



Department for Levelling Up,  
Housing & Communities



Llywodraeth Cymru  
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Scottish Government  
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## Aggregate Minerals Survey 2023 for Great Britain

### FORM A: Quarries producing land-won natural aggregates<sup>1</sup>, and Marine Wharves for sand and gravel and crushed rock during 2023

#### BACKGROUND INFORMATION

The Aggregate Minerals Survey provides an in-depth and up-to-date understanding of regional and national sales, consumption, distribution, and permitted reserves of natural aggregates. The information is collected from aggregates producers in England, Wales and Scotland.

The results of the surveys are used to inform the development of minerals policy at a national and local level to help plan for the steady and adequate supply of construction minerals. Results of the surveys also allow the aggregates industry to understand current national and regional supply.

**This survey relates to aggregate sales, distribution, and reserves from 01 January to 31 December 2023.**

The national collation of this survey is being undertaken by the British Geological Survey for the UK, Welsh and Scottish Governments.

**The results of the AM2023 Survey will be used to monitor policies for the supply of aggregates**

#### ABOUT THIS DATA COLLECTION

The data collection for the Aggregate Minerals Survey includes both commercially confidential information and personal data. The personal information you provide will not be included in the Aggregate Minerals Survey Report 2023. The level of disaggregation of data included in the results tables published in the Aggregate Minerals Survey will be subject to respecting commercial confidentiality restrictions. Collated data may also be used for the purposes of mineral policy work by the respective governments as well as Local Planning Authorities.

For more information about the use of the data that you provide, together with your personal data, please refer to the 'Privacy Notice' accompanying this form.

**This form is for use by quarries and wharves in Scotland.**

Completed forms should be returned either by email or in envelopes marked 'Confidential' to:

**Please return the completed form no later than 01 May 2024.**

<sup>1</sup> Aggregates – Granular material used in construction. Aggregates can be natural, recycled or manufactured. This form relates to natural aggregates, both primary and secondary (or by-product) aggregates, excavated and sold for the first time.

**BGS HELPLINE: If you have any queries regarding this form please contact Don Cameron at the British Geological Survey by e-mail ([AMsurvey@bgs.ac.uk](mailto:AMsurvey@bgs.ac.uk)) or alternatively by telephone on 0115 936 3489 (Tues - Thurs)**

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SITE DETAILS

[Please tick the box to indicate that you have read and accepted the privacy notice:](#) ☐

SD1	Your name	
SD2	Your email address	
SD3	Your telephone number	
SD4	What is the name of the quarry or wharf at this site?	
SD5	Address	
SD6	Address 2	
SD7	City/Town	
SD8	County	
SD9	Postal Code	
SD10	Country	Scotland
SD11	Site telephone number	
SD12	What is the name of the operating company at this site?	

**GUIDANCE NOTES - please read these notes before completing the form. This form applies to:**

<sup>(1)</sup>Quarries / other sites producing land-won natural aggregates either as a principal activity or as a subsidiary activity, such as a by-product of building stone, silica sand, china clay, ball clay, slate, clay, shale and coal extraction.

<sup>(2)</sup>Marine wharves at which marine-dredged sand and gravel and / or crushed rock are landed.

<sup>(3)</sup>A distinction is made between 'inactive' sites and 'dormant' sites. The latter is defined in the Environment Act 1995, reenacted in the Town and Country Planning (Scotland) Act 1997, as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22nd February 1982 and 6th June 1995.

<sup>(4)</sup>Complete only Question 2 and Question 3 for these materials.

TM1	Type of mineral operation (please tick relevant box)	Quarry <sup>(1)</sup> Marine wharf <sup>(2)</sup>	<input type="checkbox"/> <input type="checkbox"/>
TM2	Association status: (please tick relevant box(es))	Mineral Products Association member British Aggregates Association member None of the above	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
TM3	Status of quarry / wharf / other site: (please tick relevant box)	<b>Active during 2023:</b> In production, including from stockpiles, for some time during 2023 <b>Inactive during 2023:</b> Worked in the past and still containing permitted reserves. [Complete only Question 1 for permitted reserves] <sup>(3)</sup> <b>Inactive during 2023:</b> Planning permission received, but yet to be worked [Complete only Question 1 for permitted reserves] <sup>(3)</sup> <b>Dormant site:</b> As identified under the Environment Act 1995 <sup>(3)</sup> [Complete only Question 1 for permitted reserves] <b>Closed</b> and containing no workable permitted reserves [Complete only site details]	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
TM4	Mineral type: (please tick relevant box(es))	<b>Primary aggregates</b> <input type="checkbox"/> Sand (only) <input type="checkbox"/> Sand and Gravel <input type="checkbox"/> Igneous rock (including Metamorphic) <input type="checkbox"/> Limestone / Dolomite <input type="checkbox"/> Sandstone (includes greywacke, gritstone and quartzite)	<b>Secondary aggregates</b> <input type="checkbox"/> Slate waste sold as aggregate <sup>(4)</sup> <input type="checkbox"/> Colliery spoil sold as aggregate <sup>(4)</sup> <input type="checkbox"/> 'Clay' and 'Shale' sold as aggregate <sup>(4)</sup>
TM5	Polished Stone Value for crushed rock: (please insert the accepted PSV for the site)	<div></div>	

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SITE STATUS DETAILS CONTINUED

MPA1

Planning Authority  
(e.g. Aberdeenshire,  
Highland etc.)

NGR1

National Grid Reference  
(of centre of working,  
e.g. NG 456 789)

Code	Easting	Northing

DS1

Please tick here if the site is a borrow pit (a temporary mineral working to supply aggregate for a specific construction project)

☐

DS2

Please tick here if the site has received planning permission for an extension in 2023

☐

DS3

Please tick here if this is a new quarry or wharf granted planning permission in 2023

☐

DS4

Date current planning permission for extraction expires (if stated)  
(dd/mm/yyyy)

Please tick as appropriate if the area for extraction within the planning permission is wholly or partly within any of the following environmental designations. The site may fall within more than one designation:

DS5

National Park

☐

DS6

National Scenic Area

☐

DS7

Site of Special Scientific Interest

☐

DS8

National Nature Reserve

☐

DS9

Special Area of Conservation / Special Protection Area

☐

DS10

Green Belt

☐

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1. PERMITTED RESERVES (AT QUARRIES ONLY)

**DEFINITIONS**

**Permitted Reserves** - Estimated reserves of aggregate minerals, including stockpiles, with planning permission that are saleable for aggregates and non-aggregate purposes at 31st December 2023. The figure should estimate **net saleable** reserves, taking account of likely losses during extraction and processing.

Also **include** reserves at Inactive and Dormant sites. A Dormant site is defined in the Environment Act 1995, reenacted in the Town and Country Planning (Scotland) Act 1997, as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22nd February 1982 and 6th June 1995.

**GUIDANCE NOTES - please read these notes before completing the form.**

<sup>(1)</sup> Where possible estimate the amount of sand or gravel for each category.

<sup>(2)</sup> Where not known this can be estimated on the basis of typical proportions of sales of aggregate to non-aggregate.

Sand and Gravel Reserves		Tonnes
1.1	Sand suitable for concreting <sup>(1)</sup>	
1.2	Sand suitable for mortar (building sand) <sup>(1)</sup>	
1.3	Sand suitable for asphalt <sup>(1)</sup>	
1.4	Undifferentiated sand, where not included above <sup>(1)</sup>	
1.5	Gravel <sup>(1)</sup>	
1.6	Sand and gravel undifferentiated, where not included above <sup>(1)</sup>	
1.7	<i>Estimated % of total reserves allocated for non-aggregate use<sup>(2)</sup></i>	%

Crushed Rock Reserves		Tonnes	<i>1.13 Estimated % of total reserves allocated for non-aggregate use<sup>(2)</sup></i>
1.8	Limestone / Dolomite		%
1.9	Igneous and Metamorphic rock		%
1.10	Sandstone (including gritstone, greywacke & quartzite)		%
1.11	N/a in Scotland		
1.12	N/a in Scotland		

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2. SALES BY PRODUCT

2.1 Sand and Gravel (Land won and marine-dredged)

INSTRUCTIONS

The term sand and gravel includes 'solid' sandstones and conglomerates that are loosely consolidated or weakly cemented and that are processed to produce sand and gravel, e.g. sandstones of the Passage Formation. For sales of sand (fine aggregate) derived from crushing hard rocks, please return under question 2.2.7.

GUIDANCE NOTES - please read these notes before completing the form (Section 2.1).

2.1

Questions 2.1.1 - 2.1.9 should be filled in for sales of sand and gravel excavated from a quarry or sales only of marine dredged (from Scottish waters) sand and gravel landed at a wharf. **For quarries, exclude** minerals produced elsewhere in Scotland and brought to the site for processing. Where aggregate is taken to another site for processing please estimate the sales attributable to the actual excavated site. **For wharves, exclude** sand and gravel transhipped to another wharf in Scotland. (The receiving wharf will be completing these questions).

2.1.1

Including sand used in ready-mixed concrete and precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.

2.1.5

Including gravel used in ready-mixed concrete and precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.

2.1.6

Other aggregate uses include pipebedding, drainage media/layers.

2.1.7

Aggregate used for constructional fill, including 'as dug' material (hoggin).

2.1.8

Total is automatically calculated if the form is completed electronically.

2.1.9

Other non-aggregate / industrial uses for sand (and gravel) include for glassmaking, foundry use, chemicals, ceramics, water filtration, brickmaking (body / facing sand and calcium silicate bricks), sports and horticultural uses.

2.1.10

For wharves landing sand and gravel originating from outside Scottish waters only.

Sand for aggregate use

Tonnes

2.1.1

Sand for concreting or sharp sand

2.1.2

Sand for use in mortar (building or soft sand)

2.1.3

Sand for asphalt

Gravel for aggregate use

Tonnes

2.1.4

Gravel for asphalt

2.1.5

Gravel for concrete aggregate

2.1.6

Other screened and graded gravels

Sand and Gravel for aggregate use

Tonnes

2.1.7

Other sand and gravel e.g. for constructional fill, where not included above

2.1.8

Total for all aggregate use

Sand and Gravel for non-aggregate uses

Tonnes

2.1.9

Total for all non-aggregate uses

2.1.10

Landings of sand and gravel from OUTSIDE Scottish waters (wharves only)

GUIDANCE NOTES

Please provide the tonnage of total sales for aggregate use originating from each country.

Country of origin	Landings of aggregate (tonnes)
England	
Wales	
Northern Ireland	
Republic of Ireland	
France	
The Netherlands	
Belgium	
Denmark	
Norway	
Other countries	
Unknown	
Total tonnage	

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2. SALES BY PRODUCT

2.2 Crushed Rock

(Quarries in Scotland and  
Wharves at which hard rock from outside Scotland is landed)

Select mineral type:  
*(please tick box)*

☐Igneous rock (including Metamorphic)

☐Slate waste sold as aggregate

☐Limestone / Dolomite

☐Colliery spoil (minestone)

☐Sandstone

☐Clay' and 'Shale' for construction

If more than one mineral type at a site, please print an extra copy of Questions 2 and 3, for each, and attach onto back of form.

DEFINITIONS

Limestone / Dolomite includes high magnesium limestone but not chalk.

Igneous rock includes andesite, basalt, diorite, dolerite, gabbro, gneiss, granite, granulite, hornfels, microgranite, rhyolite, schist, syenite, trachyte and tuff.

Sandstone includes greywacke, gritstone and quartzite.

Slate waste sold as aggregate (i.e. in construction / fill).

Colliery spoil (minestone) sold as aggregate (i.e. in construction / fill).

'Clay' and 'shale' sold as aggregate (i.e. in construction / fill).

GUIDANCE NOTES - please read these notes before completing the form (Section 2.2).

2.2

Questions 2.2 should be filled in for sales of crushed rocks excavated from the quarry or landed at the wharf. **Exclude** material produced elsewhere within Scotland and brought to the site for processing. Where aggregate is taken to another site for processing please estimate the sales attributable to the actual excavated site. **For wharves, exclude** material transhipped to another wharf. (The receiving wharf will be completing these questions).

2.2.3

Includes granular sub-base (Types 1 and 2) for foundation work.

2.2.6

Including coarse and fine aggregate used in ready-mixed concrete, precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.

2.2.7

Including pipebedding, drainage layers.

2.2.9

Crushed and / or 'as dug' material; excluding Type 1 and 2 sub-base.

2.2.10

Total is automatically calculated if the form is completed electronically.

2.2.11

Building stone includes dimension, ornamental, monumental and garden stone.

2.2.13/2

Where the product is calcined limestone or dolomite (lime / dolime) please report figure expressed as tonnage of original material used. Tonnage of lime, dolime and hydrated lime can be recalculated to carbonate by multiplying by 1.78 for lime, 2.16 for dolime and 1.35 for hydrated lime respectively.

2.2.14

Including lime/dolime production (other than for steel manufacture), chemicals, fillers, FGD, powders, glassmaking and animal feed.

2.2.16

Total is automatically calculated if the form is completed electronically.

		Tonnes
2.2.1	Crushed rock for manufacturing asphalt on site i.e. coated (excluding weight of binder)	
2.2.2	Crushed rock for manufacturing asphalt off site (including third party operations)	
2.2.3	Uncoated roadstone (Type 1 and 2 materials)	
2.2.4	Uncoated roadstone (surface dressing chippings)	
2.2.5	Rail ballast	
2.2.6	For concrete aggregate including third party operations on or off site	
2.2.7	Other screened and graded aggregates	
2.2.8	Armourstone and gabion stone	
2.2.9	Other constructional uses, including fill	
2.2.10	Total for aggregate use	

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2.2 Crushed Rock (continued...)

Non-aggregate uses

Tonnes

2.2.11	Building stone (excluding reconstituted stone)	
2.2.12	Cement manufacture	
2.2.13	Flux in iron and steel manufacture	
2.2.14	All other industrial uses	
2.2.15	Agricultural use on the land and horticulture	
2.2.16	Total for all non-aggregate uses	
2.2.17	Landings of crushed rock aggregate from OUTSIDE Scotland ( <u>wharves only</u> )	

**GUIDANCE NOTES**  
Please provide the relative proportion of total sales for aggregate use originating from each country.

Country of origin	Landings of aggregate (percent)
England	%
Wales	%
Northern Ireland	%
Republic of Ireland	%
France	%
Norway	%
Other countries	%
Unknown	%
Total (should be 100%)	

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3. SALES BY DESTINATION

From quarries; marine dredged landings; and aggregates landed from outside Scotland

Sales by Destination for **Aggregate Use only**

If more than one mineral type, please print an extra copy of Questions 2 and 3, for each, and attach onto back of form.

GUIDANCE NOTES

This information is **very** important for calculating consumption of aggregates. It is appreciated that sales destination will not always be known particularly for **collected** sales. For collect sales where the destination is not known please allocate to the distribution area where the quarry / wharf is located. **Please make estimates wherever possible.**

Please indicate whether the destination is final by recording y (yes), n (no) or ? (unknown) in the final destination (**FD**) box.

Estimate **for aggregate sales only** the quantities delivered to initial destinations (sub-region), including those value-added sites (such as asphalt, ready-mix and precast concrete plants), during 2023 by **transport method** and **area** for aggregates excavated and / or sold from the site. **Do not include sales for non-aggregate uses.**

**Principal Mode(s) of Transport** - An estimate by % (which totals to 100% across road, rail and water).

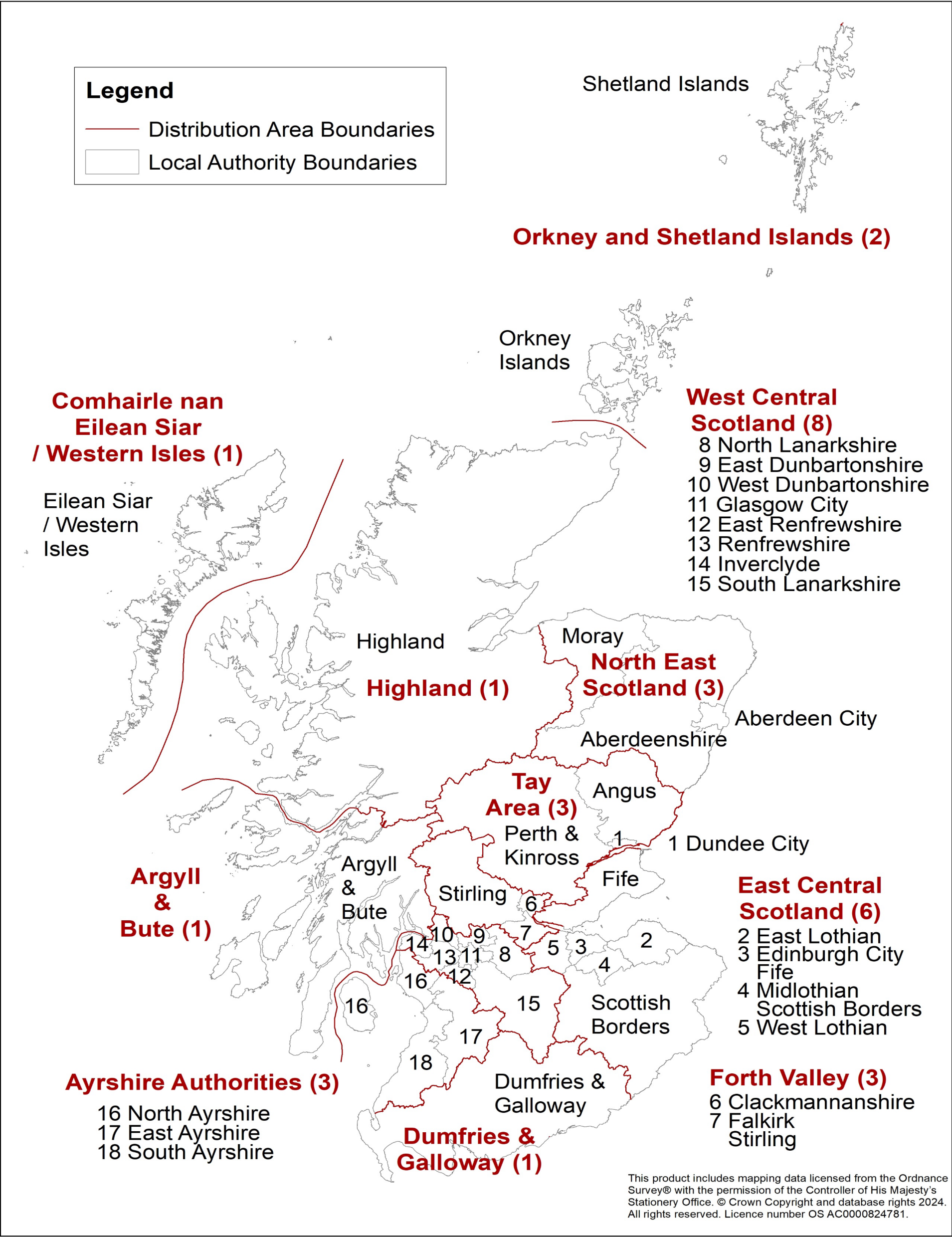
<sup>(1)</sup> Where all deliveries are by road just tick

A map of the Distribution Areas is included at the end of the survey form (page 9).

		Tonnes		Percent of total		
		Sales of aggregate		Modes of transport		
Sub-Region	FD	Sand and gravel	Crushed rock	Road <sup>(1)</sup>	Rail	Water
Argyll & Bute						
Ayrshire Authorities - comprises East, North and South Ayrshire						
Comhairle nan Eilean Siar (Western Isles)						
Dumfries & Galloway						
East Central Scotland - comprises East, West and Midlothian, Edinburgh, Fife and Scottish Borders						
Forth Valley - Stirling, Clackmannanshire and Falkirk						
Highland						
North East Scotland - comprises Aberdeen City, Aberdeenshire and Moray						
Orkney & Shetland Islands						
Tay Area - comprises Angus, Dundee and Perth & Kinross						
West Central Scotland - comprises East and West Dunbartonshire, East Renfrewshire, Glasgow, Inverclyde, North and South Lanarkshire and Renfrewshire						
England						
Wales						
Northern Ireland						
Republic of Ireland						
Mainland Europe						
Unknown destination						
3.50	Total tonnage (mineral totals should equal those in either question 2.1.8 or 2.2.10)					



[Click here to view larger map \(digital form only\)](#)



**Legend**

Distribution Area Boundaries

Local Authority Boundaries



**Orkney and Shetland Islands (2)**



**Comhairle nan Eilean Siar / Western Isles (1)**

Eilean Siar / Western Isles

- West Central Scotland (8)**
- 8 North Lanarkshire
  - 9 East Dunbartonshire
  - 10 West Dunbartonshire
  - 11 Glasgow City
  - 12 East Renfrewshire
  - 13 Renfrewshire
  - 14 Inverclyde
  - 15 South Lanarkshire

**Highland (1)**

- North East Scotland (3)**
- Aberdeenshire
  - Aberdeen City
  - 1 Dundee City

**Argyll & Bute (1)**

- Tay Area (3)**
- Perth & Kinross
  - Angus
  - 6 Stirling

- East Central Scotland (6)**
- 2 East Lothian
  - 3 Edinburgh City
  - 4 Midlothian
  - 5 West Lothian

- Ayrshire Authorities (3)**
- 16 North Ayrshire
  - 17 East Ayrshire
  - 18 South Ayrshire

**Dumfries & Galloway (1)**

- Forth Valley (3)**
- 6 Clackmannanshire
  - 7 Falkirk
  - Stirling

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