

MARINE AGGREGATES

THE CROWN ESTATE LICENCES

SUMMARY OF STATISTICS 2023

I N D E X

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ACCOMPANYING NOTES

1. These statistics refer to removal of sand and gravel from the bed of the English and Welsh Territorial Sea and Continental Shelf, under licence from The Crown Estate Commissioners. Removals from areas not in The Crown Estate ownership are not included in these statistics, nor area dredged materials removed purely for navigational reasons and not used beneficially.
2. All the statistics relate to royalty returns for the 2023 calendar year.
3. All permitted and actual extraction figures are expressed in metric tonnes. A conversion factor of 1.73 for aggregate and 1.5 for sand, has been applied where necessary, to convert cubic metres to metric tonnes.
4. The reported permitted removal tonnages shown within this report refers to the tonnage permitted within The Crown Estate production agreement. This is correct as at 31st December 2023.
5. The tonnages exclude corrections relating to late declarations and those identified during the audits.
6. The regional landing statistics totals will not equate to the amount dredged from each region, due to the presence of the export market and movement of aggregate to meet differing home market demands.
7. The county landing statistics for England are based on ceremonial counties and preserved counties for Wales.
8. An Official Port Listing is included (pages 17-18), which illustrates the individual landing locations (current and historic) and the standard name used within this document.

1. Regional Dredging Statistics

Licences to Dredge Marine Minerals

Dredging Area	Permitted Removal *1	Primary Aggregates	Rivers and Miscellaneous	Secondary Aggregates		Total Removal
				Beach Nourishment	Reclamation Fill	
Humber	6,875,000	3,465,540	-	637,253	-	4,102,793
East Coast	7,125,000	3,405,677	-	-	-	3,405,677
Thames Estuary	4,350,000	1,531,292	-	-	-	1,531,292
East English Channel	9,166,667	3,555,450	-	445,767	-	4,001,217
South Coast	8,125,000	4,020,210	-	67,803	-	4,088,013
South West	2,799,998	1,315,151	-	63,291	-	1,378,442
North West	700,000	294,173	-	1,781	-	295,954
Total	39,141,665	17,587,492	-	1,215,896	-	18,803,388

2. Regional Landing Statistics

Humber / North East	1,174,528
East Coast	331,843
Thames Estuary	7,350,168
East English Channel	663,749
South Coast	2,374,739
South West	1,315,151
North West	294,173
Export	4,083,141
Primary Aggregates Total	17,587,492
Beach Nourishment / Reclamation Fill / Rivers and Misc	1,215,896
TOTAL LANDED	18,803,388

3. National Landing Statistics - Primary Aggregate

England	12,795,193
Wales	709,158
Belgium	1,207,537
France	140,694
Netherlands	2,734,910
Primary Aggregates Total	17,587,492

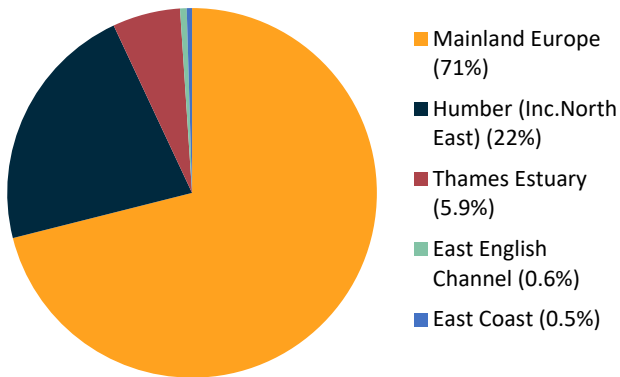
*1 Relates to Average Annual Tonnages (total tonnage / term). This does not include specific permitted tonnages for Secondary Aggregates only.

The Humber region

Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Blyth	64,851
River Humber Wharves	213,715
River Tees Wharves	611,861
River Tyne Wharves	284,101
<hr/>	
Humber / North East Total	1,174,528

During 2023 material extracted from the region delivered to:



3.46

million tonnes of primary aggregate were extracted out of the permitted **6.87 million tonnes** from **10 licences***

0.64

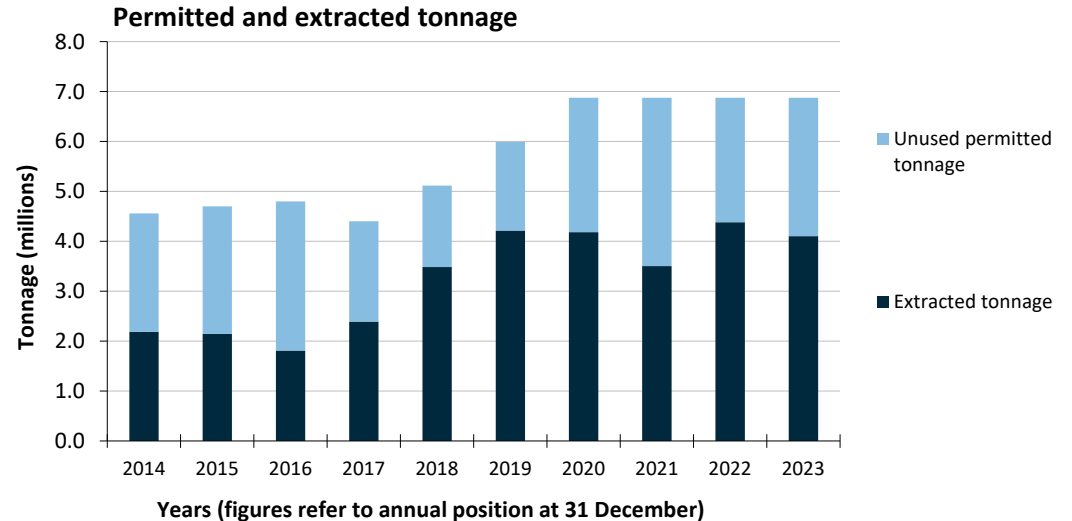
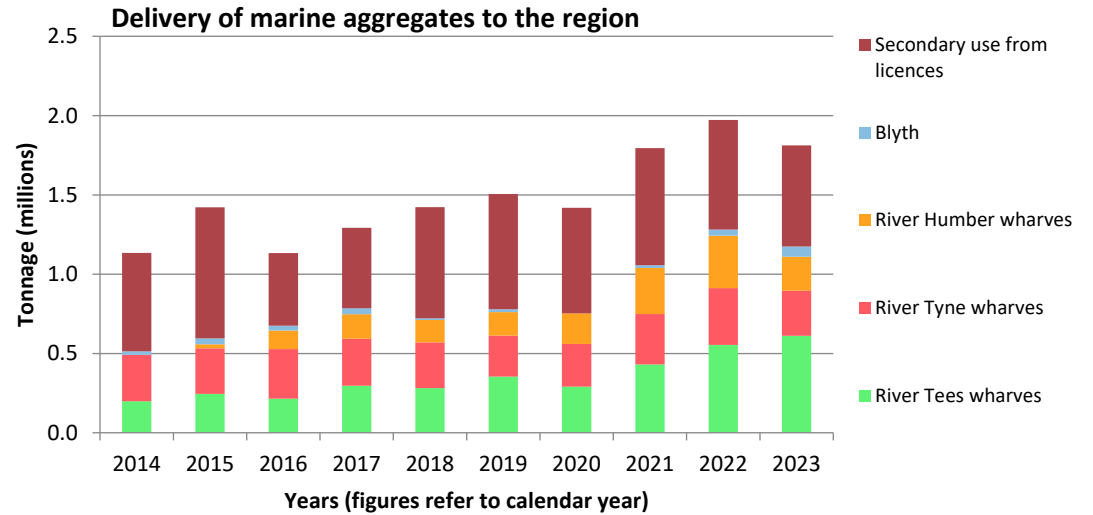
million tonnes of aggregate were extracted for **Beach Nourishment**

14

Current estimates suggest there are **14 years** of primary aggregate production permitted *

1

Current application for a licence could, if approved **increase** the permitted tonnage by **0.5 million tonnes** annually *

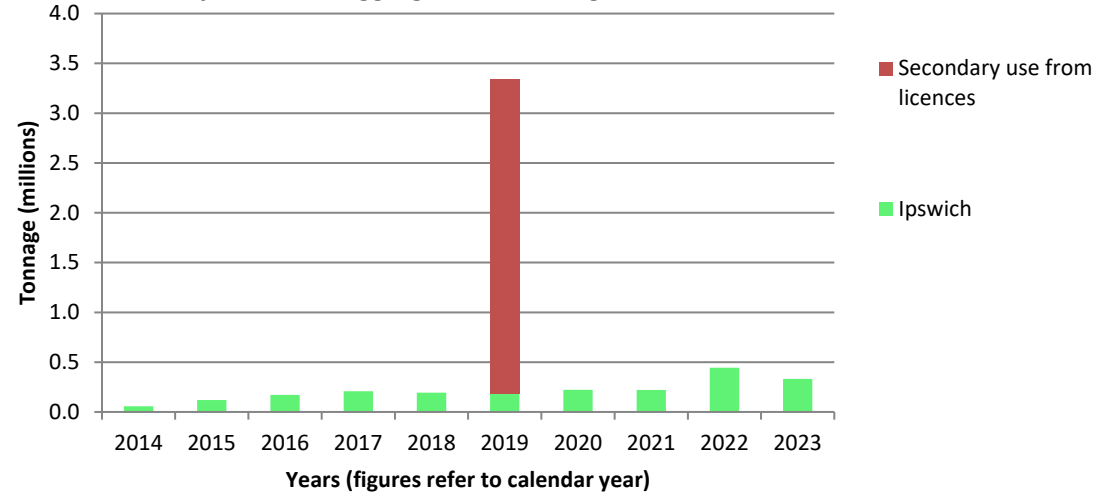


The East Coast region

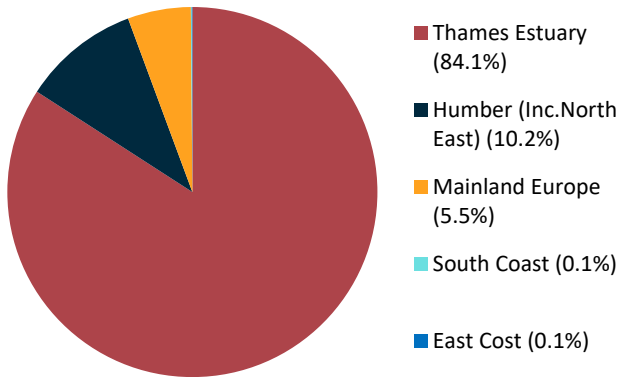
Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Ipswich Wharves	331,843
East Coast Total	331,843

Delivery of marine aggregates to the region



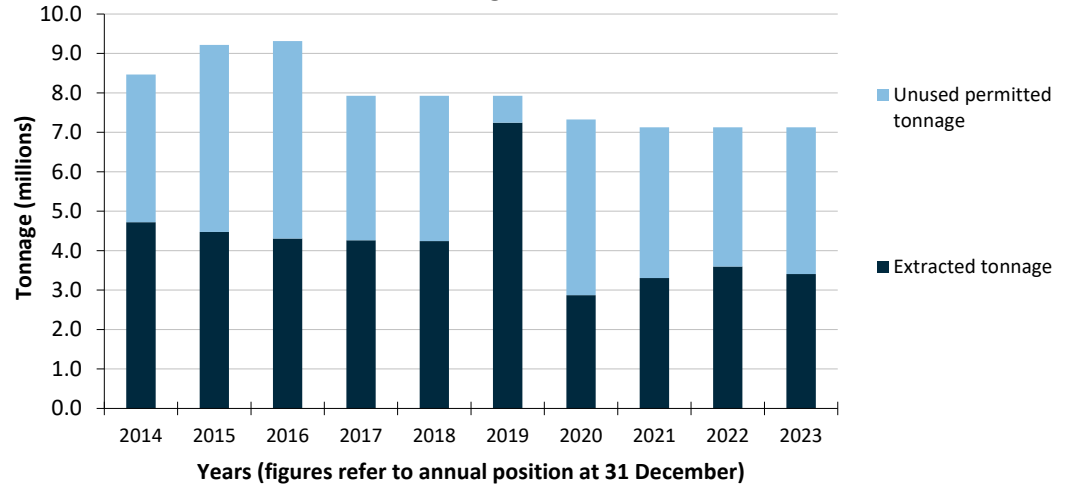
During 2023 material extracted from the region delivered to:



3.4

million tonnes of primary aggregate were extracted out of the permitted **7.1 million tonnes** from **11 licences***

Permitted and extracted tonnage



9

Current estimates suggest there are **9 years** of primary aggregate production permitted *

1

Current application for a licence could, if approved **increase** the permitted tonnage by **0.65 million tonnes** annually*

No marine aggregate was extracted for **Beach Nourishment**

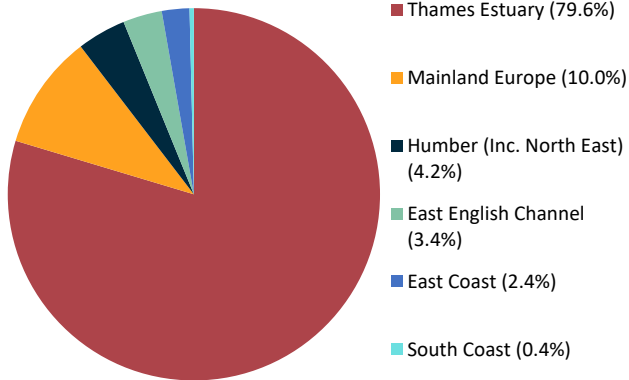
The Thames region

Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Cliffe	1,463,300
Dagenham	1,949,072
Denton	344,025
Gravesend	38,174
Greenwich Wharves	1,944,203
Greenhithe	347,254
Northfleet	624,078
River Medway Wharves	349,253
Swale Wharves	29,700
Tilbury	261,110

Thames Estuary Total **7,350,168**

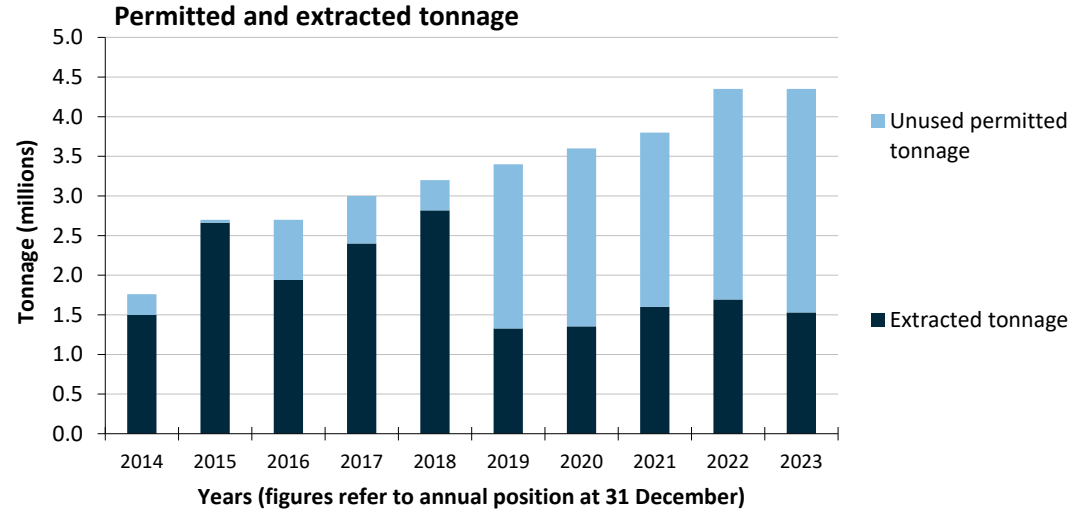
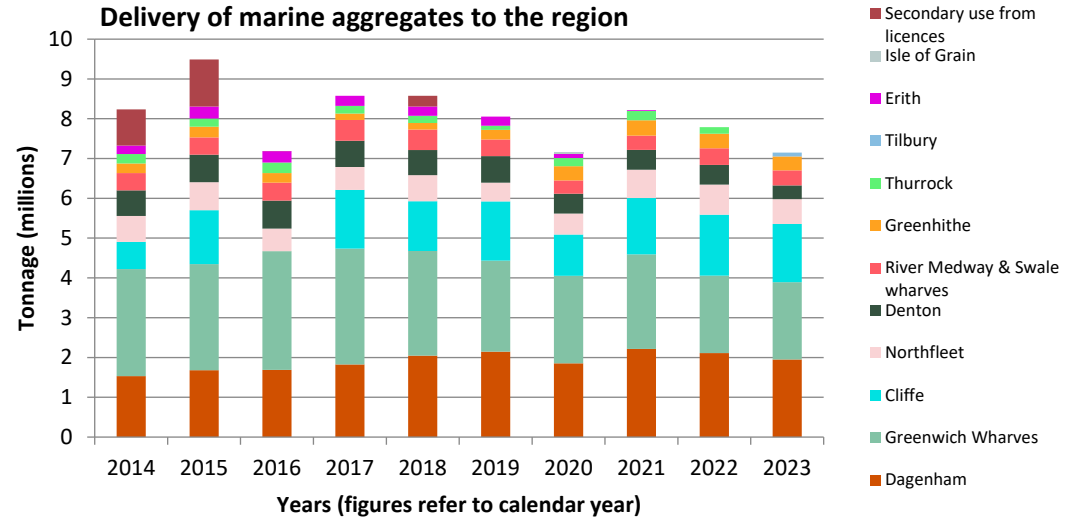
During 2023 material extracted from the region and delivered to:



1.5

million tonnes of primary aggregate were extracted out of the permitted **4.3 million tonnes** from **8 licences***

No marine aggregate was extracted for **Beach Nourishment**



22

Current estimates suggest there are **22 years** of primary aggregate production permitted *

1

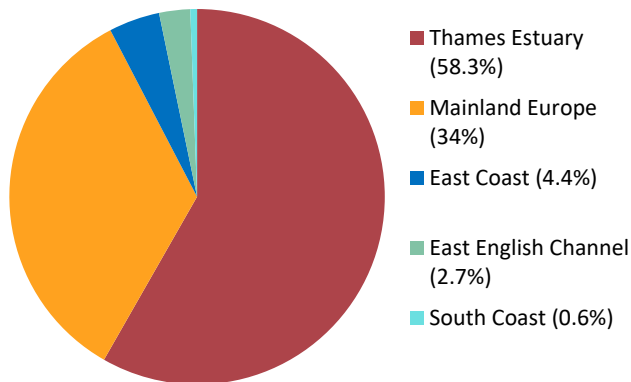
Current application for a licence could, if approved **increase** the permitted tonnage by **0.5 million tonnes** annually*

The East English Channel region

Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Dover	30,855
Newhaven	582,288
Ramsgate	50,576
<hr/>	
East English Channel Total	663,749

During 2023 material extracted from the region and delivered to:

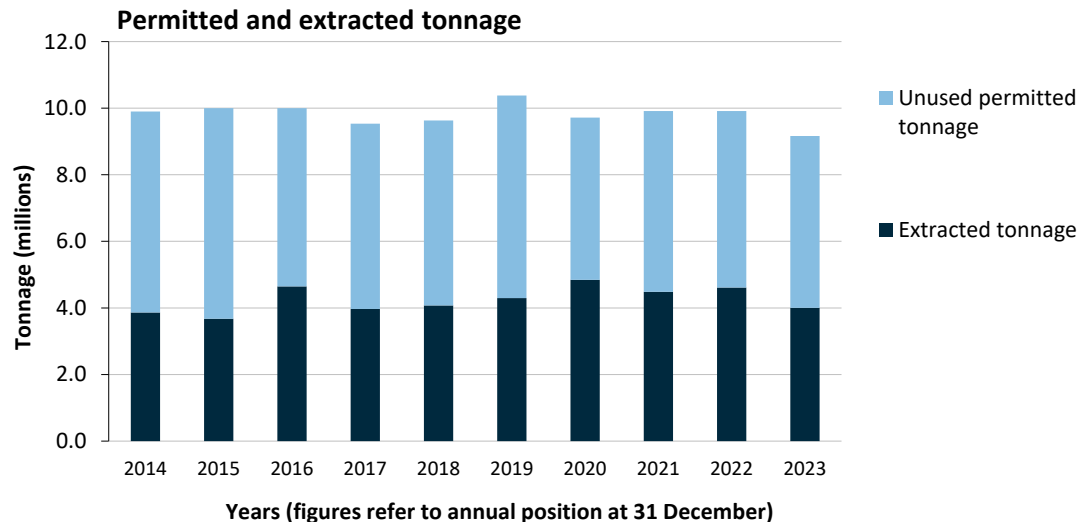
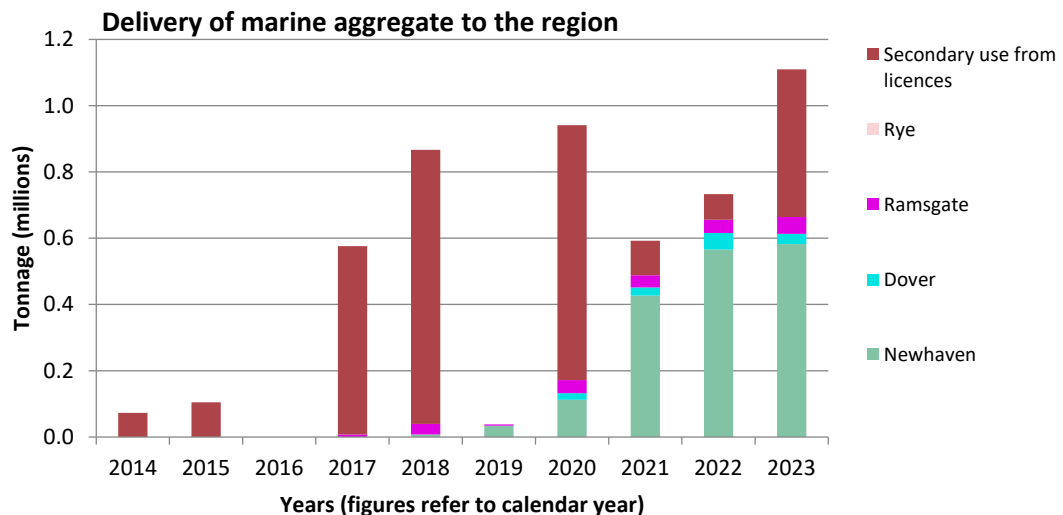


3.5

million tonnes of primary aggregate were extracted out of the permitted **9.1 million tonnes** from **9 licences***

0.4

million tonnes of aggregate were extracted for **Beach Nourishment**



34

Current estimates suggest there are **34 years** of primary aggregate production permitted *

5

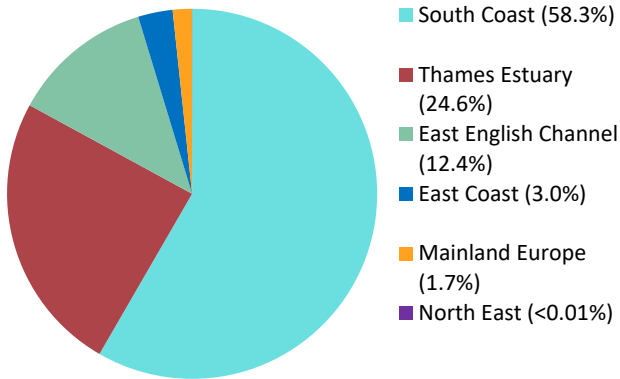
Current applications for licences could, if approved **increase** the permitted tonnage by **3.4 million tonnes** annually *

The South Coast region

Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Cowes	41,162
Langstone Harbour Wharves	572,340
Poole	26,413
Shoreham Harbour Wharves	862,818
Southampton Wharves	872,006
South Coast Total	2,374,739

During 2023 material extracted from the region and delivered to:



4.0

million tonnes of primary aggregate were extracted out of the permitted **8.13 million tonnes** from **15 licences***

0.07

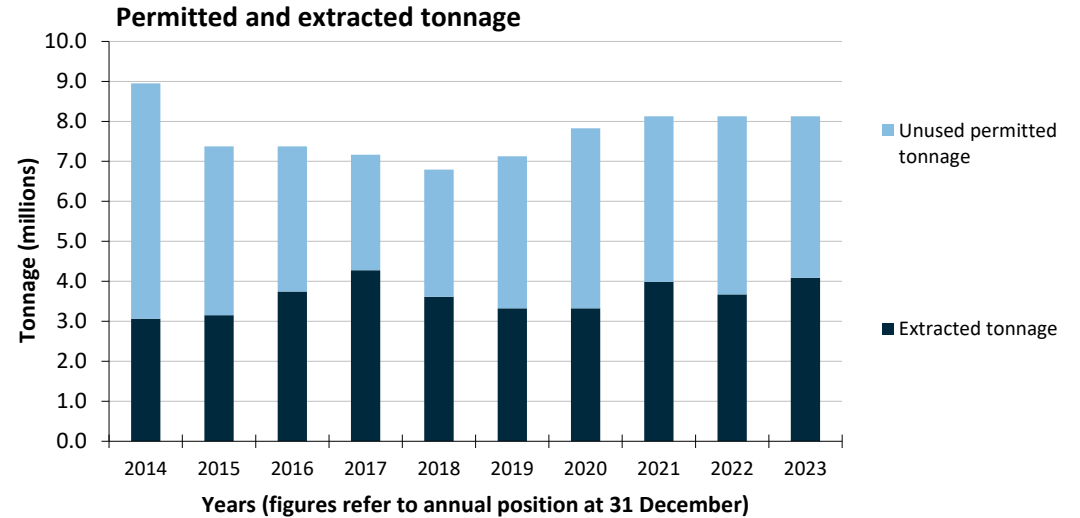
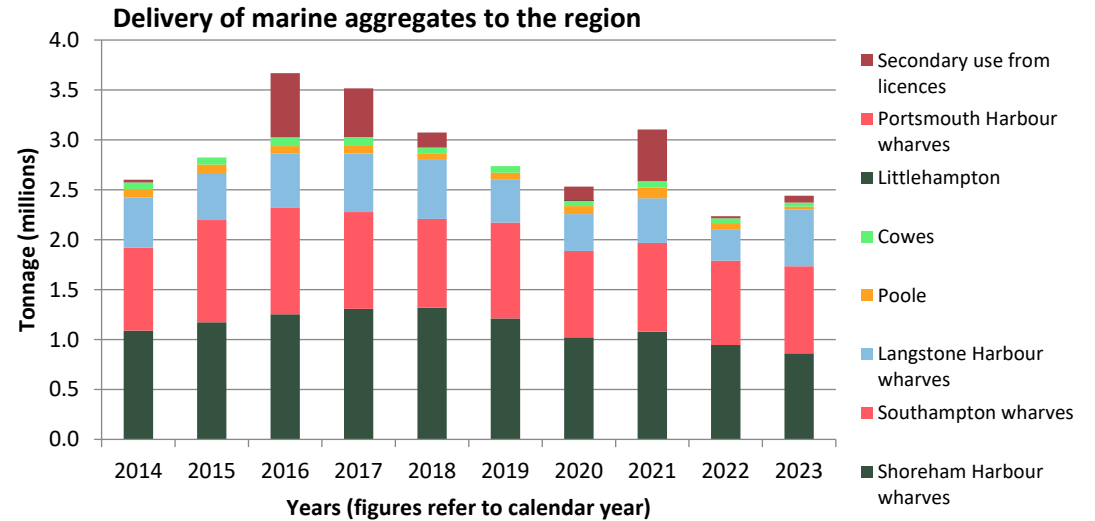
million tonnes of aggregate were extracted for **Beach Nourishment**

23

Current estimates suggest there are **23 years** of primary aggregate production permitted *

0

There are currently **no applications** for new licences on the South Coast *



The South West region

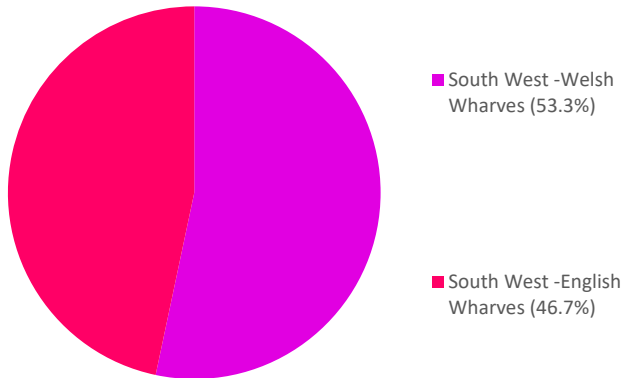
Tonnage delivered to landing locations in the region

Landing locations 2023 tonnages

Avonmouth	547,738
Burry Port	163,559
Cardiff	175,634
Hinkley	66,084
Newport	311,714
Pembroke	15,747
Port Talbot	7,963
Swansea	26,711

South West Total 1,315,151

During 2023 material extracted from the region and delivered to:



1.3

million tonnes of primary aggregate were extracted out of the permitted **2.8 million tonnes** from **9 licences***

0.06

million tonnes of aggregate were extracted for **Beach Nourishment**

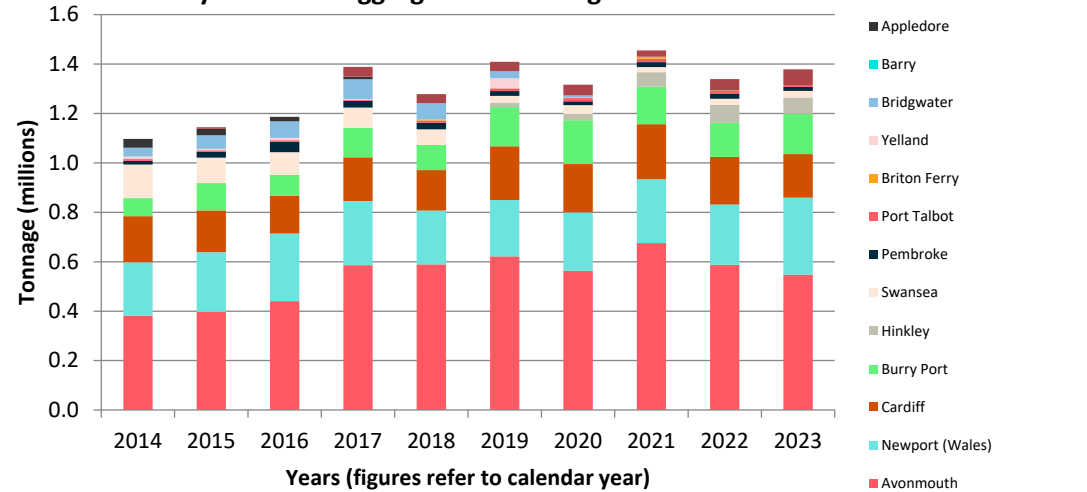
21

Current estimates suggest there are **21 years** of primary aggregate production permitted *

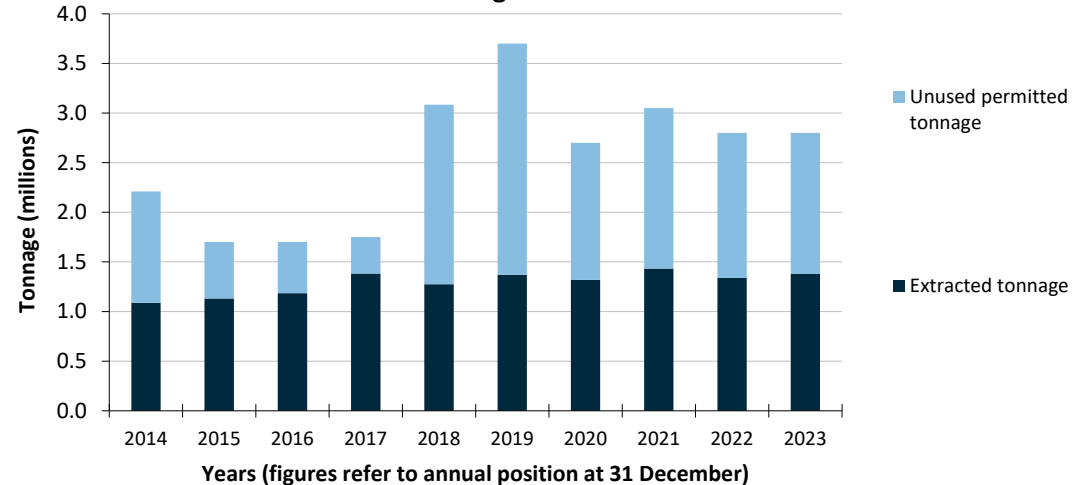
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There are currently **no applications** for new licences in the South West *

Delivery of marine aggregates to the region



Permitted and extracted tonnage

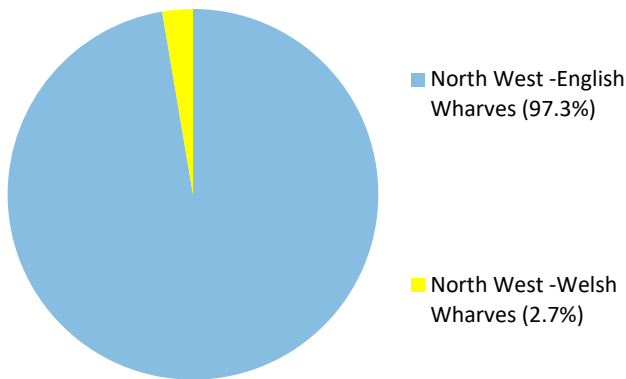


The North West region

Tonnage delivered to landing locations in the region

Landing locations	2023 tonnages
Liverpool Wharves	286,343
Penrhyn	7,830
North West Total	294,173

During 2023 material extracted from the region and delivered to:



0.29

million tonnes of primary aggregate were extracted out of the permitted **0.7 million tonnes** from **2 licences***

0.002

million tonnes of aggregate were extracted for **Beach Nourishment**

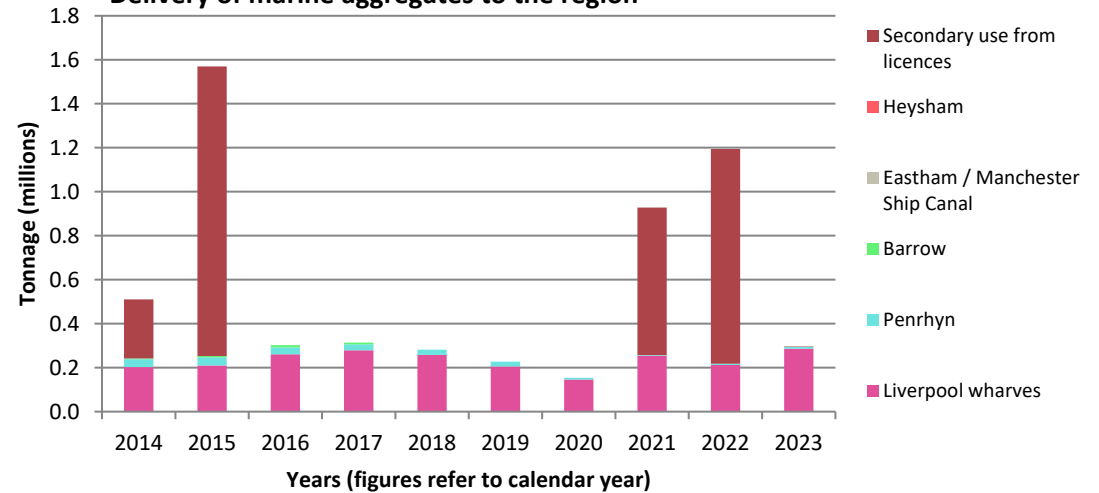
39

Current estimates suggest there are **39 years** of primary aggregate production permitted *

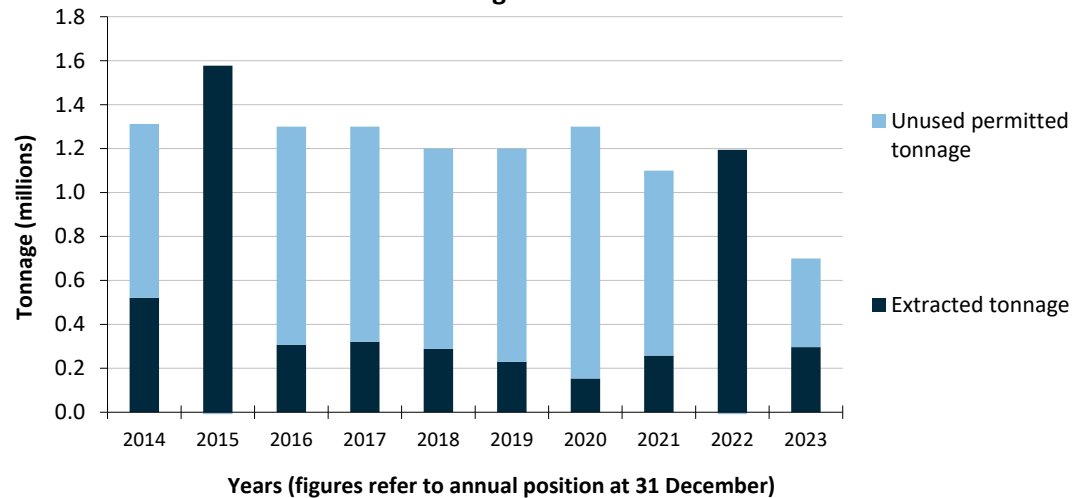
1

Current application for a licence could, if approved **increase** the permitted tonnage by **0.5 million tonnes** annually *

Delivery of marine aggregates to the region



Permitted and extracted tonnage



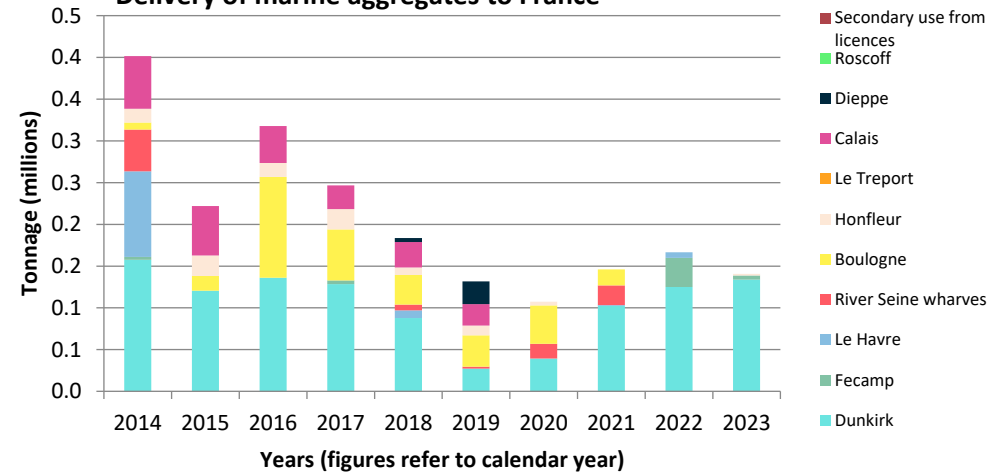
Exports

Tonnage delivered to landing locations in the region

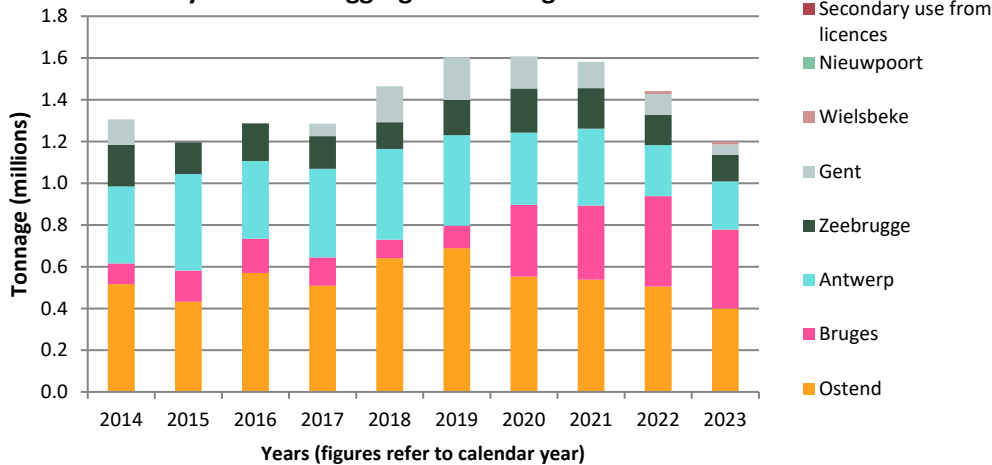
Landing locations	2023 tonnages
Amsterdam	720,482
Antwerp	230,593
Bruges	377,977
Dunkirk	133,840
Fecamp	5,038
Gent	49,013
Harlingen	340,334
Honfluer	1,816
Ijmuiden	52,346
Nieuwpoort	7,482
Ostend	399,748
Vlissingen	1,621,747
Wielsbeke	14,550
Zeebrugge	128,174

Export Total **4,083,141**

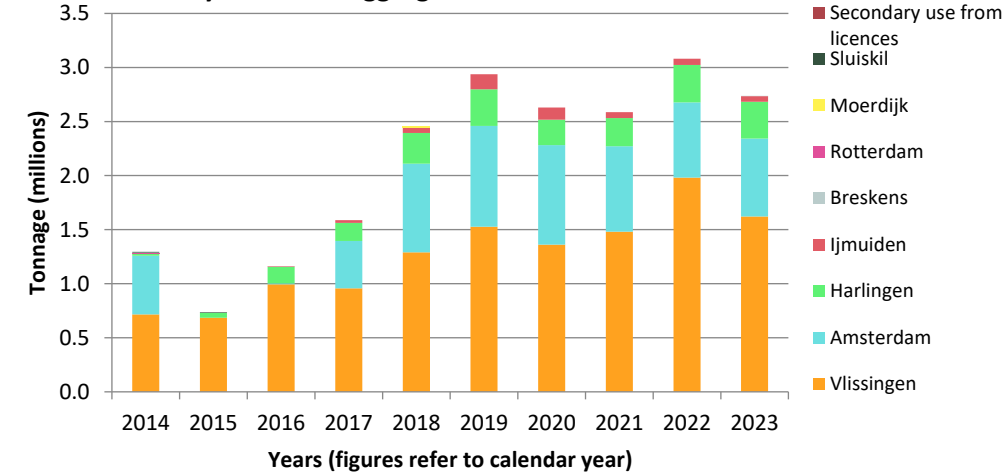
Delivery of marine aggregates to France



Delivery of marine aggregates to Belgium



Delivery of marine aggregates to The Netherlands



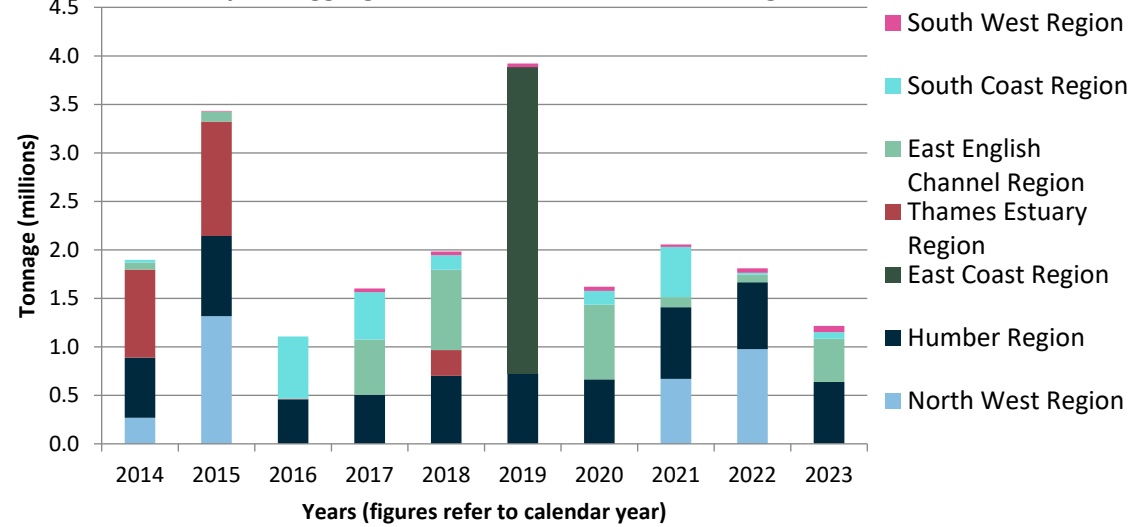
Secondary use aggregate

Beach nourishment/reclamation fill/rivers and miscellaneous

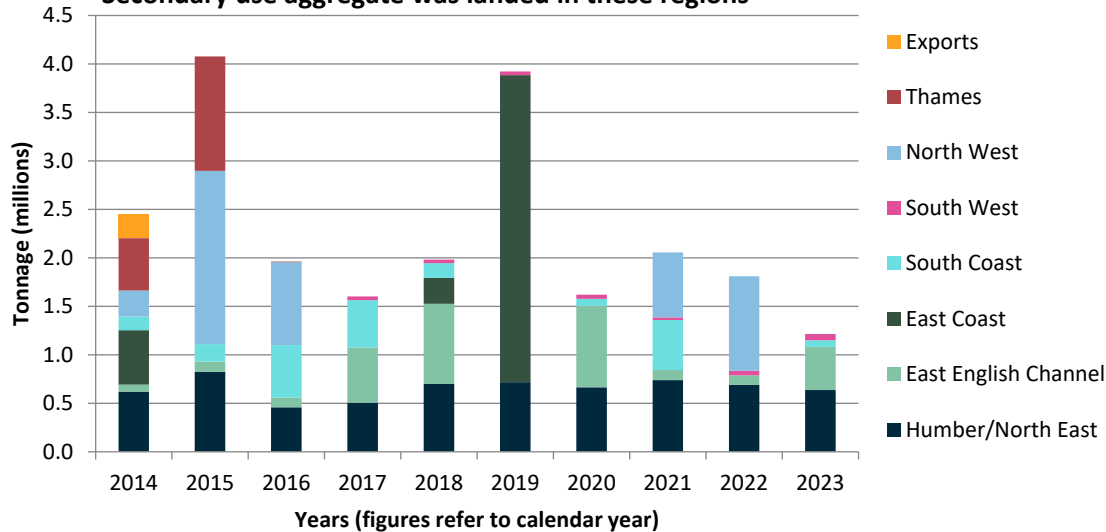
Secondary use aggregate delivered to landing locations

Landing locations	2023 tonnages
Lincshore	637,253
Lydd	445,767
Pevensey Beach	25,621
Southsea	42,183
Yelland	65,073
Beach Nourishment Total	1,215,896

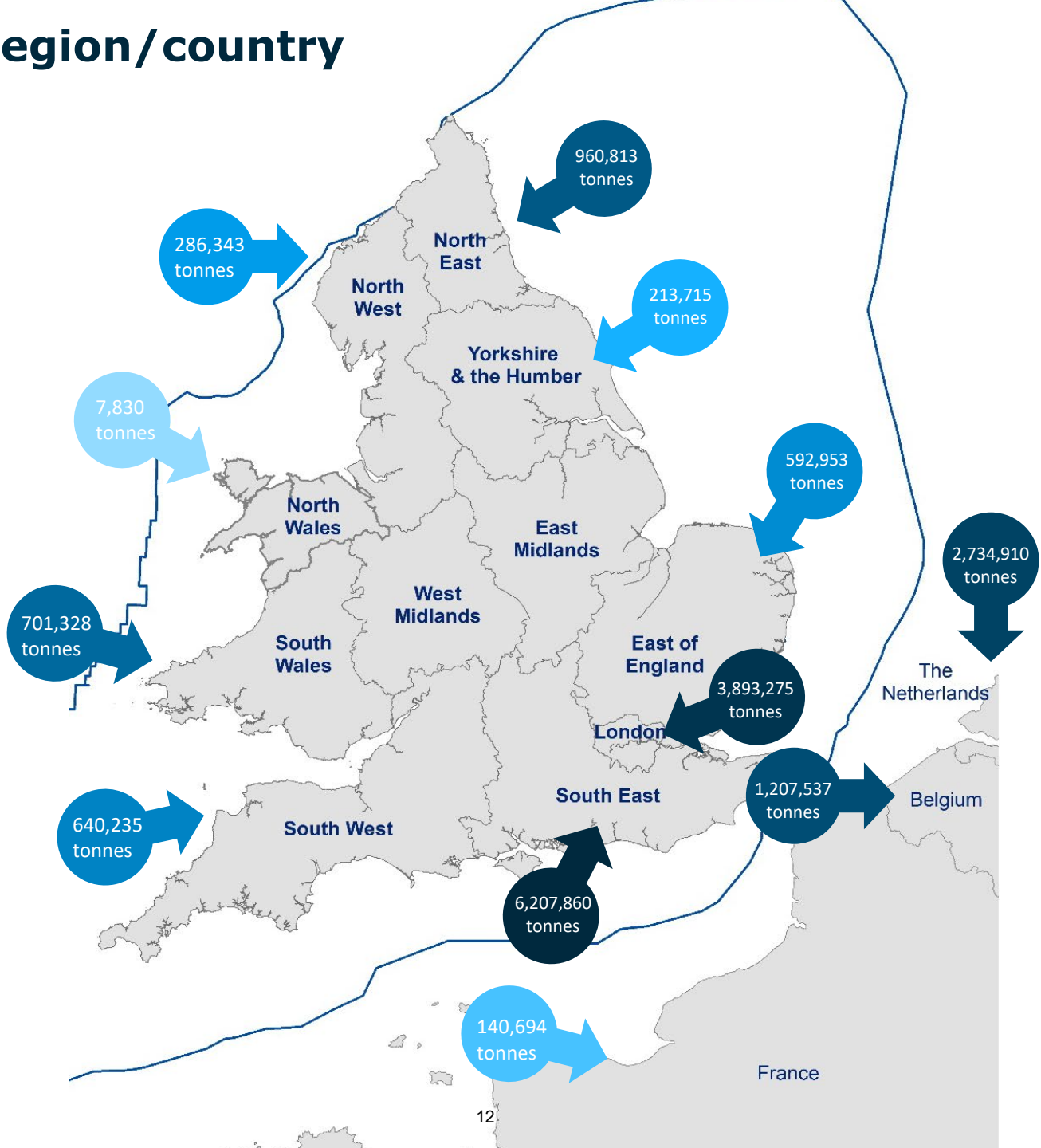
Secondary use aggregate was extracted from these regions



Secondary use aggregate was landed in these regions



Delivery by region/country



Reserves and Resources

Region	Total current primary reserves	10-year average annual offtake	3-year average annual offtake	Peak annual offtake during 10-year period*	Annual permitted offtake (as March 2024)	Regional reserve life @ 10-year average annual offtake
Humber	37.97	2.66	3.55	3.69	6.88	14.28
East Coast	34.11	3.93	3.44	4.72	7.13	8.69
Thames Estuary	33.77	1.52	1.61	1.94	4.35	22.29
East English Channel	140.69	4.09	4.19	4.65	9.17	34.39
South Coast	78.04	3.45	3.89	4.02	8.13	22.63
South West	27.20	1.28	1.35	1.43	2.80	21.33
North West	10.19	0.26	0.26	0.32	0.70	39.49
TOTAL	361.98	17.17	18.28	18.10	39.14	21.08

All figures are in millions of tonnes

*Totals are national peaks, not the sum of regional figures

Reserves and Resource

The PERC code defines “reserves” as the proportion of a mineral “resource” that can be mined for economic purposes

21

Current national estimates suggest there are **21 years** of primary marine aggregate production permitted

362

Million tonnes estimated national primary reserve

Summary of National Landing Statistics for Marine Dredged Primary Aggregates - 2023

England	Avonmouth	547,738	Belgium	Antwerp	230,593	
	Blyth	64,851		Bruges	377,977	
	Cliffe	1,463,300		Gent	49,013	
	Cowes	41,162		Nieuwpoort	7,482	
	Dagenham	1,949,072		Ostend	399,748	
	Denton	344,025		Wielsbeke	14,550	
	Dover	30,885		Zeebrugge	128,174	
	Gravesend	38,174				
	Greenhithe	347,254		Belgium Total	1,207,537	
	Greenwich Wharves	1,944,203				
	Hinkley	66,084		France	Dunkirk	133,840
	Ipswich Wharves	331,843			Fecamp	5,038
	Langstone Harbour Wharves	572,340			Honfleur	1,816
	Liverpool Wharves	286,343				
	Newhaven	582,288			France Total	140,694
	Northfleet	624,078				
	Poole	26,413				
	Ramsgate	50,576		Netherlands	Amsterdam	720,482
	River Humber Wharves	213,715			Harlingen	340,334
	River Medway Wharves	349,253			Ijmuiden	52,346
River Tees Wharves	611,861	Vlissingen	1,621,747			
River Tyne Wharves	284,101					
Shoreham Harbour Wharves	862,818	Netherlands Total	2,734,910			
Southampton Wharves	872,006					
Swale Wharves	29,700	Overall Total	17,587,492			
Tilbury	261,110					
	England Total	12,795,193				
Wales	Burry Port	163,559				
	Cardiff	175,634				
	Newport (Wales)	311,714				
	Pembroke	15,747				
	Penrhyn	7,830				
	Port Talbot	7,963				
	Swansea	26,711				
		Wales Total	709,158			

Summary of County Landing Statistics for Marine Dredged Primary Aggregates - 2023

ENGLAND	Bristol	547,738
	Dorset	26,413
	East Riding of Yorkshire	196,038
	East Sussex	934,895
	Greater London	4,154,384
	Hampshire	1,444,346
	Isle of Wight	41,162
	Kent	1,464,691
	Lincolnshire	17,677
	Medway	1,812,553
	Merseyside	286,343
	North Yorkshire	611,861
	Northumberland	64,851
	Somerset	66,084
	Suffolk	331,843
	Tyne & Wear	284,101
	West Sussex	510,212
	England Total	12,795,193
WALES	Carmarthenshire	163,559
	Gwent	311,714
	Gwynedd	7,830
	Pembrokeshire	15,747
	South Glamorgan	175,634
	West Glamorgan	34,674
		Wales Total

Official Port Listing

Region	Landing Port (Standard Name)	Wharves/Alternative Names
North East	Blyth	Blyth
Humber	Immingham	Immingham
	Lincshore	Lincshore
	River Humber Wharves	Goole, Grimsby, Howden, Hull, Hull N&Y, Hull Northern Aggregates, Pyewipe, St Andrew's Quay, Stema Hull
	River Tees Wharves	Able Tees, Billingham, Middlesbrough, Tees, Tees Sand, Seaton, Middlesbrough Dawsons, TCP East Quay (Shire Aggregates)
	River Tyne Wharves	Gateshead, Jarrow, Tyne, Jarrow Wharf (Cemex)
	Sunderland	Hendon, Hendon Dock, Sunderland
East Coast	Bacton	Bacton
	Ipswich	Hanson/ARC Ipswich, Ipswich, East Coast Marine Aggregates
	Lowestoft	Lowestoft
Thames Estuary	Barking	Barking, Docklands Wharf
	Cliffe	Alpha Wharf, Cliffe, North Sea Terminal
	Dagenham	Hanson/ARC Dagenham, Dagenham, Dagenham Deport (Cemex)
	Denton	Denton, Denton B.A.D, Denton Sand, J Clubbs
	Erith	Erith, Pioneer Wharf
	Felixstowe	Felixstowe
	Greenhithe	Greenhithe, Hanson Greenhithe
	Greenwich Wharves	Angerstein, Blackwall Wharf, Charlton, Delta Wharf, Greenwich, Murphy's Wharf, Phoenix Wharf, Victoria Deep Wharf
	London Docklands Wharves (mostly disused)	Canning Town, Cargo Fleet Wharf, Clarence Wharf, East India Dock, Heron Quay, Millwall, Orchard Wharf, Peruvian Wharf, Rotherhithe, Silvertown, Thames Wharf, Thamesmead, Union Wharf, Victoria Wharf
	Northfleet	Northfleet, Northfleet Brett, Robin's Wharf
	River Medway & Swale Wharves	Queenborough, Ridham, Rochester, Rochester Hanson, Sheerness
	Swale Wharves	Ridham, Queenborough
	Tilbury	Tilbury Stema
Thurrock	Purfleet, Purfleet PAL, Thurrock, West Thurrock	
East English Channel	Dover	Dover
	Hythe	Hythe
	Lydd	Lydd
	Newhaven	Newhaven, Cemex Newhaven
	Ramsgate	Ramsgate
	Rye	Rye
South Coast	Cowes	Cowes, East Cowes, IOWA/Isle of Wight Aggregates, Kingston Wharf, Medina Wharf, Cemex/SCS West Cowes, TMD/UMD West Cowes, West Cowes
	Eastbourne	Eastbourne Beach
	Elmer	Elmer Beach
	Langstone Harbour Wharves	Bedhampton, Havant, Kendall's Wharf, Langstone, TMD/UMD Bedhampton/ Portsmouth
	Littlehampton	Littlehampton, TMD/UMD Littlehampton
	Newport, Isle of Wight	Blackhouse Quay (disused), Newport IoW, Solent Services, West Medina Mills (disused)
	Pevensy	Pevensy Beach
	Plymouth	Millbay, Plymouth, Stonehouse
	Poole	Poole
	Portsmouth Harbour Wharves	Fareham, Gosport, LRA Tipner, LRA Upper Wharf, Portsmouth
	Shoreham Harbour Wharves	Hanson/ARC Shoreham, Hall's Wharf, Hiedelberg Portslade, Kendall's Wharf Shoreham, Portslade, Cemex/SCS Shoreham, Shoreham, Shoreham Ferry Wharf, TMD/UMD Shoreham
	Southampton Wharves	Burnley Wharf, Dibbles Wharf, Eling Wharf, JP Marks, JPM Super Wool, Leamouth, LRA Marchwood, Marchwood, Cemex/SCS Southampton, Southampton, Southampton (Fawley), Spitfire Wharf, Totton, TMD/UMD Burnley Wharf, Woolston
	Southsea	Southsea

Region	Landing Port (Standard Name)	Wharves/Alternative Names
Channel Islands	Guernsey	Guernsey, St Sampson
South West	Appledore	Appledore, Appledore Evans, Bidna
	Avonmouth	Avonmouth, BCA Avonmouth, Cemex/BDL Avonmouth, Hanson Avonmouth, Remix Avonmouth, TMD/UMD Avonmouth
	Barnstaple	Barnstaple
	Barry	Barry
	Bridgwater	Bridgwater, Dunball Wharf
	Briton Ferry	Briton Ferry, Cemex Briton Ferry, Giant's Wharf, Hanson Briton Ferry, Ironworks, Riverside Wharf, Tarmac Briton Ferry
	Burry Port	Burry Port
	Cardiff	Cardiff, TMD Cardiff, Cemex Cardiff, Hanson Cardiff, Empire Wharf, Roath Dock
	Hinkley	Hinkley Jetty
	Newport, Wales	Alexandra Dock, Hanson/ARC Newport, East Bank/Ferry Terminal, Eastern Wharf, Newport, Newport (Wales), Newport 2
	Pembroke	Pembroke
	Port Talbot	Port Talbot
Swansea	Prince of Wales Dock, Cemex/BDL Swansea, Swansea	
Yelland	Yelland	
North West	Barrow	Barrow
	Eastham	Eastham
	Glasson	Glasson
	Heysham	Heysham
	Liverpool Wharves	Albert Dock, Birkenhead, Bramley Moore Dock, Garston, Liverpool, Mersey Wharf, Mostyn
	Penrhyn	Penrhyn
Northern Ireland	Belfast	Belfast
Continental Europe	Amsterdam	Amsterdam, Amsterdam AGM, Amsterdam PAES, Hanson/CM/Hiedelberg Amsterdam, Steen Korrel
	Antwerp	Antwerp, Hanson/CM Antwerp, Kallo, Antwep Sands
	Breskens	Breskens
	Boulogne	Boulogne, Boulogne-sur-mer
	Bruges	Alzagri, Bruges, Brugge, Hanson/CM Brugge
	Caen	Caen
	Calais	Calais
	Dieppe	Dieppe
	Dunkirk	Hanson/CM Dunkirk Sand, Dunkerque, Dunkirk, Dunkirk Gravel, Dunkirk Sand, Mardycq
	Fecamp	Fecamp, Fecamp Mercier
	Flushing	Flushing, Vlissingen
	Gent	Gent, Kluizendok
	Harlingen	Harlingen
	Honfleur	Honfleur
	Ijmuiden	Ijmuiden
	Le Havre	Le Havre, Treguier
	Le Treport	Le Treport
	Moerdijk	Moerdijk
	Nieuwpoort	Nieuwpoort
	Ostend	Ostend, Ostend ISG
	River Seine Wharves	Lillebonne, Rouen, St Wandrille, Vatteville, Vattewille-la-Rue
	River Somme Wharves	Vattier
	Roscoff	Roscoff
	Rotterdam	De Hoop Rotterdam, Europoort, Rotterdam, Schiemonnd
	Sluiskil	NL Sluiskil, Sluiskil
	Terneuzen	Terneuzen
	Thyboron	Thyboron
Zeebrugge	Zeebrugge, Zeebrugge DVSII, Zeebrugge Hanson	