
South West Wales	Carmarthenshire	13.82
	Ceredigion	0
	Pembrokeshire	0
	Pembrokeshire Coast National Park	
	Neath Port Talbot	0
	Swansea	0

2.38 The table above indicates that there are no crushed rock reserves at Dormant Sites in Pembrokeshire.

Land won sand and gravel sales by Mineral Planning Authority (million tonnes)

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Sand and Gravel Sales 2015</i>	<i>Sand and Gravel Sales 2016</i>	<i>Sand and Gravel Sales 2017</i>
Powys (including Brecon Beacons)	Powys	0.27	0.16	0.16
South West Wales	Carmarthenshire			
	Ceredigion			
	Pembrokeshire Coast National Park			

- 2.39 The table above provides aggregated land won sand and gravel sales figures from Powys, Carmarthenshire, Ceredigion and the Pembrokeshire Coast National Park Authority. Sales fell between 2015 and 2016, but then stabilised between 2016 and 2017. There is no current sand and gravel production in Pembrokeshire outside the National Park and hence there are no sales either.

Land won sand and gravel reserves and landbanks by Mineral Planning Authority (million tonnes) based on 3-year average sales 2015-2017

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Sand and Gravel Reserve 2017</i>	<i>Average annual sales 2015-2017</i>	<i>Landbank (years) based on 3-year sales average</i>
Powys (including Brecon Beacons)	Powys	2.84	0.18	>50
South West Wales	Carmarthenshire			>50
	Ceredigion			7
	Pembrokeshire Coast National Park			N/A

2.40 The table above indicates the aggregated sand and gravel reserve in 2017 for Powys, Carmarthenshire, Ceredigion and the Pembrokeshire Coast National Park. The average annual production over the 3 years from 2015 to 2017 indicates that there is a land won sand and gravel landbank of more than 50 years for Powys and Carmarthenshire and 7 years in Ceredigion. The Pembrokeshire Coast National Park is not required to hold a landbank. There is no current sand and gravel production in Pembrokeshire outside the National Park and hence there is no landbank figure. Although not immediately apparent from this table, there is a need to find alternative sources of land-won sand and gravel in SW Wales. These should be outside the Pembrokeshire Coast National Park if possible.

Land won sand and gravel reserves and landbanks by Mineral Planning Authority (million tonnes) based on 10-year average sales 2008-2017

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Sand and Gravel Reserve 2017</i>	<i>Average annual sales 2008-2017</i>	<i>Landbank (years) based on 10-year sales average</i>
Powys (including Brecon Beacons)	Powys	2.84	0.23	>50
South West Wales	Carmarthenshire	2.84	0.23	>50
	Ceredigion			5
	Pembrokeshire Coast National Park			N/A

2.41 The table above indicates the aggregated sand and gravel reserve in 2017 for Powys, Carmarthenshire, Ceredigion and the Pembrokeshire Coast National Park. The average annual production over the 10 years from 2008 to 2017 indicates that there is a land won sand and gravel landbank of more than 50 years for Powys and for Carmarthenshire and of 5 years for Ceredigion. The Pembrokeshire Coast National Park is not required to hold a landbank. There is no current sand and gravel production in Pembrokeshire outside the National Park and hence there is no landbank figure. As also noted for the 3-year production figures, and although not immediately apparent from this table, there is a need to find alternative sources of land-won sand and gravel in SW Wales. These should be outside the Pembrokeshire Coast National Park if possible.

Port statistics for marine dredged aggregate landings 2017 (source: The Crown Estate Summary of Statistics, 2015, 2016 and 2017)

<i>Mineral Planning Authority</i>	<i>Landing Port</i>	<i>2015 tonnages</i>	<i>2016 tonnages</i>	<i>2017 tonnages</i>
Pembrokeshire	Port of Pembroke	24,531	42,911	26,831

- 2.42 The table above shows that marine dredged aggregate landings at Port of Pembroke increased by more than 18,000 tonnes between 2015 and 2016 but then fell by just over 16,000 tonnes between 2016 and 2017. Consequently, there is little difference between the 2015 and 2017 figures.
- 2.43 The facility in Carmarthenshire, at Burry Port, handled 110,112 tonnes in 2015, the figure falling back to 84,594 tonnes in 2016 but then increasing to 119,760 tonnes in 2017.
- 2.44 The above-mentioned landings are of modest scale in comparison with those in SE Wales. For example, in 2017 176,669 tonnes of sand and gravel was landed in Cardiff Docks, 259,285 tonnes was landed in Newport Docks and a further 81,844 tonnes was landed in Swansea Docks.
- 2.45 This marine-won material is sourced in its entirety from the Bristol Channel. At present, the production sites are exclusively on the English side of the Bristol Channel, but in the future sites on the Welsh side of the Channel might be licenced.
- 2.46 Where sand and gravel wharves exist, it is unlikely that new terrestrial production sites for sand and gravel will be economically viable within a distance of about 30 miles.

Secondary aggregate sales by Mineral Planning Authority 2016 (million tonnes)

<i>Region</i>	<i>Mineral Planning Authority</i>	<i>Secondary Aggregate Sales 2014</i>	<i>Secondary Aggregate Sales 2015</i>	<i>Secondary Aggregate Sales 2016</i>
Powys (including Brecon Beacons)	Powys	0.75	0.25	0.74
South West Wales	Pembrokeshire			
	Neath Port Talbot			
South East Wales	Cardiff			
	Vale of Glamorgan			

- 2.47 Secondary aggregate sales levels are available, but only in Powys, SW Wales and SE Wales combined form. A significant fall in sales took place in 2015, but by 2016, sales had recovered to close to the 2014 level.
- 2.48 The Survey response in relation to Secondary Aggregate Sales in 2017 was so poor that an analysis was not undertaken. Hence, the data shown above is from 2016.
- 2.49 The situation regarding the use of secondary aggregates in the long term is not clear. A lot of secondary aggregate material is potentially available at Aberthaw, in the Vale of Glamorgan. Hence, what happens at this site in the future will be an important consideration in a secondary aggregates context across south and west Wales.
- 2.50 Recycled aggregate producers and secondary aggregate producers in Pembrokeshire are listed in Appendix 5.
- 2.51 LDP policies regarding use of secondary aggregates should encourage their use while at the same time being realistic about what may be delivered. A criteria-based approach is likely to be the most feasible.

3 Local evidence

Local Development Plans in general

3.1 Local Development Plans focus on provision for future working of land-won minerals. When considering what provision should be made for future quarrying of terrestrial primary aggregates, the following are taken into account:

- a) The contribution of marine resources; and
- b) The contribution of secondary aggregates.

However, neither marine resources nor secondary aggregates form a part of the landbank.

3.2 Local Planning Authorities (except in National Parks) are required to maintain landbanks of hard rock and of sand and gravel. Terrestrial locations are the normal source of hard rock supplies. However, sand and gravel may be quarried from terrestrial locations or dredged from marine locations.

3.3 In Wales, the landbank in each Local Planning Authority area (except in National Parks) is expected to be sufficient to:

- a) Cover the lifetime of the Local Development Plan; and
- b) Cover an additional 10 years for hard rock and 7 years for sand and gravel – at the end date of the LDP.

The situation in Pembrokeshire is more complex because for LDP 2:

- A joint reserve approach is likely to be taken for hard rock, combining Pembrokeshire County Council and Pembrokeshire Coast National Park Authority resources (which is the approach taken by the current LDP); and
- An approach based on a regional provision for SW Wales is likely to be taken for sand and gravel, to accord with the approach set out in the Regional Technical Statement for Aggregates, 1st Review.

If the approach set out above is to be used for LDP 2, it will need to have the agreement of neighbour Local Planning Authorities, probably in the form of one or more Statement(s) of Common Ground. Pembrokeshire County Council, Carmarthenshire County Council, Ceredigion County Council and the Pembrokeshire Coast National Park Authority prepared a Statement of Common Ground on land-based sand and gravel provision in June 2018.

- 3.4 The Council's LDP 2 will remain in force until 2033, hence in simplistic terms the landbank requirement should be sufficient to last until 2043 for hard rock and 2040 for sand and gravel in the Council's planning area. However, because a) the hard rock position should take account of National Park reserves and b) the sand and gravel position should take account of the combined reserves of Pembrokeshire, Ceredigion and Carmarthenshire, these requirements will need to reflect a position that references more than that within Pembrokeshire County Council's area of planning jurisdiction. Hence, for hard rock and for sand and gravel, the requirement is not for a single-authority landbank but for a reserve for a larger area.
- 3.5 In Pembrokeshire County Council's area of planning jurisdiction, there are several active quarries and a smaller number of dormant quarries. In the Pembrokeshire Coast National Park, there are also active quarries. The long-term objective is for National Park minerals production to cease, although this will not happen immediately, as there are active quarries operating under current consents. There are alternative sources of hard rock in Pembrokeshire and in South West Wales. However, the National Park quarries at Trefigin and Pant Gwyn are the only active sand and gravel production sites in Pembrokeshire and within the SW Wales region there are few alternative terrestrial production sites. Future consenting of minerals production within the Pembrokeshire Coast National Park Authority will only occur in very exceptional circumstances.

Local Development Plans in Pembrokeshire – an overview

- 3.6 In Pembrokeshire, only Pembrokeshire County Council is required to maintain a minerals landbank. The Pembrokeshire Coast National Park Authority is not required to do so. However, there is minerals production in Pembrokeshire in both National Park and non-National Park locations.
- 3.7 For the current PCC LDP, agreement was reached with the Pembrokeshire Coast National Park Authority to use a joint reserve approach – for both hard rock and sand and gravel. Paragraph 5.31 of the LDP records that the *'Pembrokeshire wide reserve provides for a combined landbank for hard rock of 36.47 years and for sand and gravel of 17.86 years, at 2012, with 28.82 years of hard rock supply and 8.36 years of sand and gravel available at 2021'*.

- 3.8 For Pembrokeshire County Council's LDP 2, a different approach will need to be taken, because of the provisions of the RTS 1st Review. The latter continues to take a single-authority approach to apportionment for hard rock. Hence, a joint reserve approach with the Pembrokeshire Coast National Park Authority can continue for this element of the provision. This, of course, would be subject to the continuing agreement of the National Park Authority.
- 3.9 For sand and gravel, the RTS 1st Review addresses apportionment on a joint authority (South West Wales) basis. The apportionment is now shared between Pembrokeshire, Carmarthenshire and Ceredigion. The Local Planning Authorities operating in this area are required to address provision collaboratively. As noted above, Pembrokeshire, Carmarthenshire and Ceredigion County Councils and the Pembrokeshire Coast National Park Authority prepared a Statement of Common Ground on land-based sand and gravel provision in June 2018.
- 3.10 The landbank requirement in this wider area is shared between Pembrokeshire, Carmarthenshire and Ceredigion County Councils (as recorded earlier, the Pembrokeshire Coast National Park Authority is not required to keep a landbank). Nonetheless, the National Park has current sand and gravel and hard rock production sites that will continue for some time into the future. The long-term goal is to move this production out of the National Park, so it is critical that all discussions on minerals planning in SW Wales for the second generation of LDPs also involve the Pembrokeshire Coast National Park Authority.
- 3.11 Specific information on the Council's LDP and on the National Park Authority's LDP is presented below.

Pembrokeshire County Council LDP

- 3.12 Pembrokeshire County Council's current LDP has five policies on minerals:
- Strategic policy SP 6 (Minerals);
 - General policy GN.22 (Prior Extraction of the Mineral Resource);
 - General policy GN.23 (Minerals Working);
 - General policy GN.24 (Recycled Waste Materials and Secondary Aggregates); and
 - GN.25 (Buffer Zones around Mineral Sites).

A brief outline of each is set out below.

- 3.13 SP 6 explains how Pembrokeshire County Council will contribute to the national, regional and local supply of minerals. Reference is made to:
- Maintenance of a reserve of hard rock and sand and gravel;
 - The safeguarding of coal and aggregates (including sand and gravel and hard rock); and
 - The safeguarding of wharves for landing marine-dredged sand and gravel.

- 3.14 GN.22 deals with the prior extraction of the mineral resource. This policy has to be considered where new development is permitted in an area of mineral resource. Prior extraction will be required wherever appropriate in terms of economic feasibility and environmental and other planning considerations. If it is needed, then it must take place prior to commencement of the development.
- 3.15 GN.23 explains that proposals for mineral working / extensions to existing mineral working sites will be permitted where four criteria are satisfied. The criteria are:
- 1) In the case of non-energy minerals – where the mineral is required to supply an identified need which cannot be met from secondary or recycled materials or existing reserves;
 - 2) In the case of non-energy minerals – where the scale of development is appropriate to serve the local market and a suitable proportion of the regional market;
 - 3) In the case of former minerals sites – where there will be no adverse effect on land which has been satisfactorily restored - and the proposal makes a valuable contribution to the character of the local landscape and local environment; and
 - 4) Where there is provision for – landscaping, groundwater protection, a beneficial after-use, restoration and post-closure management of the site, including progressive restoration of sites where appropriate.
- 3.16 GN.24 says that proposals to use recycled waste materials as secondary aggregates will be permitted where various criteria are satisfied. The scope of the policy covers the re-use of construction materials arising from demolition.
- 3.17 GN.25 advises that new mineral extraction and new sensitive development will not normally be permitted within the buffer zones around mineral working sites. This deals with situations where such uses would potentially have adverse impacts on one another because of their close proximity.
- 3.18 Pembrokeshire County Council has also published Good Practice Guidance on the safeguarding of the existing mineral resource to support the current LDP. This provides practical advice on the consideration of this issue, which is required for the evaluation of planning applications in the safeguarded area. Monitoring for LDP Annual Monitoring Reports 2, 3 and 4 indicated that no applications were approved contrary to the provisions of GN.22.

- 3.19 Progress towards delivery of the Council's LDP policies and proposals is monitored on an annual basis. There are now four LDP Annual Monitoring Reports (AMRs) for the Council's LDP, these forming part of the evidence base for LDP 2. The key conclusions reached on a year-by-year basis in relation to minerals are not summarised separately in this document, but a table of minerals applications determined since LDP adoption on 28/02/13 is presented in Appendix 2. These provide an important part of the context for review of the Plan's minerals policies.
- 3.20 Drawing on the conclusions of the four Annual Monitoring Reports for the current LDP, it is apparent that new sites for extraction of land-won sand and gravel will be needed in SW Wales. Minerals operators were formally notified of this need, in conjunction with the SWRAWP minerals survey in 2017. This approach is to be repeated for the 2018 survey. Until recently, no expressions of interest in bringing forward new terrestrial sand and gravel sites had been forthcoming. However, in 2019 Pembrokeshire County Council received three LDP 2 Candidate Sites for sand and gravel quarries. Carmarthenshire County Council also received a LDP 2 Candidate Site for a new sand and gravel quarry. These sites will be evaluated (as part of the Candidate Site assessment process) to determine whether they have potential to meet the future regional need for sand and gravel.
- 3.21 Mineral working within the Council's planning area is presented in Appendix 2 of the current LDP. This reflects the position at the time that the Plan was prepared. This table will need to be updated for the Replacement LDP, taking into consideration the most up-to-date SWRAWP Annual Report.
- 3.22 Appendix 3 to this background paper provides a basis for revision to Appendix 2 of the current LDP, but may need further updating closer to the Deposit Plan drafting date.
- 3.23 Pembrokeshire County Council published a Preferred Strategy for its Replacement LDP (LDP 2) in December 2018. This included a draft Strategic Policy on Minerals, SP 16, which updates on policy SP 6 of LDP 1. The policy text is reproduced below, although both policy and reasoned justification (the latter not reproduced here) may be modified for the Deposit LDP 2.

LDP 2 Preferred Strategy policy SP16 Minerals

A contribution to the national, regional and local need for a continuous supply of minerals will be met by:

1. Maintaining a reserve of hard rock and sand and gravel throughout and at the end of the Plan period;
2. Safeguarding known resources of coal and aggregates (including hard rock and sand and gravel) from permanent development, in locations outside settlement boundaries;

(Following publication of Planning Policy Wales edition 10, there is no longer a requirement to safeguard the primary coal resource of the Plan area. Although there is an option to continue to safeguard this part of the mineral resource, there are strong arguments not to do so, including the following:

- Combustion of coal produces carbon and Welsh policy is to move towards zero carbon.
- There has been no interest from the coal industry in developing sites in Pembrokeshire for many years, the implication being that currently it is not commercially viable to do so.
- There does not seem to be any interest in using Pembrokeshire coal from the speciality coal markets, even though these attract higher prices than coal for energy use.
- Prior extraction of coal, where other development is proposed within the safeguarded coal reserve, would seem to conflict with Welsh Government policy of not extracting coal, other than in wholly exceptional circumstances. (However, an exceptional circumstance might be a local land instability issue that could be resolved through extraction).

The Council's position on this matter has yet to be confirmed but will be reflected in the Deposit LDP 2).

3. Safeguarding the landfall location for marine-dredged sand and gravel;
4. Creating buffer zones around existing mineral production sites to protect quarry operators and those occupying or using nearby land; and
5. Supporting the re-use and recycling of minerals.

Linked Key Issues: Resourceful communities and Tackling Rurality.

This strategic policy will contribute towards achieving objectives B and D.

3.24 The dates on which mineral extraction will end at quarries in Pembrokeshire County Council's planning area vary considerably. The current position (June 2018) is presented below:

<i>Site name</i>	<i>Mineral type</i>	<i>Mineral extraction will end:</i>
Blaencilgoed / Gellihalog, near Ludchurch, site M1	Limestone	21 st February 2042 ROMP Review Date – pending
Bolton Hill, Tiers Cross, Site M2	Igneous	10 th February 2053 ROMP Review Date – 24 th April 2024
Slade Hall Farm Quarry, Site M3	Shale	24 th May 2021
Glogue Quarry, site M4	Slate	13 th September 2023
Cotts Lane, Martletwy, site M5	Shale	30 th April 2020
Penlan Farm, site M6	Shale	9 th June 2023
Cefn, Cilgerran, site M7	Sandstone	3 rd July 2027
Plascwrt Farm, Llangolman, site M8	Igneous	12 th November 2024
Pope Hill, site M9	Shale	6 th September 2021
Tangiers Farm, site M10	Shale	1 st October 2023
Cronllwyn, site M11	Slate waste	3 rd November 2019
Treffgarne (2 locations), site M12	Igneous	21 st February 2042 Currently a dormant site
Gilfach, site M13	Shale	21 st February 2042 Currently a dormant site
Rushacre Farm, site M16	Shale	17 th April 2022

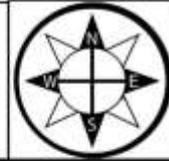
- 3.25 Excepting the dormant sites, the quarries listed above are all producing hard rock of some sort and contribute towards the hard rock landbank. With the exception of the Blaencilgoed, Gilfach, Treffgarne and Bolton Hill quarries, mineral extraction permissions will end before the Replacement LDP end date of 2033. Looking 10 years beyond 2033, to 2043, as required for hard rock land-banking purposes, there will only be one quarry, Bolton Hill, which will still be producing under a current permission.
- 3.26 Two of the sites in the table above, at Treffgarne and Gilfach, are identified as being Dormant. In these cases, use of Prohibition Orders might be appropriate, as there is little likelihood of re-commencement of quarrying activity in the LDP 2 plan period. Prohibition Orders can be used to ensure that no further extraction of minerals takes place without a further planning permission being issued. Serving of such Orders takes place outside LDP procedures. At Treffgarne, preparations for the serving of a Prohibition Notice have already commenced, although at the time of writing an Order had not been served.
- 3.27 The planning permissions at Yetwen Quarry and at Keeston Borrow Pit have now lapsed. The permission on the part of Trefigin quarry outside the Pembrokeshire Coast National Park has been revoked. However, a LDP 2 Candidate Site proposes re-consideration of this matter. Also, a further quarry site at Fenton Home Farm, Crundale, which recently operated as a temporary borrow pit, has now reverted to being an agricultural quarry operating under agricultural permitted development rights. These, along with some other mineral extraction sites that are also no longer operational, are listed in Appendix 4.
- 3.28 Map 1, below, indicates the location of each of the sites in the table above, together with that of the sand and gravel wharf at Pembroke Dockyard.



Mineral Sites

Scale (A4 Print)

1:400,000

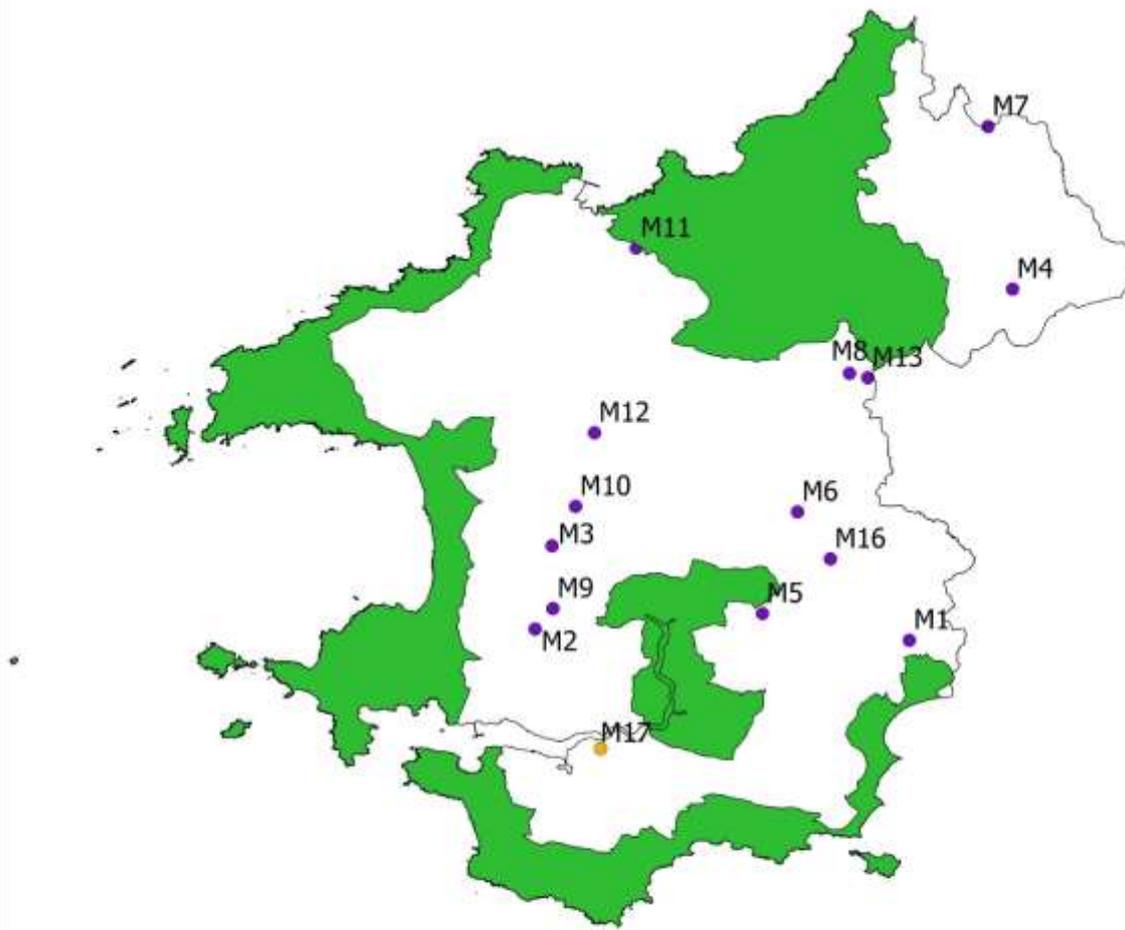


Key

- Pembrokeshire
- Pembrokeshire Coast National Park Area

Mineral Sites

- Mineral Sites
- Sand and Gravel Wharf



© Crown copyright and database rights 2018 Ordnance Survey 100023344 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. © Hwylfaint y Goron a hawlau cronfa ddata 2018 Ffrolwg Ordnam 100023344 EUL. Rhoddir trwydded datrymiadau, anghyfmgedig a heb freindal i chi i webl y data trwyddedig at ddibenion arfasnechol am y cyfnod y mae ar gael gan Cyngrir Sir Penfro Ni chwech gopïo, is-dwyddiedu, dosbarthu na gwerthu unrhyw ran o'r data hwn i ddyddid partion mewn unrhyw ffurf.

- 3.29 The LDP 2 Candidate Site process has provided a further opportunity for landowners and minerals operators to put forward possible sites for future minerals extraction. The outcome of this in relation to minerals sites is set out in Section 4.
- 3.30 If the Candidate Sites submitted for sand and gravel quarrying are found to be suitable, it may be possible to make allocations in the Deposit LDP 2. However, if this does not prove to be the case, then LDP 2 might have to persist with the Areas of Search approach that is followed by the current Plan.

Pembrokeshire Coast National Park Authority LDP

- 3.31 The Pembrokeshire Coast National Park Authority adopted its current LDP in 2010. This Plan includes six policies on minerals, specifically:
- a) Policy 21 – Minerals Safeguarding;
 - b) Policy 22 – Buffer Zones;
 - c) Policy 23 – Borrow Pits;
 - d) Policy 24 – Local Building Stone;
 - e) Policy 25 – Recycled, Secondary and Waste Materials; and
 - f) Policy 26 – Inactive Mineral Sites.

The Plan includes a general statement on mineral working in the National Park. No new mineral workings / extensions to existing workings will be allowed within the National Park, other than in exceptional circumstances.

- 3.32 The Pembrokeshire Coast National Park Authority is currently reviewing its LDP. It has prepared a LDP 2 Background Paper on Minerals, a Preferred Strategy and a Deposit Plan.
- 3.33 The Background Paper examines National, Regional and Local aspects of minerals in the National Park.
- 3.34 The Deposit Plan is a full public consultation draft of the National Park Authority's LDP 2. It confirms that no new mineral workings or extensions to existing mineral workings will be allowed within the National Park, other than in exceptional circumstances. This follows the National policy approach to mineral working in National Parks. Policy 21 on the Scale of Growth (strategy policy) advises that 'major development, including minerals development, will only be permitted in exceptional circumstances'. The policy section on minerals elaborates on this approach, referencing regional work to meet the need for minerals in SW Wales and to identify new sites for minerals production in the region with a view to replacing those in the National Park. A suite of six minerals policies is proposed:

Policy 22 – Minerals Safeguarding;

Policy 23 – Development in Mineral Buffer Zones;

Policy 24 – Borrow Pits;

Policy 25 – Local Building Stone;

Policy 26 – Recycled, Secondary and Waste Materials; and

Policy 27 – Inactive Mineral Sites.

The broad policy approach proposed by the Deposit Plan is very similar to that of the current Plan.

- 3.35 Notwithstanding the above, production of minerals at the active quarries in the National Park will continue for some time under current consents. This includes the only current production of sand and gravel at terrestrial quarries in Pembrokeshire – at Trefigin and Pant Gwyn. However, in the long-term it is probable that production will cease, with new consents in the National Park only being granted in exceptional circumstances.
- 3.36 An extension to the Trefigin Quarry was approved by the Welsh Assembly Government in October 2011. Earlier permissions had permitted sand and gravel production in National Park and non-National Park parts of the site. However, an element of the 2011 permission involved revocation of part of the earlier consent. Specifically, this related to the part of the site in the Council's planning area. Hence, Trefigin Quarry is currently a National Park quarry where previously it was a cross-boundary one.
- 3.37 An extension to the Pant Gwyn Quarry was approved by the Welsh Assembly Government in August 2010.
- 3.38 At Pant Gwyn (2010) and Trefigin (2011) the National Park test of exceptional circumstances was considered to have been met.

Other Local Development Plans in SW Wales

Ceredigion

3.39 In Ceredigion, there is current terrestrial sand and gravel production at four sites:

- a) Cardigan Sand and Gravel at Penyparc;
- b) Pant, near Llanddewi Brefi;
- c) Crug-yr-Eryr, near Talgarreg; and
- d) Glanyrafon, near Aberystwyth.

The current Ceredigion LDP allocates extensions for sites a) and b). At Cardigan Sand and Gravel a 12.79 ha extension is envisaged, while at Pant the extension proposed is for 3.18 ha. It should not be assumed that, beyond existing commitments, Ceredigion would have further capacity to supply sand and gravel to meet the SW Wales requirement.

Carmarthenshire

3.40 Terrestrial sand and gravel production in Carmarthenshire is at a very small scale, mostly of river gravels and with little sand. The majority of the sand and gravel resources reaching Carmarthenshire come from marine sources. These are either landed at a wharf at Burry Port or brought in from wharves at Briton Ferry / Swansea. Carmarthenshire County Council has received two Candidate Sites, which seek to retain existing small sand and gravel quarry sites with planning permission, in conjunction with review of its LDP.

Other local considerations

Dormant Sites

- 3.41 The way in which dormant sites are treated has changed recently. Mineral Planning Authorities are now asked to assess the likelihood of each such site being worked in the Plan period, subject to the completion of an initial review of planning conditions and submission of an Environmental Impact Statement.
- 3.42 Where a likelihood of re-commencement of activity at a dormant site is the conclusion, then the likely production from the site(s) in question may be offset against the need for future allocations. In other words, if re-commencement of activity at a currently dormant site is likely, then this will reduce or eliminate the need to make new minerals allocations elsewhere.
- 3.43 There are a few dormant sites in the Council's planning area. The site at Treffgarne has two separate but related elements and there is another site at Gilfach. Re-commencement of production at these sites in the LDP 2 plan period seems unlikely.

- 3.44 A further site at Yetwen (letwen) has previously been considered dormant. However, the planning permission here has now expired. It is understood that a mineral operator has recently purchased this site.

Groundwater

- 3.45 Where quarrying of minerals is proposed, surface and groundwater supplies should be protected.

Quarry de-watering

- 3.46 Minerals operators who do not currently need to de-water, because they are quarrying above the water table, would now need to get an abstraction licence from Natural Resources Wales before they could extend their quarry operations below the water table. In some cases, planning permissions are in place that would allow extraction below the water table but the necessary licences have not yet been put in place.
- 3.47 Securing the necessary licences is not necessarily straightforward, and hence some operators may try to avoid deepening their quarries to levels below the water table by instead opting for lateral extension. One potential implication of this would be to increase the surface area of some quarries, which would also have implications for the definition of the related buffer zones.

Safeguarding of the economic resource

- 3.48 Mineral resources with economic potential are safeguarded for the future. The approach to protection of these resources for future generations is embedded in the current LDP, in line with Welsh policy guidance. Where resources are protected, this does not necessarily indicate that mineral working is accepted, or that the precise location and quality of the mineral is known, or that the environmental consequences of extraction have been considered. While the hard rock and sand and gravel safeguarding requirements remain in place, the previous requirement to also safeguard the primary coal resource has now been removed from Welsh planning policy. The option to safeguard the primary coal resource is, however, still available to local planning authorities, as explained above.

Quarry buffer zones

- 3.49 Quarry buffer zones are used to ensure that conflicts between minerals workings and other nearby land uses are avoided, or if this is not possible, minimised and mitigated. These zones surround operational and dormant mineral working sites. Within such zones, there should be no new mineral extraction or new sensitive development, although some types of less sensitive development may be possible. There is an exception to this general approach, where the site of the new development in relation to the minerals operation is within or on the far side of an existing built up area that already encroaches on the buffer zone. In that context, there are some current minerals production sites in the Council's area of planning responsibility that have buffer zones extending over existing built up areas.
- 3.50 Where extensions to minerals sites are proposed (or have been consented since LDP 1 was adopted) and environmental and amenity considerations can be mitigated, buffer zones will need to be adjusted accordingly.

Restoration and aftercare

- 3.51 Where new proposals for mineral extraction are put forward, these should include arrangements for high quality restoration and aftercare. Applications that do not do this are likely to be refused.
- 3.52 Restoration and aftercare should maintain and if possible enhance the quality of land and landscapes taken for mineral extraction. Some worked-out sites may also be able to provide opportunities for creating and / or enhancing nature conservation schemes.
- 3.53 Phasing of restoration activities is increasingly being used as a means of reducing the potential environmental damage that might result from a failure to restore. In addition, operators and landowners of minerals sites are expected to set aside sufficient finance to enable them to meet future restoration and aftercare obligations. However, there is unlikely to be a requirement for them to cover the whole cost of restoration from the outset.

Transportation

- 3.54 Transportation considerations are also of great importance in assessing minerals proposals. Welsh Government's preference is for movement of minerals to be via the rail network or by water wherever economically feasible. However, if transportation of minerals by road is the only feasible option, then the routes used must be shown to have sufficient capacity to deal safely with the movement of the minerals and related products. In rural areas, this may be particularly challenging and a Traffic Impact Assessment is likely to be required to accompany a planning application. Section 106 agreements and planning conditions can sometimes be used to ensure an appropriate means of controlling routes but greater control exists in relation to access, design and signage.

4 Candidate Sites

- 4.1 While no LDP 2 Candidate Sites were submitted proposing minerals development during the first call for sites, three have been submitted in conjunction with the opportunity to submit Additional Candidate Sites. An existing minerals operator has put one of these forward, suggesting an extension of an existing sand and gravel quarry in the Pembrokeshire Coast National Park into the Council's planning area. The other two submissions have been put forward by the County Council's Property Team, also proposing sand and gravel quarrying, on Council owned land within the sand and gravel resource area.
- 4.2 These submissions will initially be subject to the standard Site Assessment process. However, because minerals developments are uncommon, can only take place where the mineral is found and require specialist knowledge at the assessment stage, additional expert advice will be sought where necessary. One of the matters that will be considered is the regional landbank / reserve for this type of mineral extraction.
- 4.3 In summary, the Candidate Sites proposing minerals development (in each case sand and gravel quarrying) are as follows:

<i>Candidate Site number</i>	<i>Location</i>	<i>Area (hectares)</i>	<i>Proposal</i>
497	Trefigin Quarry, Monington	9.25	Extend existing (sand and gravel) quarry
516	Land at Pen-y-Bryn, Mathry	10.35	Sand and gravel quarry
517	Land at Pallau and Mount Farm, Eglwysrw	32.80	Sand and gravel quarry

- 4.4 The maps below shows the geographical location and extent of each of the Candidate Sites listed above.

5 Summary and conclusions

- 5.1 Various matters need to be considered in conjunction with the review of the minerals policies and proposals for LDP 2, as set out below.
- 5.2 Welsh Government's minerals policies are currently set out in Planning Policy Wales (PPW) edition 10 and in a series of Minerals Technical Advice Notes. The LDP 2 minerals policies and proposals will be set in the context provided by these documents.
- 5.3 LDP 2 will also need to reflect the approach of the RTS 1st Review, which was approved in 2014. There might be a need for further amendments when the RTS is reviewed for the second time – work on this started in 2019 and is anticipated to be completed in January 2020.
- 5.4 Local Planning Authorities (except in National Parks) are required to maintain landbanks of hard rock and of sand and gravel. Hard rock is normally land-won. However, sand and gravel can be land-won or marine-won.
- 5.5 The basic policy approach to minerals of LDP 1 is likely to be carried forward into LDP 2, but it will need to be updated to reflect contextual updates, including those in PPW and introduced through the RTS 1st Review. The good practice guidance on safeguarding of existing mineral resources will need to be rolled forward, but will require modification if the Council decides not to safeguard the primary coal resource of the Plan area (as explained above, the latter is now an option rather than a requirement under Welsh planning policy).
- 5.6 LDP 2 will take a joint reserve approach for hard rock, combining PCC and PCNPA resources. This will perpetuate the existing arrangement, but will need the agreement of both Local Planning Authorities. Special consideration may need to be given to sources of high-specification aggregates for use in road surfacing, construction and maintenance and to the size of the landbank for limestone.
- 5.7 A SW Wales regional provision is likely to be taken for sand and gravel, to reflect the RTS 1st Review requirements. This will need the agreement of all neighbour Local Planning Authorities (PCC, PCNPA, Carmarthenshire County Council and Ceredigion County Council). These authorities have agreed a Statement of Common Ground regarding sand and gravel.
- 5.8 Pembrokeshire County Council's LDP 2 end-date is 2033 and hence the landbank requirement will need to be sufficient to last until 2043 for hard rock and to 2040 for sand and gravel.

- 5.9 There is a long-term intention to remove minerals production from the Pembrokeshire Coast National Park, where there is current production of both hard rock and land-won sand and gravel. Current consents will allow minerals production in the National Park to continue for some time into the future. However, new minerals consents in the National Park will only be issued in very exceptional circumstances.
- 5.10 Following on from the above point, there is a consequential need to find alternative terrestrial production sites for hard rock and for sand and gravel, to replace those in the National Park. For hard rock, these will be found elsewhere in Pembrokeshire, where the hard rock landbank is of sufficient size to allow this to happen. For sand and gravel, there is no current production in the part of Pembrokeshire outside the National Park, although there are resources that may or may not be capable of economic extraction elsewhere in Pembrokeshire and in neighbouring counties in SW Wales. The RTS 1st review requires the terrestrial sand and gravel production issue to be resolved on a SW Wales regional basis. Sand and gravel quarry Candidate Sites submitted for Pembrokeshire County Council's LDP 2 (and similar Candidate Site submissions in neighbour Local Planning Authorities) will be assessed to judge their suitability for allocations. However, if the submitted sites in Pembrokeshire are not found to be appropriate for allocations, and sufficient provision is not available in neighbour authorities, it may be necessary to continue to use an Area of Search approach for new sand and gravel production sites in Pembrokeshire County Council's planning area.
- 5.11 Some of the sand and gravel resources coming into SW Wales are marine-won. There is a sand and gravel wharf at Pembroke Dock and another at Burry Port in Carmarthenshire where landings take place. The material is sourced from the Bristol Channel. The Pembroke Dock wharf contributes supplies the Pembrokeshire market and the Burry Port wharf may also do so to some extent. The Pembroke Dock sand and gravel wharf is safeguarded by the current Plan and will be safeguarded by the Replacement Plan as well.
- 5.12 As marine-won sand and gravel is of importance in supplying material to the SW Wales market, consideration therefore needs to be given to the provisions of the emerging Welsh Government Welsh National Marine Plan (WNMP). A draft of the WNMP formed a basis for public consultation recently, with a final version expected soon.

- 5.13 LDP 2 may need to refer to onshore and immediately offshore oil and gas resources that have a potential to be removed by unconventional methods. Licensing in this area moved to Welsh Government in autumn 2018 and Welsh policy in this area is currently emerging, with draft proposals suggesting that Welsh Government will not to undertake any new petroleum licensing in Wales and that it will not support applications for hydraulic fracturing (fracking) petroleum licence consents. The outcome of the consultation was not known at the time of drafting of this paper. For LDP 2, the Council will have regard to Welsh Government's general approach on this matter.
- 5.14 There is a general need to be aware of the implications of major projects across South and South West Wales on mineral resources. At least one major project in England has also recently sourced minerals from Wales. It is possible that some of these projects will be referred to in Welsh Government's forthcoming National Development Framework.
- 5.15 There is a continuing requirement to safeguard existing quarry sites and sand and gravel wharves – and to set up buffer zones around the quarry sites. Quarry buffer zones will need to be amended to reflect consenting since the current LDP was adopted.
- 5.16 Although there are plentiful supplies of hard rock in the part of Pembrokeshire outside the National Park and in the SW Wales region, there might be a need to allocate some of those where planning permissions will expire within the Plan period, to facilitate their potential renewal. The broader context for this is that many of the current permissions for hard rock quarrying in PCC's planning area will expire before 2033 and all but one will have expired by 2043. Allocations will only be contemplated where future mineral working beyond the current planning permission expiry date is both desirable and deliverable within the LDP 2 Plan period. A consideration will be whether operators indicate an intention to continue quarrying beyond their current consents through LDP 2 Candidate Site submissions. Criteria-based policies will continue to be needed to provide a basis for evaluation of minerals proposals on unallocated sites.
- 5.17 At the two dormant mineral sites, Prohibition Orders may be appropriate. Preparations for the issue of a Prohibition Order have already commenced at one of the sites, although the Order has yet to be made. However, if there is a likelihood of the re-commencement of quarrying during the Plan period at a dormant site, then the likely production from that site can be offset against any need for future allocations.
- 5.18 Future policy on secondary aggregate use should strike a balance between encouraging their re-use but being realistic about what they might deliver. The largest potential sources of such material are likely to be from major industrial sites outside Pembrokeshire.

- 5.19 The Council will continue to use the BGS 2012 minerals safeguarding maps as a basis for safeguarding of the economic mineral resource in the Plan area. However, the previous requirement to include safeguarding of the primary coal resource has now been removed from Welsh planning guidance, although the option to do so remains.
- 5.20 Surface and groundwater supplies should continue to be protected where quarrying of minerals is proposed.
- 5.21 Consideration needs to be given to the potential implications of licencing requirements for quarry de-watering.
- 5.22 In assessing minerals proposals, movement of the resource from quarry to market will be a key consideration, especially if movement by road is the only option.
- 5.23 High quality restoration and aftercare of quarry sites will continue to be needed.

Appendix 1 – Planning Policy Wales requirements for Development Plans

Welsh Government published Planning Policy Wales edition 10 (PPW) in December 2018. This latest edition of PPW has been re-structured to reflect the provisions of the Well-being of Future Generations (Wales) Act, 2015. Although references to minerals development can be found throughout the document, section 5.10 (paragraphs 5.10.1 to 5.10.17) set out the Welsh Government's position on Energy Minerals, while Section 5.14 on Minerals (paragraphs 5.14.1 to 5.15.57) is the primary source of information on minerals in general. Within Section 5.14, there are sub-sections dealing with many of the key aspects of minerals development, including:

- Efficient use of minerals.
- Safeguarding mineral resources and infrastructure.
- Ensuring supply.
- Assessing supply and demand.
- Inactive sites.
- Areas of future working.
- National, regional and local needs for non-energy minerals.
- Aggregates.
- Non-aggregate minerals, including dimension stone and limestone for industrial use.
- Peat.
- Other minerals.
- Borrow pits.
- Protecting special characteristics and qualities of places.
- Reducing the impacts of mineral extraction and related operations.
- Buffer zones.
- Extensions.
- Transport of minerals by road.
- Restoration and aftercare.
- After-use.
- Financial guarantees.

Some of the minerals resources that Wales requires are marine-won (rather than from terrestrial sources) and are landed at wharves at Welsh ports, including the sand and gravel wharf in Pembroke Dockyard. Provisions relating to marine-won sand and gravel resources are included in the emerging Welsh National Marine Plan.

Appendix 2 – planning applications for minerals-related developments received and determined since LDP adoption on 28/02/13 (correct at 20/02/19)

<i>Application number</i>	<i>Location</i>	<i>Proposal</i>	<i>Decision</i>
13/0247/MN	Tangiers Farm, Haverfordwest	Extension to quarry	Conditionally approved 25 10 13 AMR year 1
13/0692/MN	Borrow Pit, south of Austalise, Keeston	Variation of condition No.1 of 11/0548/MN to extend the time period of the permission for a further 2 years	Conditionally approved 25 07 14 AMR year 2
13/0951/MN	Land adjacent to Cotts Lane, Martletwy	Variation of condition No.1 of 07/1132/MN to extend the commencement period	Conditionally approved 28 05 14 AMR year 2
14/0037/MN	Land N. Of Fenton Home Farm, Crundale	Quarrying of stone for use in the construction of a photovoltaic solar farm	Conditionally approved 10 06 14 AMR year 2
14/0082/PA	Blaencilgoed Quarry, Ludchurch	Variation of condition No.1 from consent 10/0236/MN (importation of gritstone)	Conditionally approved 14 10 14 AMR year 2
14/0105/MN	Plascwrt Farm, Llangolman	Variation of condition 1 of planning consent 03/0007/MN (extension of time limit)	Conditionally approved 12 11 14 AMR year 2
14/0504/PA	Bolton Hill Quarry, Tiers Cross	New staff car park, pedestrian footway and modified site access, engineering works to provide bays for the storage and sale of decorative aggregates, service area and car parking (partly in retrospect)	Conditionally approved 02 02 15 AMR year 2
15/0365/MN	Blaencilgoed Quarry, Ludchurch	Determination of conditions (Environment Act, 1995)	No decision
15/0662/MN	Glogue Quarry, Glogue	Extension to mineral workings	Conditionally approved 27 09 16 AMR year 4
15/0678/DC	Bolton Hill Quarry, Tiers Cross	Discharge of conditions 2, 4 and 5 on planning consent 14/0504/PA	Refused 30 11 15 AMR year 3
15/0720/DC	Slade Hall, Haven Road, Haverfordwest	Discharge of conditions 13 and 14 of 10/0440/MN (extension to quarry operations)	No decision – see 17/0180/PA below also
15/0980/PA	Slade Hall, Haven Road, Haverfordwest	Variation of condition 24, to allow screening / crushing / processing of stone (10/0440/MN)	Conditionally approved 30 06 16 AMR year 4
14/0128/MN	Penlan Farm, Bethesda	Extension to extraction area	Conditionally approved 09 06 16 AMR year 4
17/0180/PA	Slade Hall Quarry, St. David's Road, Haverfordwest	Variation of conditions 12 and 14 on 10/0440/MN (extension to quarry operations)	Cancelled 06 06 17 AMR year 5

<i>Application number</i>	<i>Location</i>	<i>Proposal</i>	<i>Decision</i>
17/0457/DC	Bolton Hill Quarry, Tiers Cross, Haverfordwest	Discharge of conditions 8, 10 and 40 of 07/0705/MN (extension to Bolton Hill Quarry, with associated soil stripping, creation of screen bunds / soil stockpiles and related restoration works)	Part refused / part approved 24 11 17 AMR year 5
18/0051/MN	Bottom Yard, Cotts Lane, Martletwy	Variation of condition 1 of 13/0951/MN	Conditionally approved 24 05 18 AMR year 6
18/0012/PA	Bottom Yard, Cotts Lane, Martletwy	Variation of condition 1 of 13/0951/MN	Cancelled 17 05 18 AMR year 6
18/0322/MN	Cotts Lane Quarry, Martletwy	Mineral working and associated development	Cancelled 07 08 18 AMR year 6
18/0376/PA	Tangiers Farm Quarry, Tangiers, Haverfordwest	Variation / removal of condition 41 of 13/0247/MN	Cancelled 12 07 18 AMR year 6
18/0383/PA	Bolton Hill Quarry, Tiers Cross	Variation of conditions 14 (blast monitoring review scheme) and 25 (ground water and surface water monitoring scheme) for 07/0705/MN (extension to Bolton Hill Quarry and associated soil stripping, creation of screen bunds / soil stockpiles and related restoration works) to allow for alternative timeframes	Conditionally approved 17 01 19 AMR year 6
18/0385/MN	Tangiers Farm Quarry, Haverfordwest	Variation of condition 41 (details of restoration and planting scheme) for 13/0247/MN	Withdrawn 18 09 18 AMR year 6
18/0662/PA	Tangiers Quarry, Tangiers Farm, Haverfordwest	Variation of condition 41 (restoration details and planting scheme) for 13/0247/MN (extension to quarry), to allow revised restoration details	Conditionally approved 05 04 19 AMR year 7
18/0904/PA	Blaencilgoed Quarry, near Ludchurch	Variation of condition 64 of planning applications 98/0004/MN, 98/0005/MN and 98/0006/MN	Conditionally approved 28 02 19 AMR year 6
18/1228/MN	Slade Hall, Haven Road, Haverfordwest	Extension to existing quarry at Slade Hall, including weighbridge and weighbridge office	No decision
19/0045/DC	Bolton Hill Quarry, Tiers Cross	Discharge of condition 9 (Rights of Way) for planning permission 18/0383/MN	No decision

Appendix 3 – mineral working at sites within Pembrokeshire County Council's planning jurisdiction

<i>Quarry</i>	<i>Resource</i>	<i>Situation in 2013 (with selective updates)</i>	<i>Operator</i>	<i>Consented and undetermined applications from 01/04/1996 (conditionally approved green, undetermined orange, part refused / part approved purple)</i>	<i>Review needed (where known)</i>
Blaencilgoed / Gellihalog, near Ludchurch Site M1	Limestone	Active in 2013 (still active in 2014)	G.D. Harries	98/0001/MN 98/0004/MN 98/0005/MN 98/0006/MN 99/0323/PA 07/0896/MN 07/1137/MN 08/1300/MN 09/0286/MN 10/0236/MN 10/0503/MN 10/1103/MN 14/0082/PA 15/0365/MN 18/0904/PA	Mineral extraction permission expires: 21/02/2042 (2018 information) ROMP review date: pending
Bolton Hill, Tiers Cross Site M2	Igneous	Active in 2013 (still active in 2014)	G.D. Harries	98/0007/MN 00/0002/MN 02/0008/MN 07/0705/MN 07/1595/GD 14/0504/PA 17/0457/DC	Mineral extraction permission expires:10/02/2053 (2018 information) ROMP review date: 24/04/2024 (2018 information)

Quarry	Resource	Situation in 2013 (with selective updates)	Operator	Consented and undetermined applications from 01/04/1996 (conditionally approved green, undetermined orange, part refused / part approved purple)	Review needed (where known)
				18/0383/PA 19/0045/DC	
Slade Hall Farm Quarry, Haverfordwest Site M3	Mudstone / Shale	Active in 2013 (still active in 2014)	N. W. Jones	96/0091/PA 98/0008/MN 99/0001/MN 04/0002/MN 07/0109/MN 10/0440/MN 15/0720/DC 15/0980/PA 18/1228/MN	Mineral extraction permission expires: 24/05/2021 (2018 information)
Glogue Quarry Site M4	Slate / Secondary	Active in 2013 (still active in 2014)	Mansel Davies and Sons	97/0817/PA 98/0587/PA 07/1352/MN 15/0662/MN	Mineral extraction permission expires: 13/09/2023 (2018 information)
Cotts Lane, Martletwy Site M5	Shale	Active in 2013 (but inactive in 2014)	F. Credland	03/0003/MN 05/0004/MN 07/1132/MN 13/0951/MN 18/0051/MN	Mineral extraction permission expires: 30/04/2020 (2018 information)
Penlan Farm, Bethesda Site M6	Shale	Active in 2013 (still active in 2014)	S. Griffiths	04/0001/MN 11/0165/MN 14/0128/MN	Mineral extraction permission expires: 09/06/2023 (2018 information)

<i>Quarry</i>	<i>Resource</i>	<i>Situation in 2013 (with selective updates)</i>	<i>Operator</i>	<i>Consented and undetermined applications from 01/04/1996 (conditionally approved green, undetermined orange, part refused / part approved purple)</i>	<i>Review needed (where known)</i>
Cefn, Cilgerran Site M7	Slate / Sandstone	Active in 2013 (but inactive in 2014)	AD Plant	98/0002/MN 98/0108/PA 98/1038/PA 11/0675/MN	Mineral extraction permission expires: 03/07/2027 (2018 information)
Plascwrt Farm, Llangolman Site M8	Sandstone / Igneous	Active in 2013 (but inactive in 2014)	M. Evans	03/0007/MN 14/0105/MN	Mineral extraction permission expires: 12/11/2024 (2018 information)
Pope Hill Site M9	Shale	Active in 2013 (but inactive in 2014)	Lawrence Bros.	01/0002/MN 03/0004/MN 03/0008/MN 03/1243/PA 05/0392/PA 06/0004/AG 08/0709/MN	Mineral extraction permission expires: 06/09/2021 (2018 information)
Tangiers Farm Site M10	Shale	Active in 2013 (still active in 2014)	Mason Bros.	08/0500/MN 13/0247/MN 18/0662/PA	Mineral extraction permission expires: 01/10/2023 (2018 information)
Cronllwyn Site M11	Slate / Slate waste (secondary)	Active in 2013 (but inactive in 2014)	E. Evans	07/1597/MN	Mineral extraction permission expires: 03/11/2019 (2018 information)

<i>Quarry</i>	<i>Resource</i>	<i>Situation in 2013 (with selective updates)</i>	<i>Operator</i>	<i>Consented and undetermined applications from 01/04/1996 (conditionally approved green, undetermined orange, part refused / part approved purple)</i>	<i>Review needed (where known)</i>
Treffgarne (2 locations) Site M12	Igneous	Dormant in 2013 (still dormant in 2014)	Various	No planning history under PCC at either site	Mineral extraction permission expires: 21/02/2042 (2018 information) Currently a dormant site
Gilfach Site M13	Slate / Shale	Small-scale working, for the owners' personal use in 2013 (but dormant in 2014)	Mrs. G. Davies	No planning history under PCC	Mineral extraction permission expires: 21/02/2042 (2018 information) Currently a dormant site
Rushacre Farm Site M16	Shale	Not in 2014 survey	G. James	11/0480/MN	Mineral extraction permission expires: 17/04/2022 (2018 information)
Pembroke Dock Wharf (marine-won aggregates) Site M17	Marine-won sand and gravel		G.D. Harries and A&C Aggregates	No planning history under PCC, but safeguarded by the current LDP	

Appendix 4 – sites where production has taken place in the recent past but has now finished:

- Yetwen Quarry (previously site M14) – sandstone quarry – planning permission expired in 2015 but now believed to be in the ownership of a mineral operator. Conditionally approved planning consents under PCC were 99/0003/MN, 00/0001/MN, 02/0006/MN, 05/0003/MN and 10/0400/MN.
- Trefign Quarry (the part of the site outside the National Park) (previously site M15) – sand and gravel quarry - the element of the quarrying planning permission in the PCC planning area was revoked in conjunction with the grant of permission for extensions to the part of the quarry in the National Park. There was one conditionally approved planning consent under PCC – 97/0001/MN, plus a later application 06/0001/MN, which was undetermined. Working never commenced in the part of this site outside the National Park.
- South of Austalise, Keeston – borrow pit for shale extraction – planning permission expired on 25/07/2016. Conditionally approved planning consents under PCC were 09/0376/MN, 10/0873/MN, 11/0548/MN and 13/0692/MN.
- Land north of Fenton Home Farm, Crundale – borrow pit for temporary production of stone over a 3-month period, in conjunction with construction of a solar farm. This operation has now concluded. The quarry previously and subsequently worked under agricultural permitted development rights. The conditionally approved temporary planning consent under PCC was 14/0037/MN.
- Dale Road, Hubberston, Milford Haven – borrow pit – active until 2013.
- Wogaston Farm, Hundleton – temporary quarry – inactive by 2012.
- Brawdy Quarry, near Penycwm – sand and gravel quarry, active until 2009, with production now ceased and the site restored.
- Mountain Farm, near Broad Haven – quarrying for farm use, with production now ceased.
- Cinnamon Grove Farm, Old Hakin Road, Haverfordwest – quarrying solely in conjunction with construction of a cycle path, with production now ceased.
- Carn Rock, Devonshire Drive, near Tenby – clay extraction site, with production now ceased.

Appendix 5 – recycled aggregate producers and secondary aggregate producers in Pembrokeshire (source: SWRAWP Annual Report, 2017):

Recycled aggregate producers in Pembrokeshire:

- Hughes and John, New Croft Garage, Cresselly, Kilgetty.
- Lawrence Brothers, Lawrence Landfill, Pope Hill, Johnston.
- TBS Skips, Plot 10, Waterston Industrial Estate, Milford Haven.

Secondary aggregate producers in Pembrokeshire

- E.Evans, Cronllwyn Quarry, Llanychaer, Pembrokeshire.
- Mansel Davies & Son Ltd, Glogue Quarry, Glogue, Pembrokeshire.