Outer Dowsing Offshore Wind Preliminary Environmental Information Report Volume 2, Appendix 22.3: Winter Bird Survey 2022 - 2023

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OUTER DOWSING OFFSHORE WIND

PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

VOLUME 2, APPENDIX 22.3:

WINTER BIRD SURVEY 2022 -

2023

SLR Ref: 410.05356.00013

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June 2023



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1.0 Introduction

1.1 Background

Outer Dowsing Offshore Wind (ODOW) including proposed onshore and offshore infrastructure ('The Project') is a Nationally Significant Infrastructure Project (NSIP). An Environmental Impact Assessment (EIA) will be undertaken as part of a Development Consent Order (DCO) application under the Planning Act 2008. SLR Consulting was commissioned by GoBe Consultants, on behalf of GT R4 Ltd ('The Applicant'), to undertake onshore ecological work necessary to inform the EIA. This report presents the results of wintering bird surveys, focusing on the inter-tidal areas at the proposed landfall location at Wolla Bank, situated between Anderby Creek and Chapel St. Leonards on the Lincolnshire coast, and along the onshore export cable corridor (ECC) options and onshore substation (OnSS) options. Surveys were carried out during the winter of 2022-2023.

1.2 Survey Area

Potential impacts on wintering waterbirds need to be considered beyond the Project boundary owing to the potential for noise and visual disturbance to arise during construction. Cutts *et al.* (2013) states that for most wader species, behavioural responses to visual and noise disturbance are unlikely beyond a distance of 400m. The survey area at the landfall, onshore ECC and OnSS covered the Project boundary plus a surrounding 400m buffer.

The Onshore ECC is split into the following segments:

- Onshore ECC to Lincolnshire Node:
 - LN1 Landfall to A52 Mumby; and
 - LN2 A52 Mumby to Lincolnshire Node.
- Onshore ECC to Weston Marsh:
 - WM1 Landfall to A52 Hogsthorpe;
 - WM2 A52 Hogsthorpe to Marsh Lane;
 - WM3 Marsh Lane to A158 Skegness Road;
 - WM4 A158 Skegness Road to Low Road;
 - WM5 Low Road to Steeping River;
 - WM6 Steeping River to Ivy House Farm / Marsh Yard;
 - WM7 Ivy House Farm / Marsh Yard to Staples Farm;
 - WM8 Staples Farm to Crowhall Lane;
 - WM9 Crowhall Lane to Church End Lane;
 - WM10 Church End Lane to The Haven;
 - WM11 The Haven to Marsh Road;
 - WM12 Marsh Road to Fosdyke Bridge;
 - WM13 Fosdyke Bridge to Weston Marsh Substation North; and
 - WM14 Fosdyke Bridge to Weston Marsh Substation South.
- Onshore ECC to Weston Marsh (Alternative):



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- A1 Low Road to Steeping River;
- A2 Steeping River to Fodder Dike Bank/Fen Bank;
- A3 Fodder Dike Bank/Fen Bank to Broadgate;
- A4 Broadgate to Ings Drove; and
- A5 Ings Drove to Church End Lane.

1.3 Purpose of this Report

This report provides details of the survey methodology (Section 2) and presents the results of the surveys (Section 3). The evaluation and assessment of impacts resulting from the proposed development is beyond the scope of this report and will be covered in the Ornithology chapter of the Preliminary Environmental Information Report (PEIR) and Environmental Statement (ES).

1.4 Evidence of Technical Competence and Experience

Surveys were carried out by Edmund Austin, a Senior Field Ecologist at SLR Consulting with over ten years' experience in undertaking bird surveys and by Andrew Cockroft, an Ornithologist with several years' experience in undertaking professional bird surveys. Surveyors from APEM Ltd undertook the surveys of the Weston Marsh Onshore ECC North of the A52 in November 2022.

This report has been authored by Carl Platt, a Senior Ecologist, Associated Charted Institutes Ecology and Environmental Management, (ACIEEM) at SLR Consulting with over ten years' experience in undertaking bird surveys. The scoping process was undertaken by Duncan Watson. Duncan is a Technical Director at SLR Consulting with over 23 years' professional ecological experience. He is also a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM). The report has been reviewed by James Wilson MA MCIEEM, a Technical Director at SLR Consulting, with 15 years' experience as a professional Ecologist.

2.0 Methodology

2.1 Desk Study

A desk study was carried out to inform Volume 2, Appendix 22.1: Ornithology Desk Study of the PEIR. The following sources were used to identify relevant existing information regarding wintering birds within a 2km buffer of the survey area:

- MAGIC Multi Agency Geographic Information for the Countryside;
- GLNP Greater Lincolnshire Nature Partnership; and
- The Lincolnshire Bird Club (Lincolnshire Bird Report 2020).

2.2 Field Survey

2.2.1 Intertidal Bird Survey

Intertidal surveys were undertaken at the proposed landfall zone. Each survey took place from a suitable vantage point location from which all waterbirds on the beach of the landfall zone (including birds on the sea) were recorded. Priority was given to birds using the inter-tidal zone. Particular attention was paid to the identification of any high-tide roost sites. Adjacent terrestrial habitats such as dunes, reedbeds etc were also covered but during separate surveys covering the proposed cable corridors and coastal fields as detailed below for 'Onshore ECC Walkover Surveys'.



Surveys specifically focused on the recording of waterbirds, although other notable sightings (e.g., raptor/owl species listed on Annex 1 of the EC Birds Directive or Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) or particularly large flocks of species of conservation concern) were recorded. All surveys were undertaken using binoculars and telescope, as required.

Surveys took place twice per month from September 2022 to March 2023 inclusive (i.e., 14 surveys in total). In order to account for changes in bird numbers and distribution due to the tidal state, each survey was undertaken 'through the tide', either starting at low tide and ending at high tide or starting at high tide and ending at low tide.

Tidal phases are defined as:

- High-Mid: first three hours periods following high tide;
- Mid-Low: hours periods 4-6 following high tide;
- Low-Mid: first three hours periods following low tide; and
- Mid-High: hours 4-6 following low tide.

During each survey, counts were undertaken hourly. On each count the number and location of all wildfowl, waders and notable gull species (e.g., Mediterranean gull (*Ichthyaetus melanocephalus*)) The behaviour of each bird or flock was noted to provide an indication of how birds use the survey area. There were four primary flock behaviours observed in all species. These behaviours are listed below together with their definitions:

- Foraging: obvious feeding behaviours such as searching in flight above the water, diving for prey, searching along the shore on foot and probing the substrate for prey;
- Loafing: idle behaviour not connected with feeding or travelling in any specific direction;
- Roosting: resting on the water, groynes, shoreline or fields;
- Maintenance: preening, bathing and drying of feathers; and
- Other: behaviour that does fit into any of the categories above.

Where flocks in which individuals were observed displaying more than one behaviour (e.g., loafing, then briefly preening, then loafing), this was recorded as behaviour + behaviour (e.g., loafing + maintenance).

The survey dates, times, tide times and weather conditions for the intertidal surveys are detailed in Table 2.1.

Table 2.1: Summary of weather conditions at the proposed Wolla Bank Landfall Area (LN1)

				Weather Co	onditions		
Survey date	Start	End	Tidal flow	Tide time	Average wind speed (Beaufort scale and direction)	Precipitation	Cloud cover (oktas n/8) and visibility
13/09/2022	08:46	15:30	Ebbing	High tide 08:46	3 W	Nil	2-3/8 1-3 km
29/09/2022	08:52	15:40	Ebbing	High tide 08:52	2-3 N-NE	Nil	2-6/8 >5km
14/10/2022	09:27	15:58	Ebbing	High tide 09:27	3 SW	1 - Nil	6-8/8 >5km
24/10/2022	12:51	18:32	Rising	Low tide	3-4 SW-SSW	Nil	5-8/8 >5km



				Weather Co	onditions		
				12:51			
14/11/2022	09:14	15:25	Ebbing	High tide 09:14	2-3 E S-SE	Nil	1-7/8 >5km
29/11/2022	09:56	16:00	Ebbing	High tide 09:56	de 1-2 W-SW 1 - Nil		8/8 <500m - <1km
05/12/2022	10:20	16:25	Ebbing	High tide 10:20	3 NE	Nil	6-8/8 >5km
20/12/2022	09:30	15:35	Rising	Low tide 09:30	3-4 SW-SSW	Nil	0-2/8 >5km
10/01/2023	07:56	13:40	Ebbing	oing High tide 3-4 S Nil 07:56 Nil		Nil	7-8/8 >5km
24/01/2023	07:52	13:45	Ebbing	High tide 07:52	1-2 SW-SSW	Nil	6-8/8 1-3km – 3-5km
01/02/2023	09:02	15:00	Rising	Low tide 09:02	4-5 W-WSW	Nil	2-8/8 >5km
13/02/2023	10:36	16:15	Ebbing	High tide 10:36	2-3 S-SSE	Nil	3-6/8 3-5km - >5km
28/02/2023	11:54	18:00	Rising	Low tide 11:54	2-3 N-NNE	Nil	7-8/8 >5km
27/03/2023	10:20	16:15	Ebbing	High tide 10:20	2-3 N-NE NW	Nil	0-1/8 >5km

Export Cable Corridor (Onshore ECC) Walkover Surveys

Fields within 400m of the proposed onshore ECC (Weston Marsh onshore ECC South of the A52 was surveyed twice a month from September 2022 to March 2023 inclusive. Weston Marsh onshore ECC North of the A52 was surveyed twice per month from November 2022 to March 2023. All surveys took place during daylight hours.

During each survey, the number and location of all waterbird and secondary target species recorded within the survey area was mapped. The behaviour of each bird or flock (e.g., foraging, loafing, roosting) was also noted, where possible, to provide an indication of how birds use the study area.

Surveys took place from suitable vantage points along the onshore ECC, taking care to minimise disturbance to birds as far as possible. The survey dates, times, and weather conditions of the onshore ECC walkover surveys are listed below in Table 2.2.

Any potential anthropogenic disturbance events that took place during each count were also recorded.



Table 2.2: Summary of weather conditions - Onshore ECC Walkover Surveys

				Weather Conditions		
Survey date	Start	End	Visit No.	Average wind speed (Beaufort scale and direction)	Precipitation	Cloud cover (oktas n/8) and visibility
12/09/2022	09:00	15:30	1	3 SW	Nil	4-8/8 >5km
13/09/2022	08:46	15:47	1	3 W-N	Nil	2-3/8 1-3km
14/09/2022	08:30	15:15	1	2-3 NW-W-SW	Nil	2-3/8 >5km
15/09/2022	08:45	15:15	1	2-3 NW-NNW	Nil	7-8/8 >5km
16/09/2022	09:00	15:45	1	3-4 NW	Nil	0-7/8 >5km
26/09/2022	11:07	18:12	2	2-4 NW-WNW	Nil	7/8 >5km
27/09/2022	09:04	16:38	2	2-3 W-NW	Nil	3-8/8 >5km
28/09/2022	08:54	16:43	2	2-3 W-WNW	Nil	3-7/8 >5km
30/09/2022	16:15	19:00	2	4 S	Nil	6-8/8 >5km
10/10/2022	11:32	17:37	3	3-4 NW-N	Nil	2-4/8 >5km
11/10/2022	08:57	16:27	3	3 E-S	Nil	0-4/8 >5km
12/10/2022	09:15	16:31	3	3 S-SSE	Nil	5-8/8 >5km
13/10/2022	15:00	18:45	3	2 E-ENE	Nil	2-5/8 >5km
25/10/2022	09:12	17:30	4	2-3 SW-SSW	Nil	0-3/8 >5km
26/10/2022	09:17	16:38	4	4 SW-SSW	Nil	5-6/8 >5km
27/10/2022	09:23	17:00	4	2-4 S-SE-SW	Nil	7-8/8 >5km
28/10/2022	08:32	12:00	4	4-5 SW-WSW	Nil	0-1/8 >5km
31/10/2022	10:27	16:32	4	3-4 S-SE	Nil	0-6/8 >5km
01/11/2022	08:53	14:47	4	3-4 SW-SSW	Nil	3-8/8 >5km
07/11/2022	11:12	16:18	5	3-4 S	Nil	7-8/8 >5km
08/11/2022	09:23	15:49	5	3-4 S-SSW	Nil	3-8/8 >5km
09/11/2022	09:31	16:03	5	2-3 SW-WSW	Nil	0-8/8 >5km
10/11/2022	09:31	16:07	5	4 SW-SSW	Nil	1-8/8 >5km
11/11/2022	08:55	14:32	5	3-4 SW-SSW	Nil	7-8/8 >5km
15/11/2022	08:57	16:02	6	4-5 SE-SSE	Nil	6-8/8 >5km
17/11/2022	09:16	15:52	6	1-3 E-NE-NW- NNW	Nil	8/8 >5km
18/11/2022	09:32	15:45	6	3 SW-WSW-W	Nil	6-8/8 >5km
28/11/2022	10:15	16:00	6	2-3 SW	Nil	8/8 < 1 km - 1 - 3 km
30/11/2022	09:00	15:55	6	1-2 NE-E-ESE	Nil	7-8/8 >5km

	Weather Conditions									
06/12/2022	09:02	16:01	7	3 NW-WNW	Nil	3-8/8 >5km				
07/12/2022	09:12	15:53	7	2 NW	Nil	7-8/8 >5km				
08/12/2022	08:32	15:23	7	2-3 NW-WNW-W	Nil	0-2/8 >5km				
13/12/2022	08:45	15:50	7	0-2 N-NNW	Nil	1-6/8 <1km- >5km				
14/12/2022	10:08	15:34	8	0-2 N-WNW-NNW	Nil	0-3/8 >5km				
15/12/2022	08:15	15:17	8	3 W-NW-WNW	Nil	0-2/8 >5km				
19/12/2022	10:26	15:45	8	4 S	Nil	8/8 >5km				
21/12/2022	09:04	15:40	8	3-4 SSW-SW-S	Nil	3-7/8 >5km				
03/01/2023	10:05	15:50	9	3-4 S	Nil	8/8 >5km				
04/01/2023	08:54	15:18	9	4-5 SW	Nil	1-3/8 >5km				
05/01/2023	09:15	15:32	9	3 SW-S	Nil	2-8/8 >5km				
06/01/2023	09:00	15:40	9	3-4 SW	Nil	0-2/8 >5km				
09/01/2023	10:17	16:02	10	3 SW-WSW-W	Nil	0-3/8 >5km				
16/01/2023	10:05	16:02	10	3-4 NW-NNW	Nil-Drizzle	2-7/8 >5km				
17/01/2023	09:10	15:30	10	1-2 W-WNW	Nil	0/8 >5km				
18/01/2023	09:00	15:45	10	2-3 W	Nil	2-6/8 >5km				
23/01/2023	10:30	16:15	10	1-2 S-SW-SSW	Nil	0-1/8 >5km				
25/01/2023	08:54	15:56	10	2-3 SW	Nil	7-8/8 1-3km				
02/02/2023	09:32	16:00	11	3-4 SW-W	Nil	5-8/8 >5km				
03/02/2023	09:03	16:18	11	4 W	Nil	4-8/8 >5km				
06/02/2023	10:11	16:23	11	2-3 SSW-S	Nil	0-1/8 >5km				
07/02/2023	08:50	16:05	11	1-2 SW-W	Nil	0/8 >5km				
08/02/2023	08:32	15:30	11	2-3 S-SSE	Nil	0/8 >5km				
14/02/2023	09:16	16:30	12	2 SSW	Nil	8/8 <1km				
15/02/2023	09:32	16:00	12	2-3 SW	Nil	0-3/8 >5km				
16/02/2023	08:50	16:00	12	3 S-SW-SSW	Light Showers-Nil	7-8/8 1-3km- >5km				
20/02/2023	10:07	16:25	12	3-4 WSW-W	Nil	3-5/8 >5km				
21/02/2023	08:47	16:23	12	3-4 SW-SSW	Nil	7-8/8 >5km				
01/03/2023	08:50	16:00	13	2-3 N-NNE	Nil	7-8/8 >5km				
02/03/2023	08:48	16:11	13	3 NE-NNE	Nil	8/8 >5km				
14/03/2023	10:11	16:23	13	3-4 W-WNW	Nil	3-6/8 >5km				
15/03/2023	09:00	16:15	13	3-4 S-SSW	Nil	3-7/8 >5km				
16/03/2023	10:30	16:45	13	3-4 S-SSW	Nil	7-8/8 >5km				



Weather Conditions									
20/03/2023	10:23	17:00	14	3 SW-W	Nil	8/8 3-5km- >5km			
21/03/2023	09:15	16:00	14	3-5 SW	Nil	7-8/8 >5km			
22/03/2023	08:45	15:48	14	3-5 W-WSW-SW	Nil	1-3/8 >5km			
28/03/2023	10:00	15:45	14	3-4 S	Light Showers-Nil	7-8/8 >5km			
29/03/2023	10:15	17:05	14	3 S	Nil-Light Showers	2-8/8 >5km-1- 3km			

Table 2.3: Summary of weather conditions – Weston Marsh Onshore ECC North of A52 Walkover Surveys

Survey date	Start	End	Visit No.	Average wind speed (Beaufort scale and direction)	Precipitation	Cloud cover (oktas n/8) and visibility
23/11/2022	09:15	15:30	1	2-5 S	Drizzle-Light Rain	1-8/8 500m->3km
24/11/2022	11:00	14:00	1	3-4 S-SSE	Nil	6-7/8 >3km
25/11/2022	09:10	11:10	1	3 SE	Nil	0-1/8 >2km
29/11/2022	08:35	15:20	2	1-2 W-NW	Drizzle-Nil	8/8 >2km
30/11/2022	08:15	11:36	2	1 – SE-N-NE	Nil	7-8/8 >2km
01/12/2022	08:45	15:43	7+2	2-3 NW-WNW	Nil	5-8/8 >5km
14/12/2022	10:00	16:00	3	0-1 N-WNW-NNW	Nil	2-8/8 1-3km- >5km
15/12/2022	10:00	16:00	3	2 NNE	Nil	4-6/8 1-3km- >5km
16/12/2022	08:00	14:00	3	2 NE	Nil	2-3/8 >5km
21/12/2022	09:00	15:00	4	2 SSW	Light Showers	2-5/8 3-5km- >5km
22/12/2022	08:00	14:00	4	2-3 S	Light Showers	2-6/8 3-5km- >5km
23/12/2022	08:00	14:00	4	2-3 SSE-SE	Light-Heavy Showers	8/8 1-3km-3-5km
04/01/2023	09:00	15:00	5	3-4 SW	Nil	4-7/8 >5km
05/01/2023	08:00	14:00	5	1-3 SW	Nil-Drizzle	7-8/8 >5km
06/01/2023	08:00	14:00	5	3-4 SW	Light-Heavy Showers	8/8 1-3km – 3- 5km
18/01/2023	08:00	14:00	6	2 NW	Light-Heavy Showers	4-5/8 >5km
19/01/2023	08:00	14:00	6	2 NW	Nil	4-7/8 >5km

Survey date	Start	End	Visit No.	Average wind speed (Beaufort scale and direction)	Precipitation	Cloud cover (oktas n/8) and visibility			
01/02/2023	08:00	14:00	7	4 SW-W	Nil	2-8/8 >5km			
02/02/2023	08:00	14:00	7	5 SW-W	Nil-Light Showers	0-6/8 >5km			
03/02/2023	08:00	14:00	7	1-3 W-SW	Nil	4-8/8 >5km			
13/02/2023	07:45	13:45	8	1-2 S	Nil	2-8/8 >5km			
14/02/2023	08:30	12:30	8	0-2 S	Nil	3-8/8 <1km->5km			
15/02/2023	08:30	14:30	8	2-3 SW	Nil	2-8/8 1-3km- >5km			
02/03/2023	08:30	14:30	9	2 NE-NNE-N	Nil	8/8 >5km			
03/03/2023	08:00	14:00	9	2-3 N-NNE	Nil	7-8/8 >5km			
04/03/2023	08:00	14:00	9	2-3 N-NNE	Nil-Light Showers	7-8/8 >5km			
14/03/2023	08:00	14:00	10	2-4 W-WSW	Nil	4/8 >5km			
15/03/2023	08:00	14:00	10	2-3 SW	Nil	3-4/8 >5km			
16/03/2023	08:00	14:00	10	3-4 SE-S-SW	Nil-Drizzle	6-8/8 >5km			

Disturbance Events

Any potential anthropogenic disturbance events that took place during each count were recorded in order to provide an indication of the levels of existing disturbance within the survey area (although a detailed study of existing disturbance was not carried out as the primary focus of the survey was to record bird numbers, distribution and activity). Potential disturbance events were limited to events considered likely to cause disturbance to waterbirds and included:

- Walkers;
- Dogs;
- Anglers;
- Bait Diggers; and
- Other.

The 'other' category included any potential anthropogenic disturbance events that could not be attributed to one of the other categories. Examples include runners, or people on stand-up paddleboards or kayaks, etc. The nature of each 'other' disturbance event was recorded on each occasion.

2.3 Limitations

The surveys were undertaken on an ebbing tide more frequently than on a rising tide, meaning that there is disproportionately more data for high to mid and mid to low than low to mid and mid to high. That was largely unavoidable, owing to the difficulty of identifying dates during which a full survey could be completed during daylight hours, particularly during the months of November to February when daylight hours are short. This is



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not considered to represent a significant limitation as bird distribution is unlikely to be substantially different between rising and ebbing tides at this site.

Revisions to the Project were made in November 2022 with the addition of the Weston Marsh onshore ECC North of the A52 running parallel to the west of the Weston Marsh onshore ECC South of the A52. A total of ten survey visits were made during November 2022 – March 2023, as opposed to the 14 visits to the Weston Marsh onshore ECC North of the A52 during September 2022 – March 2023.

The weather was suitable during all surveys for viable data collection and weather conditions therefore did not present a significant limitation.

On the whole, access for the wintering bird surveys was good. Areas where the landowners did not give permission could often be viewed from the roadside/PRoW/Public Access/Raised Banks etc. There were only a few areas where access was not possible on a majority of the surveys. This included;

- Woodlands Farm (TF 33367 34922), access granted only once during March; and
- Middlemarsh Farm (TF 52852 63298) small hide at eastern side for public access, majority of wetland/lagoons not accessible on any occasion.

Figure 2.1 illustrates the onshore winter bird survey area, which was based on the onshore Project boundary at the time of the surveys, and how that compares with the PEIR boundary. Some sections, which are small in the context of the PEIR boundary, were not included in the winter bird survey area, albeit incidental records were obtained from beyond the 400m survey buffer. The additional areas will be covered during the second season of winter birds' surveys for the Project.

2.4 Data Analysis

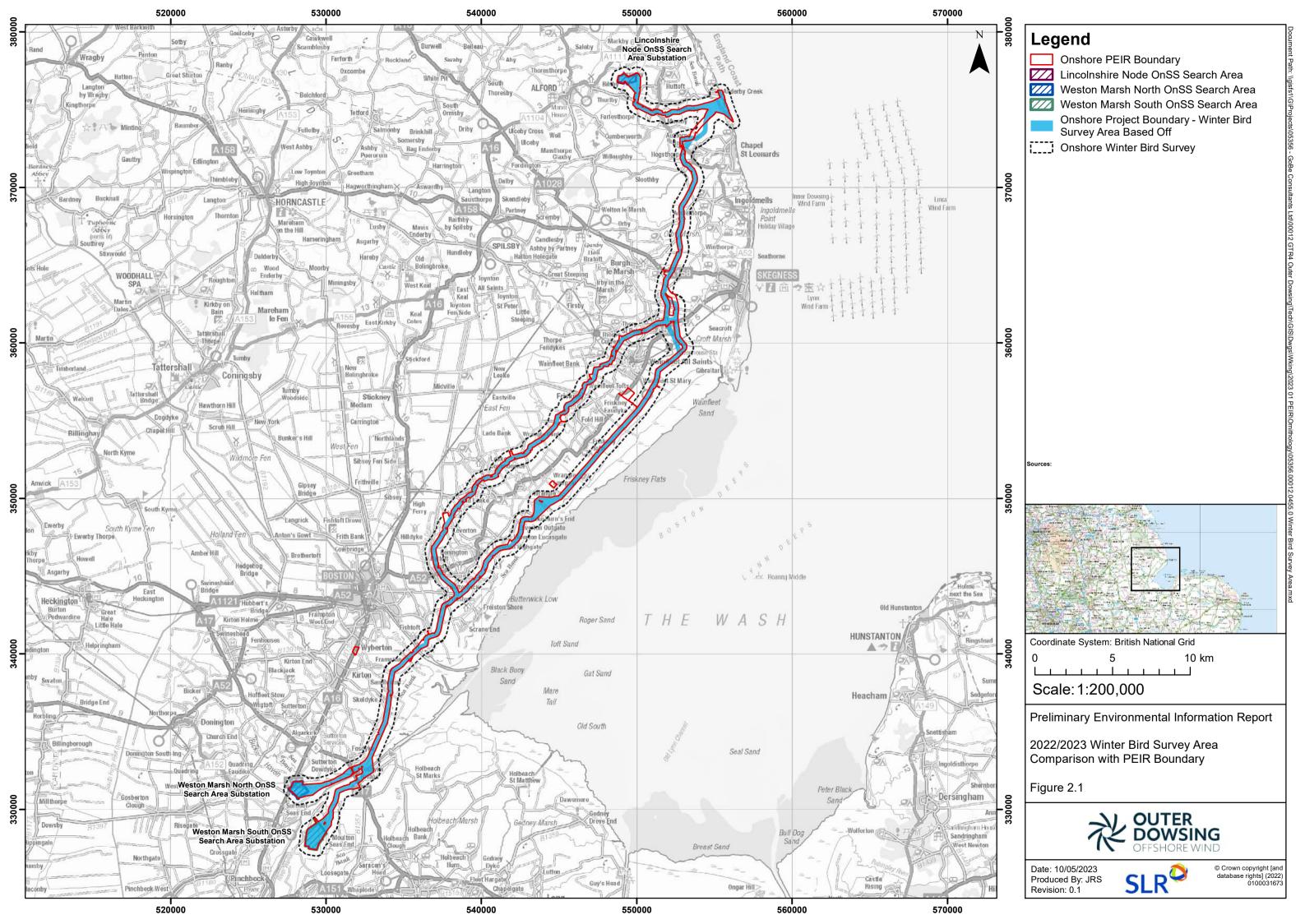
On completion of the field surveys bird count data were digitised in ArcGIS (version 10.5.1) and the attribute data captured. The distribution and relative abundance of the species in each survey area, where more than 10 individuals were recorded, are presented as 'heat maps' for the landfall and proportional symbols for the onshore ECCs.

For the heat maps, points to represent individual birds were uniformly distributed across the areas recorded in the field by the survey team as the extent of the flocks. From these point distributions heat maps were generated using kernel densities. Kernel density calculates the magnitude-per-unit by area using a kernel function, in this instance a circular kernel or neighbourhood 100m in diameter, to fit a smoothly tapered surface to each point. The total value of the neighbourhood is one, for each individual bird, with its highest value in the centre dropping to 0 at its edges. Overlapping neighbourhoods at each grid cell are then totalled to provide the values presented in the figures.

The number of birds represented by the highest density value was estimated by comparing the species with highest density value of a survey area to the survey data from which it was calculated. All other species data was then reclassified to provide results on the same scale as this more abundant species.

Where flocks of less than ten birds were recorded the locations are presented as point data, with each point representing a single bird.





3.0 Results

3.1 Desk Study

The desk study is presented in Volume 2, Appendix 22.1: Ornithology Desk Study within the PEIR.

3.2 Field Survey

The surveys recorded a total of 59 bird species.

A total of 27 species, 26 of which were waterbirds or notable gull species were observed at the Wolla Bank Landfall location, and a total of 54 species, 43 of which were waterbirds or notable gull species, were observed along the onshore ECC. This included:

A total of 13 species are specially protected under Annex 1 of the EC Birds Directive, nine of which were waterbirds:

- A total of 17 species are specially protected under Schedule 1 of the Wildlife and Countryside Act (1981) (as amended), 10 of which were waterbirds;
- 11 species in total, including six waterbird species, are listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;
- 16 species in total, including 11 waterbird species, are red listed birds of conservation concern; and
- 34 species in total, including 29 waterbird species, are amber listed birds of conservation concern.

Observations of other notable (non-waterbird) species, e.g., species listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), Annex 1 of the EC Birds Directive or S41 of the NERC Act 2006, included;

- Marsh harrier (Annex 1, Schedule 1 and Amber);
- Hen harrier (Annex 1, Schedule 1, NERC41 and Red);
- Red kite (Annex 1 and Schedule 1);
- Barn owl (Schedule 1);
- Peregrine (Annex 1 and Schedule 1);
- Skylark (NERC41 and Red);
- Cetti's warbler (Schedule 1);
- Tree sparrow (NERC41 and Red);
- Linnet (Red);
- Yellowhammer (NERC41, Red); and
- Reed bunting (NERC41, Amber).

3.2.1 Relative Abundance and Species Distribution

The relative abundance and distribution of individual waterbird species that were observed on at least ten occasions within the survey area are shown in the following figures for Wolla Bank Landfall. These drawings illustrate how the various species tend to use the relevant parts of the survey area across the winter season.

- Figure 3.1 dark-bellied brent goose;
- Figure 3.2 wigeon;



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- Figure 3.3 teal;
- Figure 3.4 common scoter;
- Figure 3.5 oystercatcher;
- Figure 3.6 golden plover;
- Figure 3.7 curlew;
- Figure 3.8 sanderling;
- Figure 3.9 dunlin;
- Figure 3.10 black-headed gull;
- Figure 3.11 common gull
- Figure 3.12 great black-backed gull;
- Figure 3.13 herring gull;
- Figure 3.14 lesser black-backed gull;
- Figure 3.15 red-throated diver;
- Figure 3.16 cormorant; and
- Figure 3.17 additional species with fewer than ten records.

3.2.2 Peak Count Data

Through the Tide Wolla Bank Landfall Surveys

The peak counts of each waterbird species recorded on each survey date throughout the survey period are detailed in Table 3.1 for Wolla Bank Landfall. The total number of birds for each species was summed within each hourly count. The table also shows the proportional frequency of observation for each species, i.e., the proportion of survey periods in which each species was recorded (n=84), in order to show how regularly each species uses the survey area.

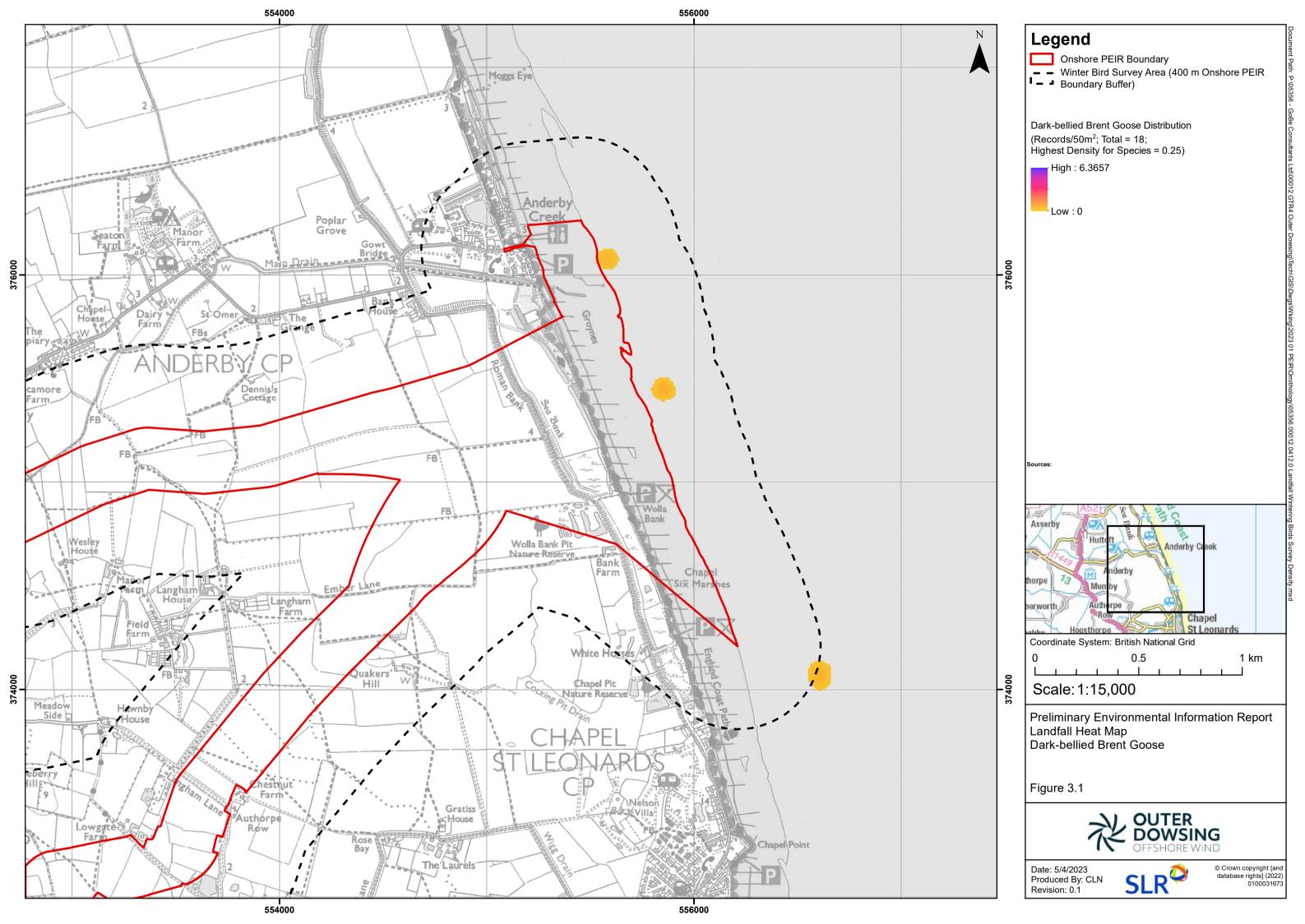


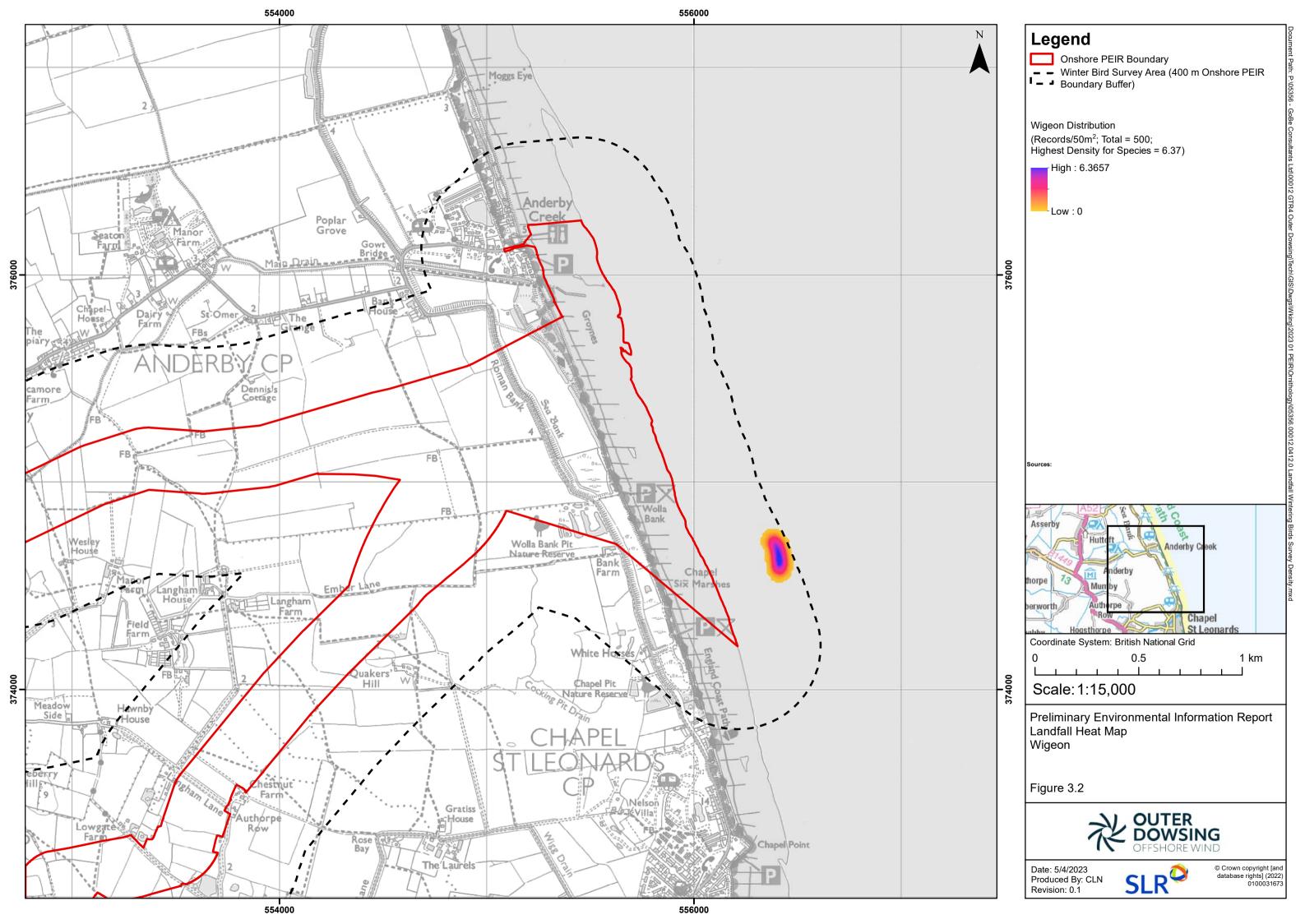
Table 3.1: Peak count of waterbird species recorded at Wolla Bank Landfall Location on each survey date, the number of hourly counts in which each species was observed and the proportional frequency of those observations

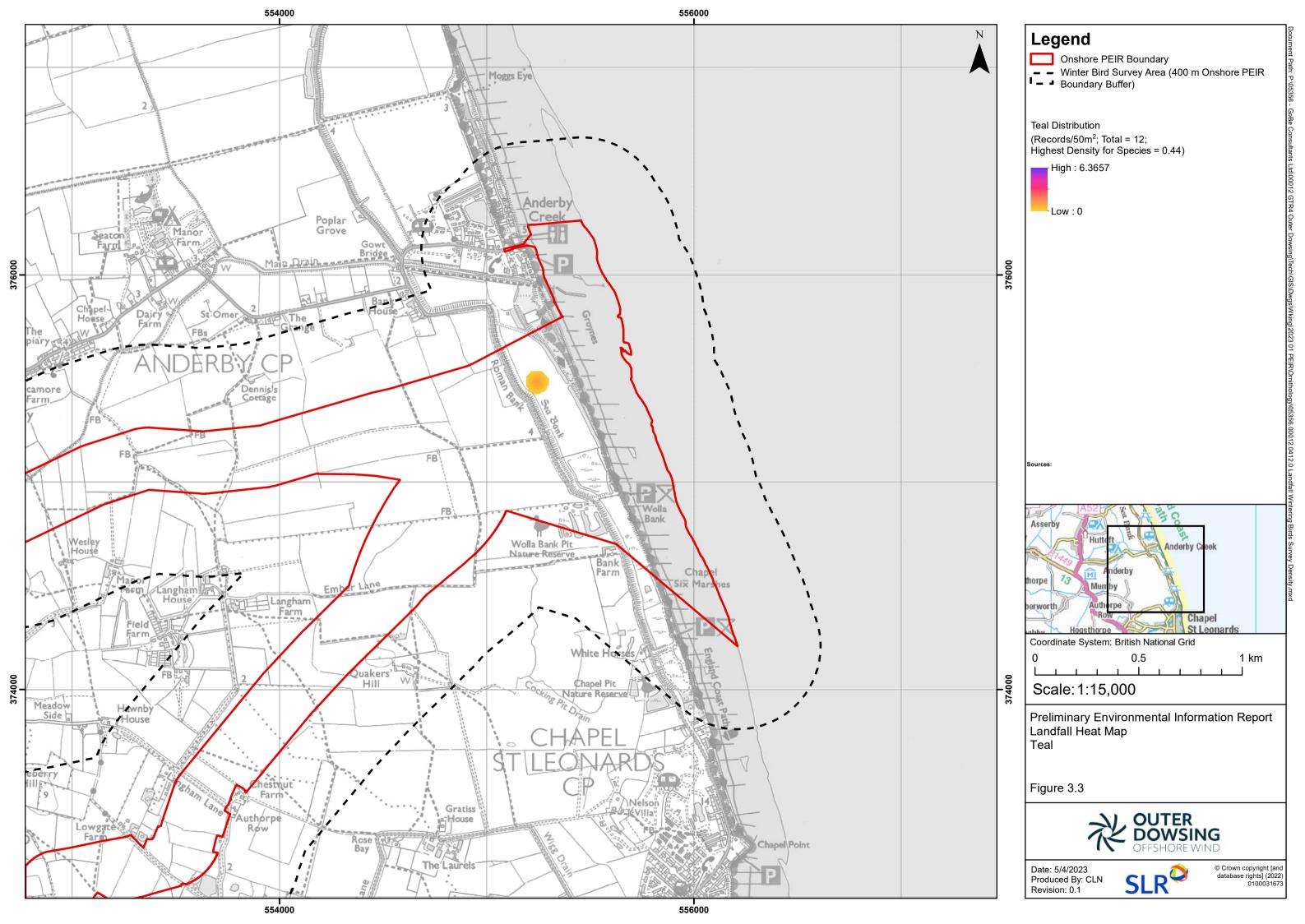
	Peak C	Count of Species r	ecord	ed at \	Volla	Bank	Land	fall Lo	ocatio	n						
Species	# counts in which species observed	Proportional frequency of counts in which species observed (%)	13/09/22	29/09/22	14/10/22	24/10/22	14/11/22	29/11/22	05/12/22	20/12/22	10/01/23	24/01/23	01/02/23	13/02/23	28/02/23	27/03/23
Pink-footed goose	3	3.57	0	0	0	2	1	0	0	0	0	0	0	0	0	0
Greylag goose	1	1.19	0	32	0	0	0	0	0	0	0	0	0	0	0	0
Canada goose	1	1.19	0	0	0	0	0	0	0	11	0	0	0	0	0	0
Dark-bellied brent goose	2	2.38	0	0	0	7	0	0	4	0	0	0	0	0	0	0
Shelduck	1	1.19	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mallard	1	1.19	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon	2	2.38	0	0	33	0	0	0	0	0	0	0	0	500	0	0
Teal	1	1.19	0	0	0	12	0	0	0	0	0	0	0	0	0	0
Pintail	1	1.19	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Eider	1	1.19	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Common scoter	12	14.29	0	0	0	18	23	13	7	10	40	14	0	0	0	15
Oystercatcher	15	17.86	2	2	0	2	0	4	2	0	3	0	3	2	0	0
Golden plover	4	4.76	23	0	0	0	34	0	0	0	0	0	0	0	0	0
Grey plover	3	3.57	0	0	0	0	0	1	0	1	1	0	0	0	0	0
Curlew	17	20.24	0	0	2	1	2	0	0	2	0	8	16	18	5	6
Sanderling	29	34.52	0	3	11	0	0	12	19	7	11	3	7	4	4	3

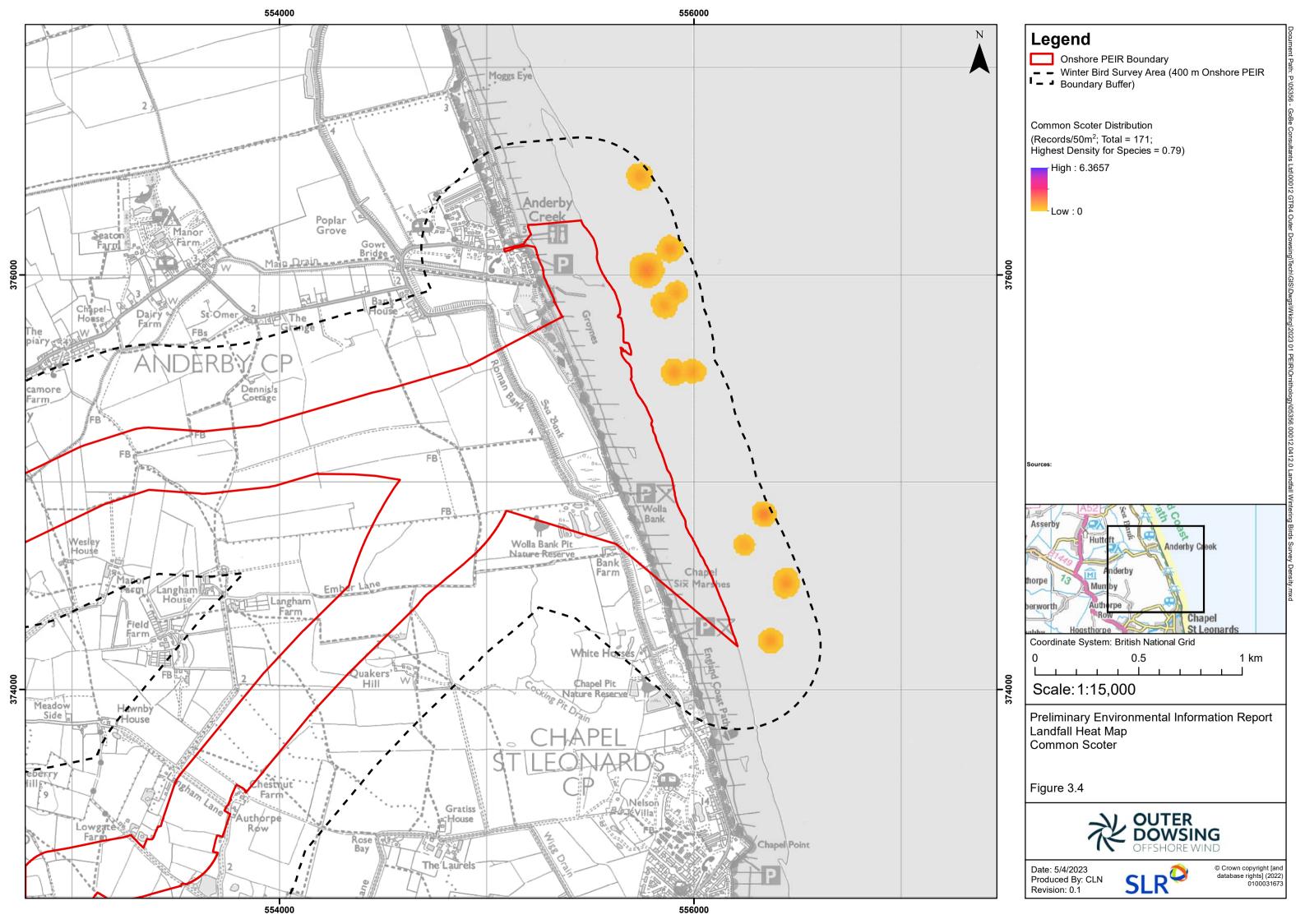
Peak Count of Species recorded at Wolla Bank Landfall Location																
Dunlin	5	5.95	0	0	0	0	17	7	12	6	0	0	0	0	0	0
Redshank	1	1.19	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Black-headed gull	46	54.76	4	8	12	12	13	9	10	17	10	9	16	15	9	30
Common gull	63	75.00	18	11	55	10	7	16	16	32	35	12	16	59	12	19
Great black-backed gull	6	7.14	0	0	0	0	0	0	3	2	4	0	0	0	2	1
Herring gull	28	33.33	3	3	9	4	5	2	2	5	4	3	16	5	3	4
Lesser black-backed gull	11	13.10	0	2	2	0	2	2	1	0	0	2	2	0	1	2
Red-throated diver	11	10.71	0	0	0	0	1	1	0	0	0	0	1	1	1	1
Great northern diver	7	8.33	0	0	0	0	0	1	1	1	1	1	0	0	0	0
Cormorant	12	14.29	0	0	0	2	2	2	0	2	2	0	3	1	2	3
Marsh harrier	1	1.19	0	0	0	0	0	0	1	0	0	0	0	0	0	0

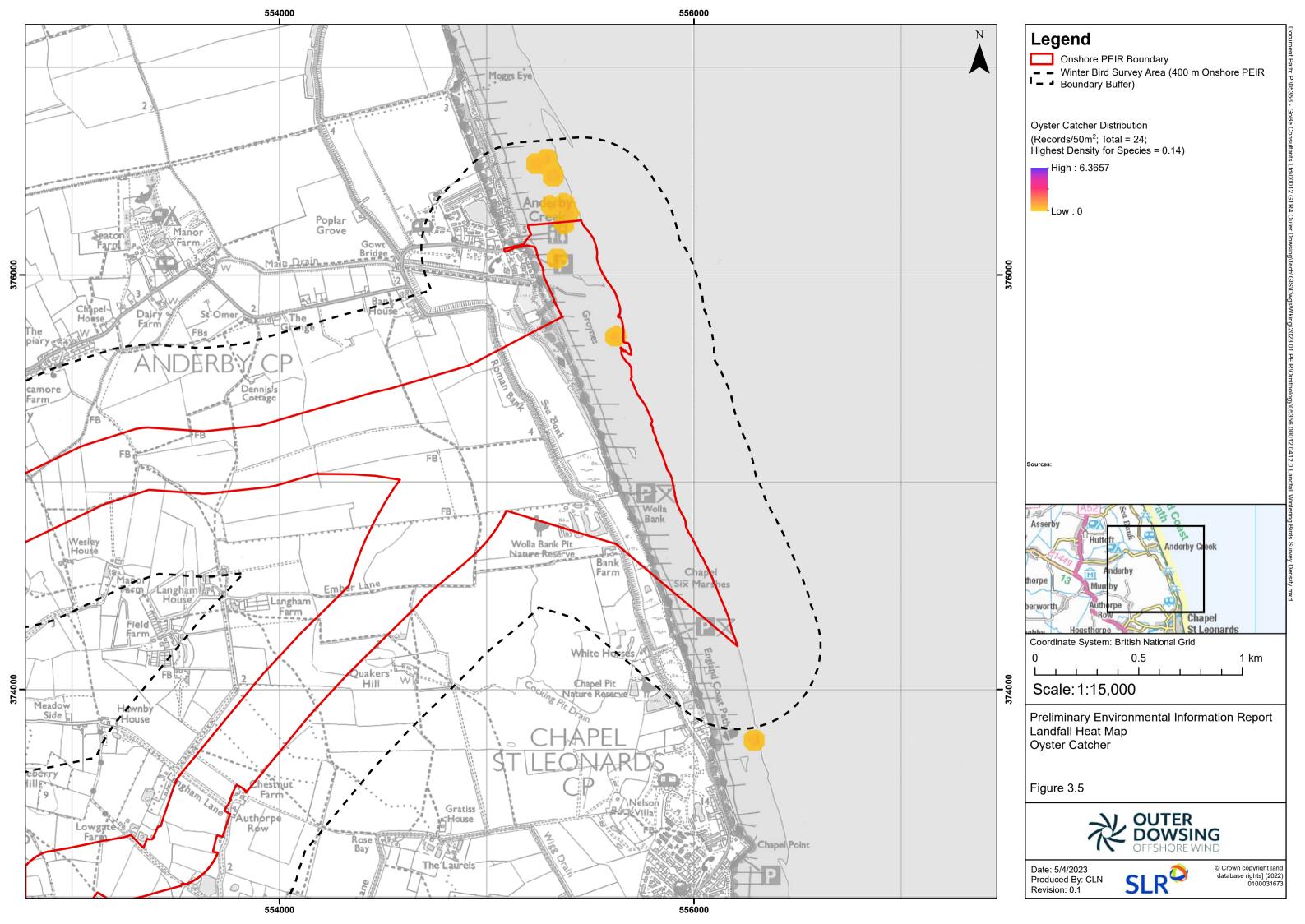


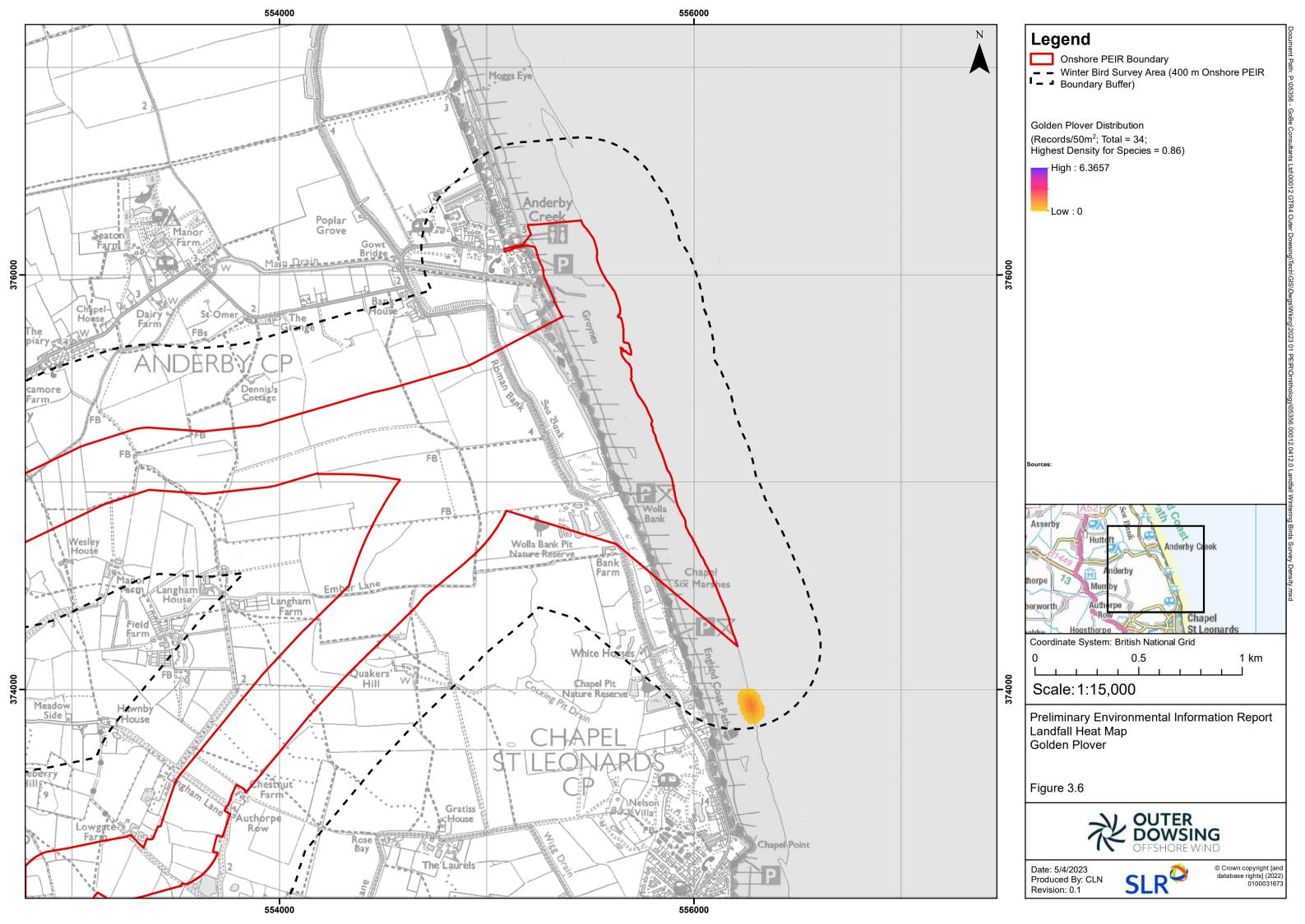


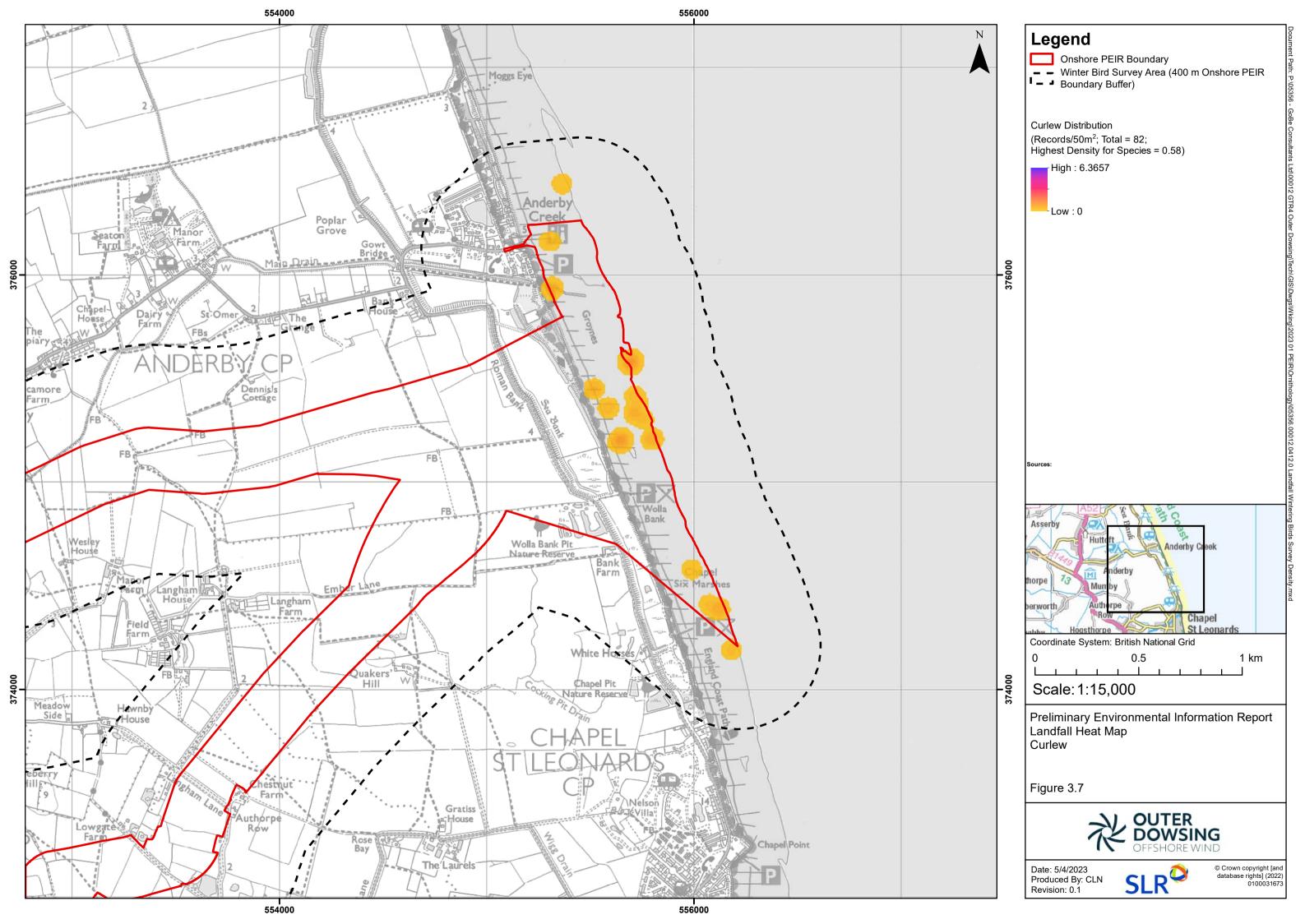


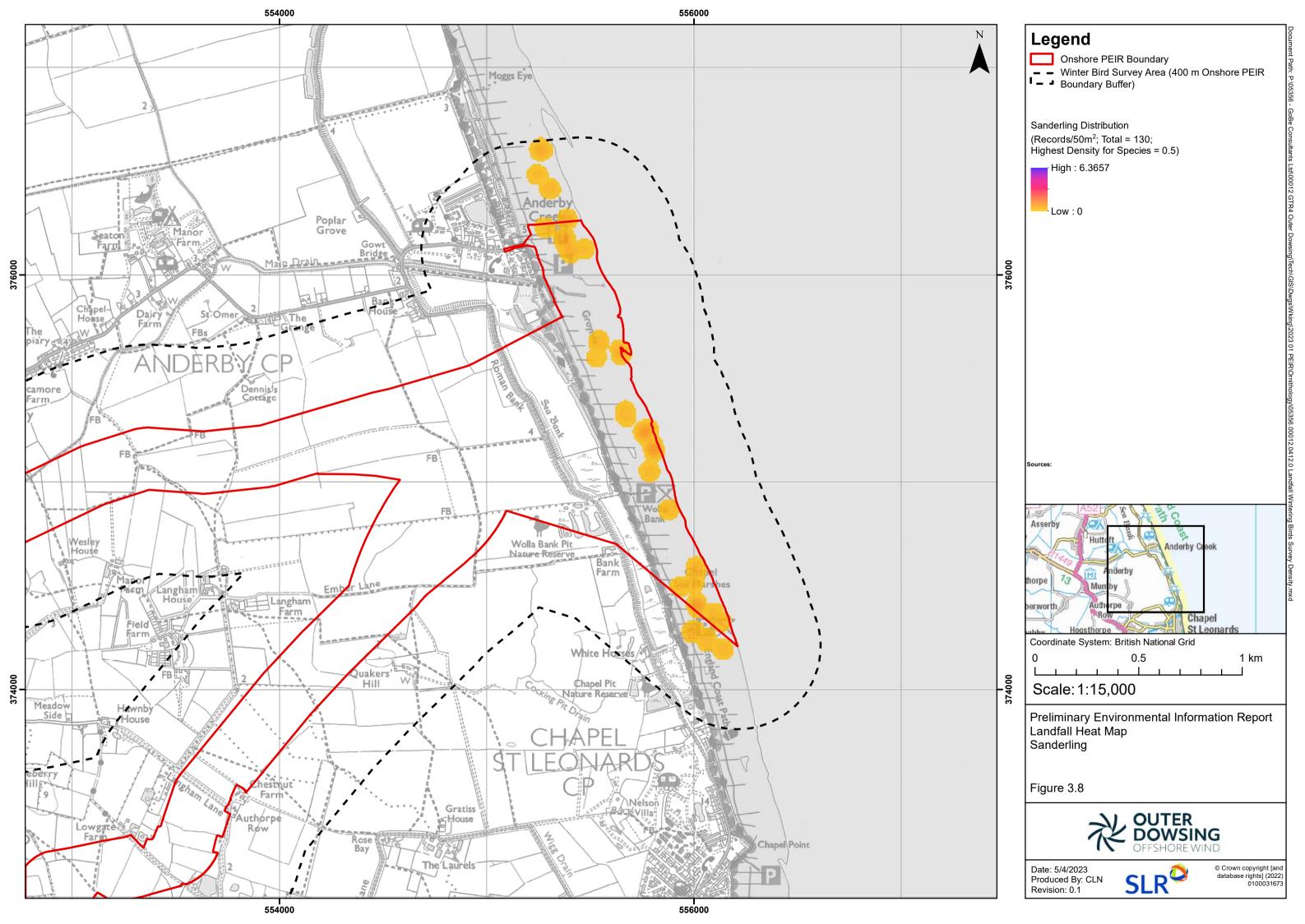


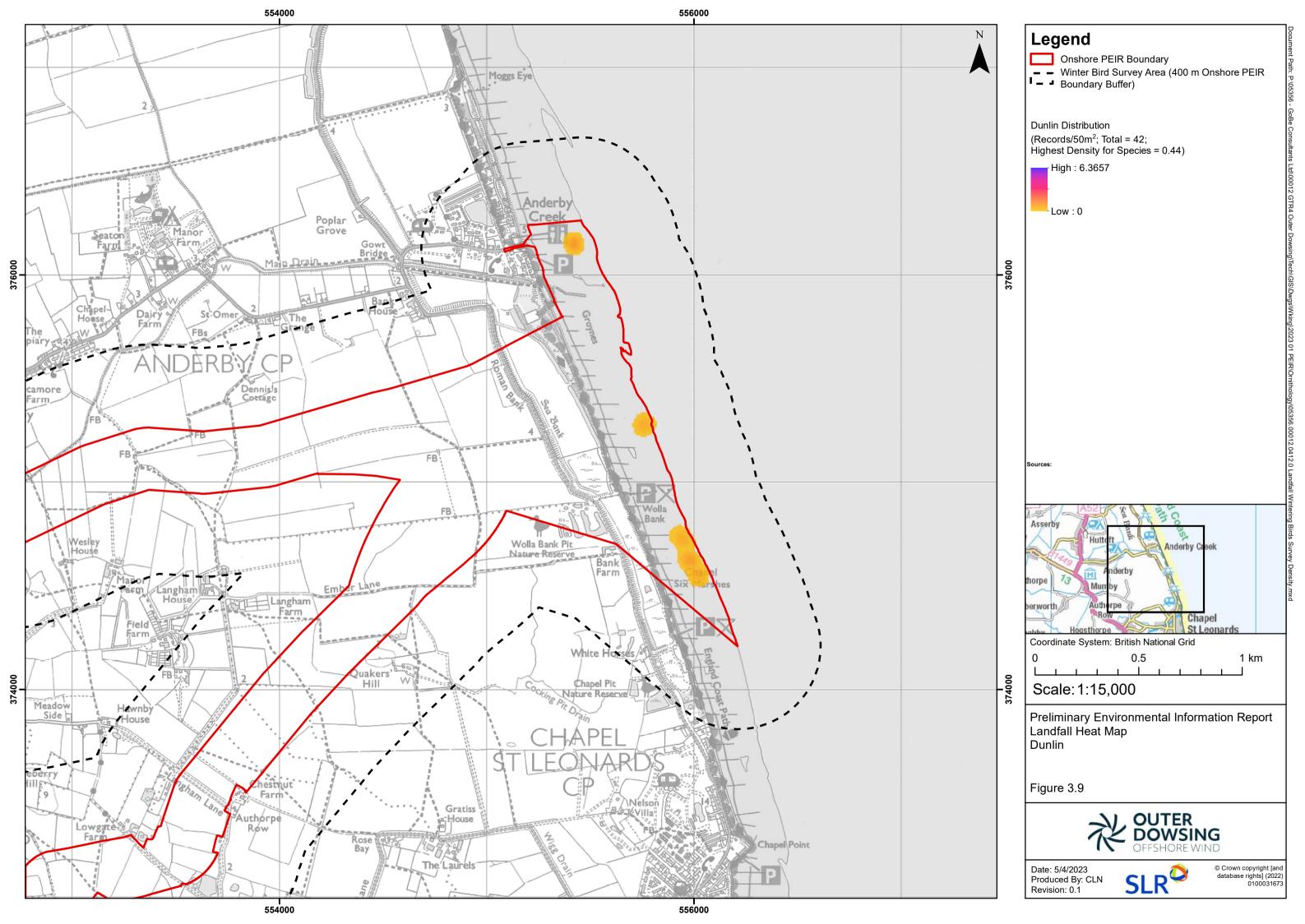


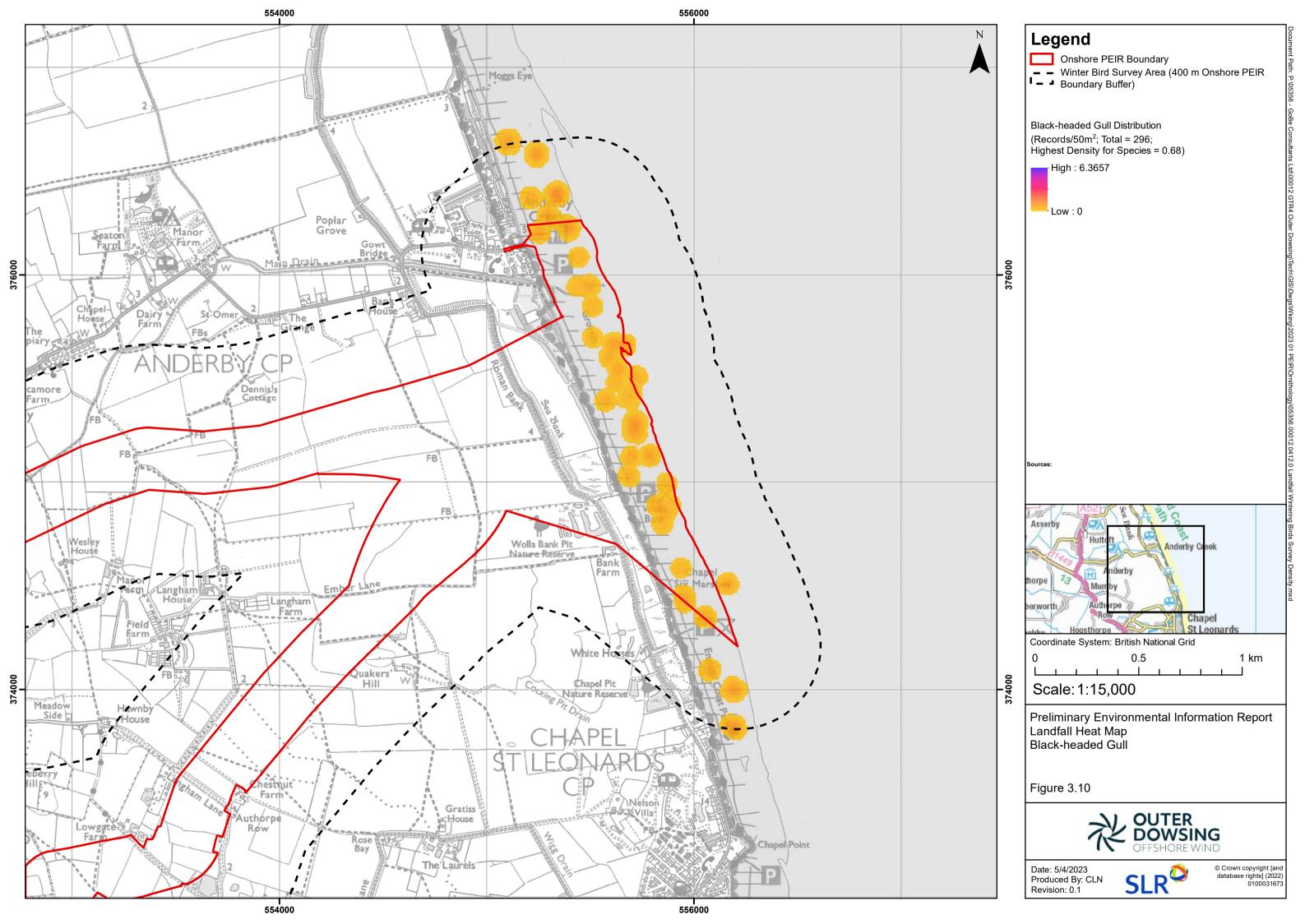


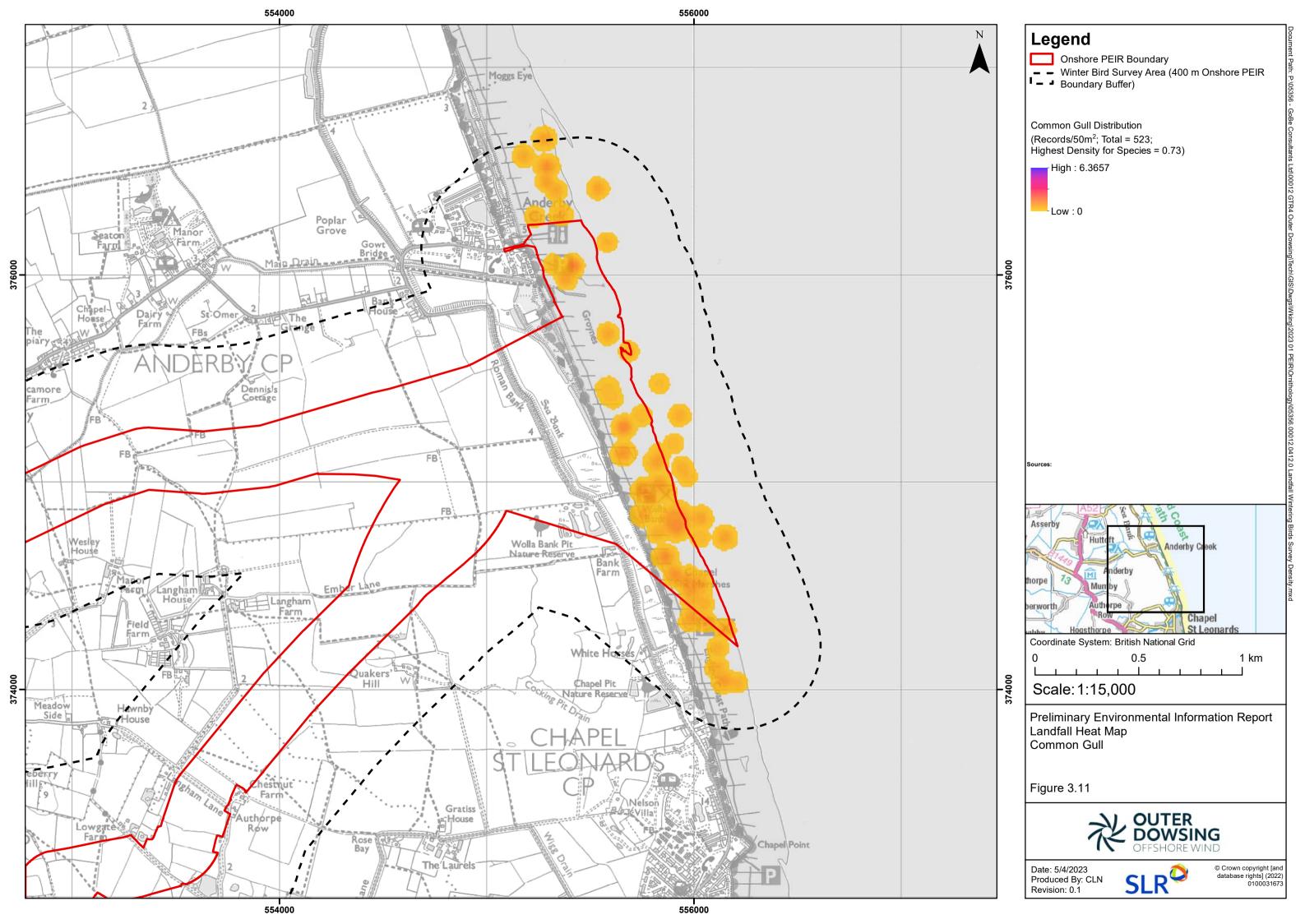


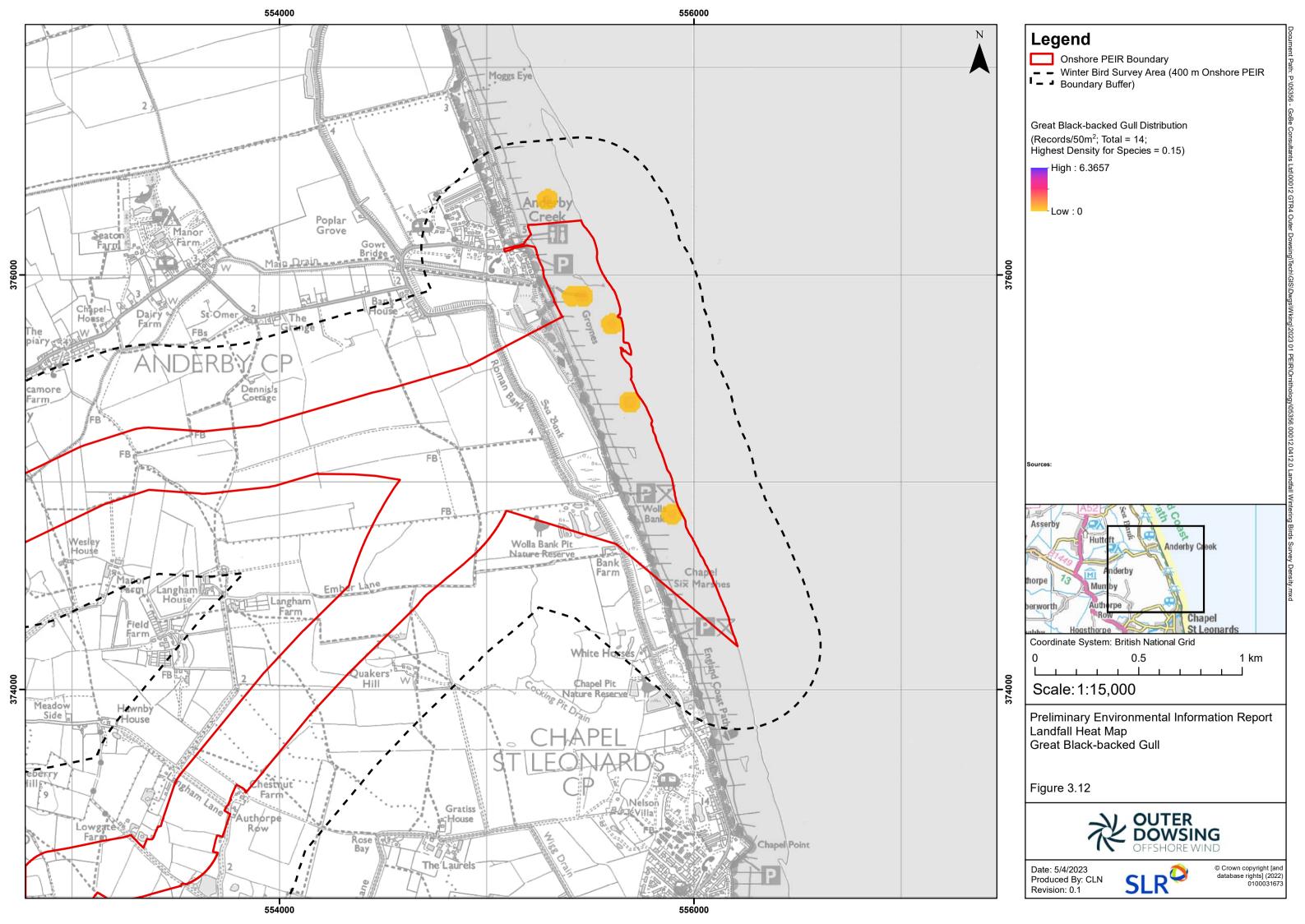


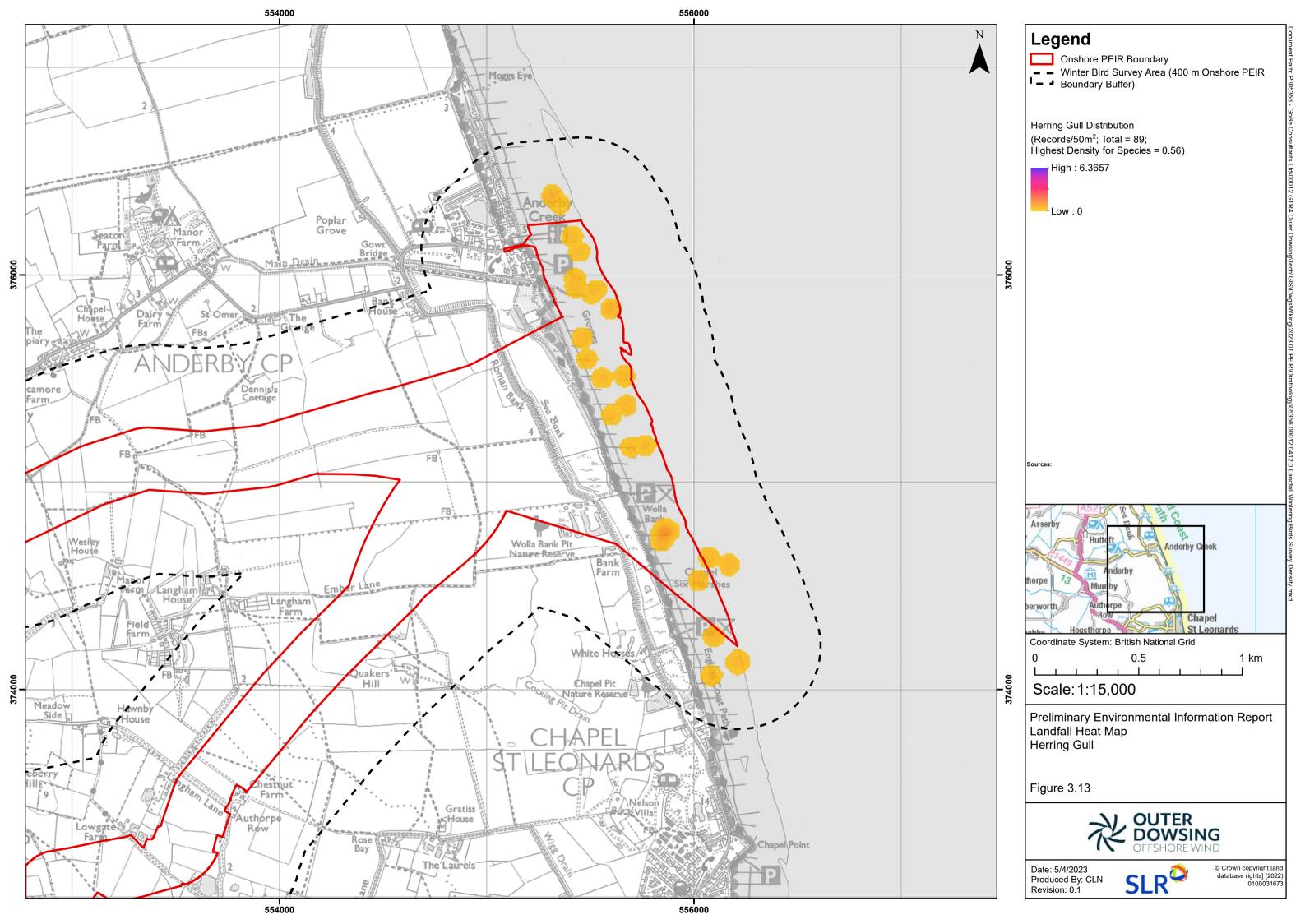


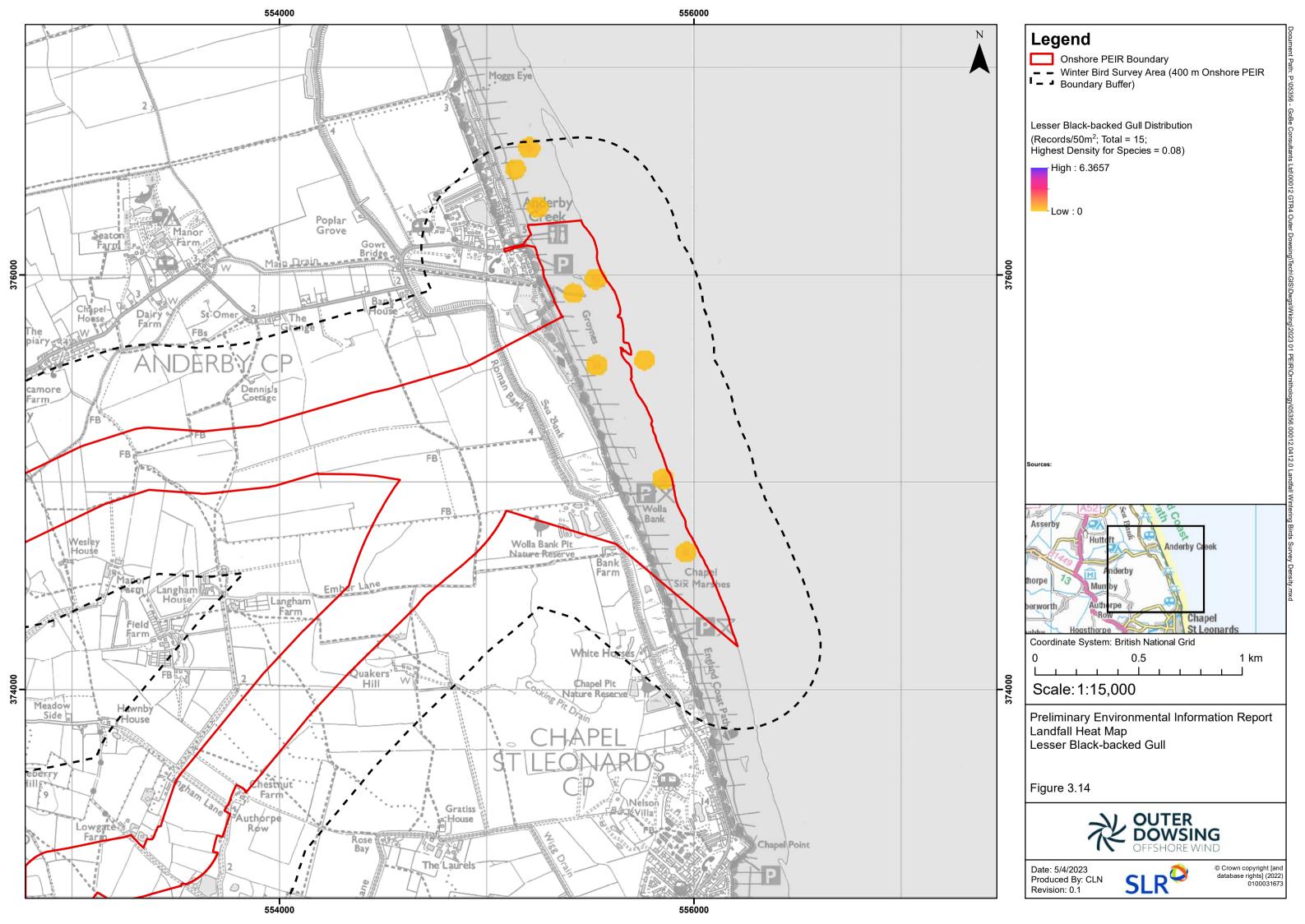


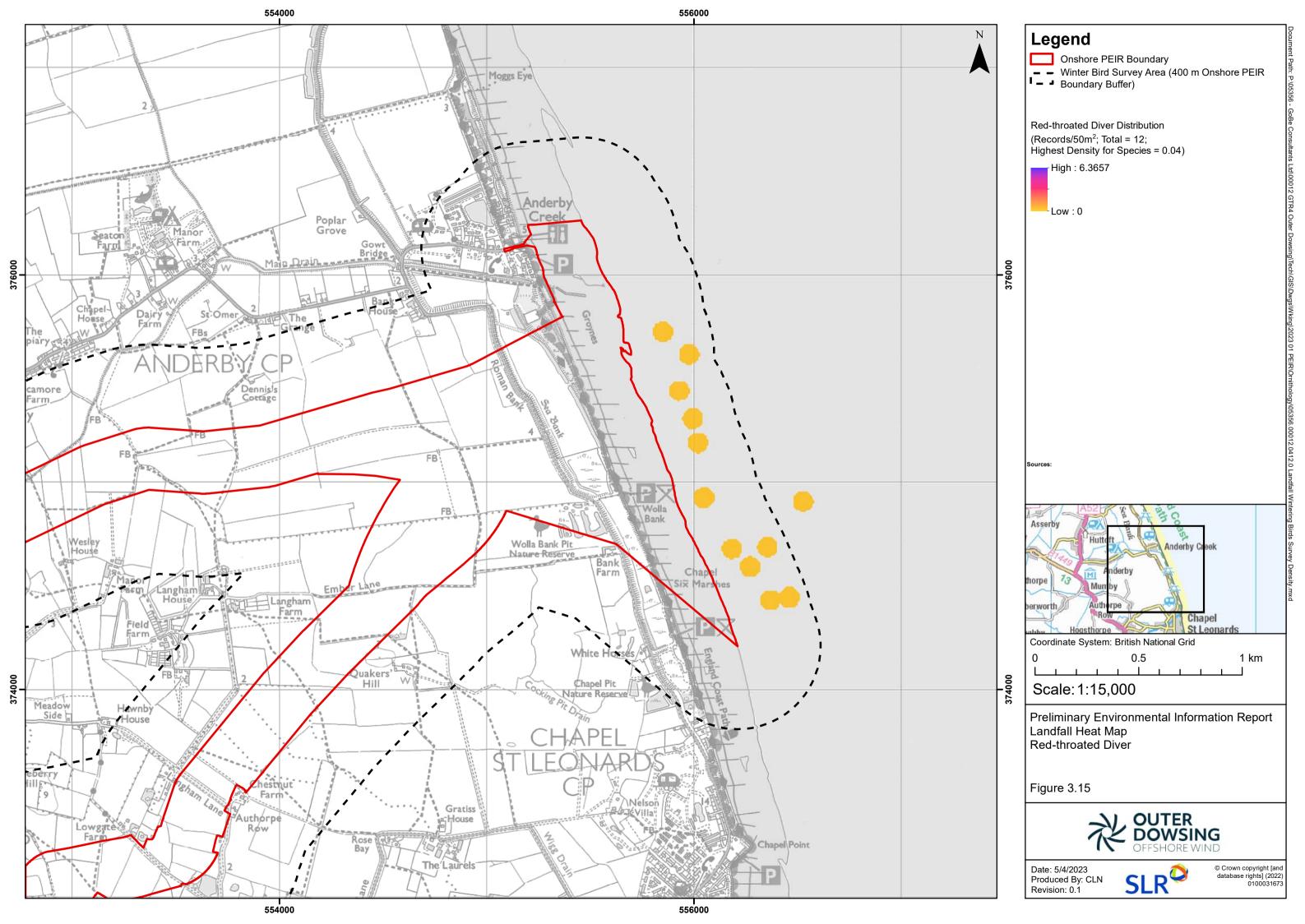


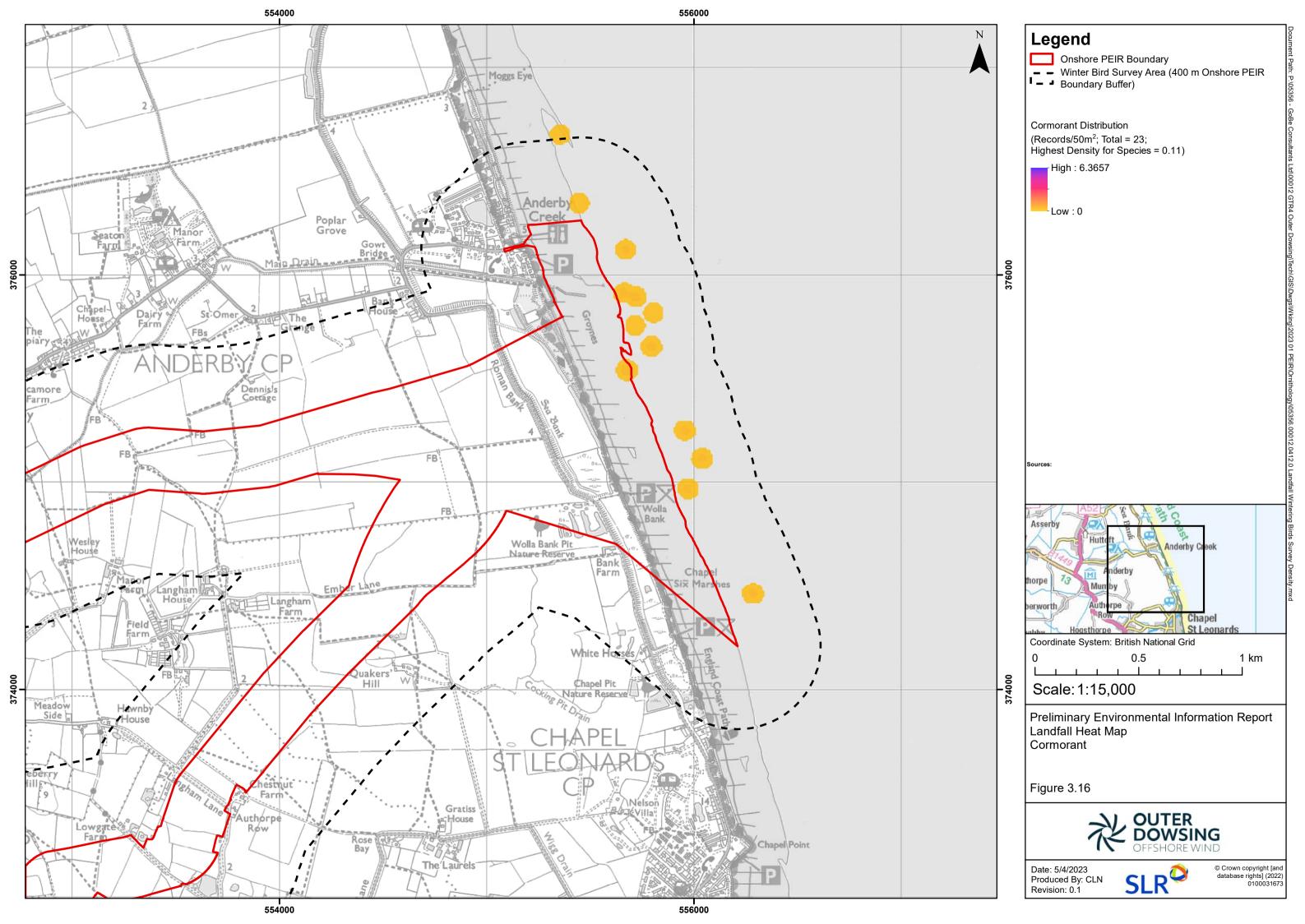


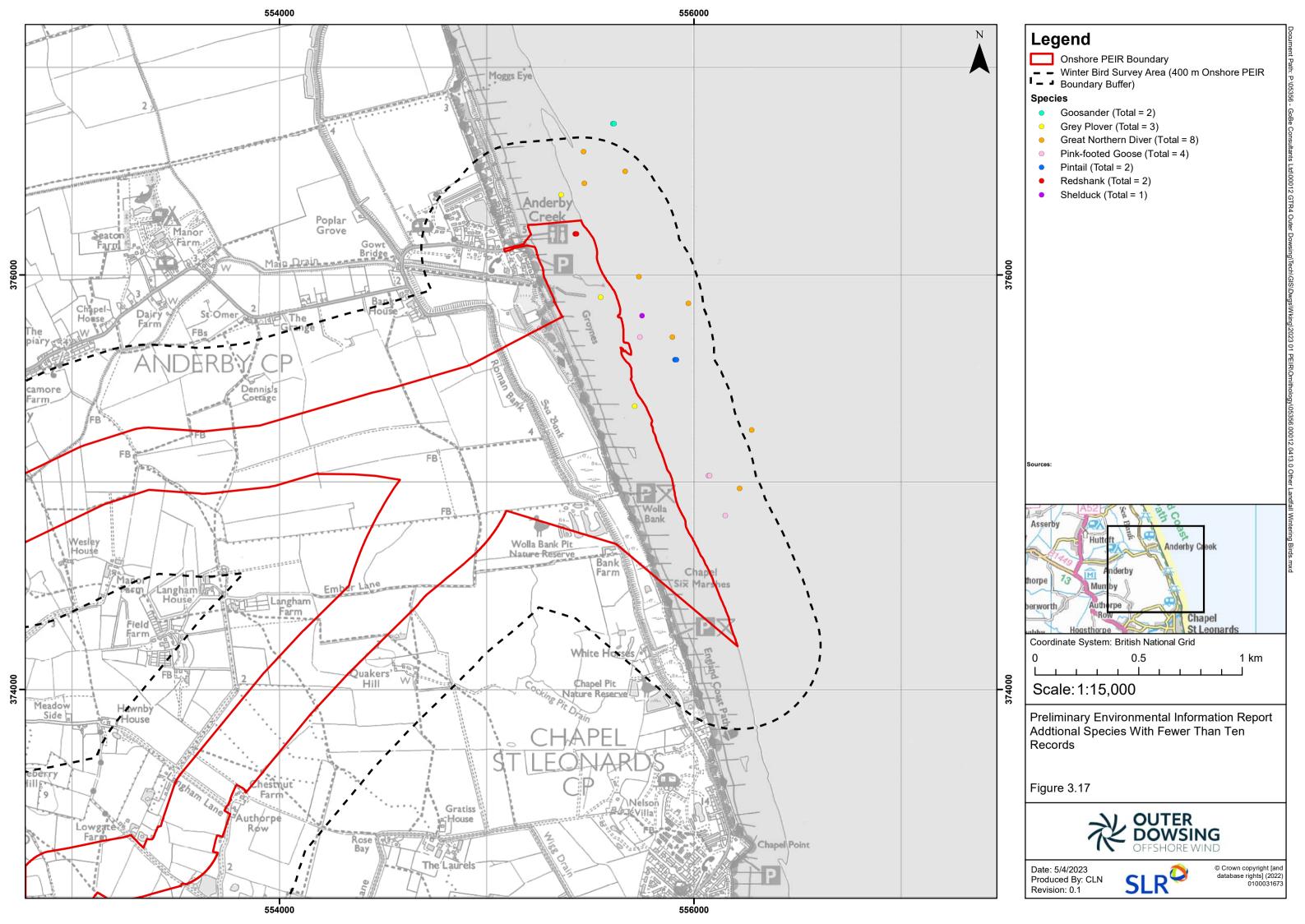












Onshore ECC Walkover Surveys

Summary data for each waterbird species are detailed in Table 3.2 for Weston Marsh onshore ECC South of the A52. The total number of records and peak flock counts for each segment are presented. Figure 3.18 to Figure 3.53 show the peak and average counts for each field. The peak counts for each visit will be provided at the ES stage. Table 3.3 provides summary data for Weston Marsh Onshore ECC North of the A52.



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Table 3.2: Peak count of waterbird species recorded at Lincolnshire Node and Weston Marsh (South of the A52) and the total number of observations

Species	Total No. Records	LN1/WM1	LN2	WM2	WM3	WM4	WM5	WW6	WM7	WM8	6MW	WM10	WM11	WM12	WM13	WM14
Dark-bellied brent goose	21	7	0	0	0	0	0	650	250	24	0	1100	650	0	0	0
Greylag goose	22	167	0	37	0	29	74	0	0	30	0	0	39	0	0	0
Pink-footed goose	21	12	17	0	21	217	610	0	83	0	45	0	0	0	0	0
Mute swan	26	7	5	0	3	0	3	2	0	0	0	0	0	0	4	4
Whooper swan	12	6	6	7	0	2	8	0	13	0	0	4	15	0	0	0
Shelduck	8	15	0	0	0	0	2	0	0	0	0	0	0	2	0	0
Shoveler	5	21	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Gadwall	8	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon	21	460	0	0	0	130	117	0	0	0	0	0	0	0	0	0
Mallard	69	43	12	0	7	21	58	9	0	12	2	9	2	2	0	26
Teal	27	130	3	0	0	31	51	9	0	0	0	0	0	0	0	12
Pochard	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
Tufted duck	1	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0
Common scoter	10	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Species	Total No. Records	LN1/WM1	LN2	WM2	WM3	WM4	WM5	WM6	VM7	WM8	6MW	WM10	WM11	WM12	WM13	WM14
Goosander	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Stock dove	4	0	0	0	0	0	34	0	0	0	37	0	0	0	0	0
Water rail	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moorhen	22	3	0	0	0	0	8	3	2	0	0	0	0	3	0	0
Coot	5	2	0	0	0	0	0	3	0	0	0	0	0	0	0	2
Little grebe	2	3	0	0	0	0	0	0	0	0	0	3	0	0	0	0
Oystercatcher	35	5	0	0	0	0	2	0	0	0	14	6	23	3	0	3
Avocet	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing	76	258	34	0	130	58	190	18	178	93	59	48	210	400	0	56
Golden plover	25	110	0	11	64	0	0	65	15	34	0	0	0	90	0	22
Grey plover	6	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
Ringed plover	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
Curlew	97	44	9	6	6	9	54	0	0	11	3	29	9	44	6	17
Black-tailed godwit	2	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0
Turnstone	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Sanderling	28	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Species	Total No. Records	LN1/WM1	LN2	WM2	WM3	WM4	WMS	WM6	WM7	WM8	6MW	WM10	WM11	WM12	WM13	WM14
Dunlin	10	31	0	0	0	0	0	0	0	0	0	0	46	0	0	0
Snipe	19	3	1	0	0	0	1	0	0	2	1	0	0	0	0	0
Redshank	28	9	0	0	0	0	35	0	0	0	0	21	23	24	11	10
Black-headed gull	101	112	23	23	13	43	0	112	67	60	87	137	100	63	80	74
Common gull	145	200	350	68	200	116	220	500	67	210	75	67	135	66	200	145
Great black-backed gull	8	4	0	0	0	0	0	4	0	0	0	0	0	0	6	0
Herring gull	47	16	11	0	6	0	0	80	9	11	0	0	21	3	18	7
Lesser black-backed gull	14	2	0	0	2	0	0	0	0	0	0	0	4	0	3	0
Cormorant	25	3	0	1	0	0	2	0	1	0	0	0	11	0	0	3
Grey heron	11	1	1	0	0	0	1	1	0	0	1	1	0	0	0	0
Little egret	34	2	2	0	0	1	1	0	0	2	2	4	2	0	2	5
Sparrowhawk	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Marsh harrier	9	2	1	0	1	0	0	0	0	0	0	0	2	0	0	0
Red kite	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Barn owl	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kestrel	18	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0

Species	Total No. Records	LN1/WM1	LN2	WM2	WM3	WM4	WM5	WW6	VM7	WM8	6WM	WM10	WM11	WM12	WM13	WM14
Peregrine	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
Skylark	6	0	0	0	0	0	280	0	0	0	7	0	0	0	0	0
Cetti's warbler	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Linnet	1	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0
Yellowhammer	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0
Reed bunting	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0



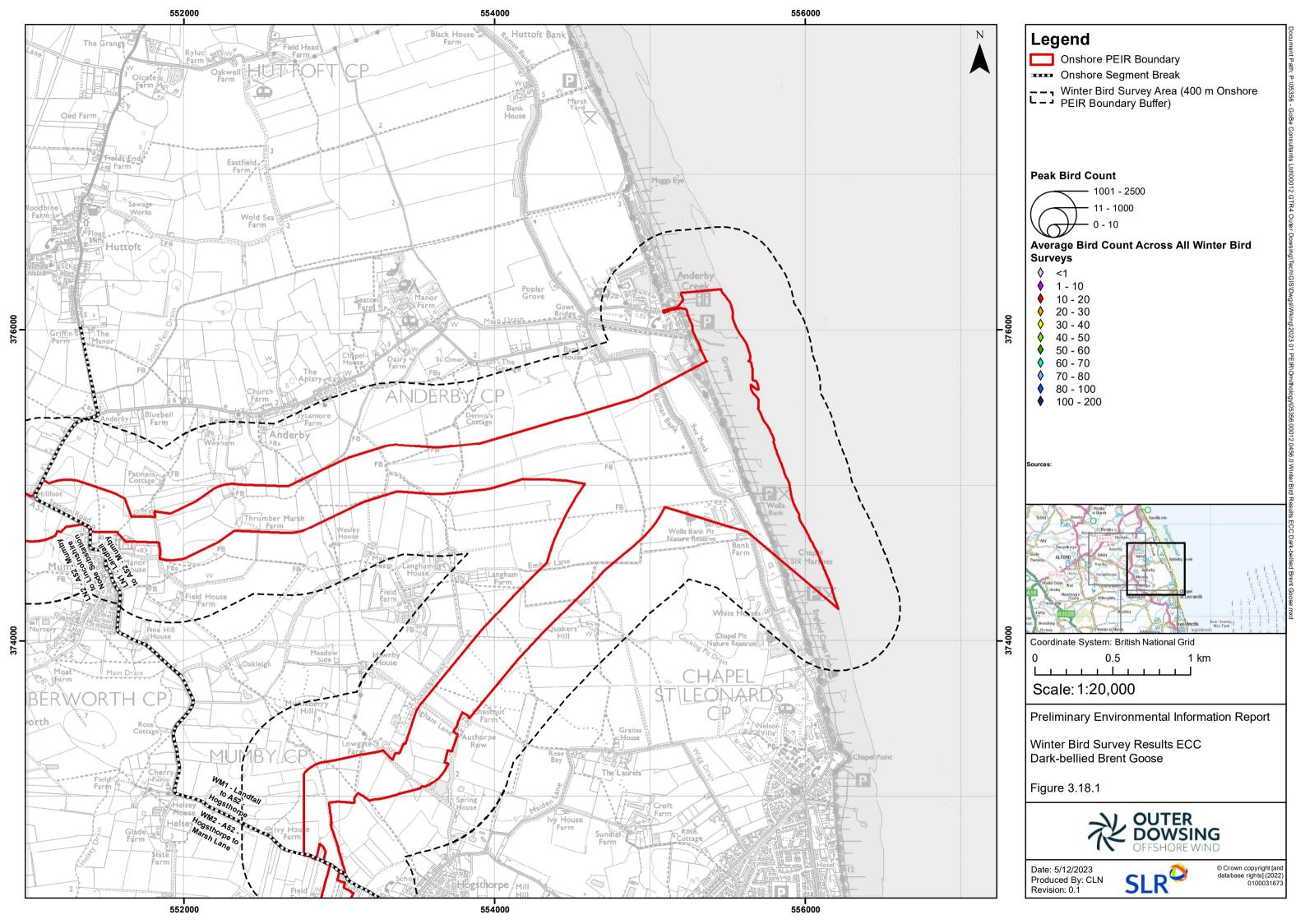
Table 3.3: Peak count of Waterbirds and Protected and Priority Species (Annex 1, Schedule 1, NERC41 & BOCC Red/Amber) recorded at the Weston Marsh Onshore ECC North of the A52 and the total number of observations

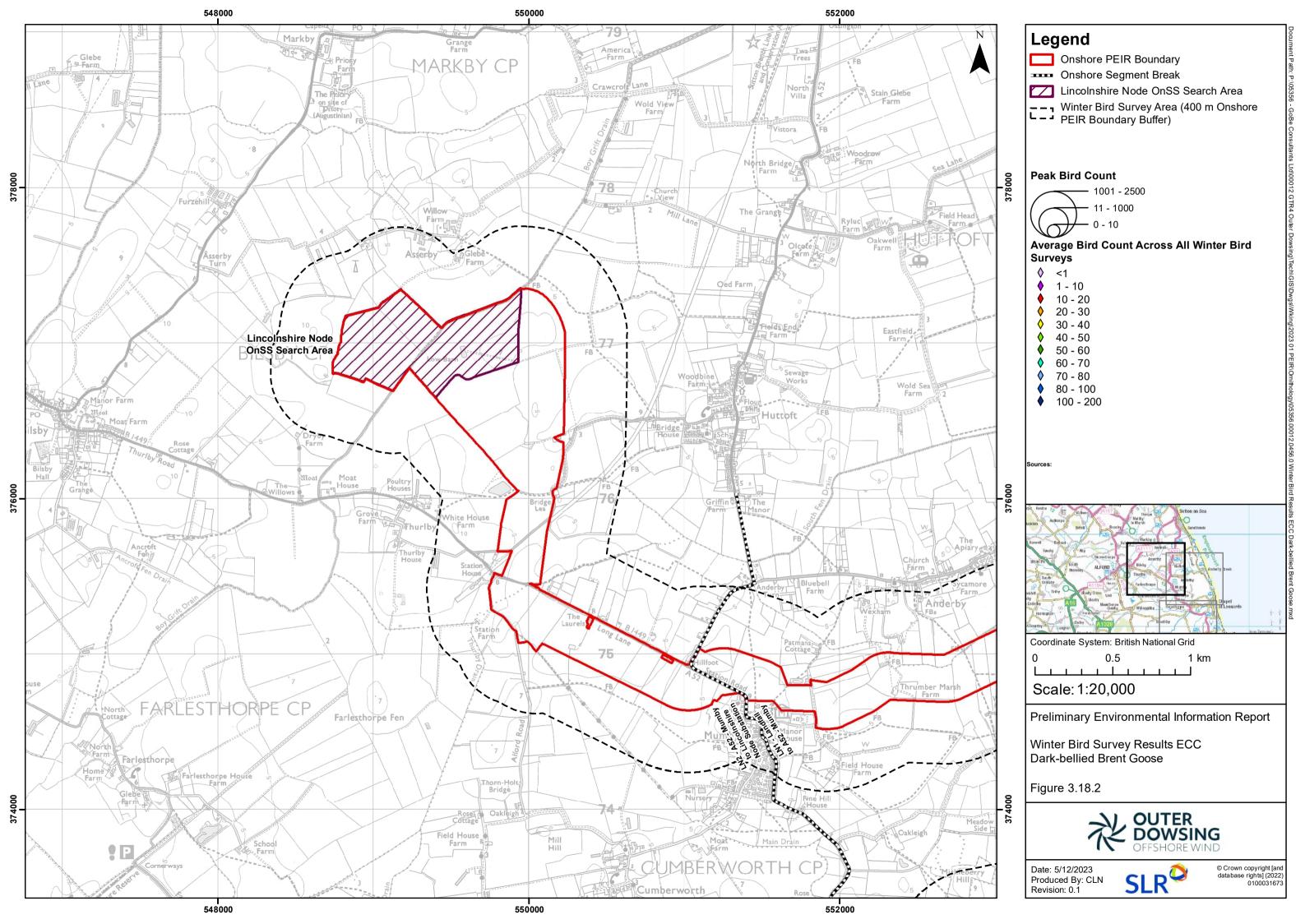
Species	Total No. Records	A1	A2	А3	A4	А5
Greylag goose	11	61	10	4	2	0
Pink-footed goose	18	5	12	17	3	14
Mute swan	43	6	4	2	2	2
Whooper swan	21	10	5	17	2	6
Shelduck	1	0	0	2	0	0
Gadwall	7	2	2	0	0	0
Wigeon	3	0	0	12	0	0
Mallard	188	87	58	100	10	35
Teal	35	12	14	5	12	25
Scaup	2	0	138	0	0	43
Goosander	3	3	2	0	0	0
Stock dove	13	0	48	30	27	23
Moorhen	62	7	6	20	4	4
Little grebe	9	2	2	0	0	1
Oystercatcher	2	0	0	0	1	2
Lapwing	190	434	2500	121	250	284
Golden plover	72	47	950	56	235	87
Ringed plover	1	0	0	2	0	0

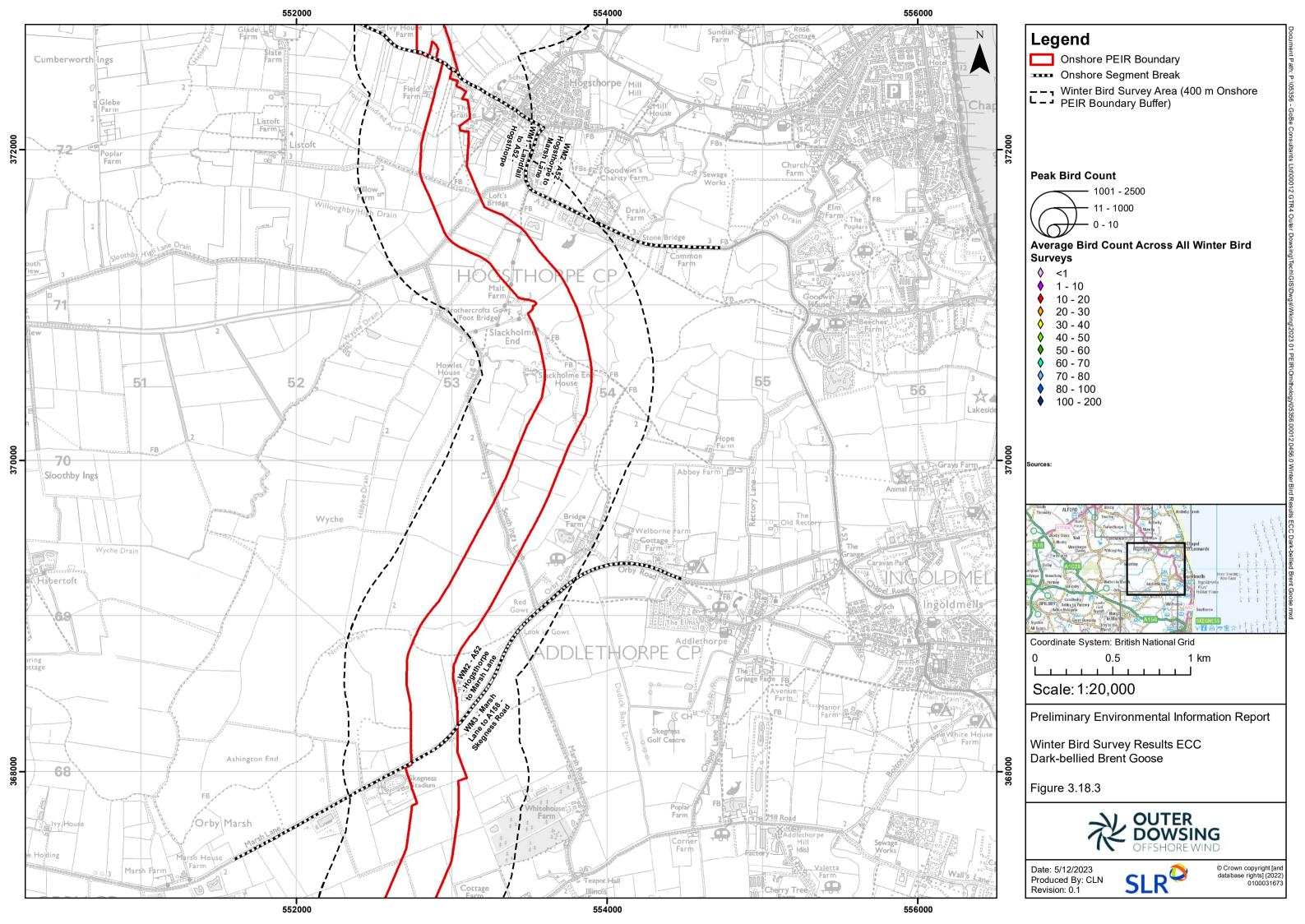
Species	Total No. Records	A1	A2	А3	A4	A5
Curlew	194	77	36	28	56	9
Ruff	1	0	0	0	2	0
Woodcock	3	0	1	0	1	0
Jack snipe	1	0	0	0	1	0
Snipe	72	2	3	5	4	2
Green sandpiper	15	0	1	1	3	0
Redshank	24	0	0	2	9	5
Black-headed gull	29	0	0	50	51	27
Common gull	22	0	0	197	6	27
Herring gull	2	1	0	3	0	0
Cormorant	18	4	1	0	0	3
Grey heron	34	1	2	3	1	1
Great white egret	2	0	1	1	0	0
Little egret	92	4	4	5	4	2
Sparrowhawk	11	1	1	1	0	1
Marsh harrier	1	0	1	0	0	0
Hen harrier	1	0	0	0	2	0
Red kite	6	0	0	0	3	1
Barn owl	4	1	0	0	0	1
Kingfisher	11	1	1	0	0	1
Kestrel	101	1	10	10	10	2
Peregrine	4	1	0	1	1	0

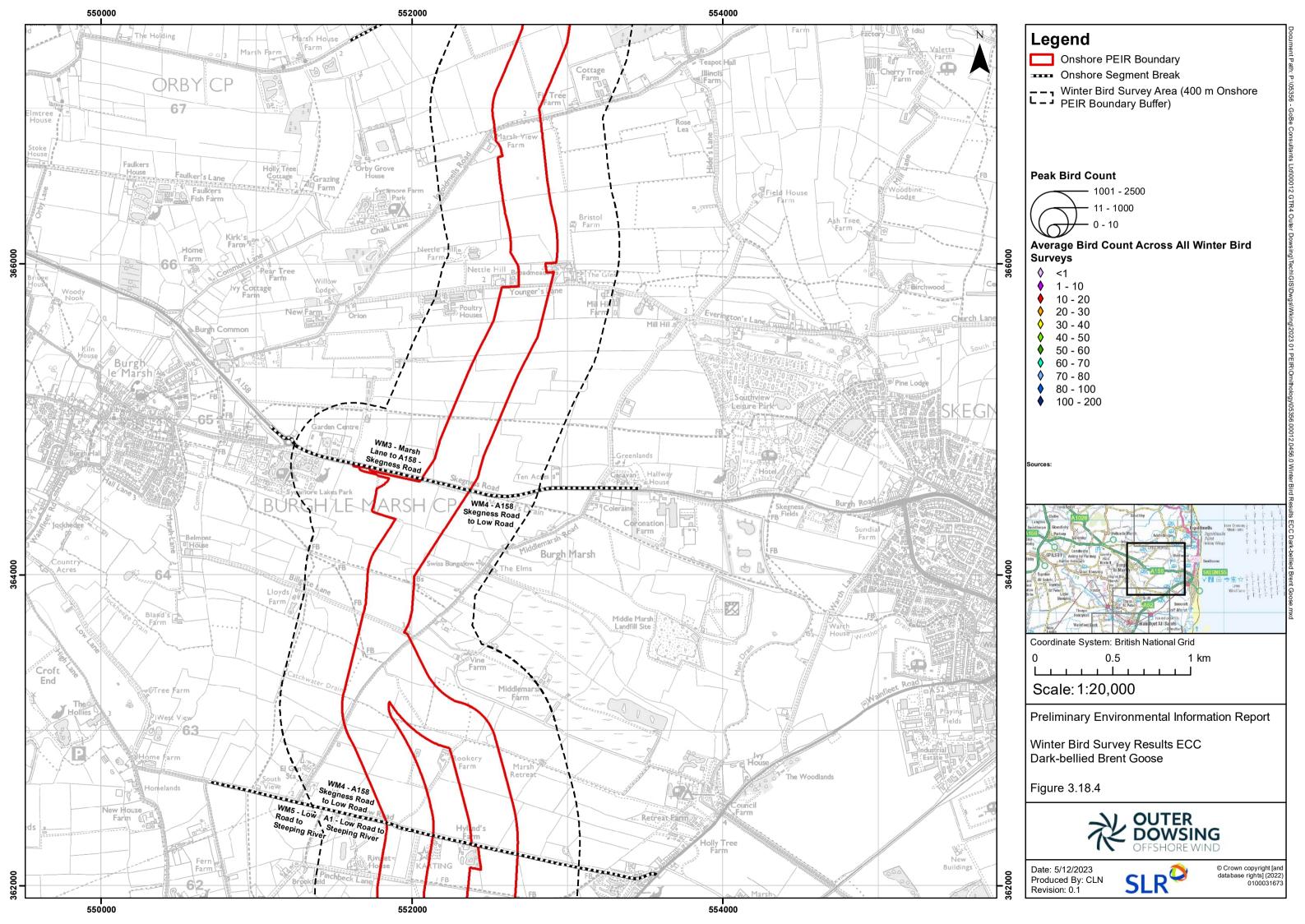
Species	Total No. Records	A1	A2	А3	A4	A5
Skylark	105	30	85	34	12	20
Tree sparrow	9	6	15	16	15	1
Grey wagtail	1	0	0	0	2	0
Linnet	10	20	0	35	14	48
Yellowhammer	37	65	10	17	12	3
Reed bunting	3	0	0	6	25	0

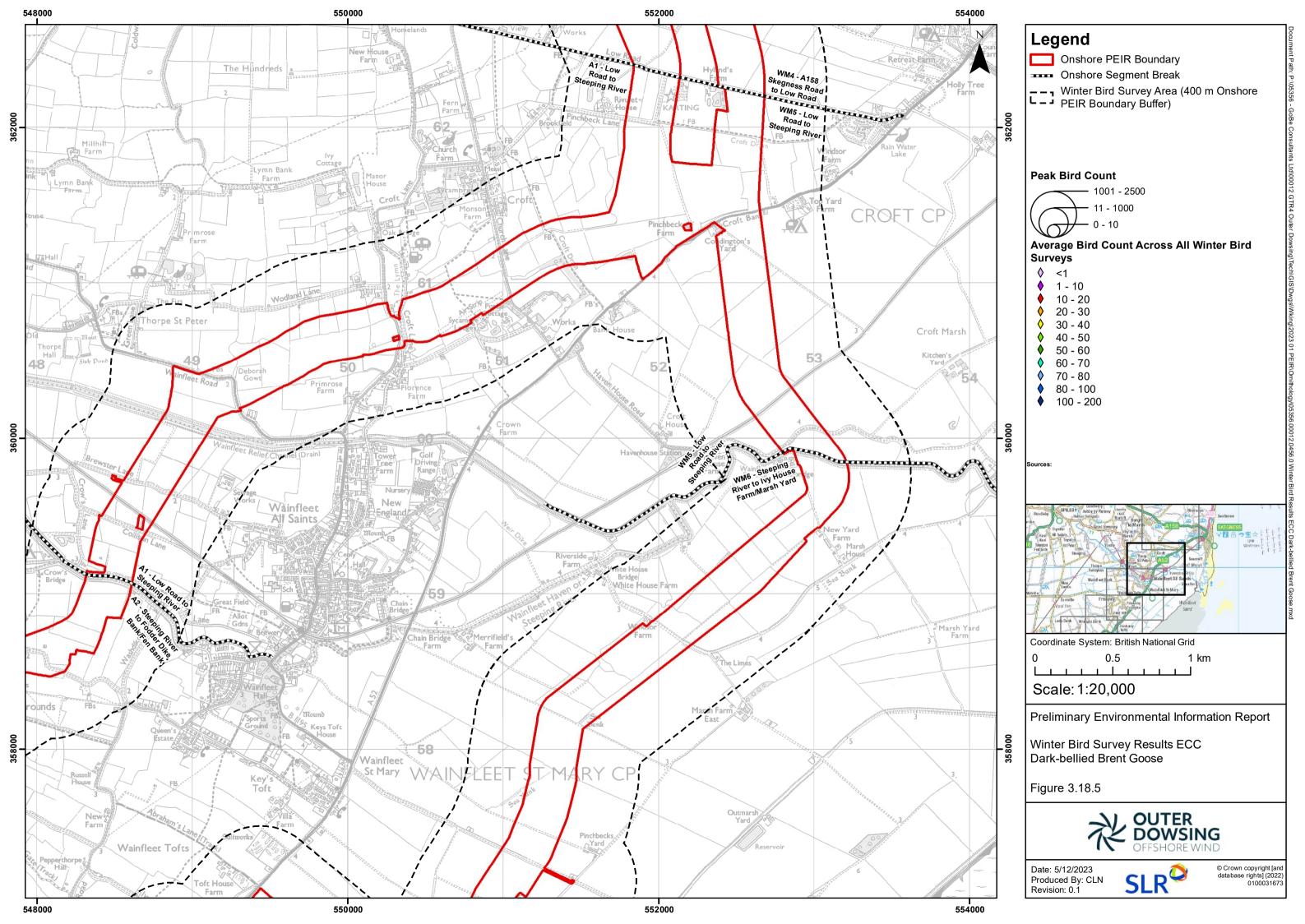


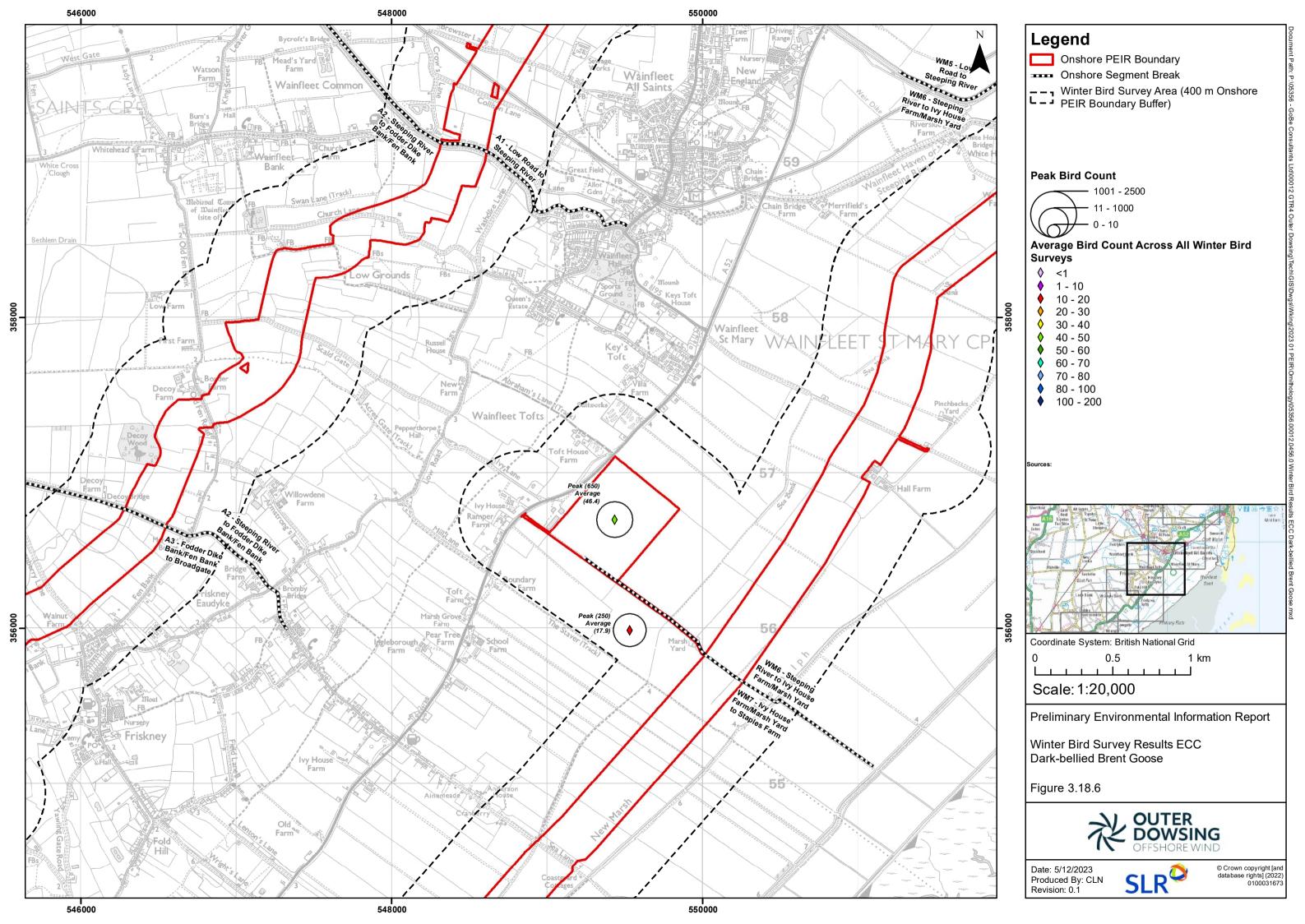


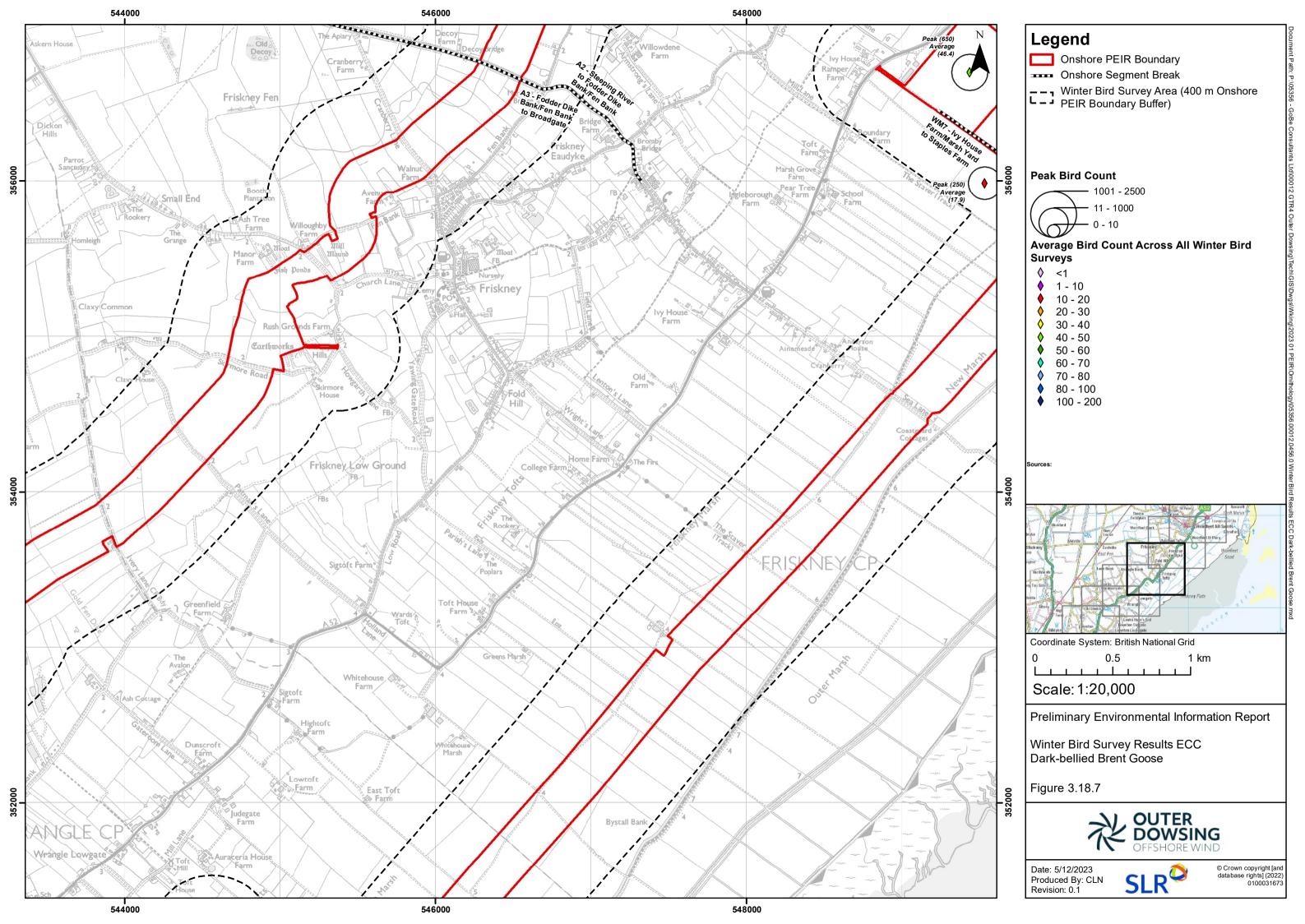


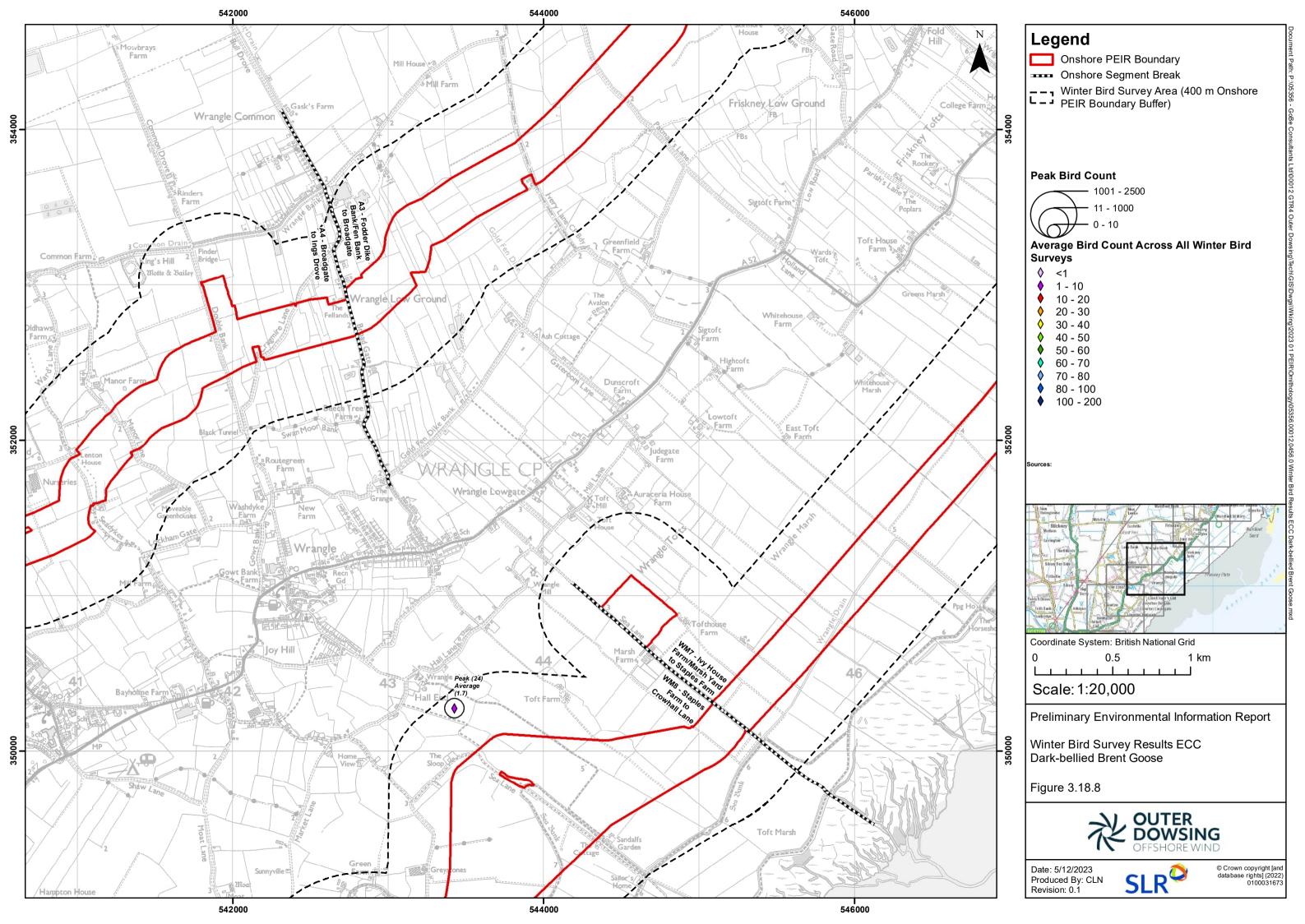


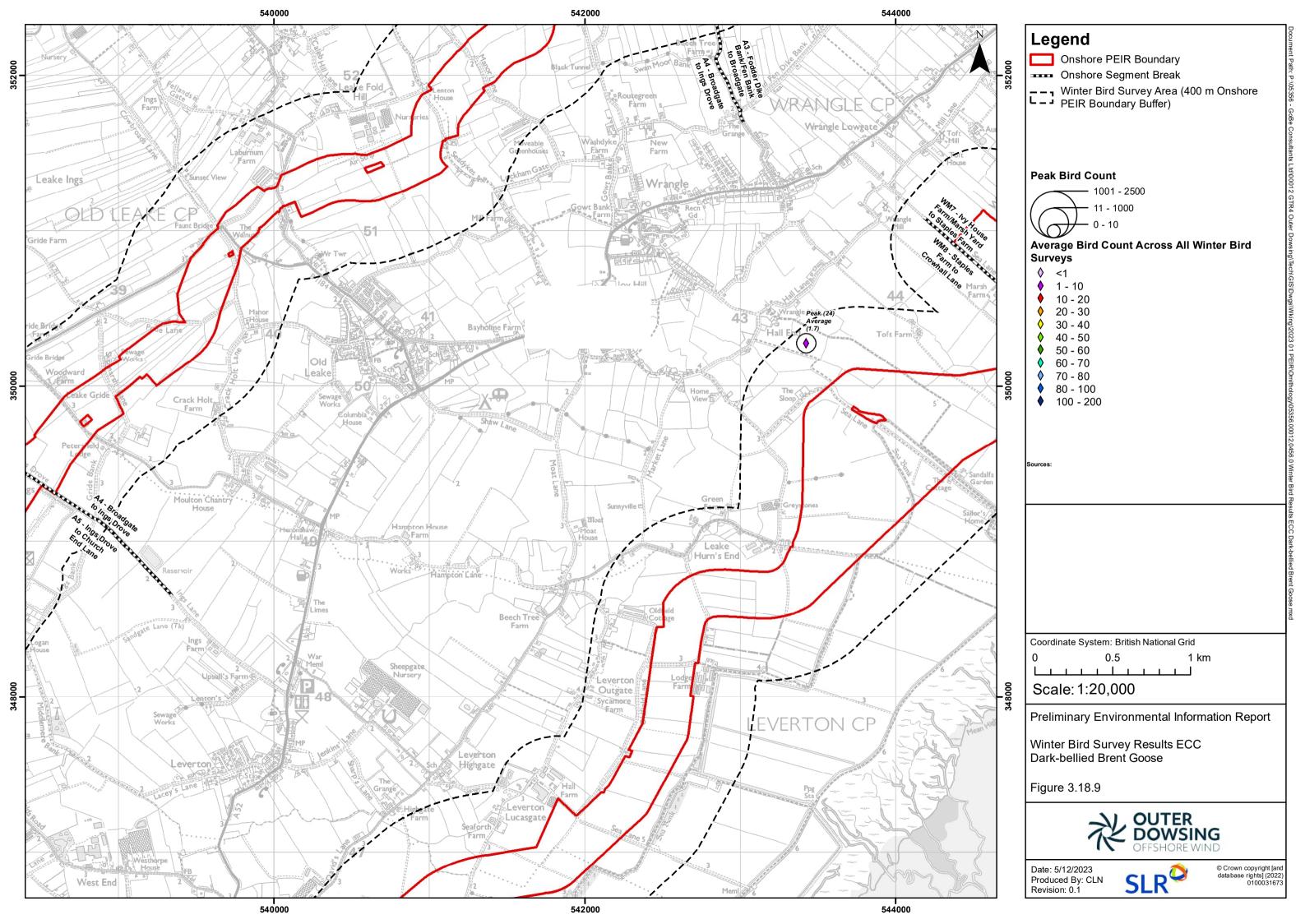


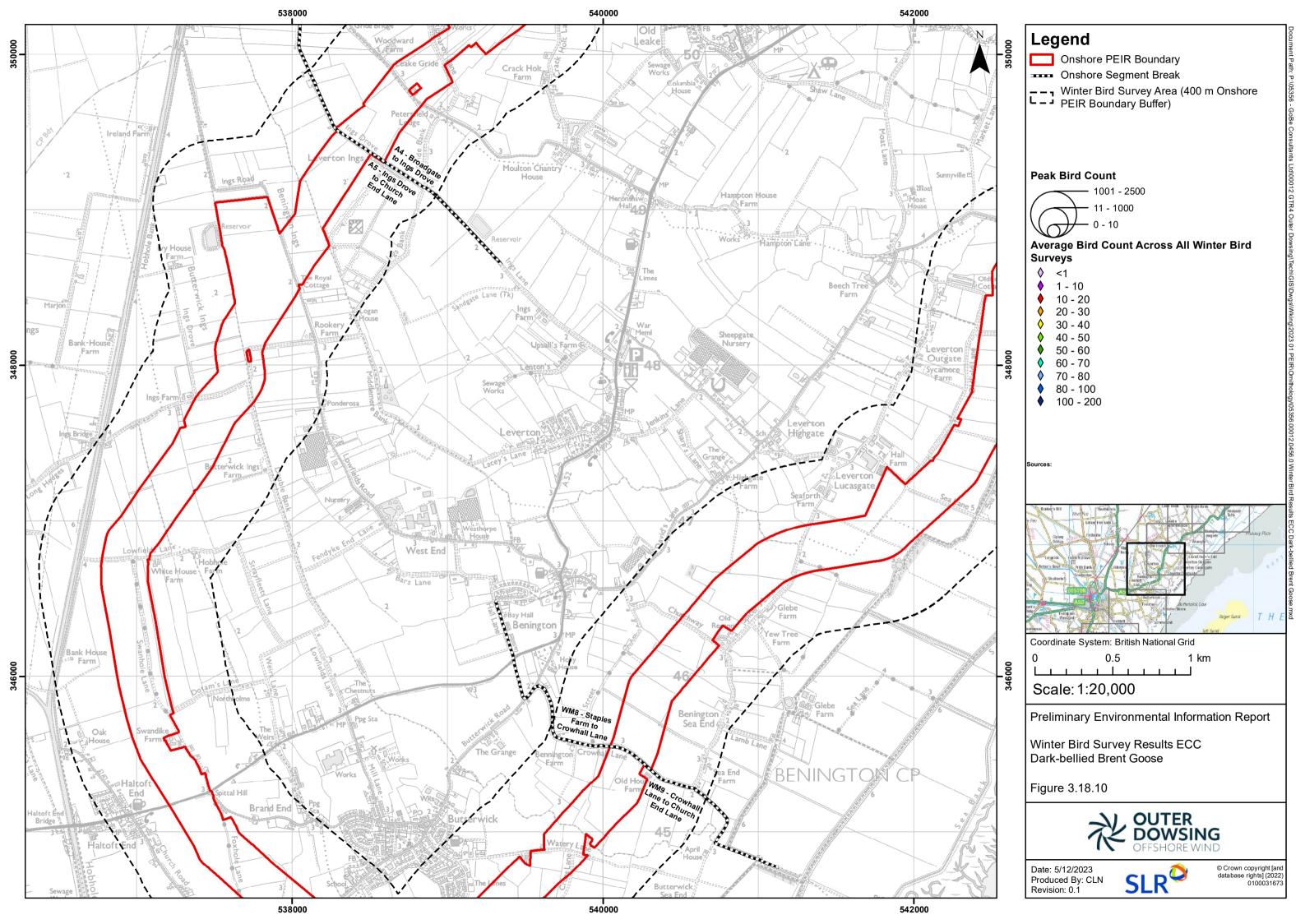


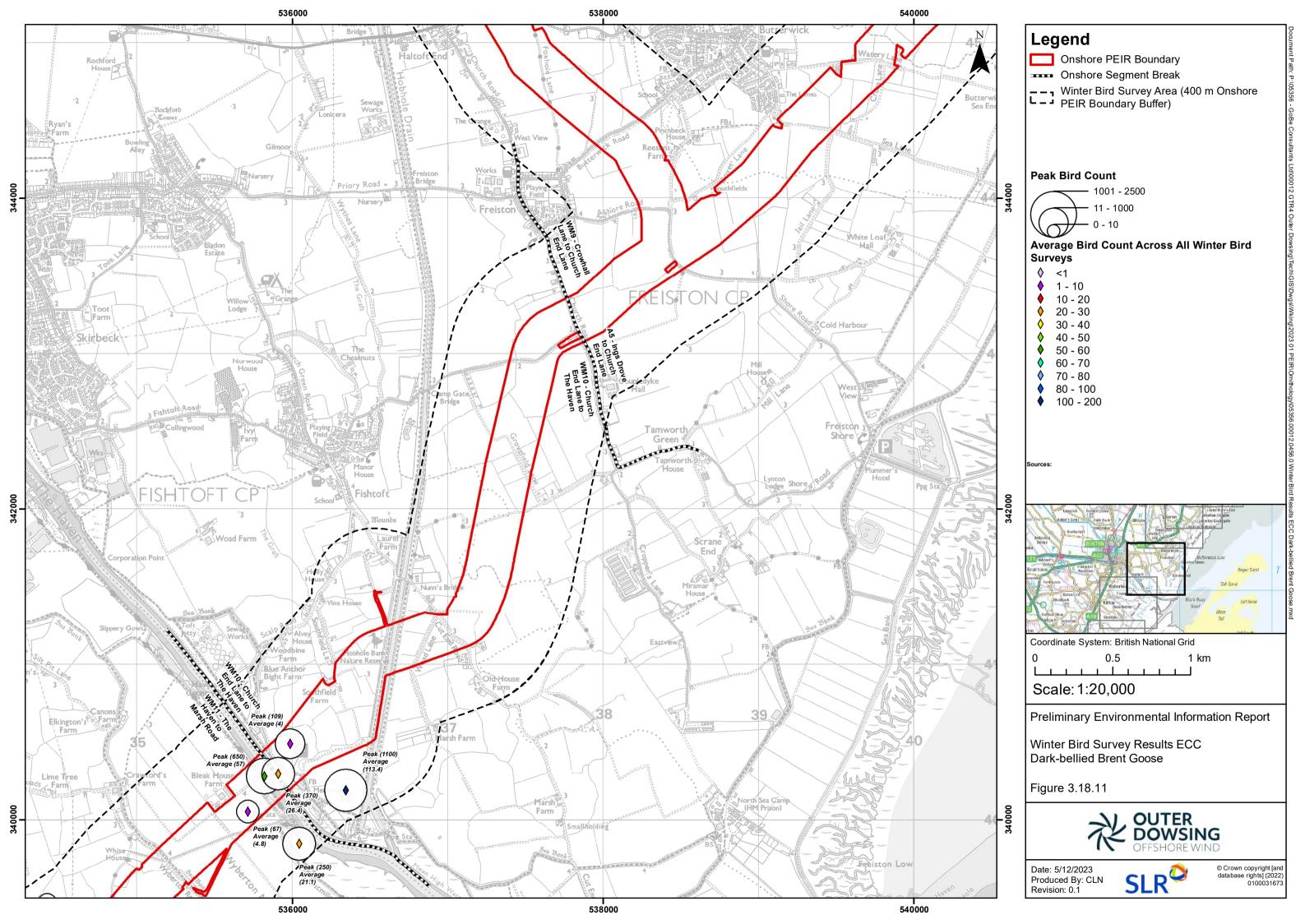


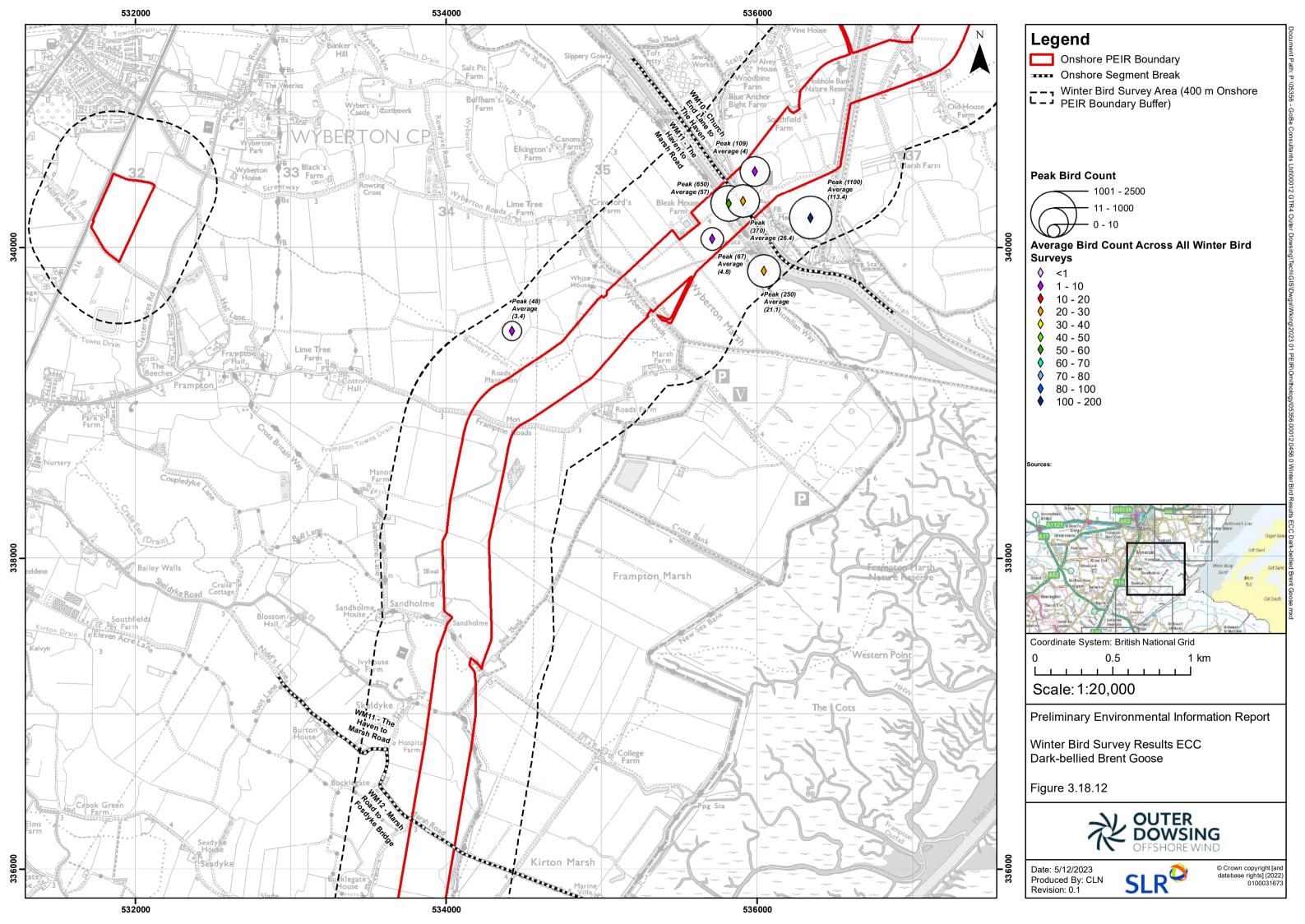


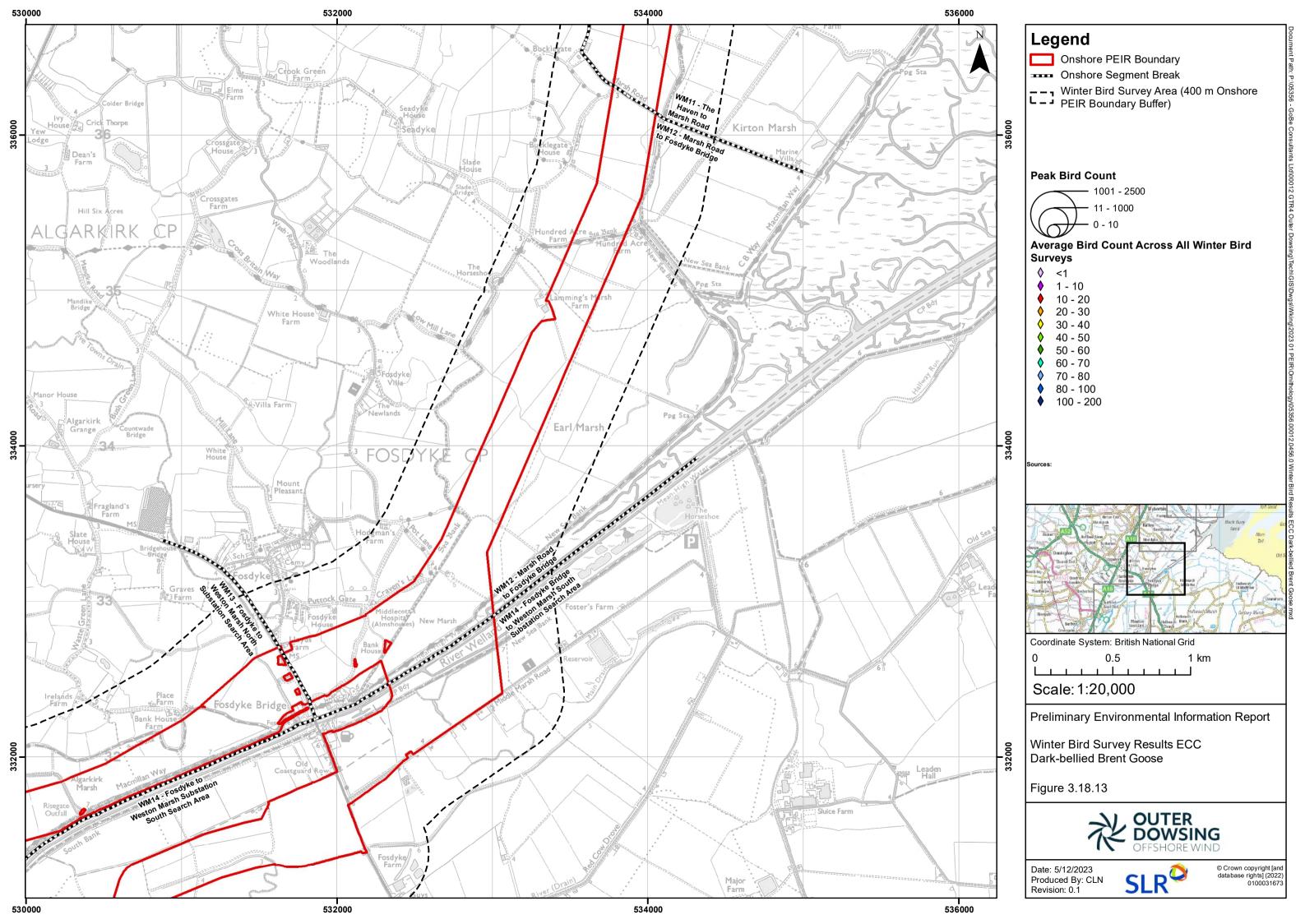


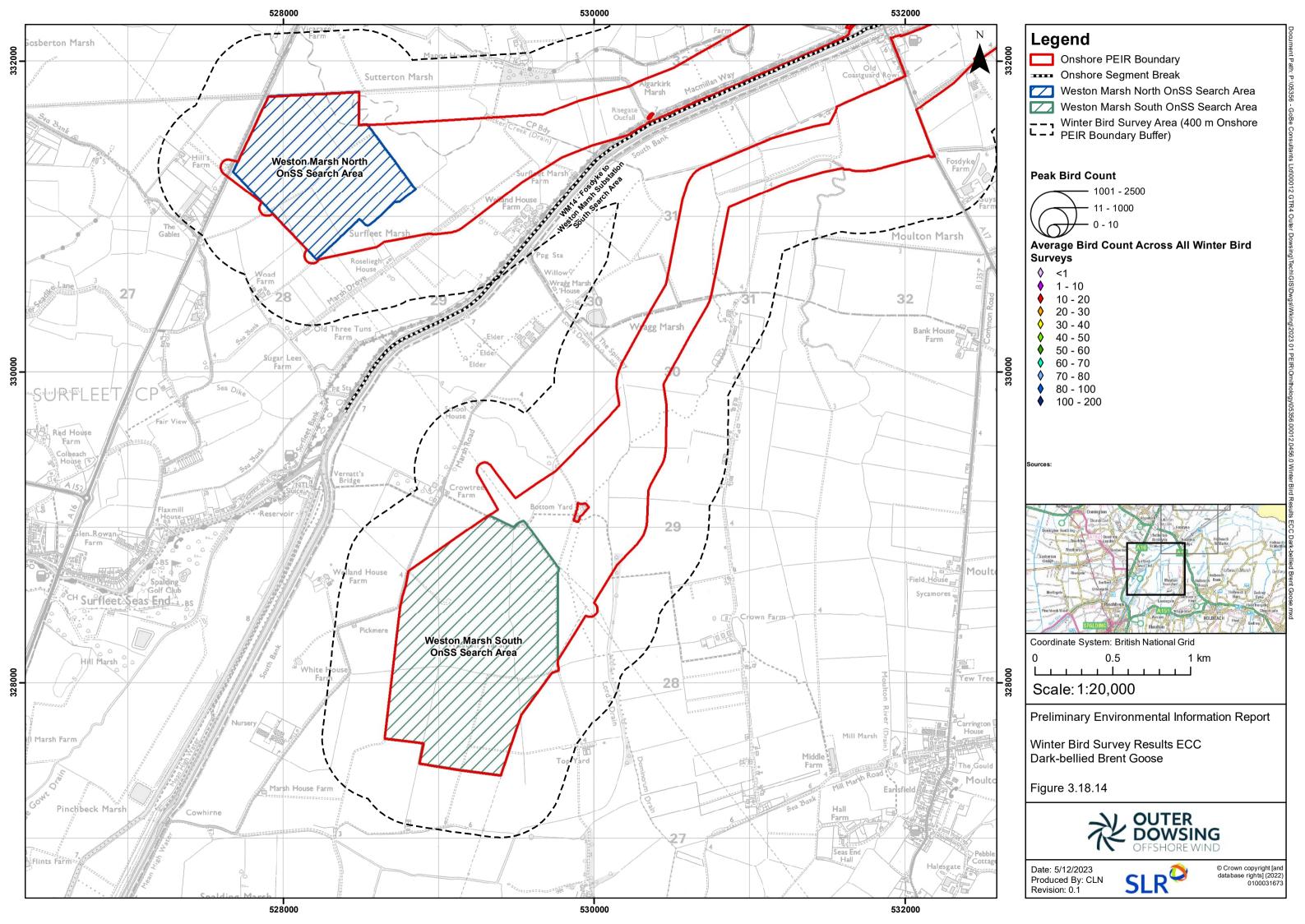


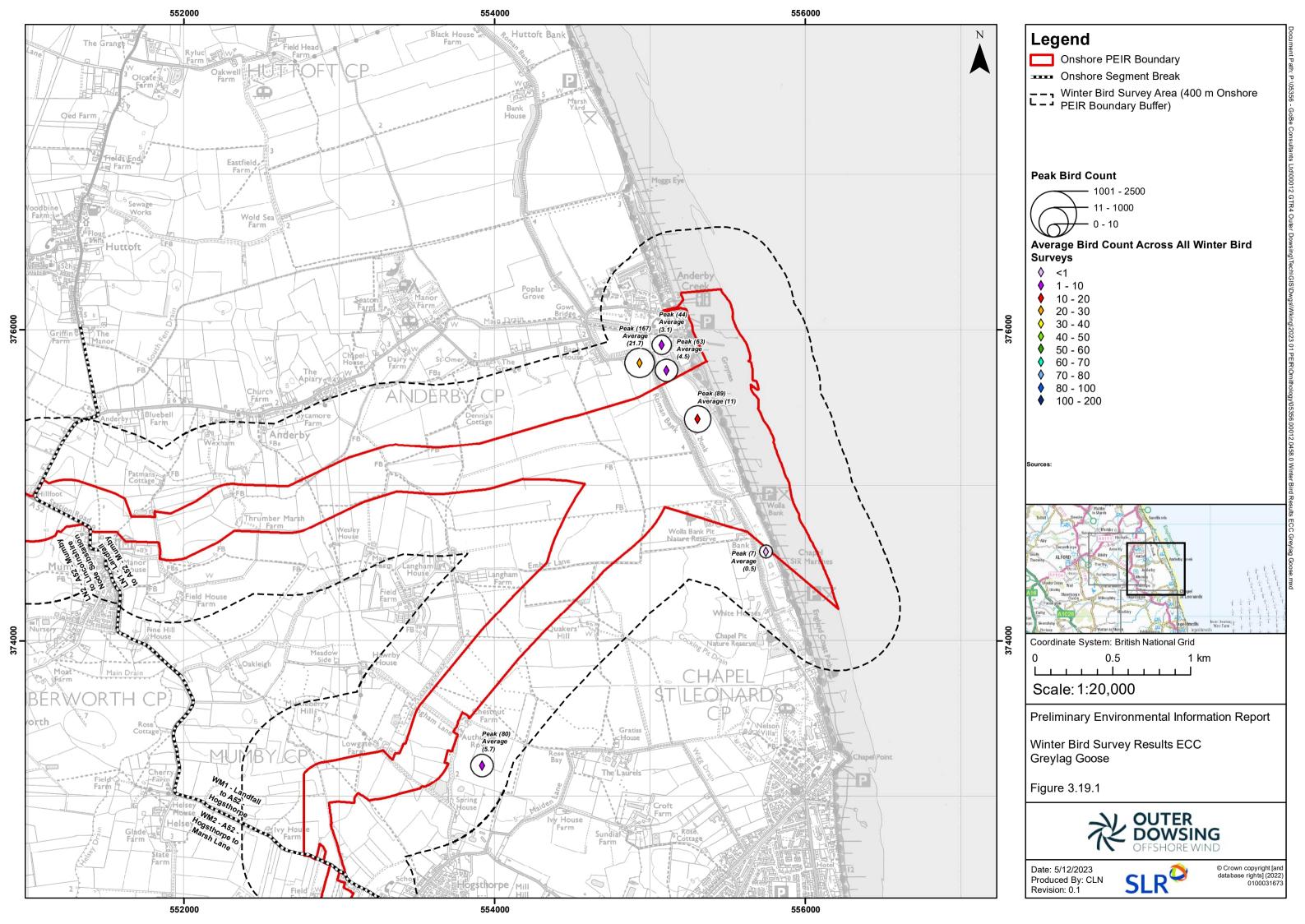


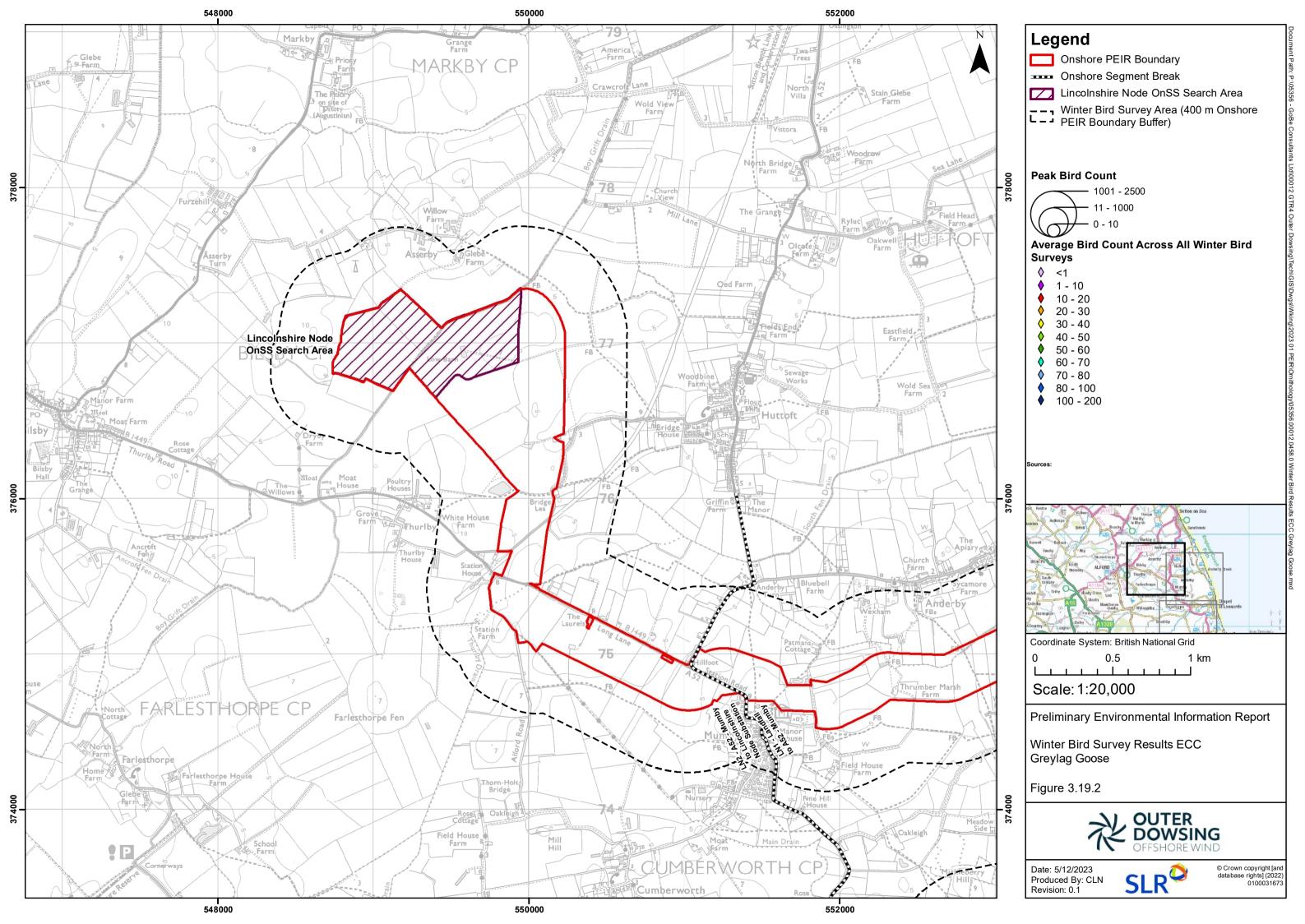


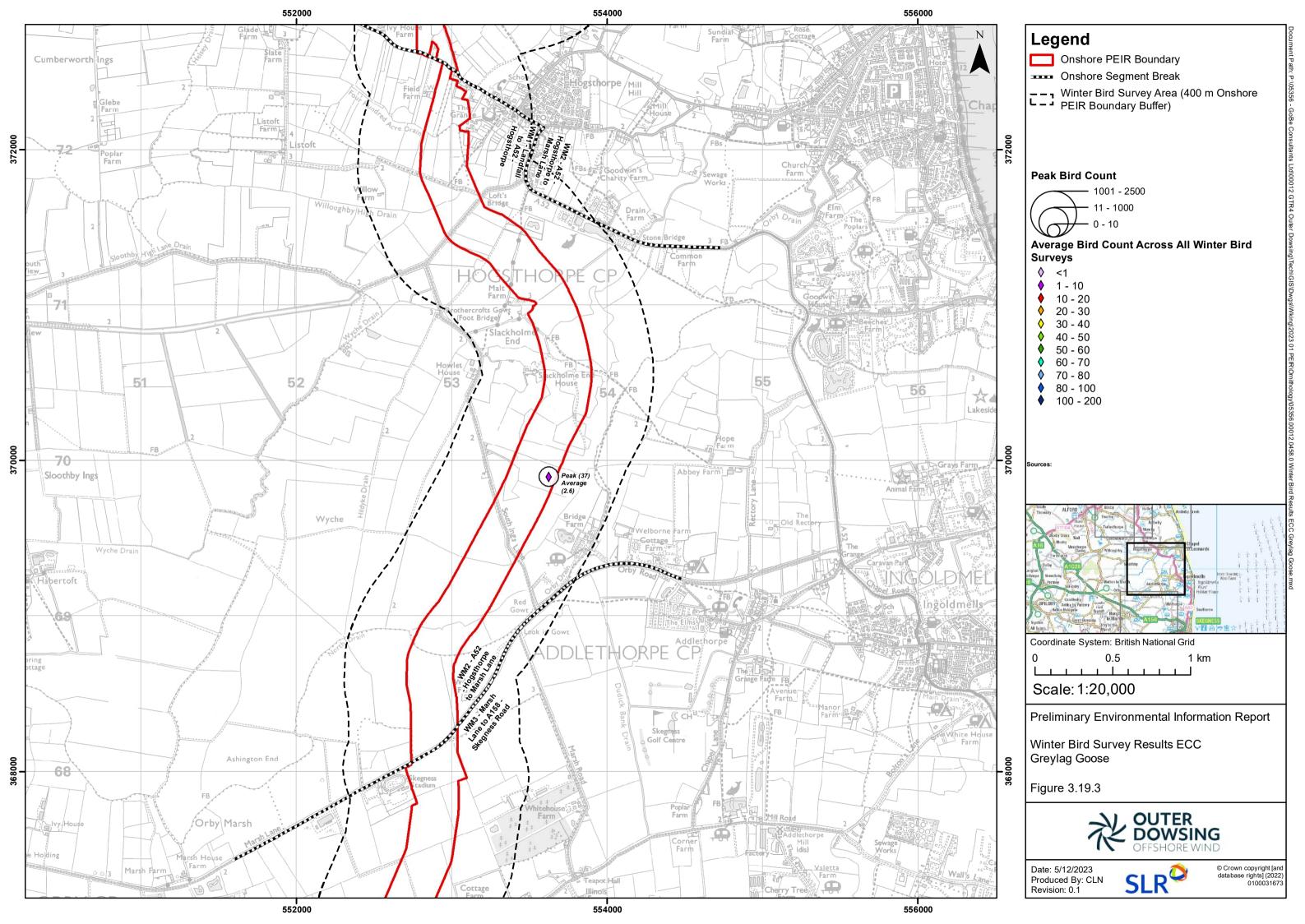


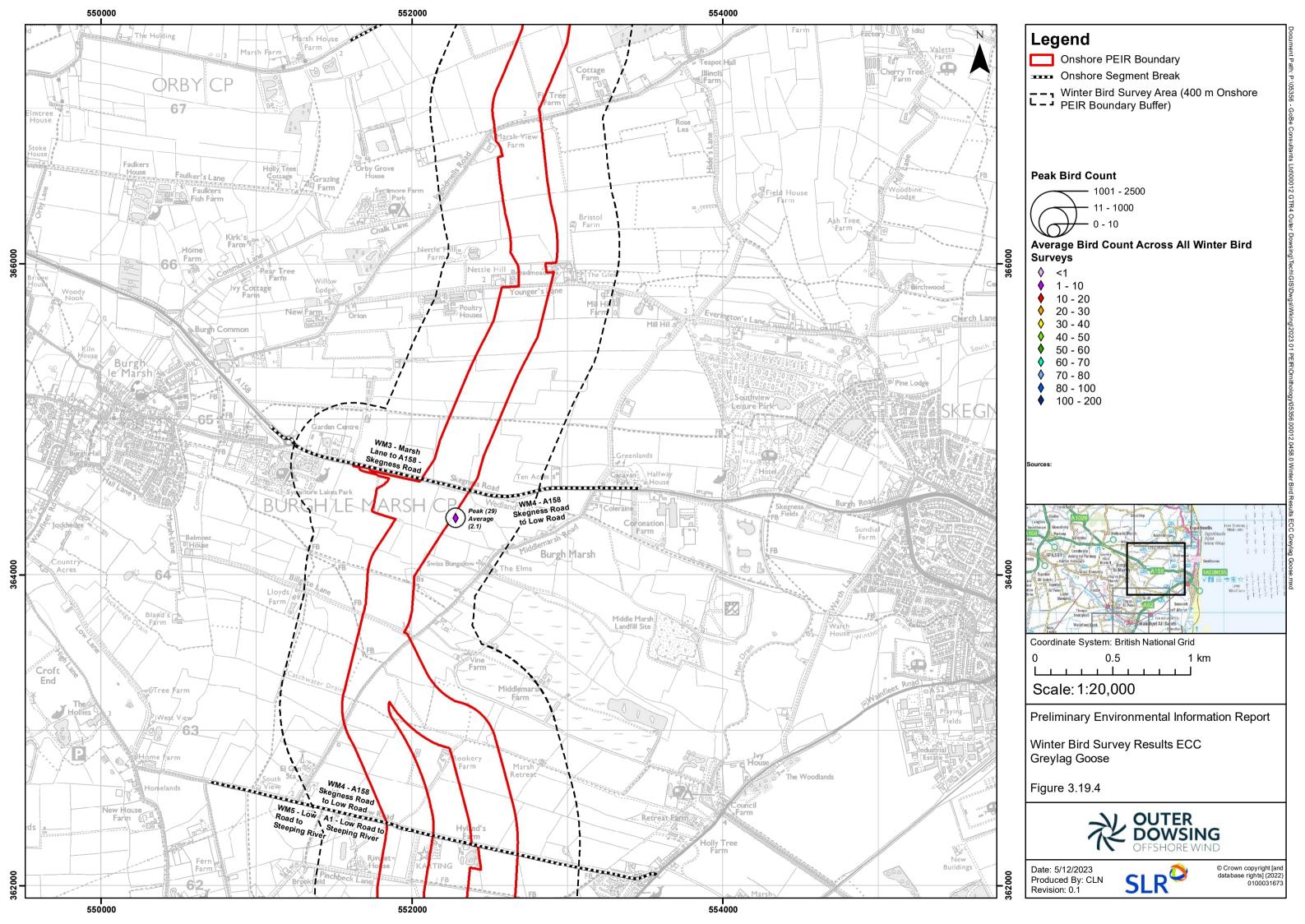


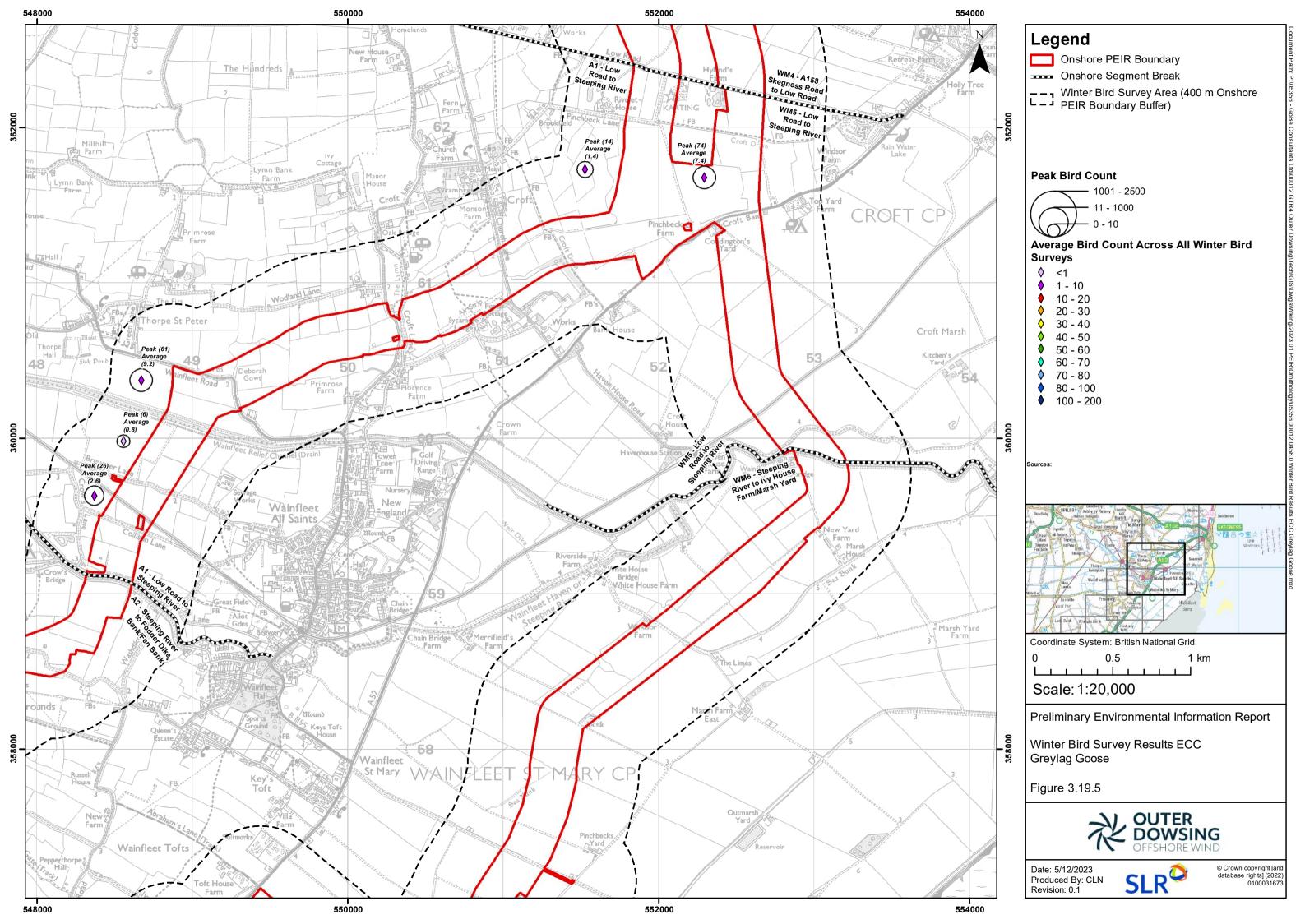


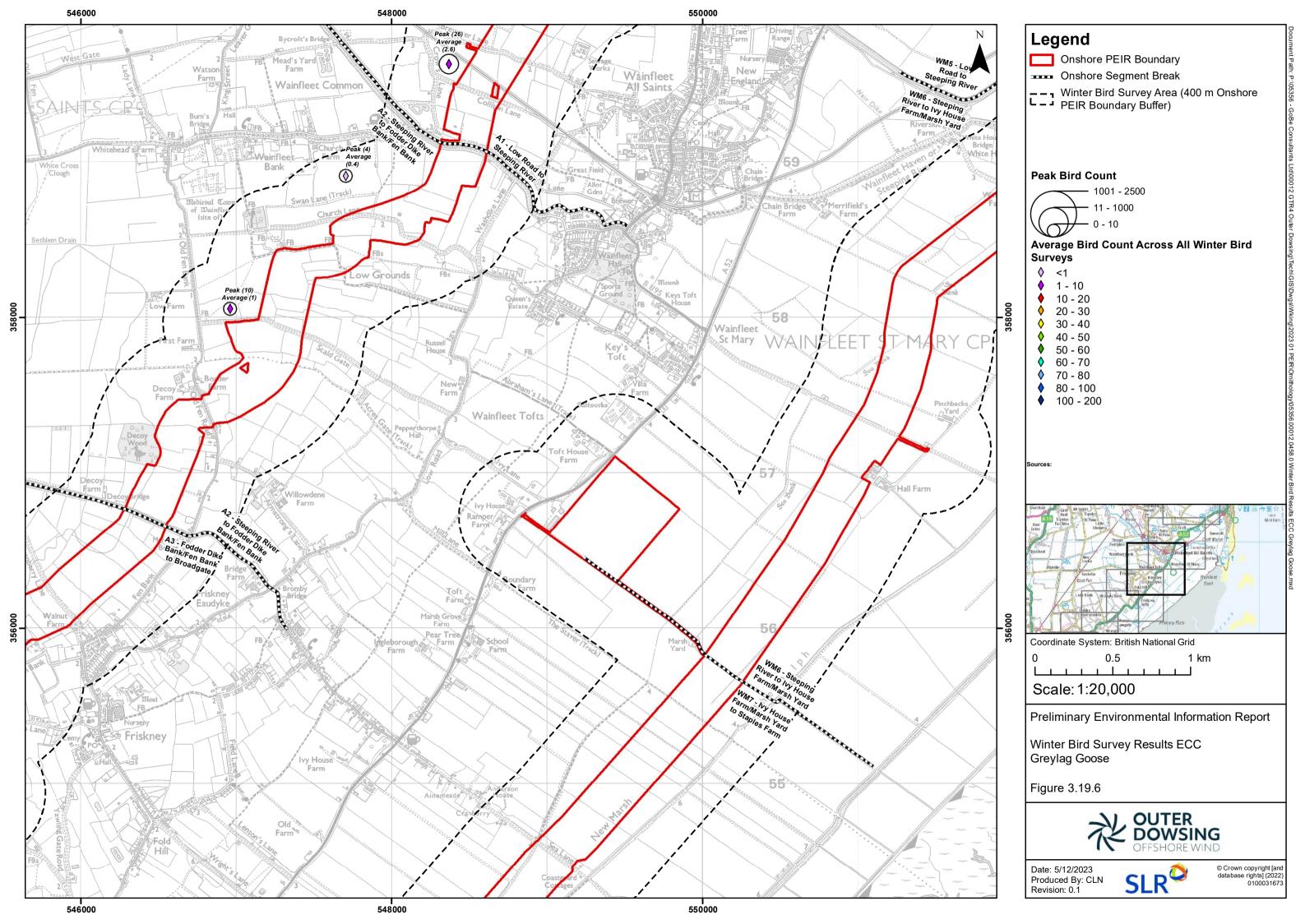


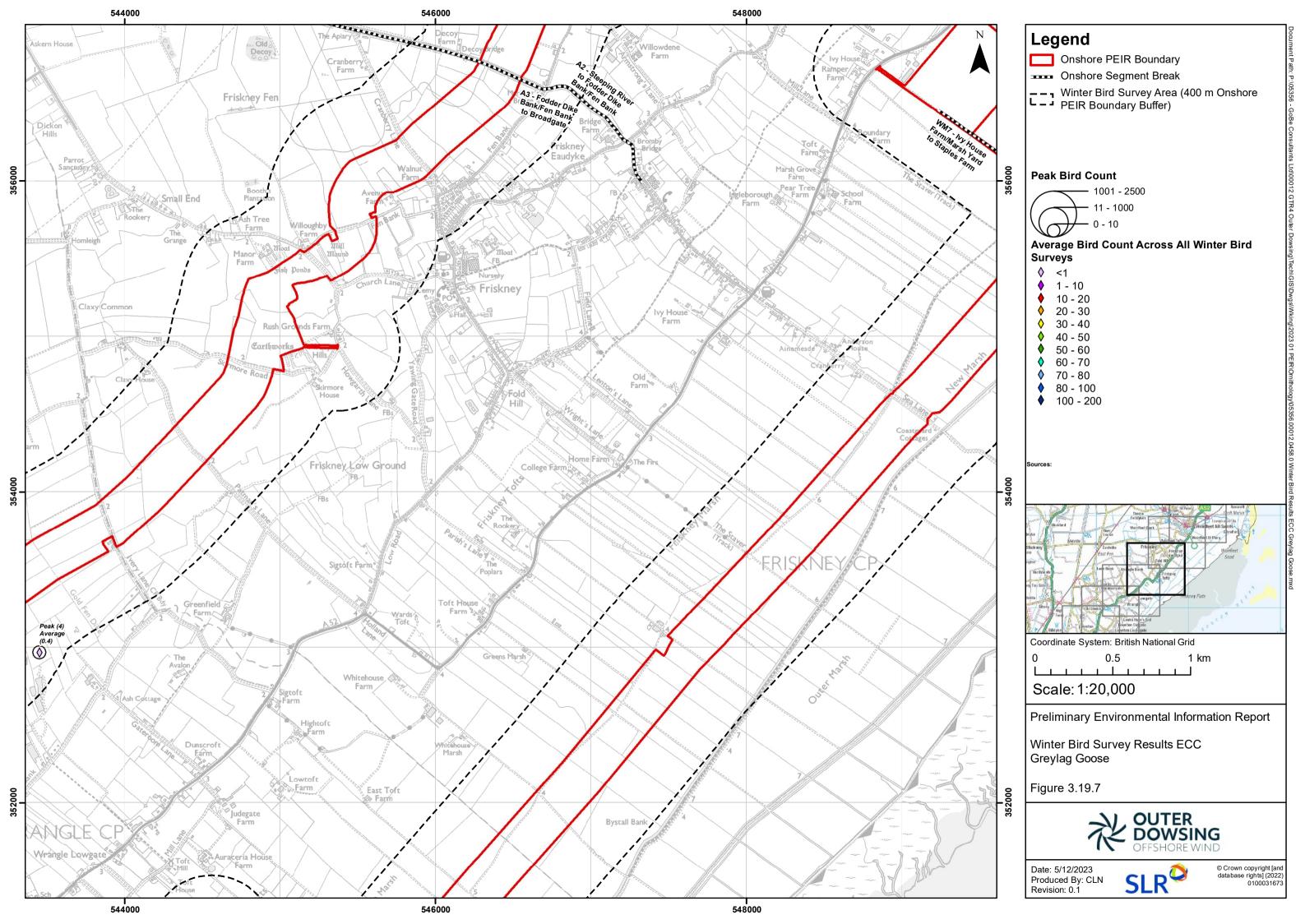


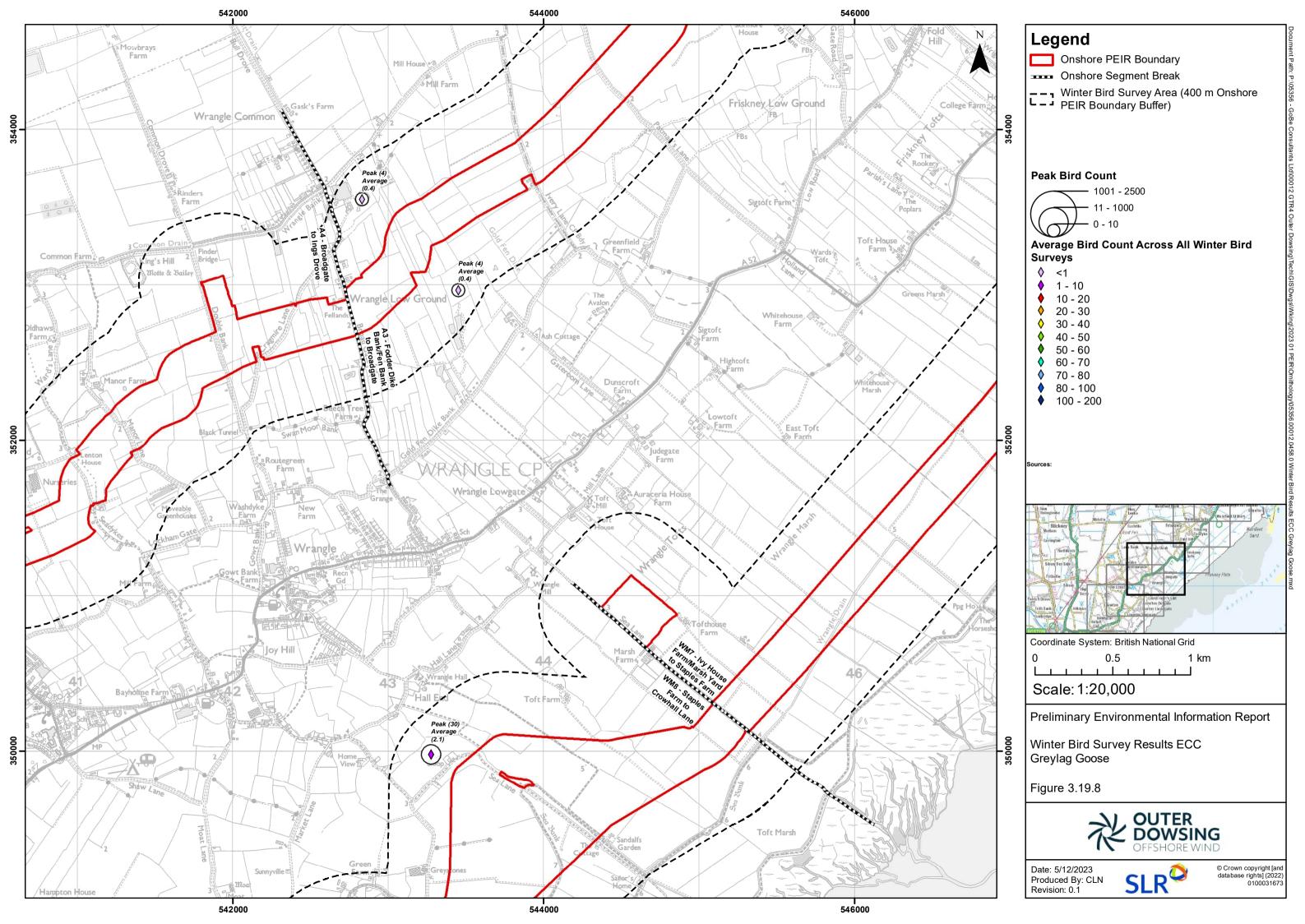


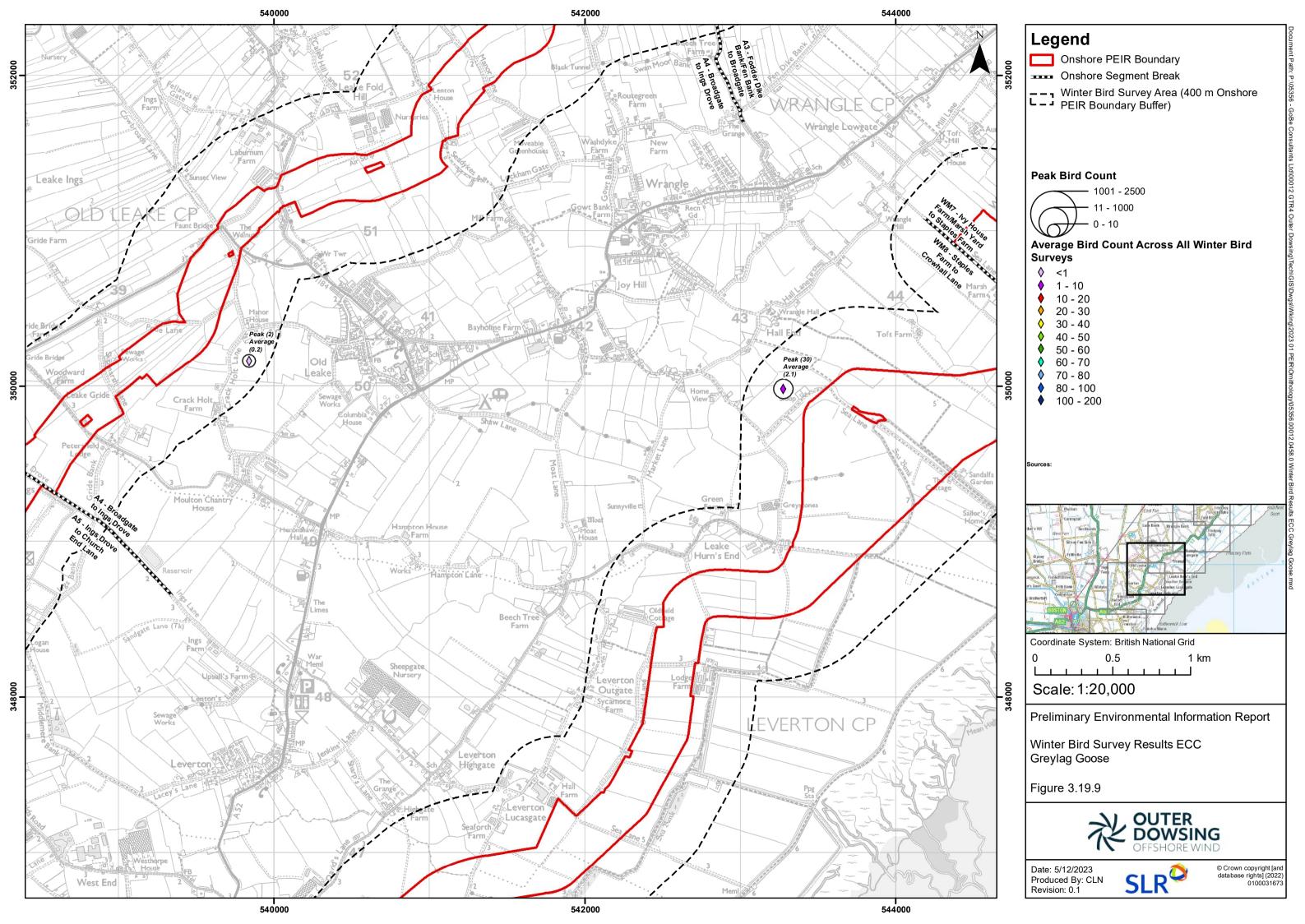


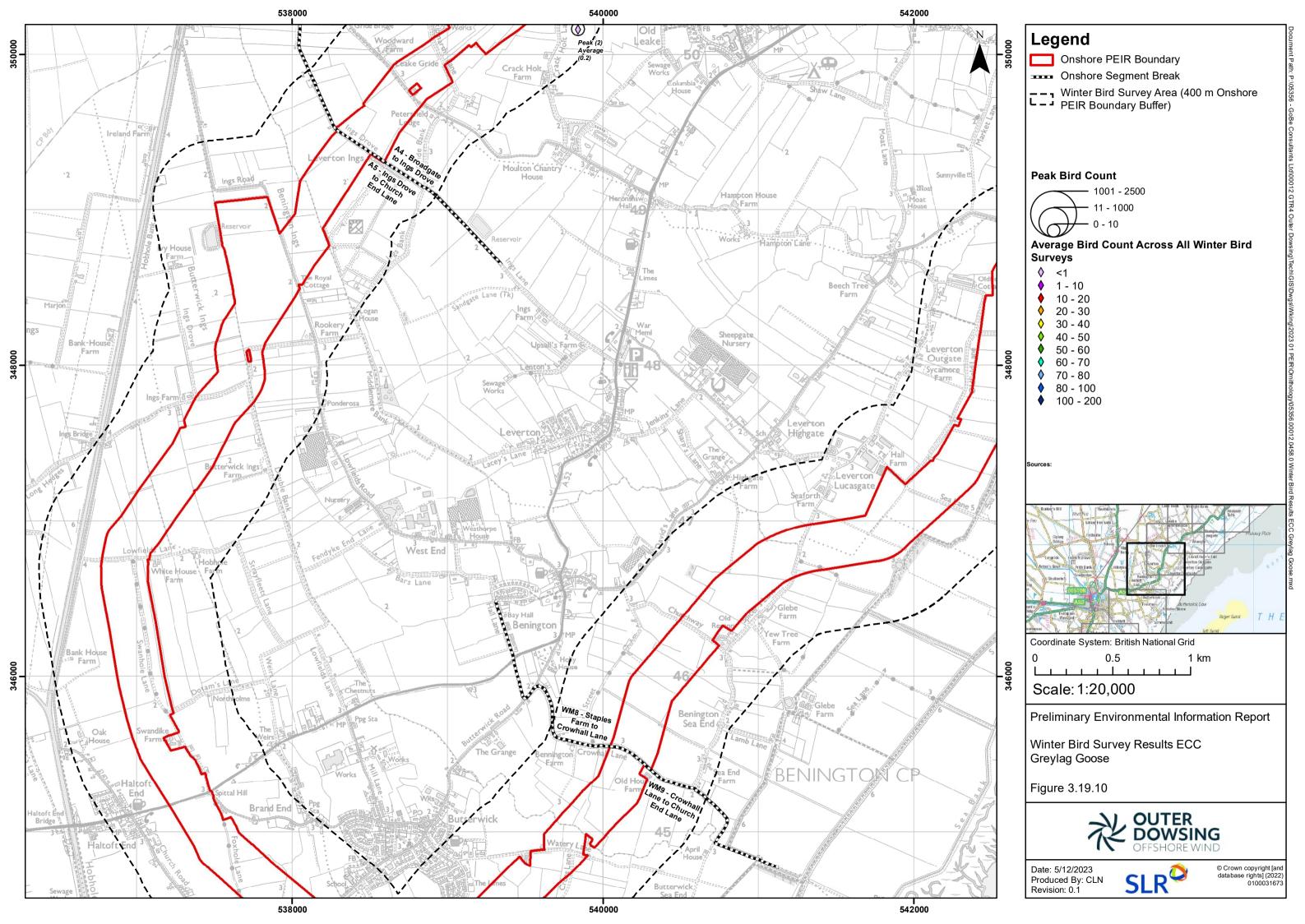


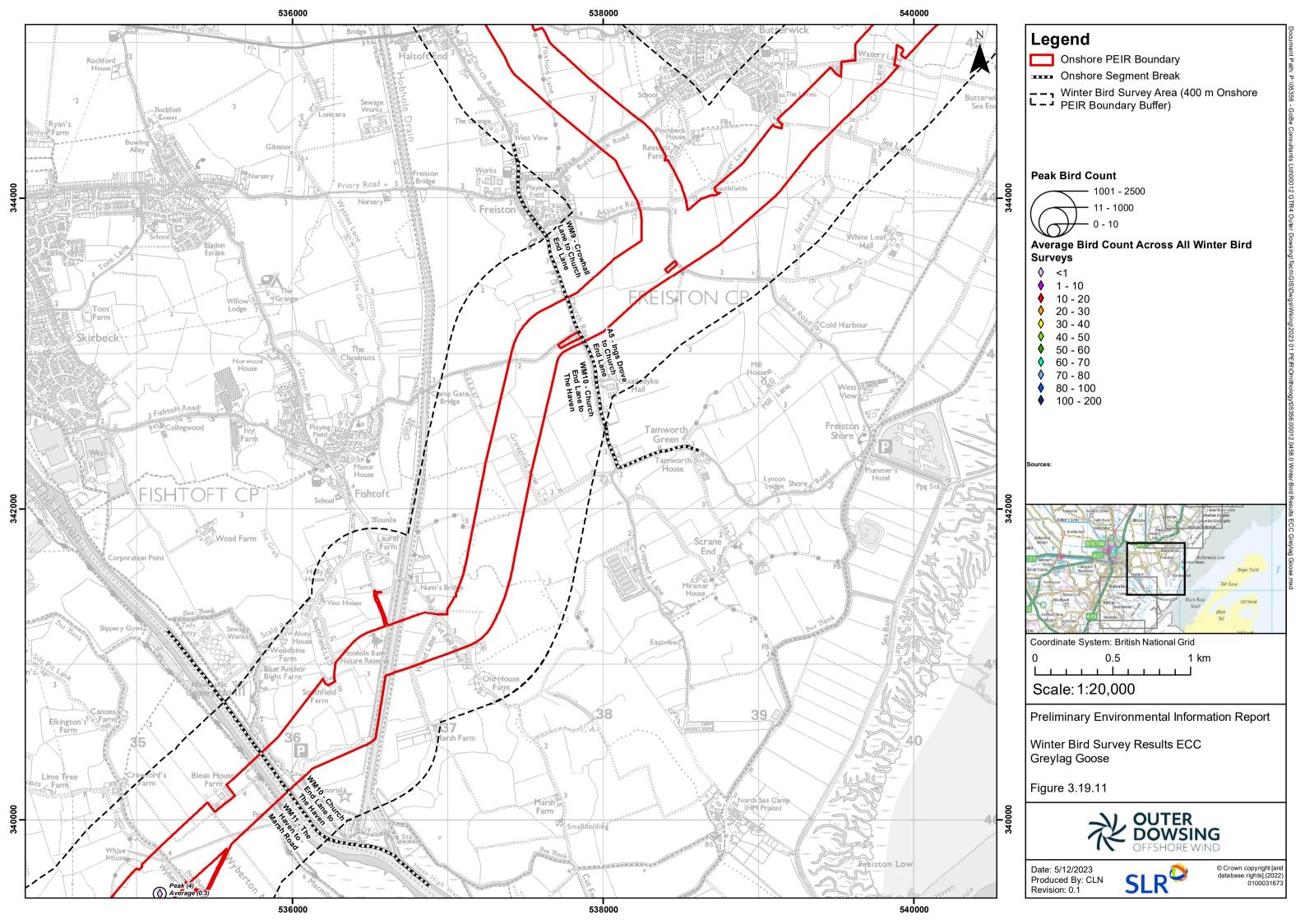


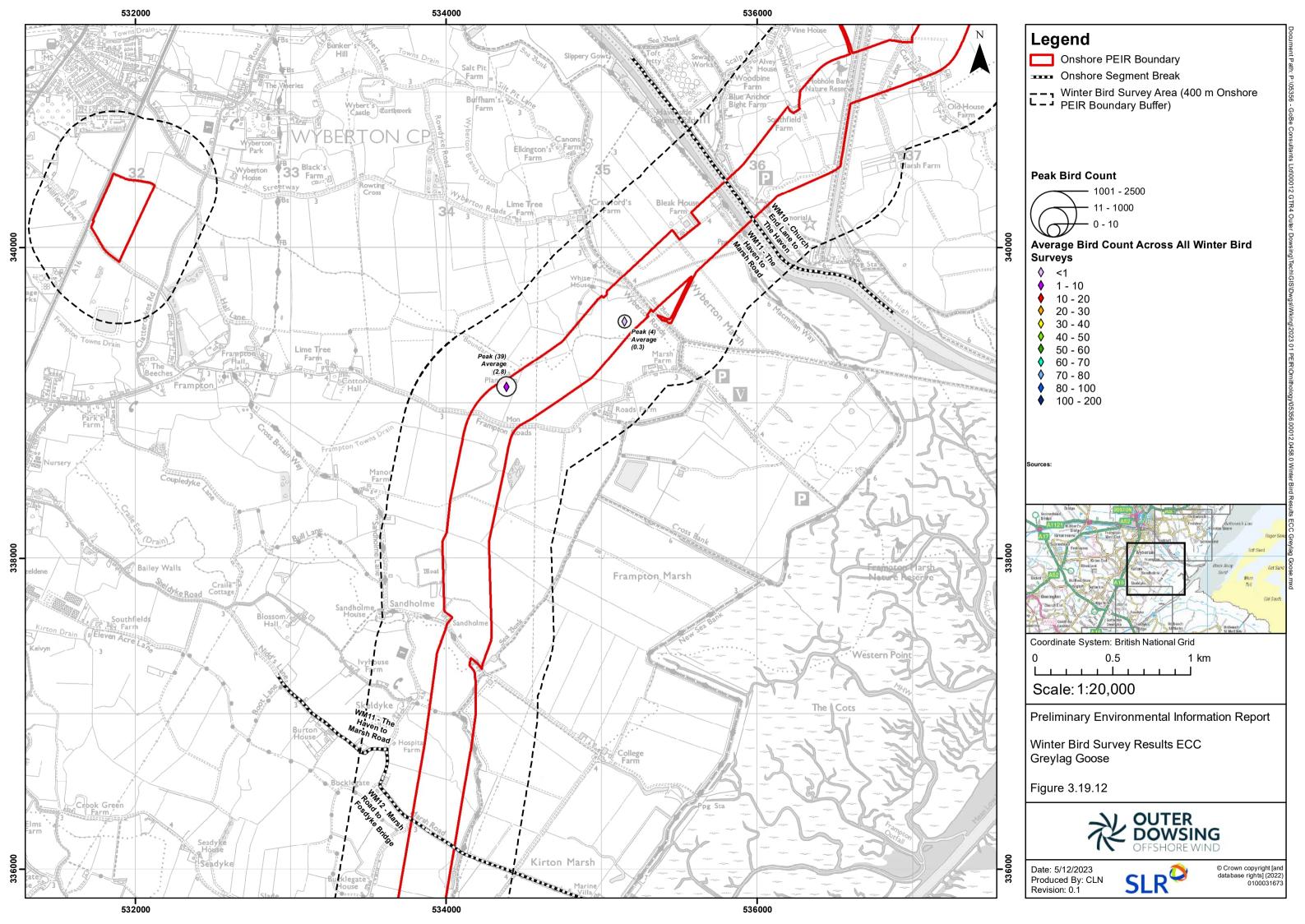


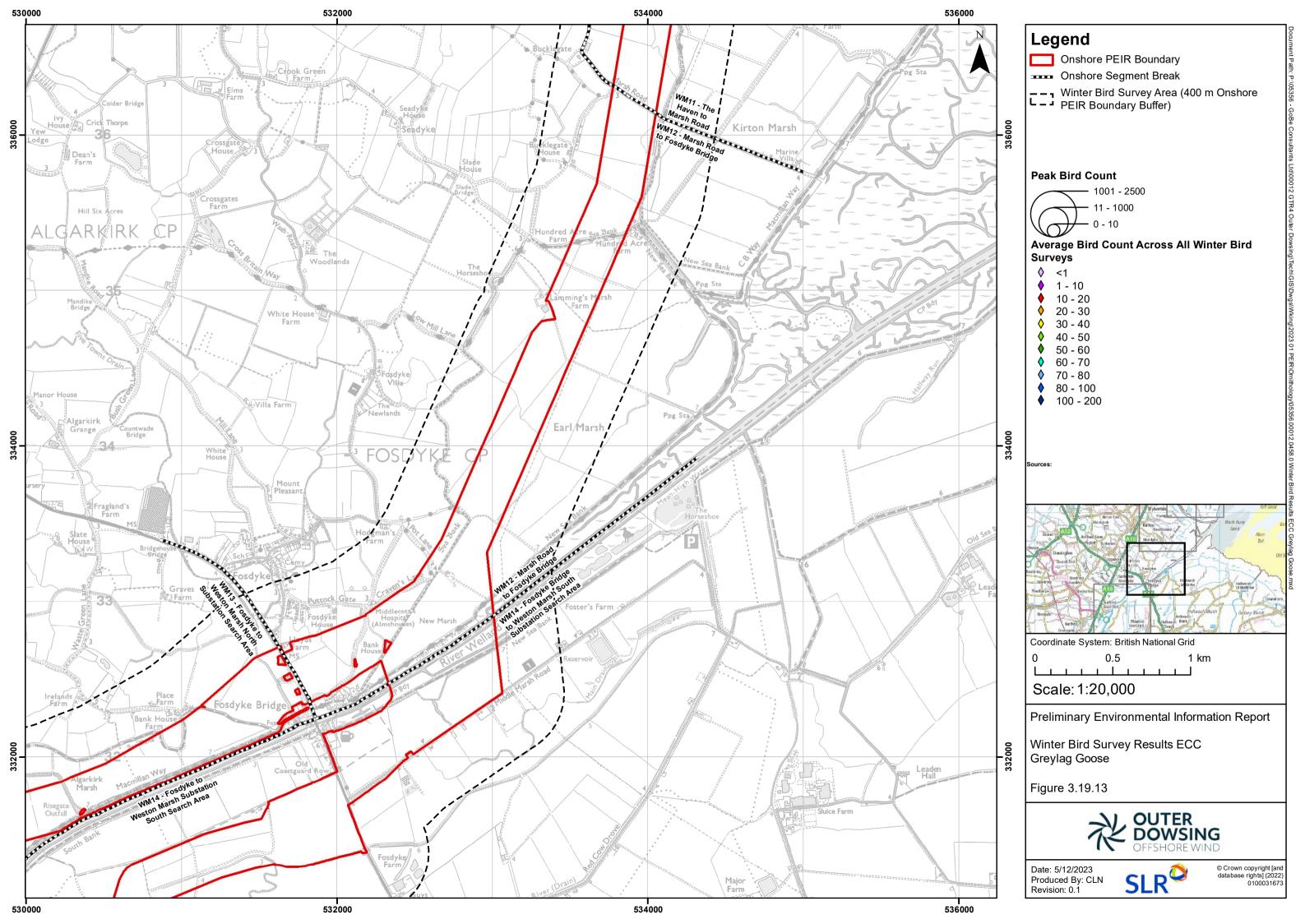


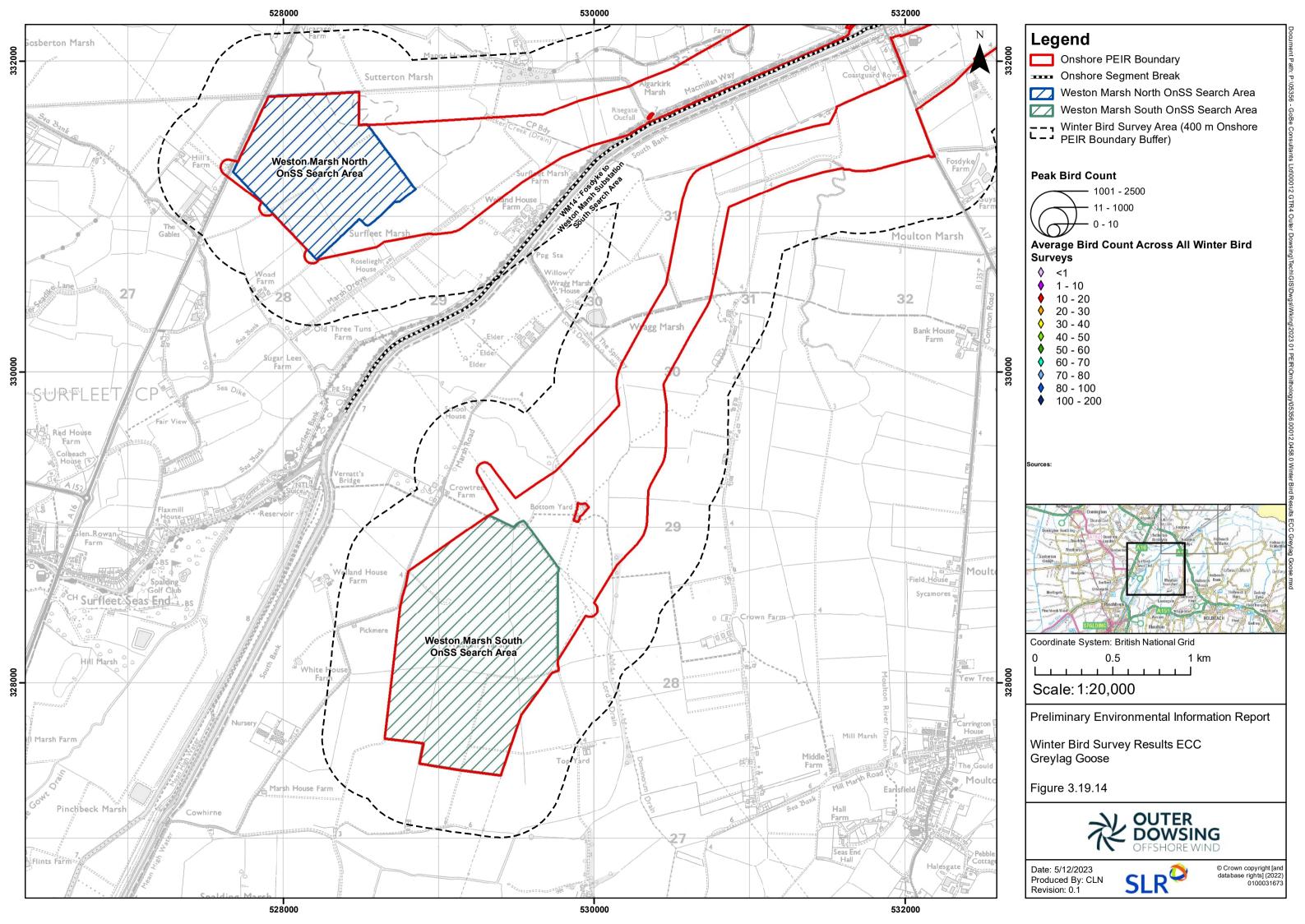


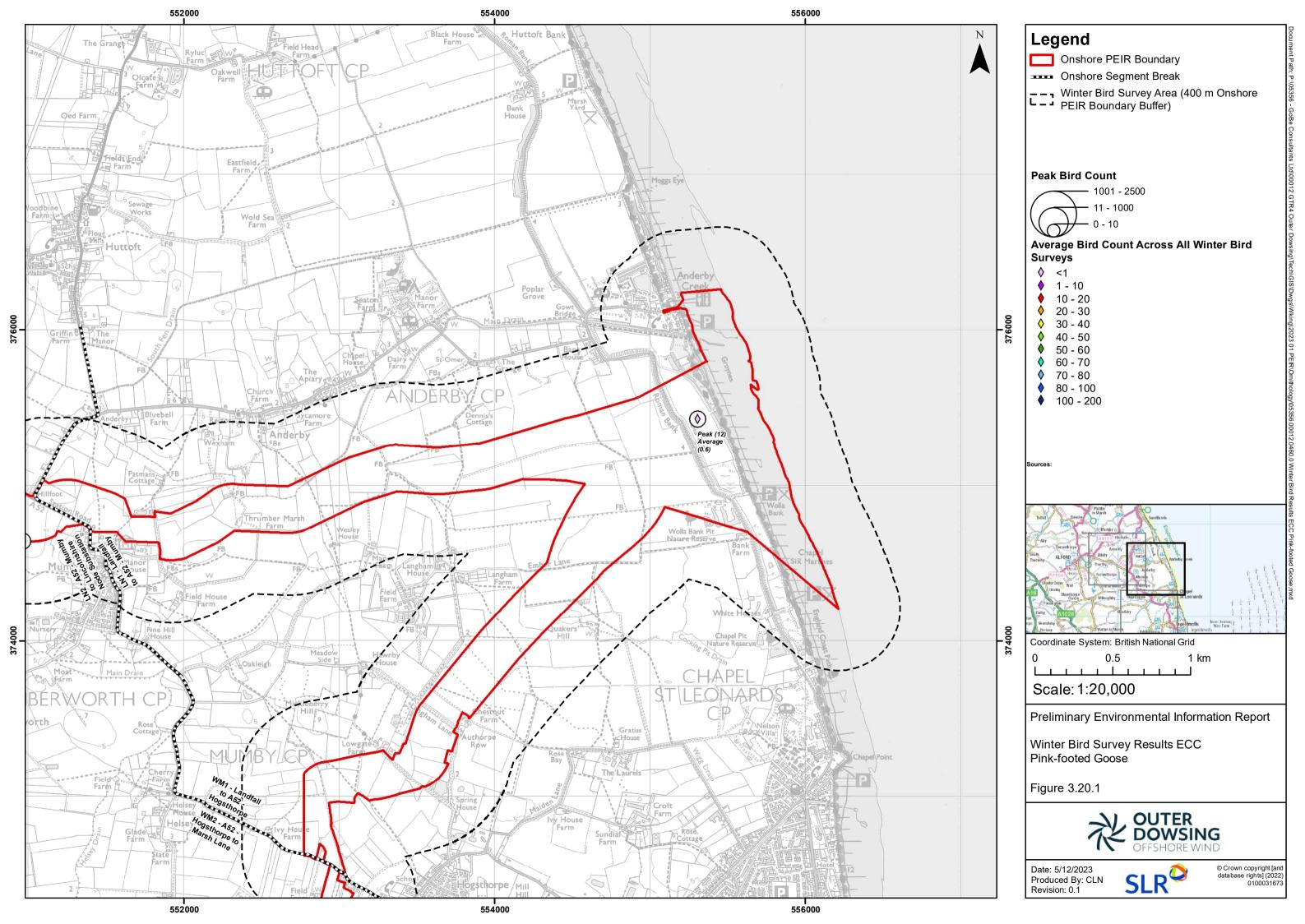


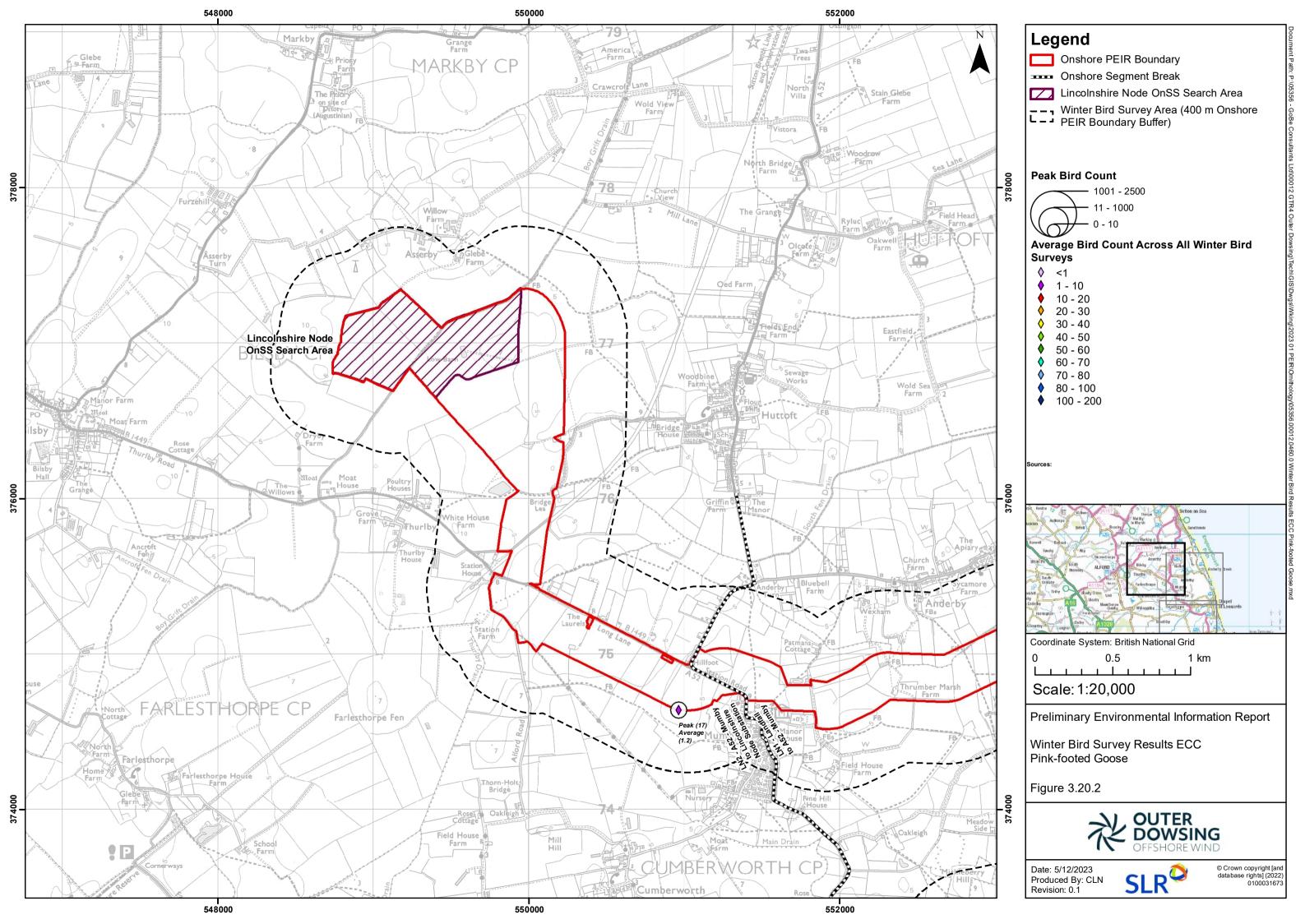


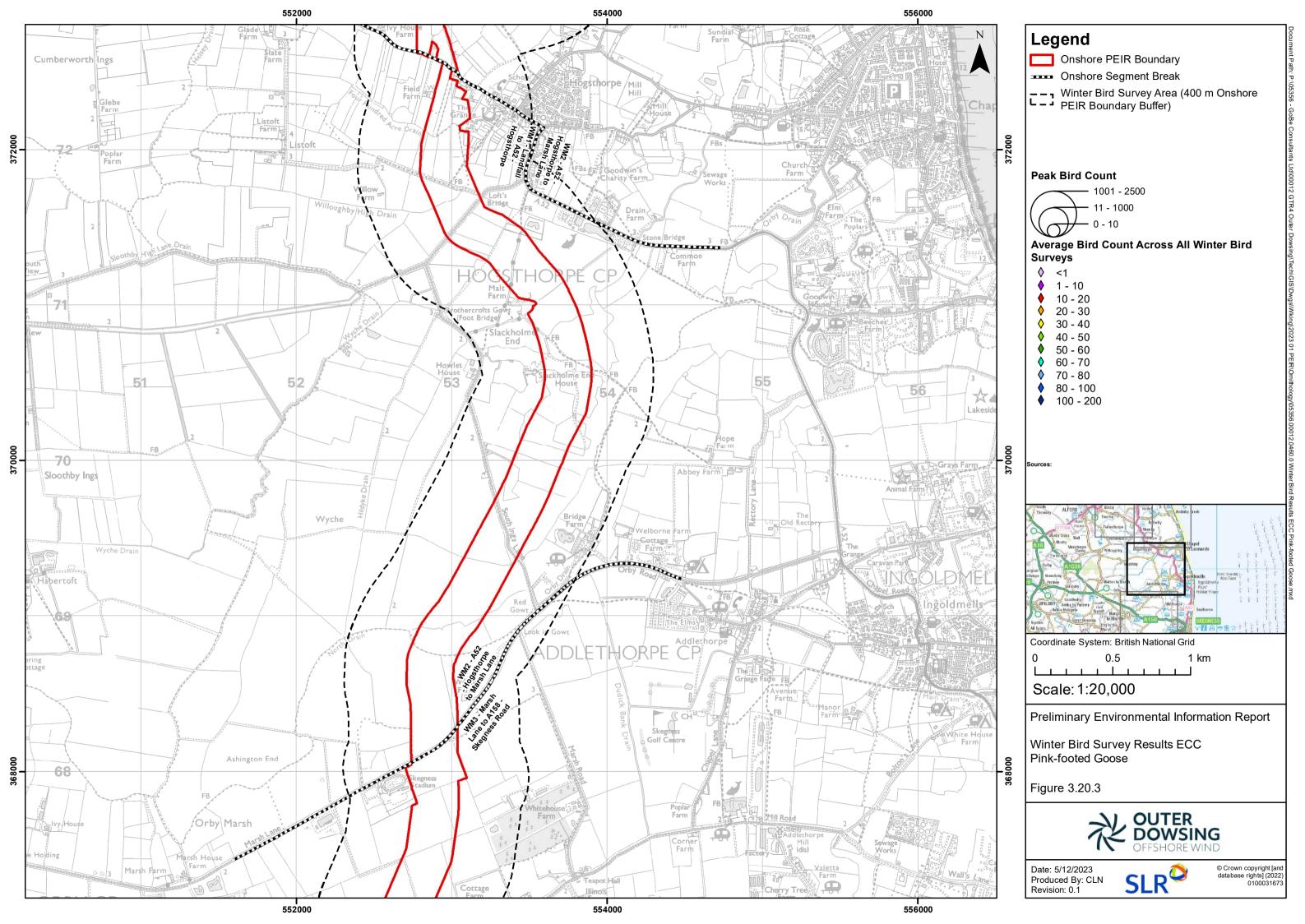


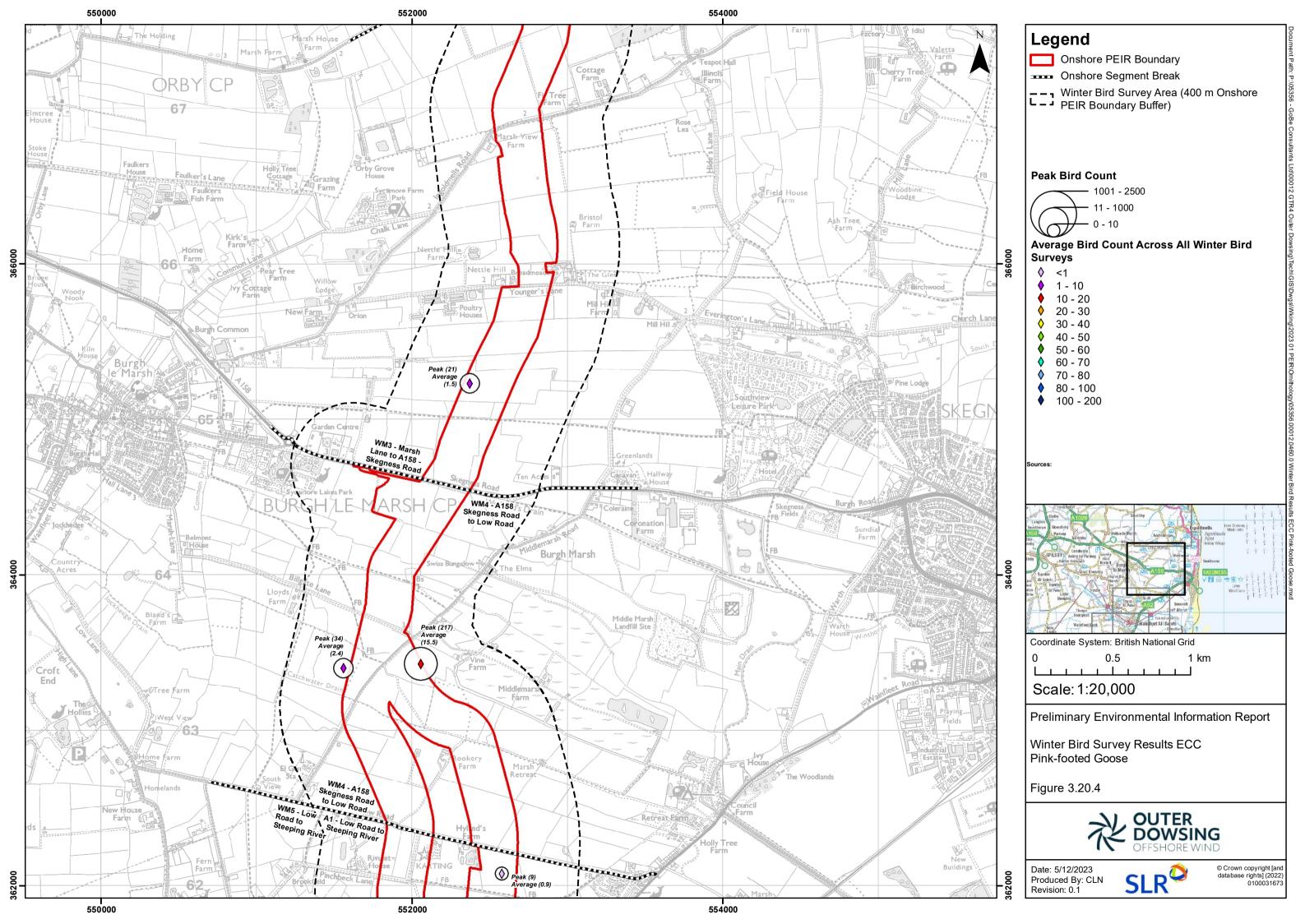


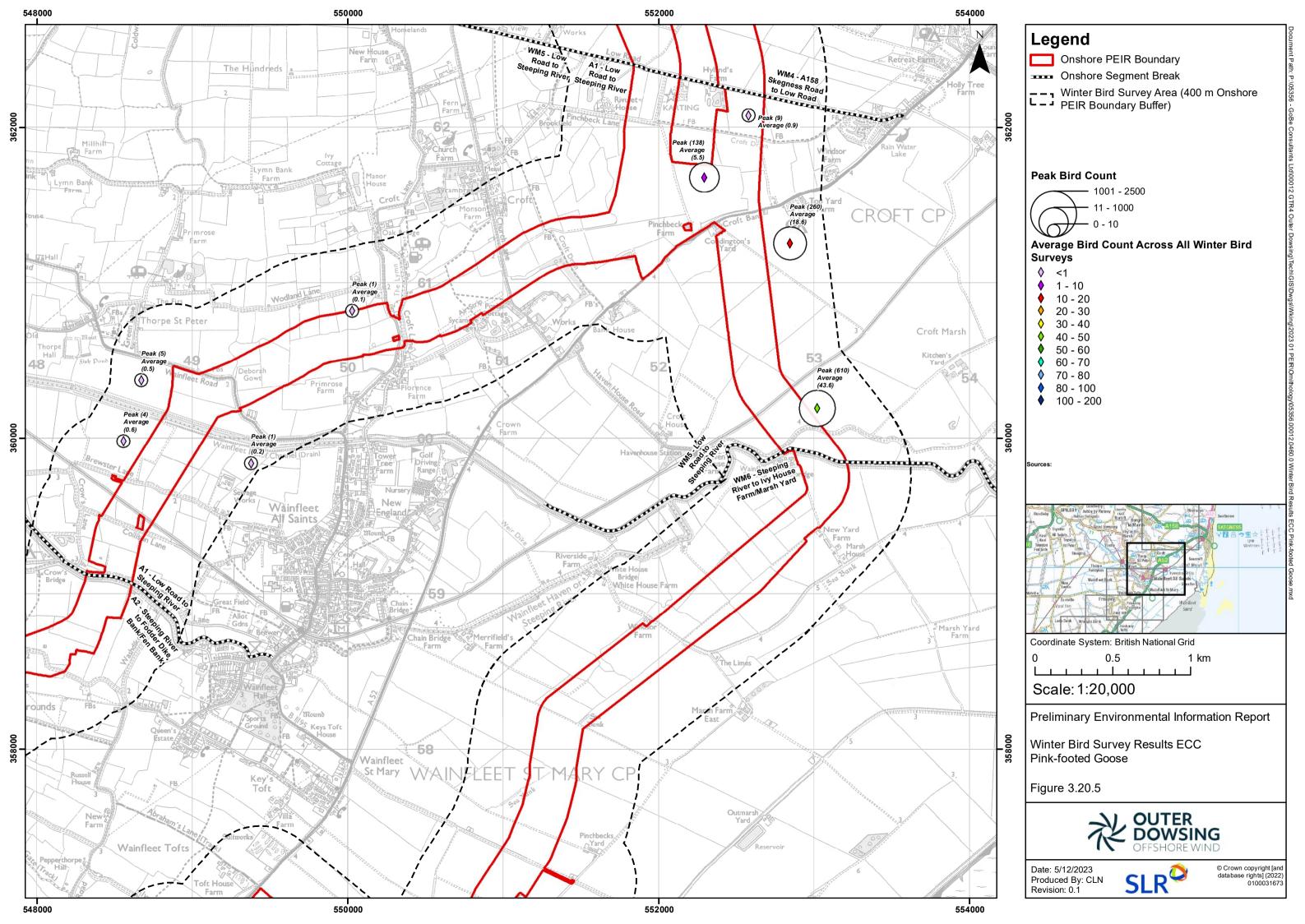


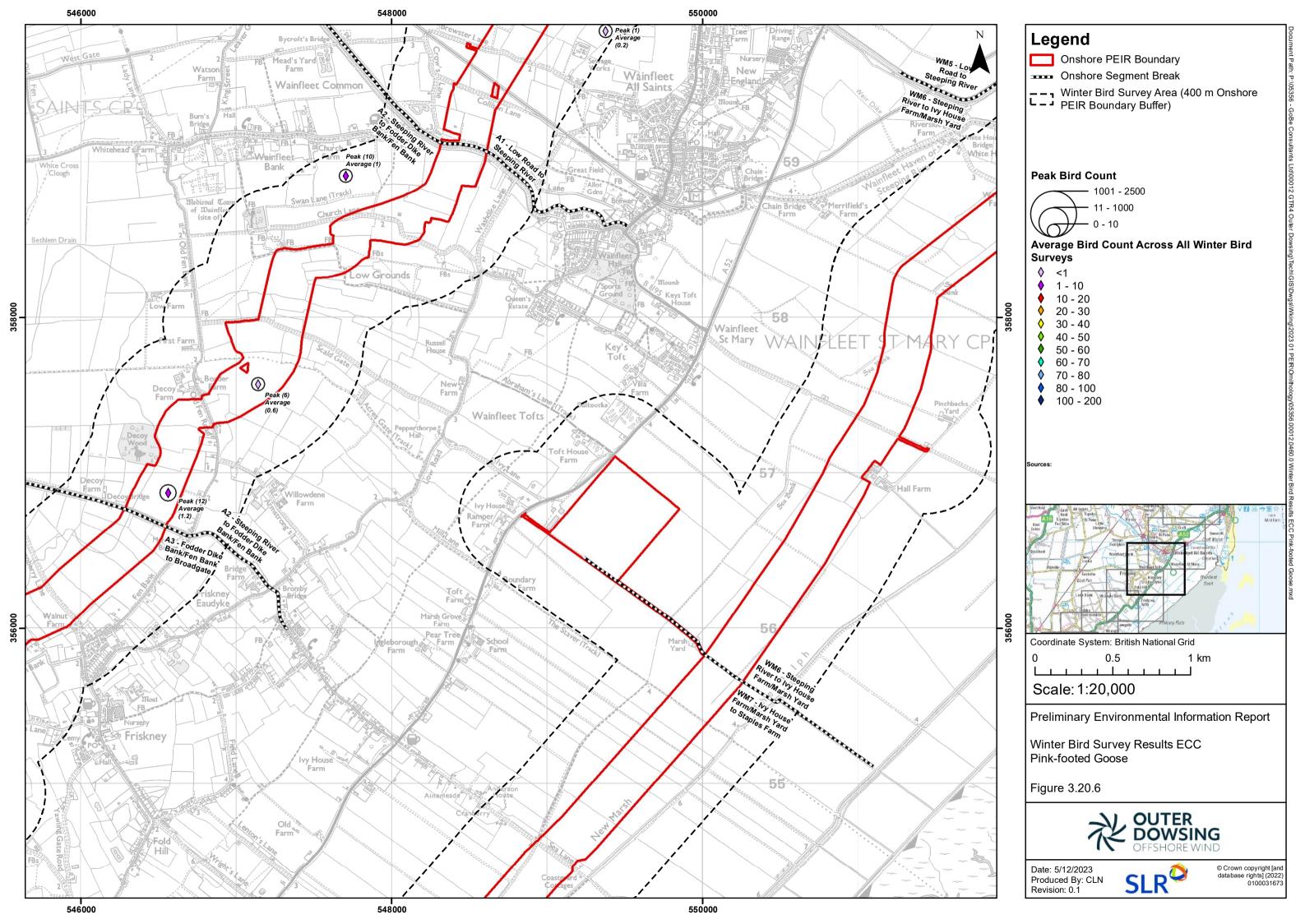


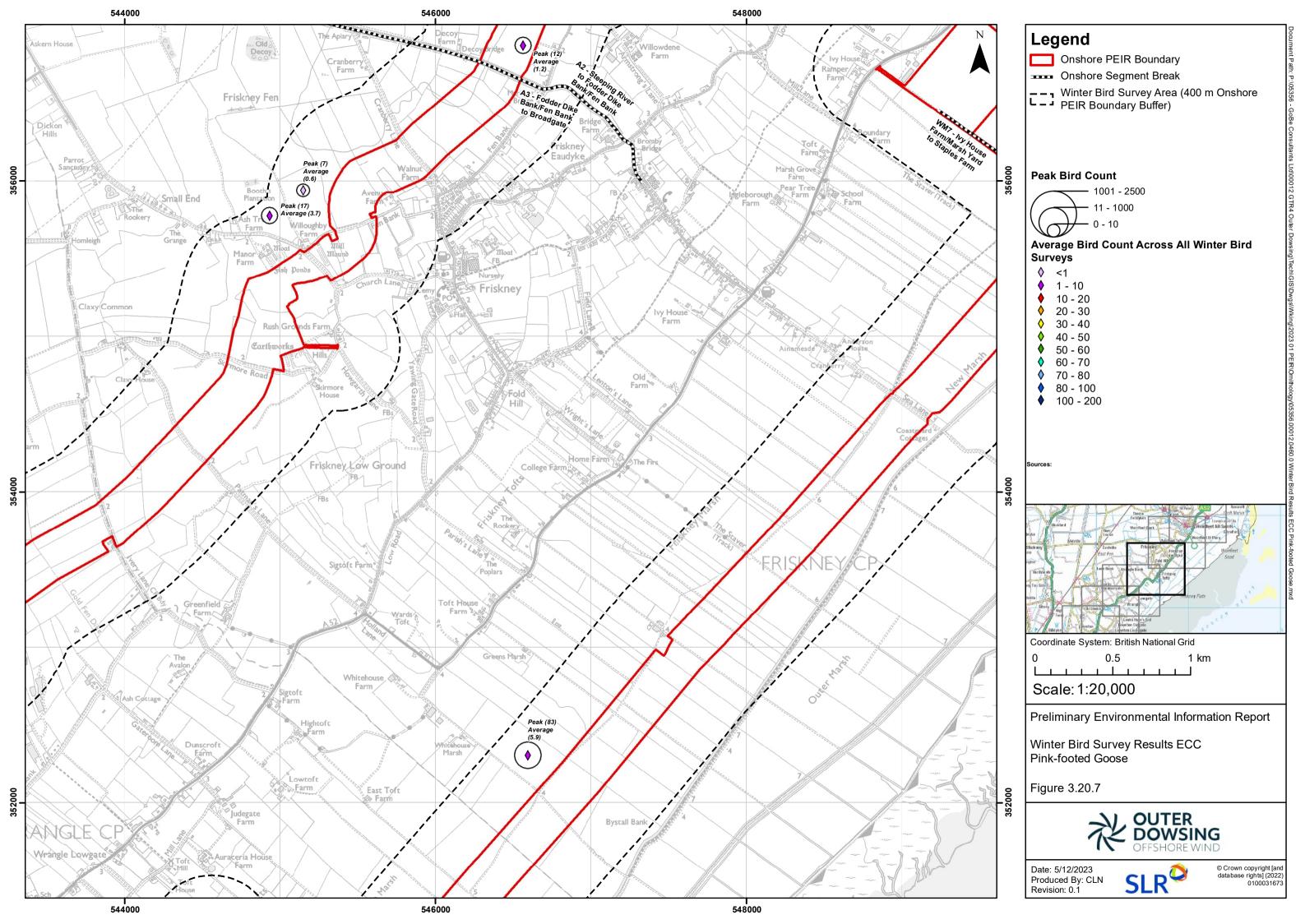


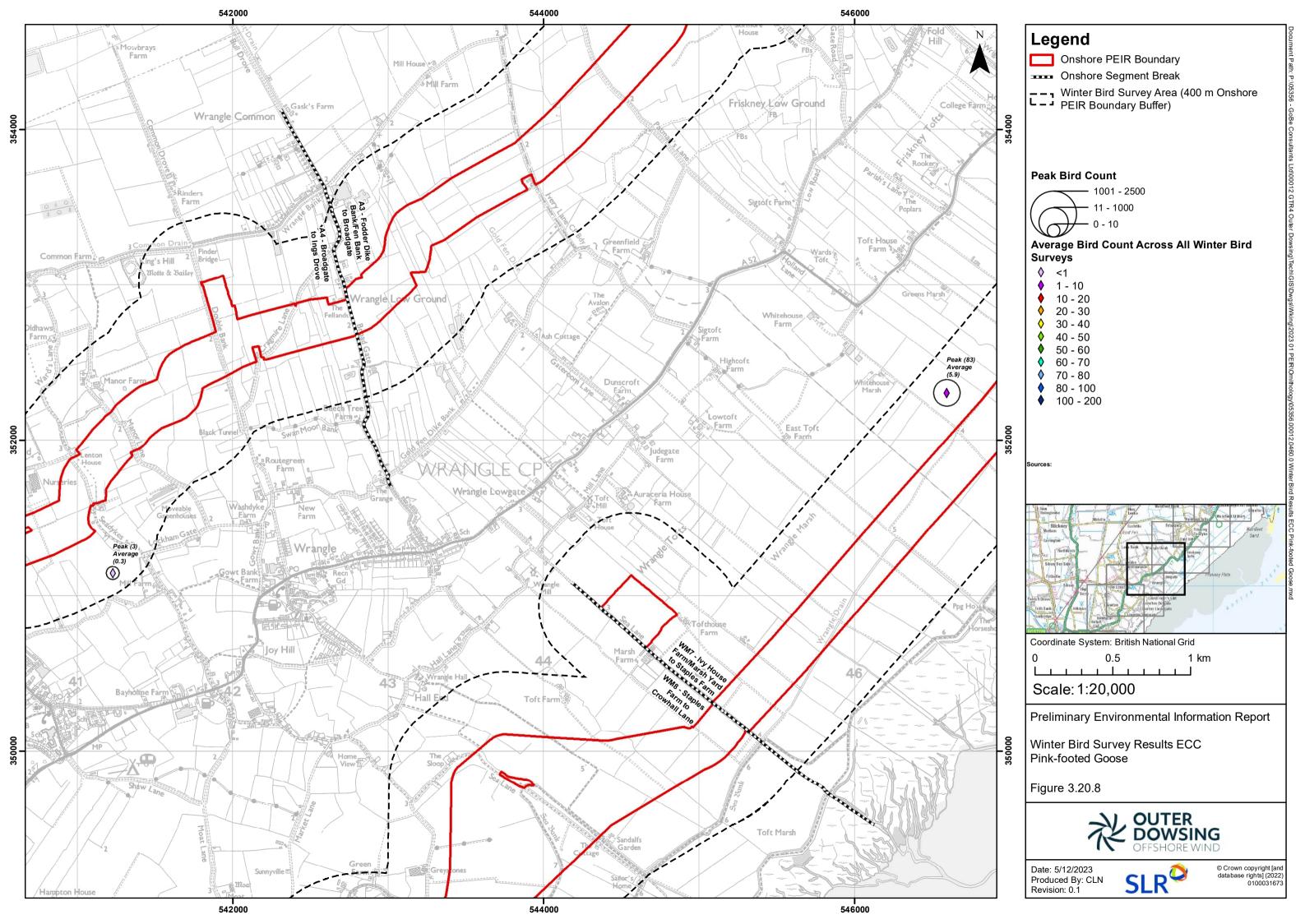


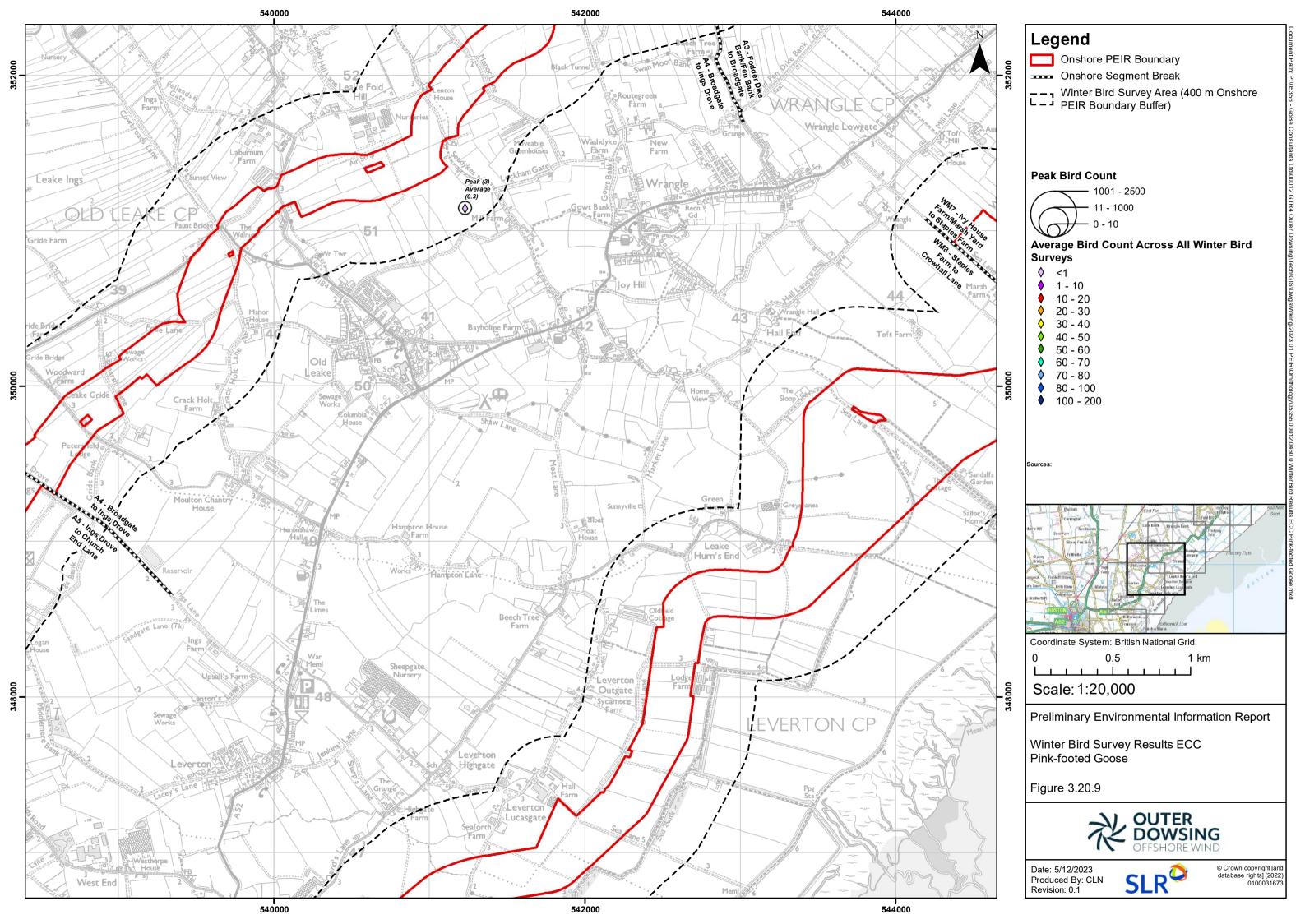


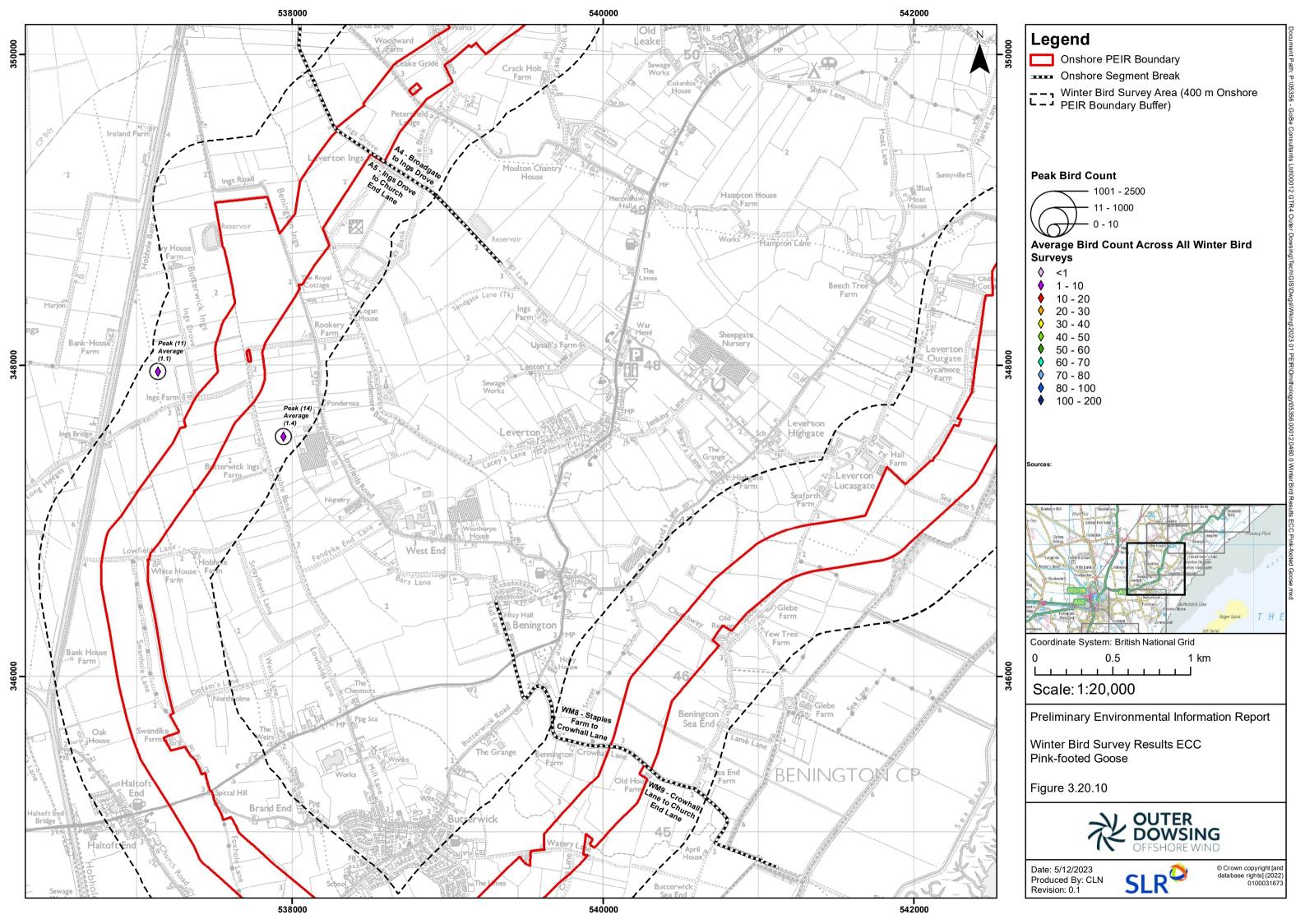


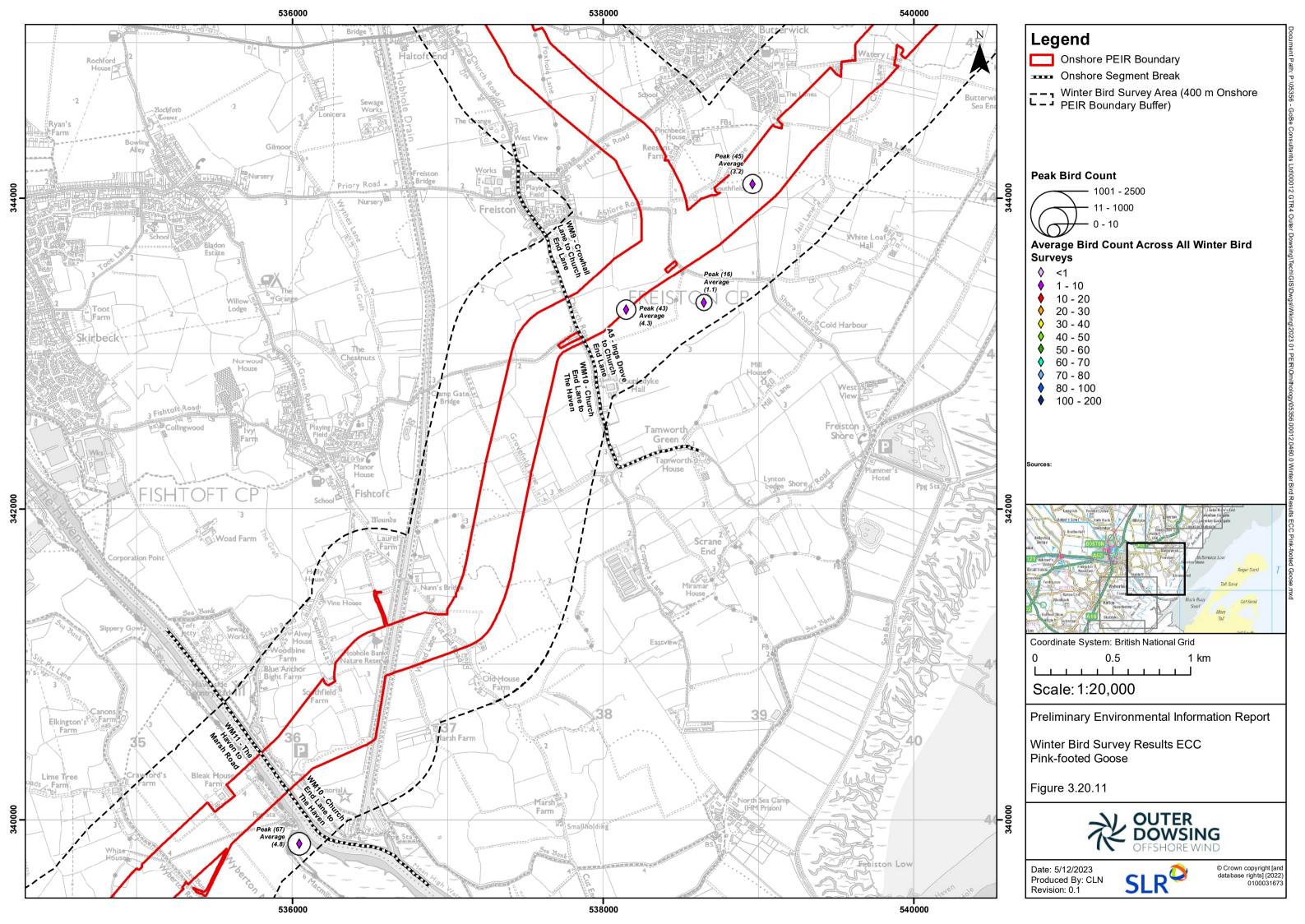


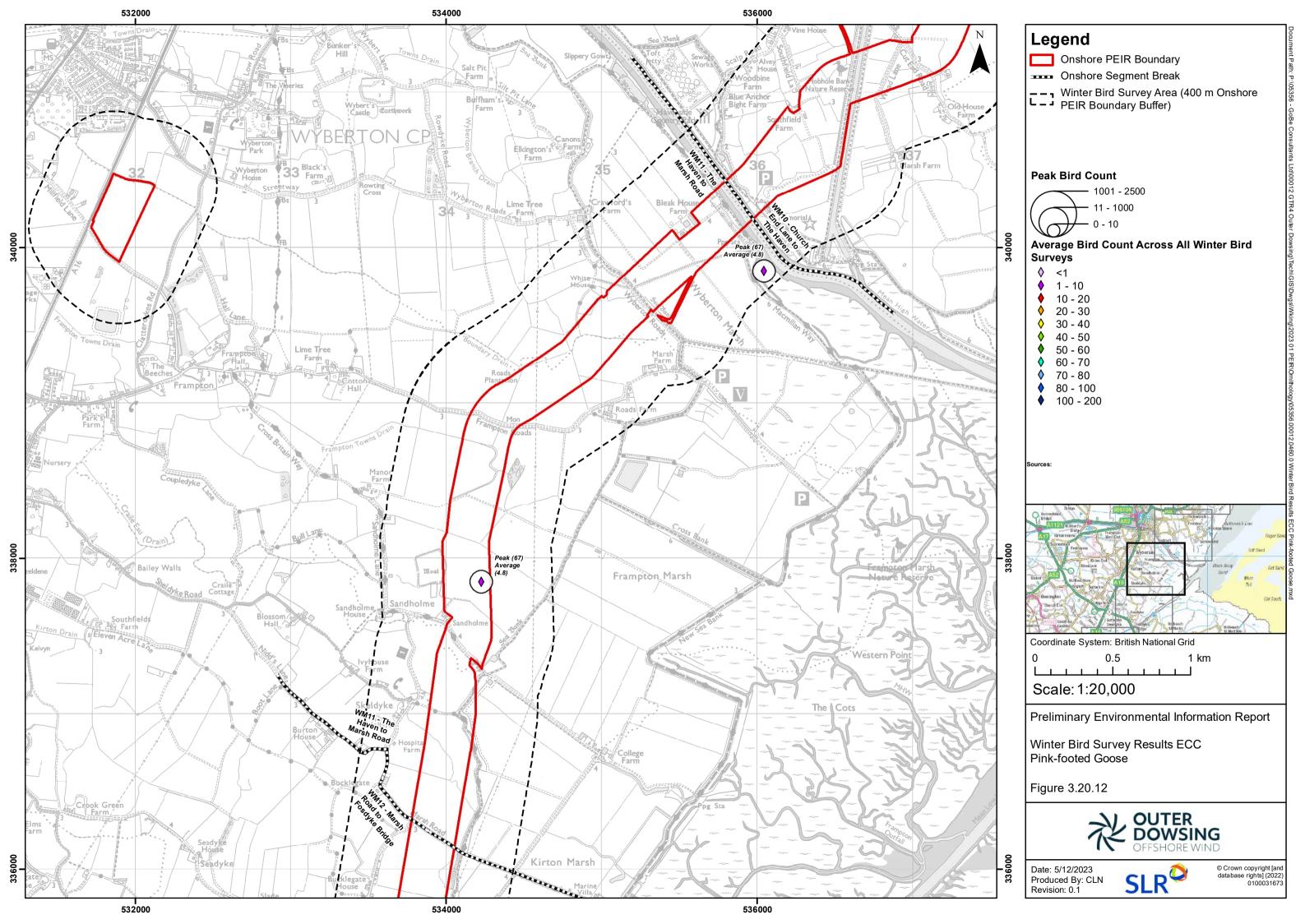


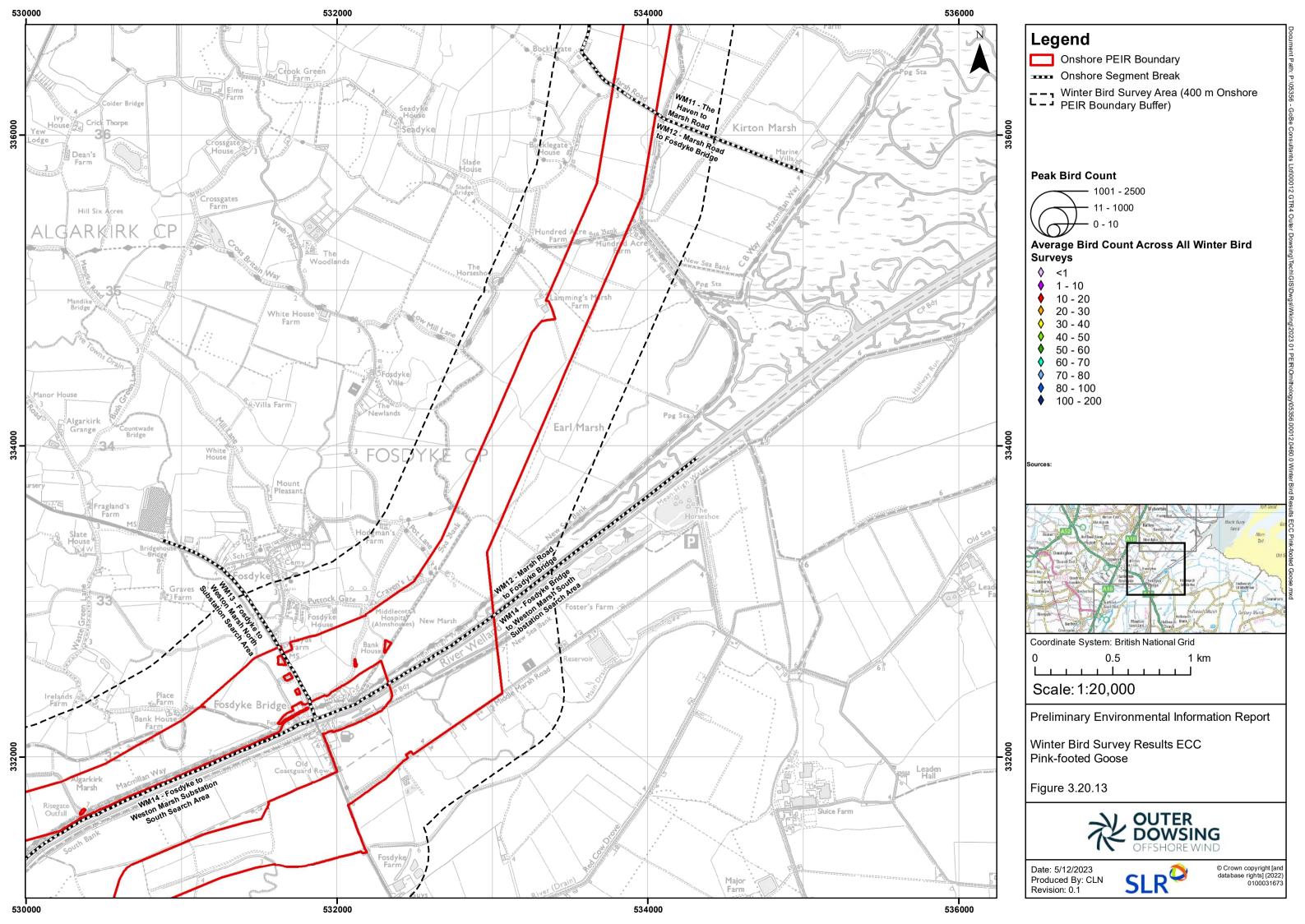


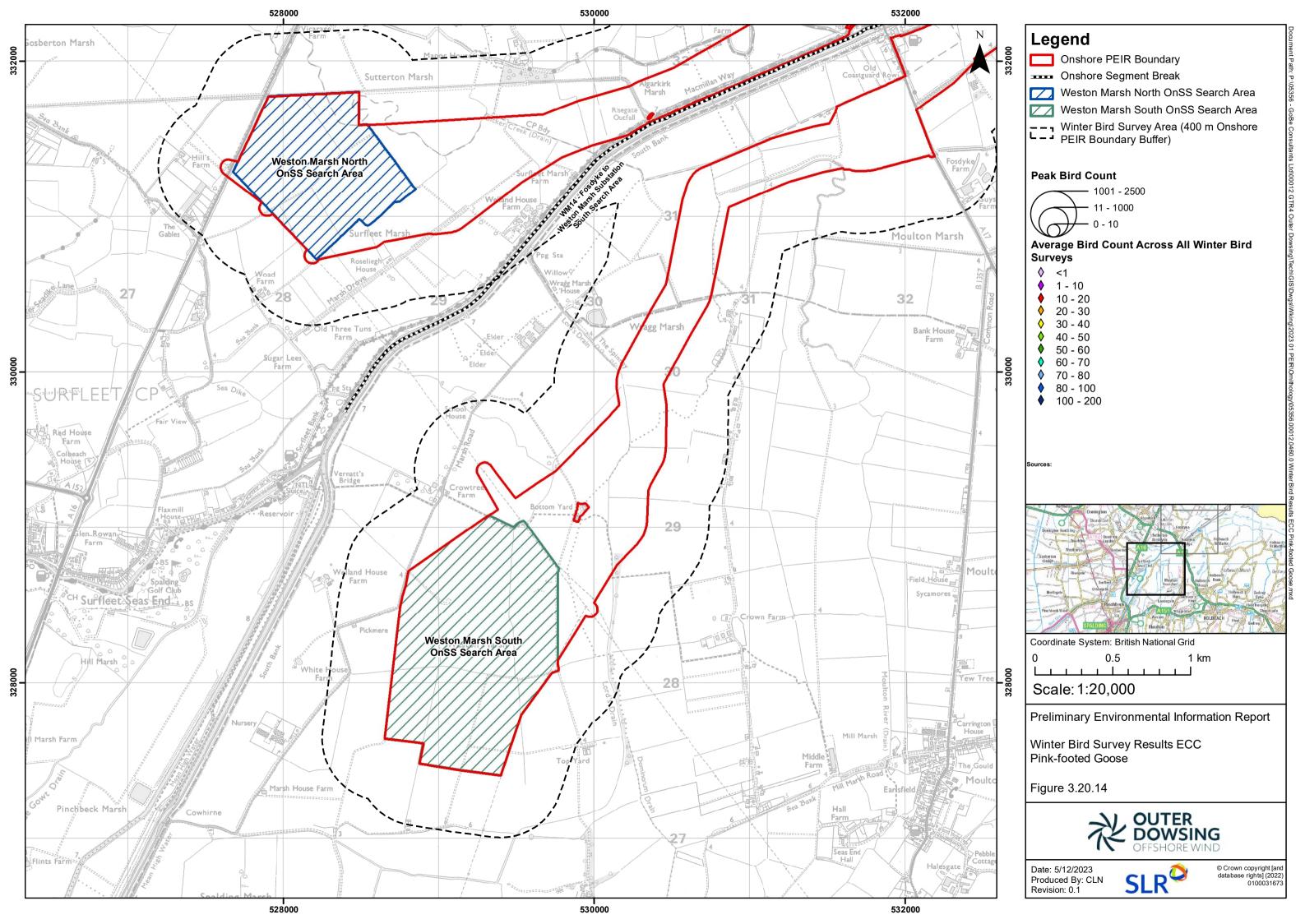


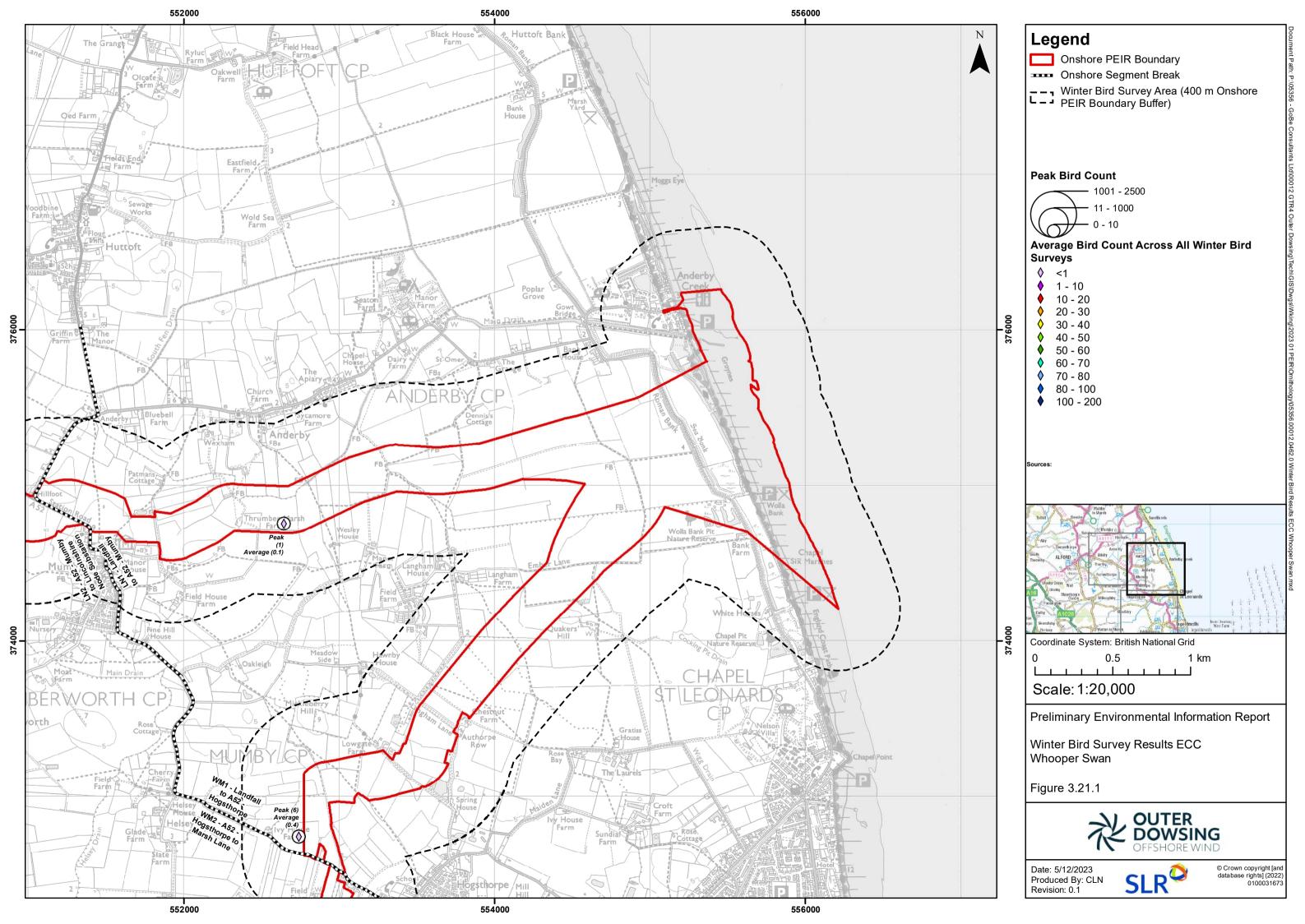


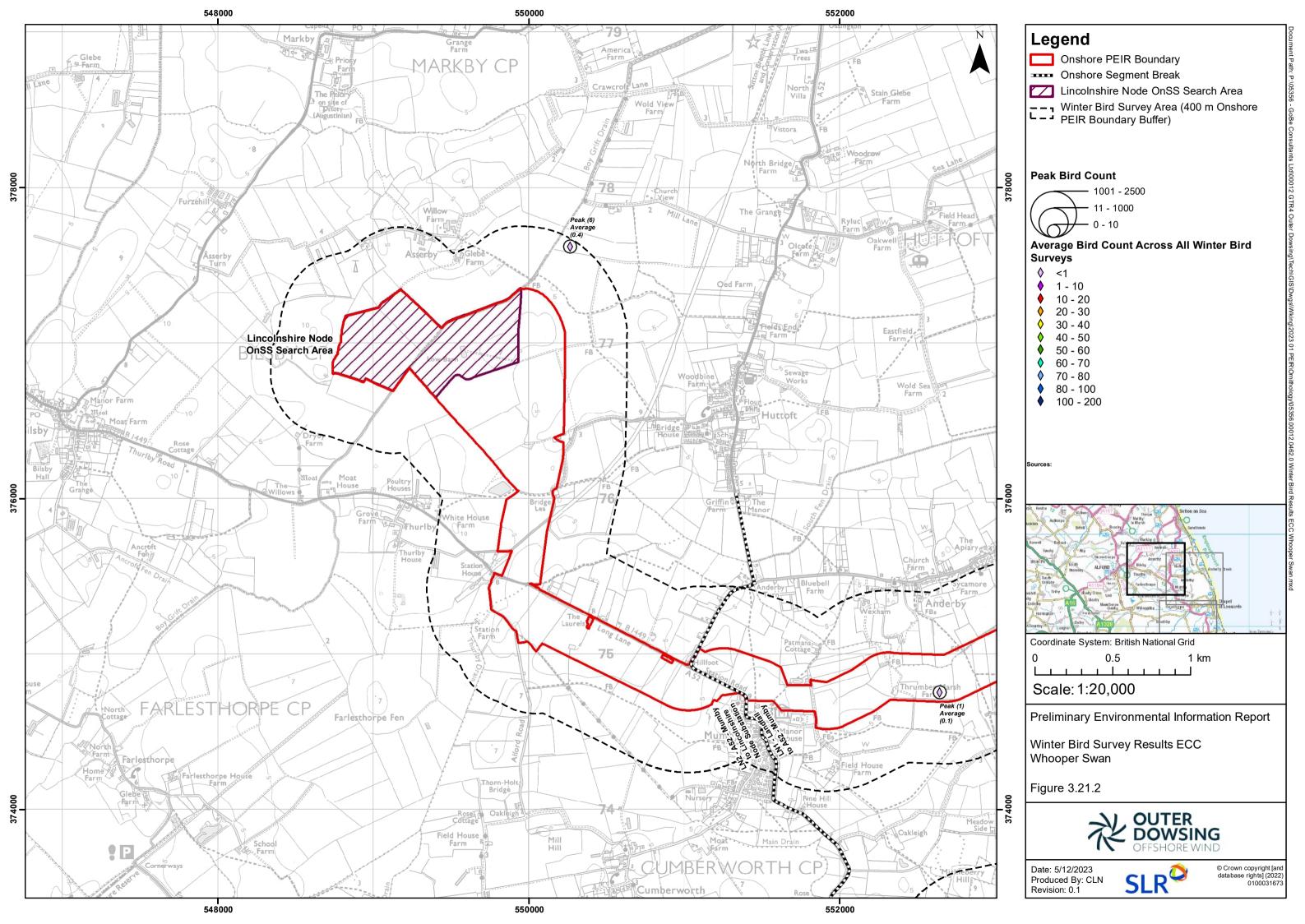


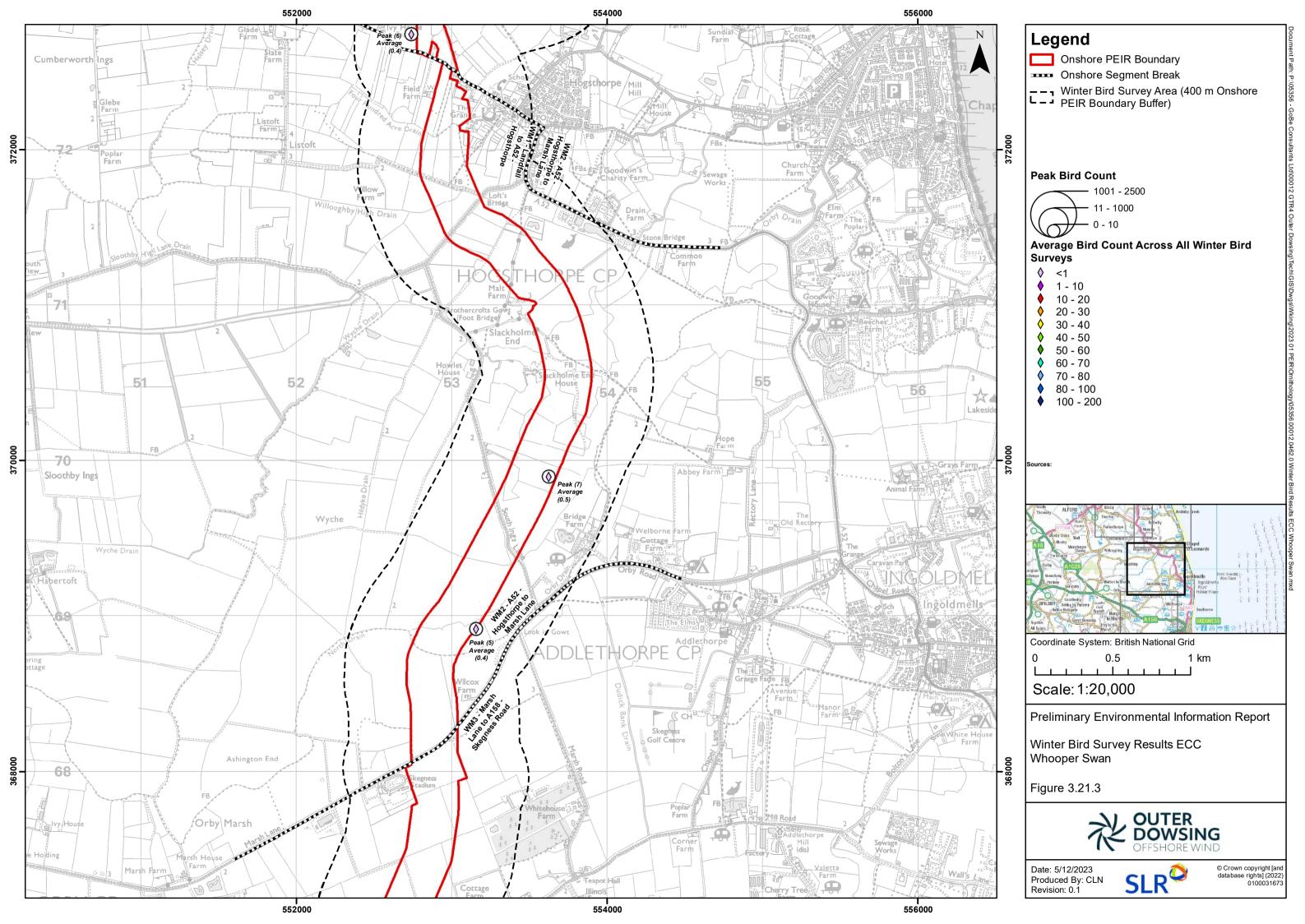


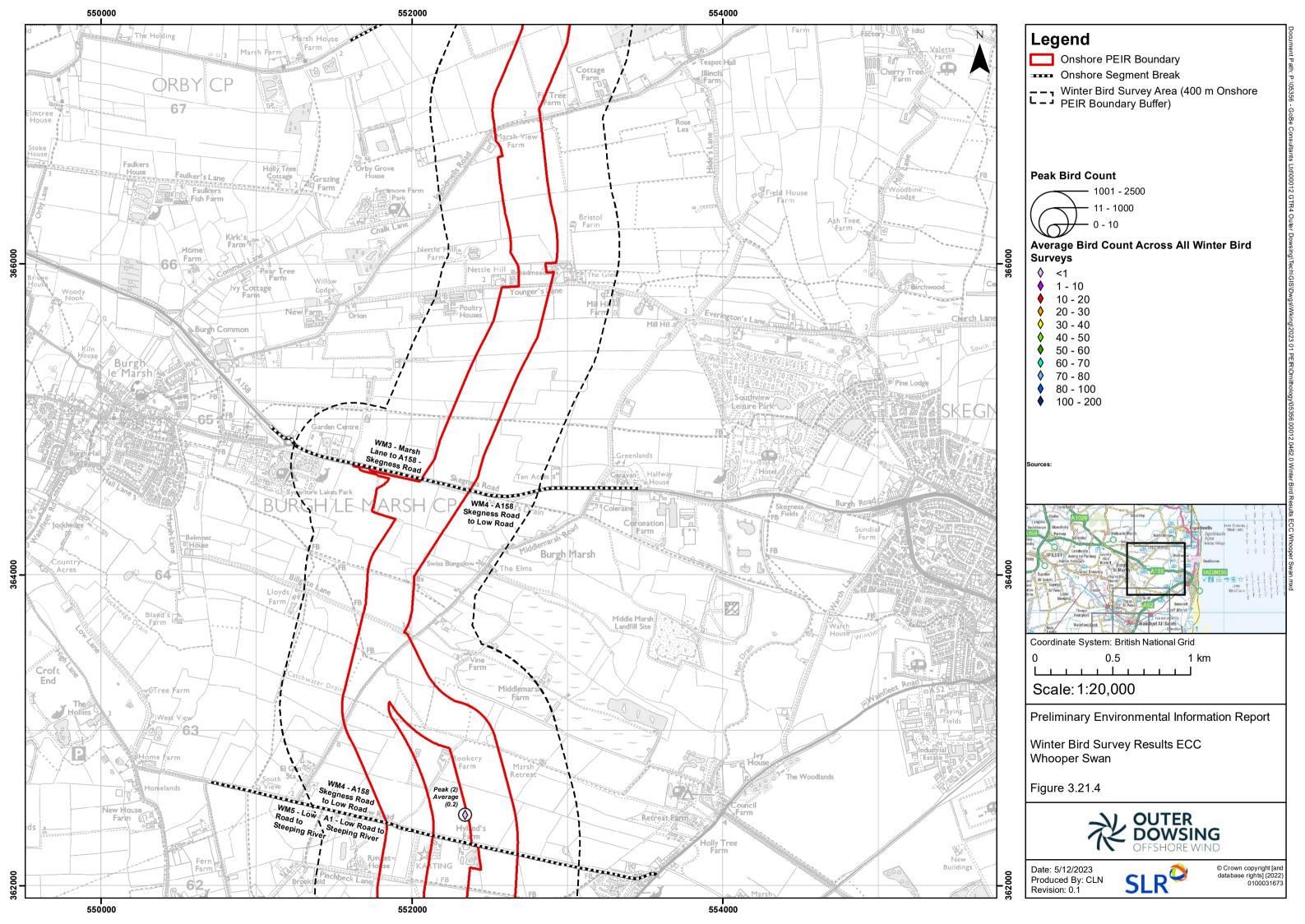


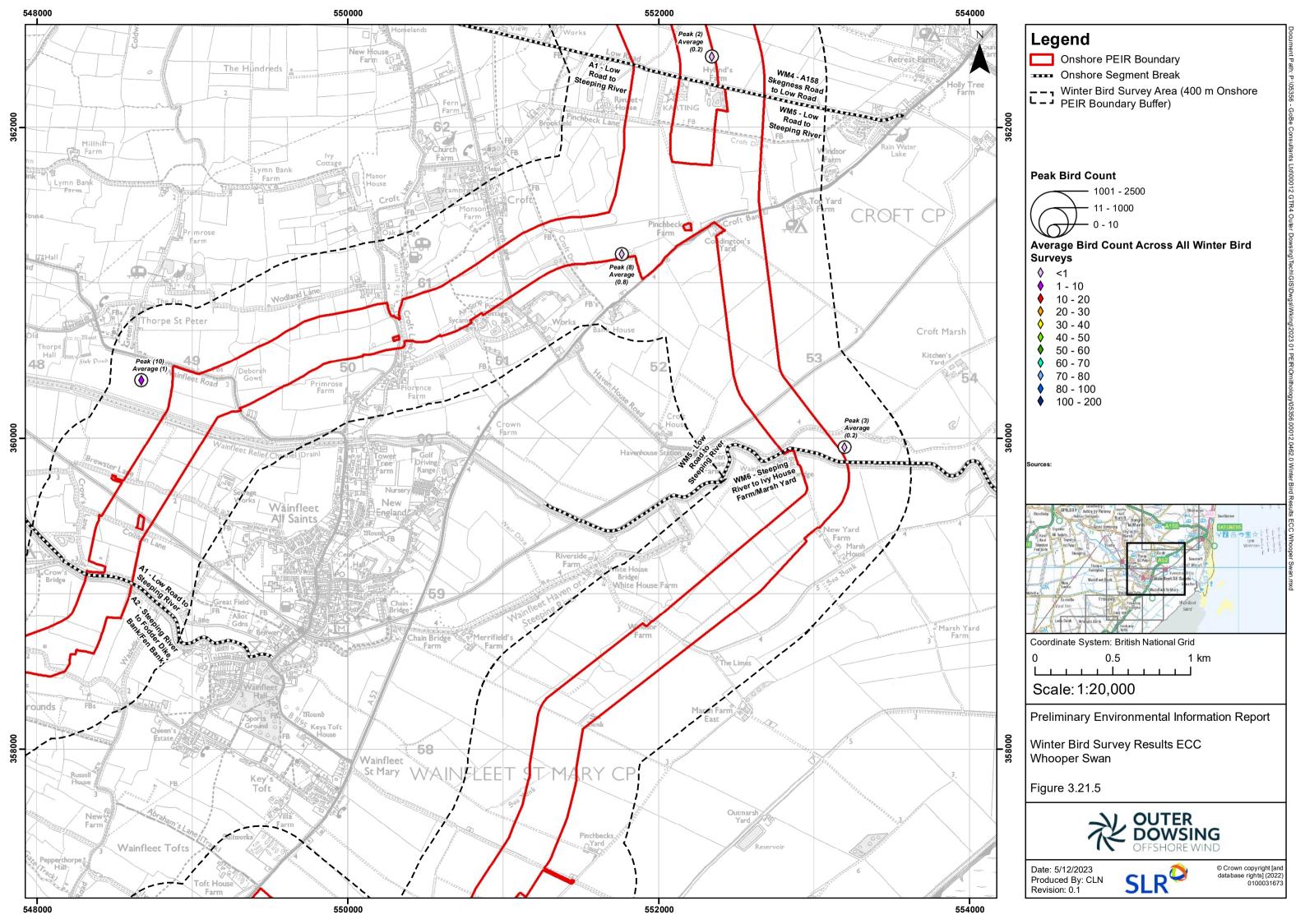


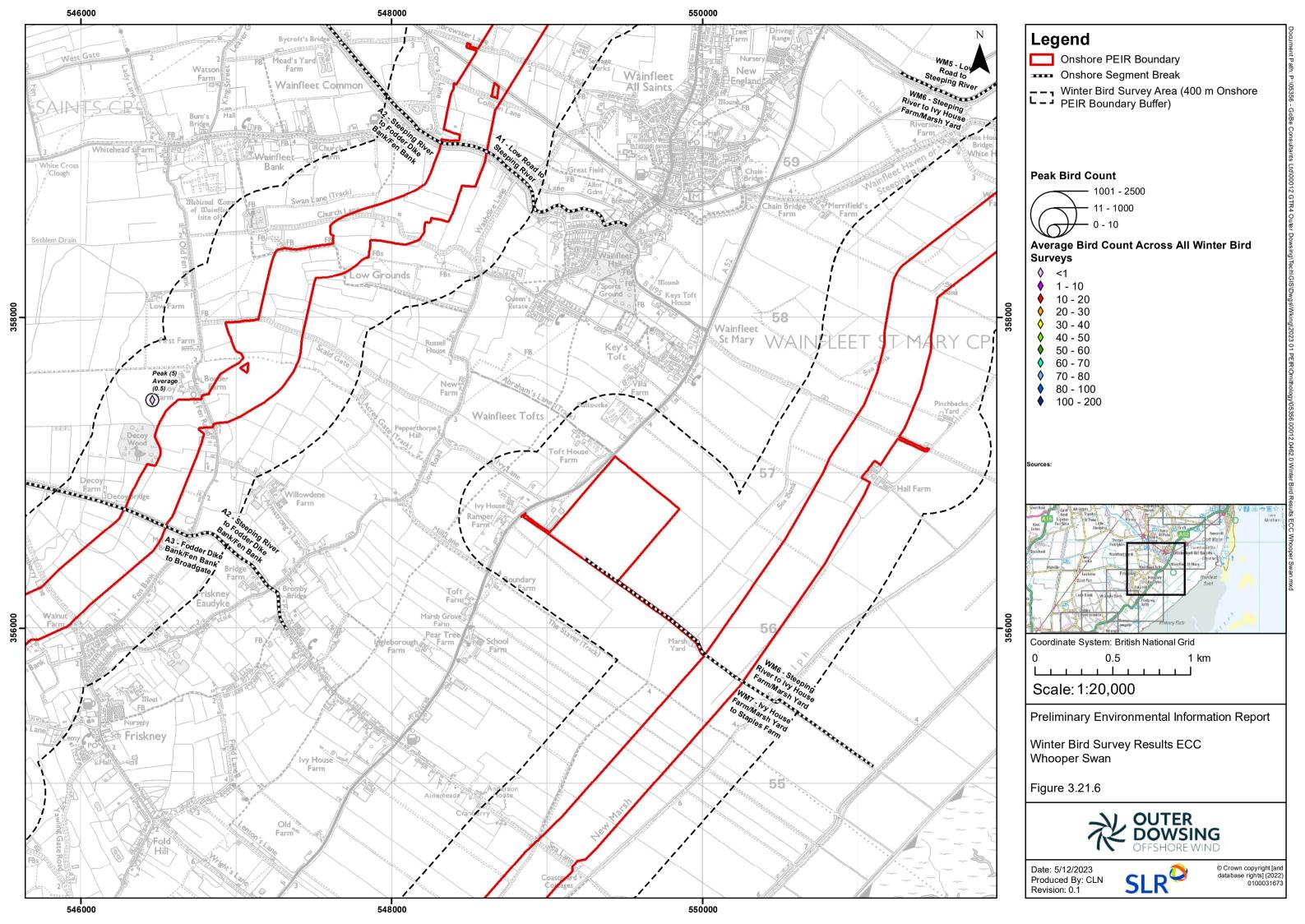


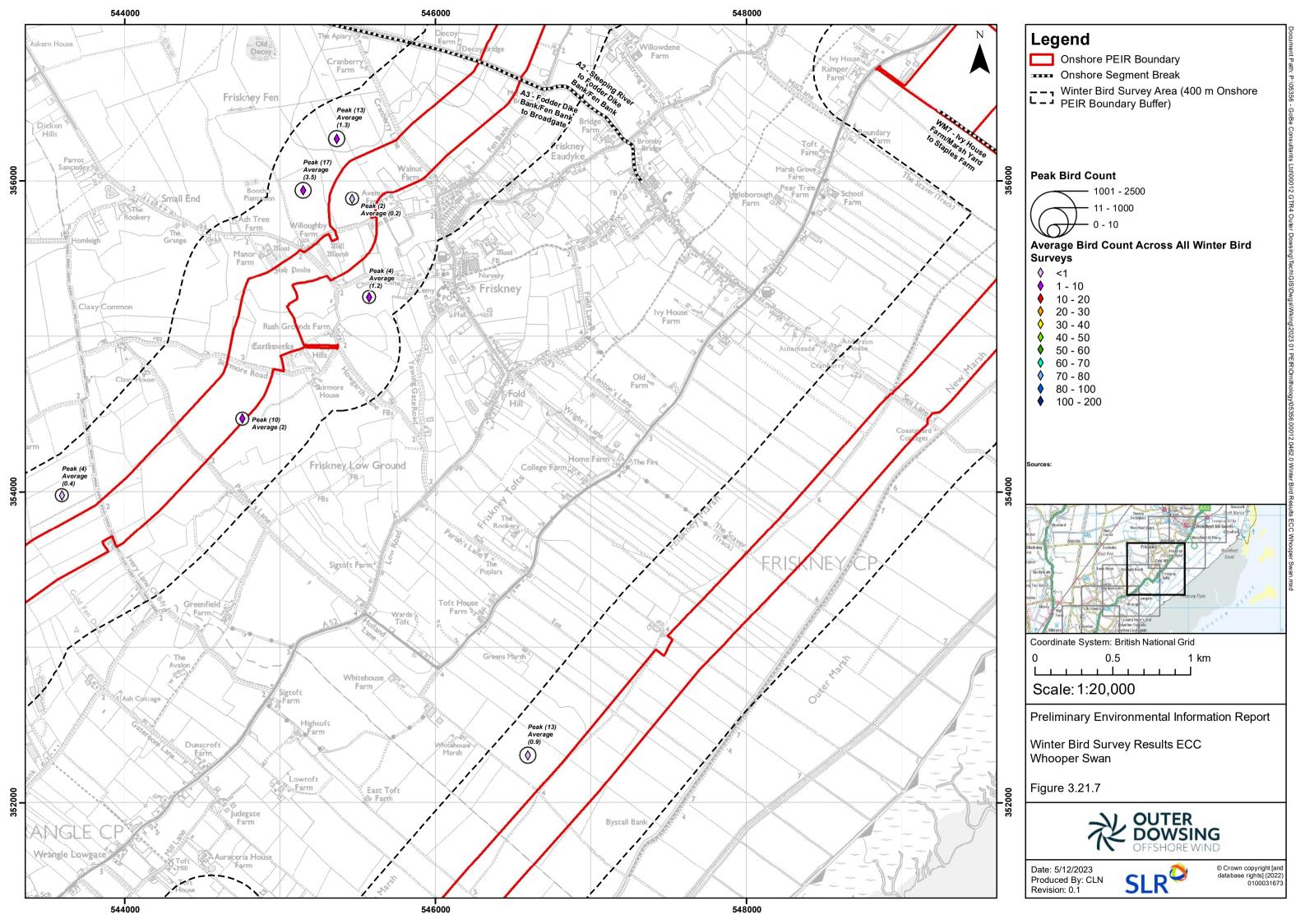


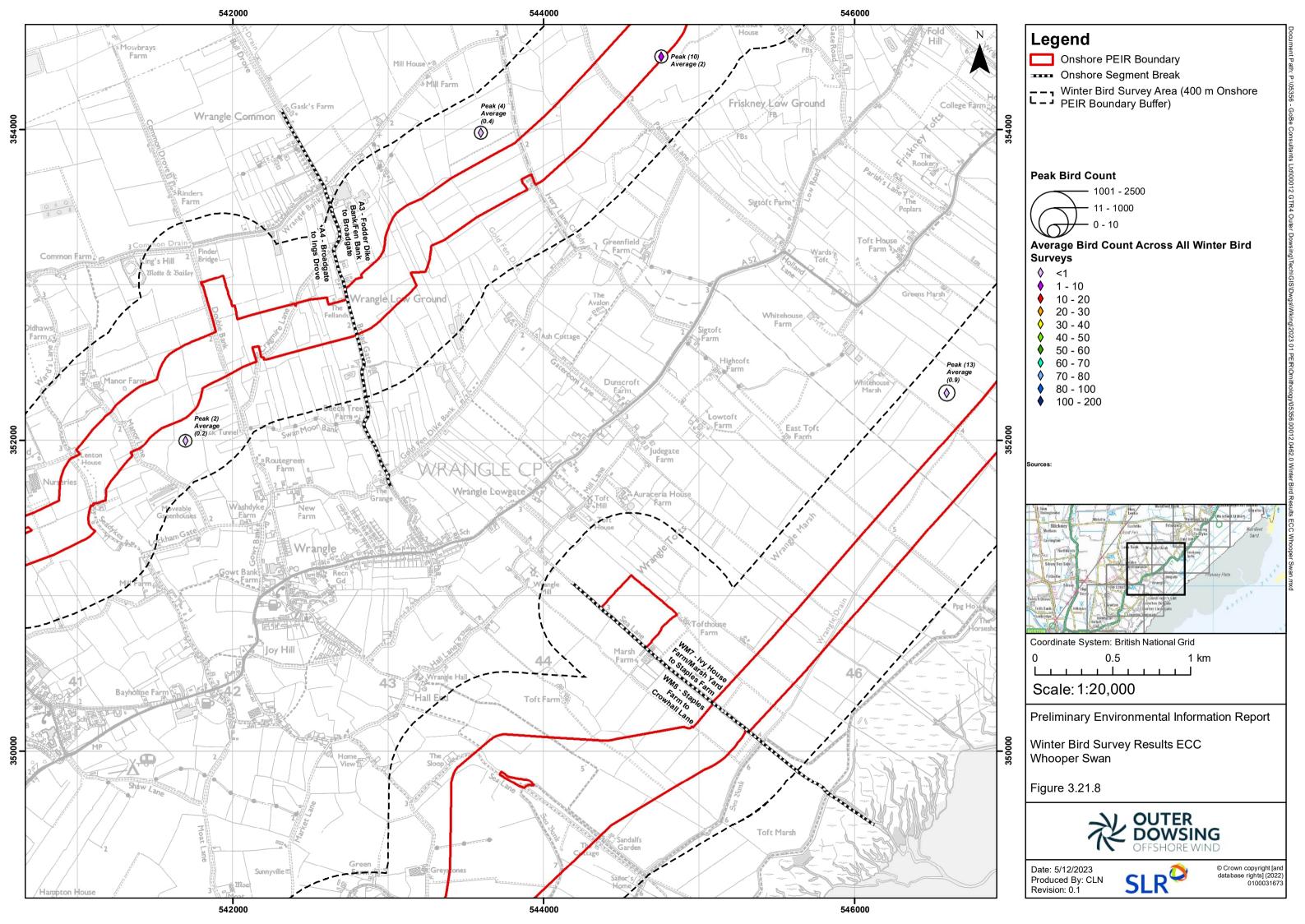


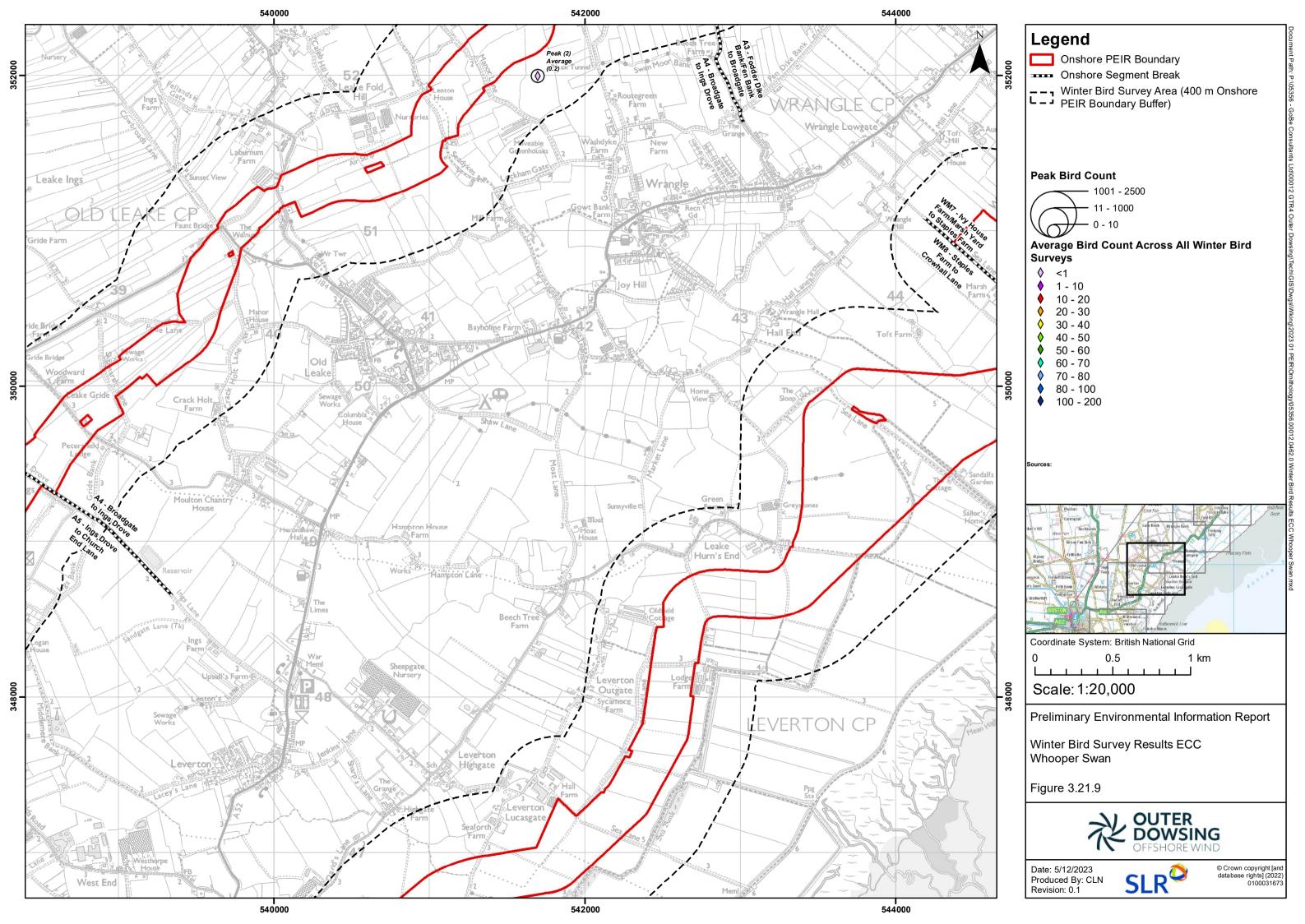


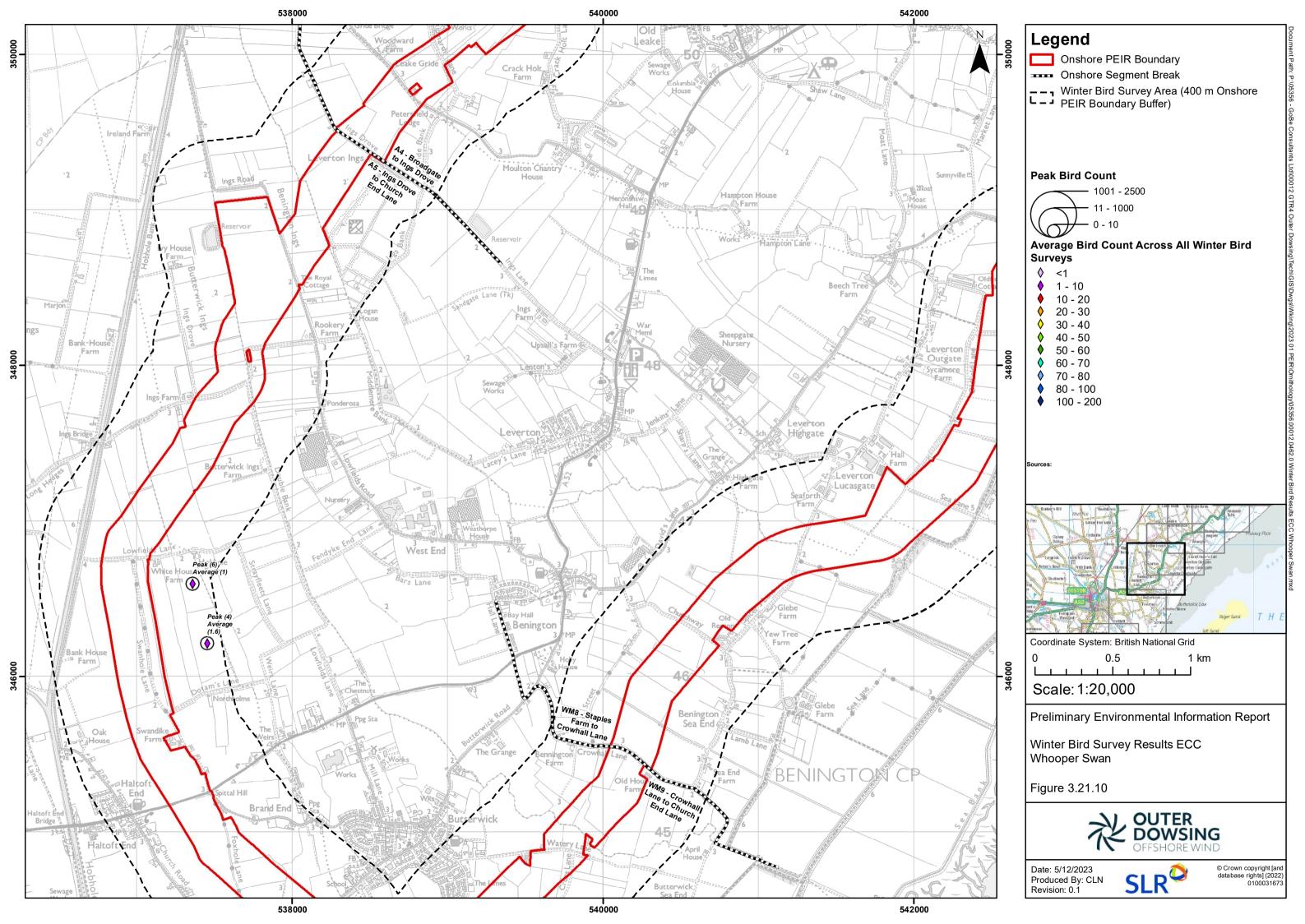


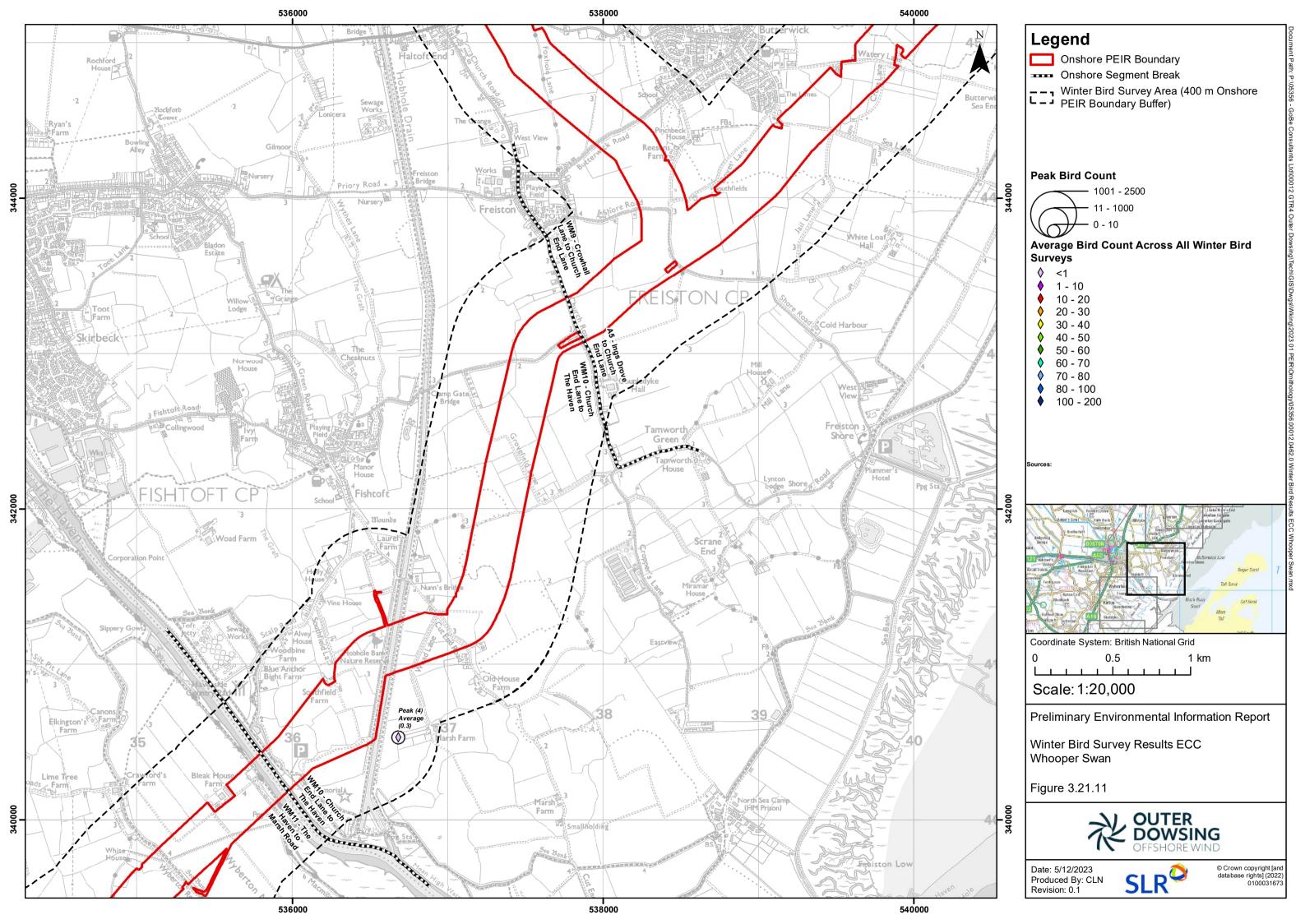


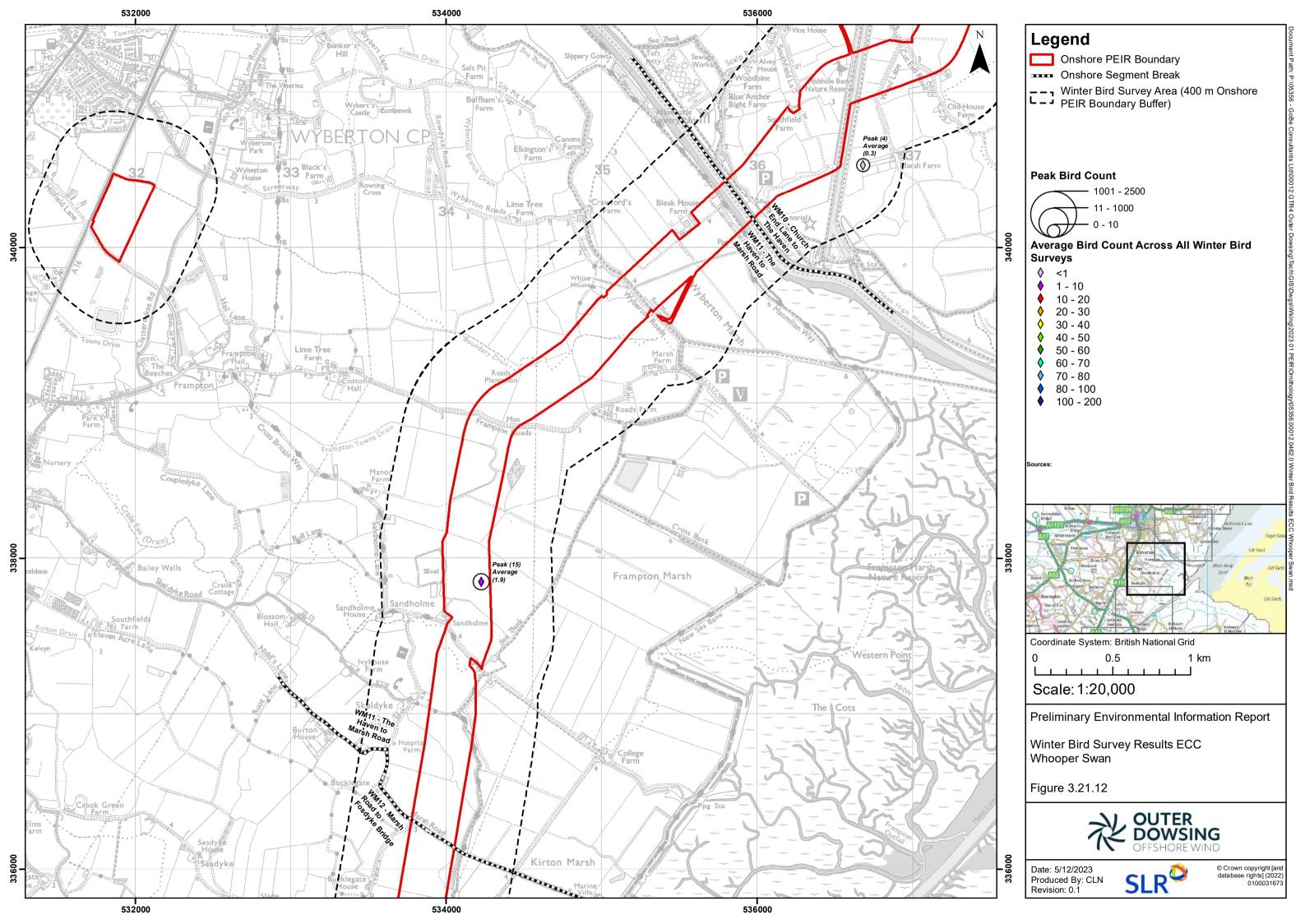


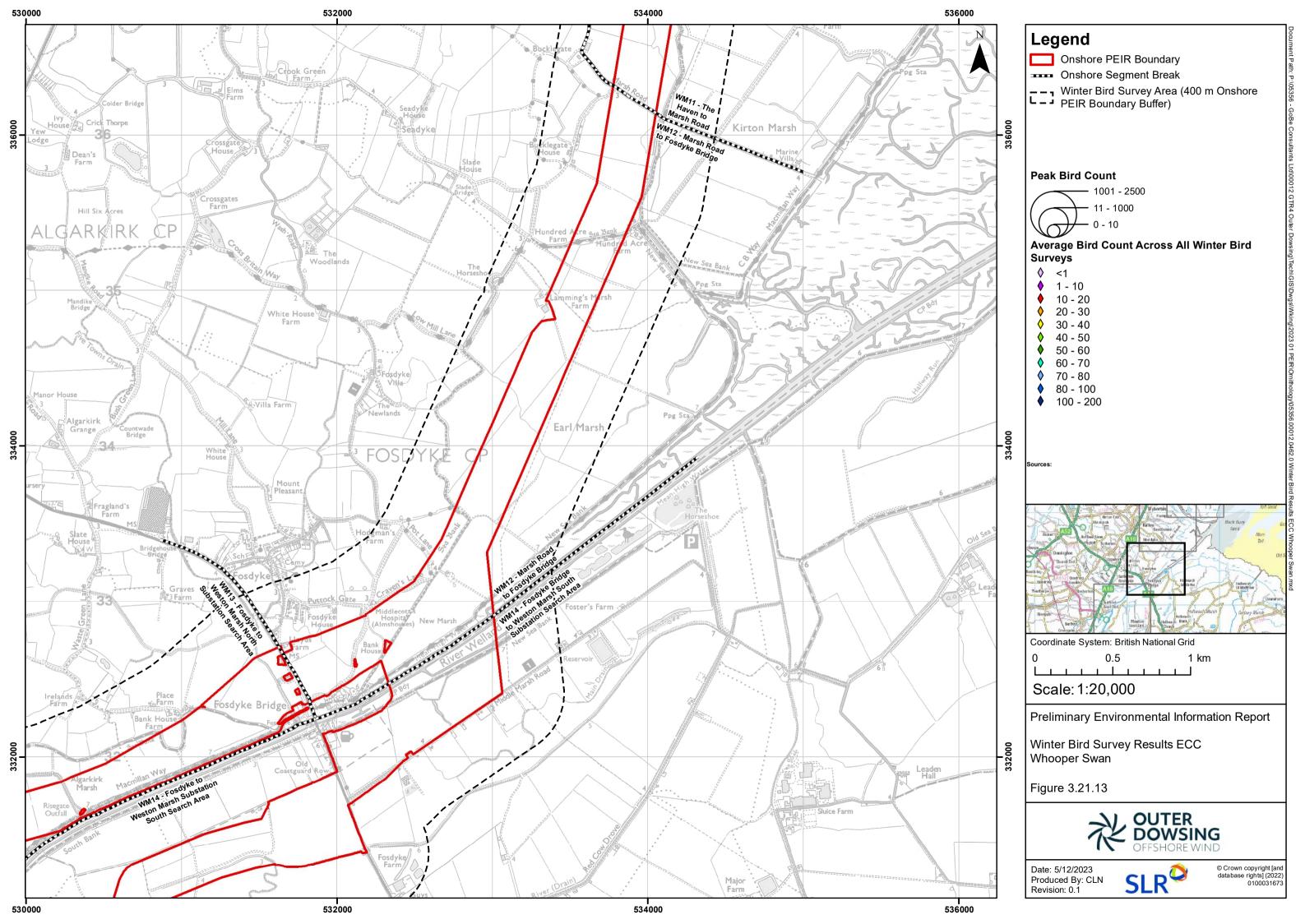


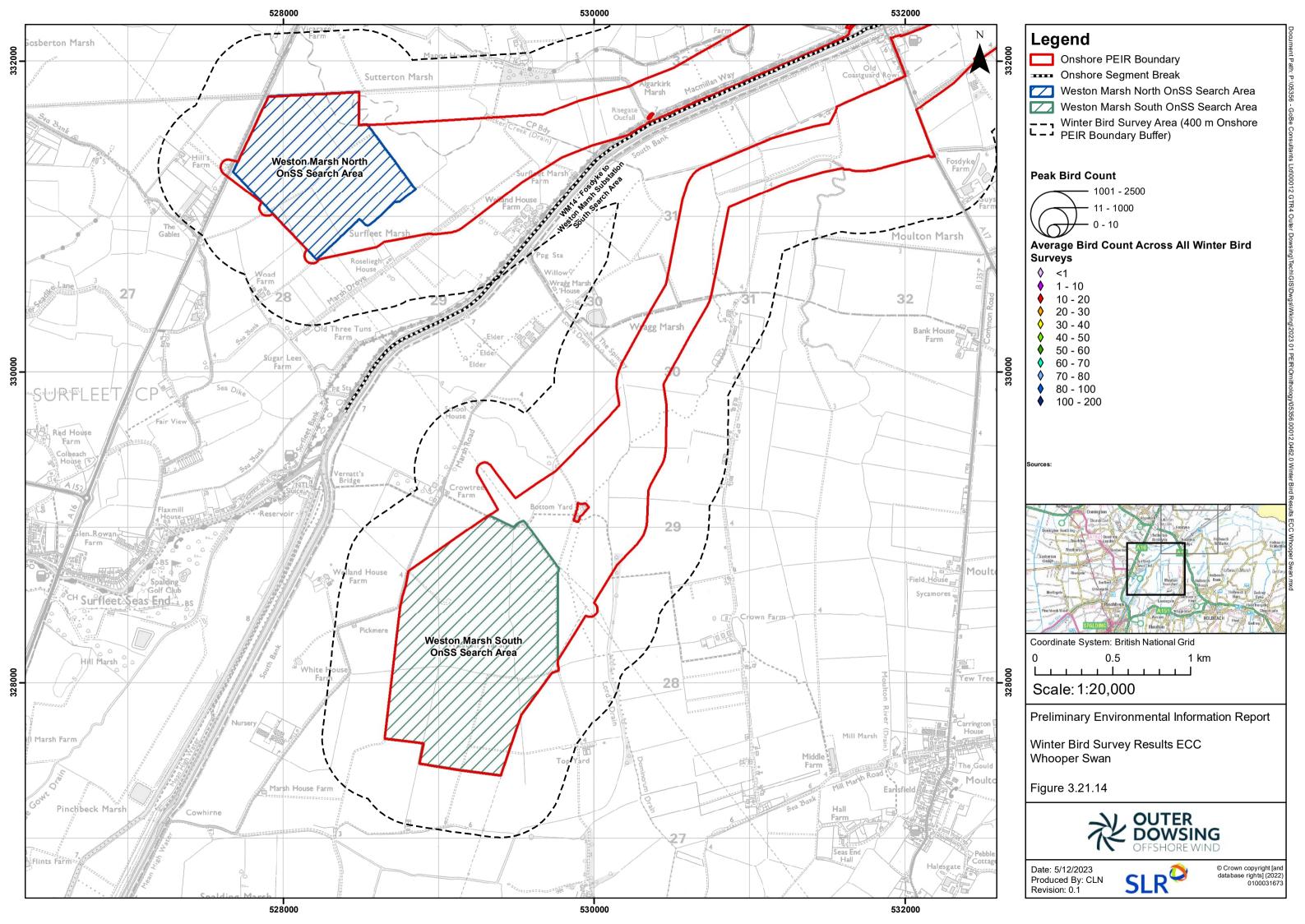


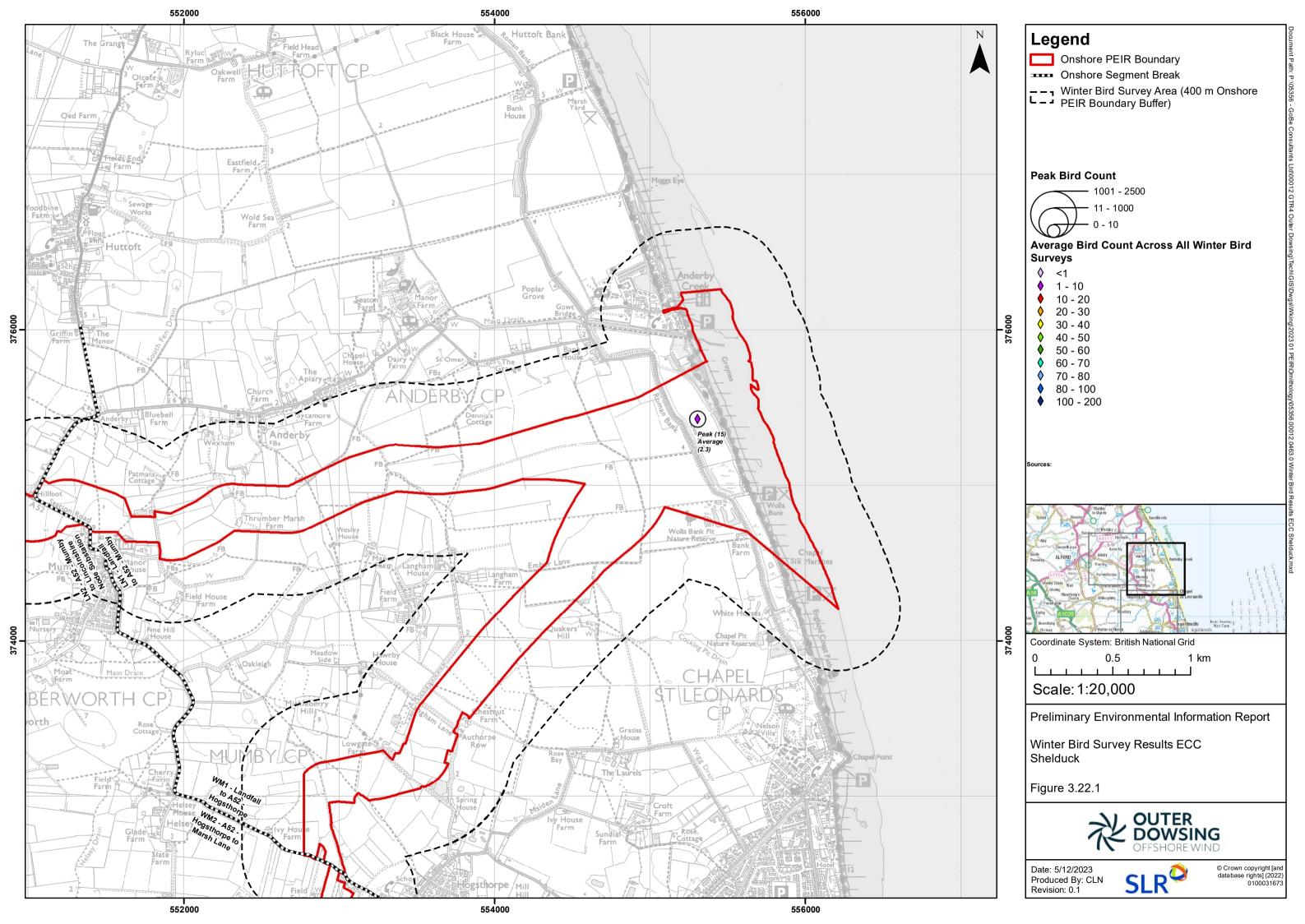


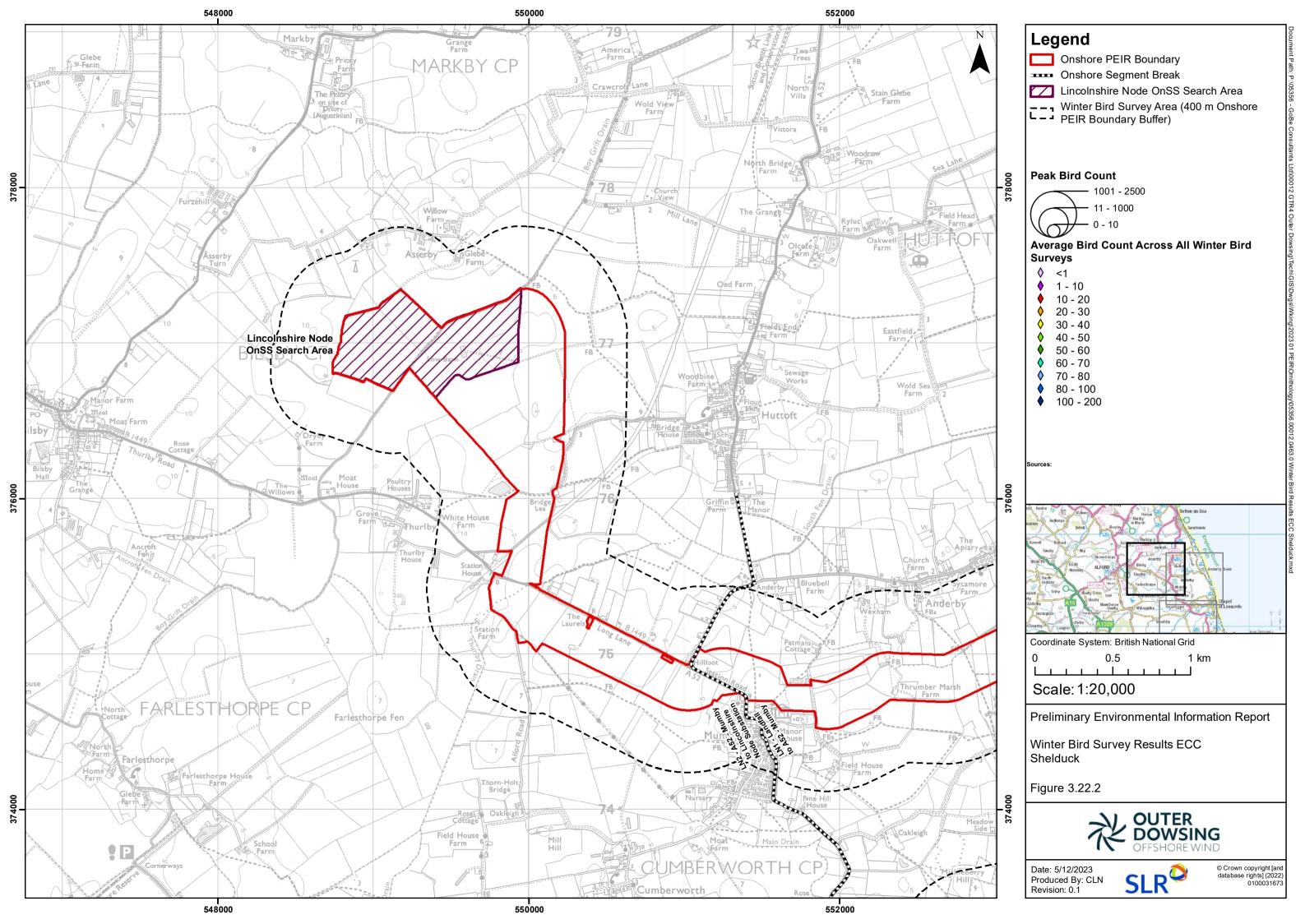


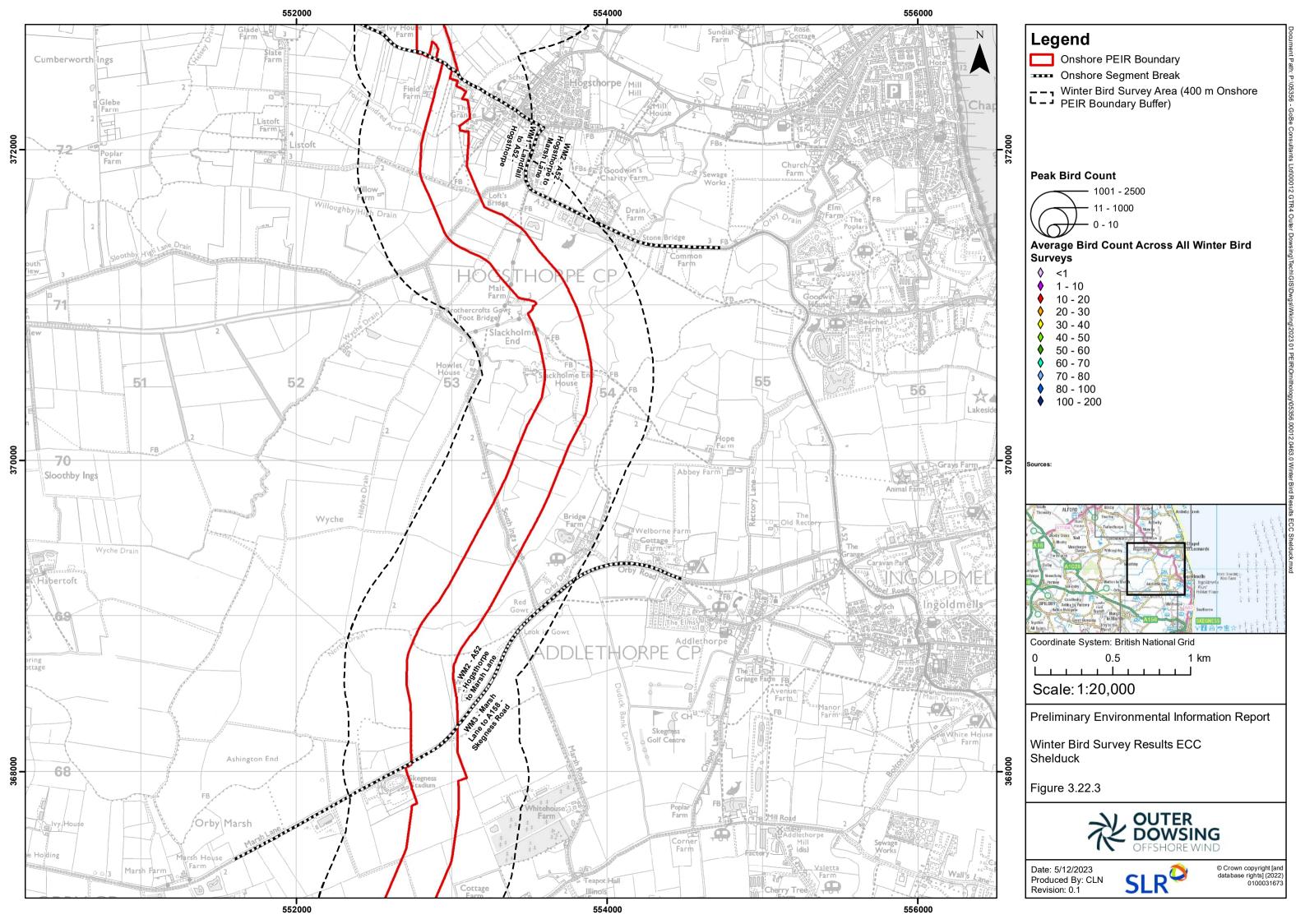


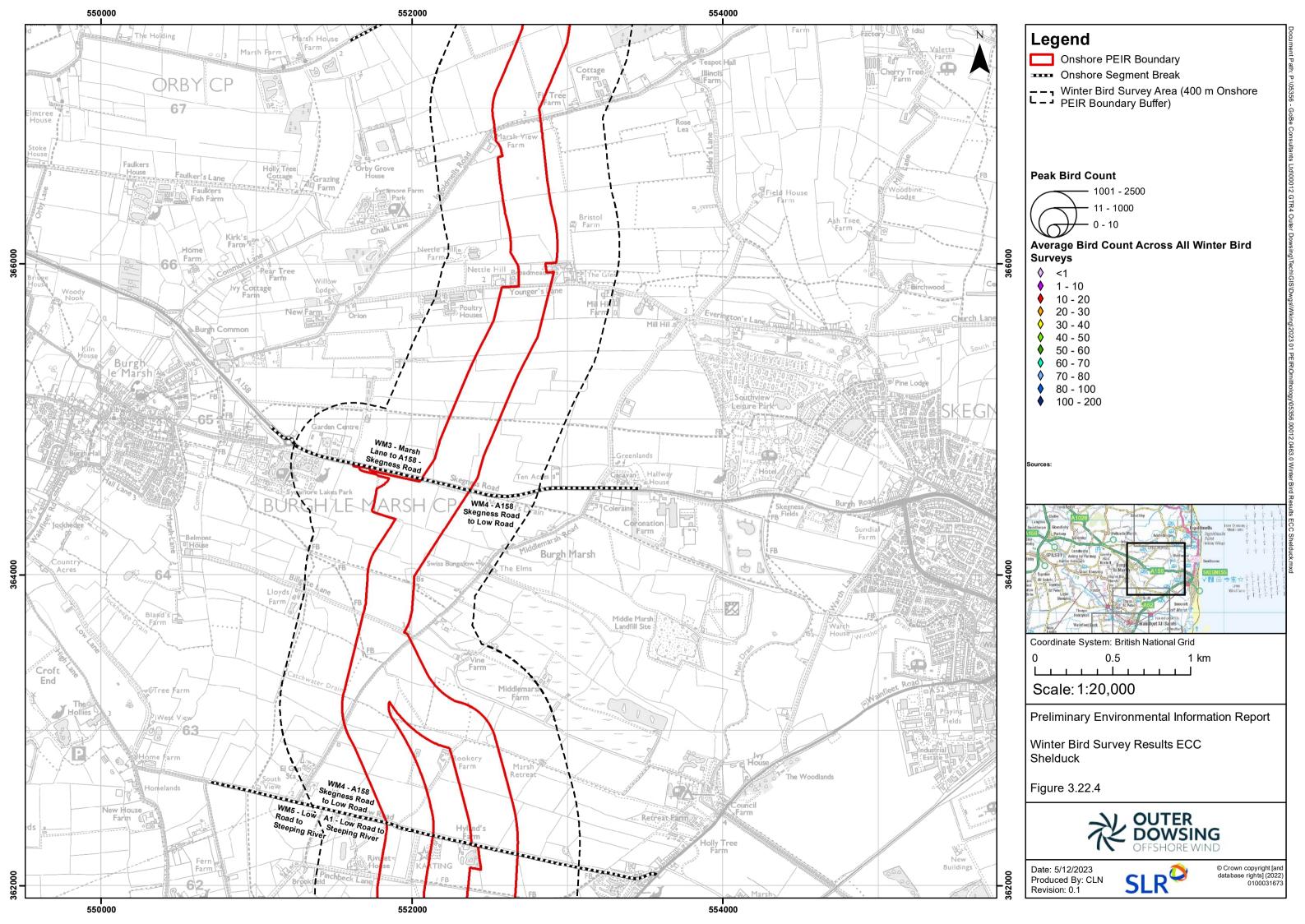


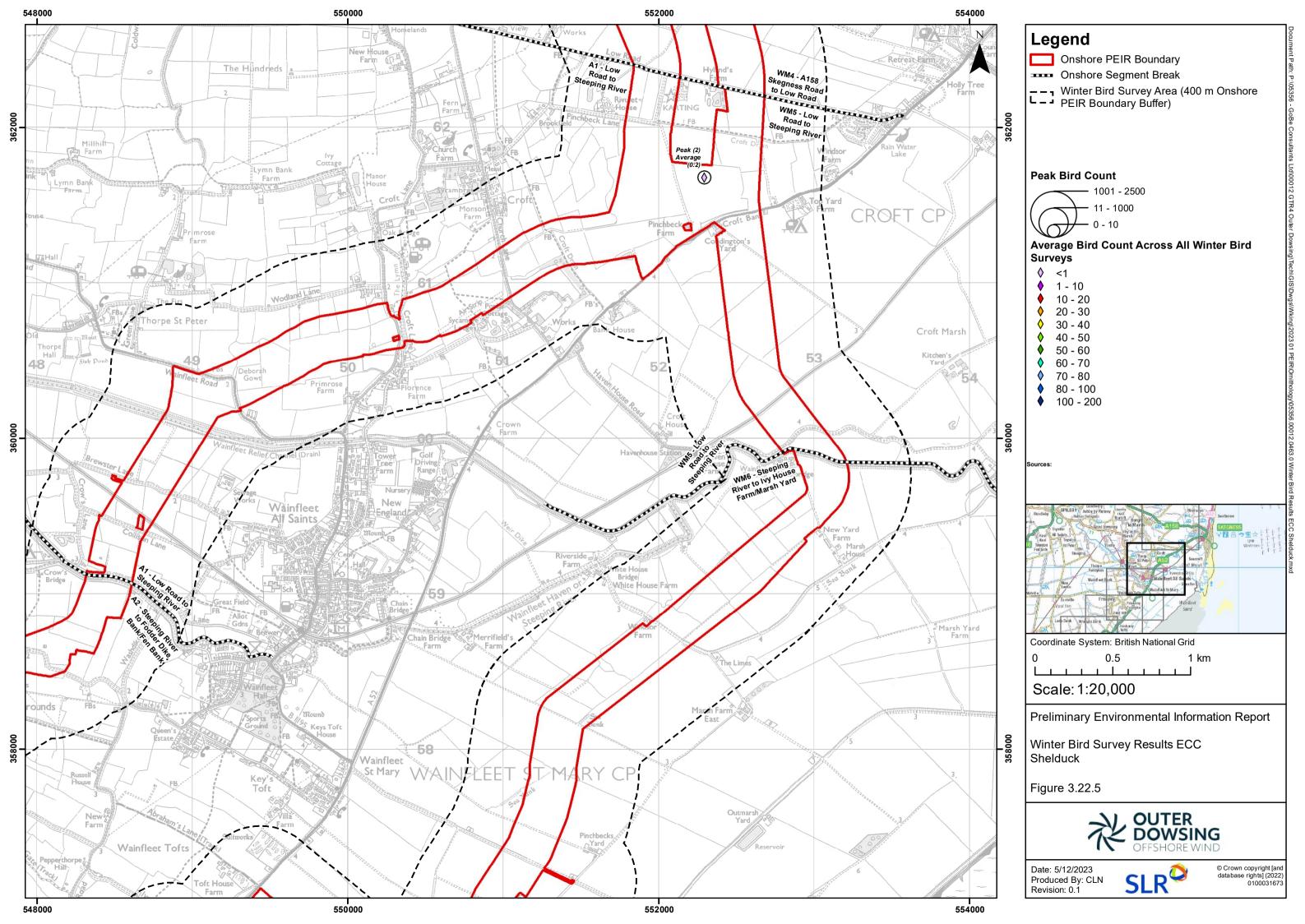


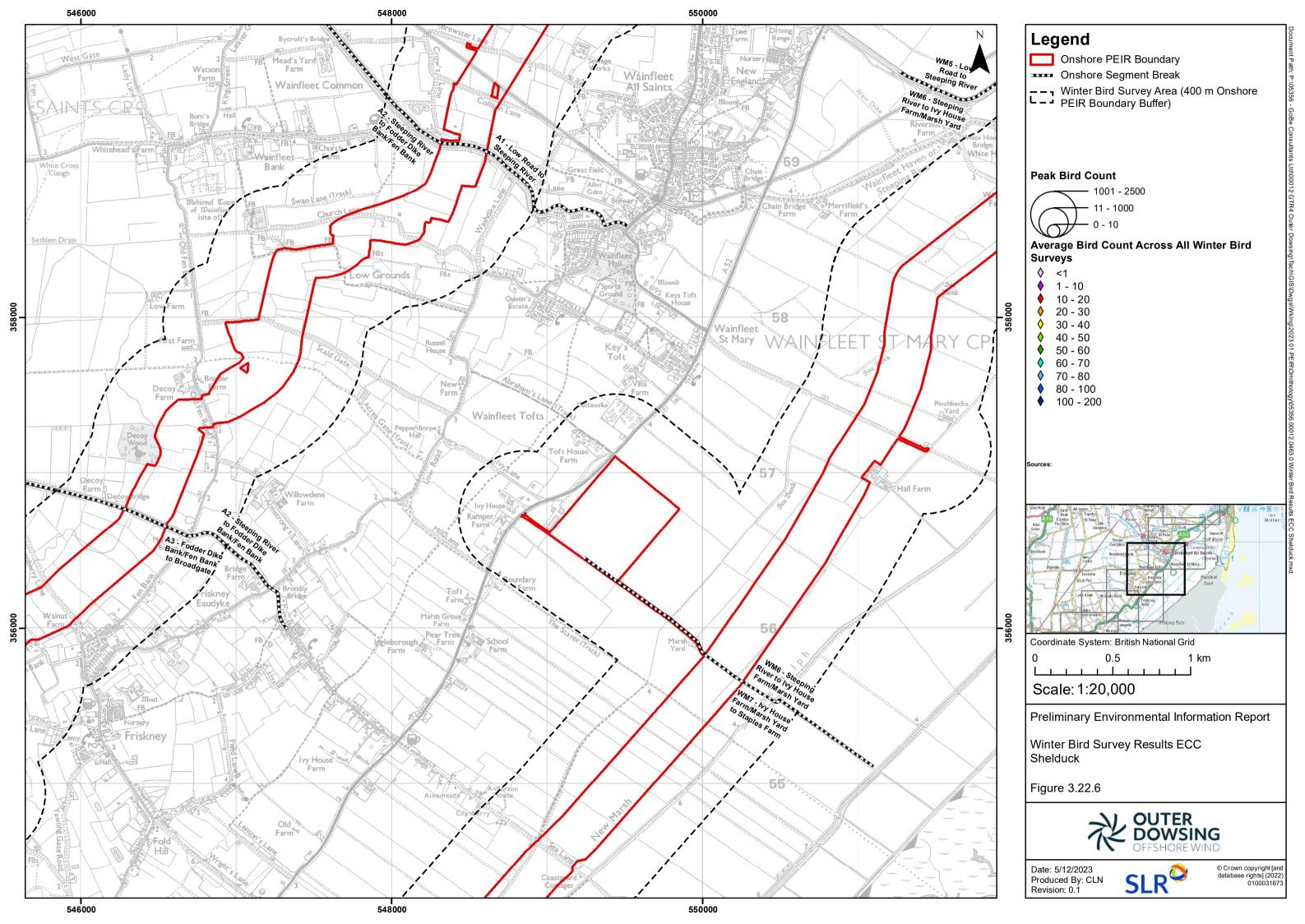


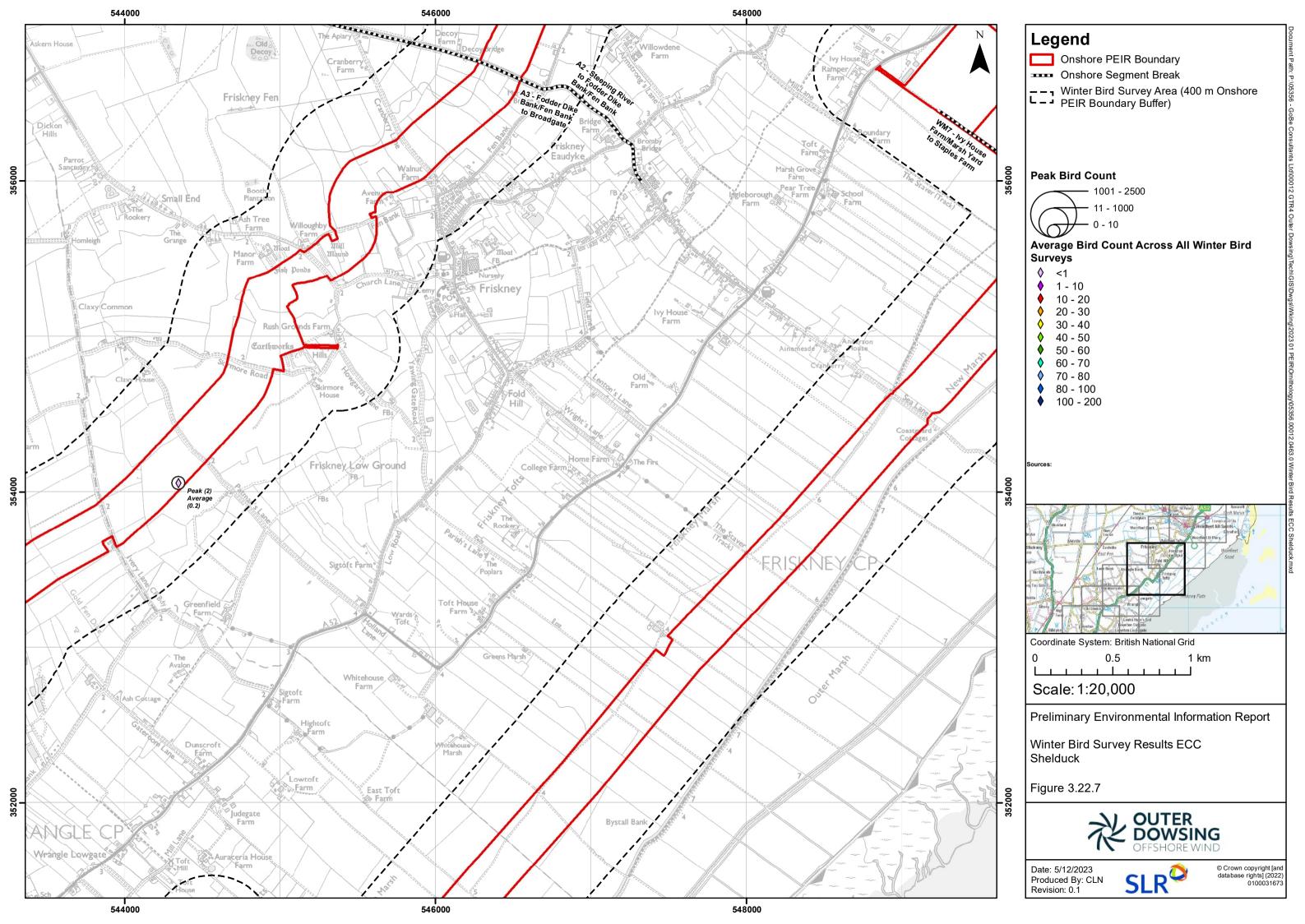


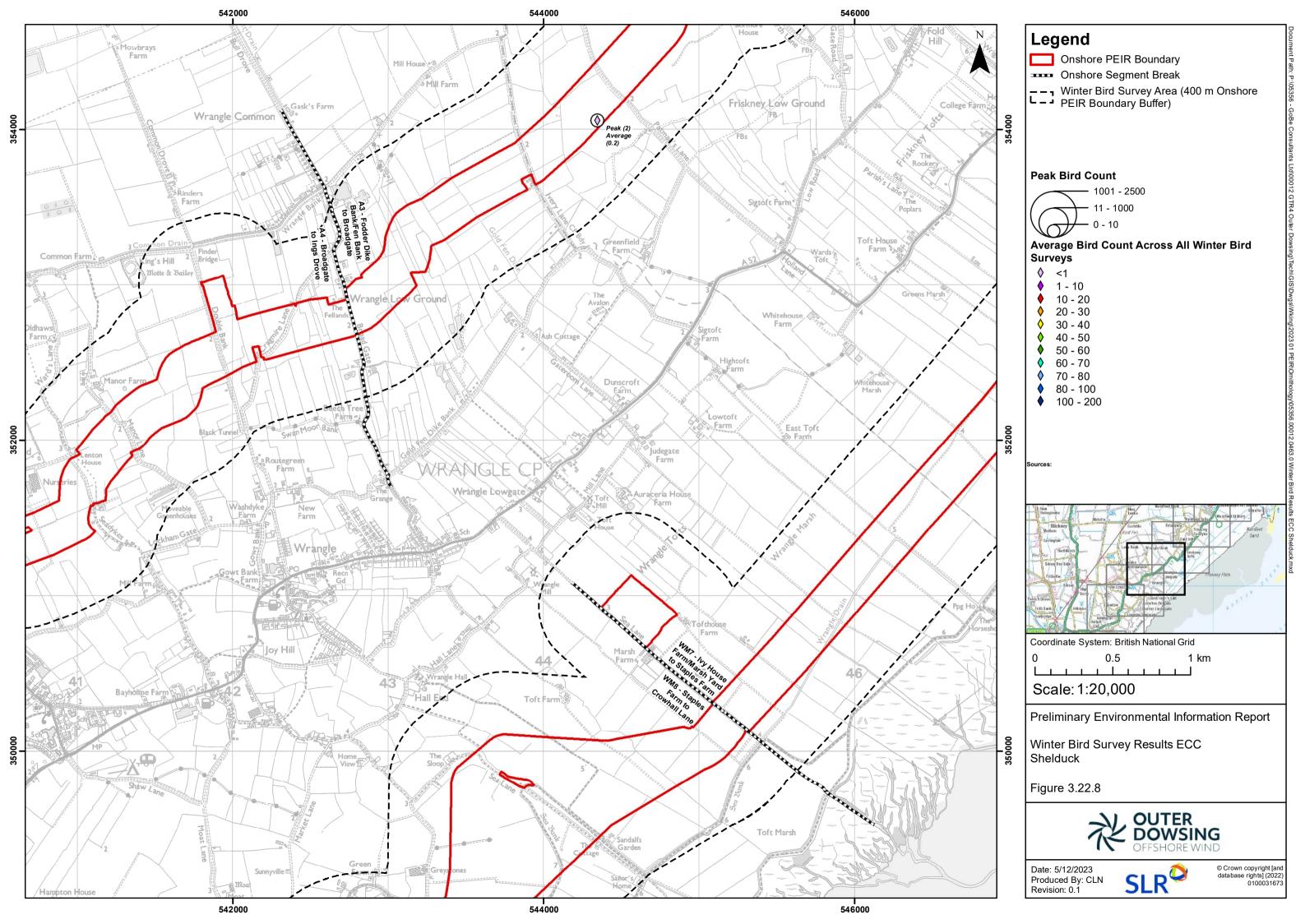


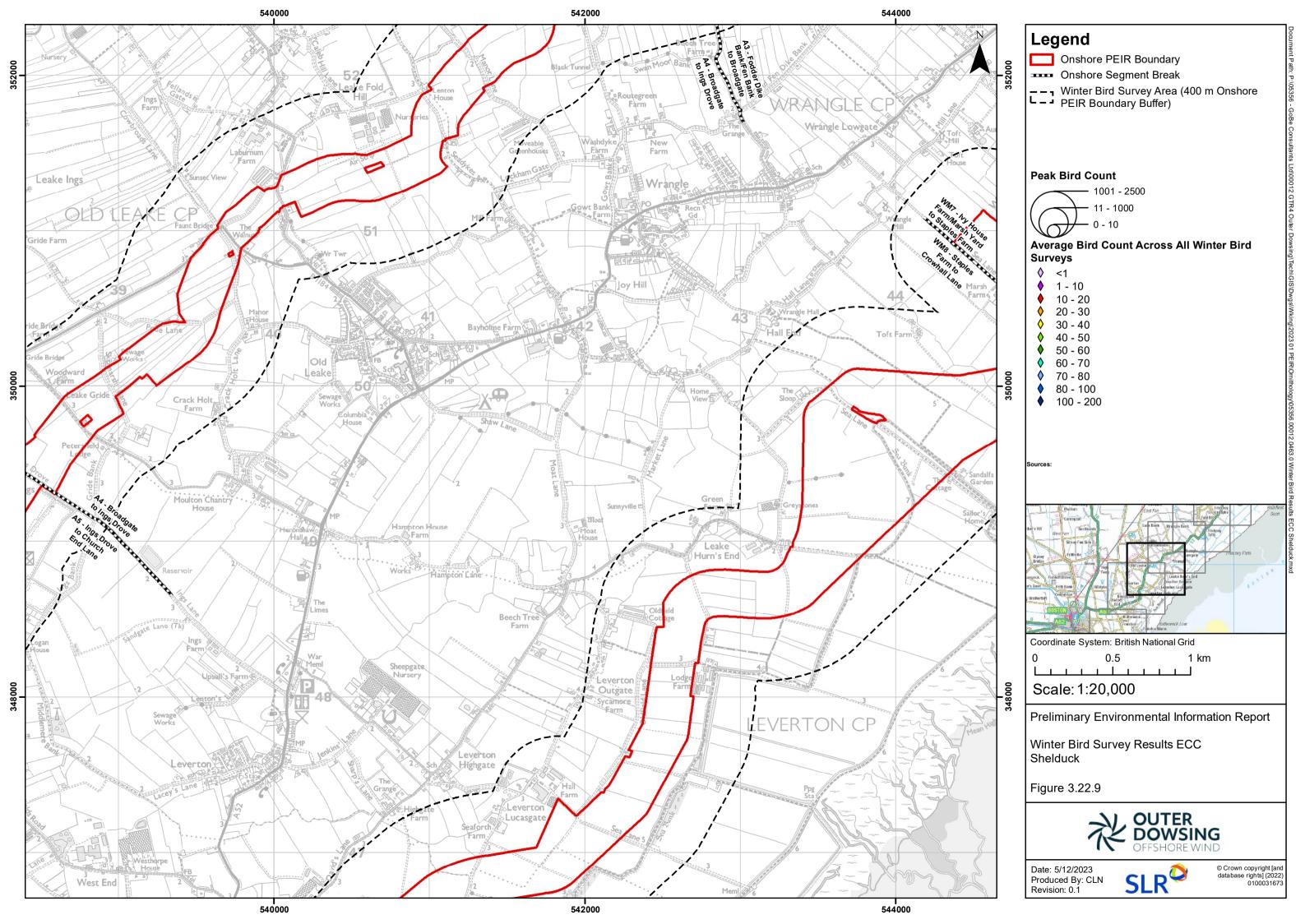


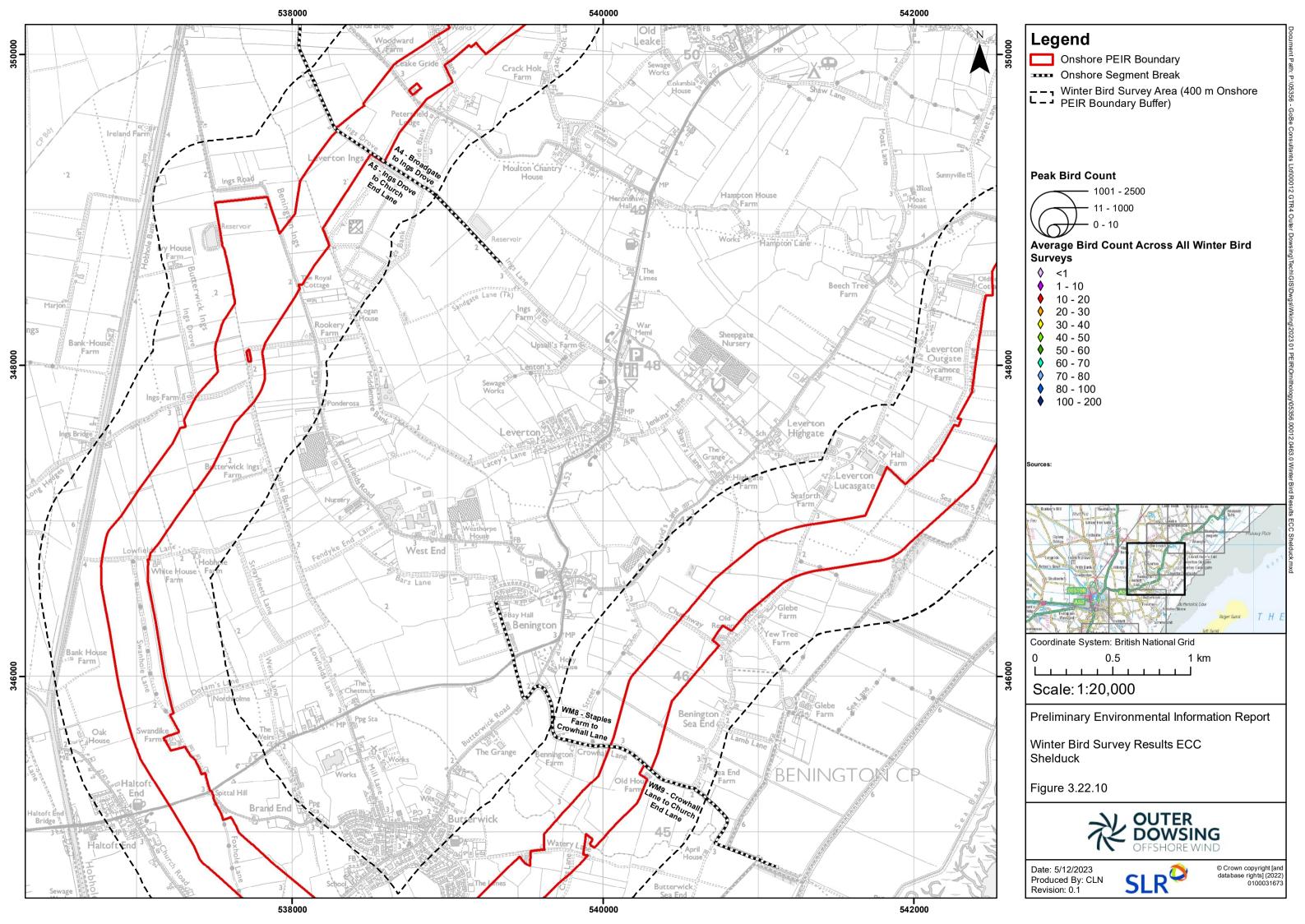


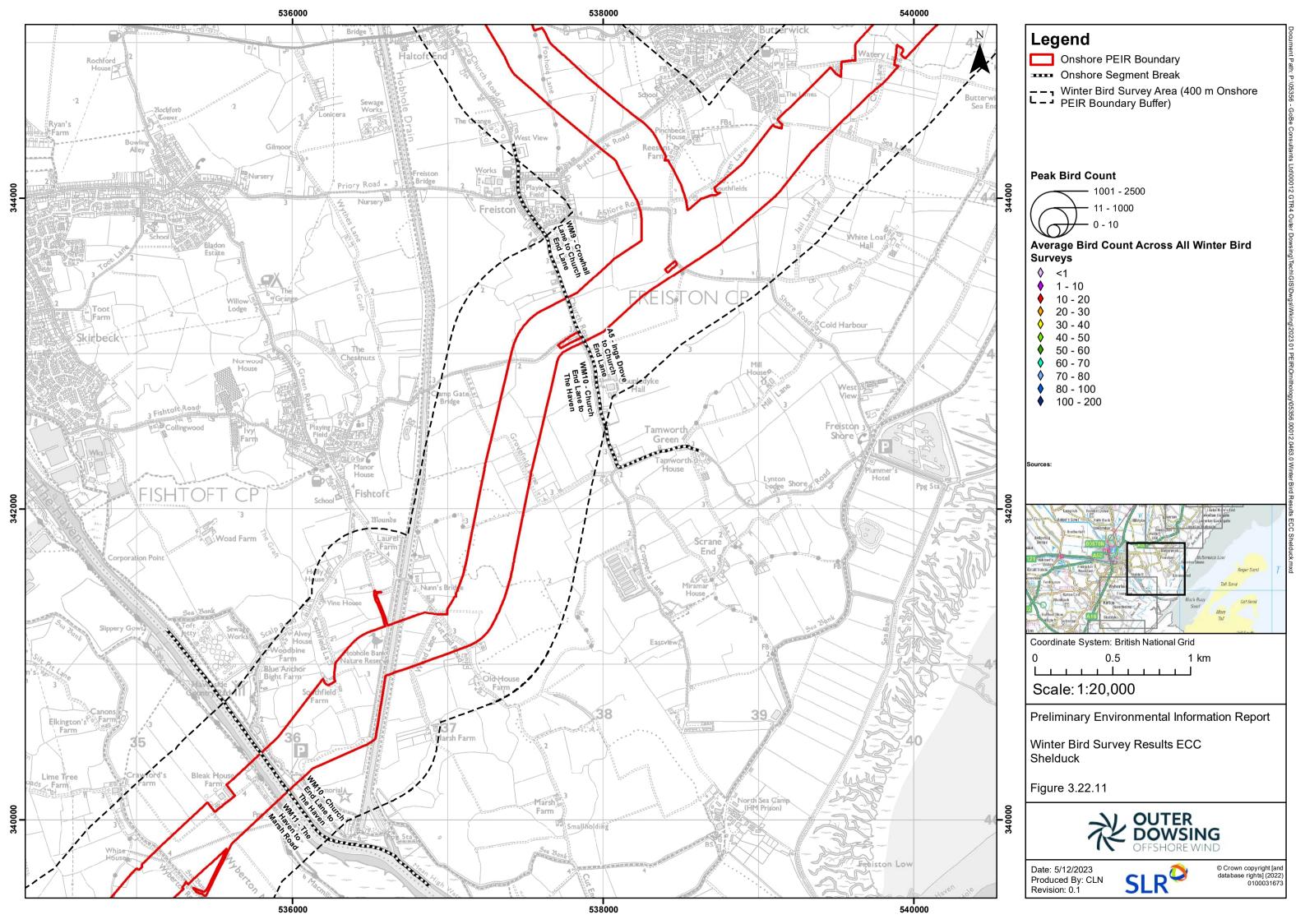


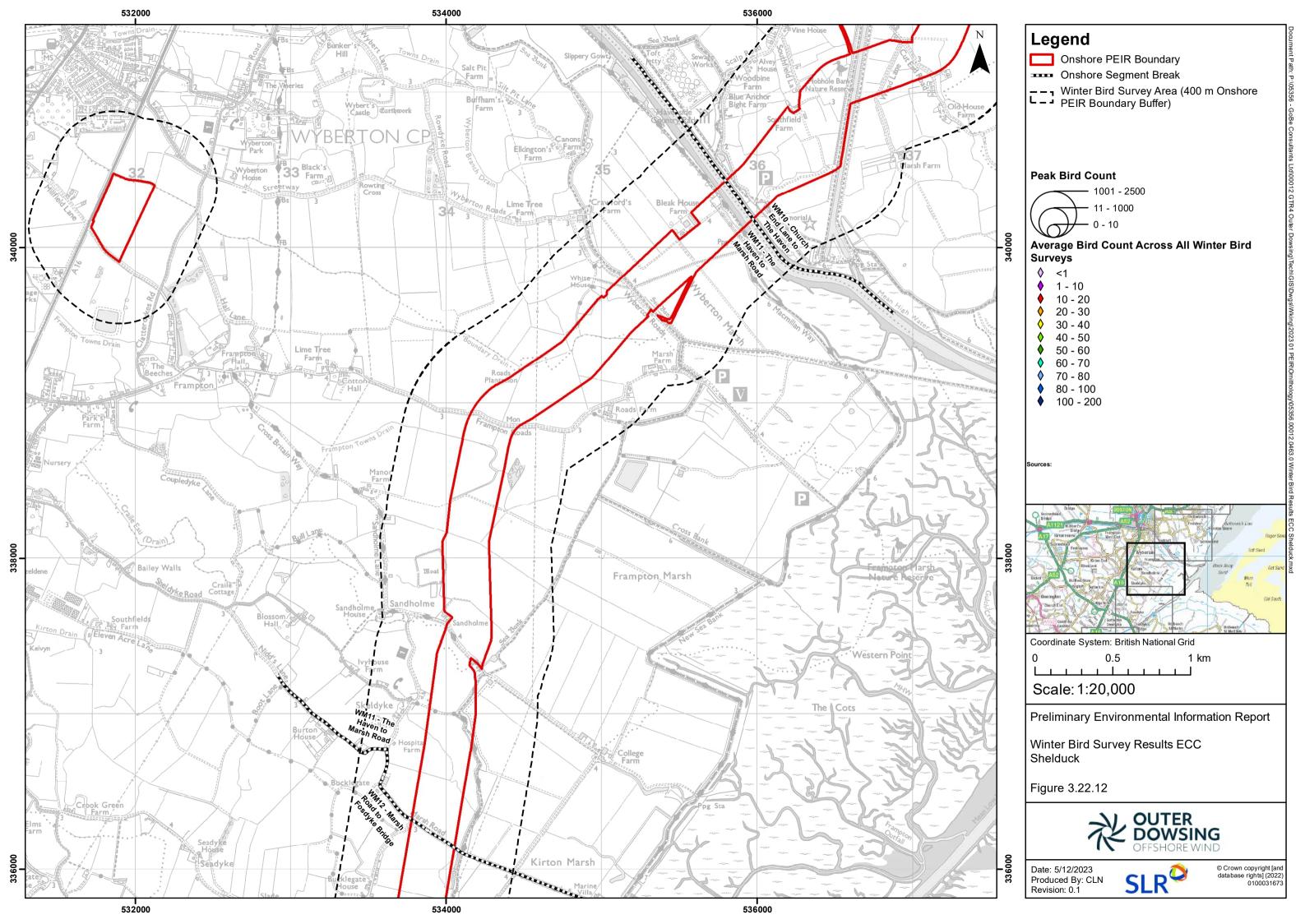


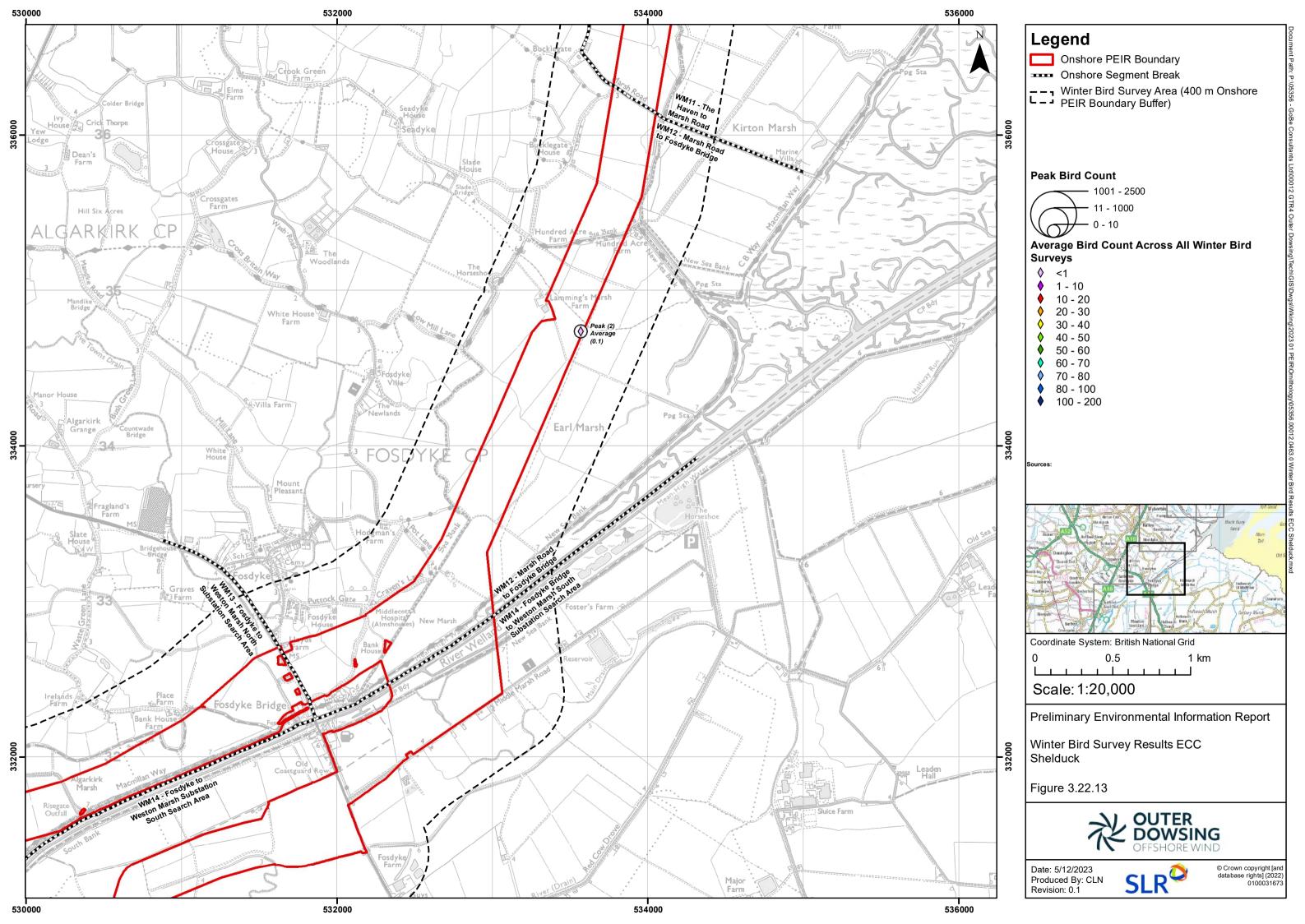


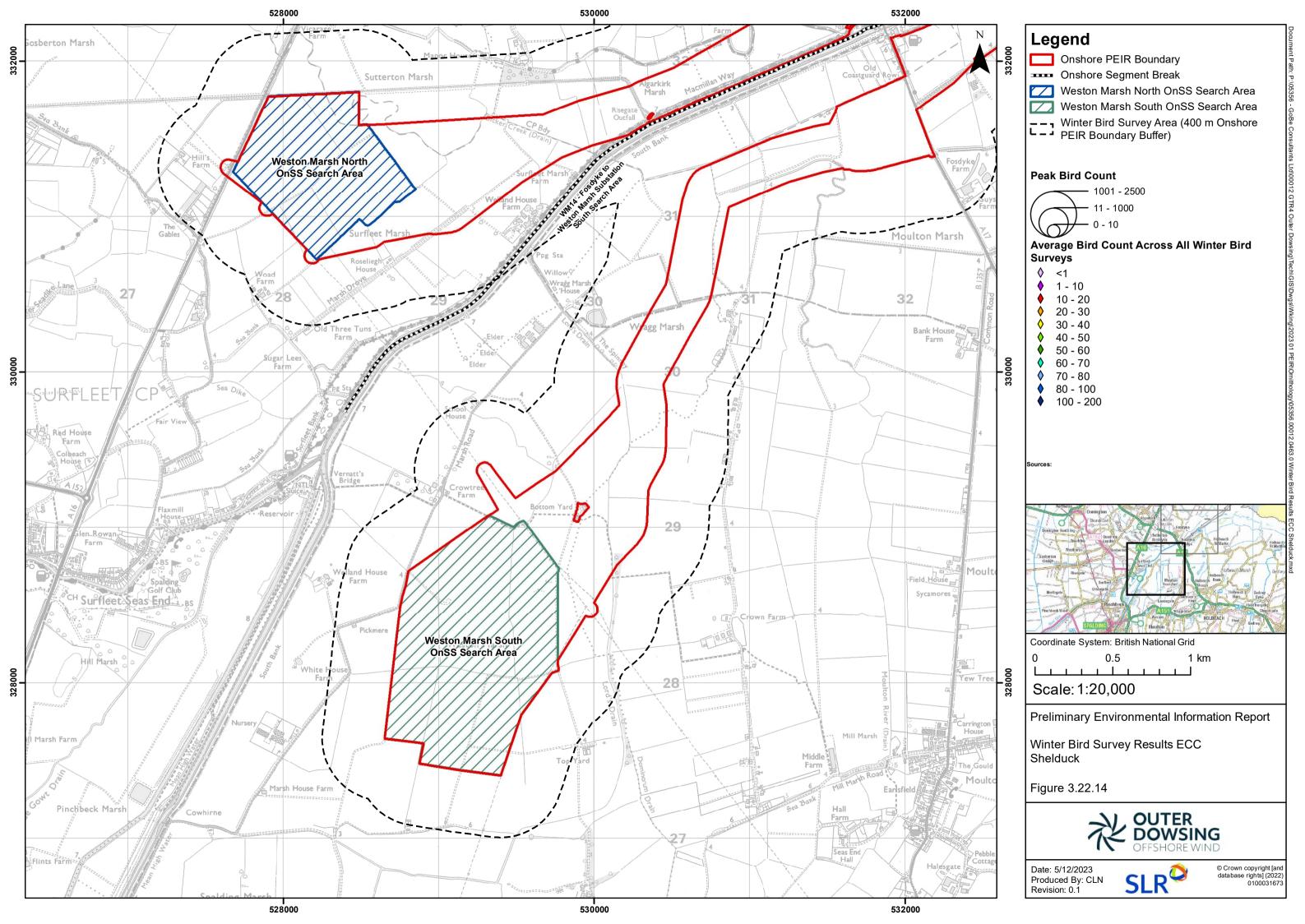


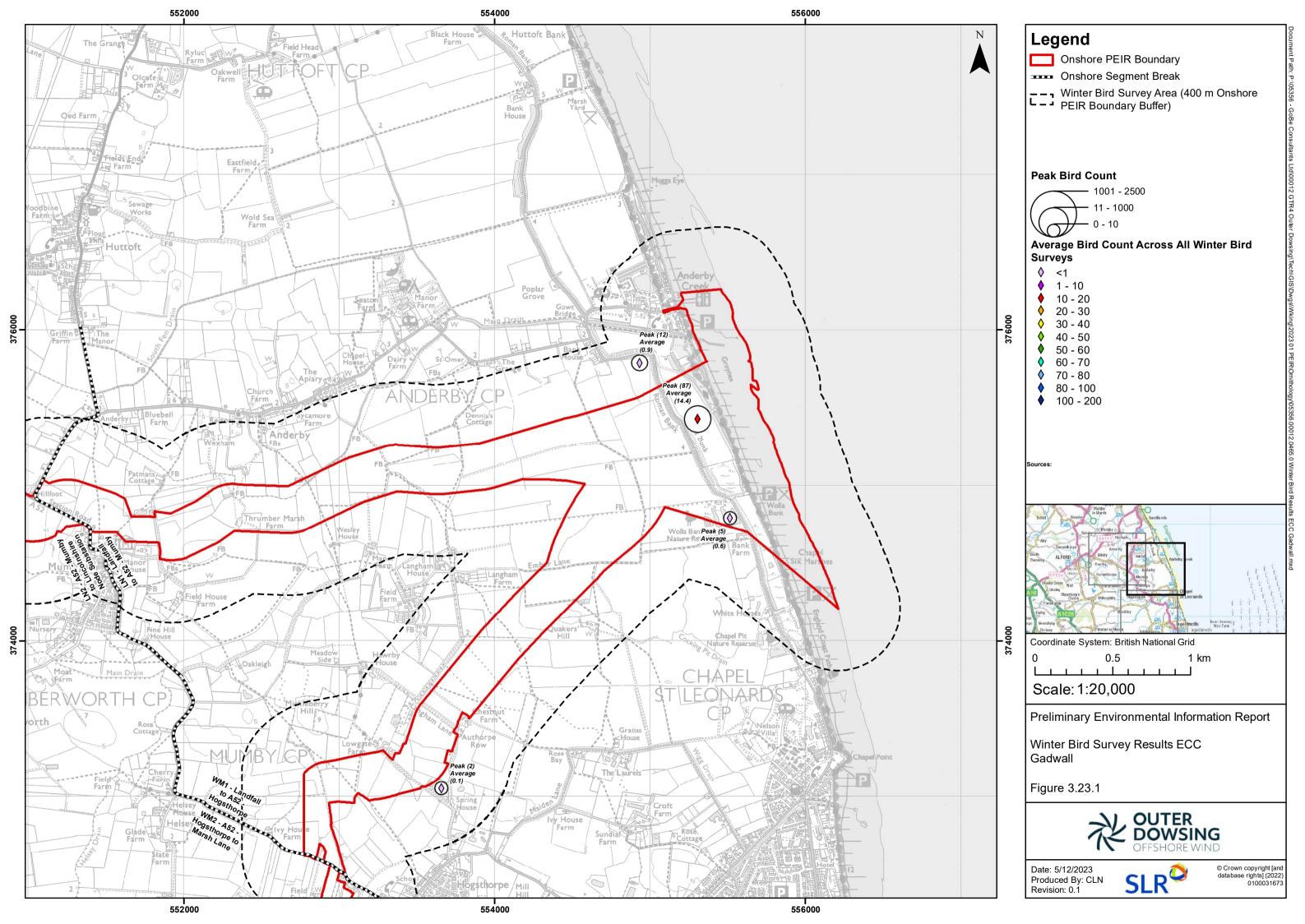


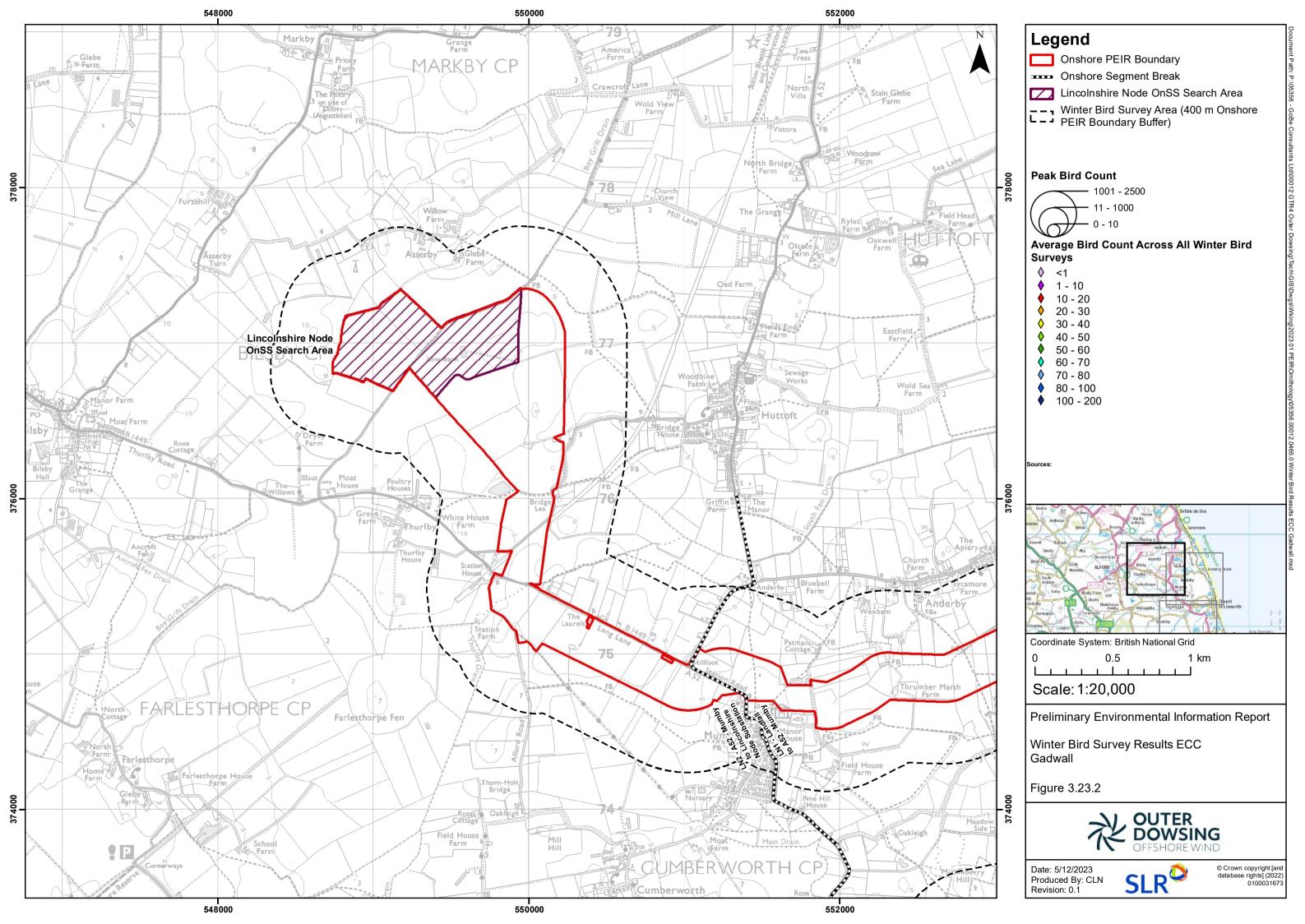


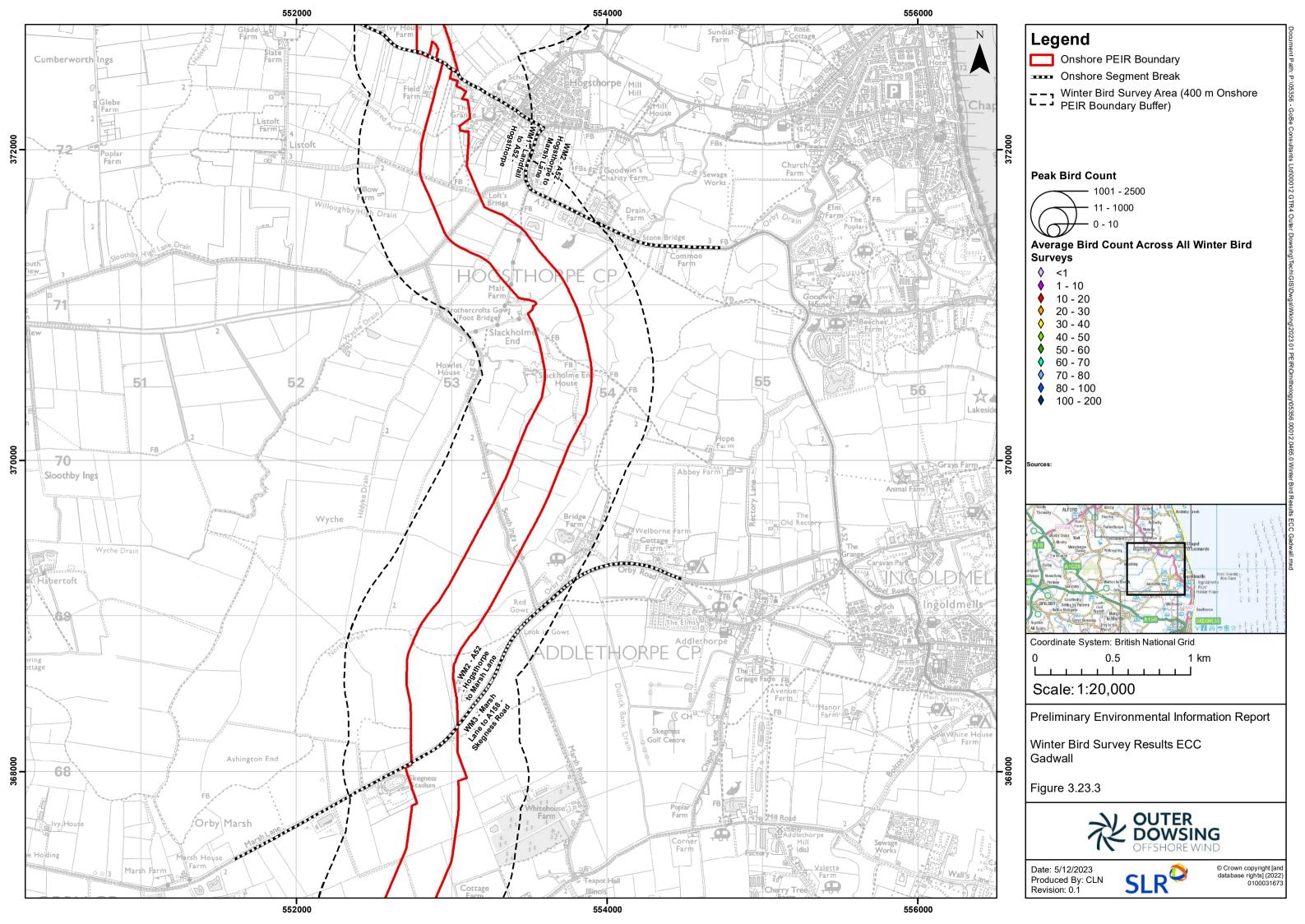


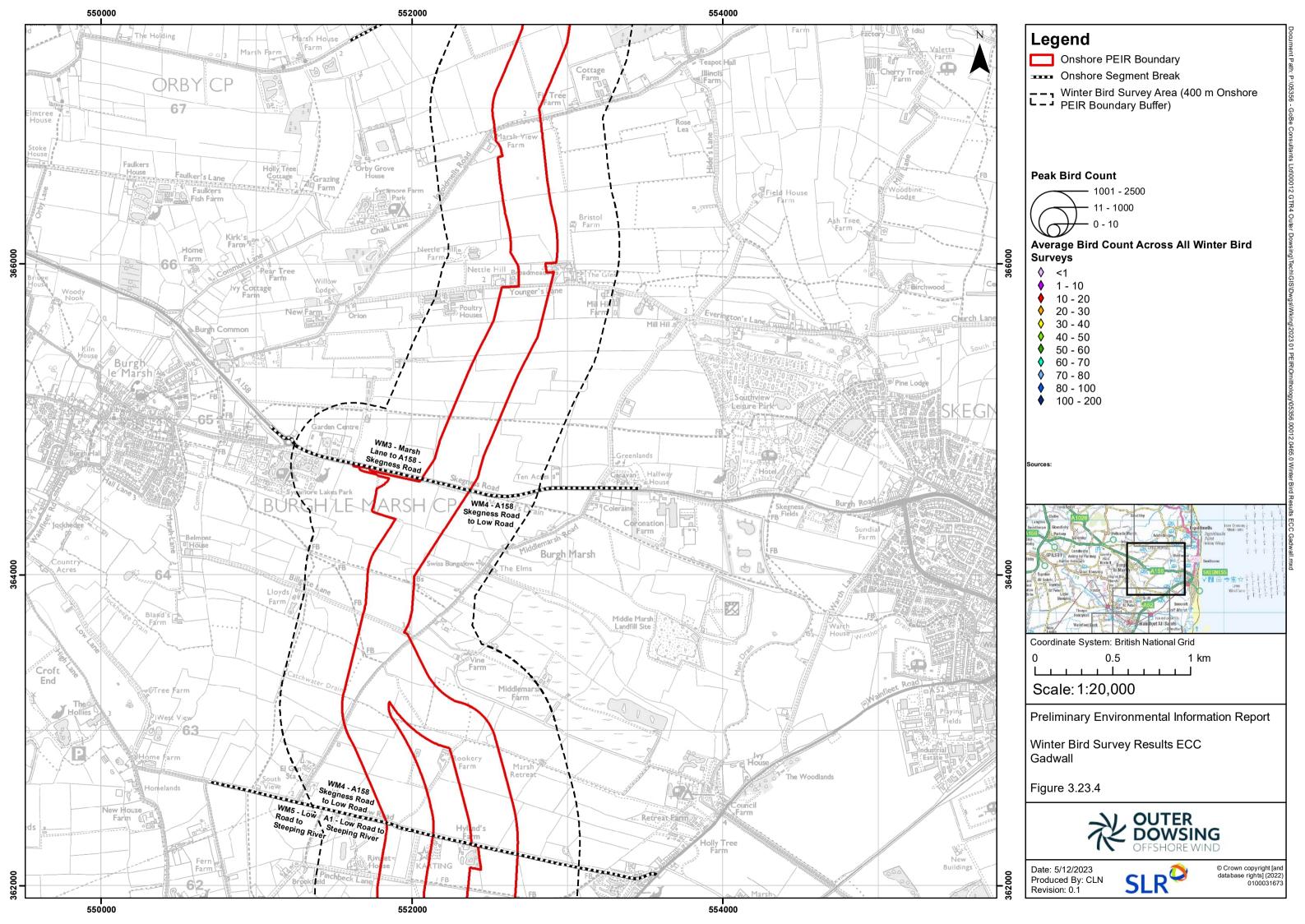


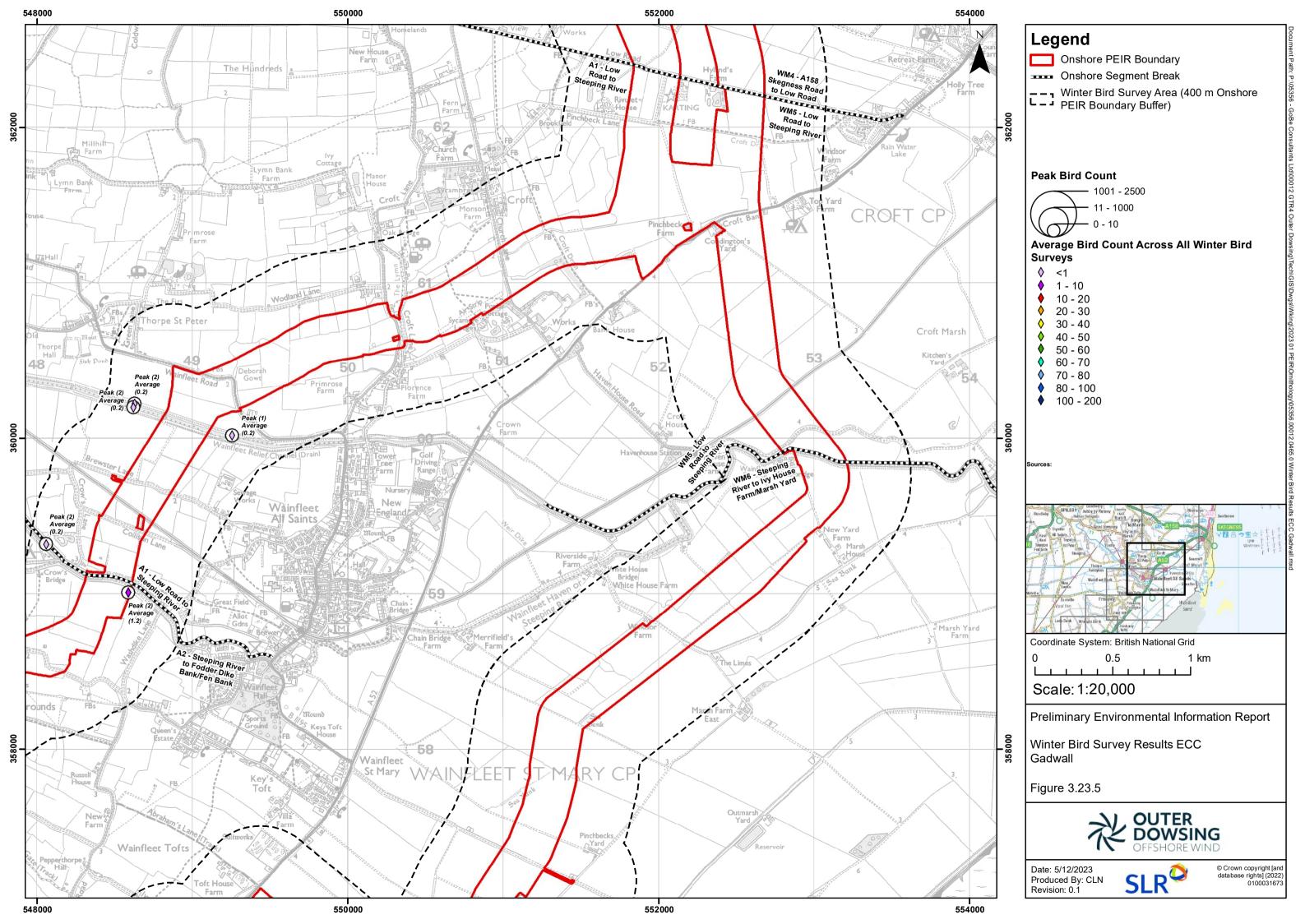


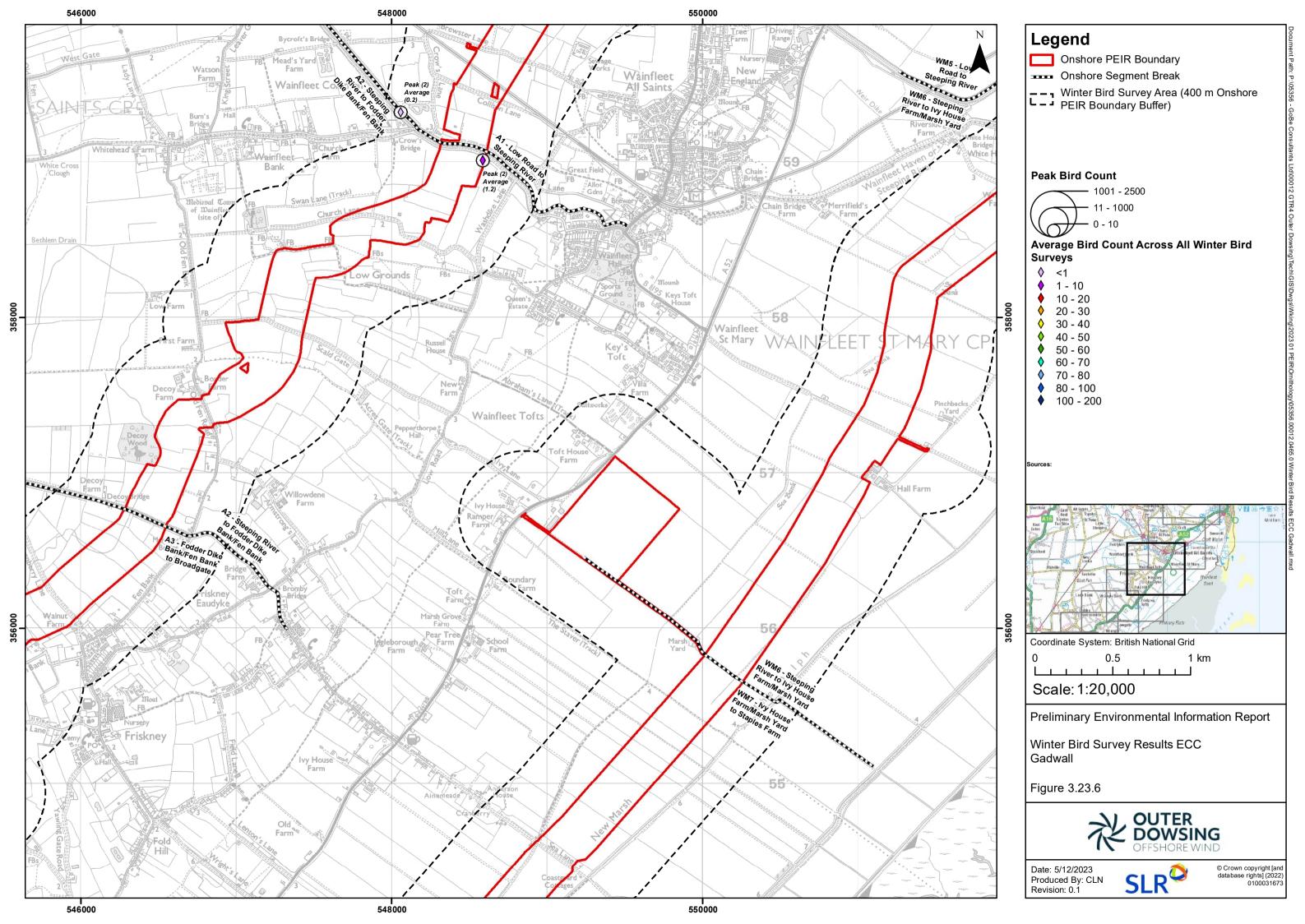


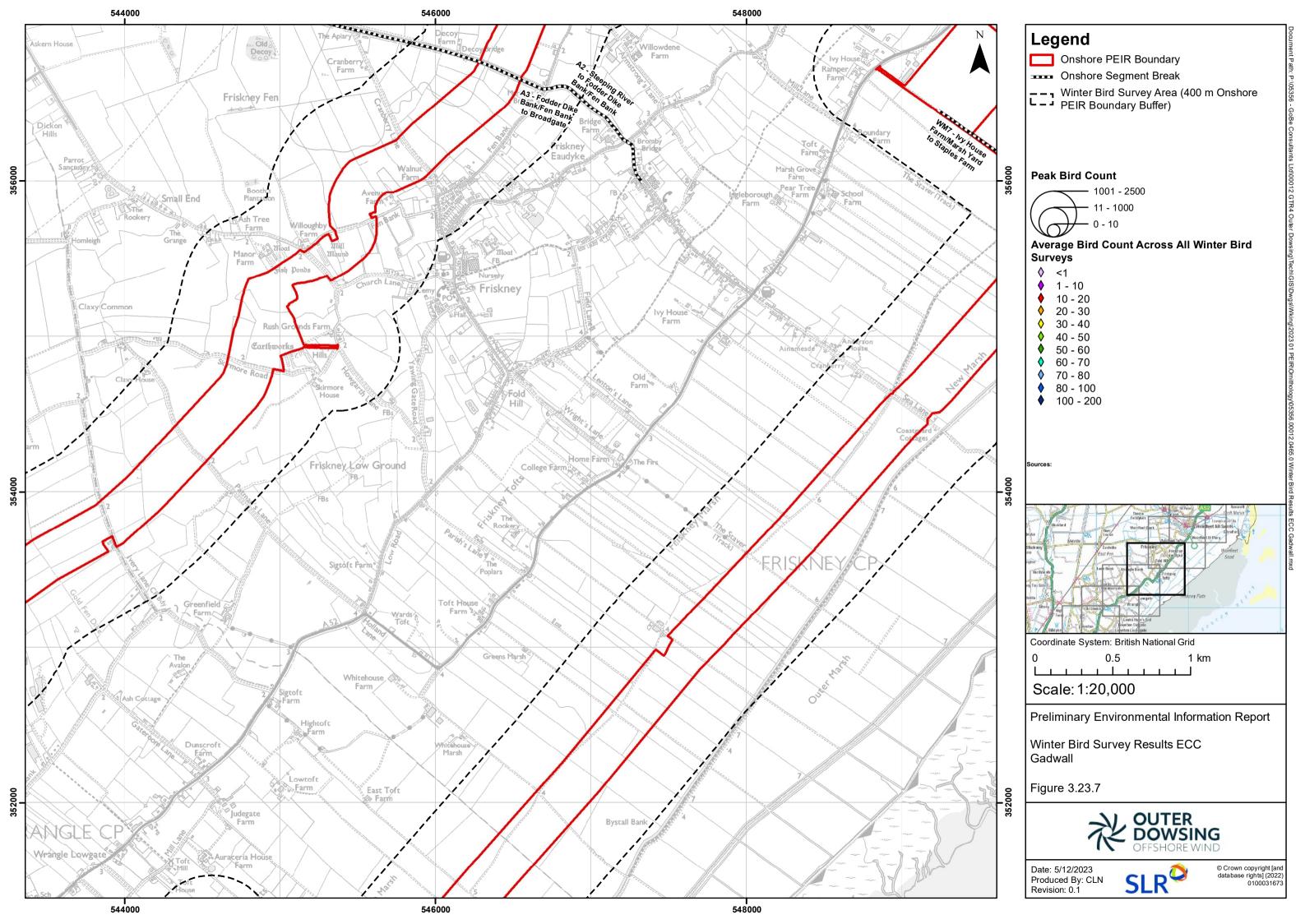


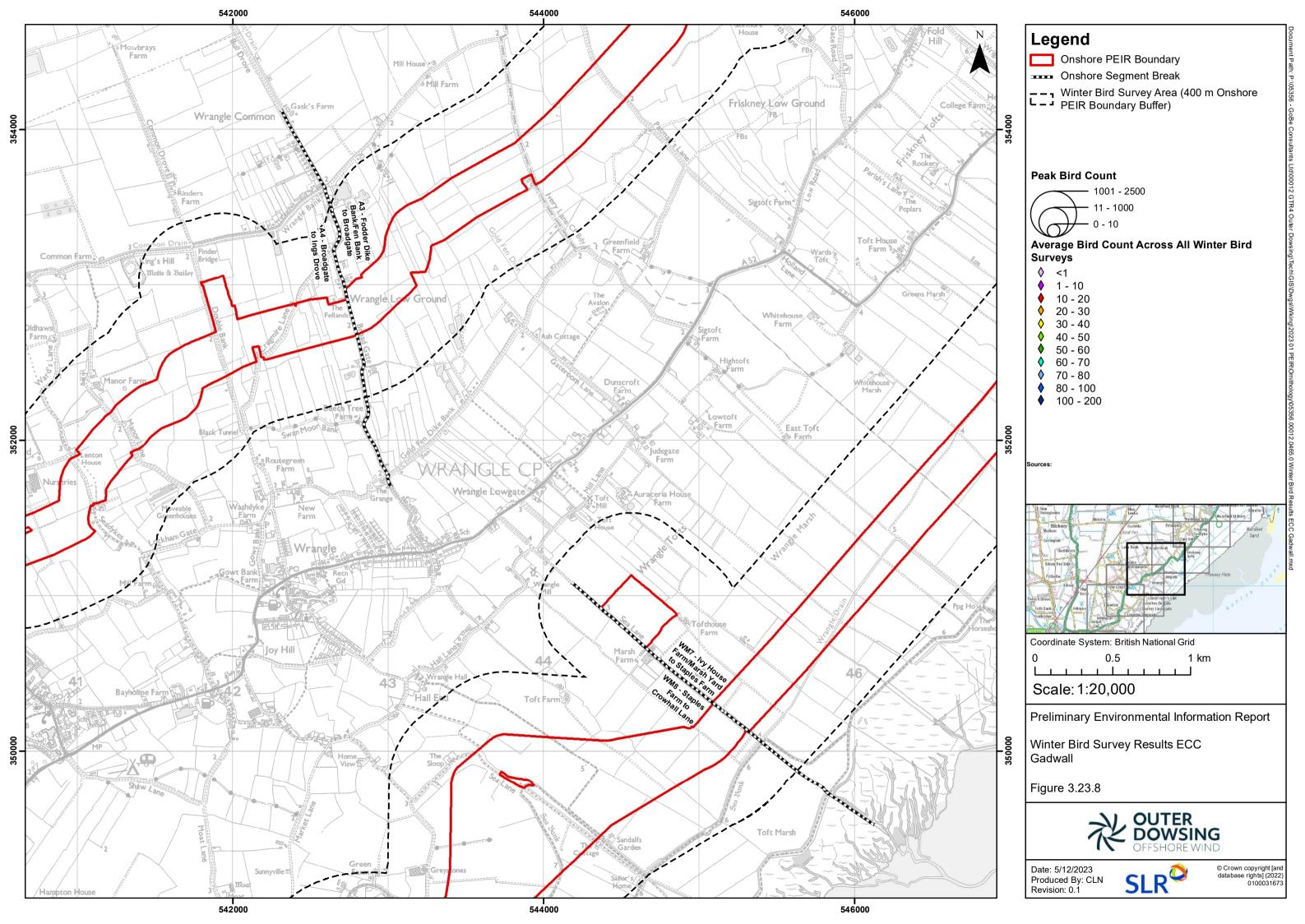


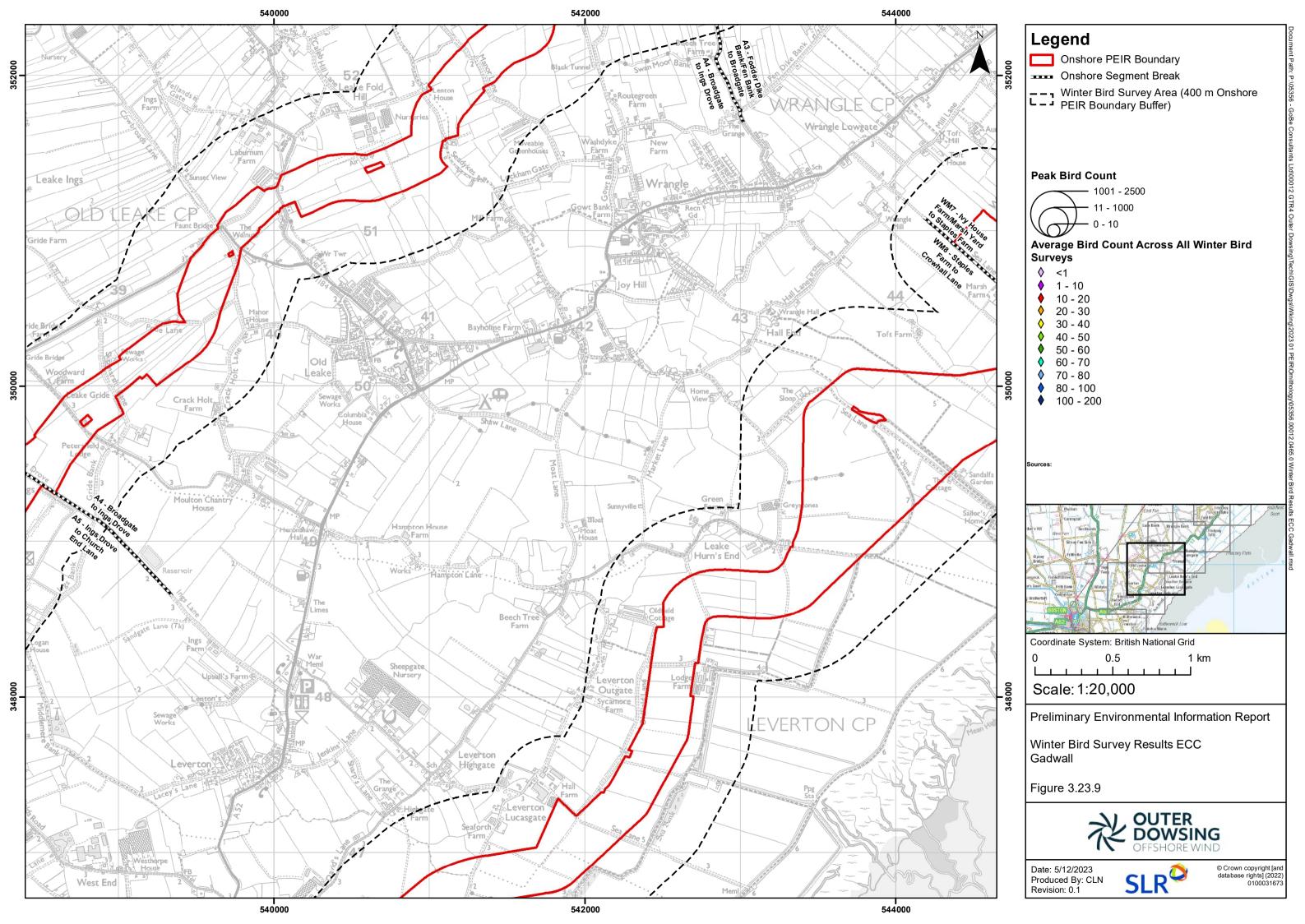


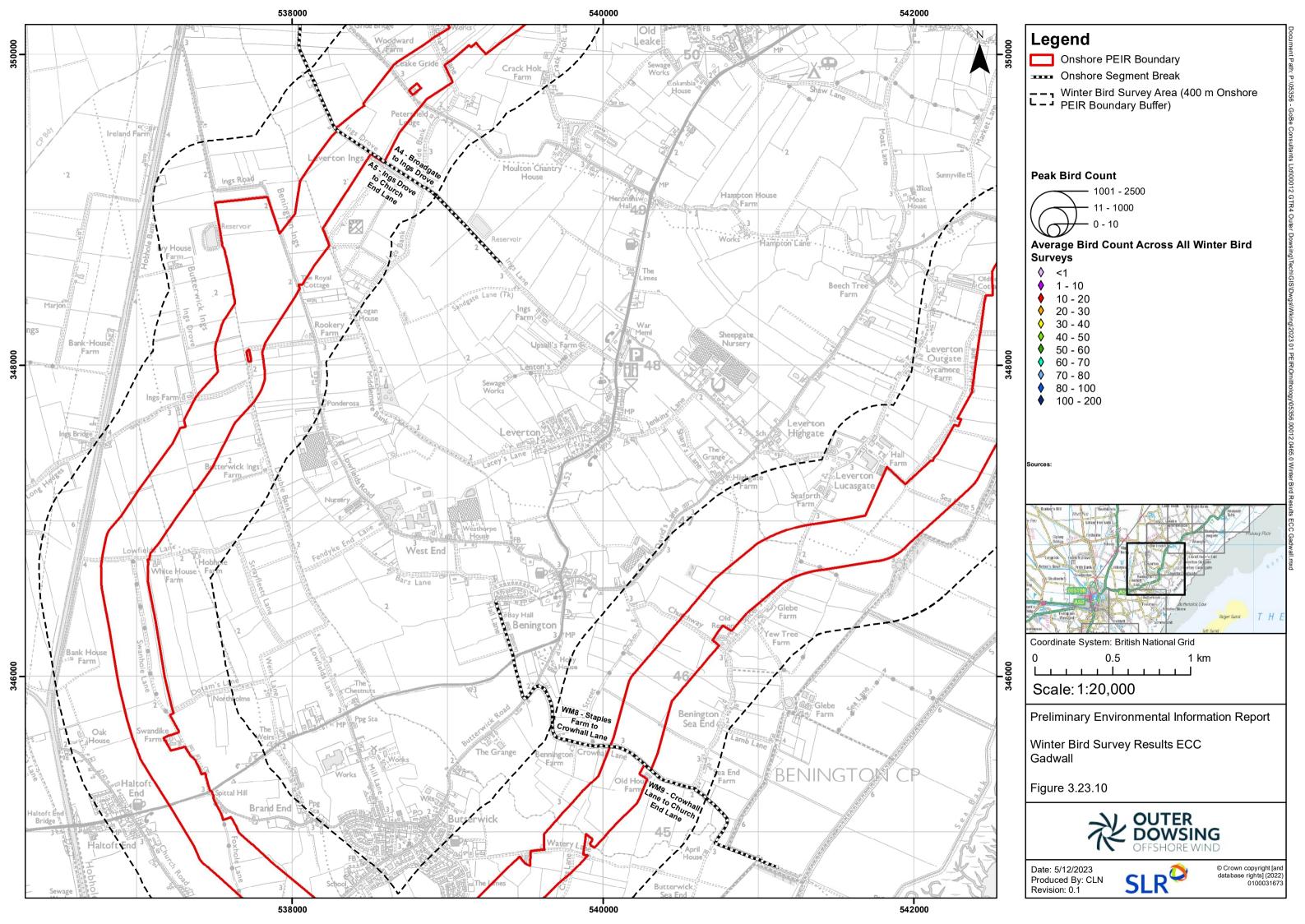


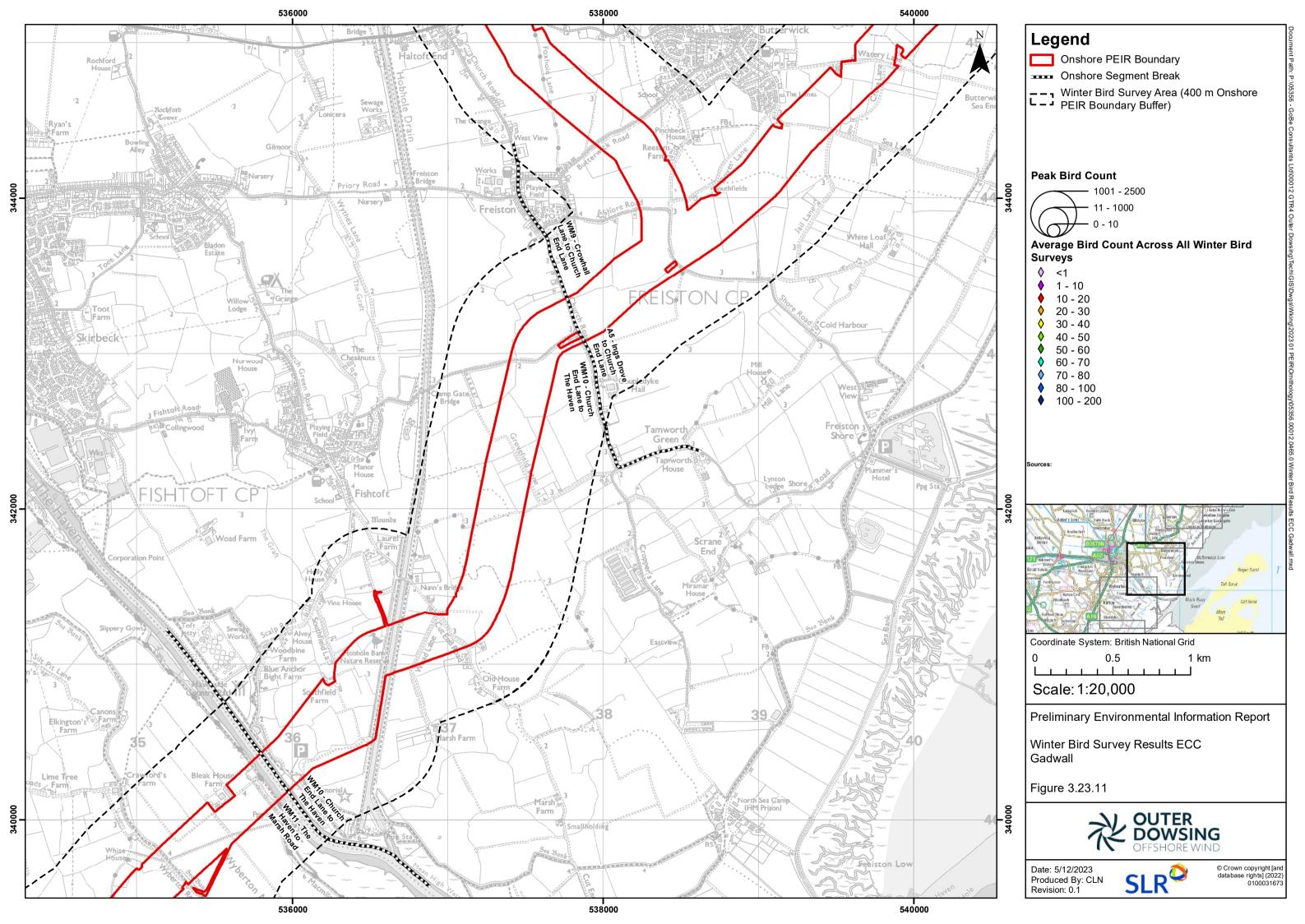


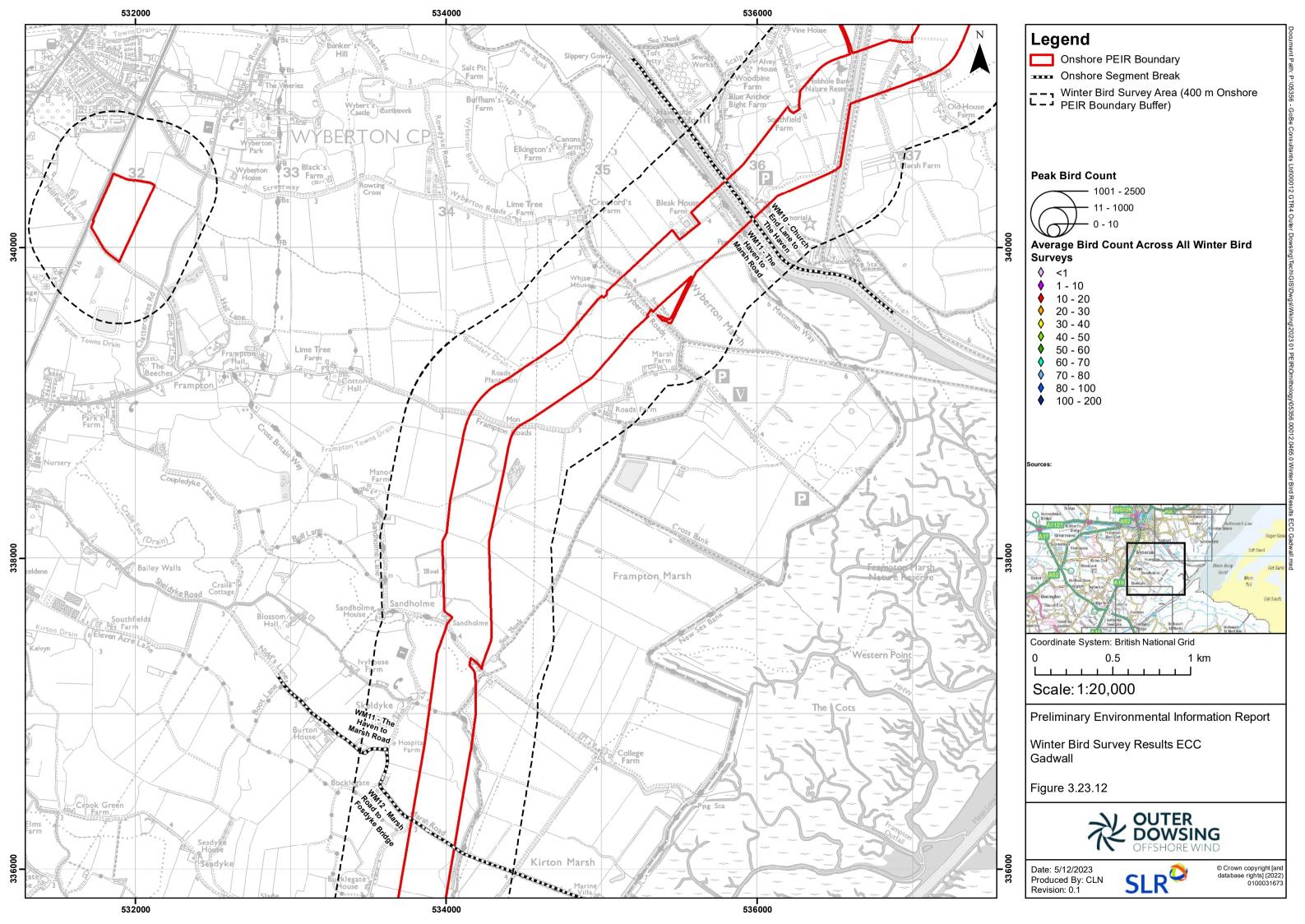


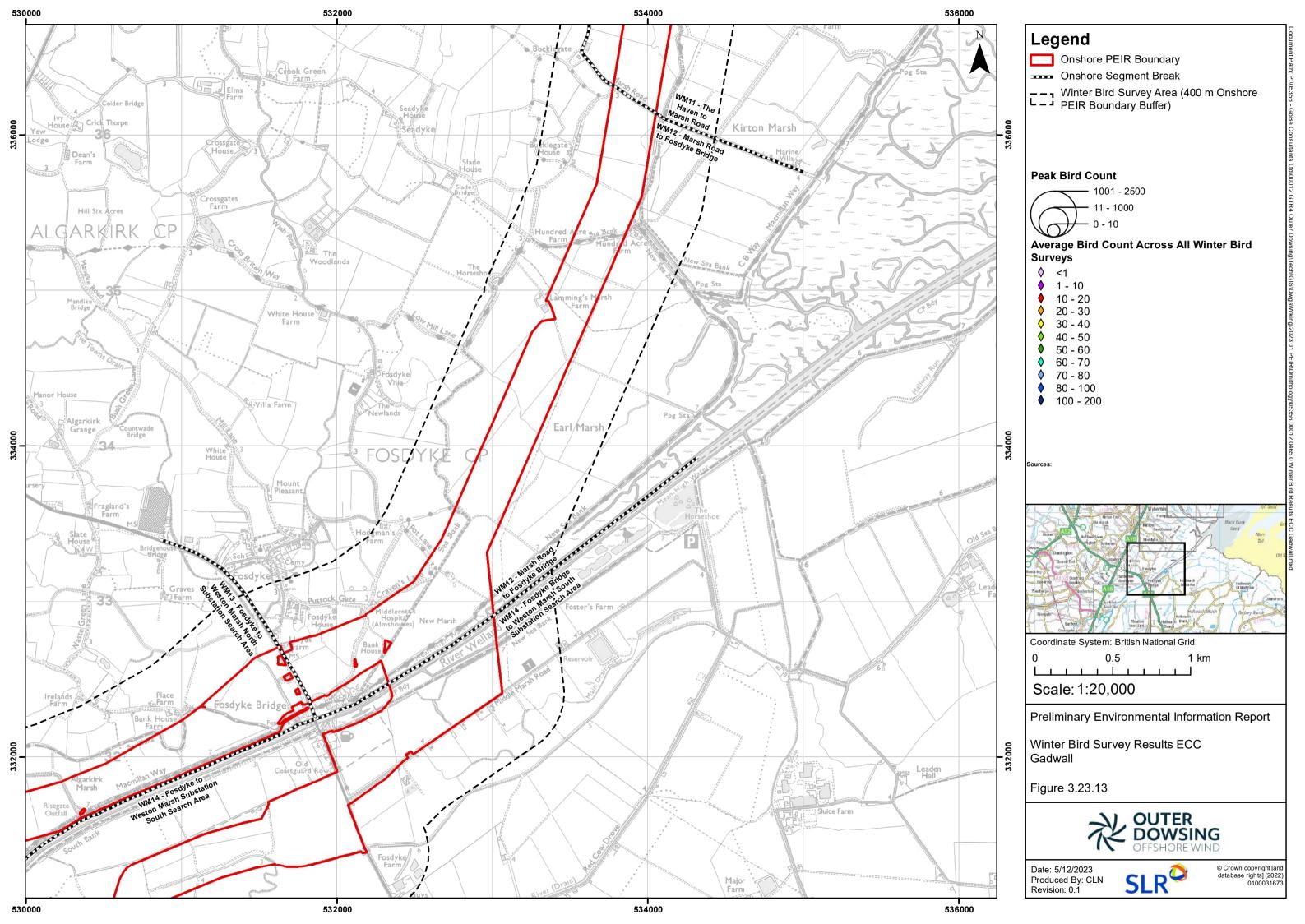


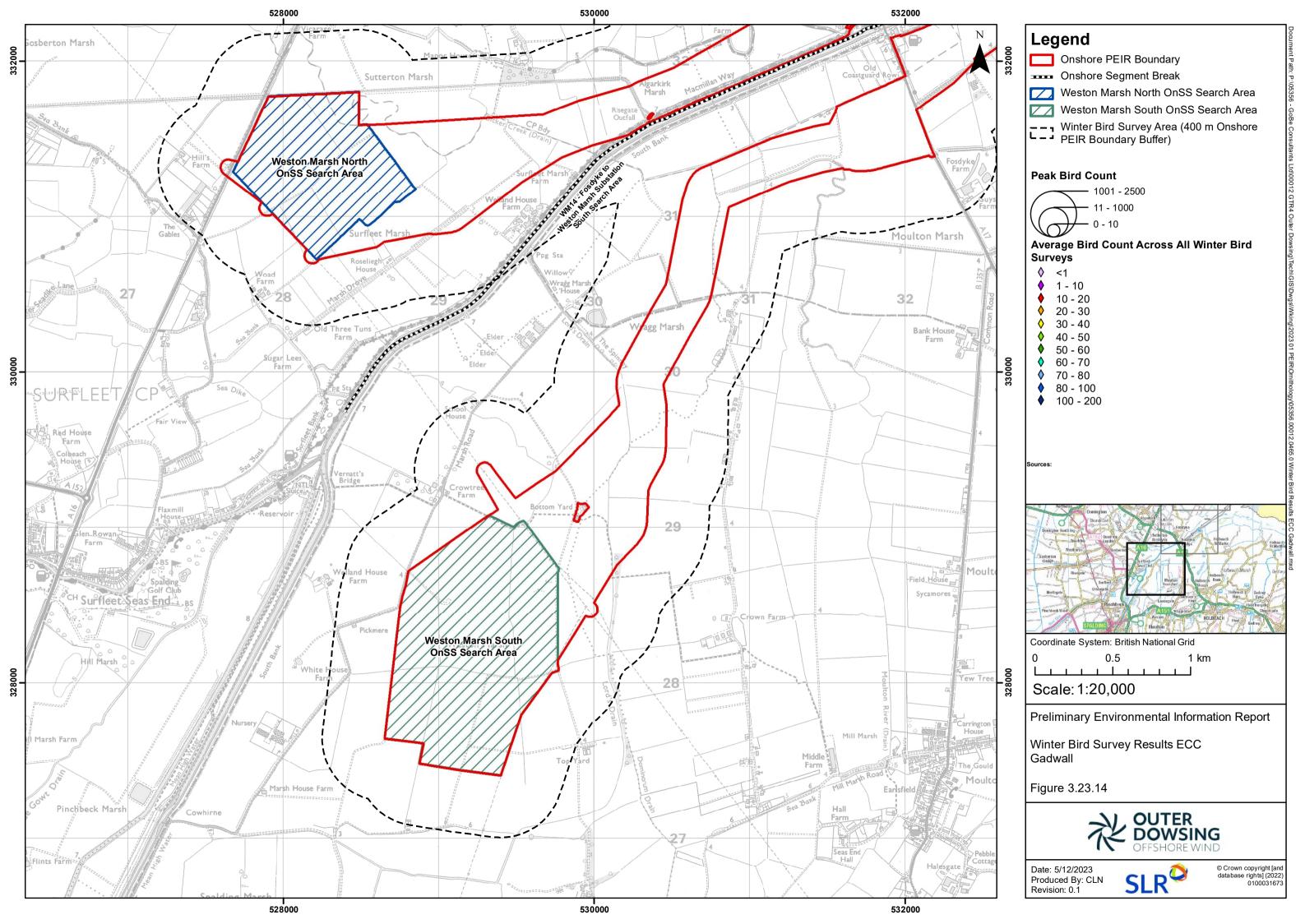


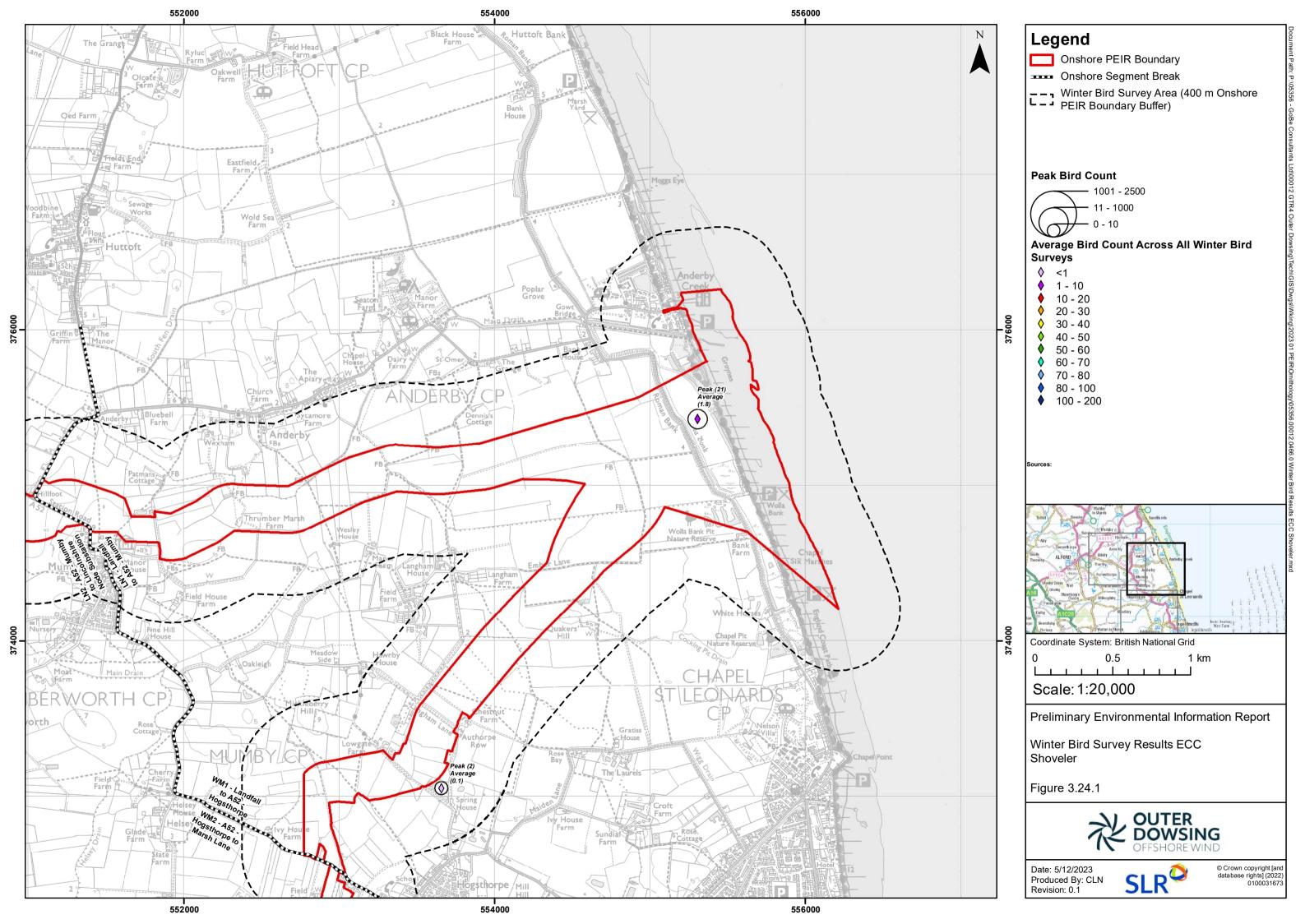


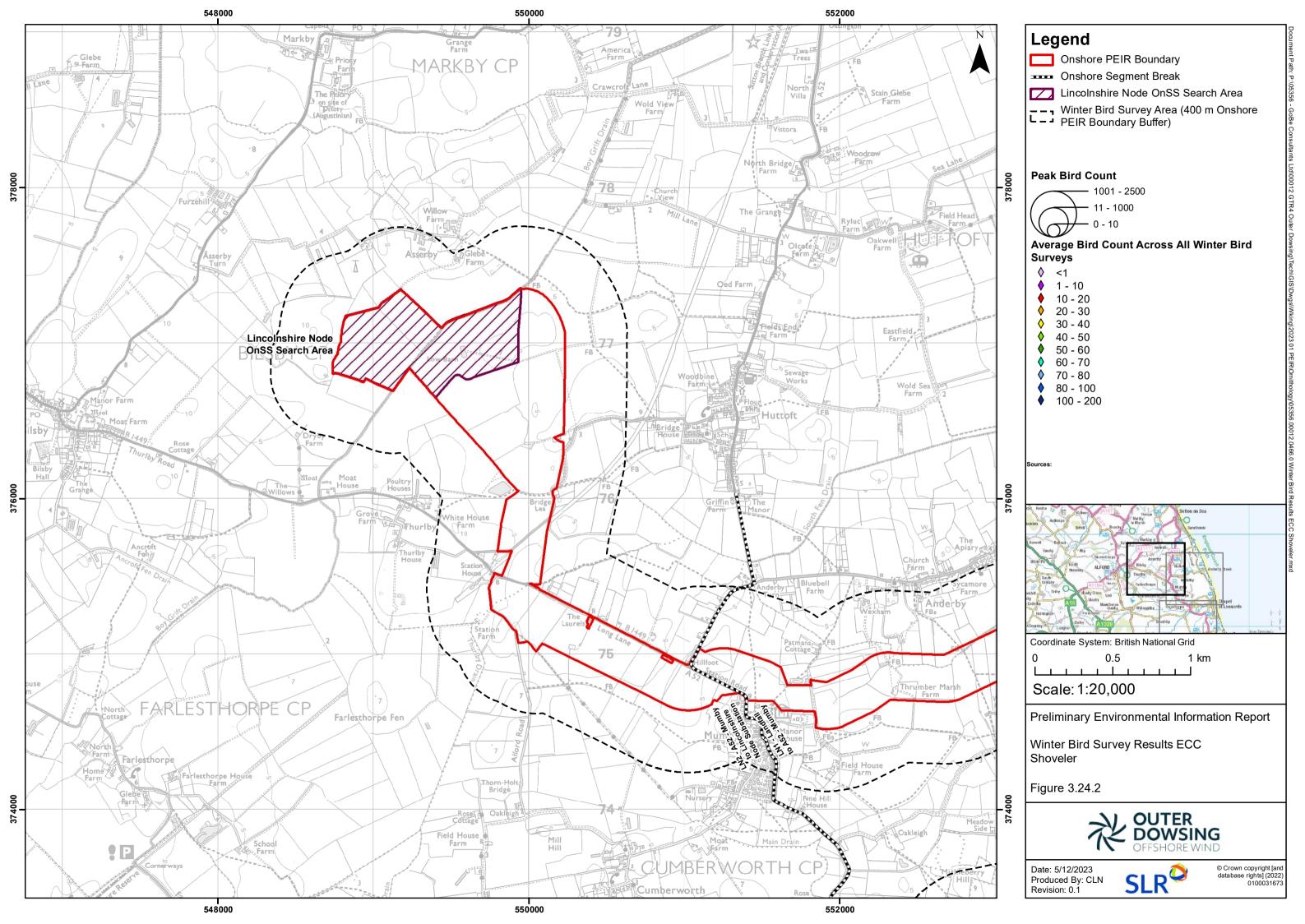


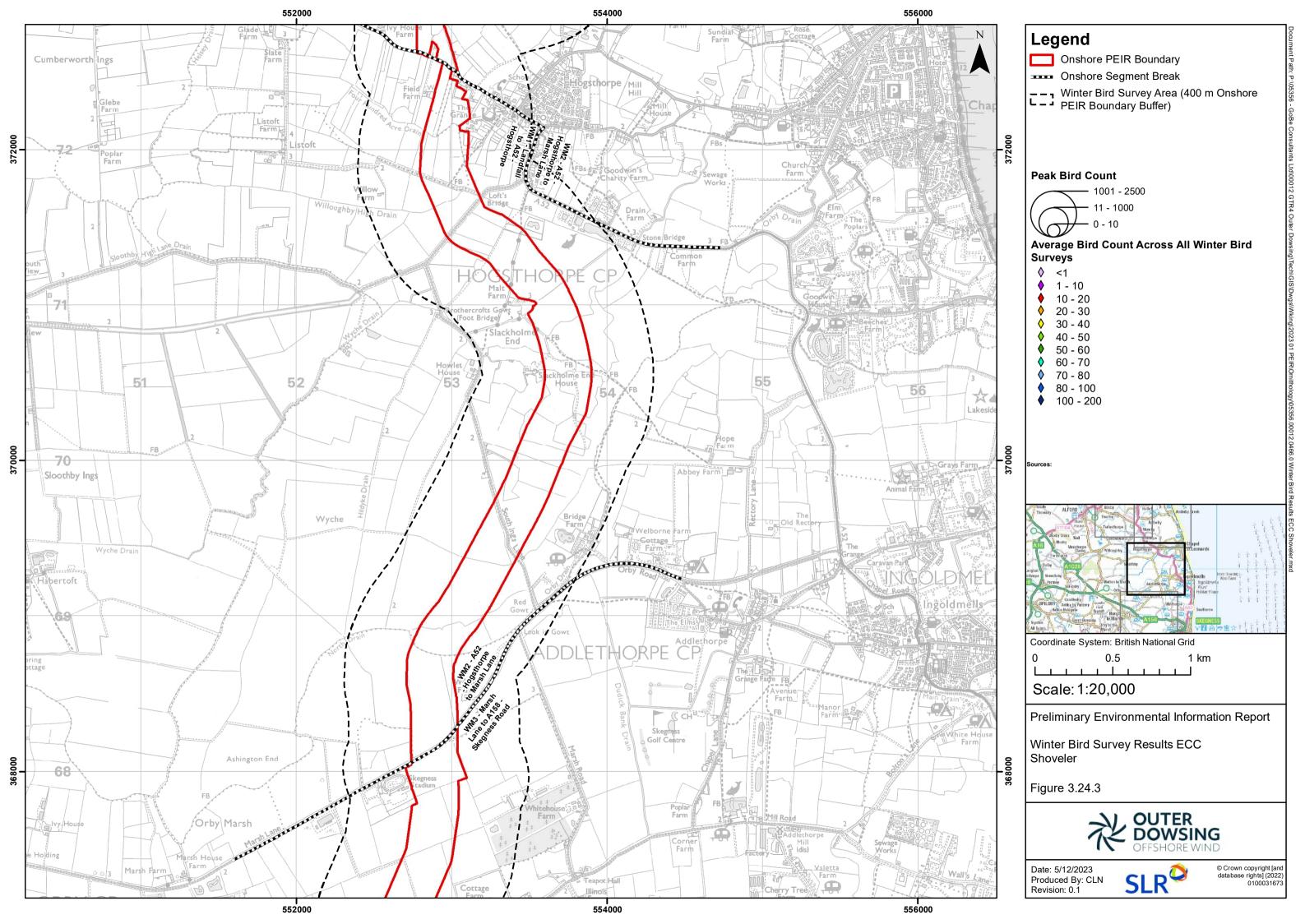


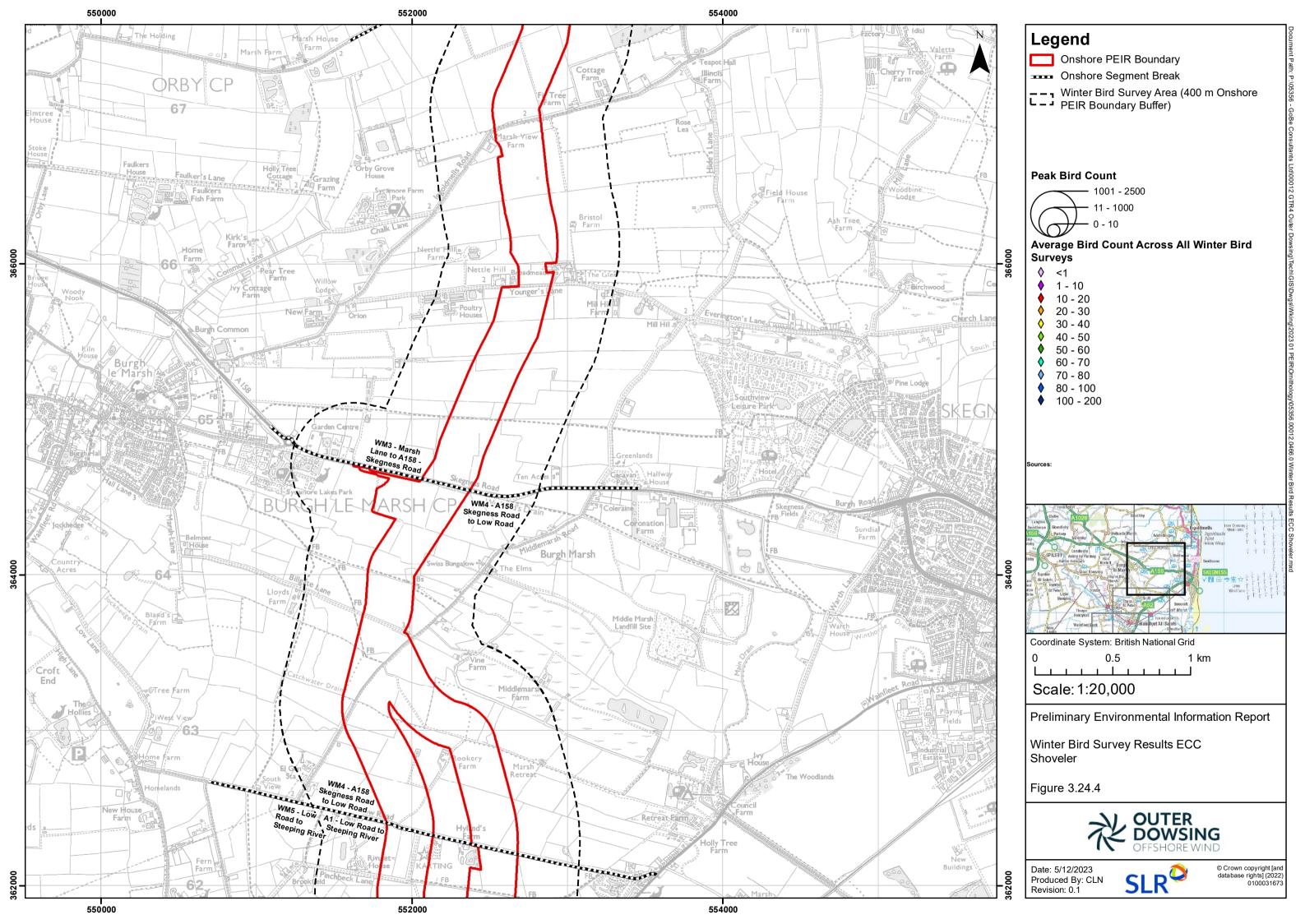


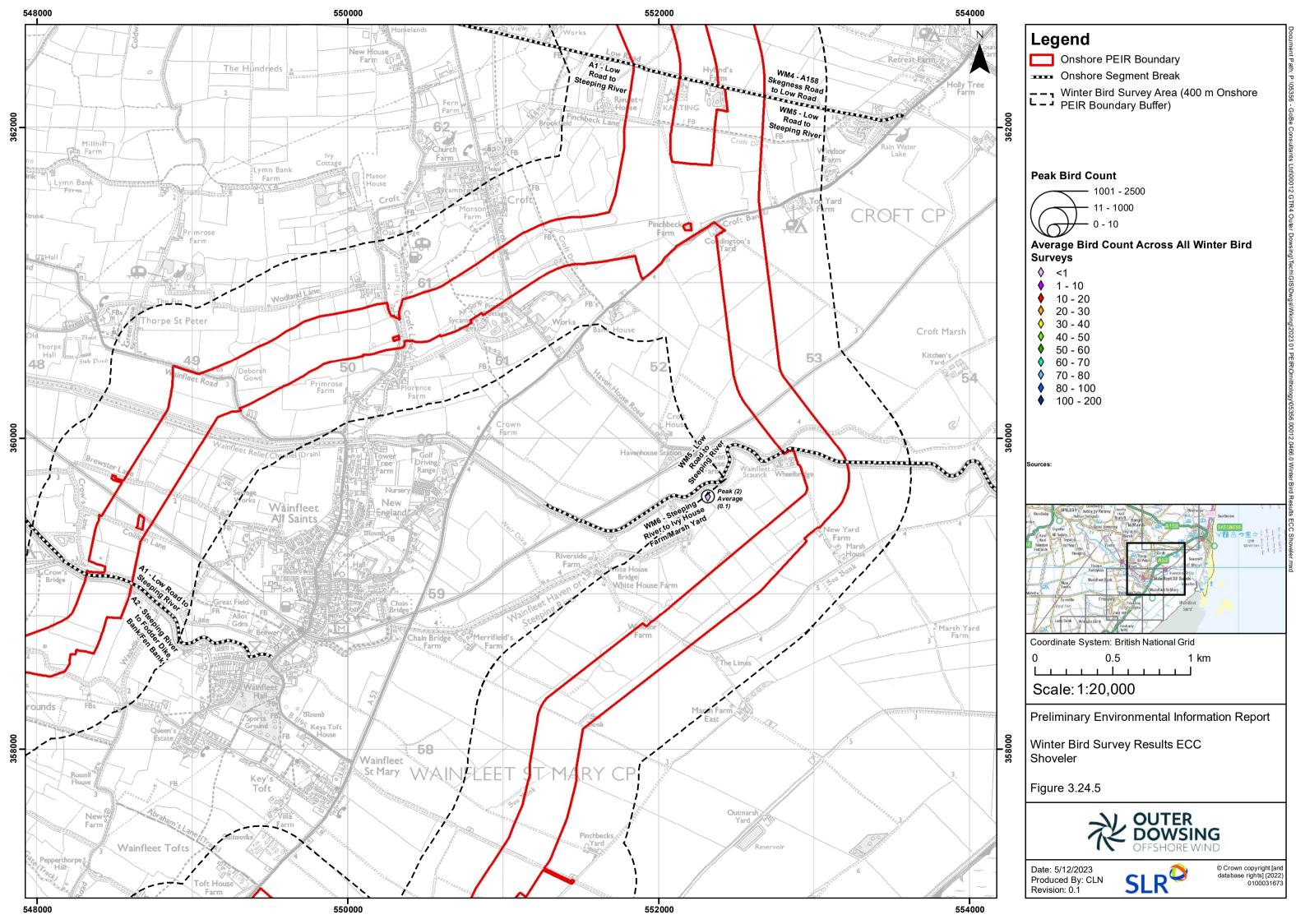


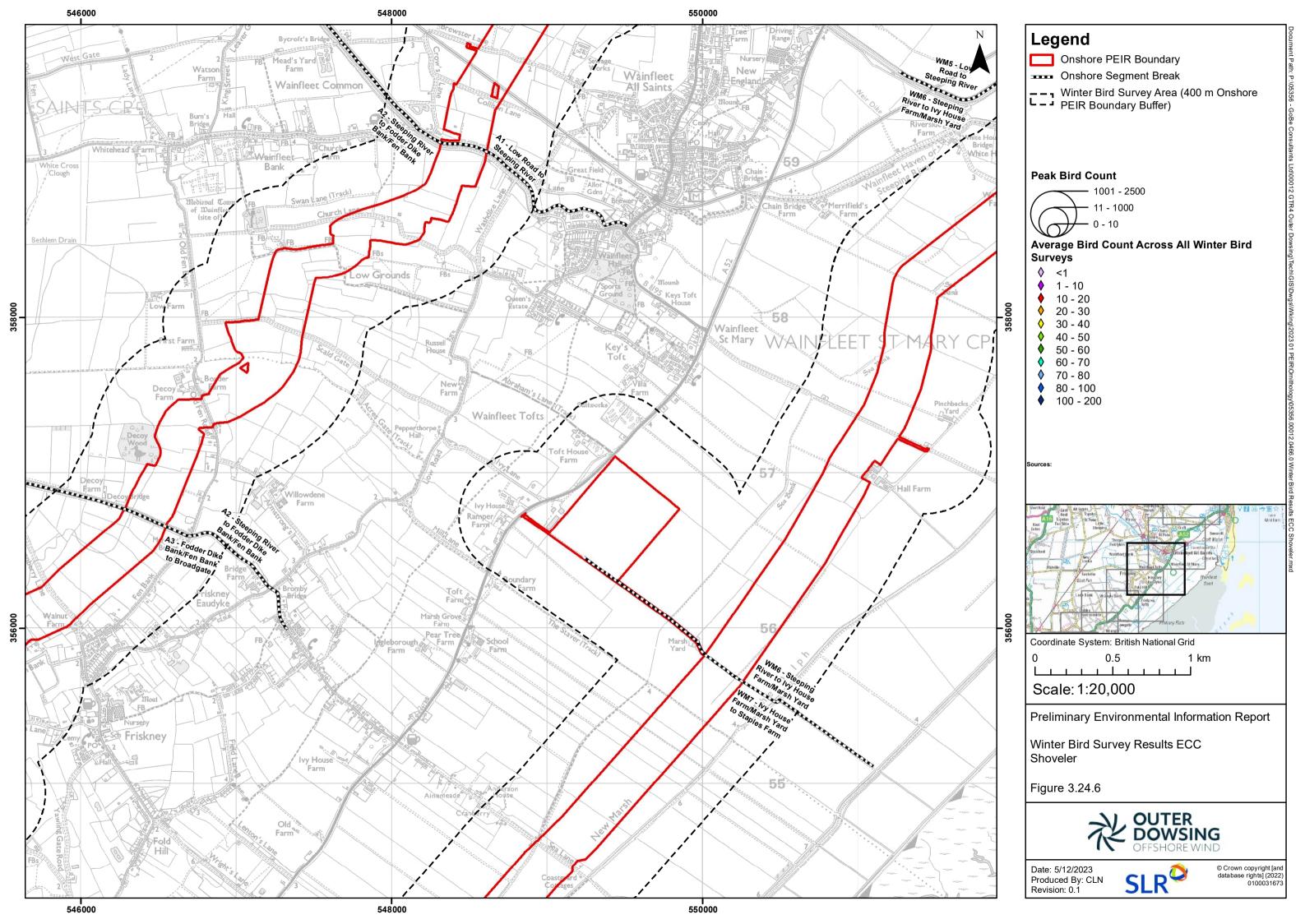


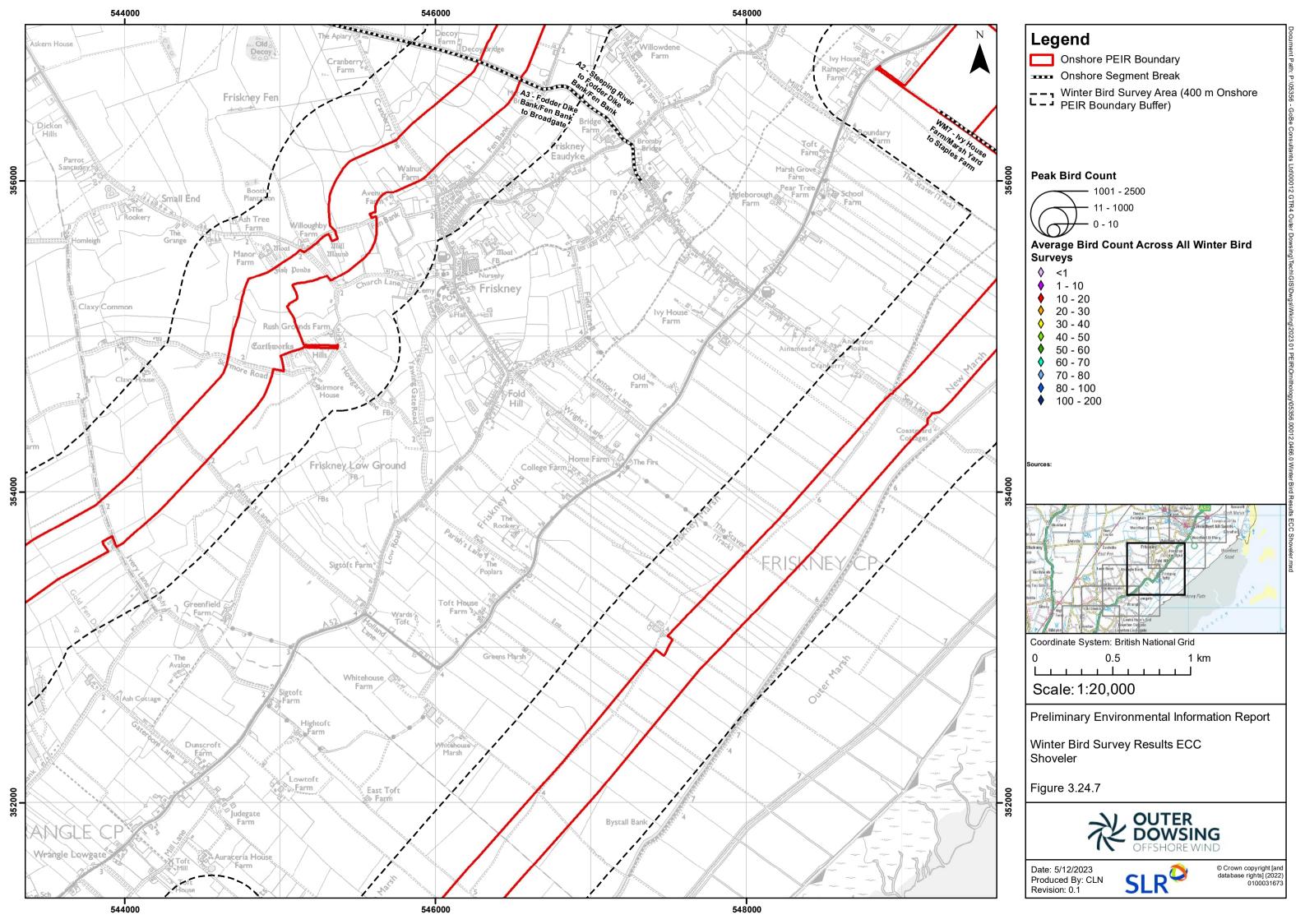


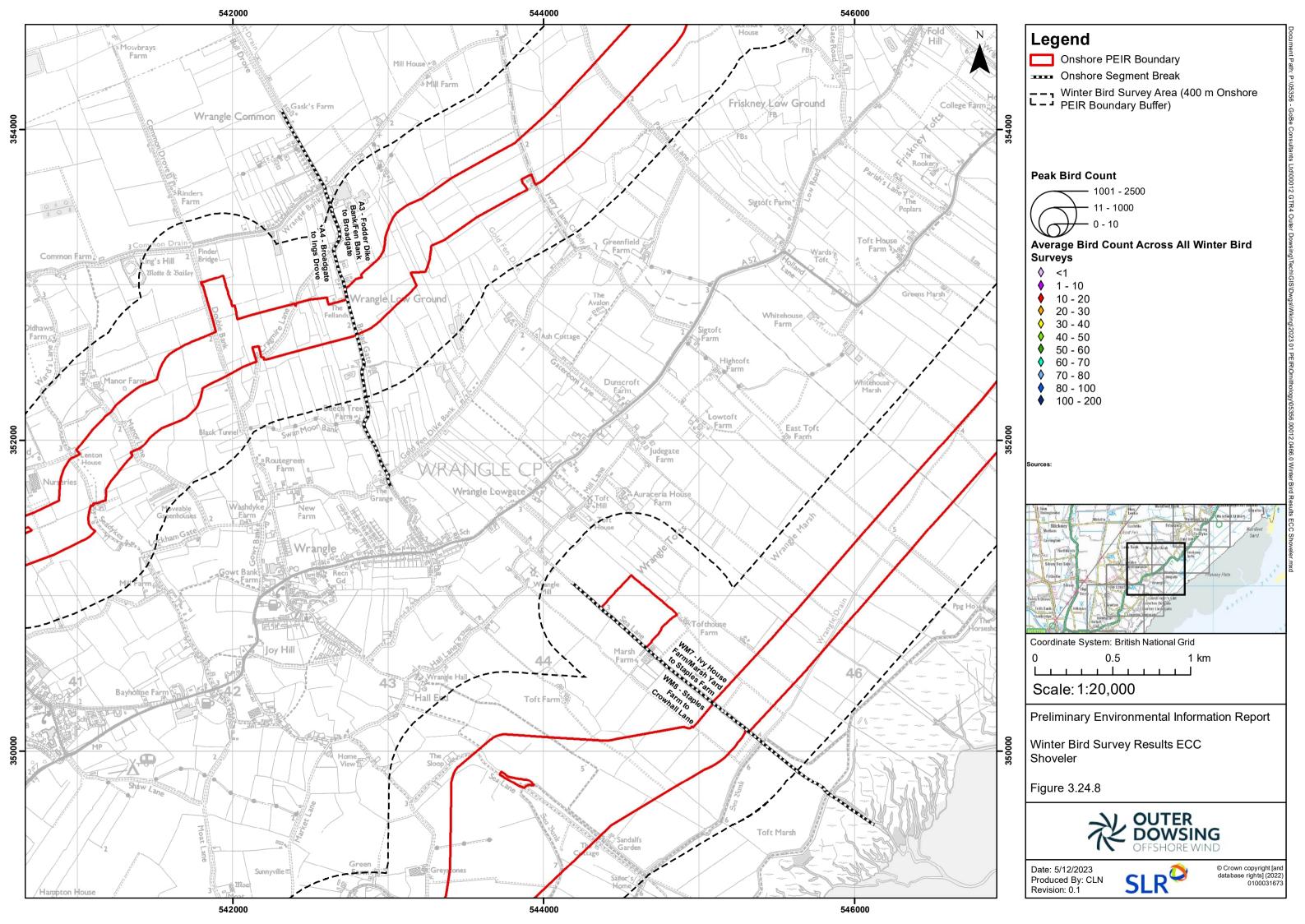


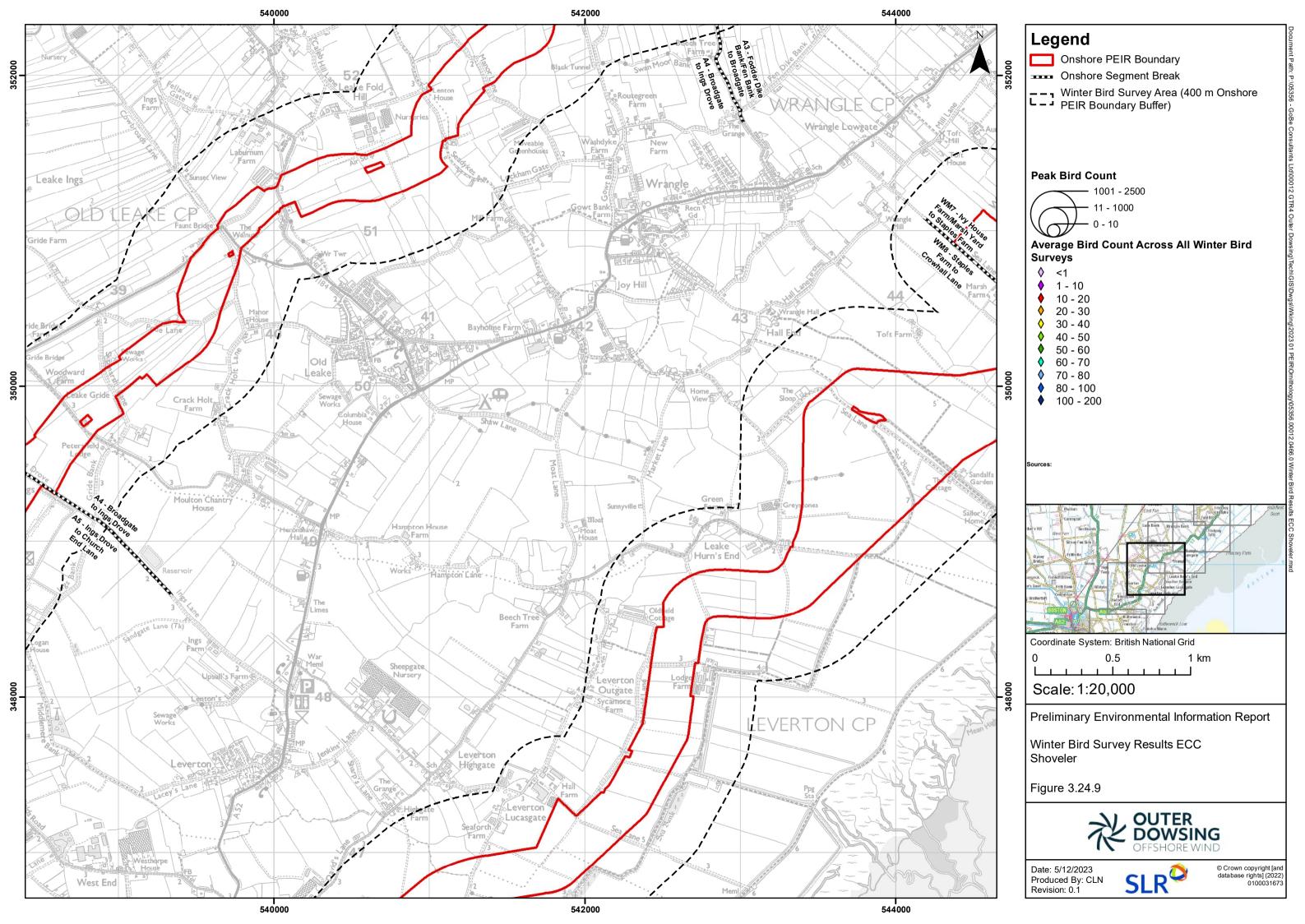


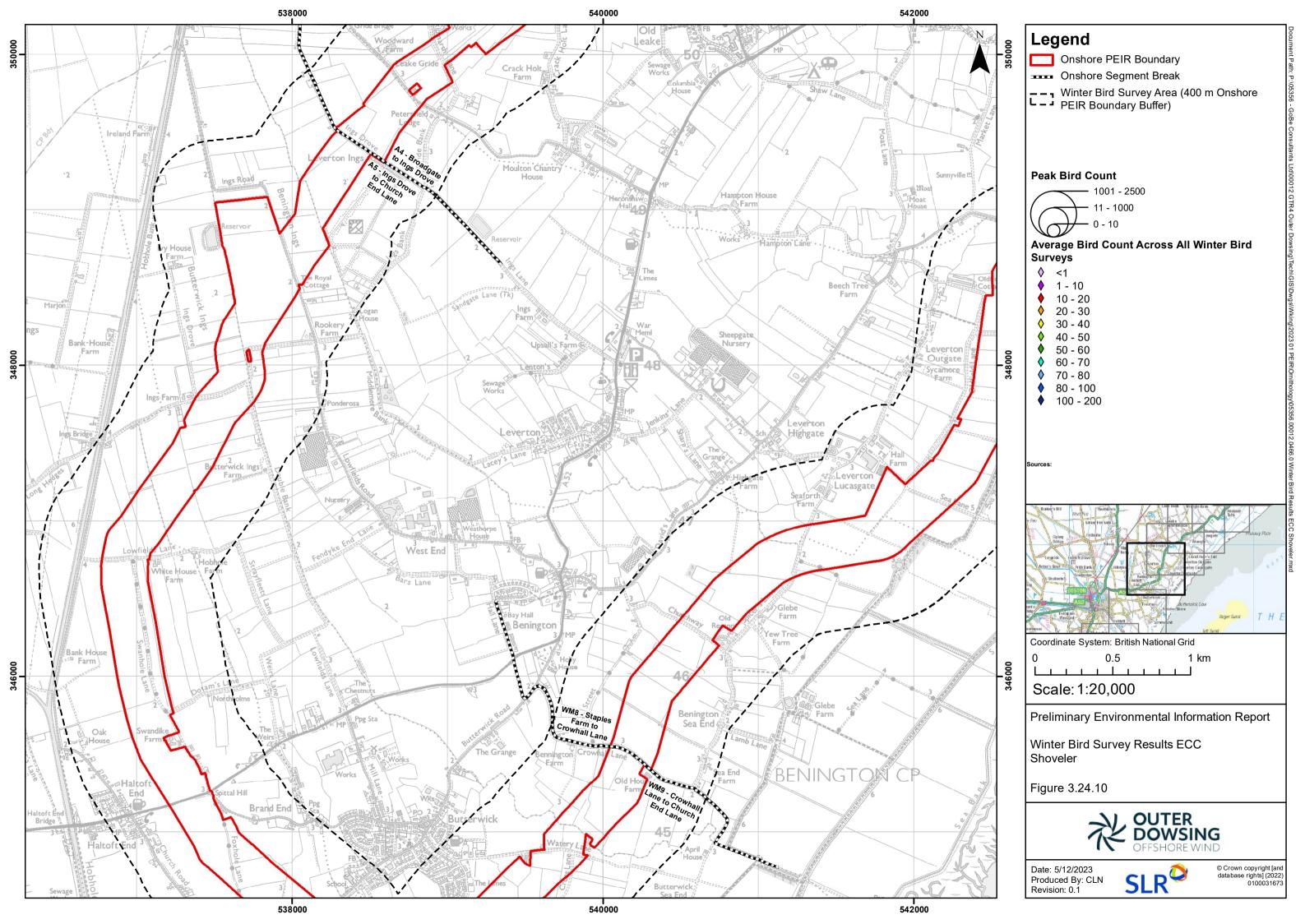


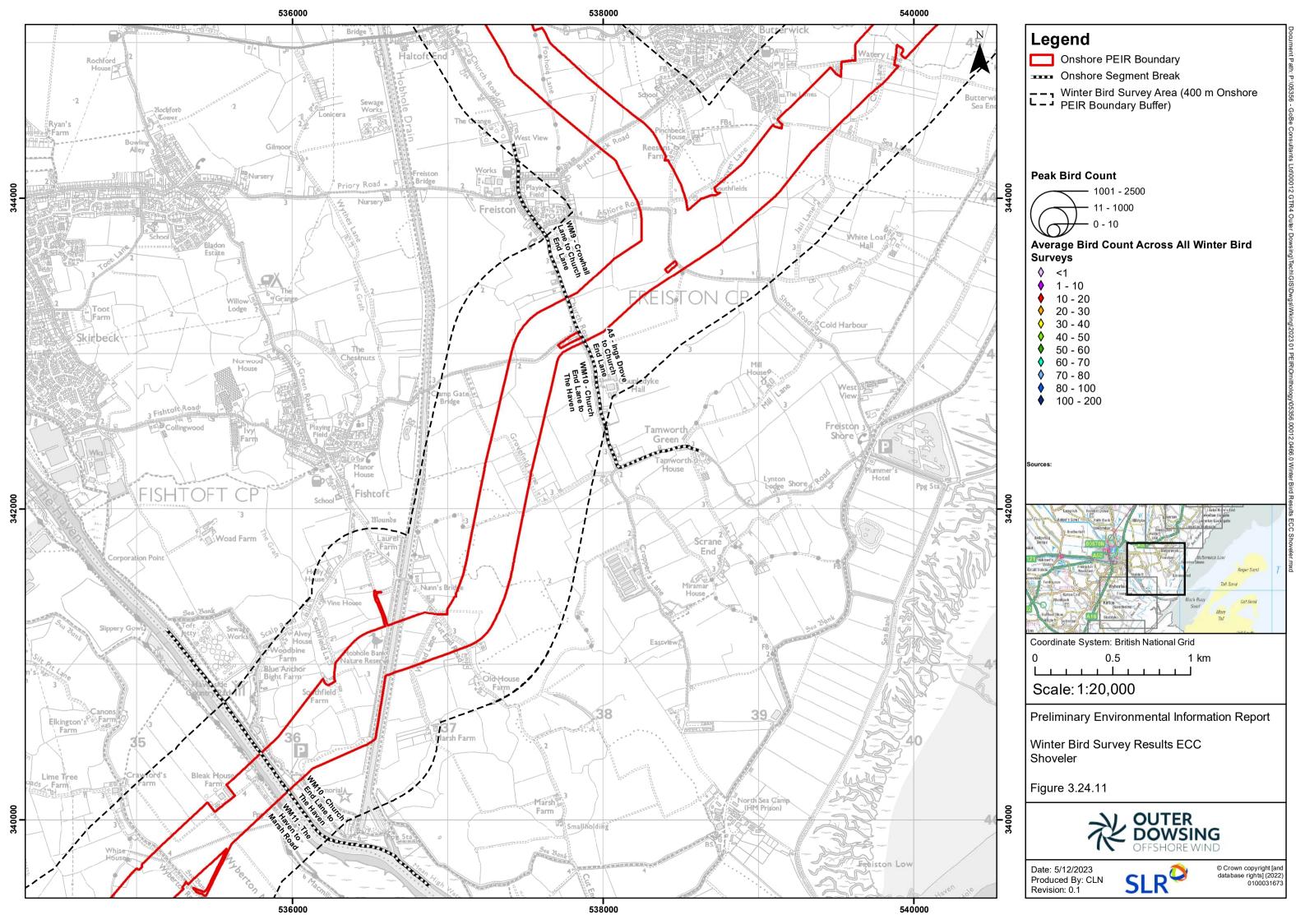


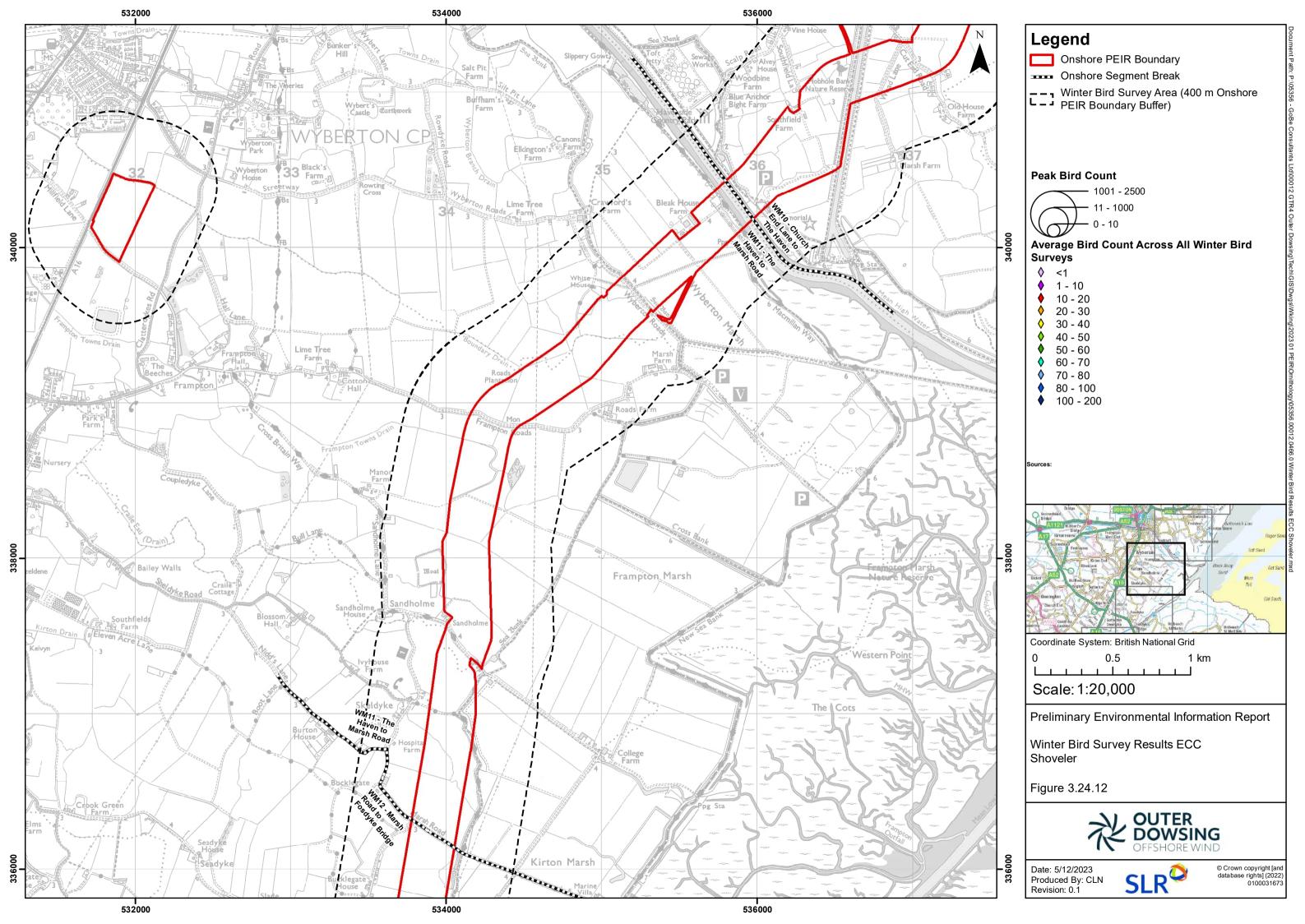


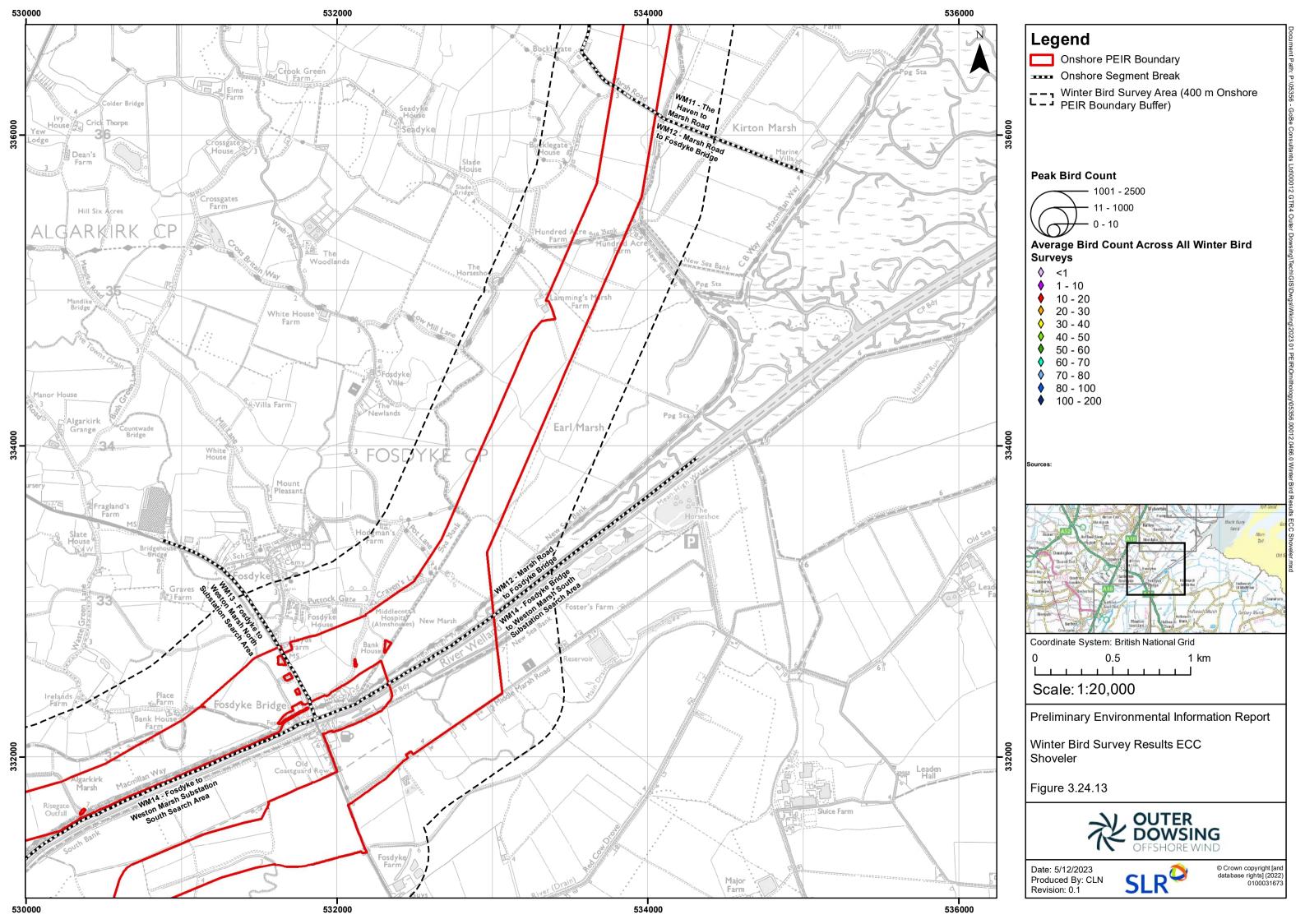


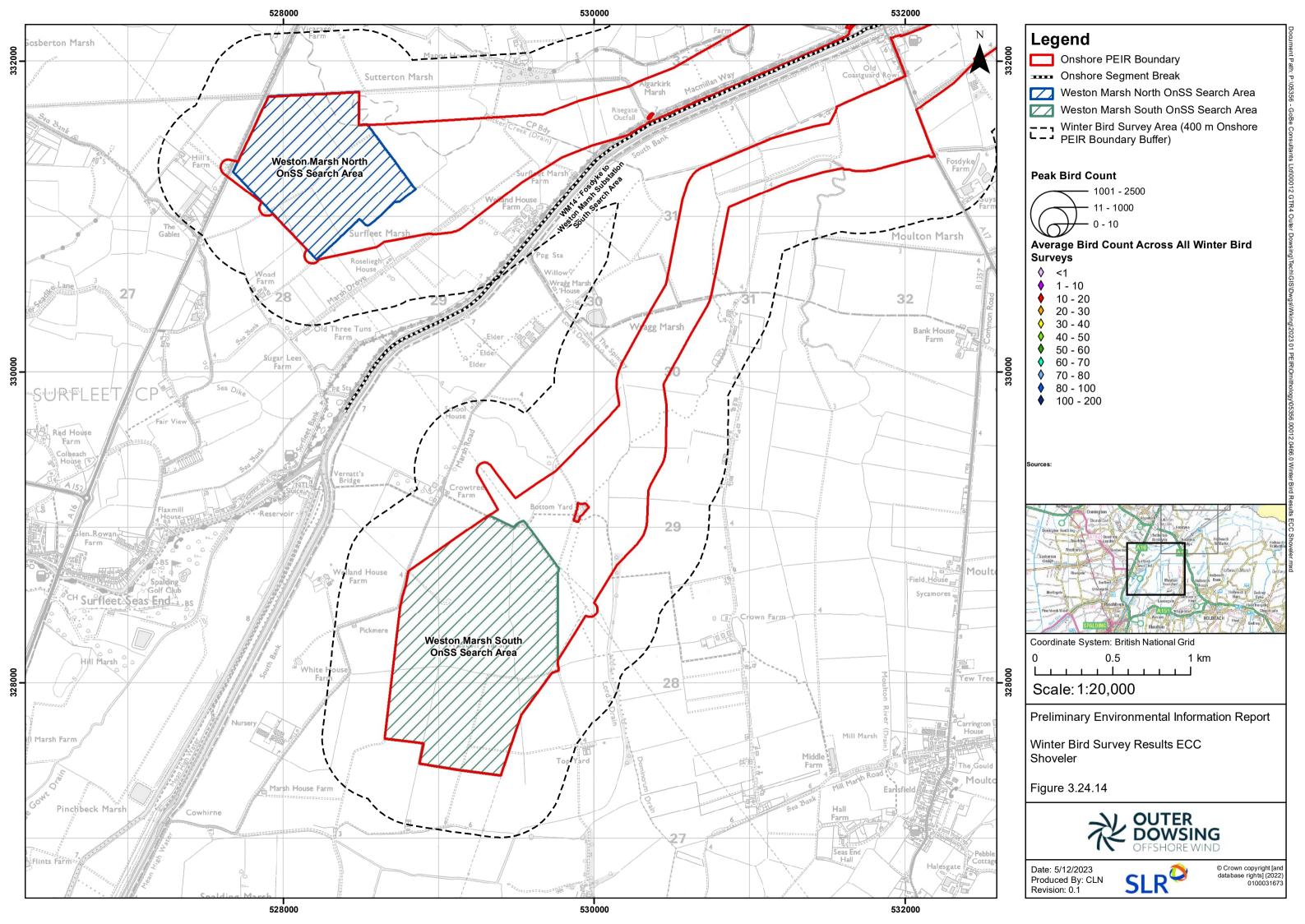


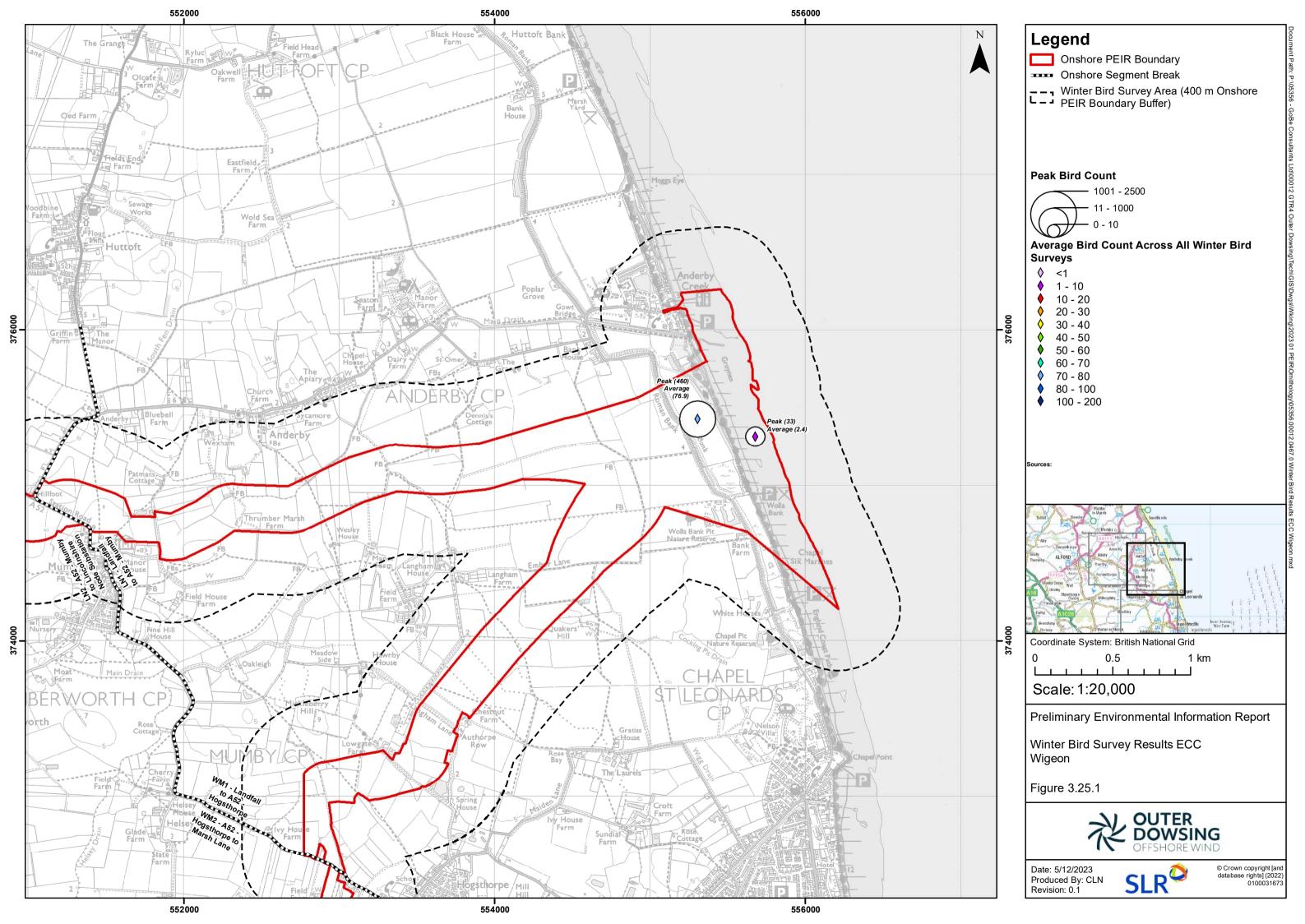


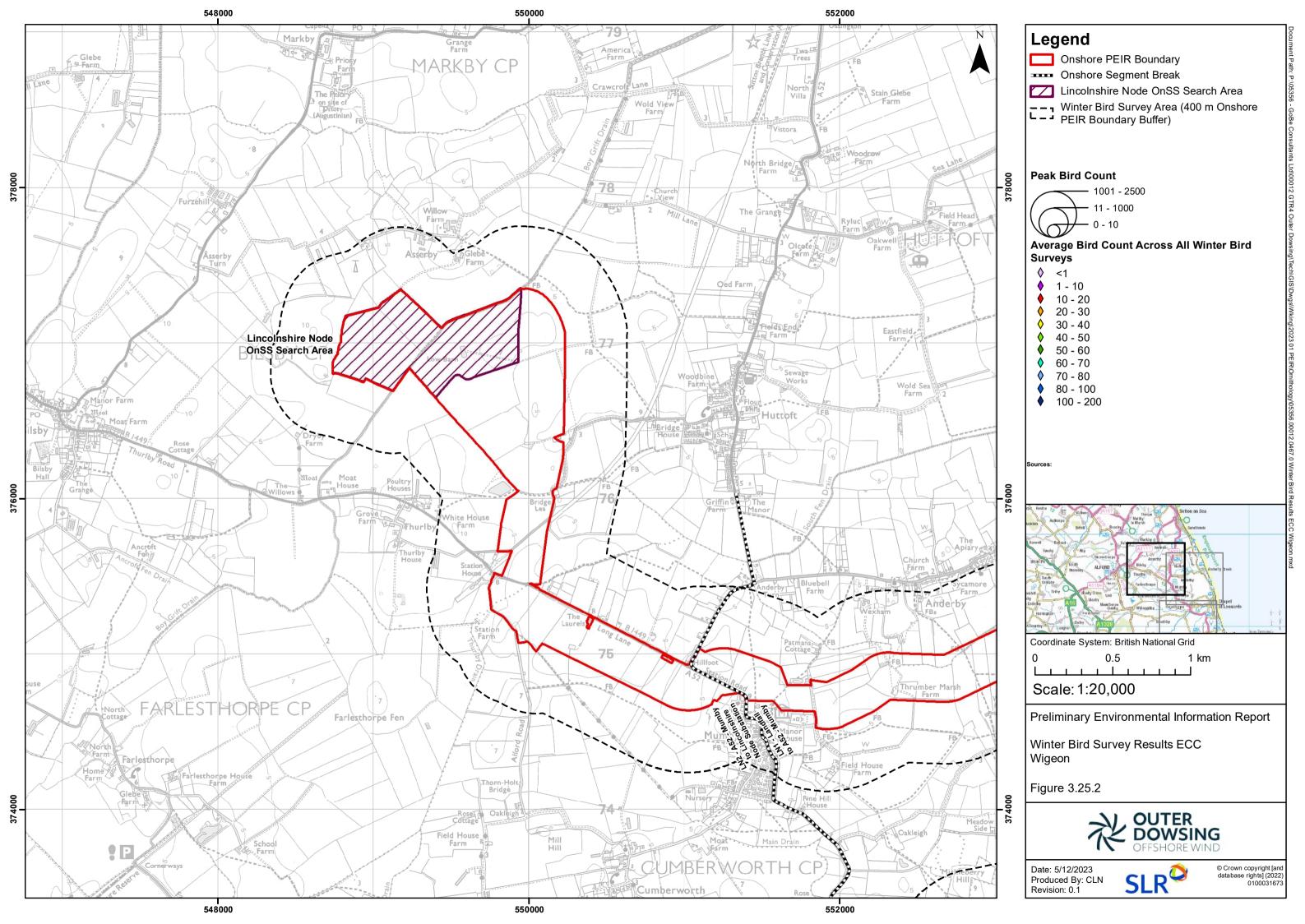


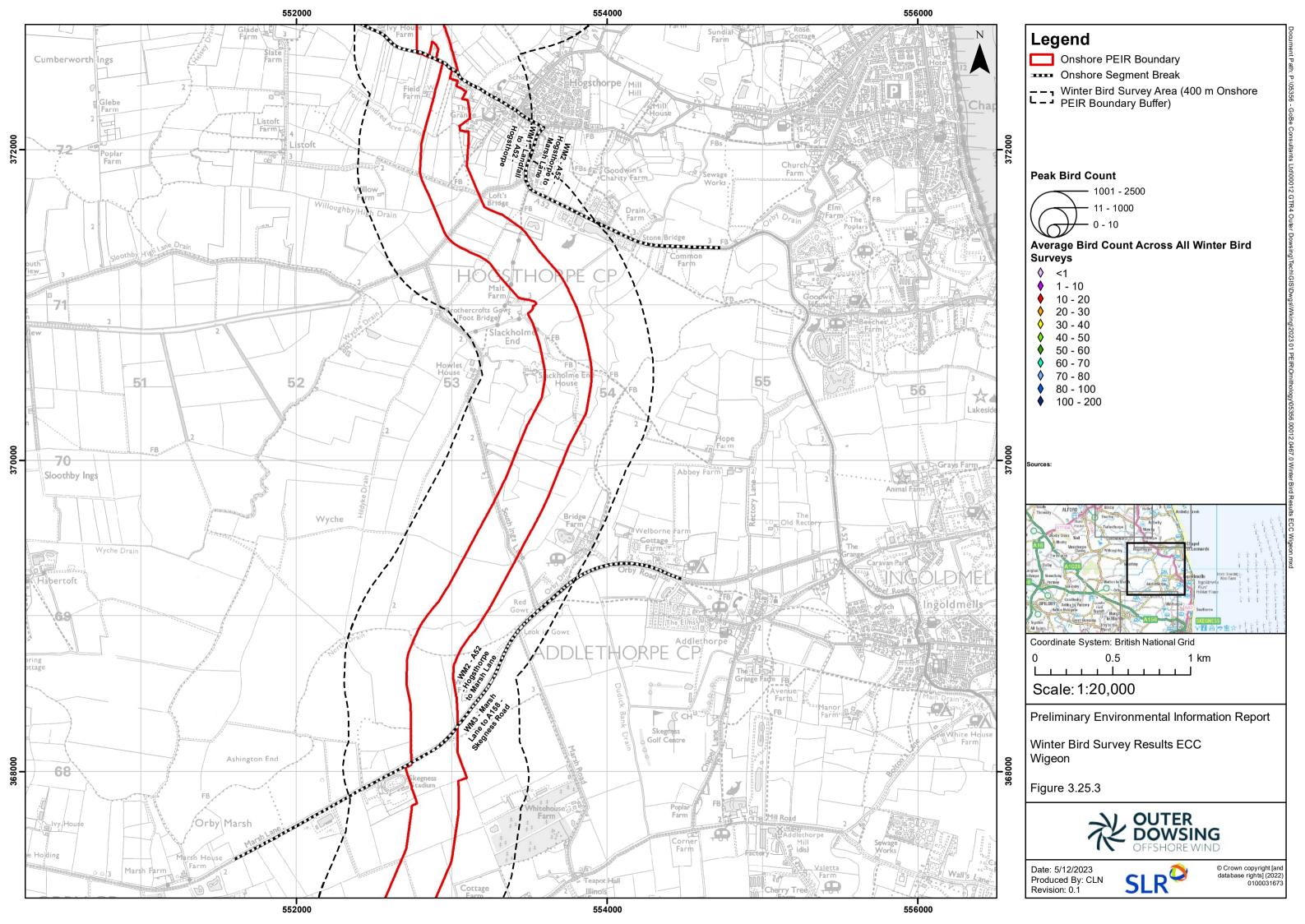


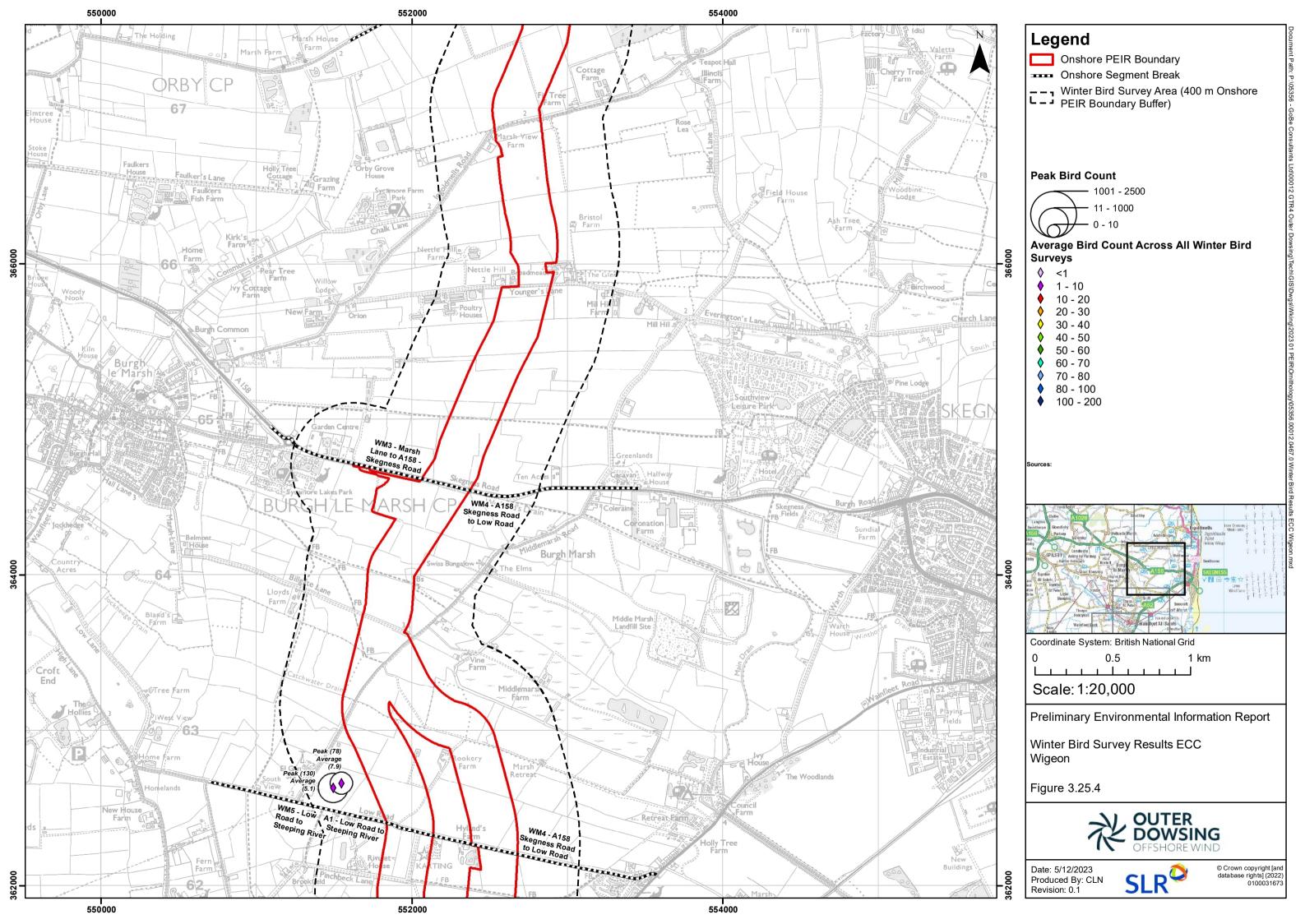


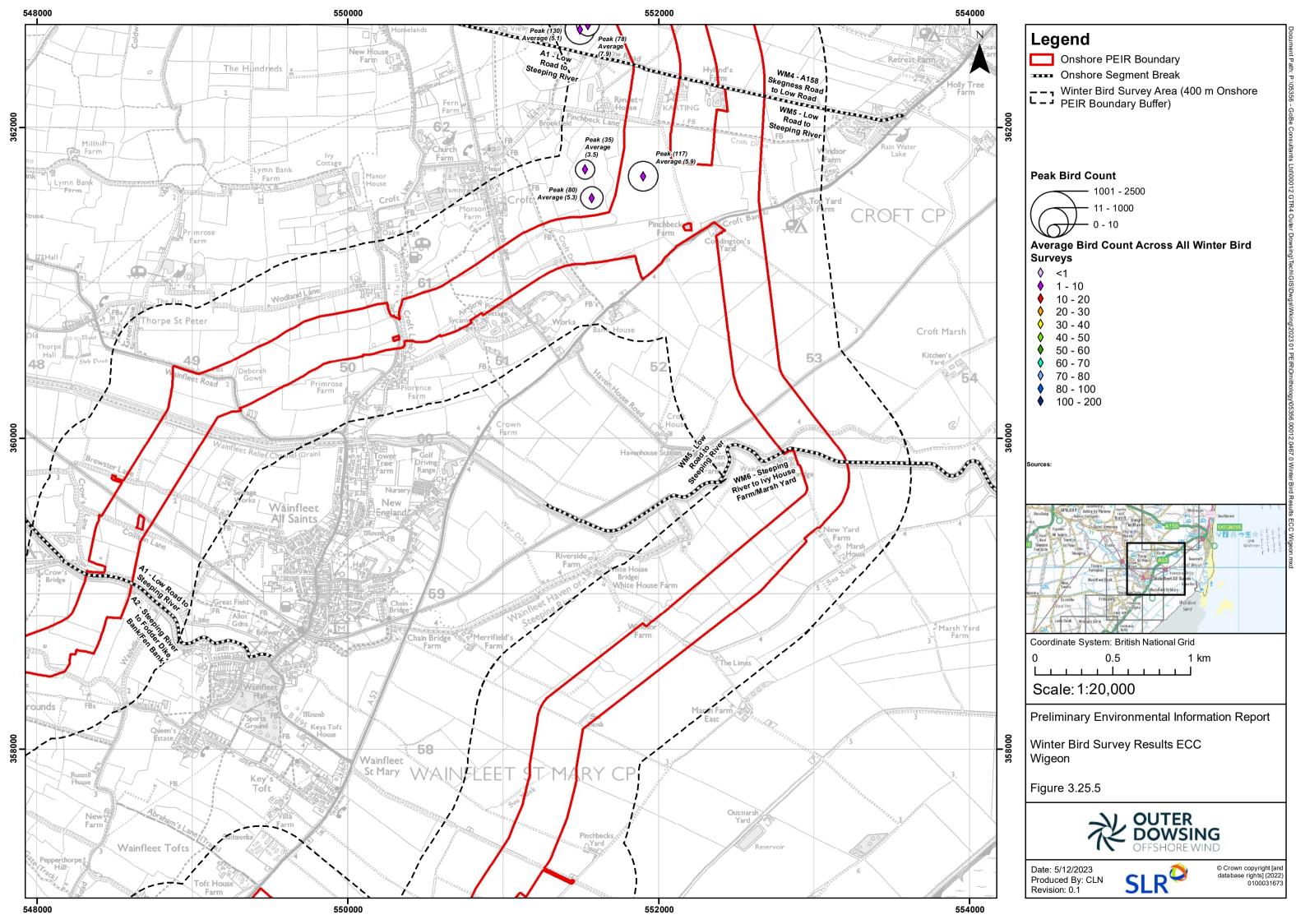


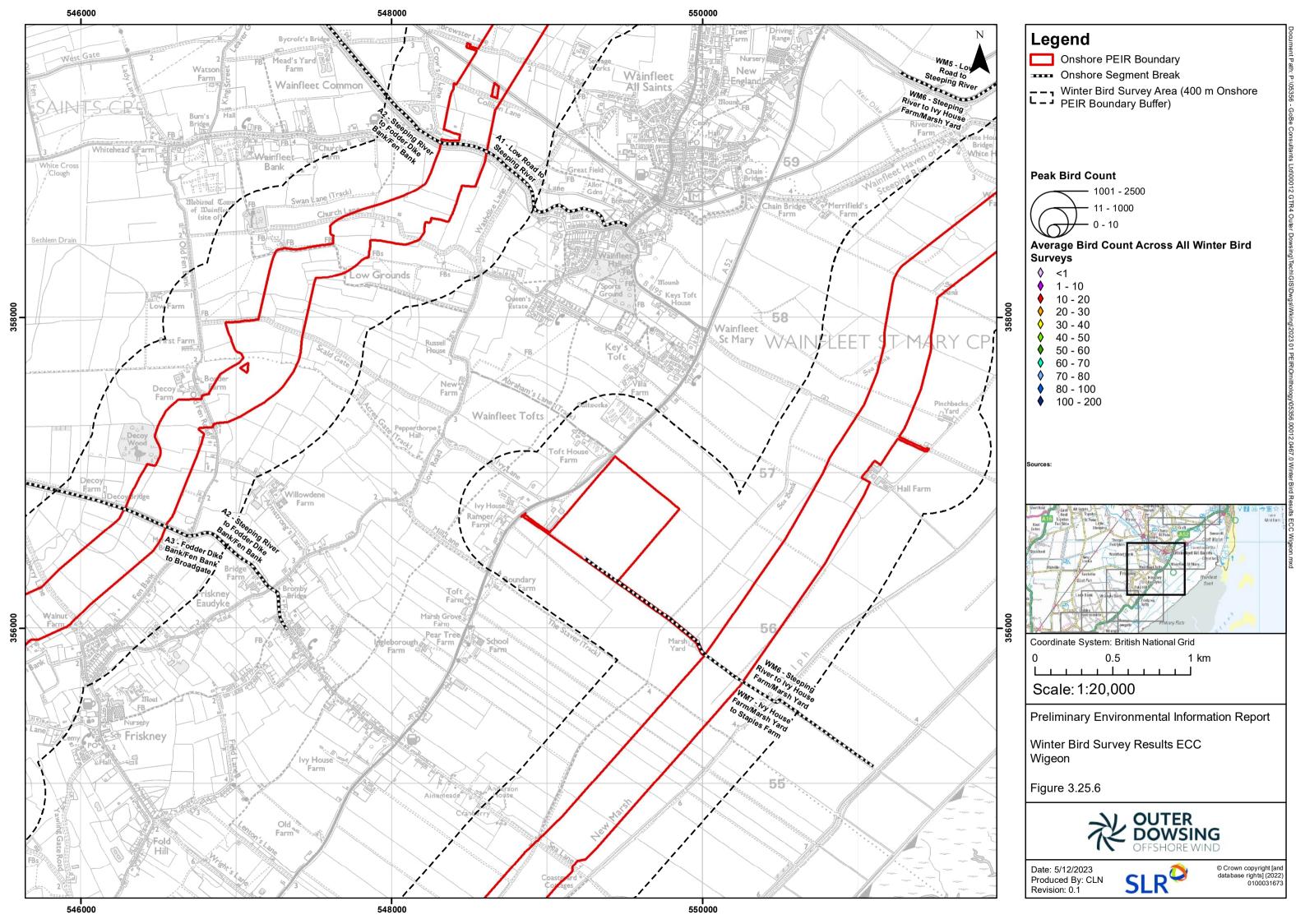


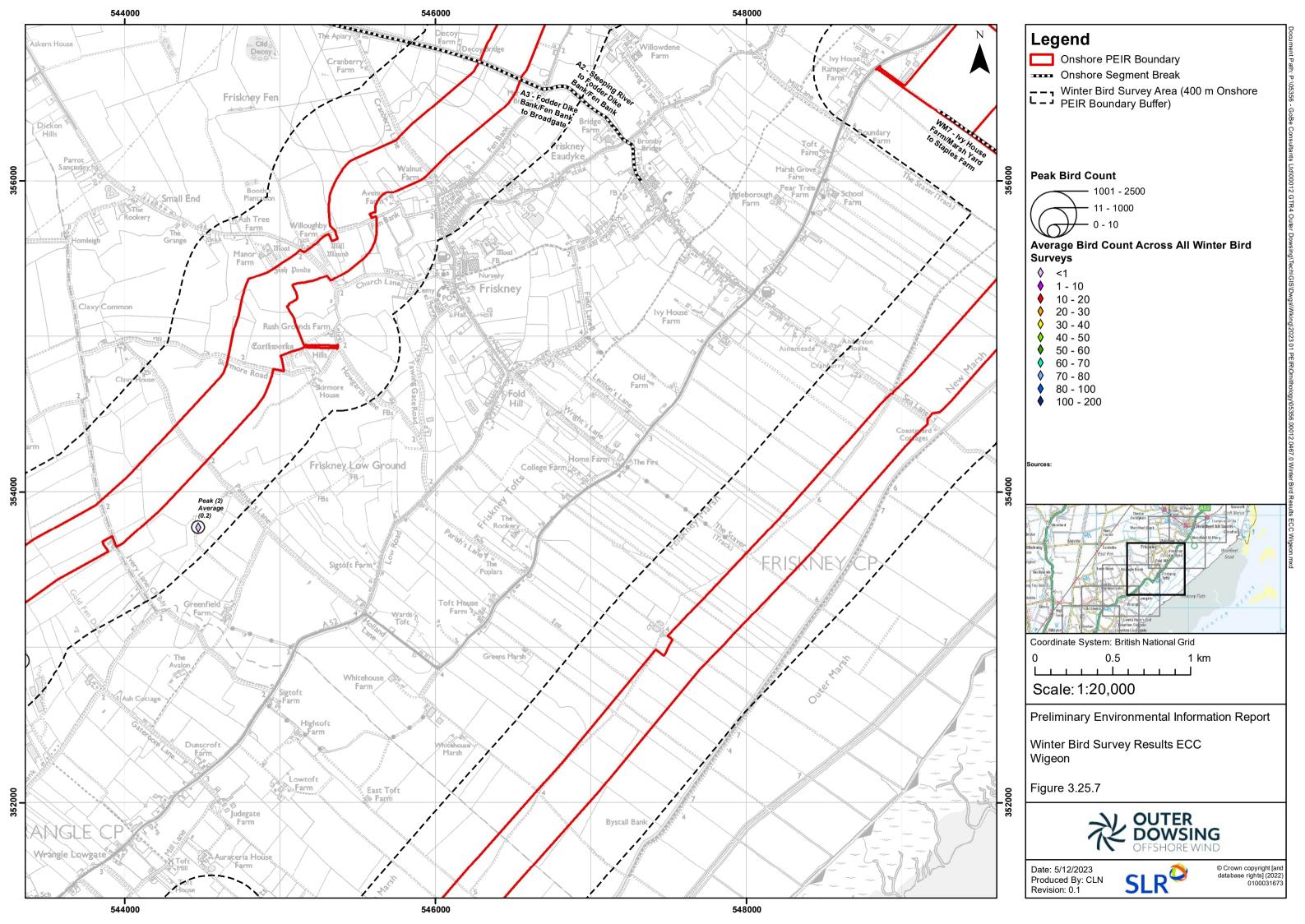


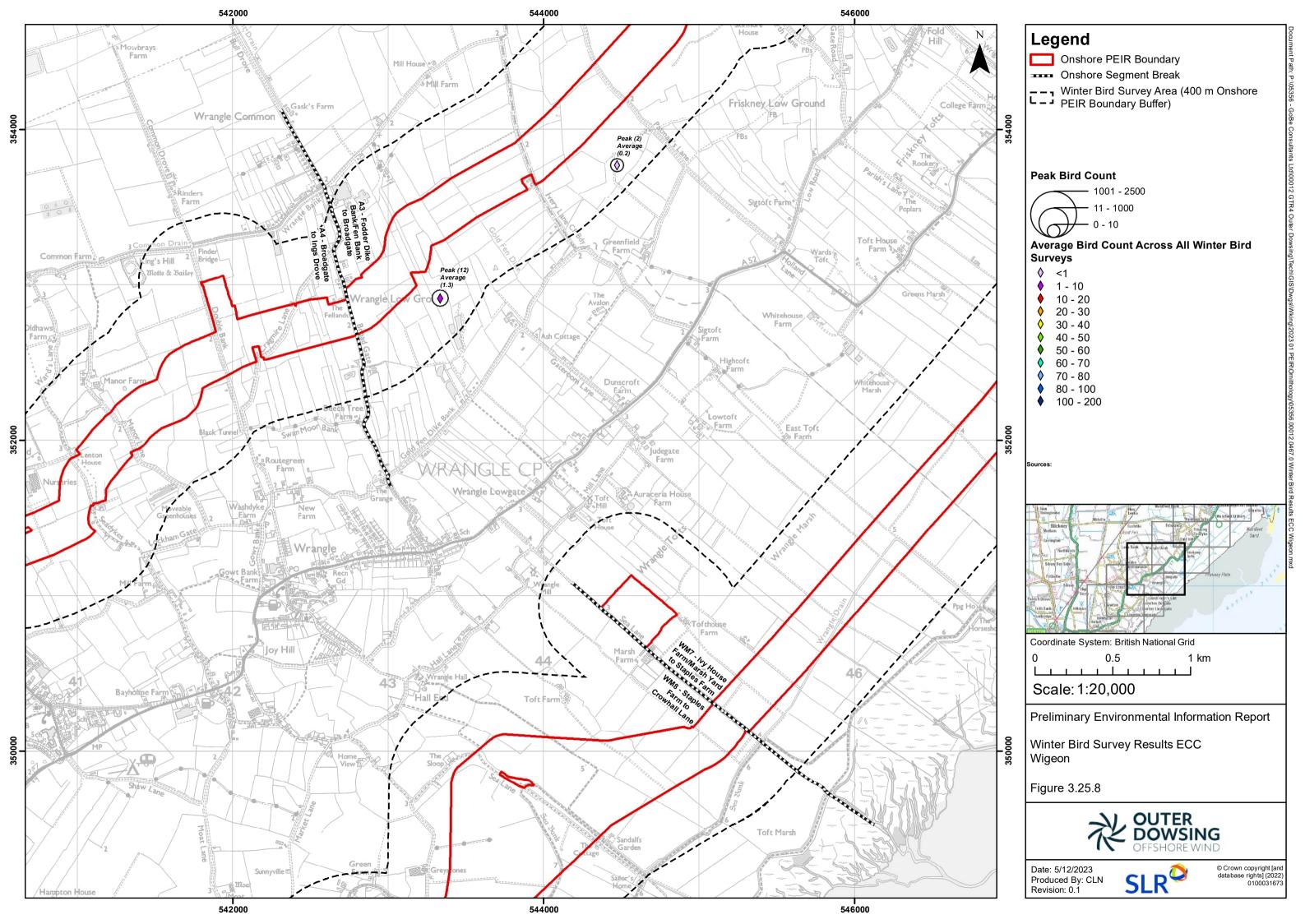


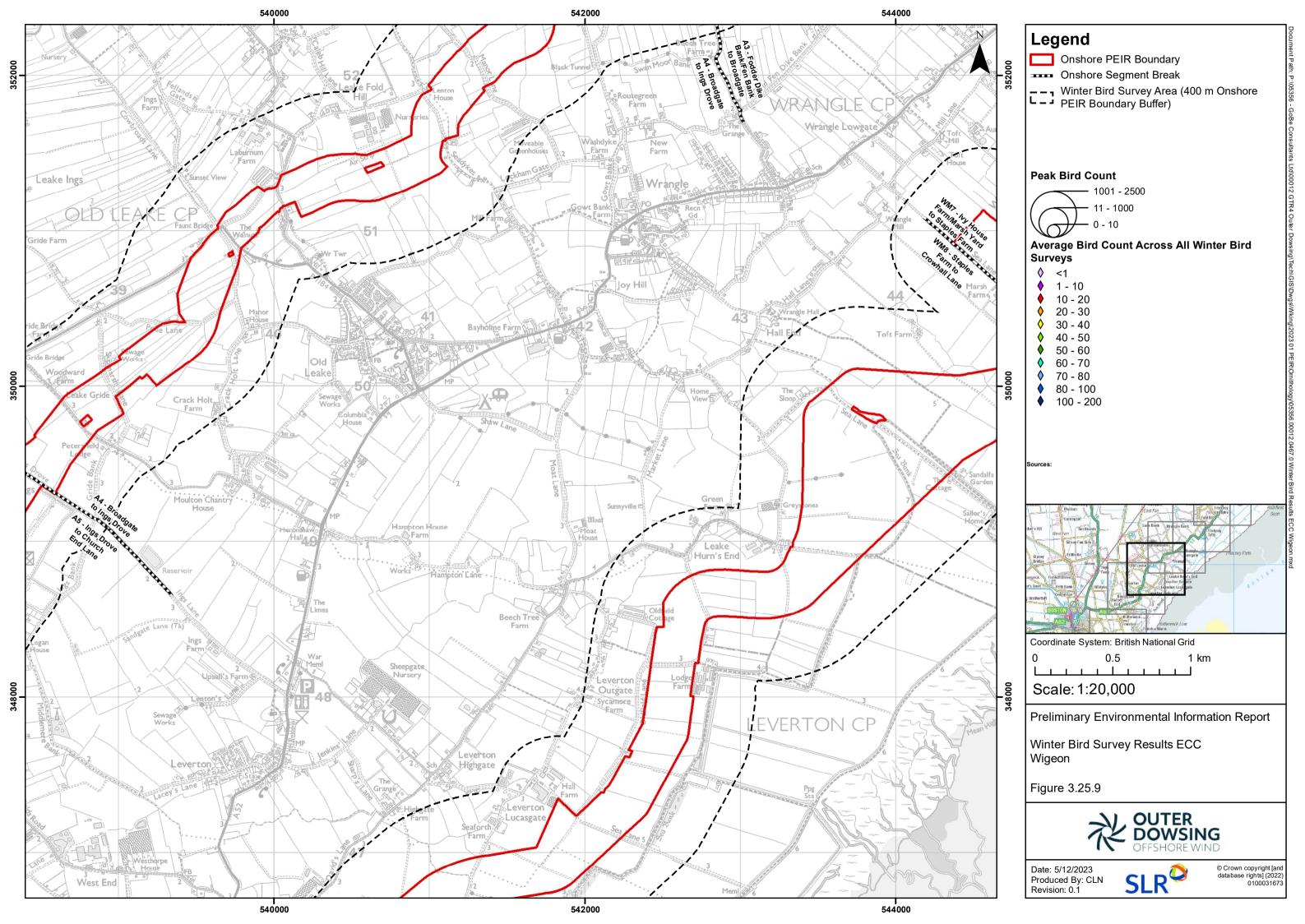


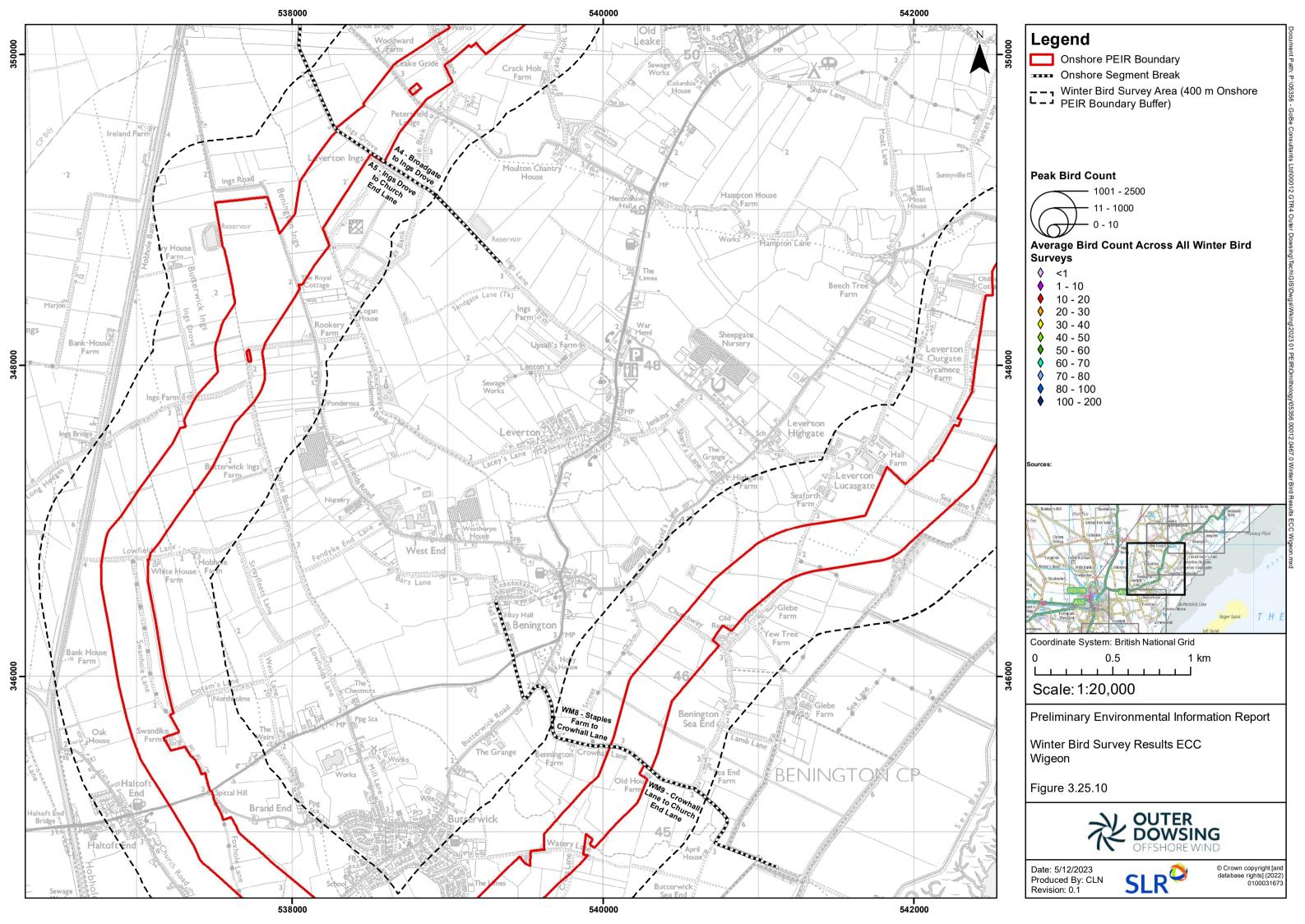


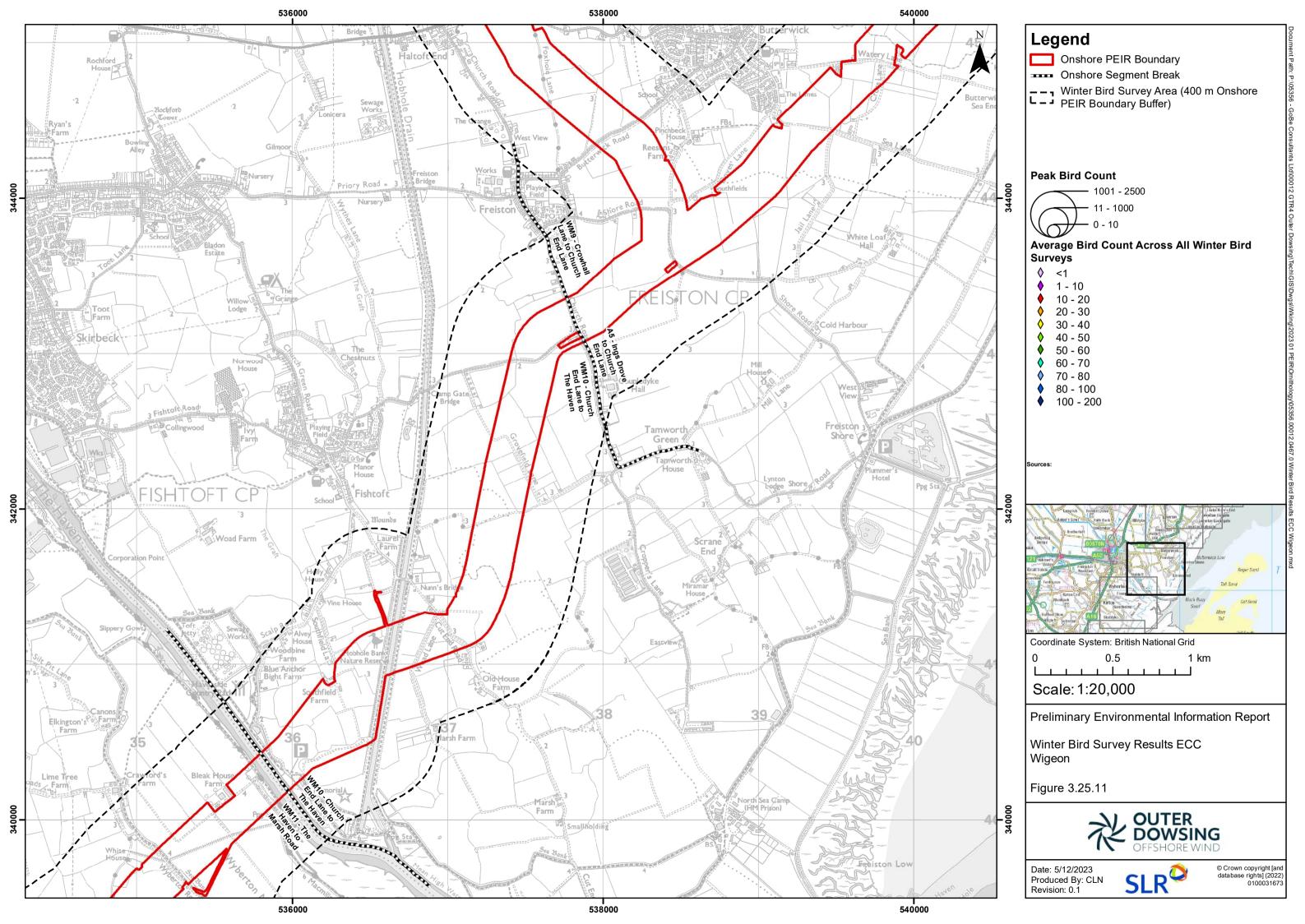


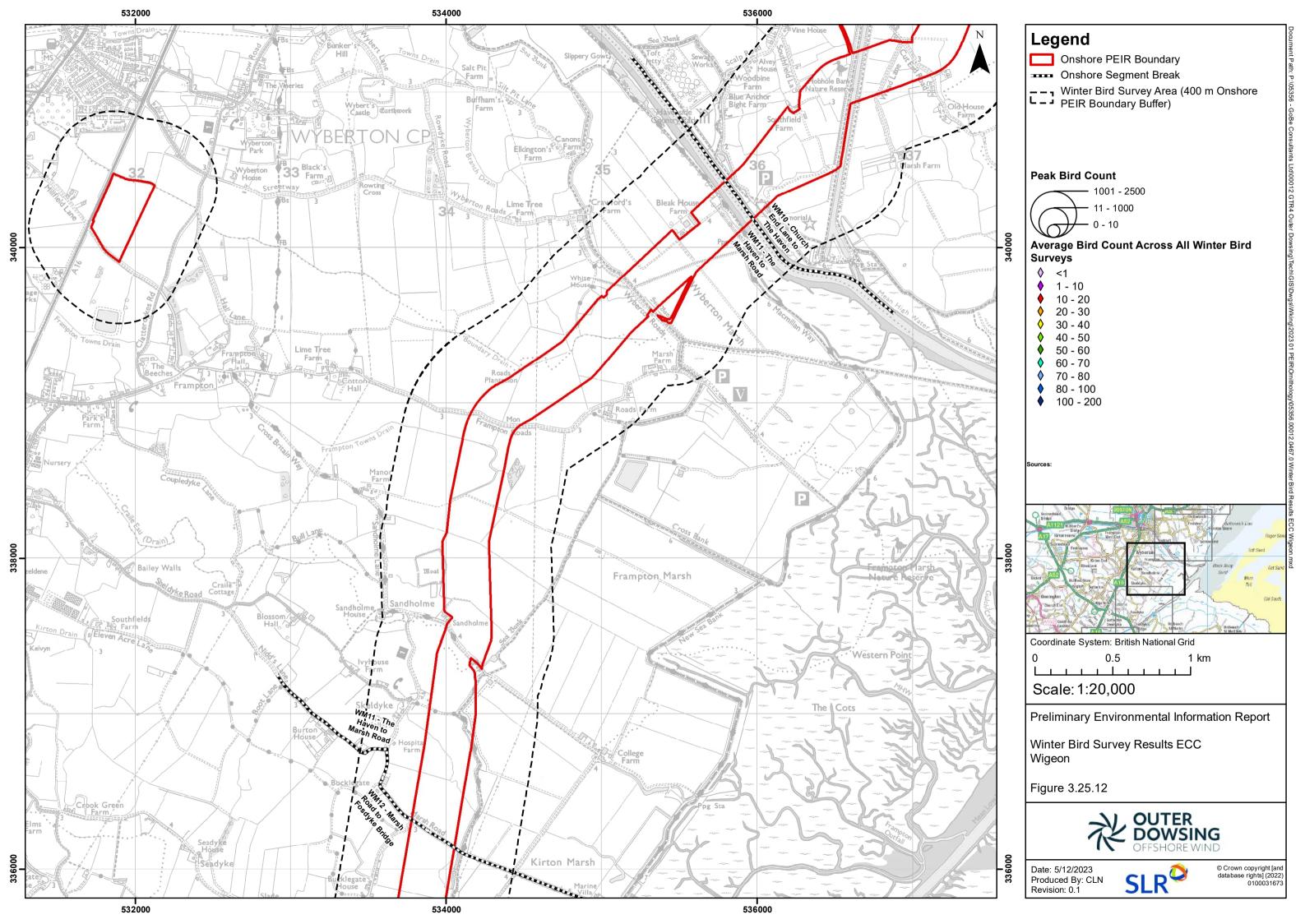


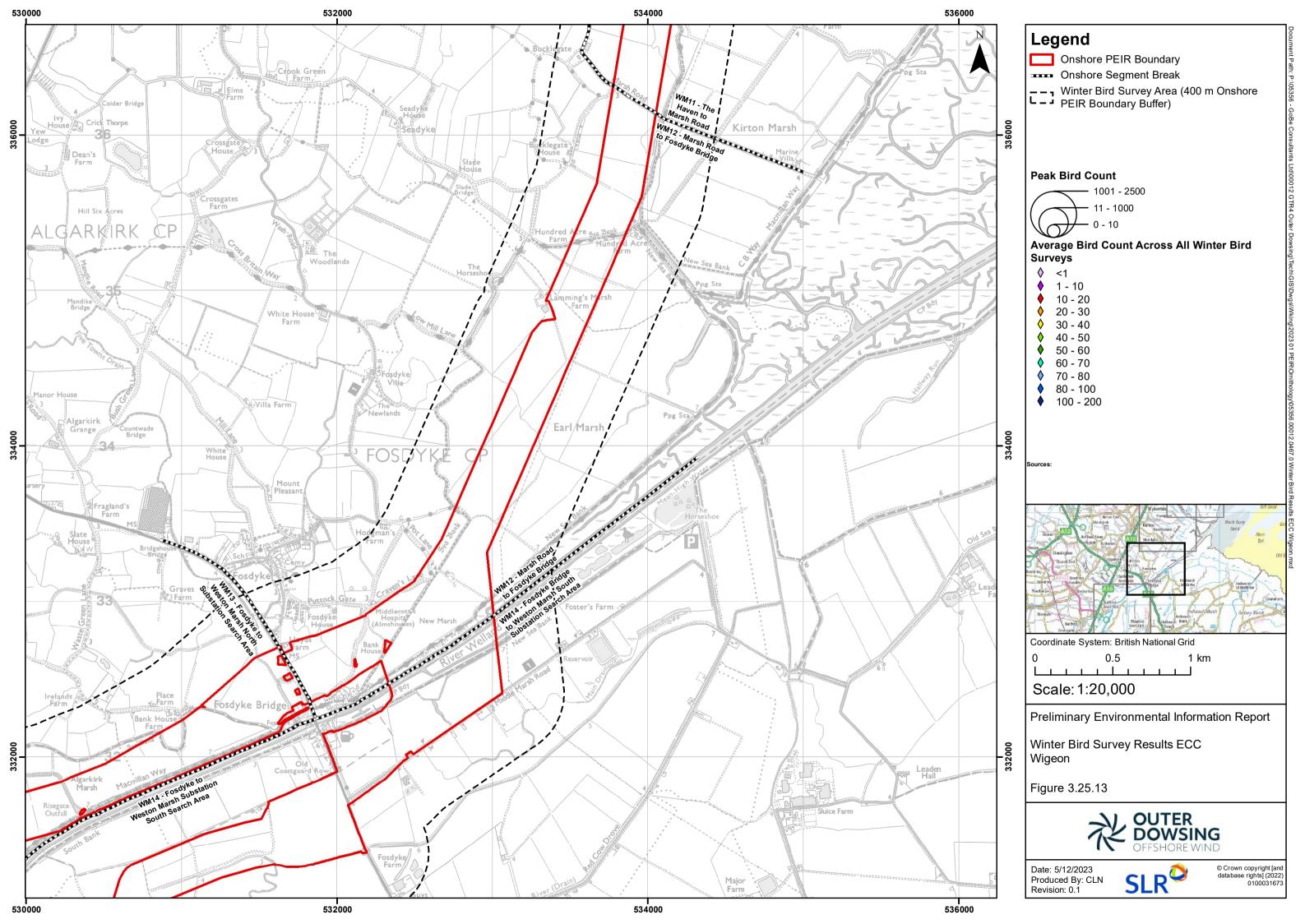


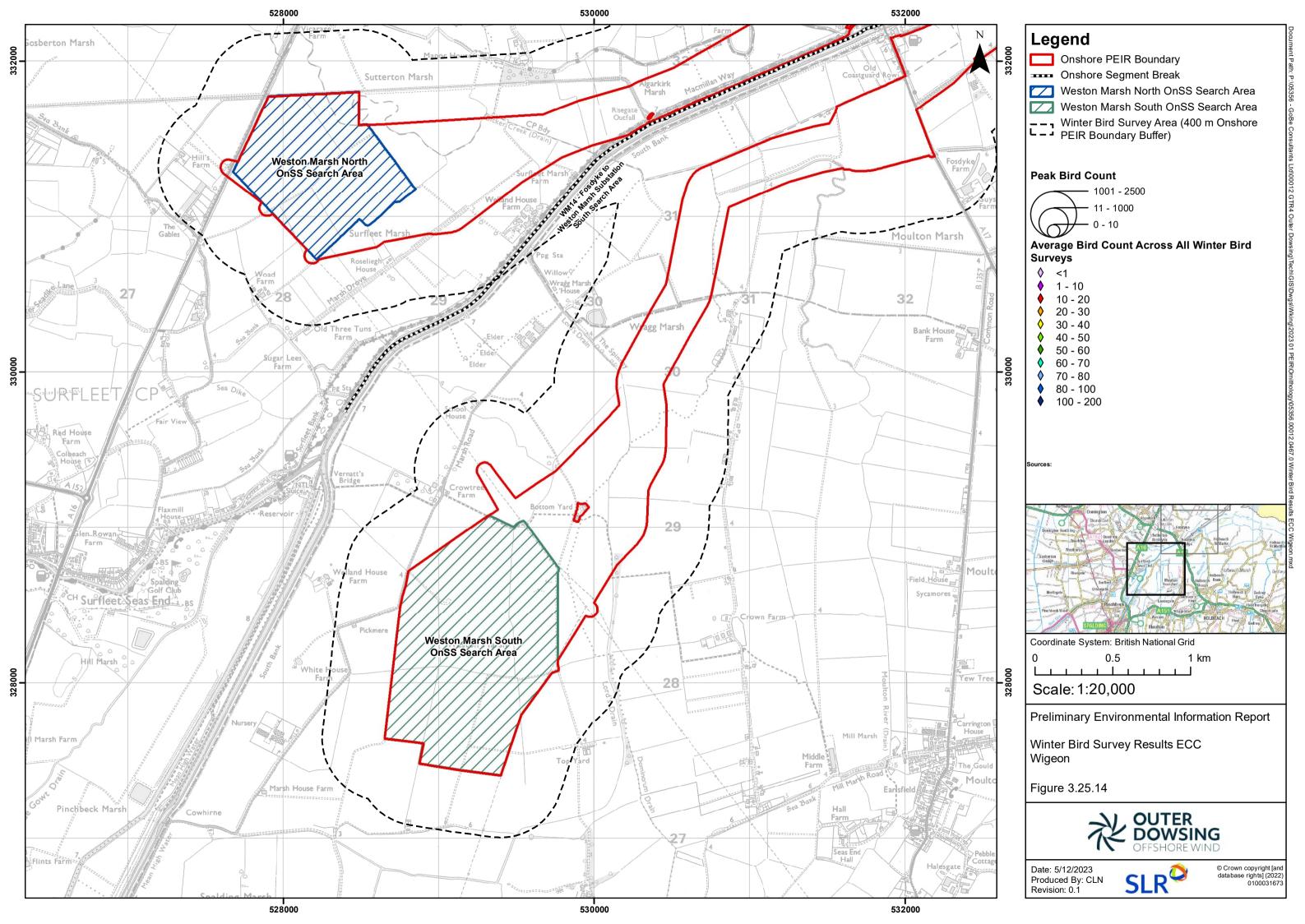


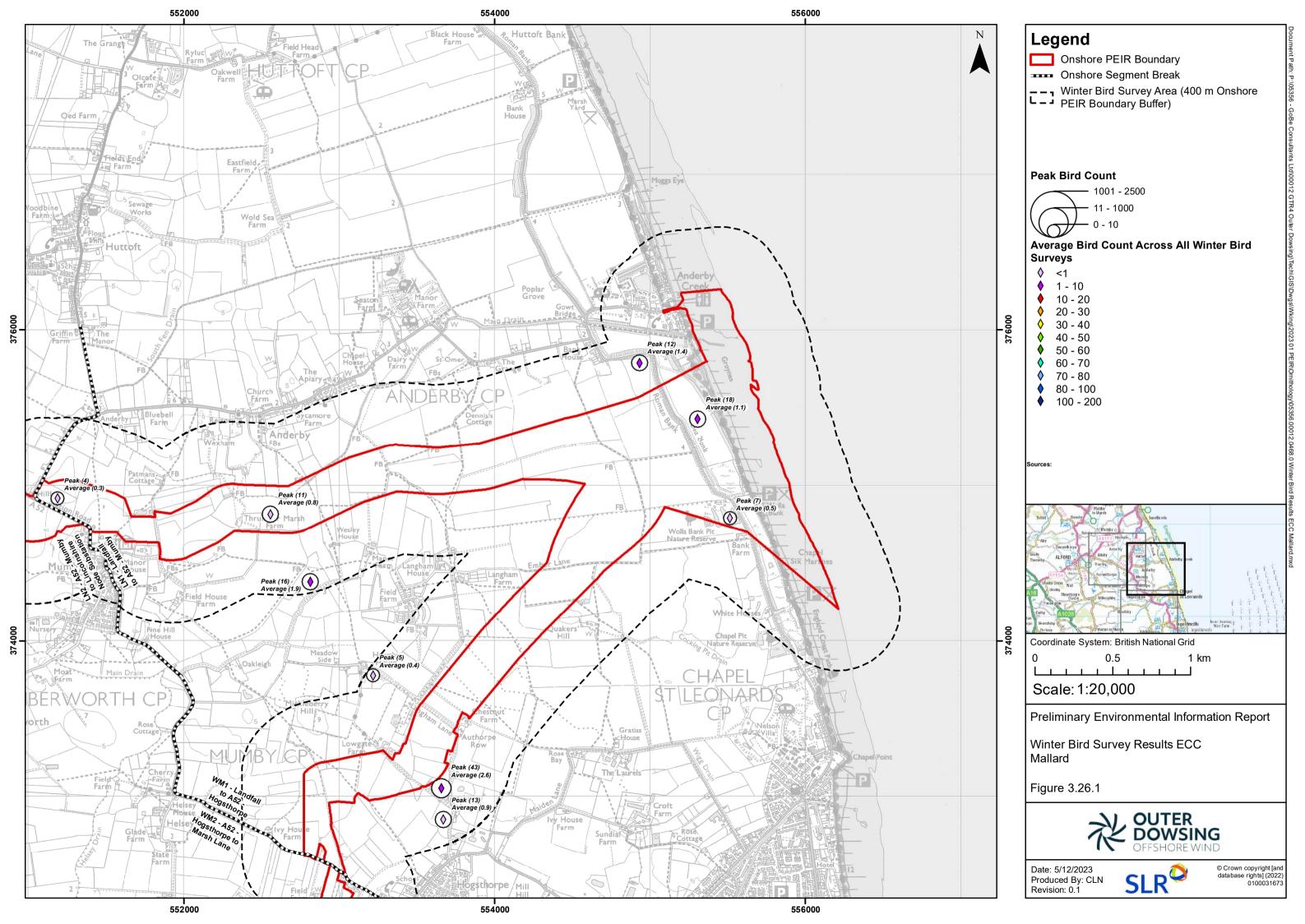


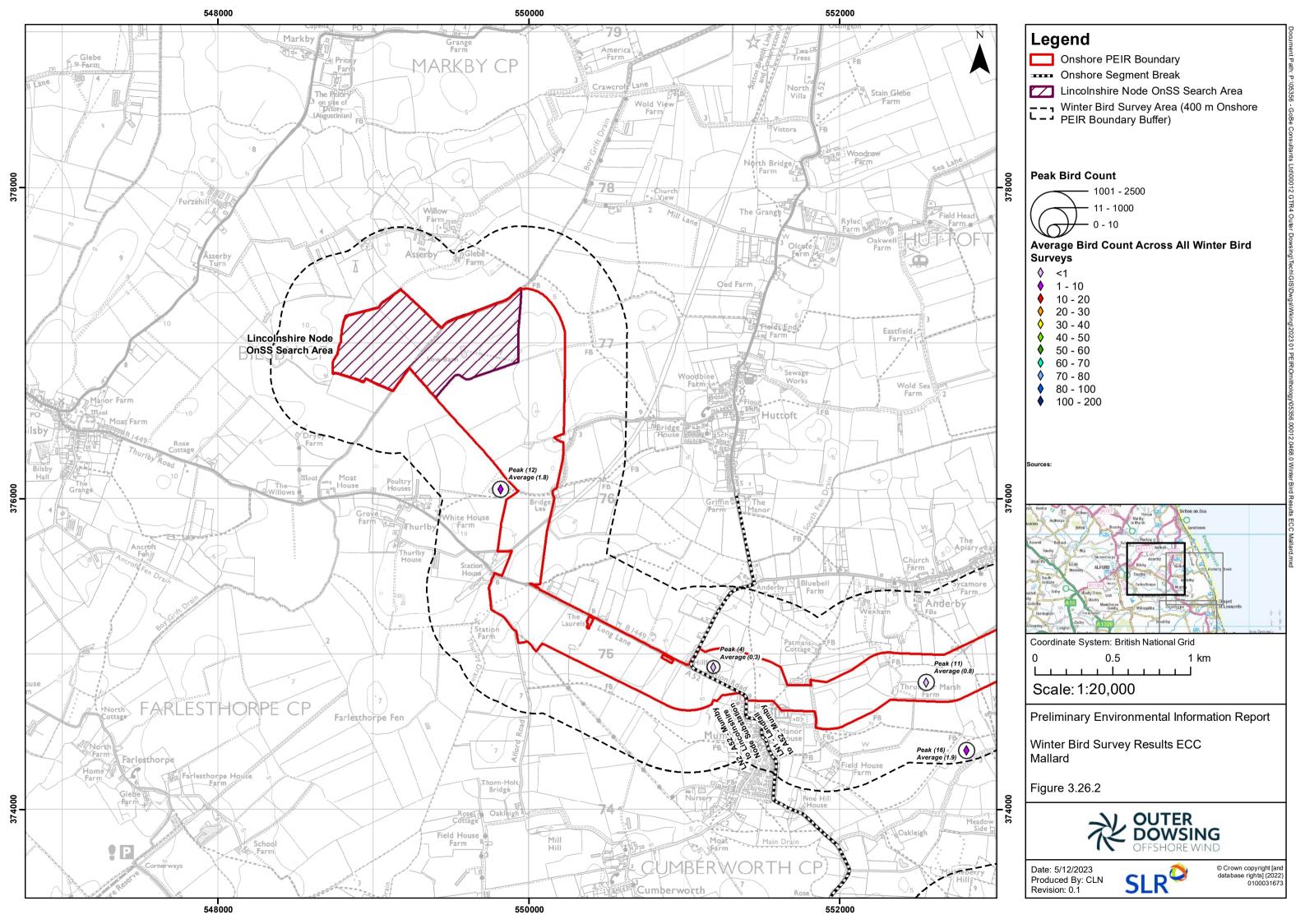


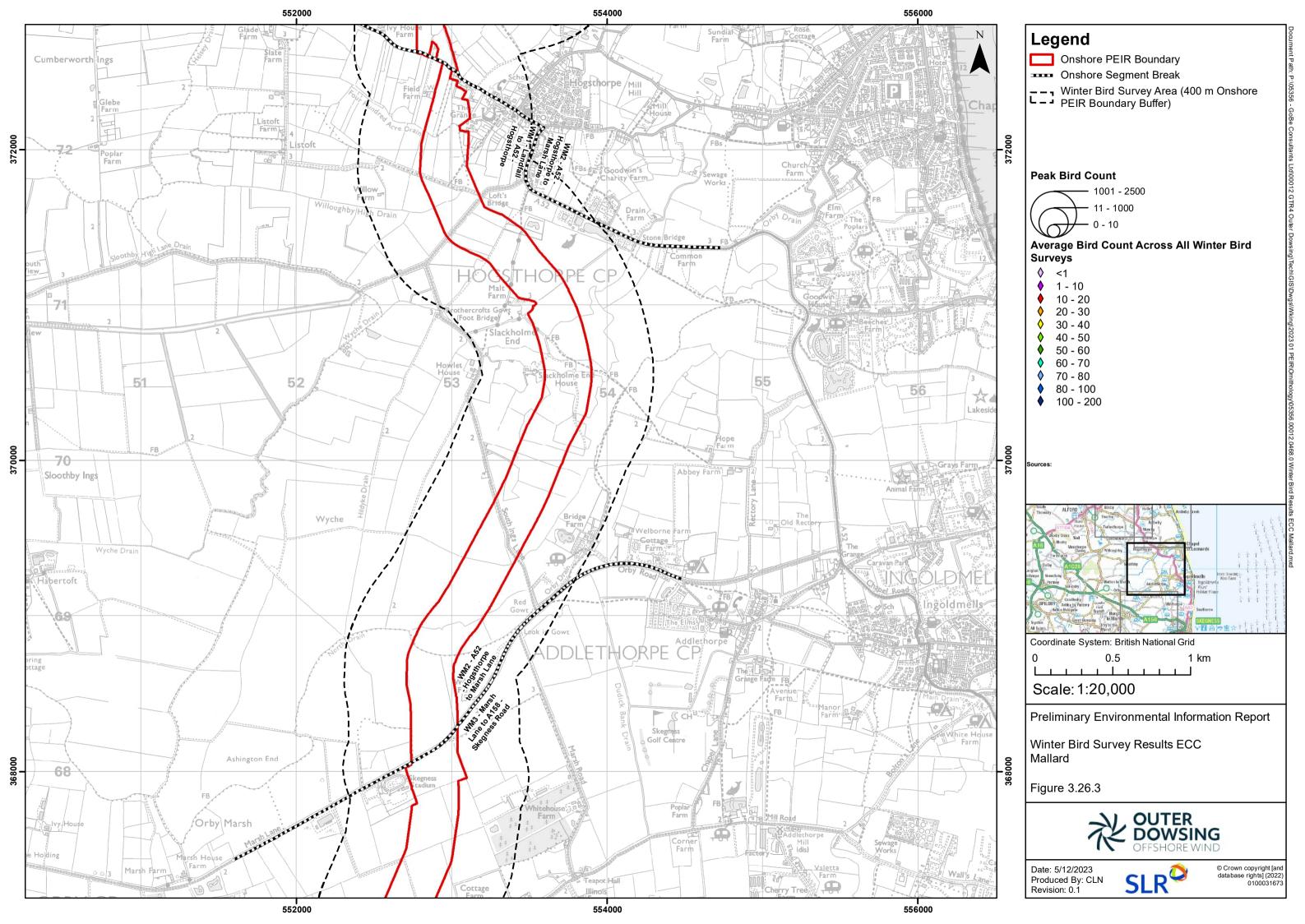


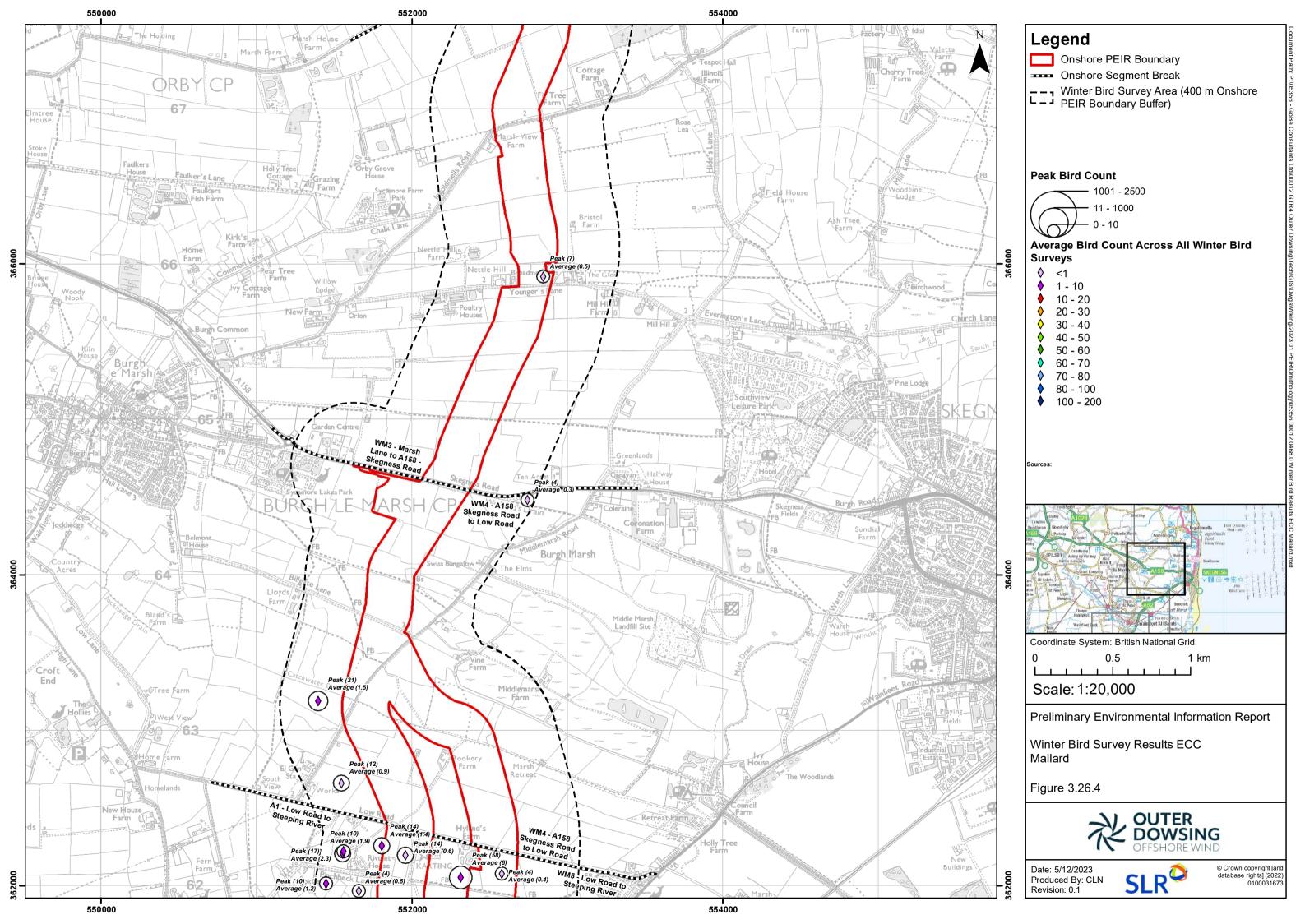


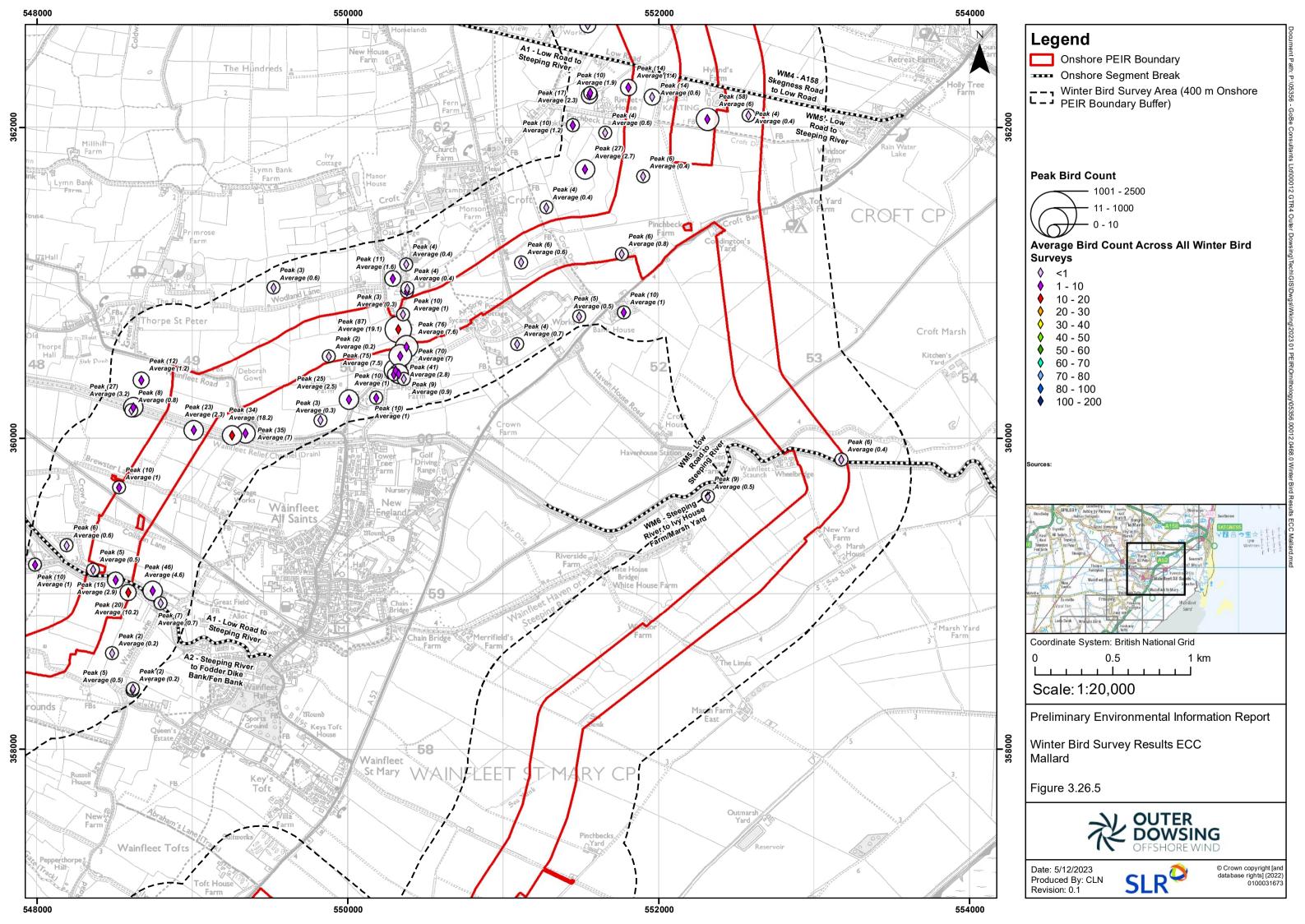


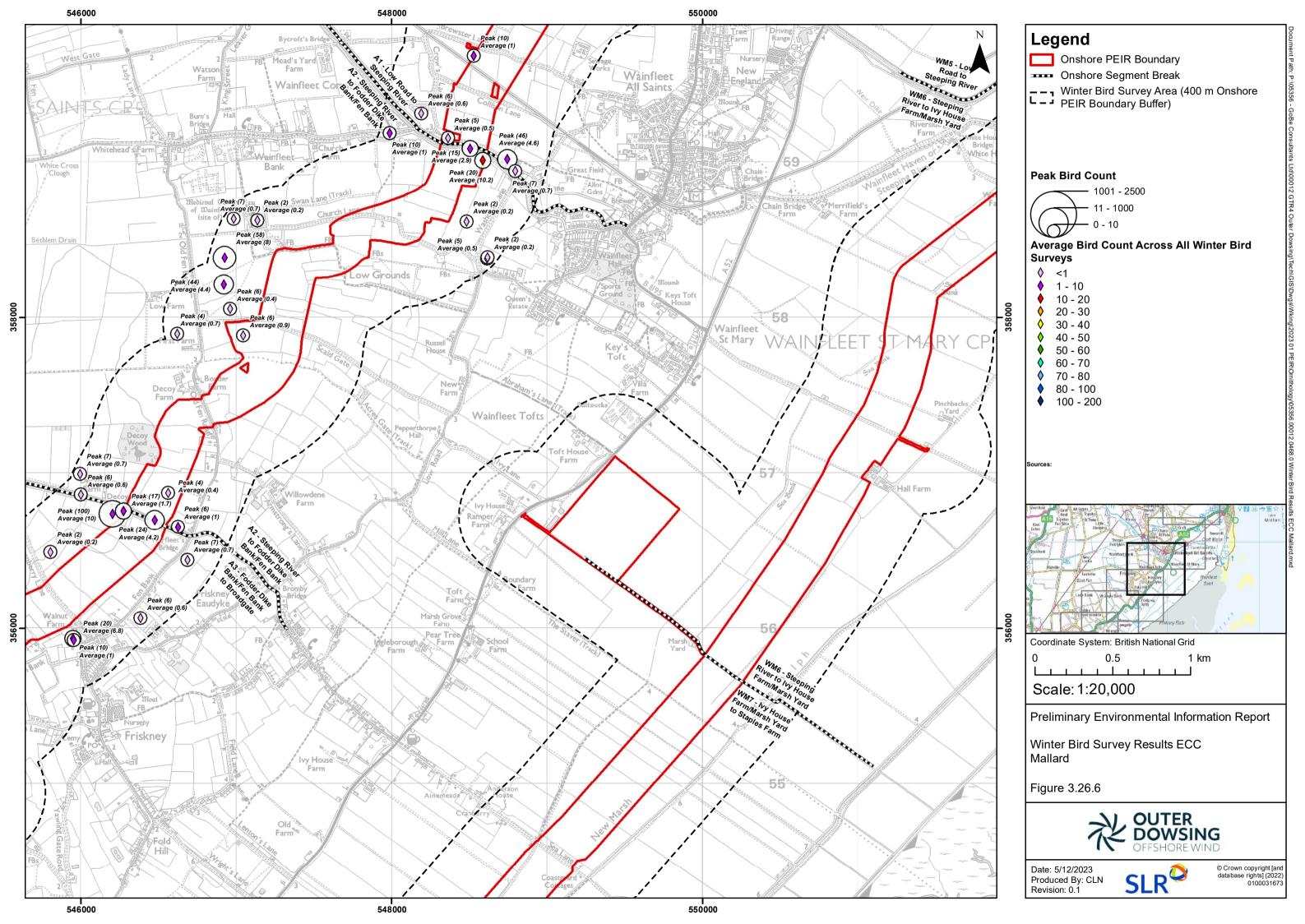


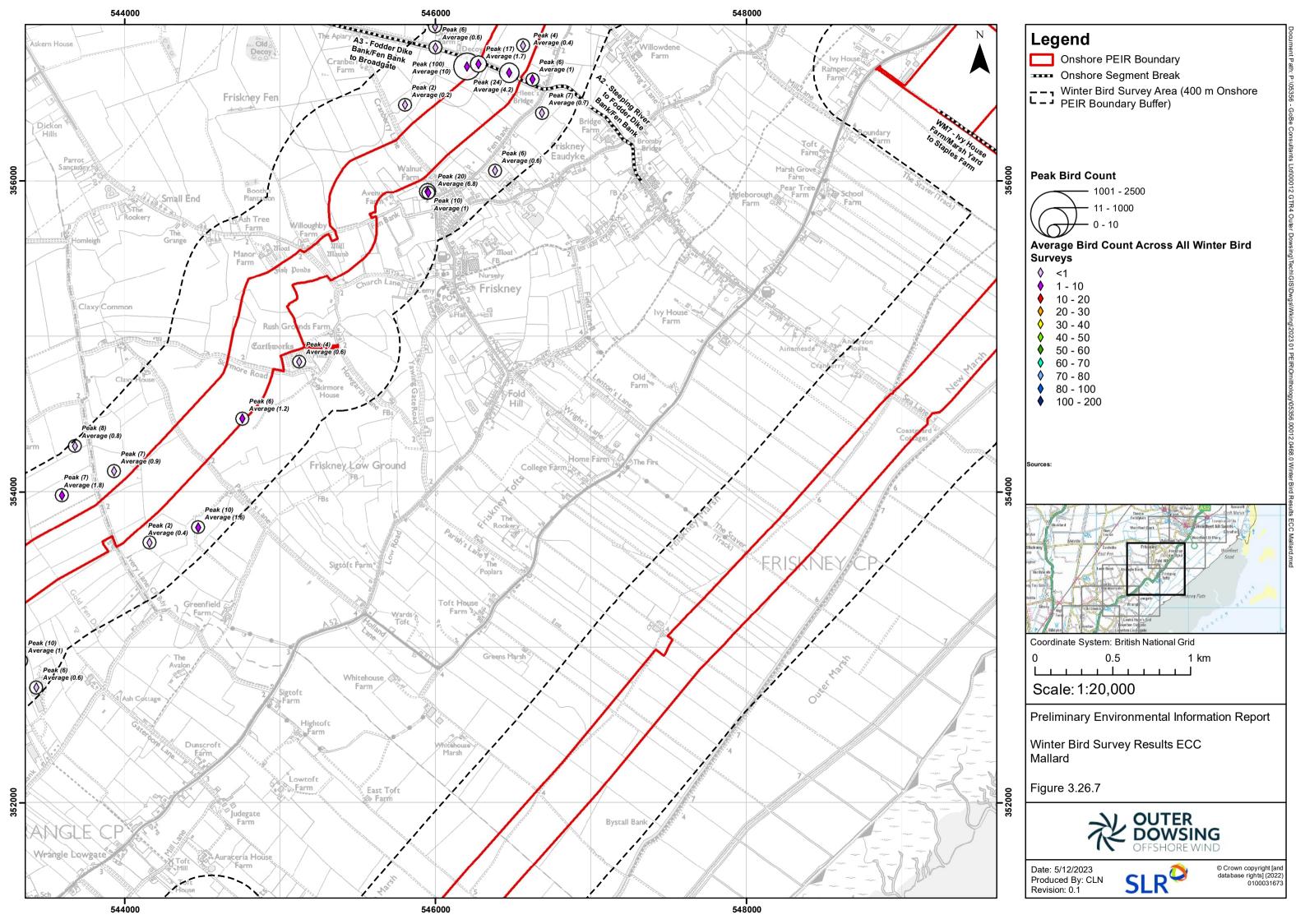


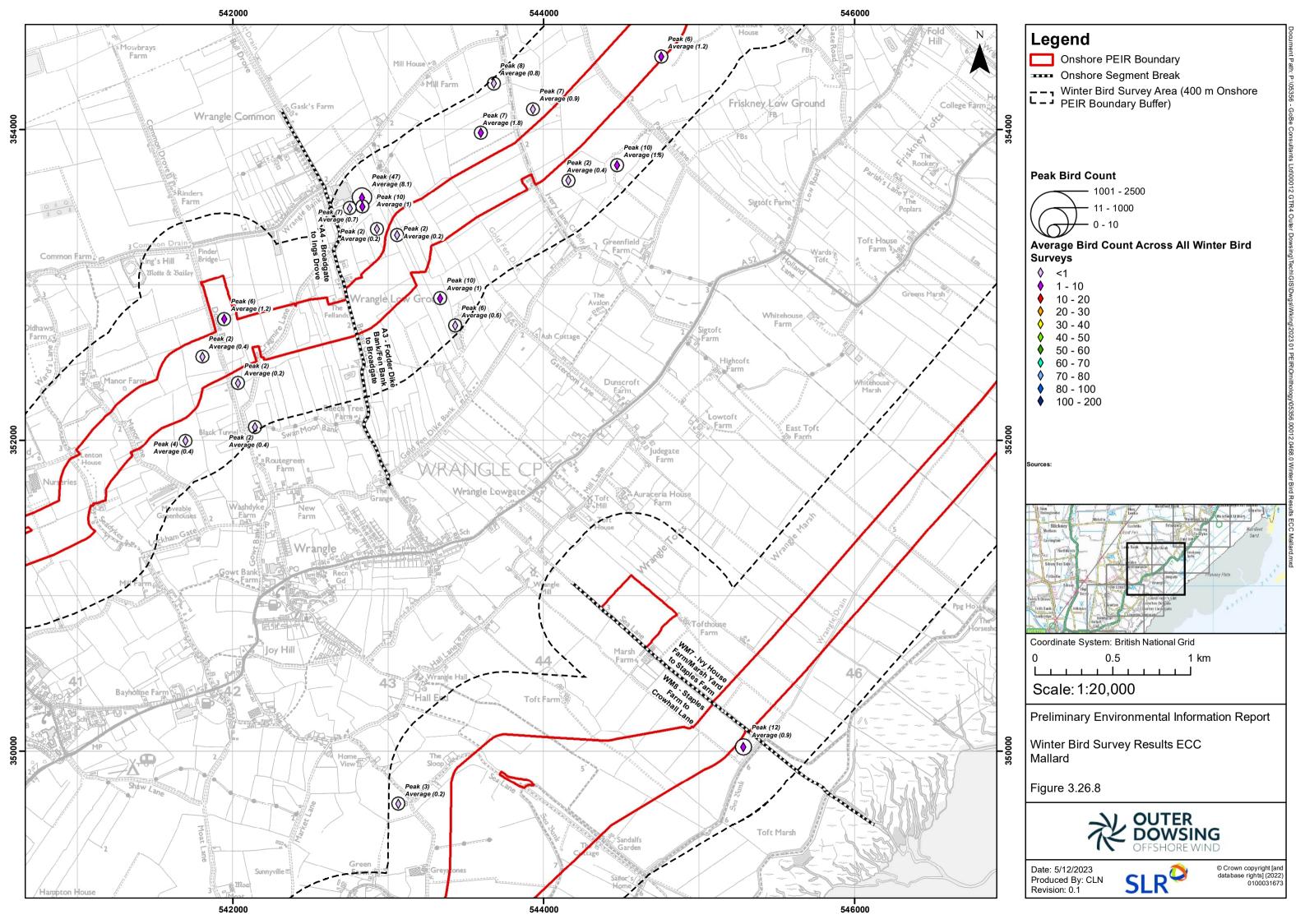


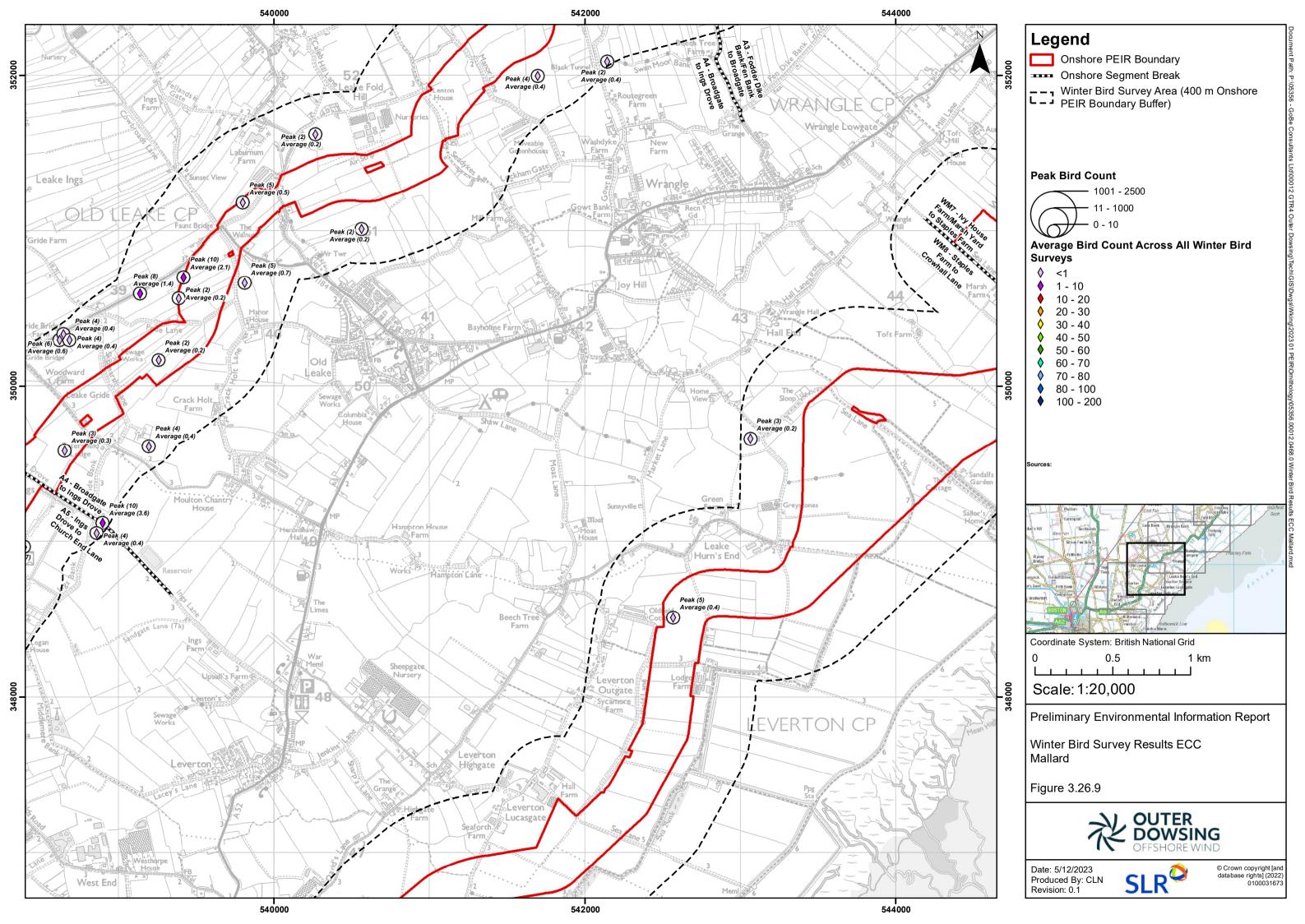


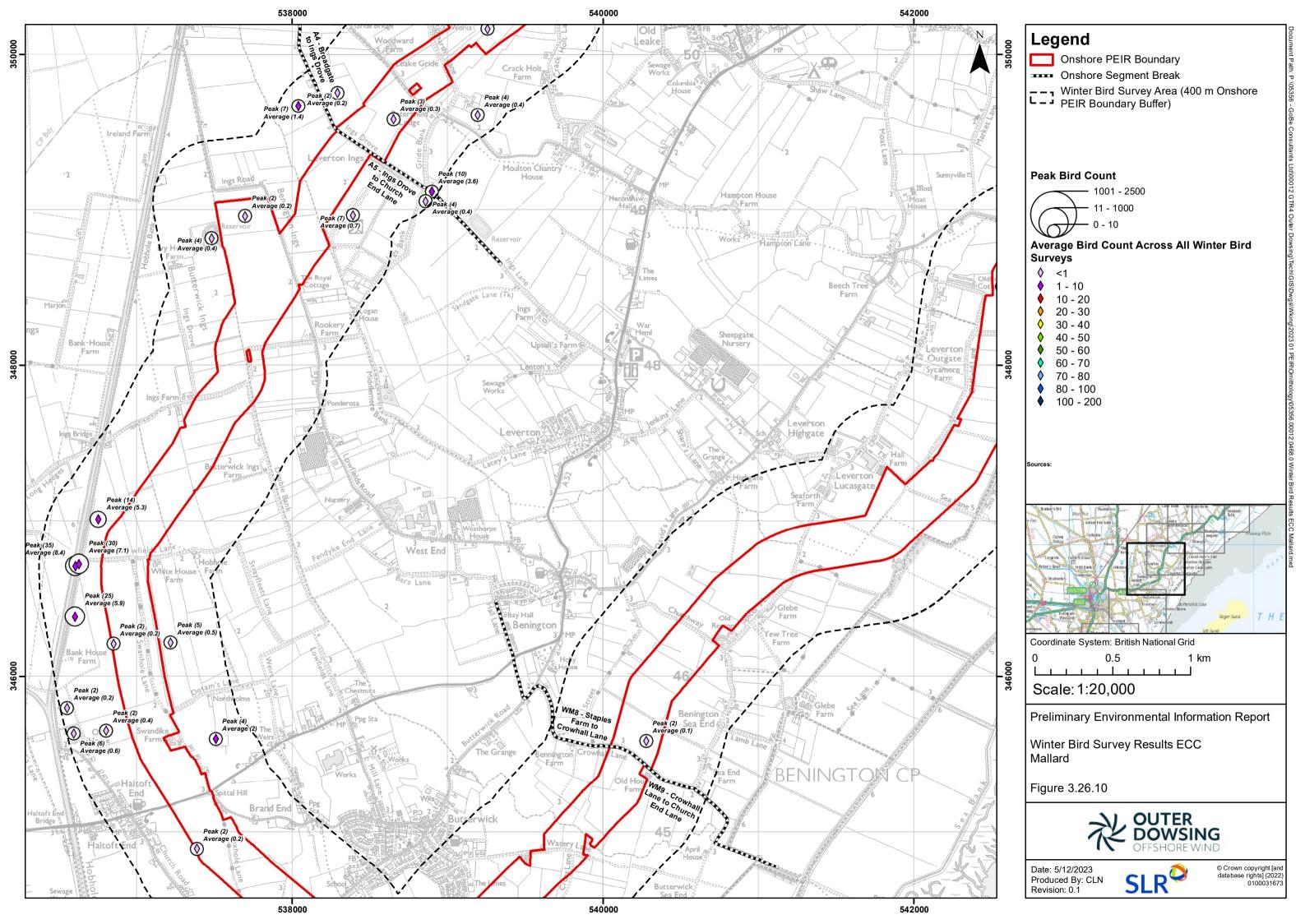


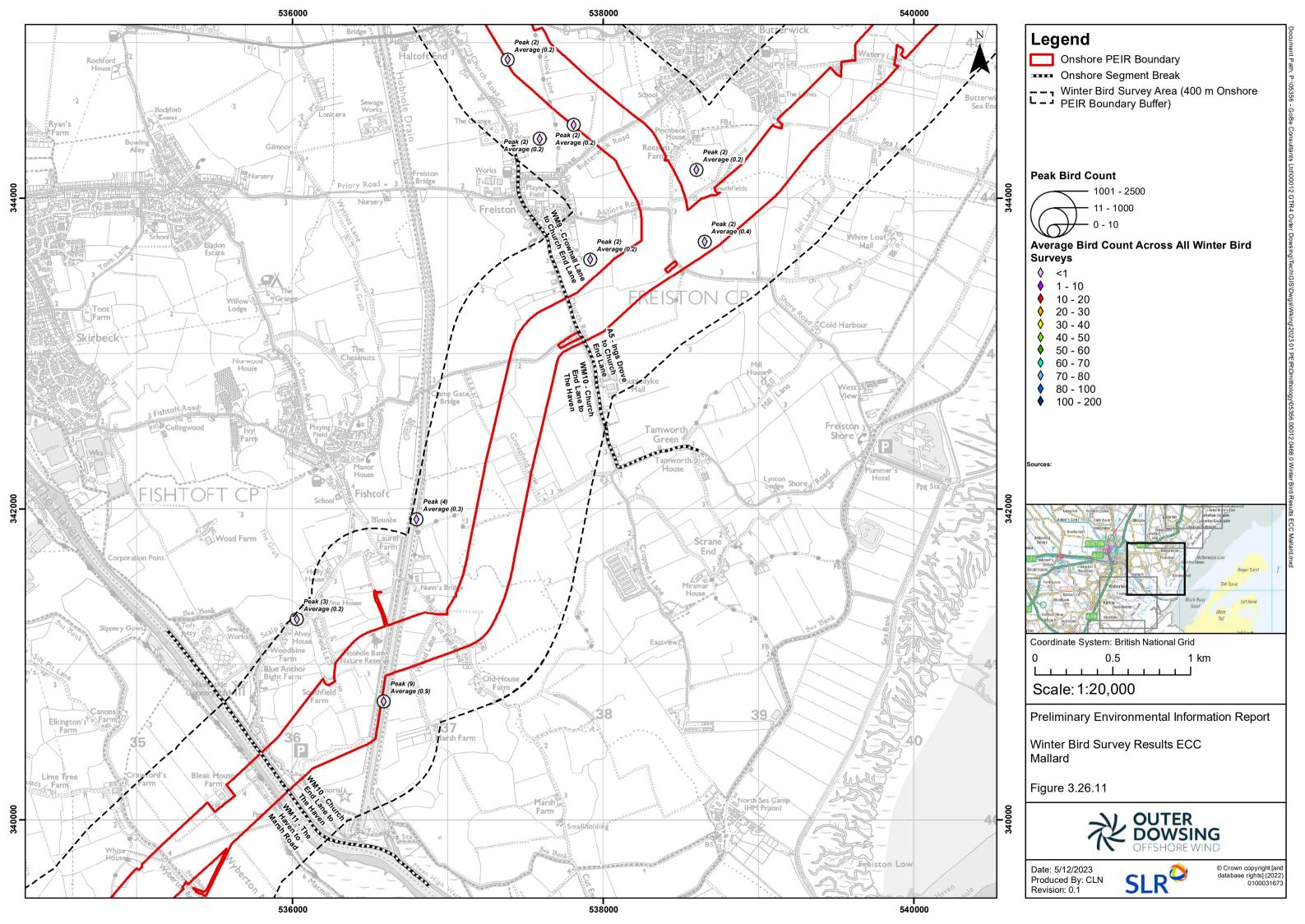


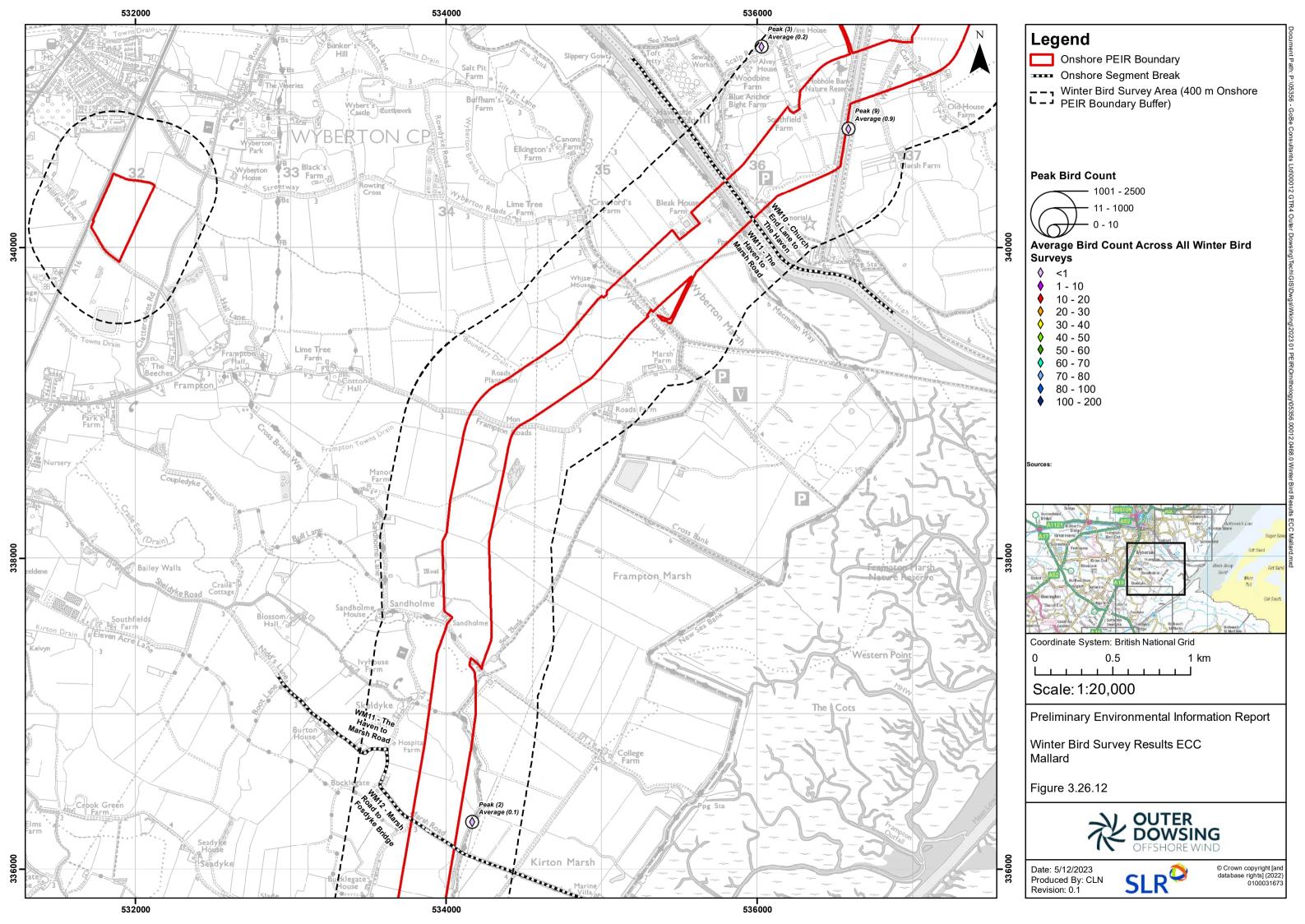


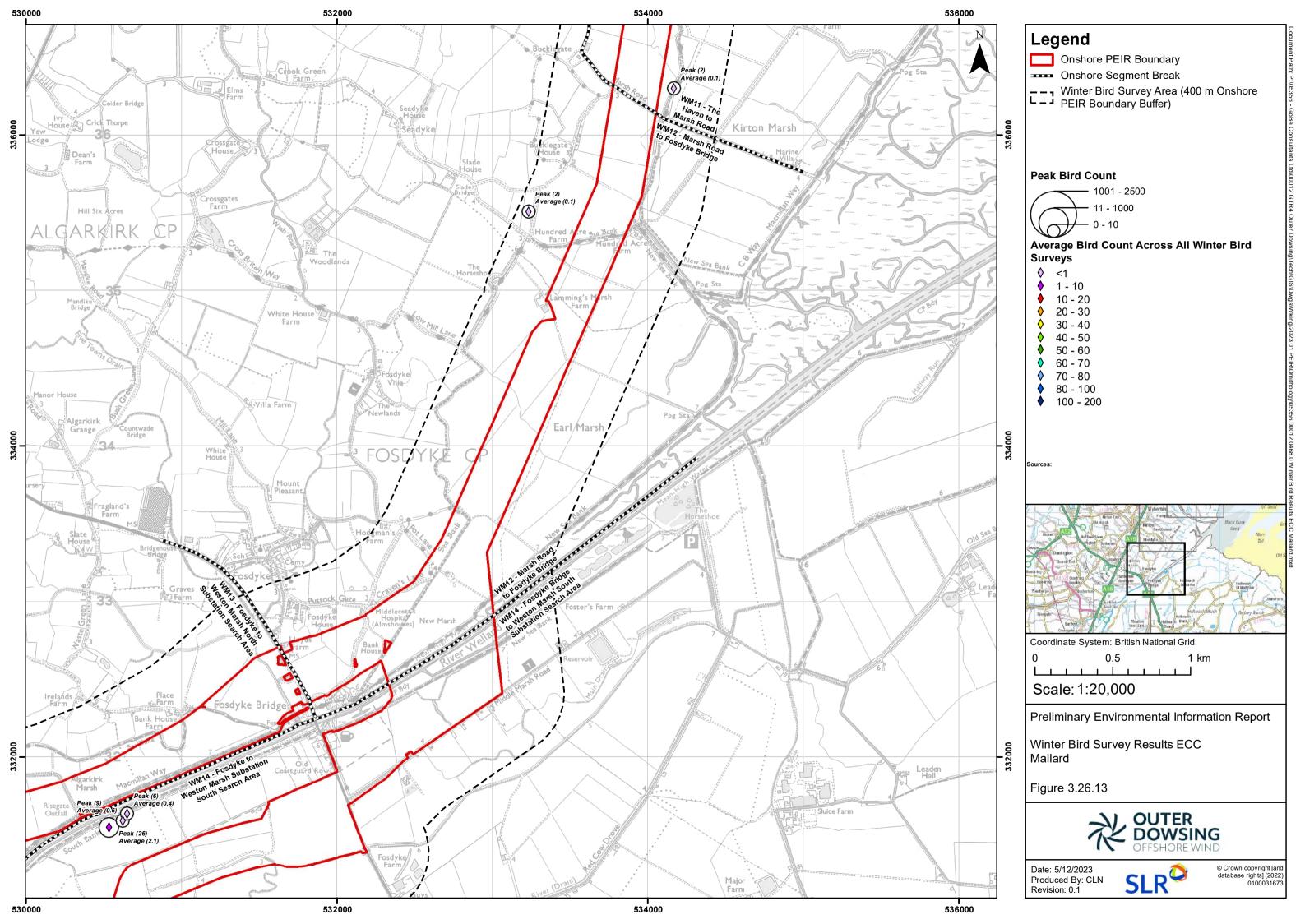


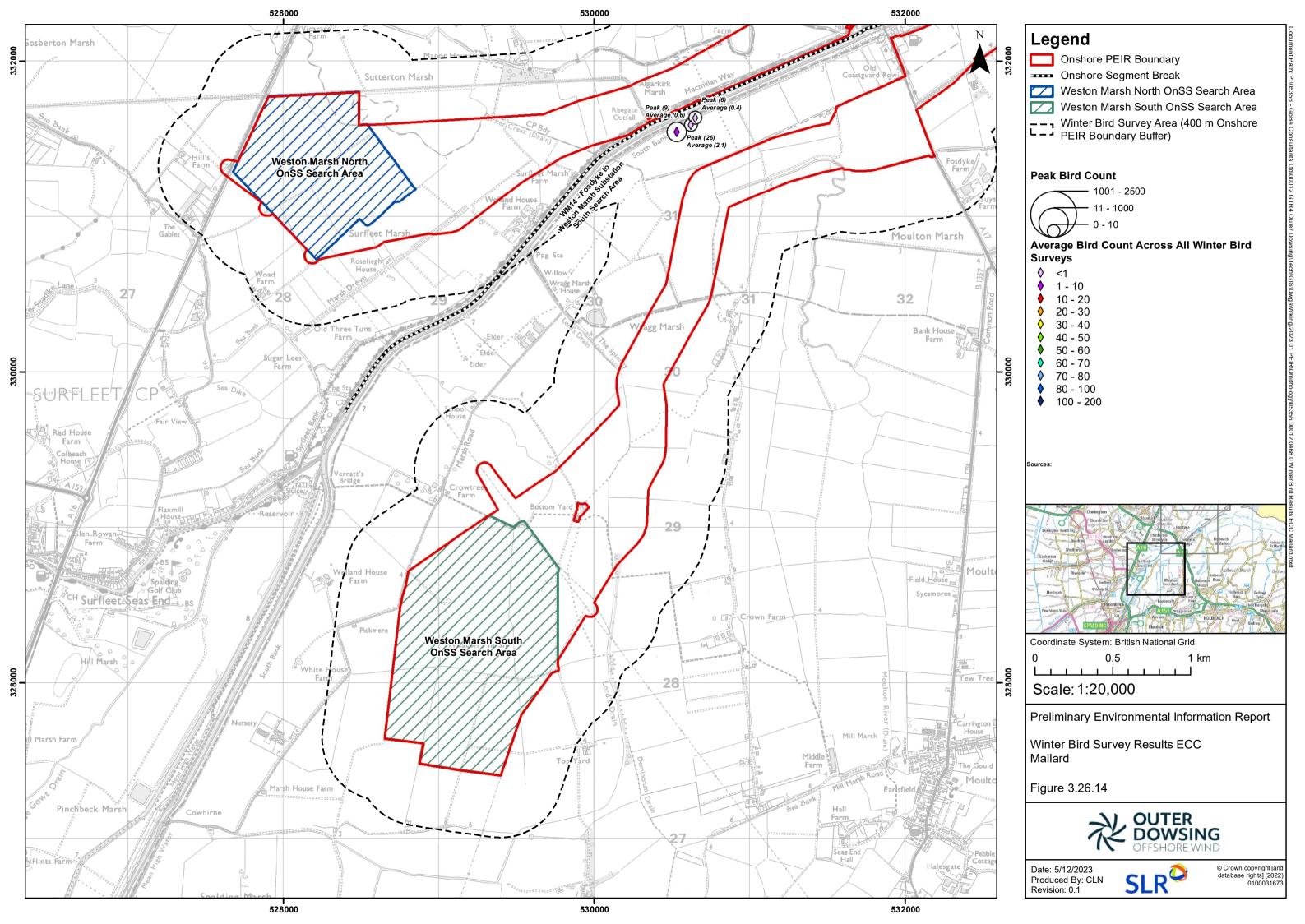


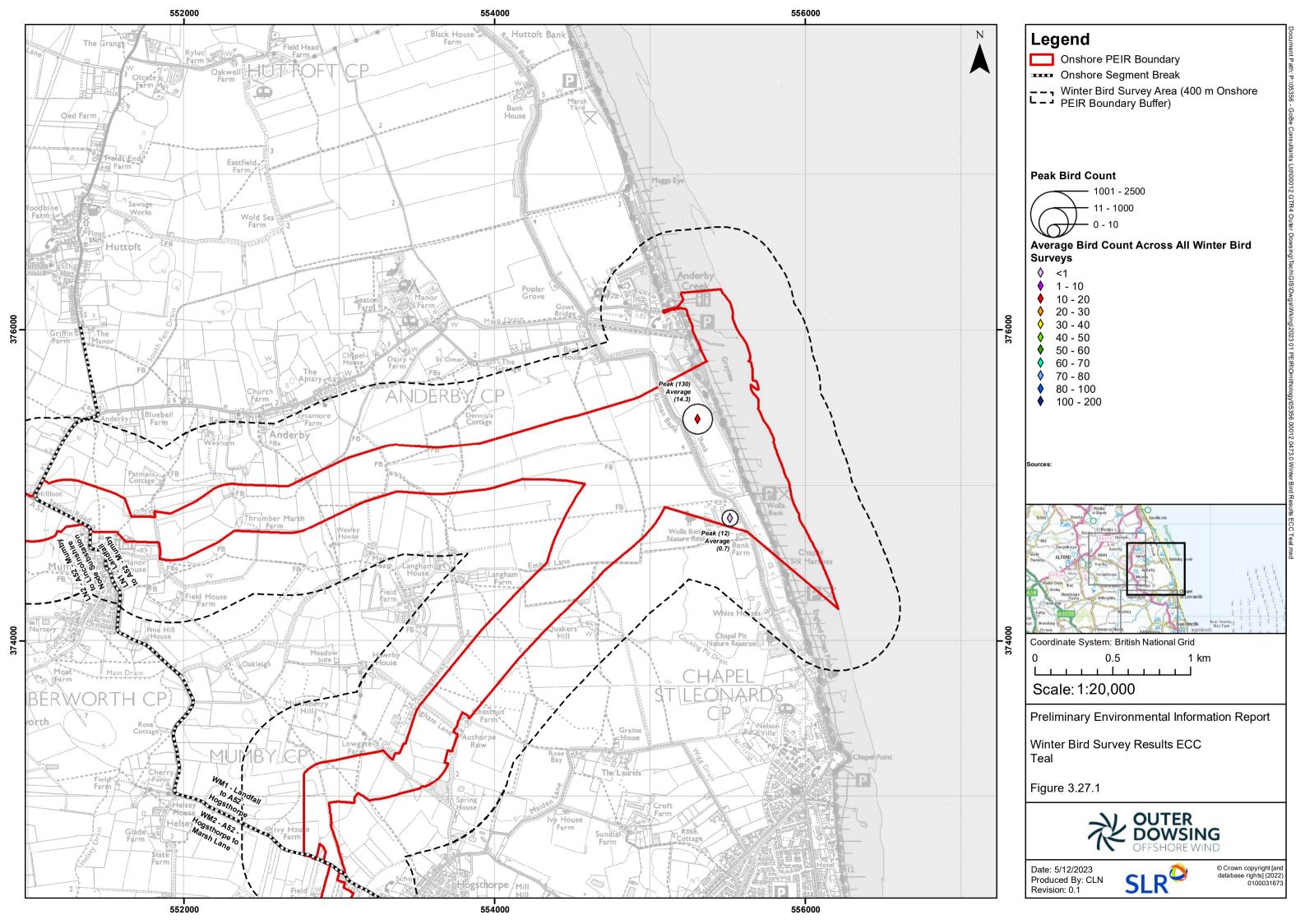


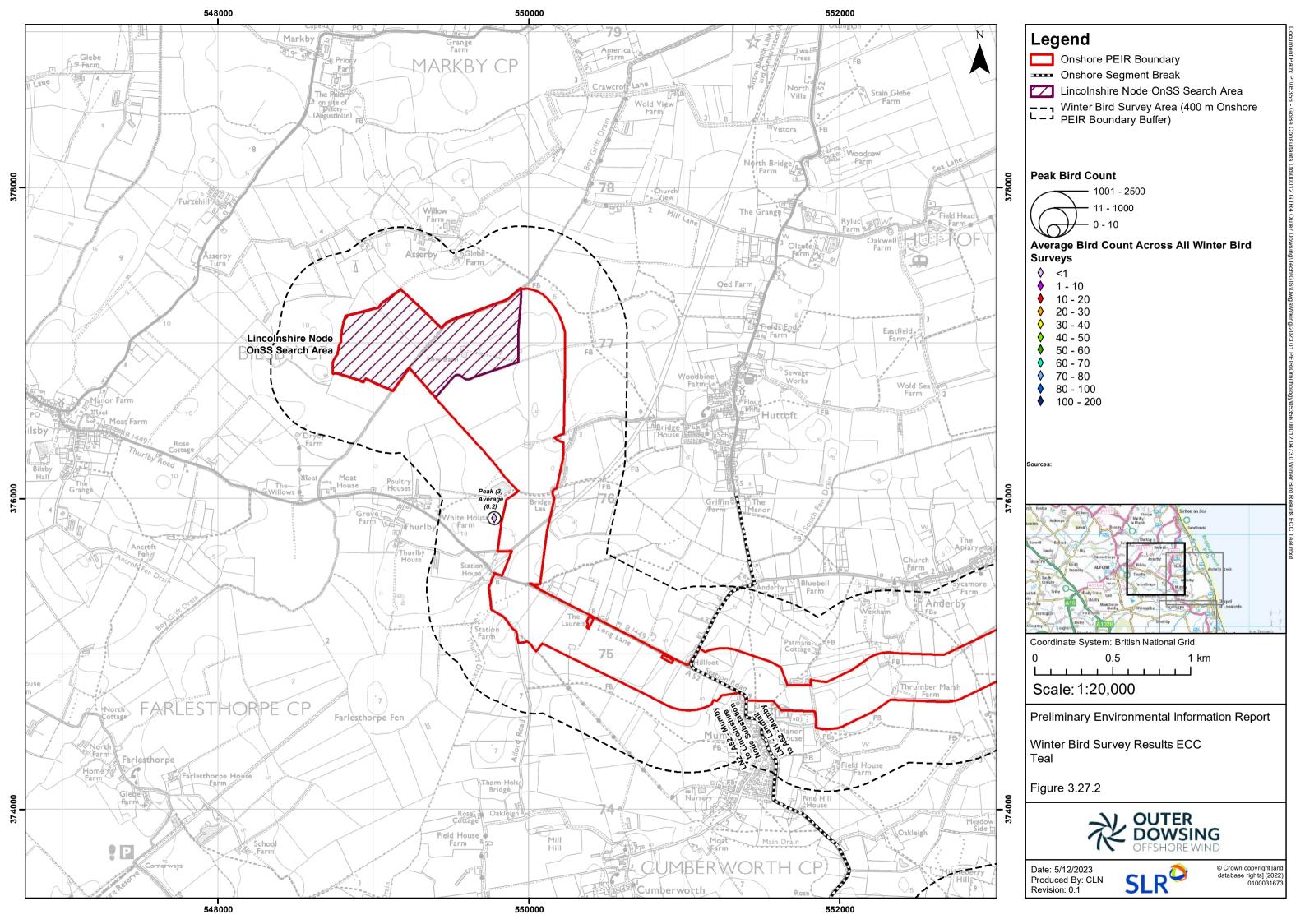


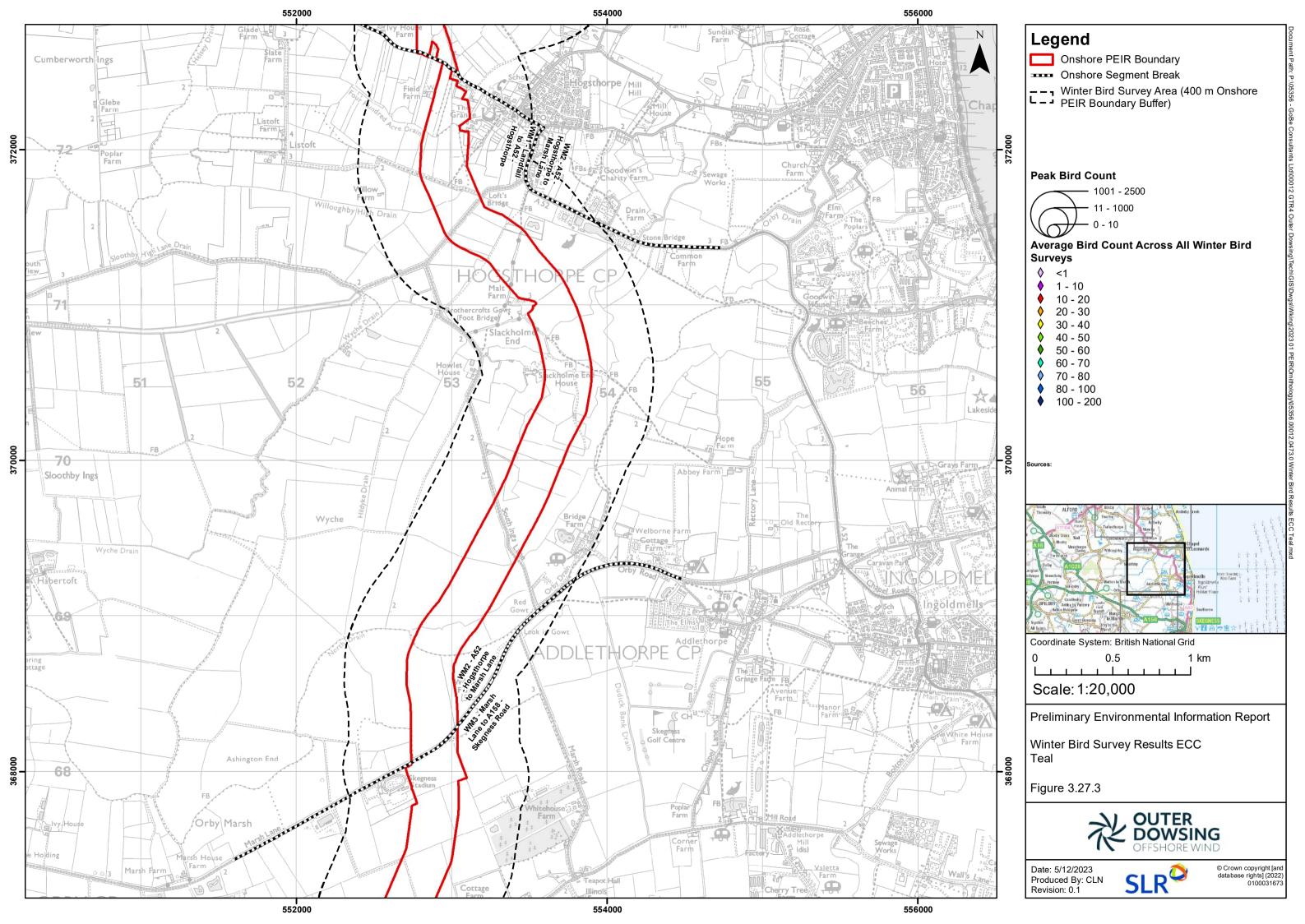


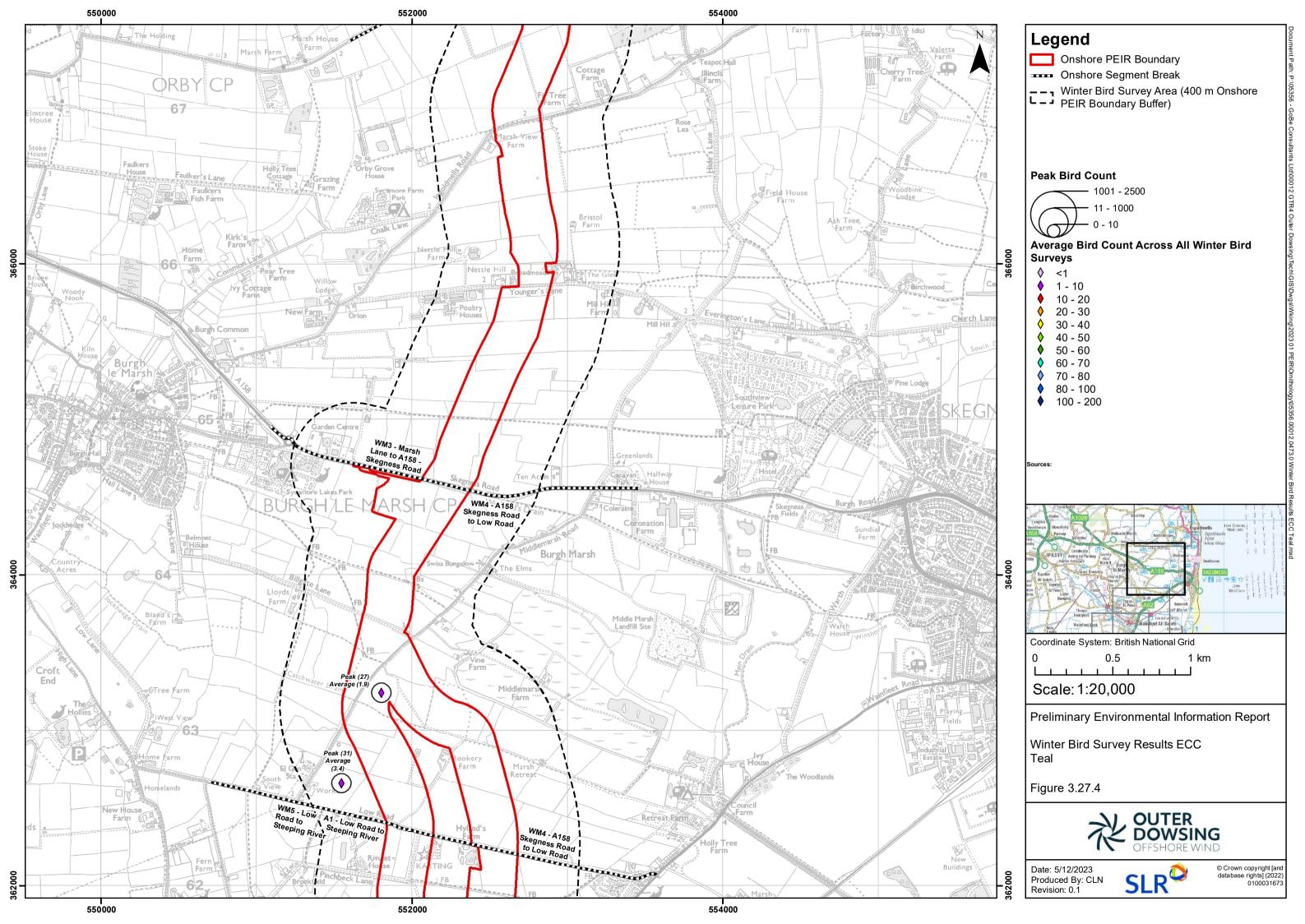


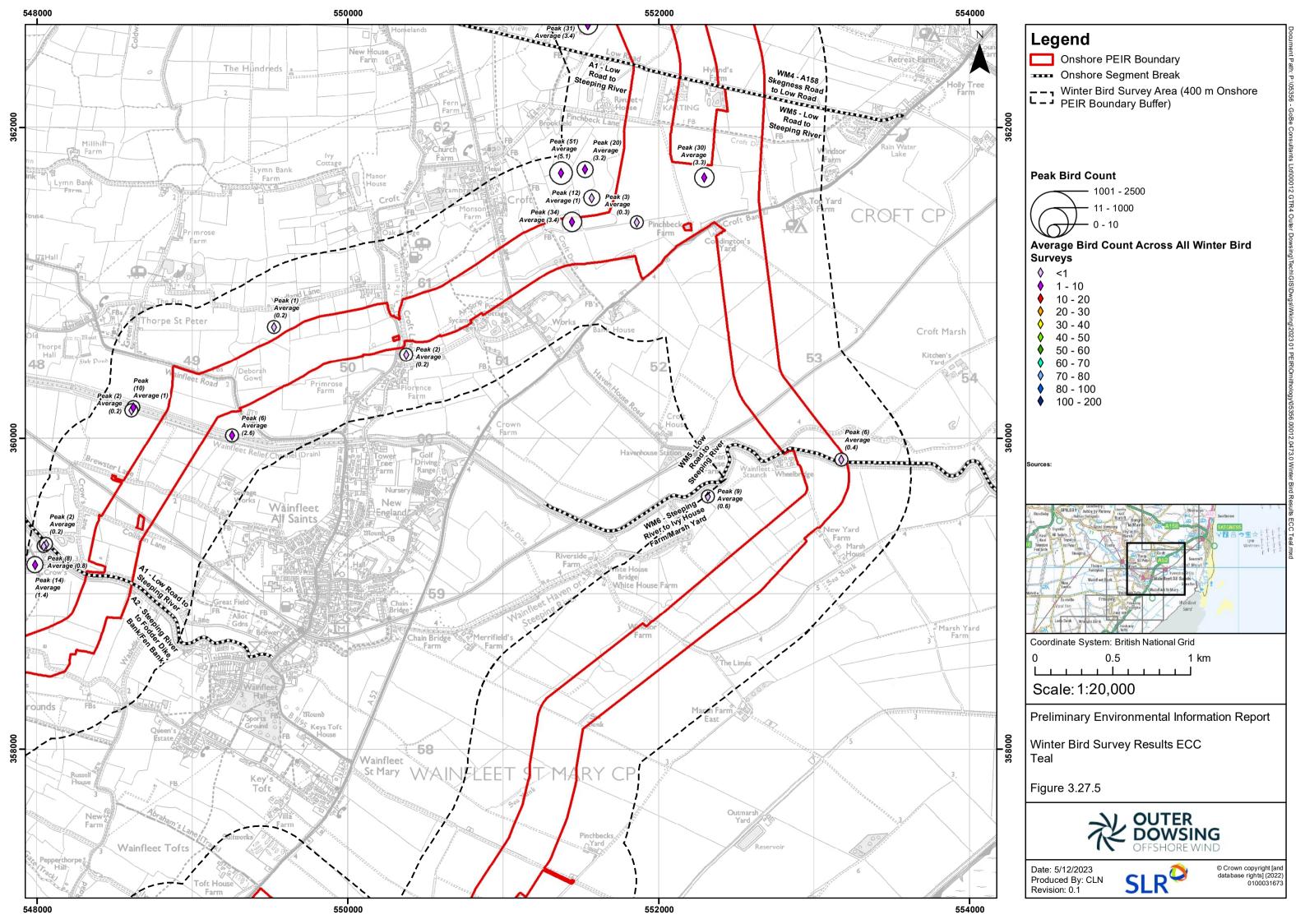


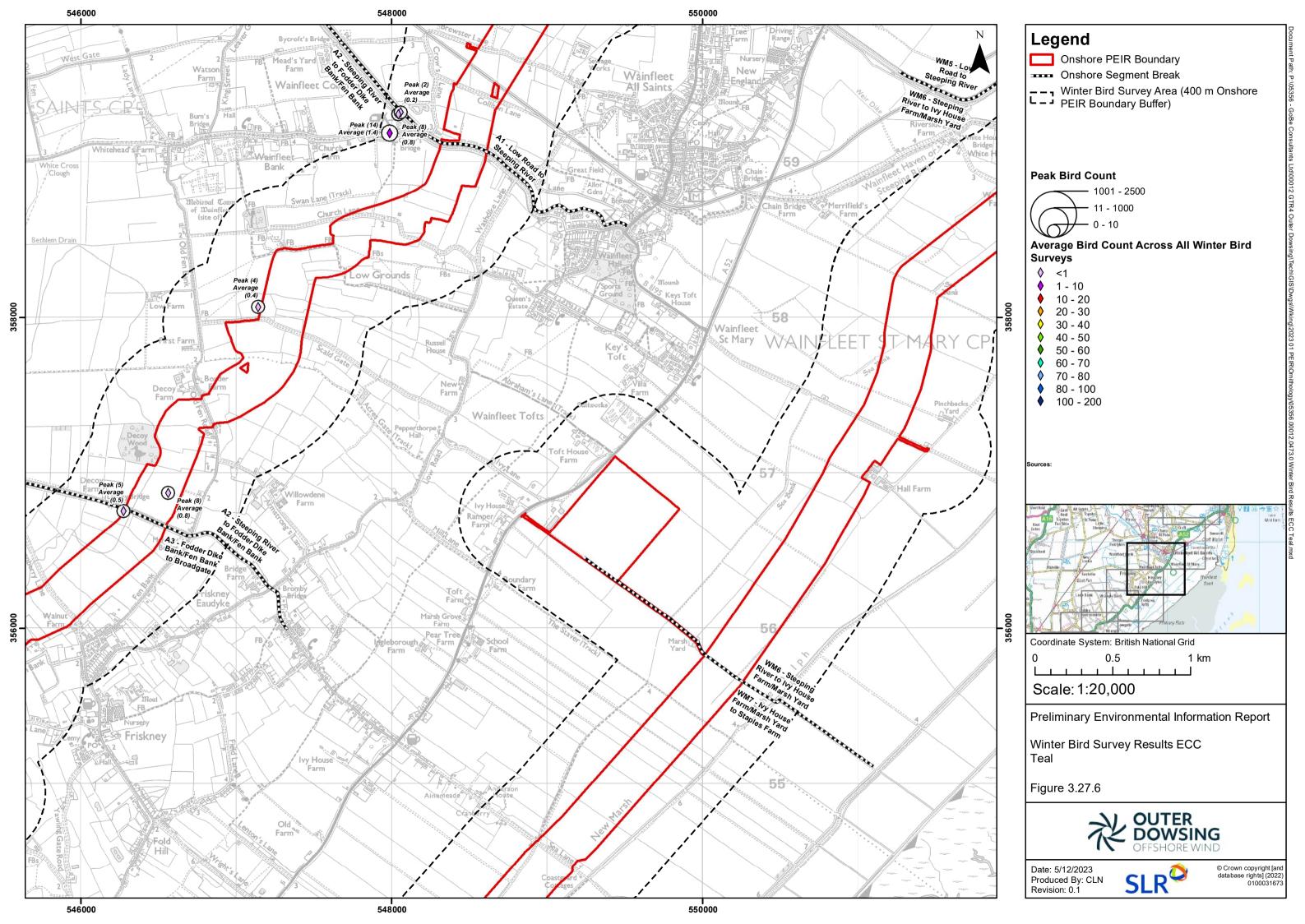


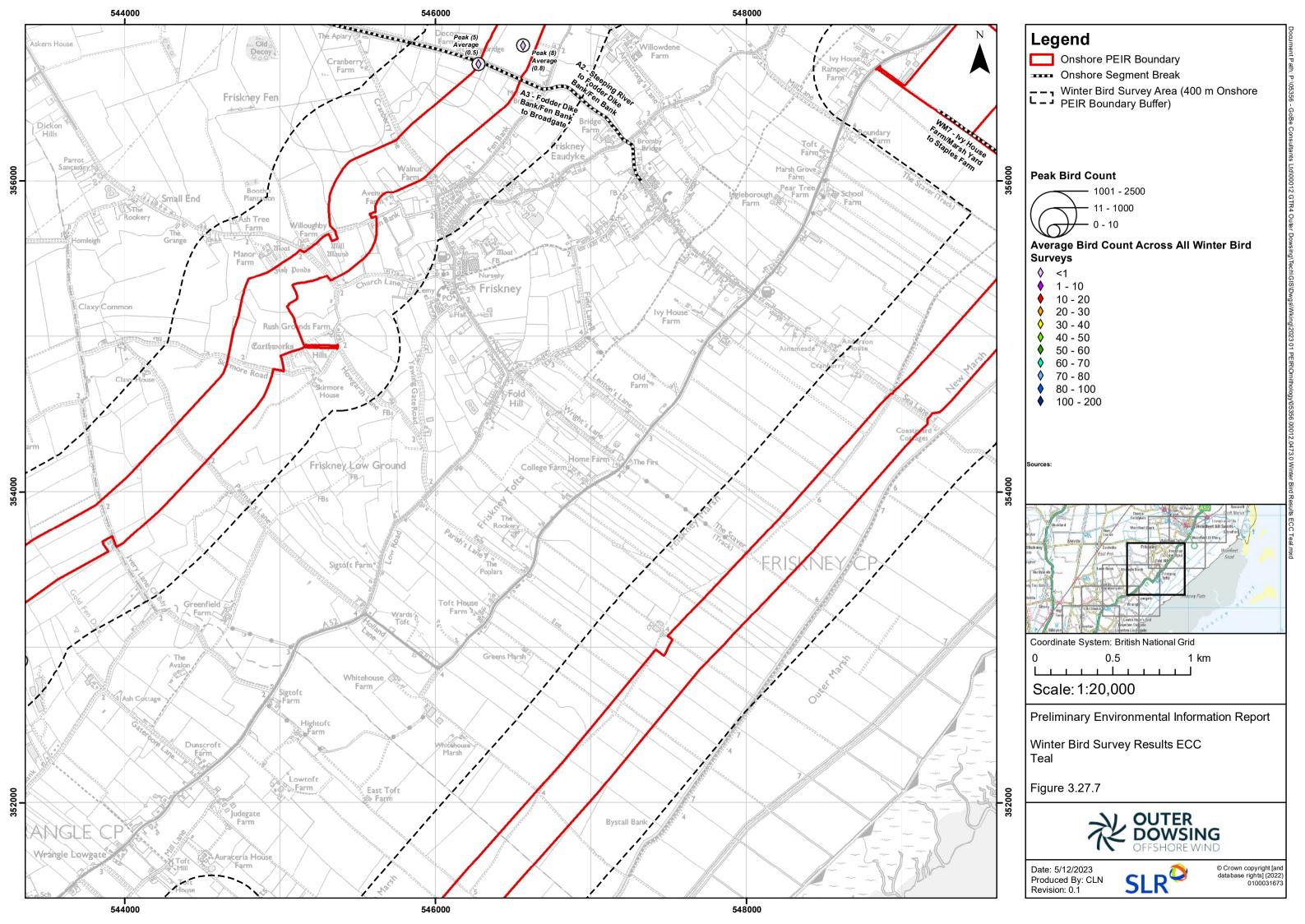


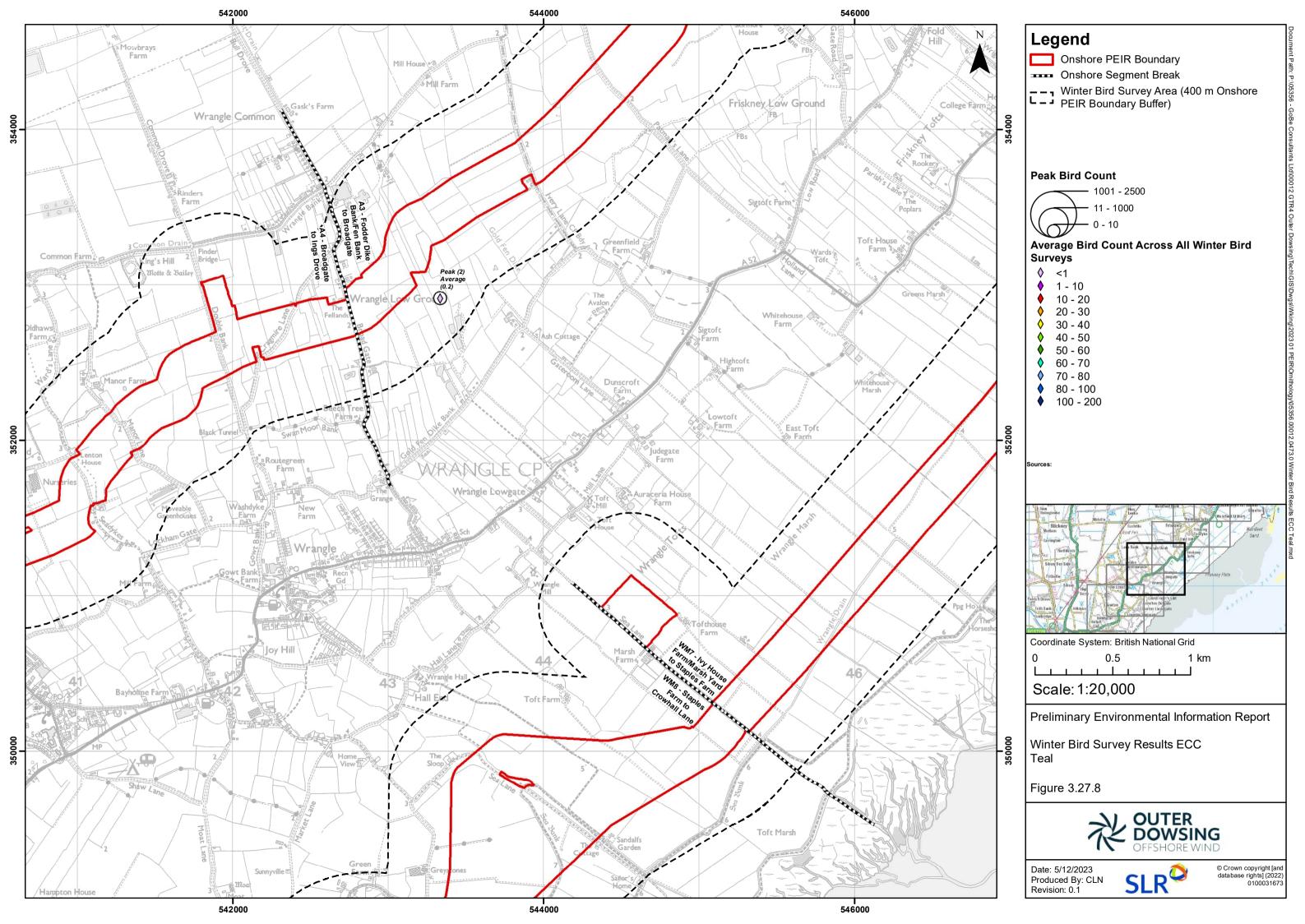


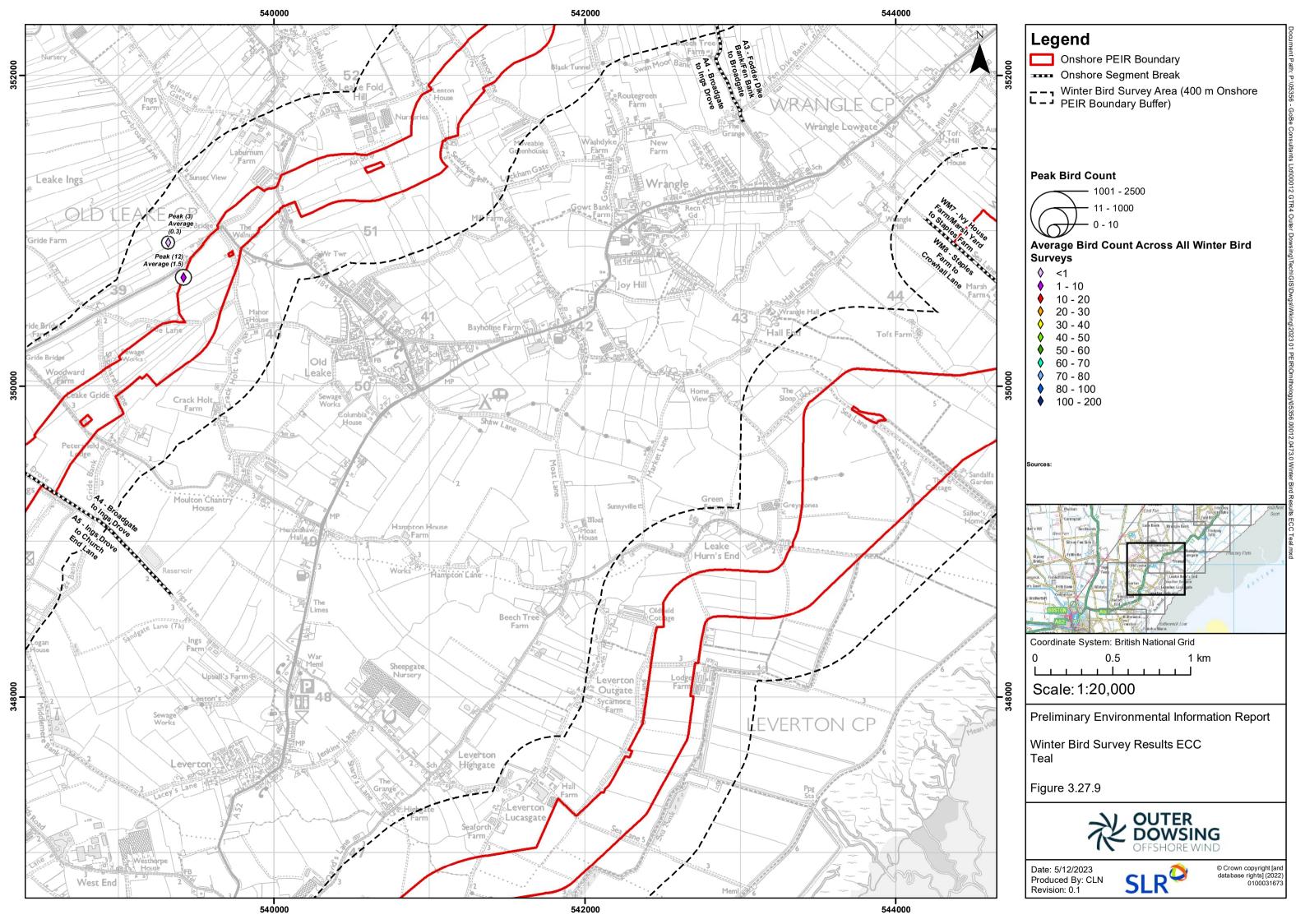


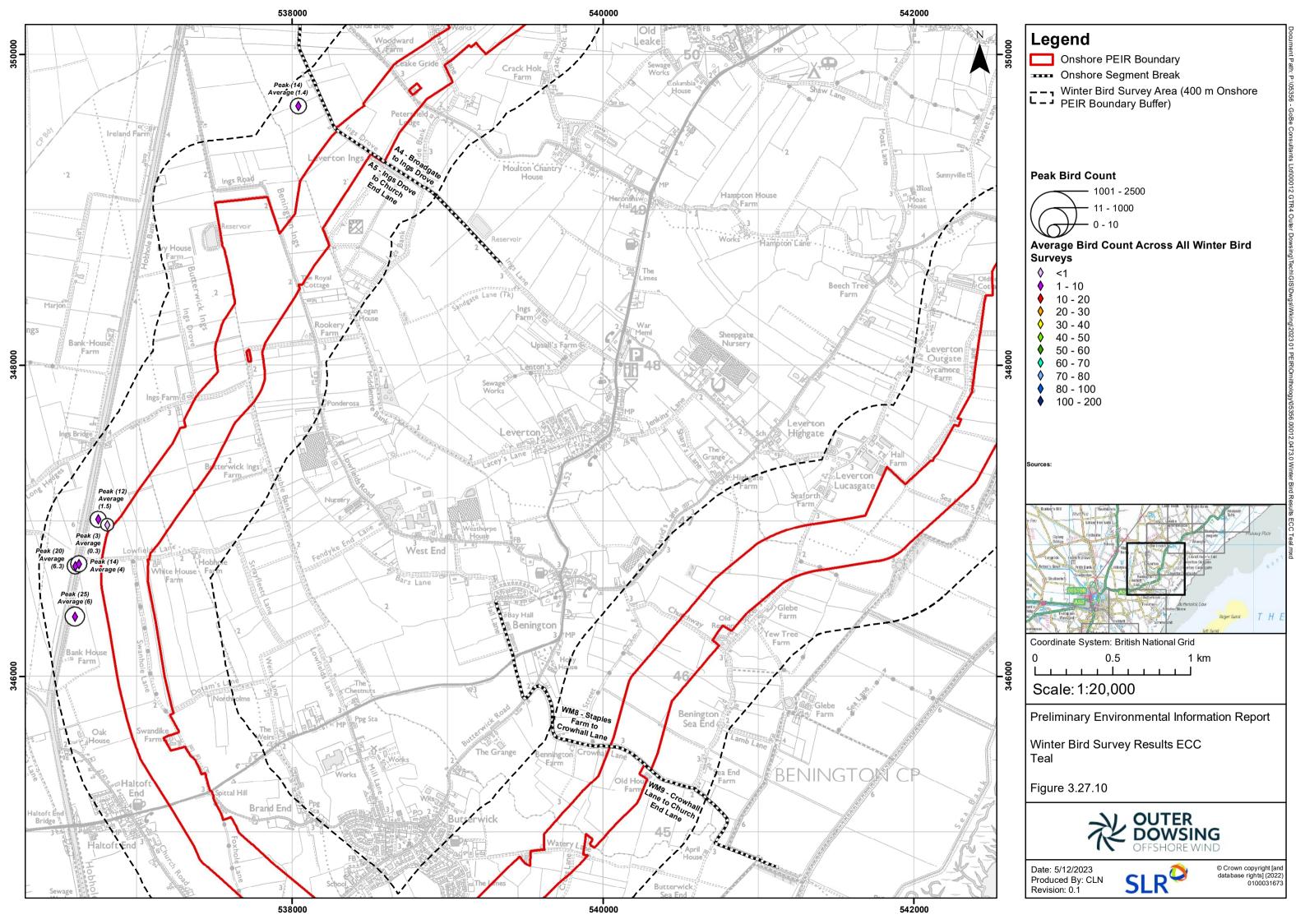


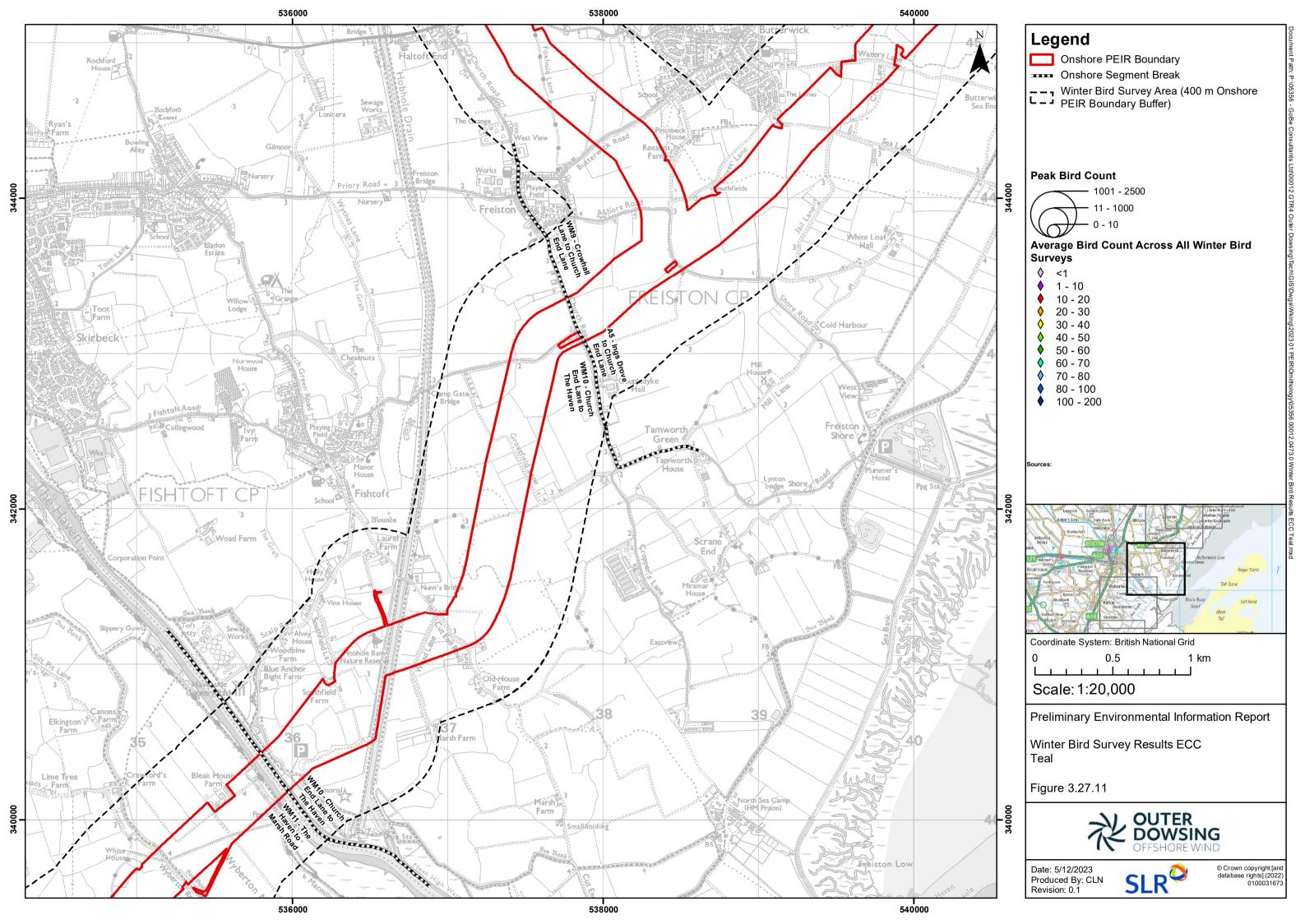


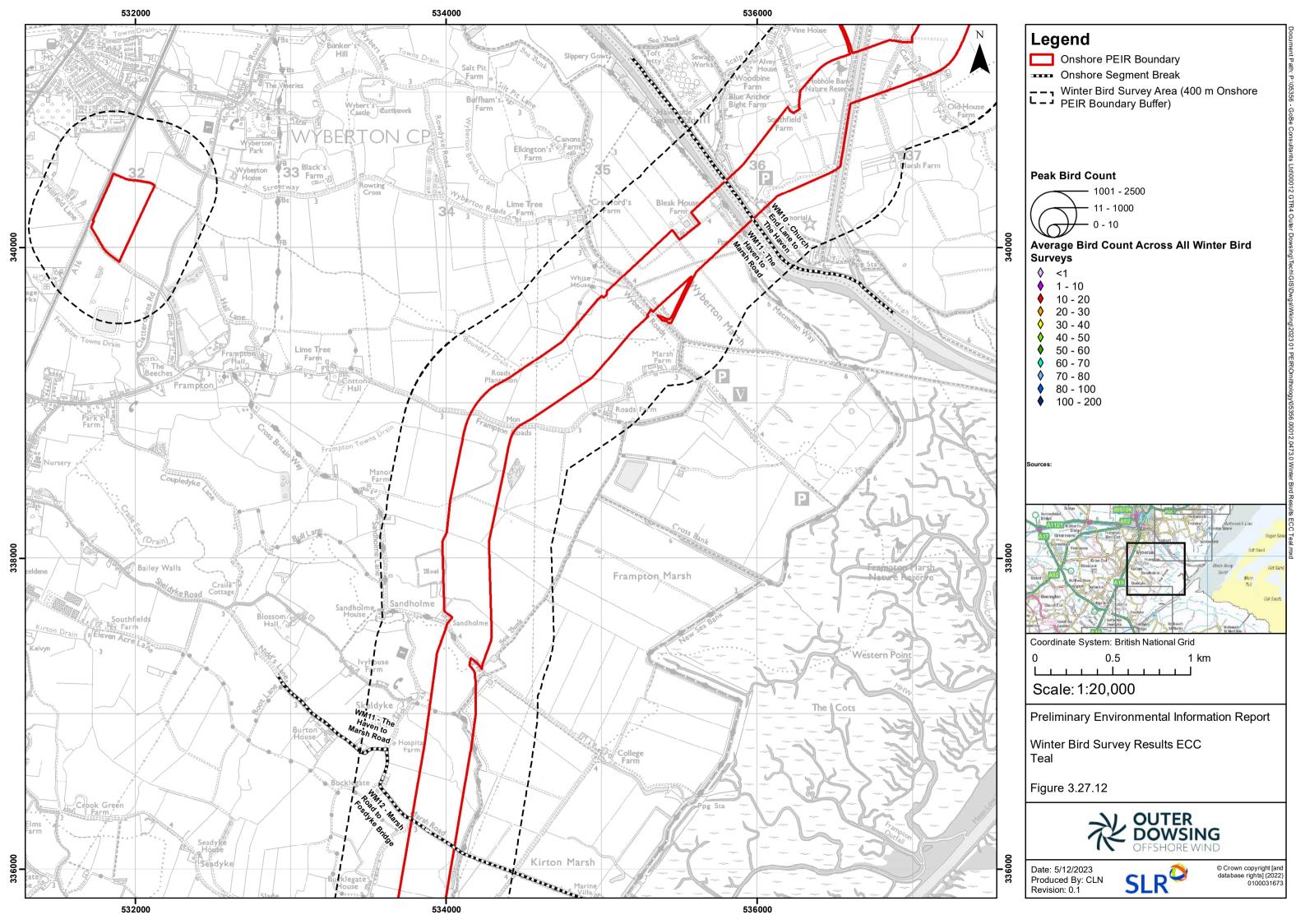


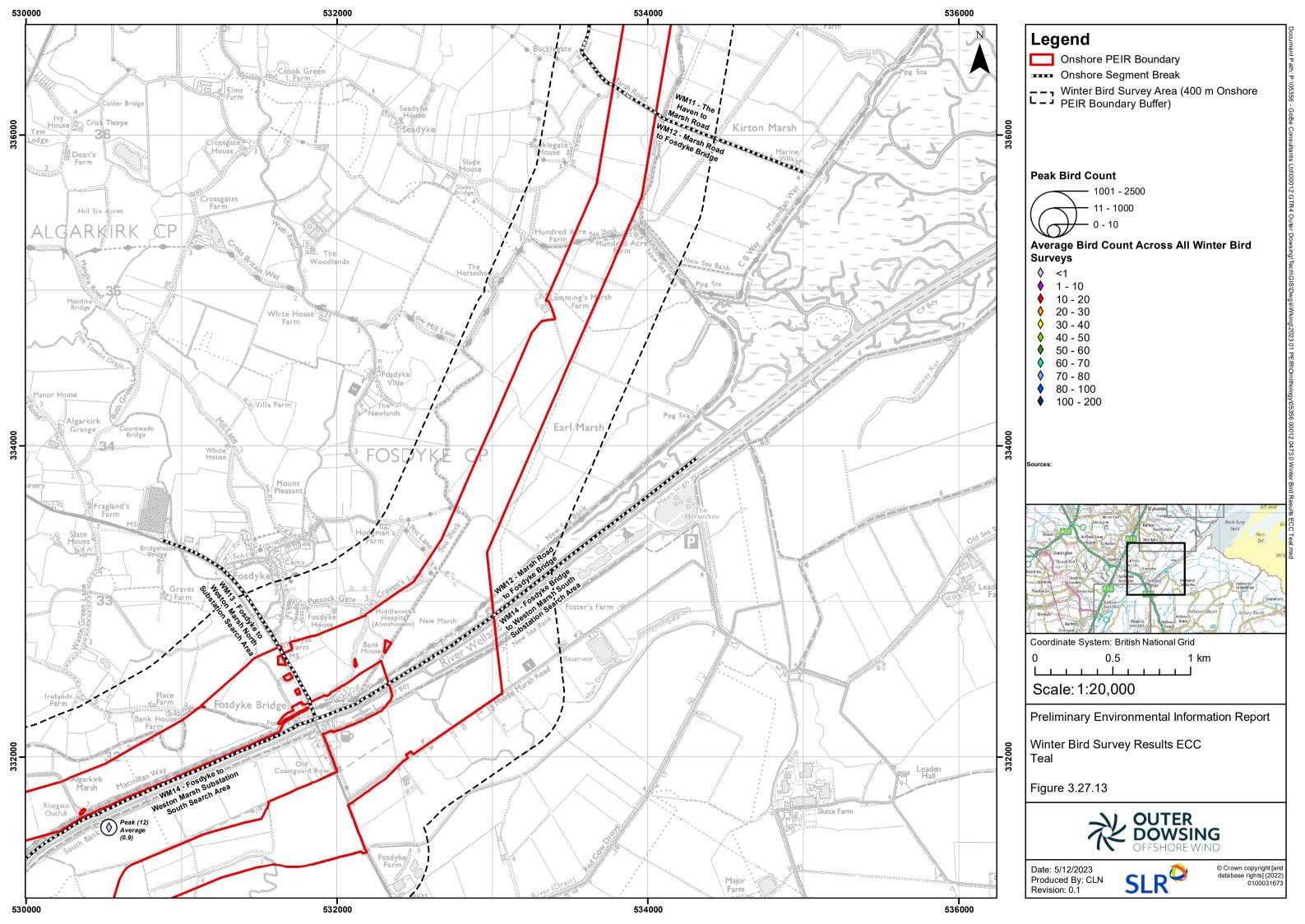


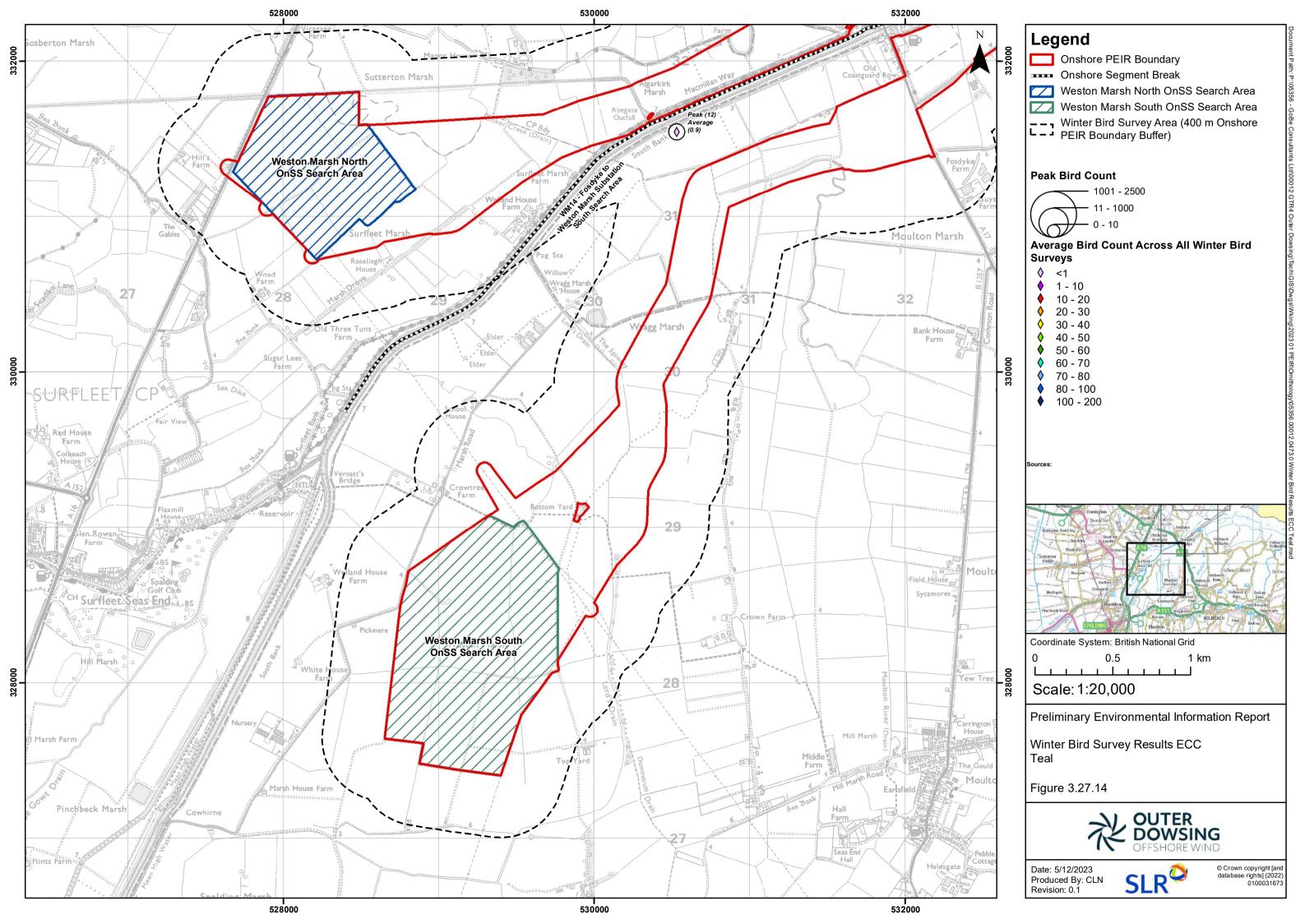


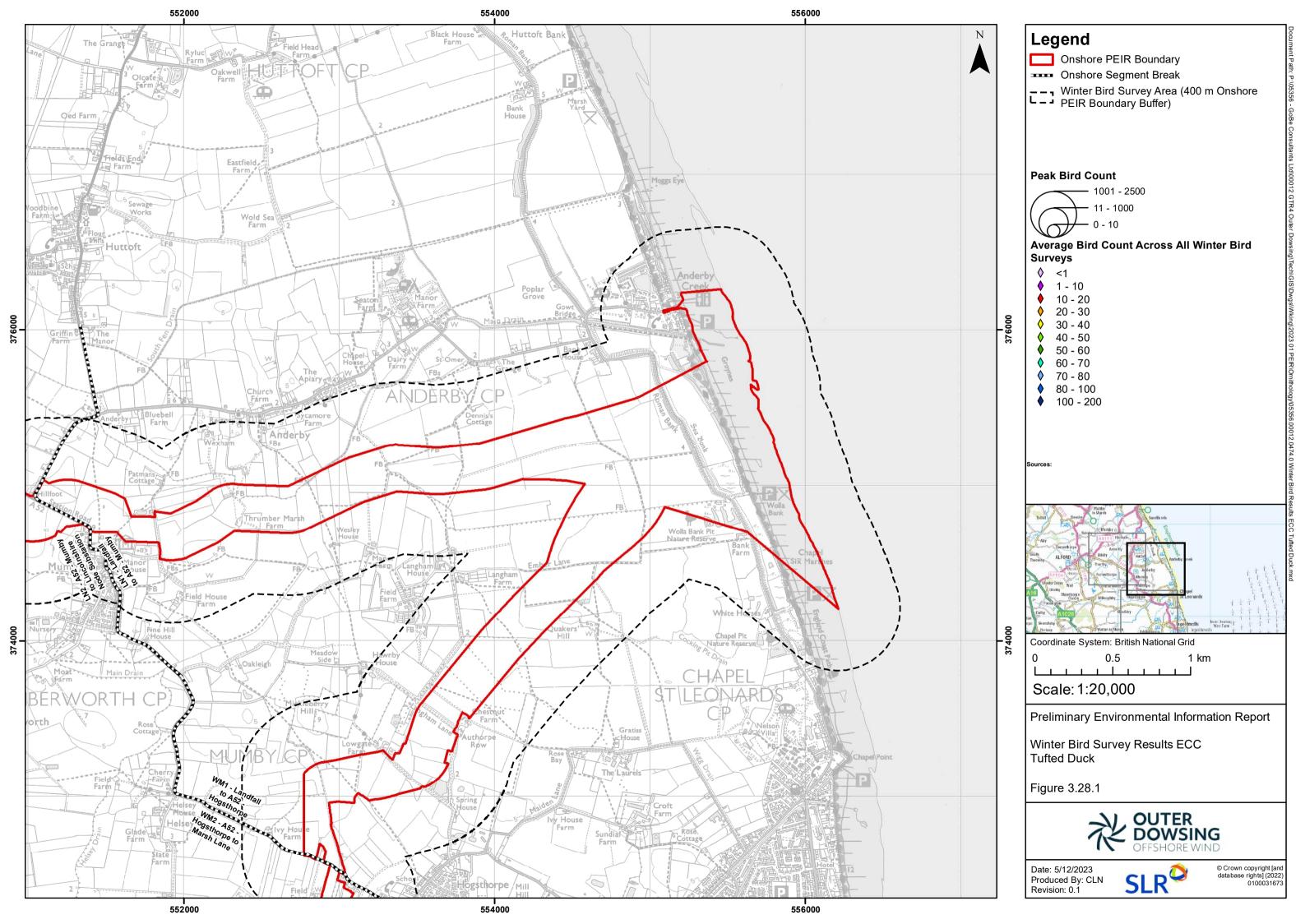


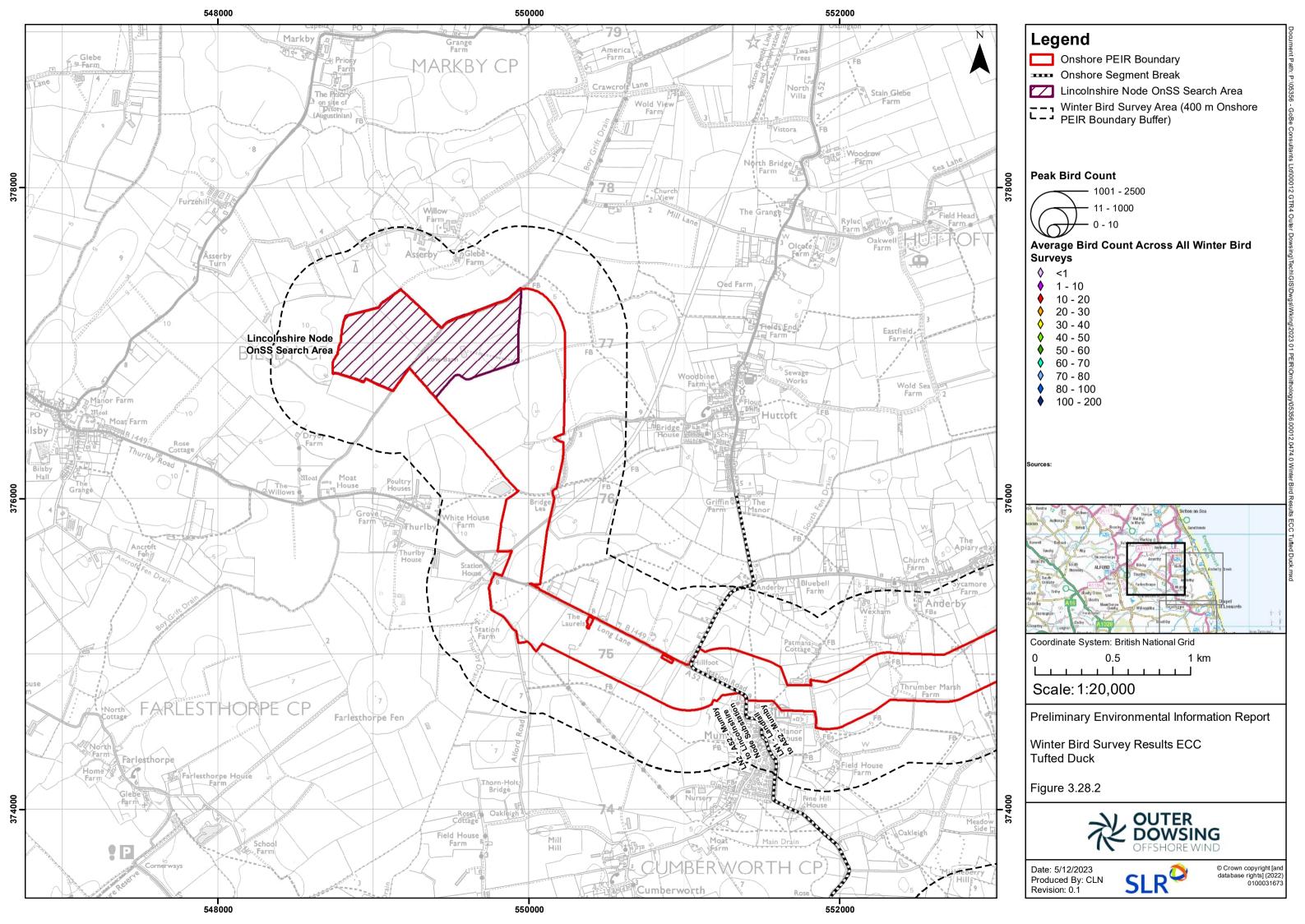


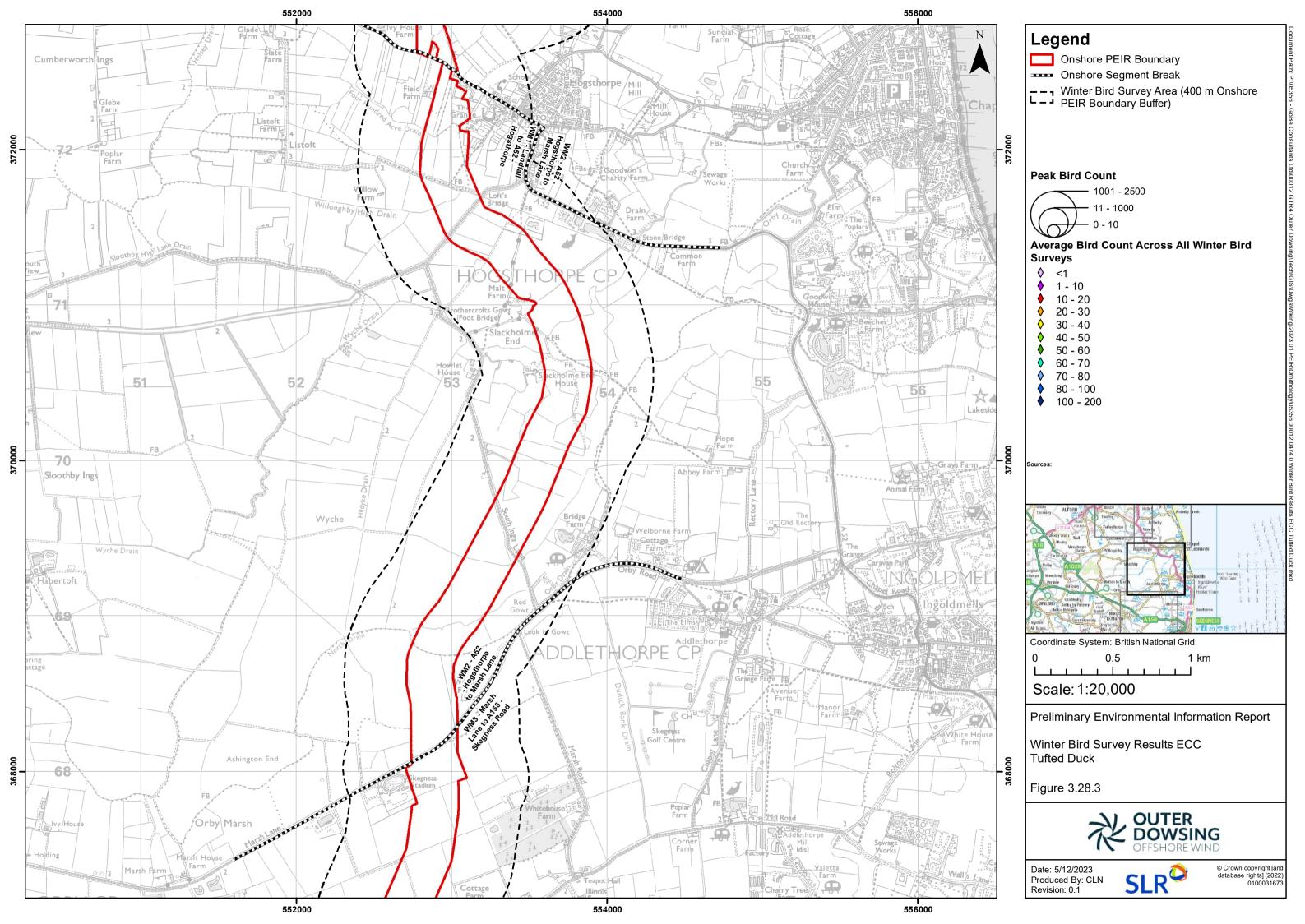


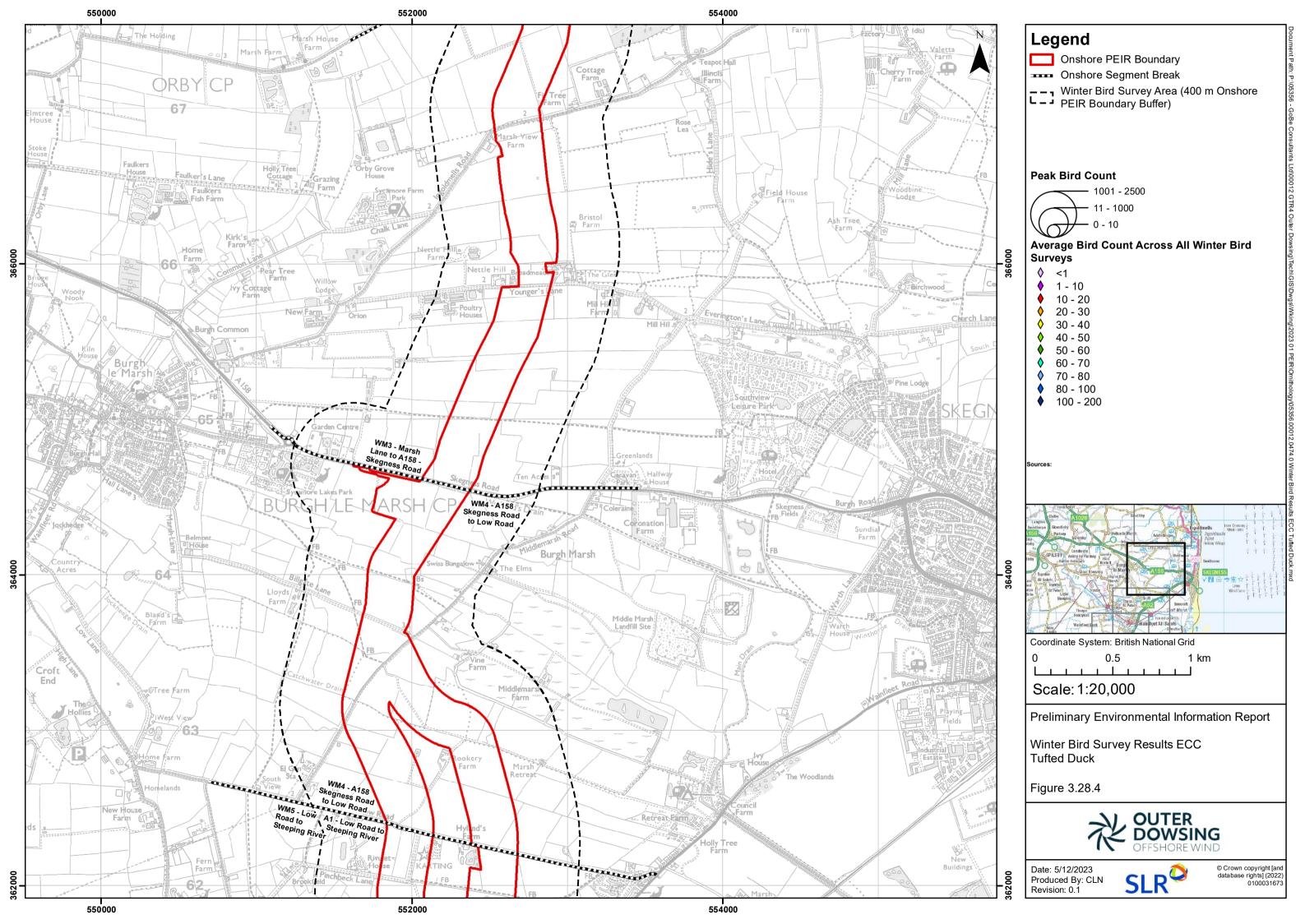


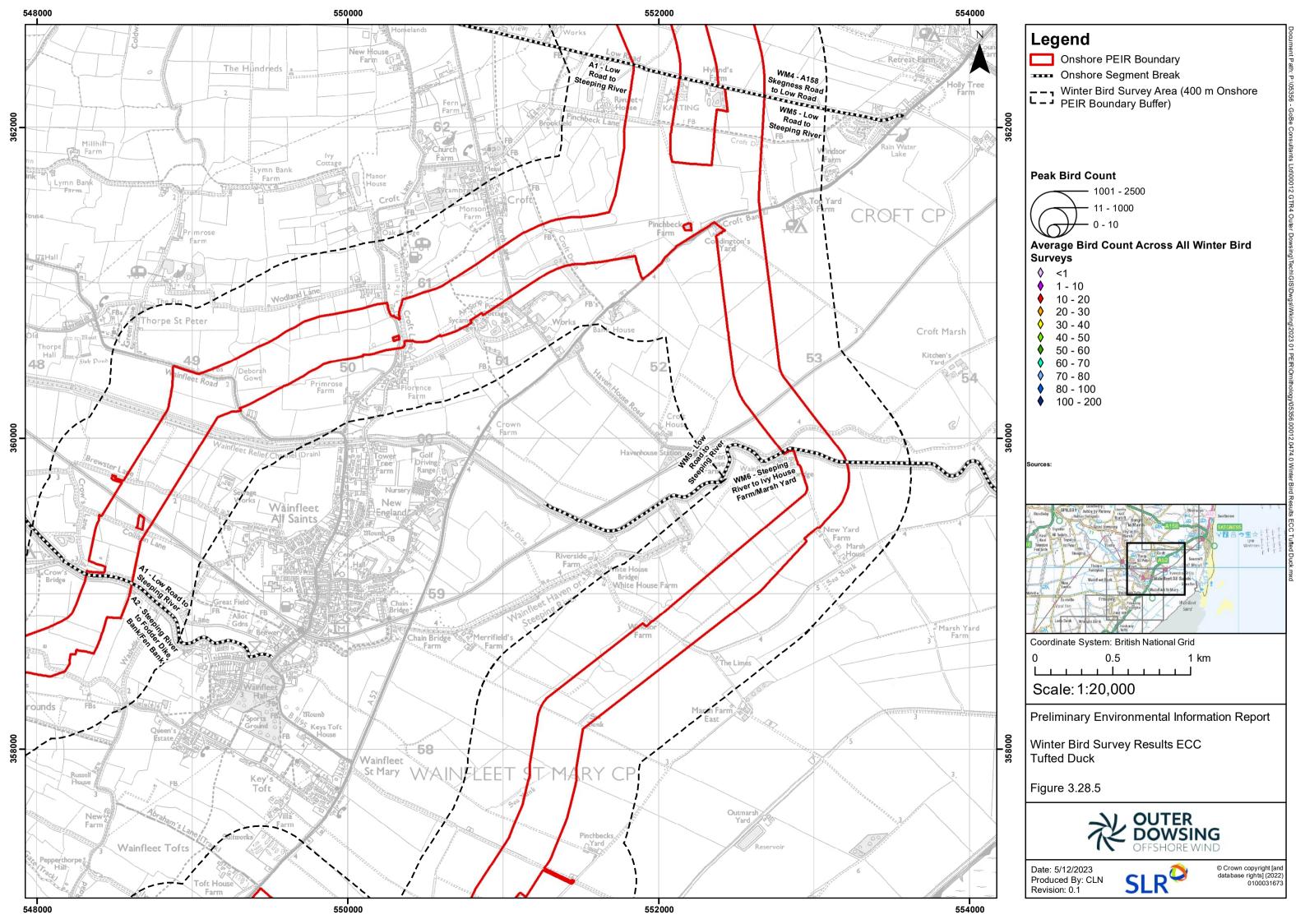


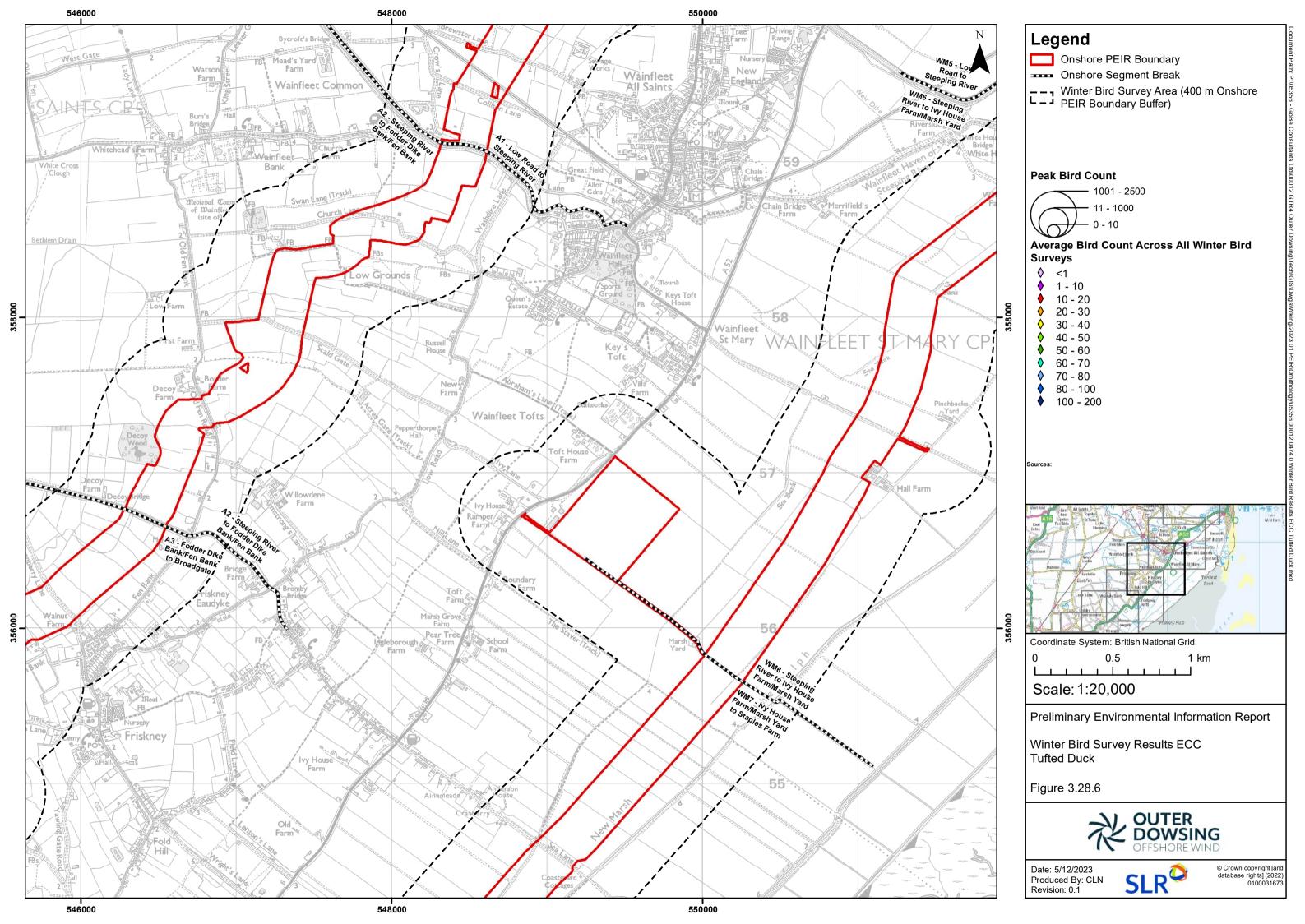


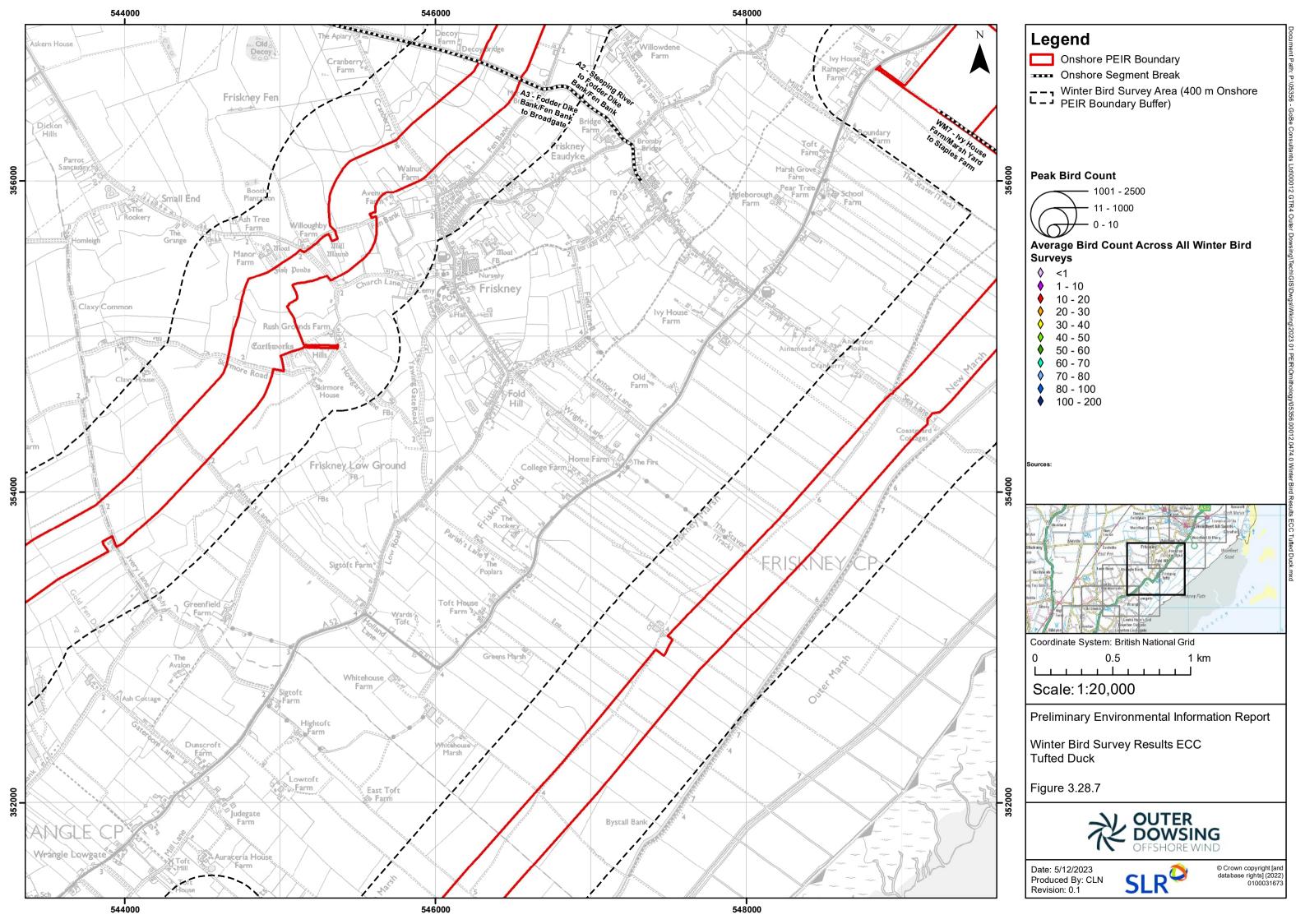


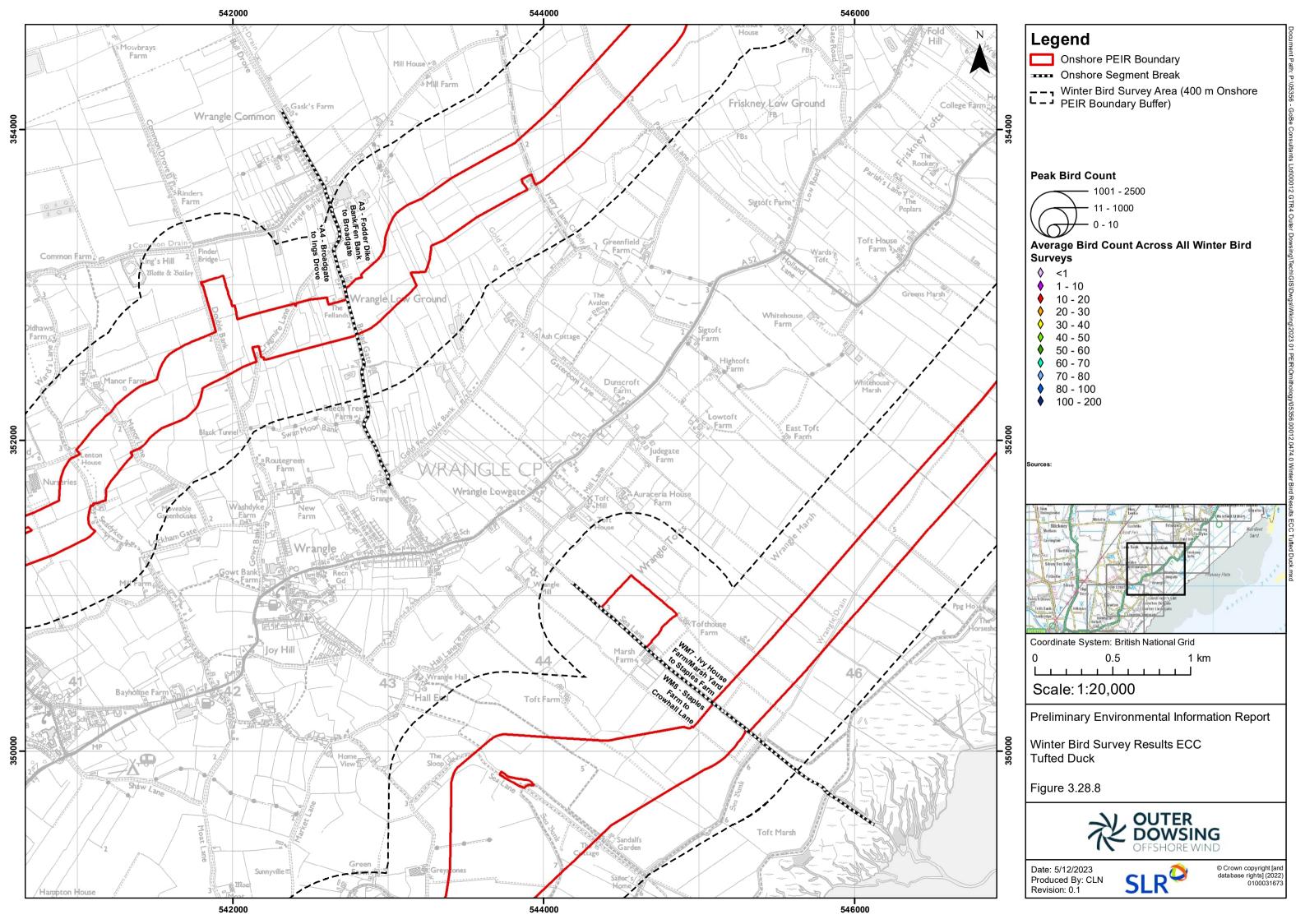


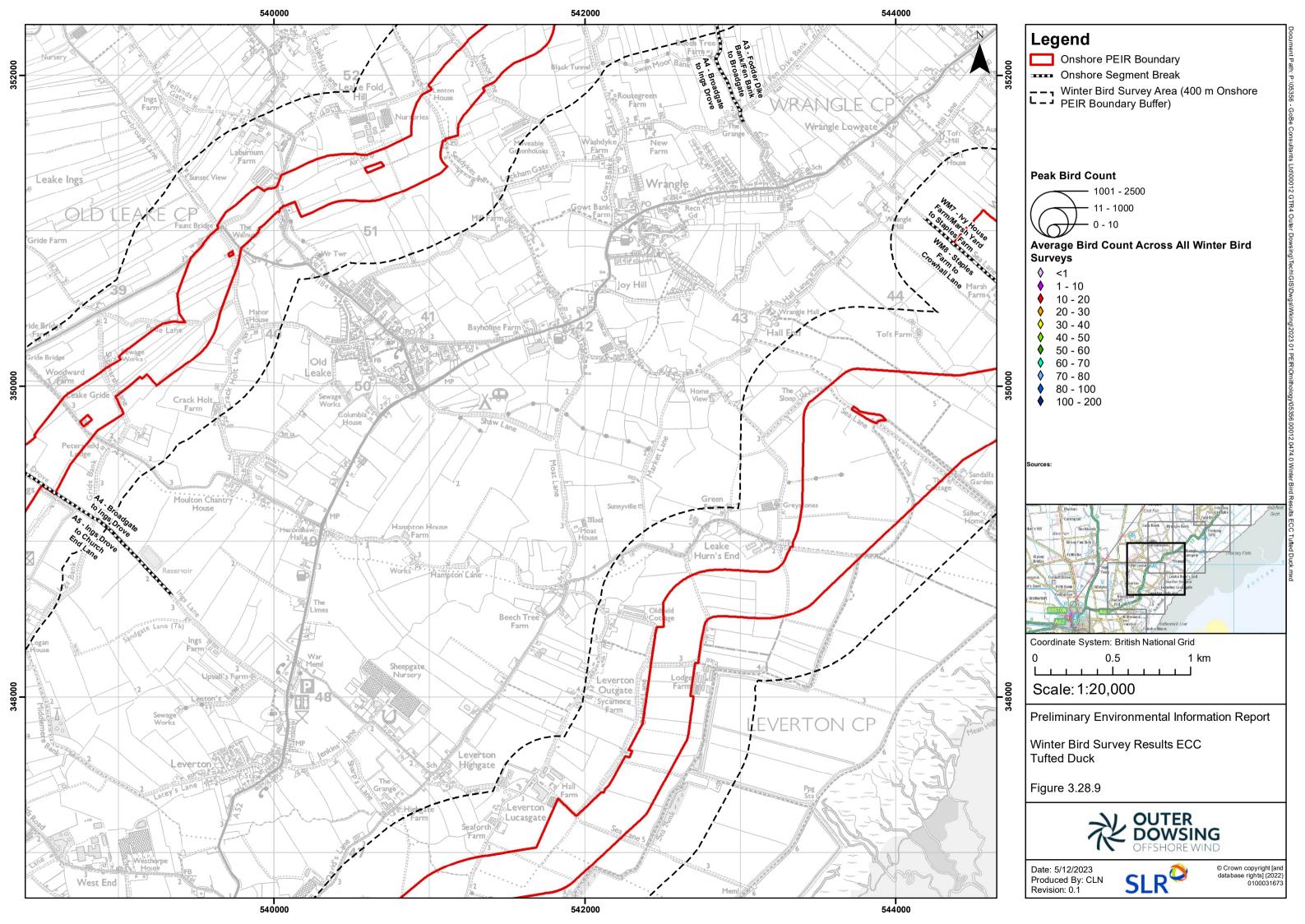


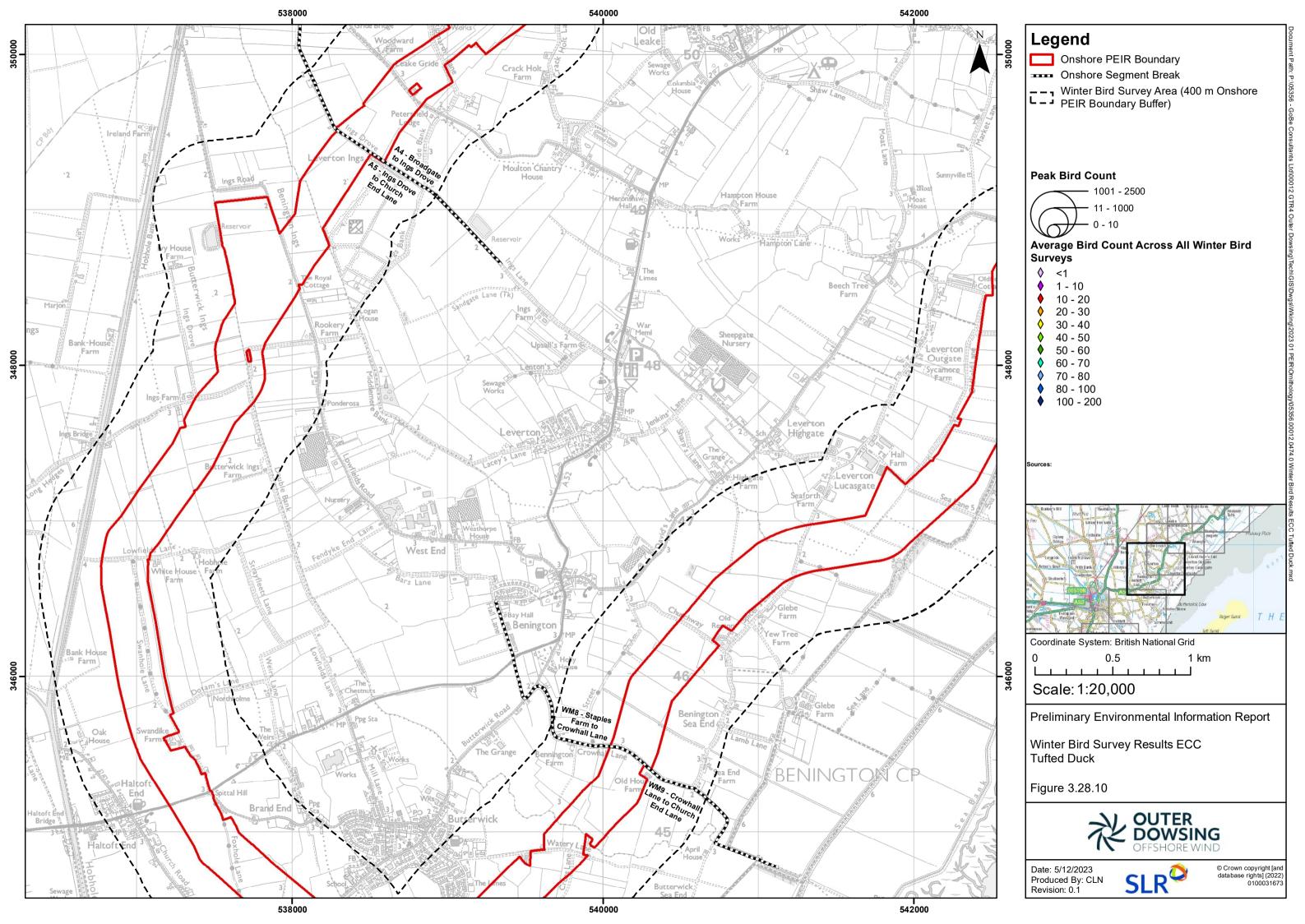


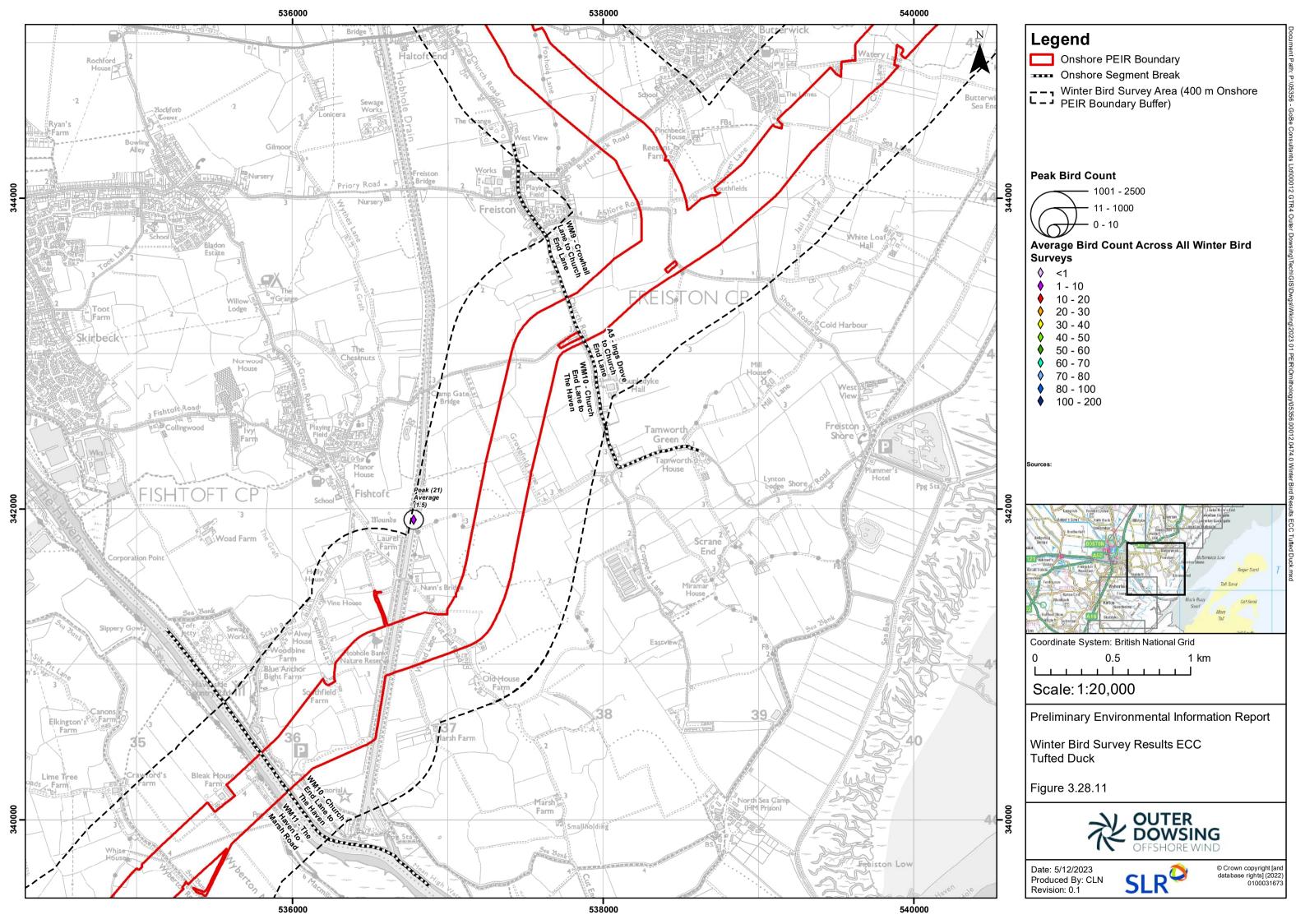


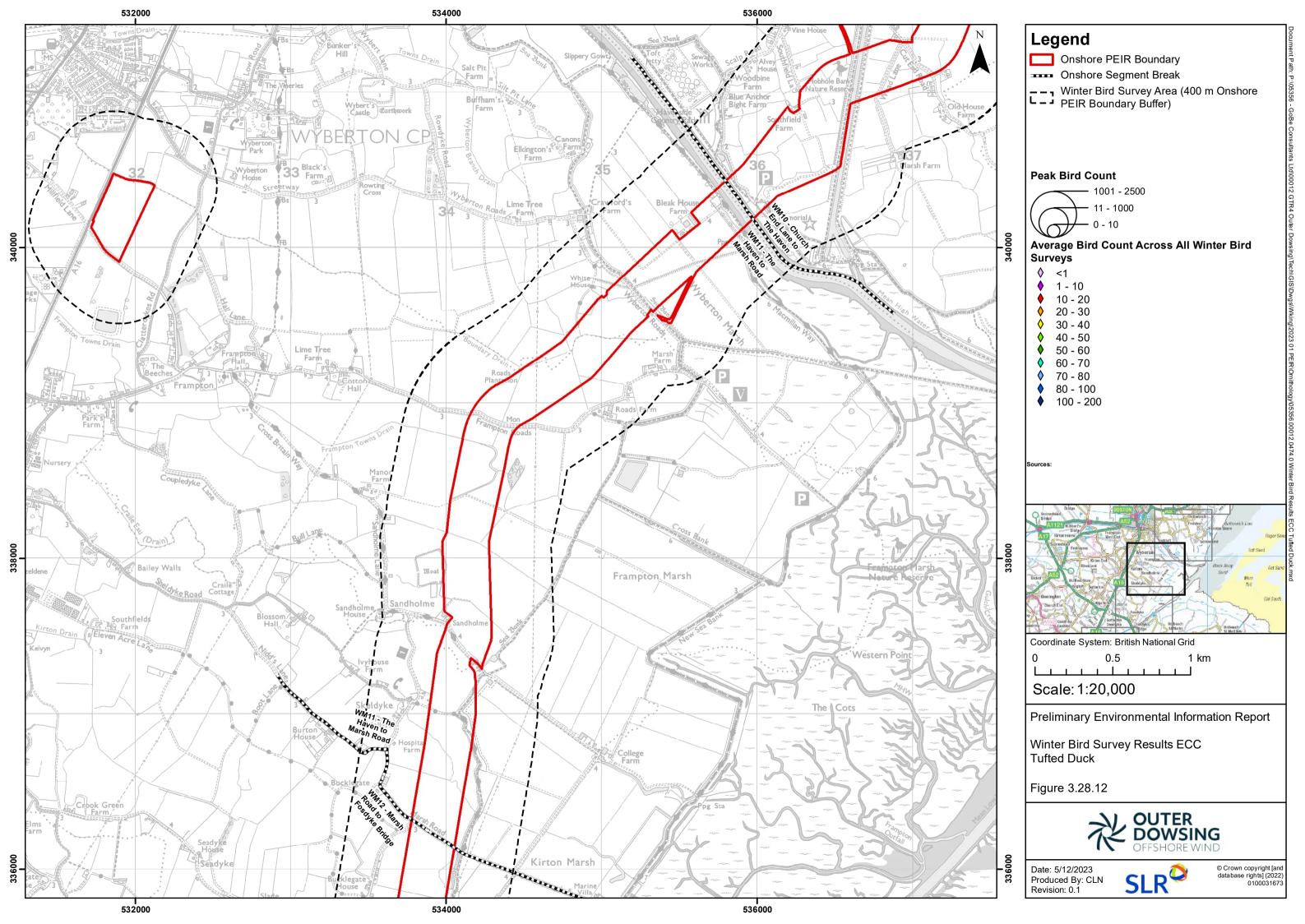


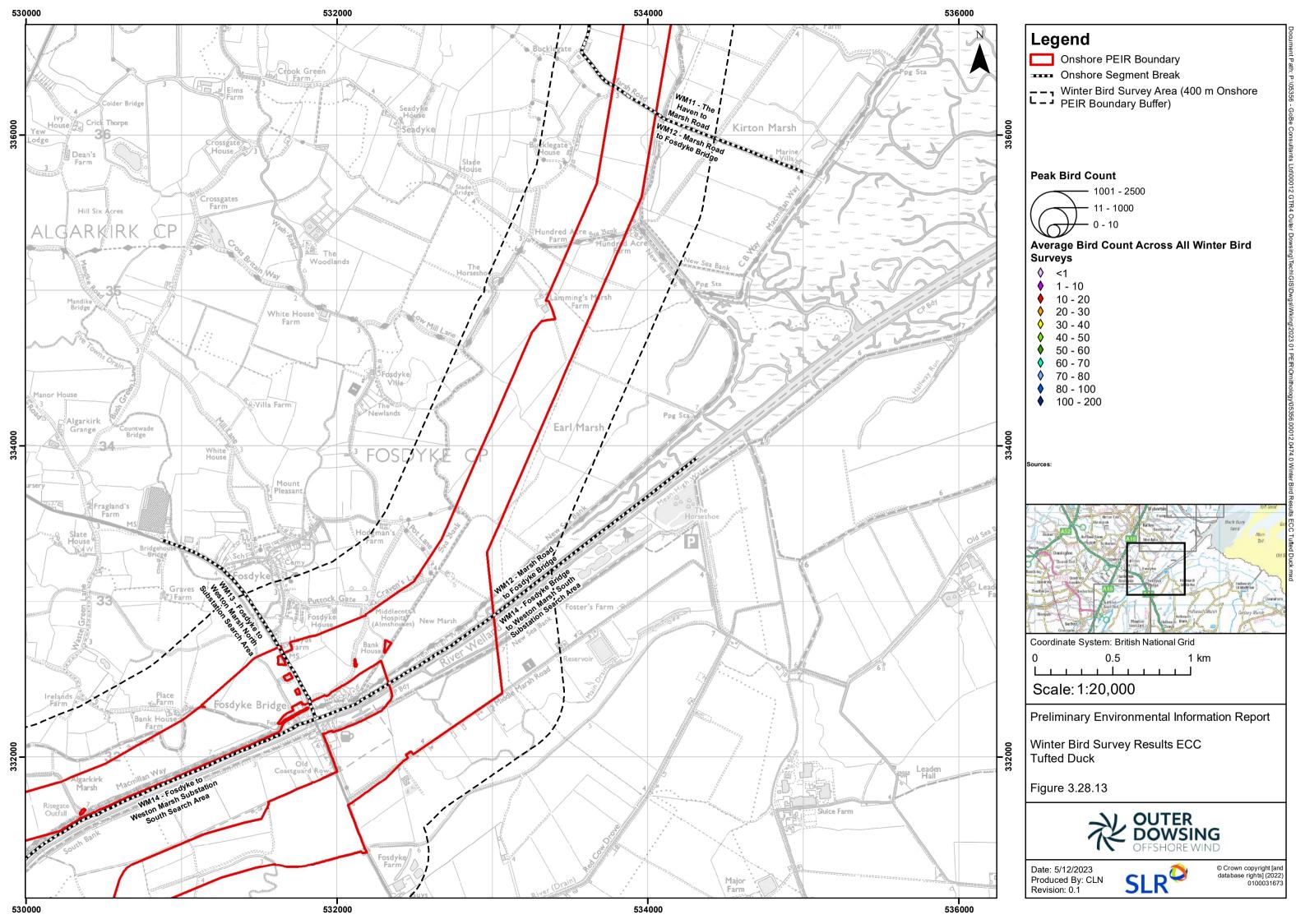


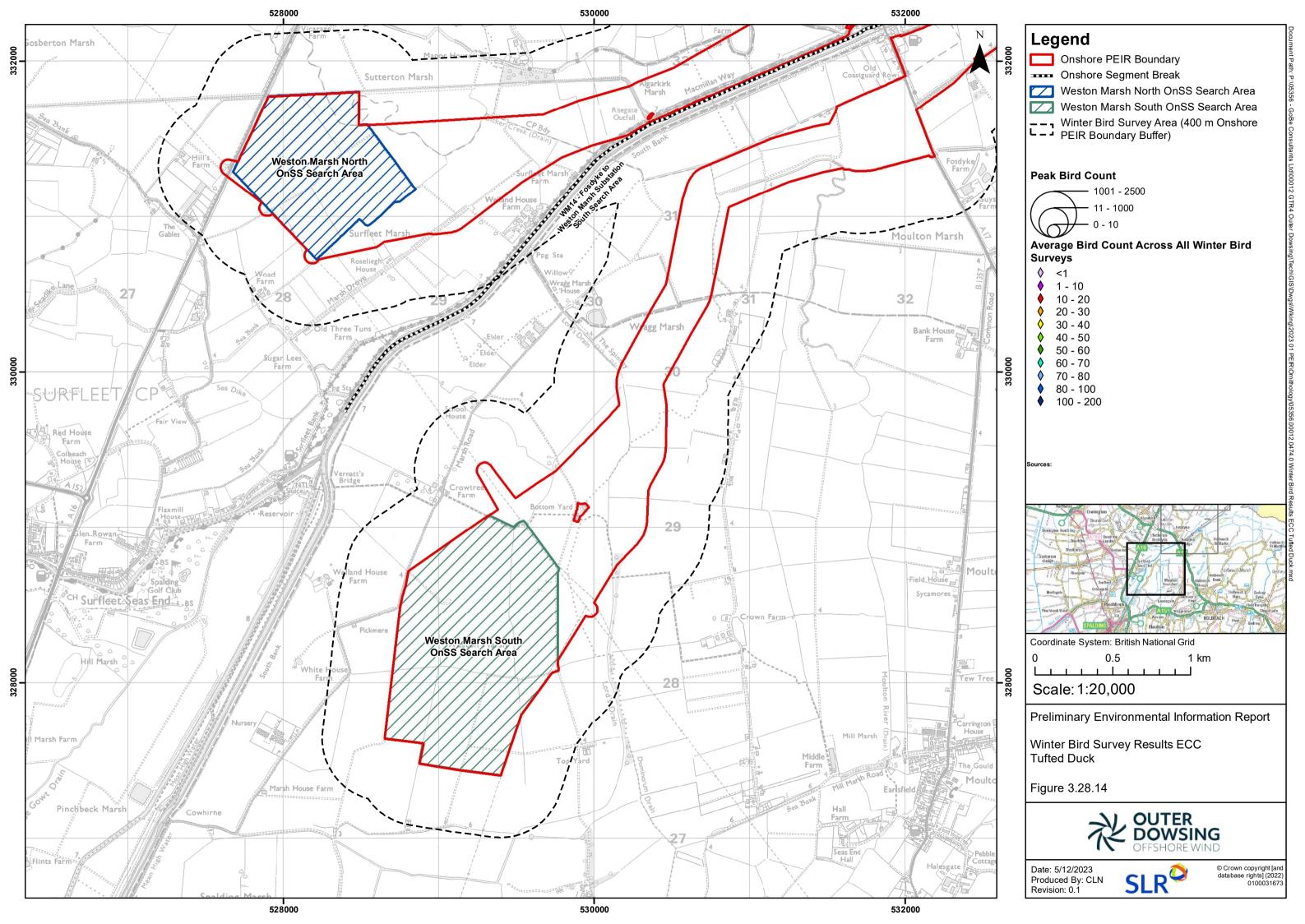


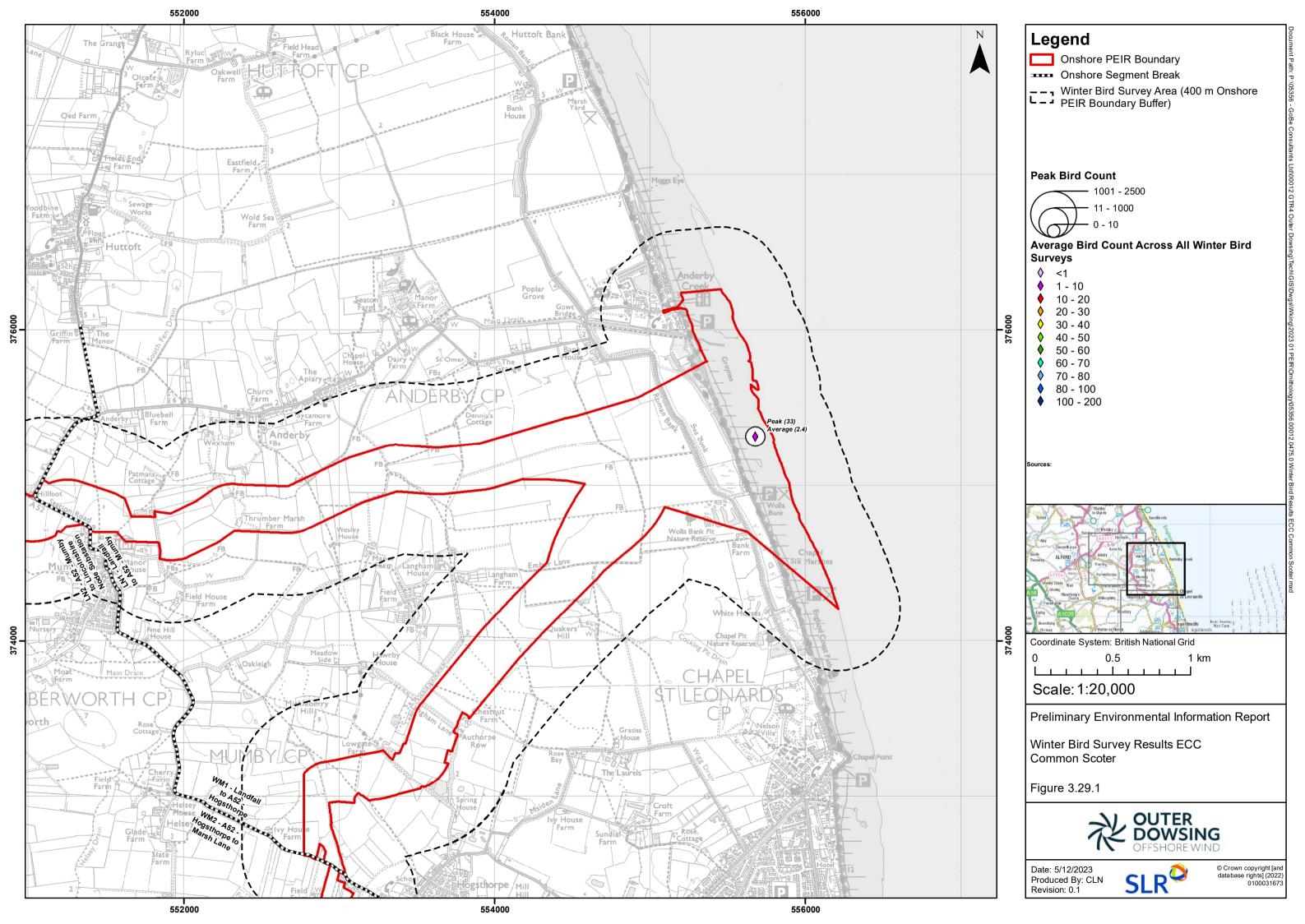


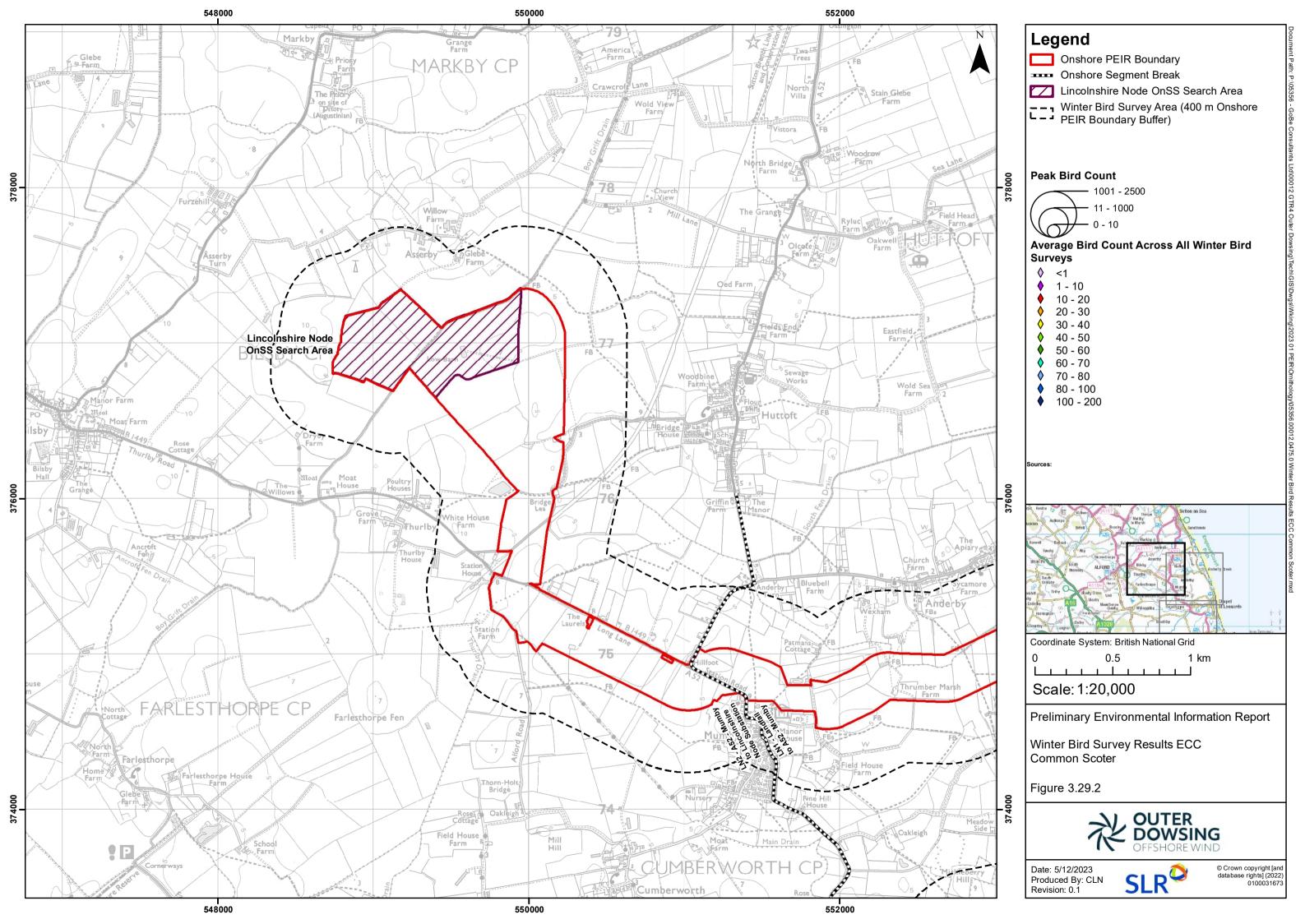


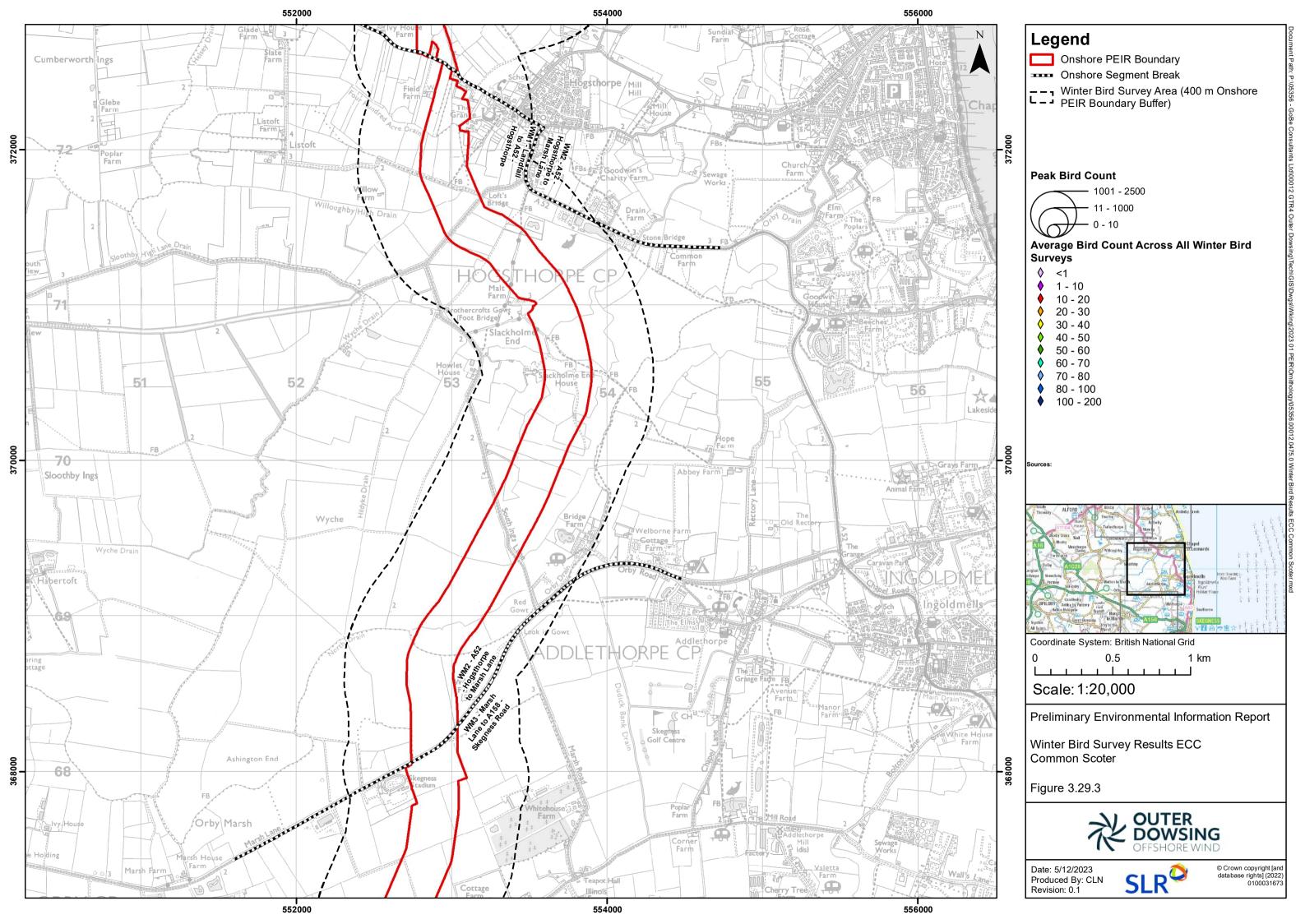


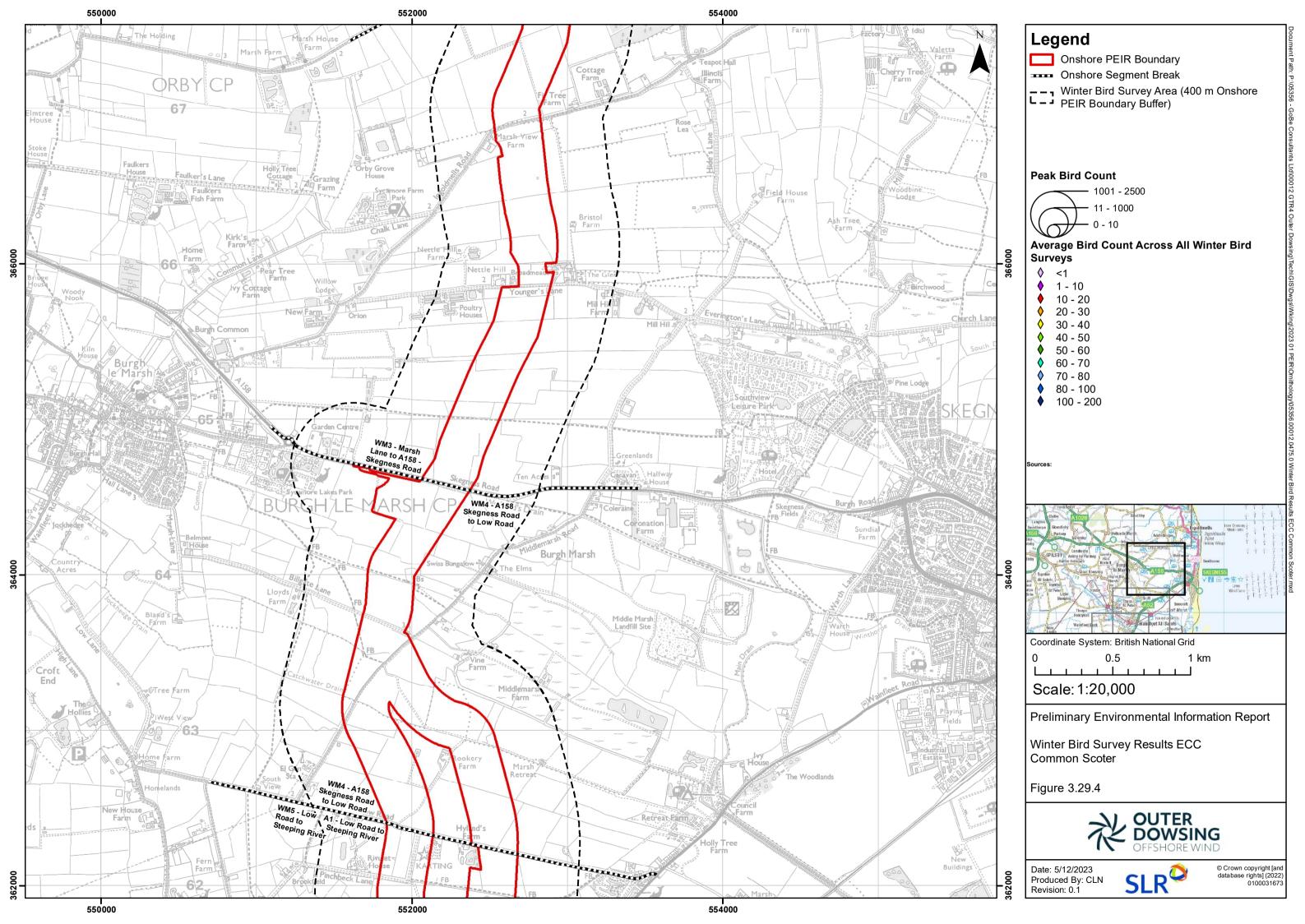


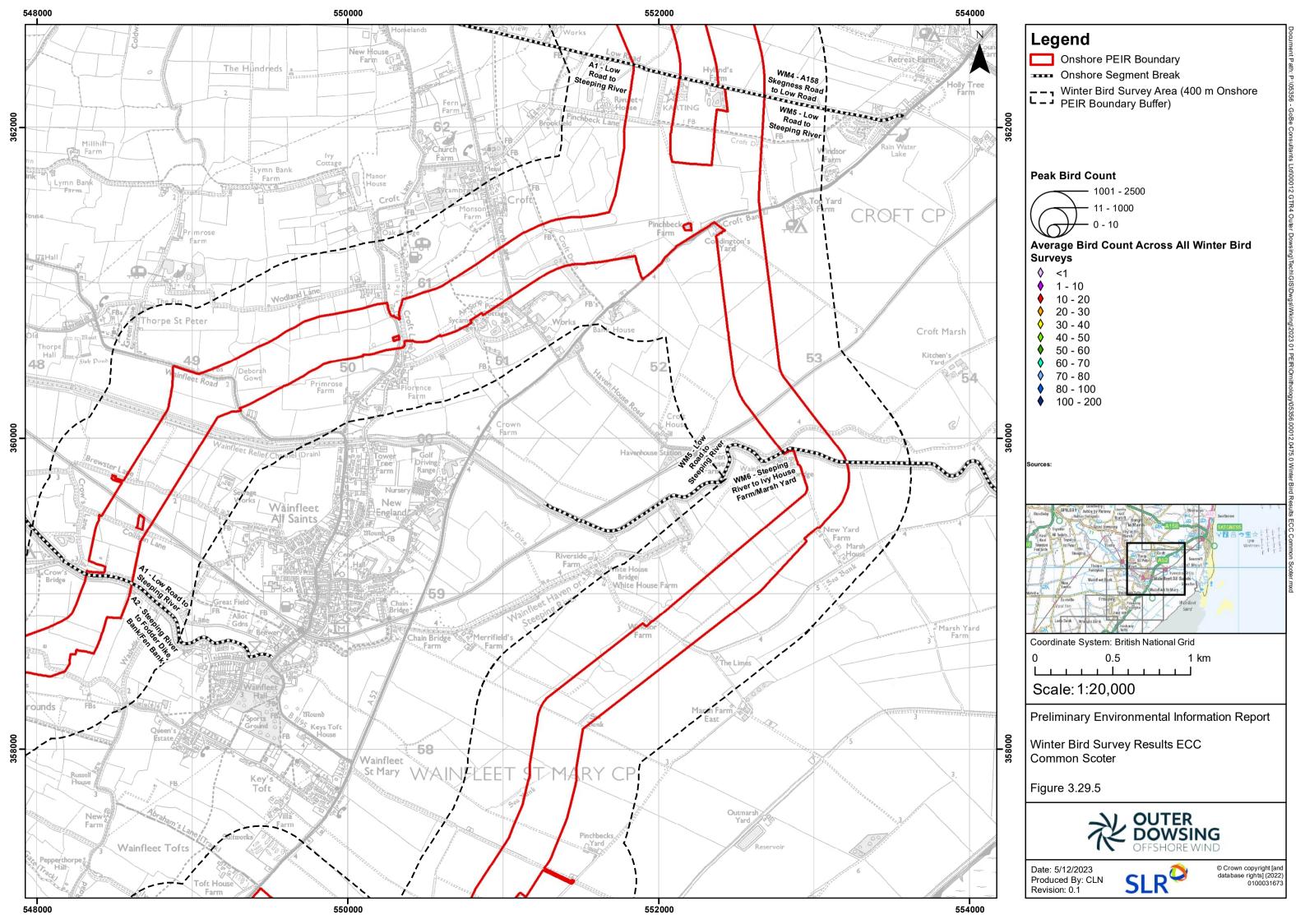


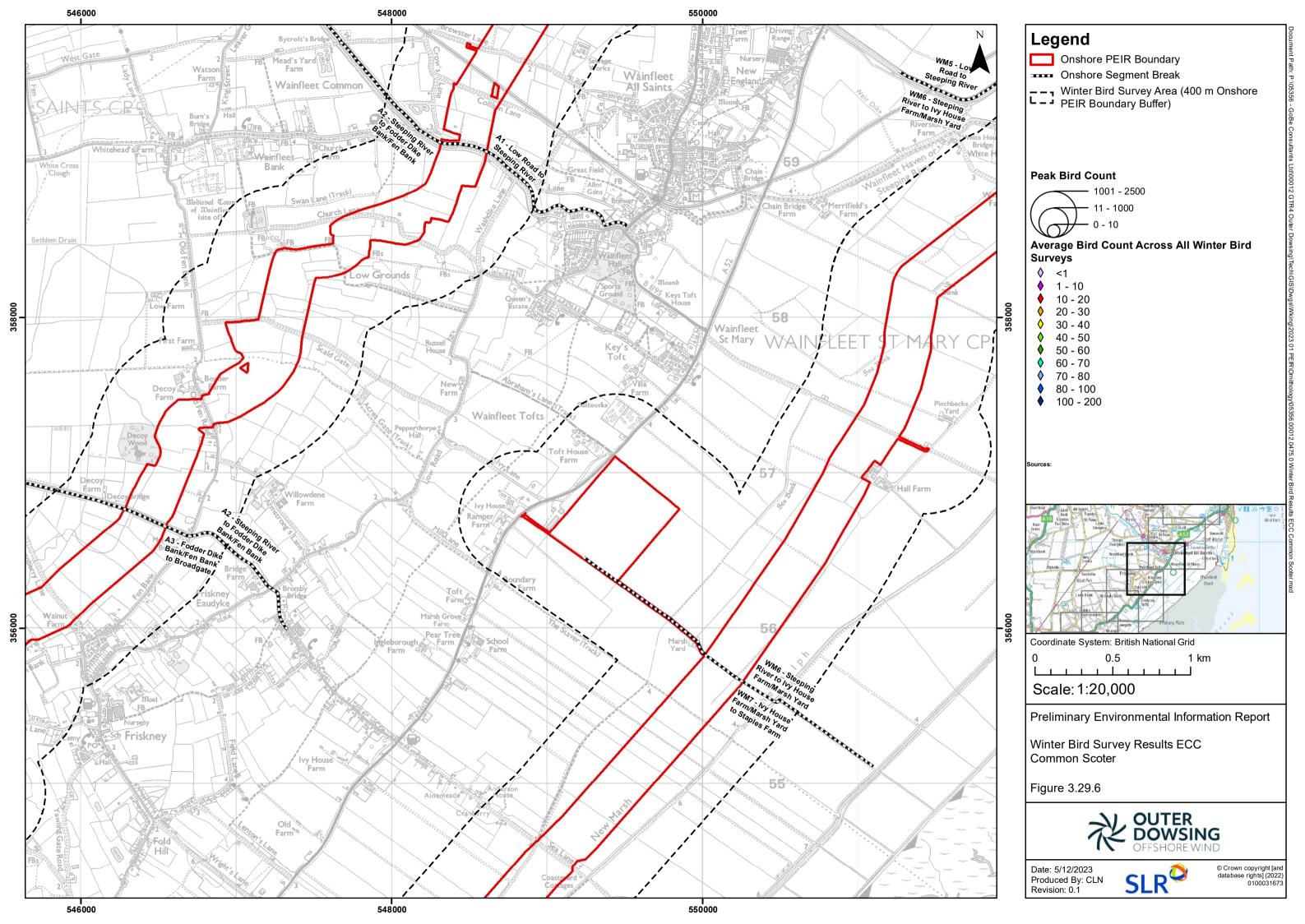


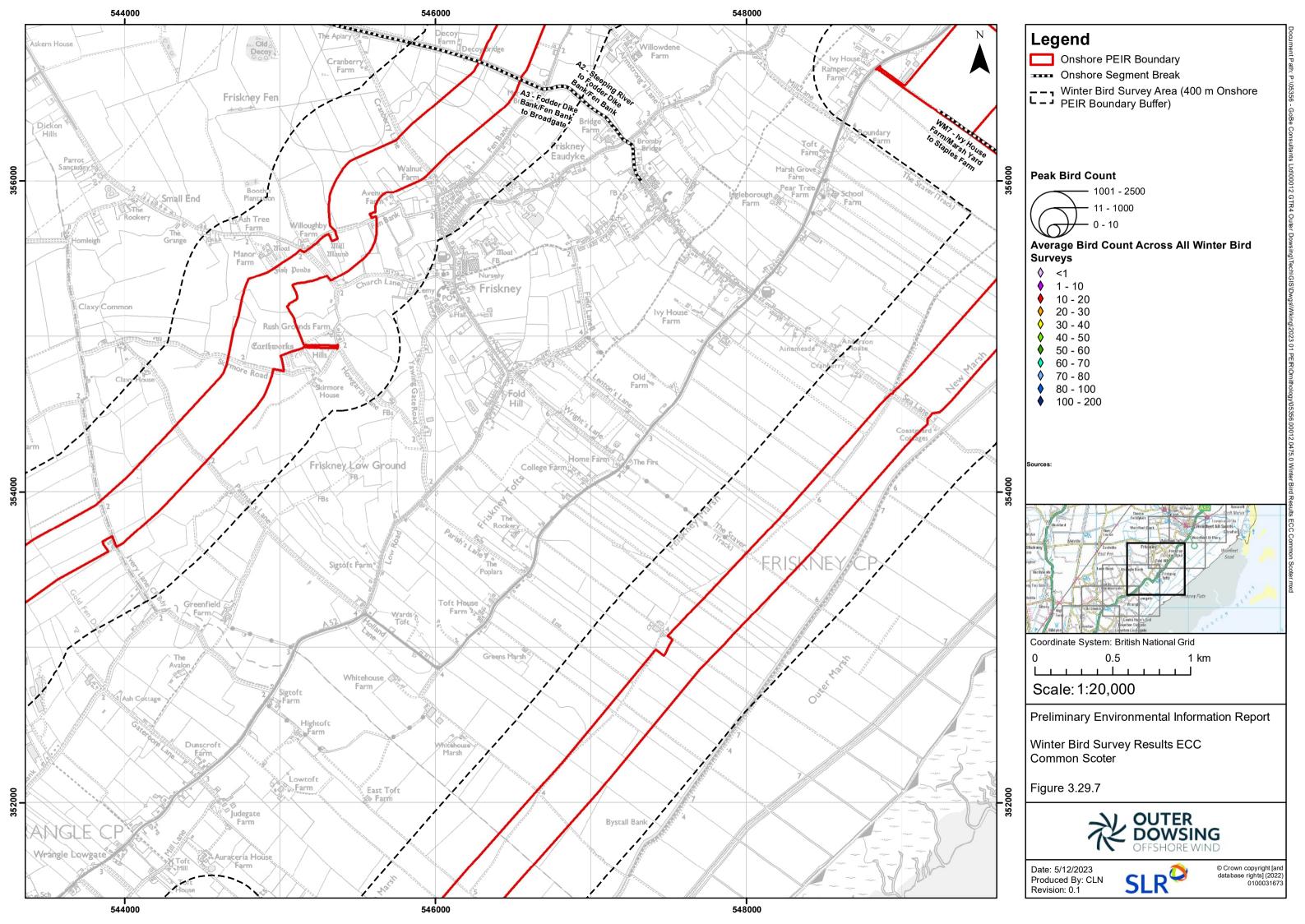


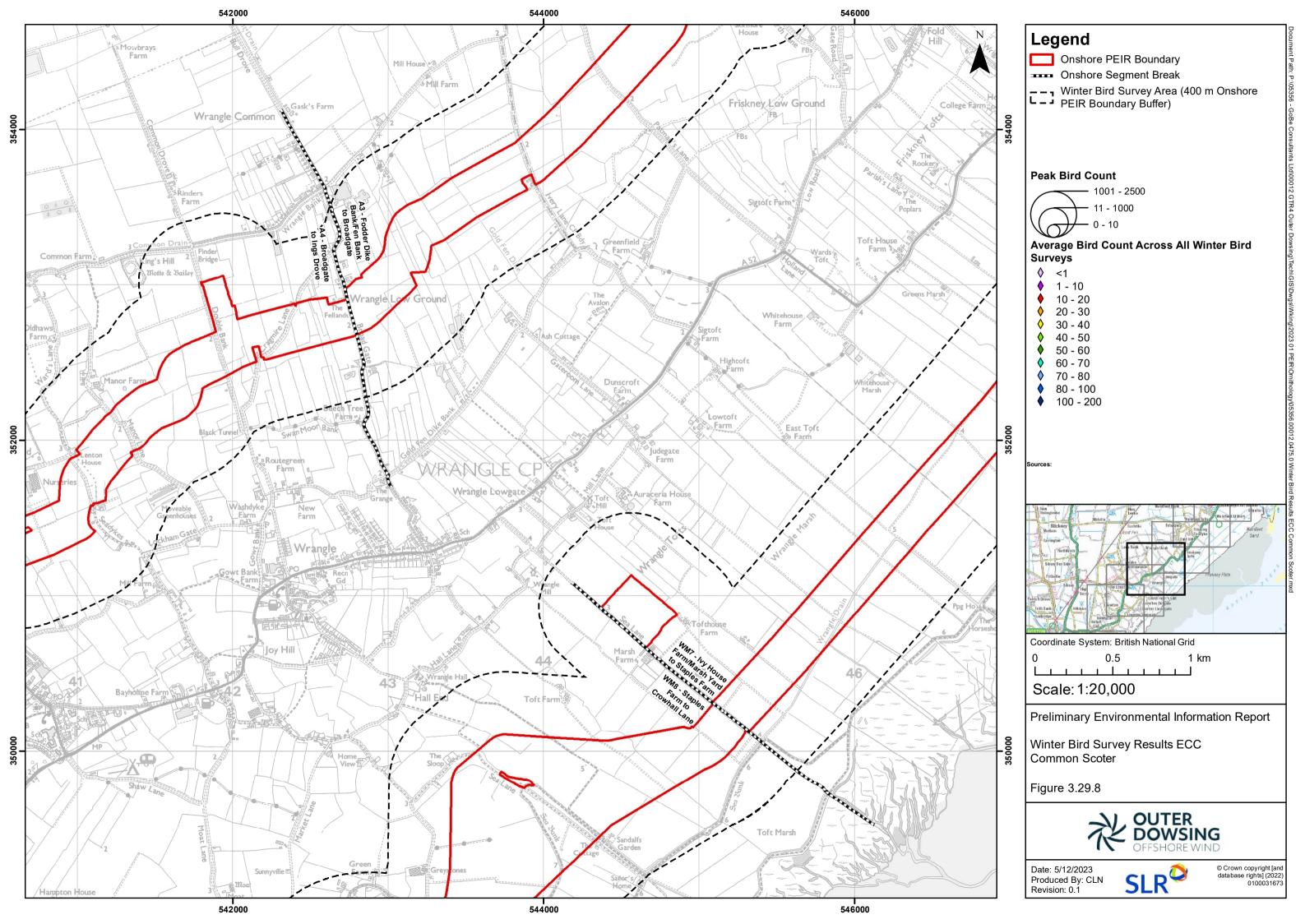


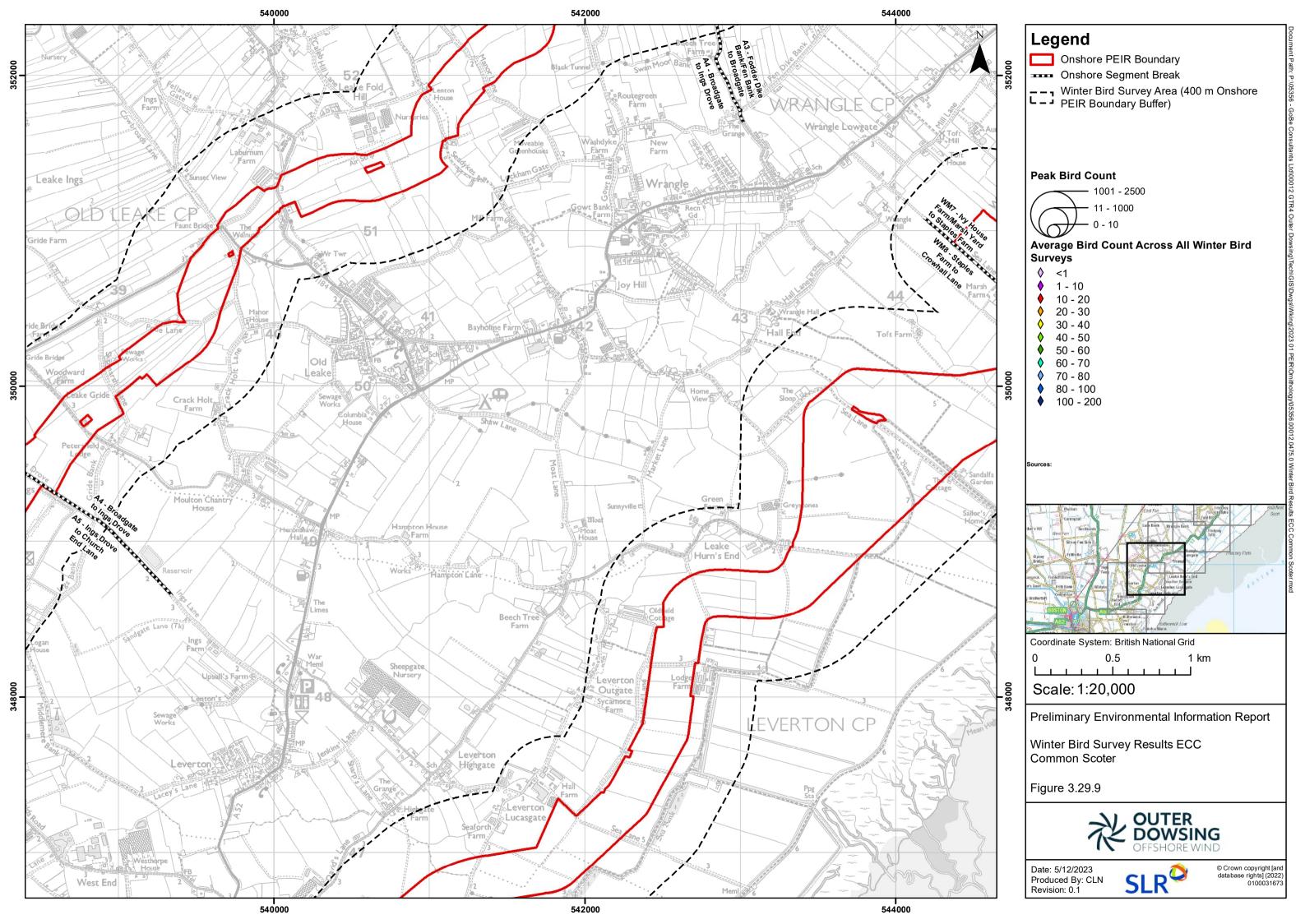


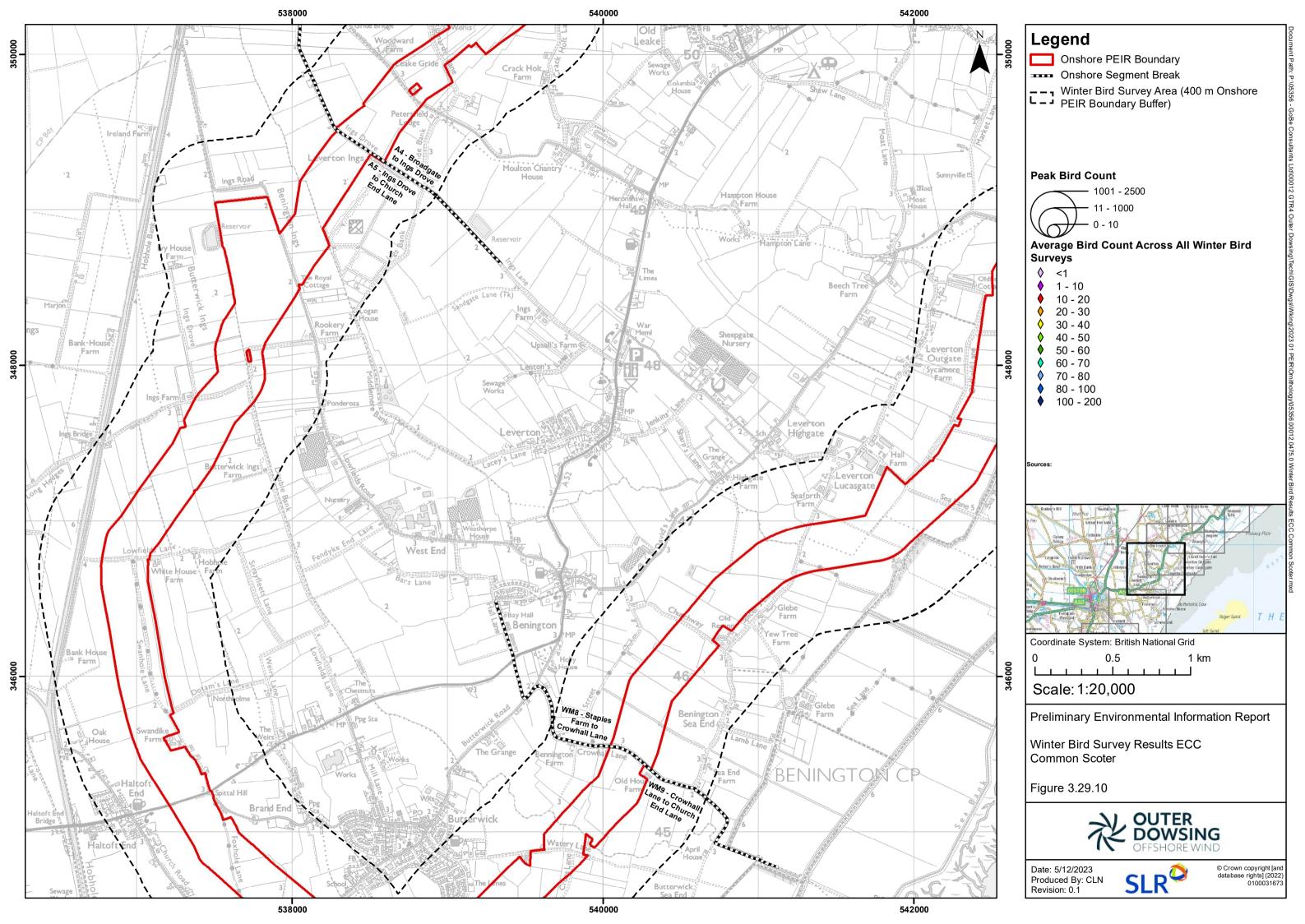


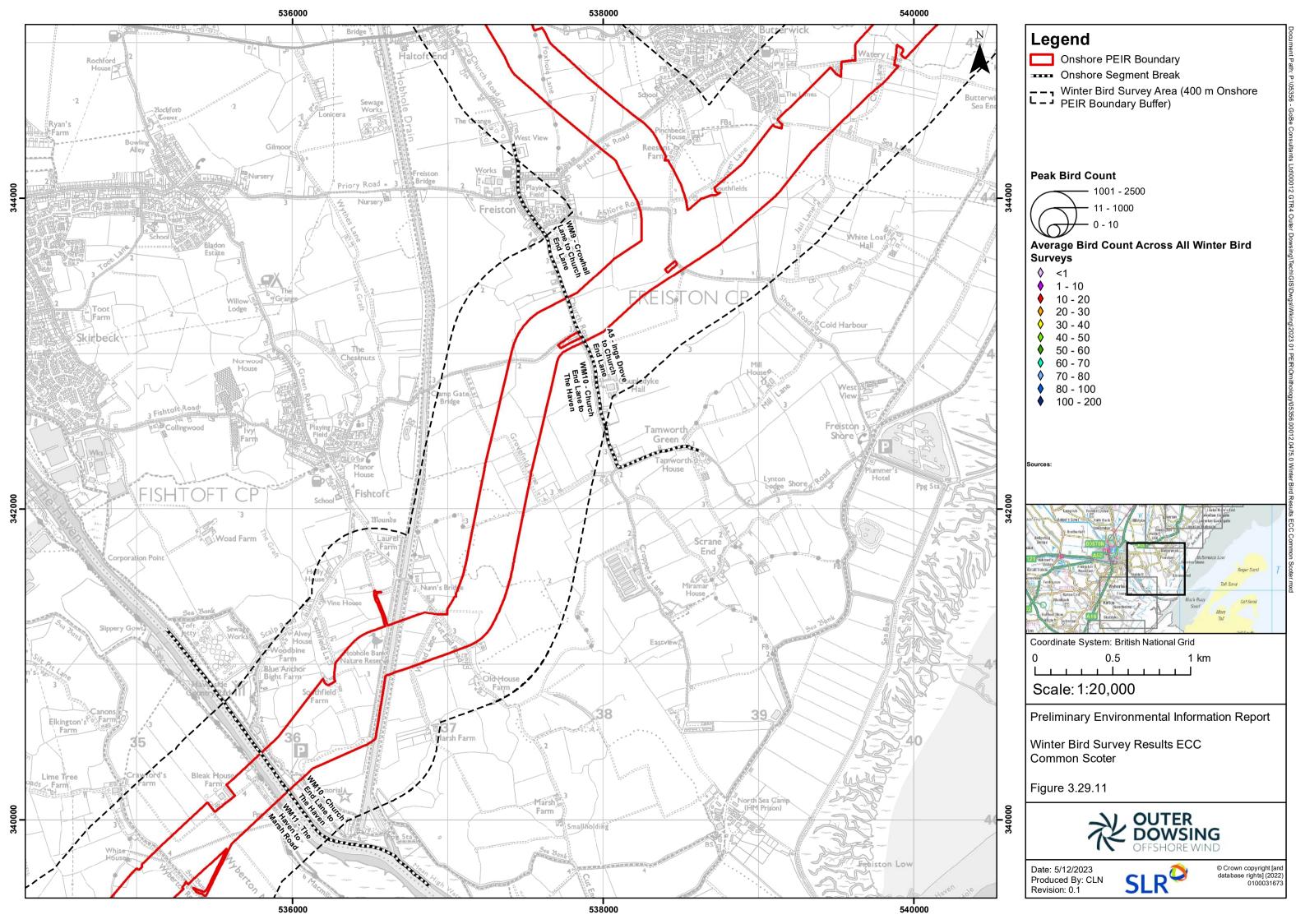


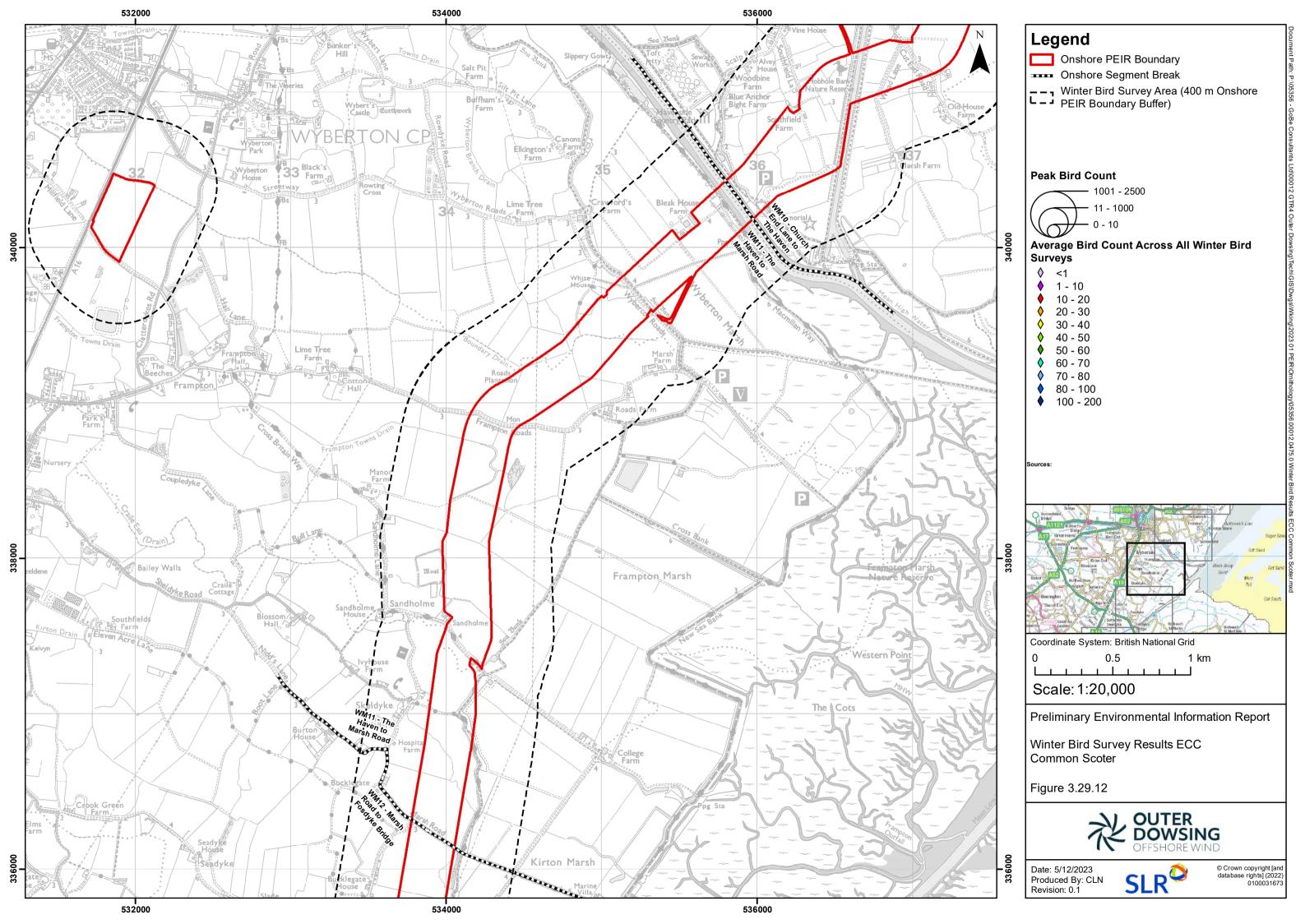


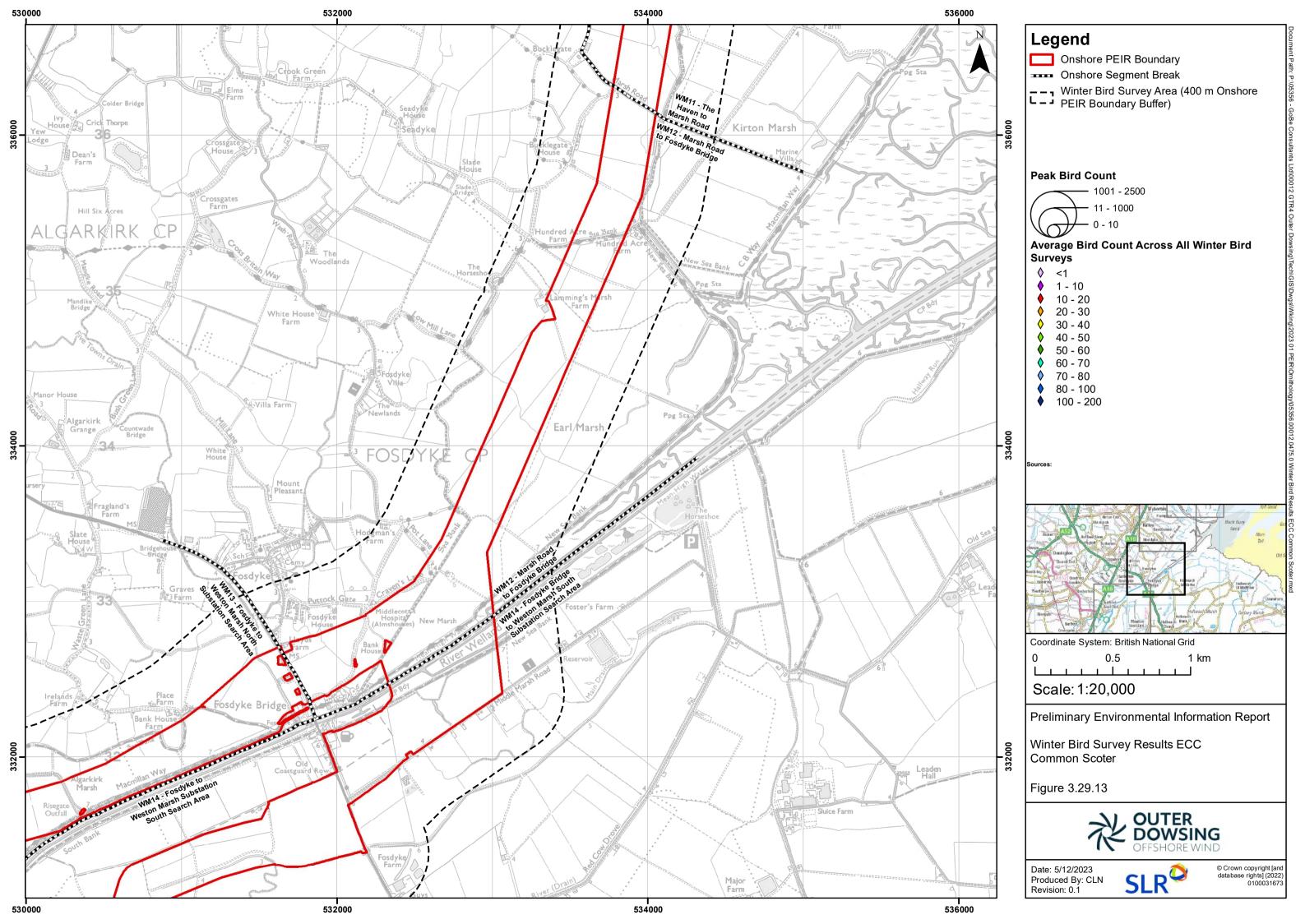


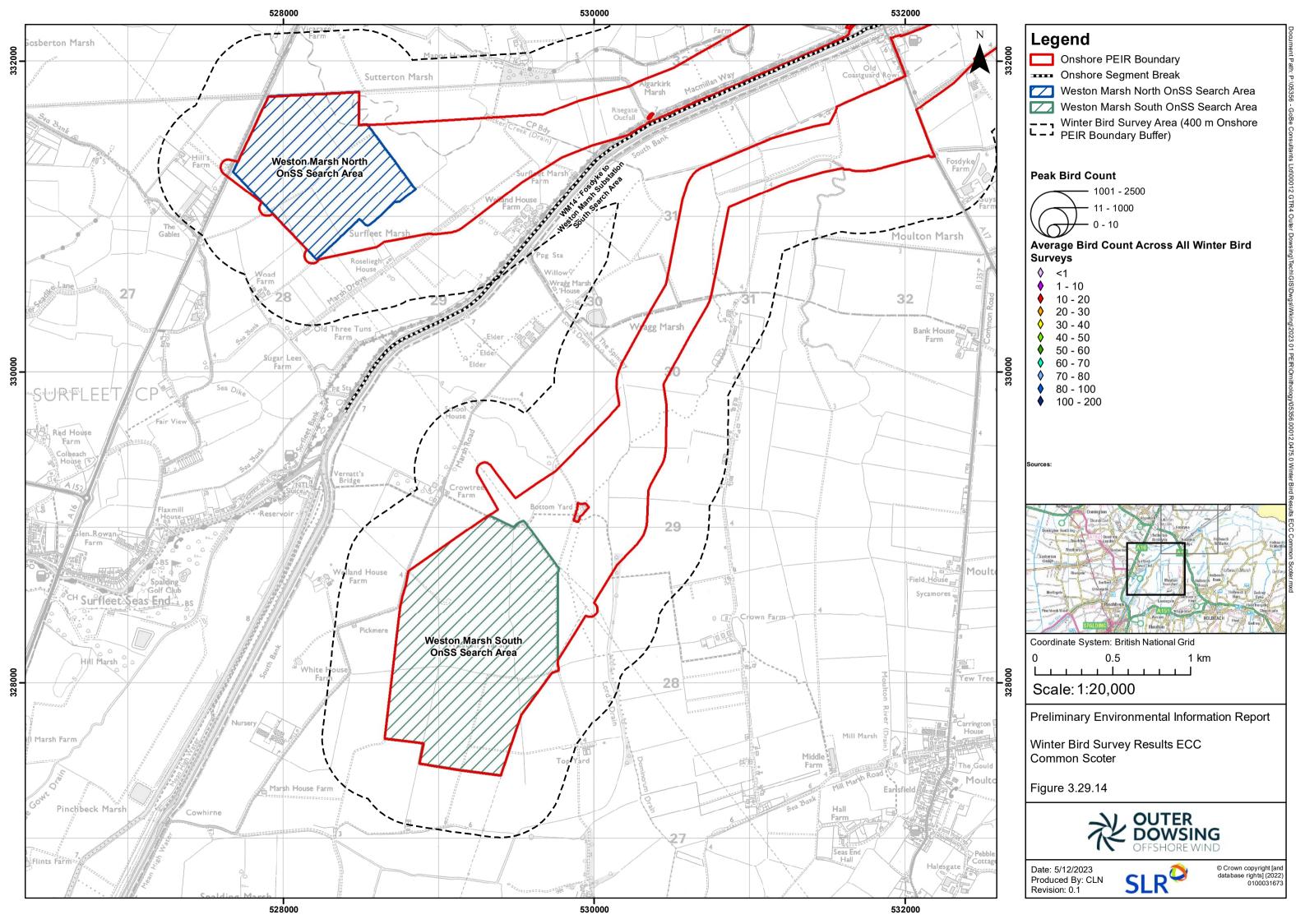


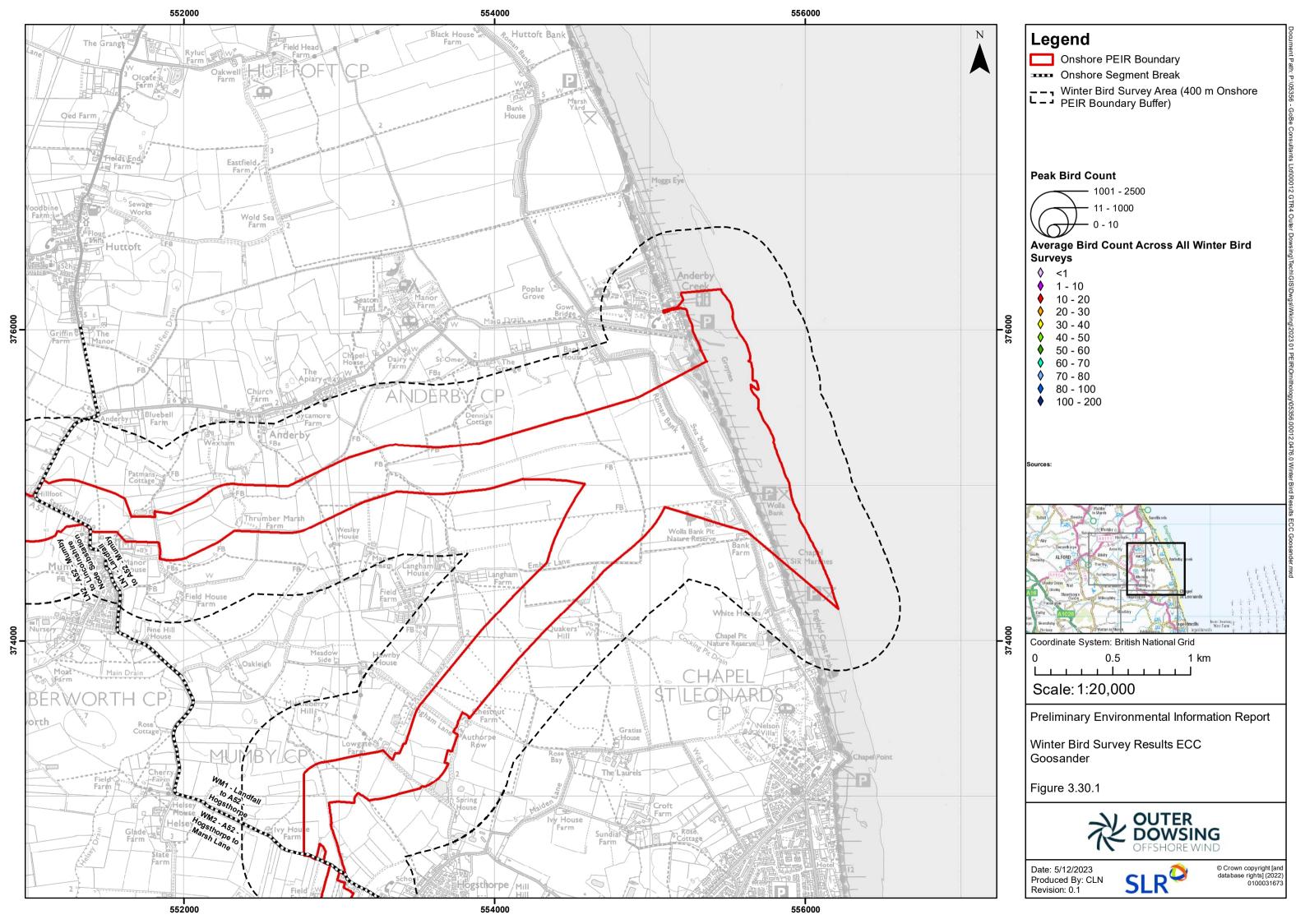


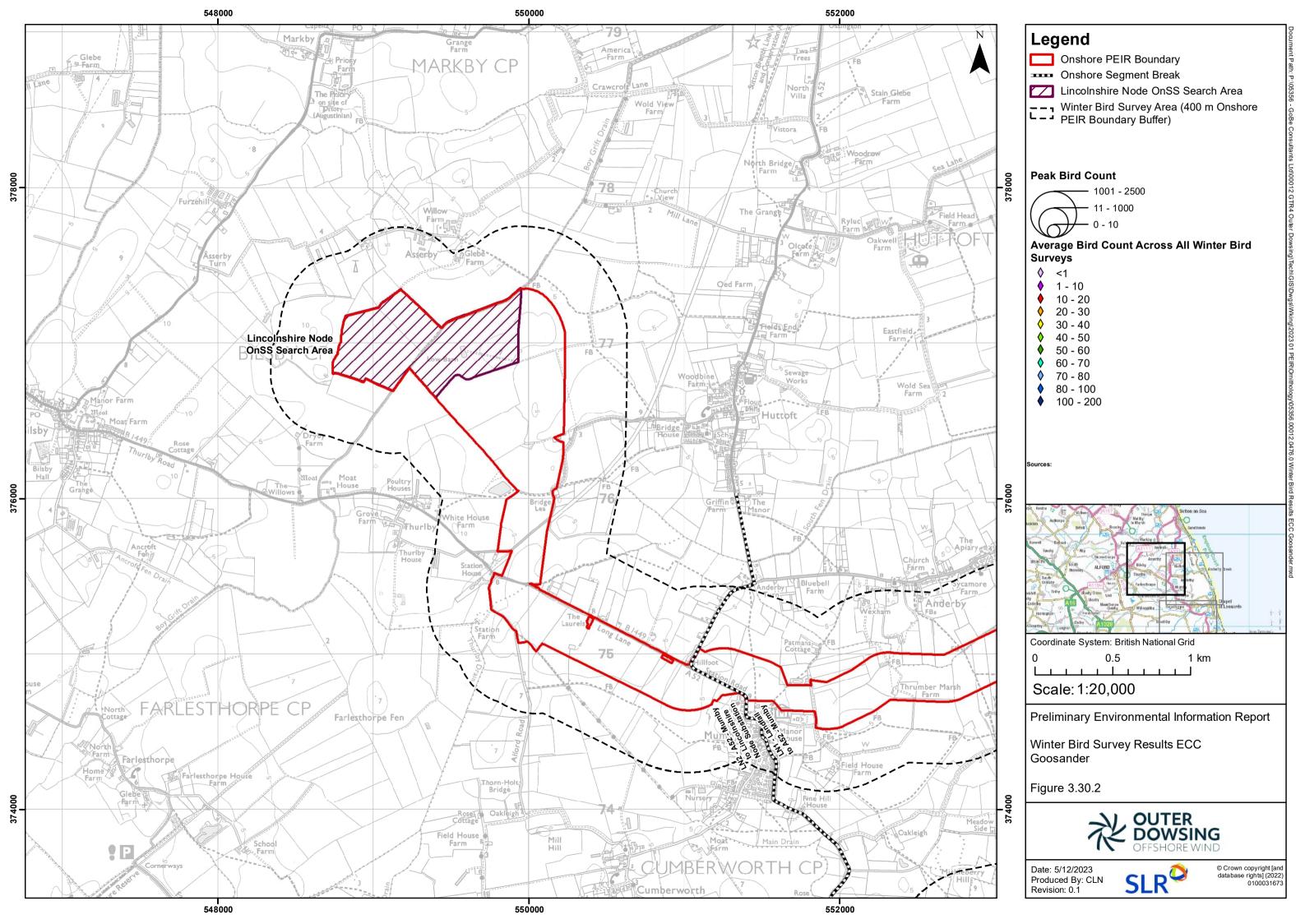


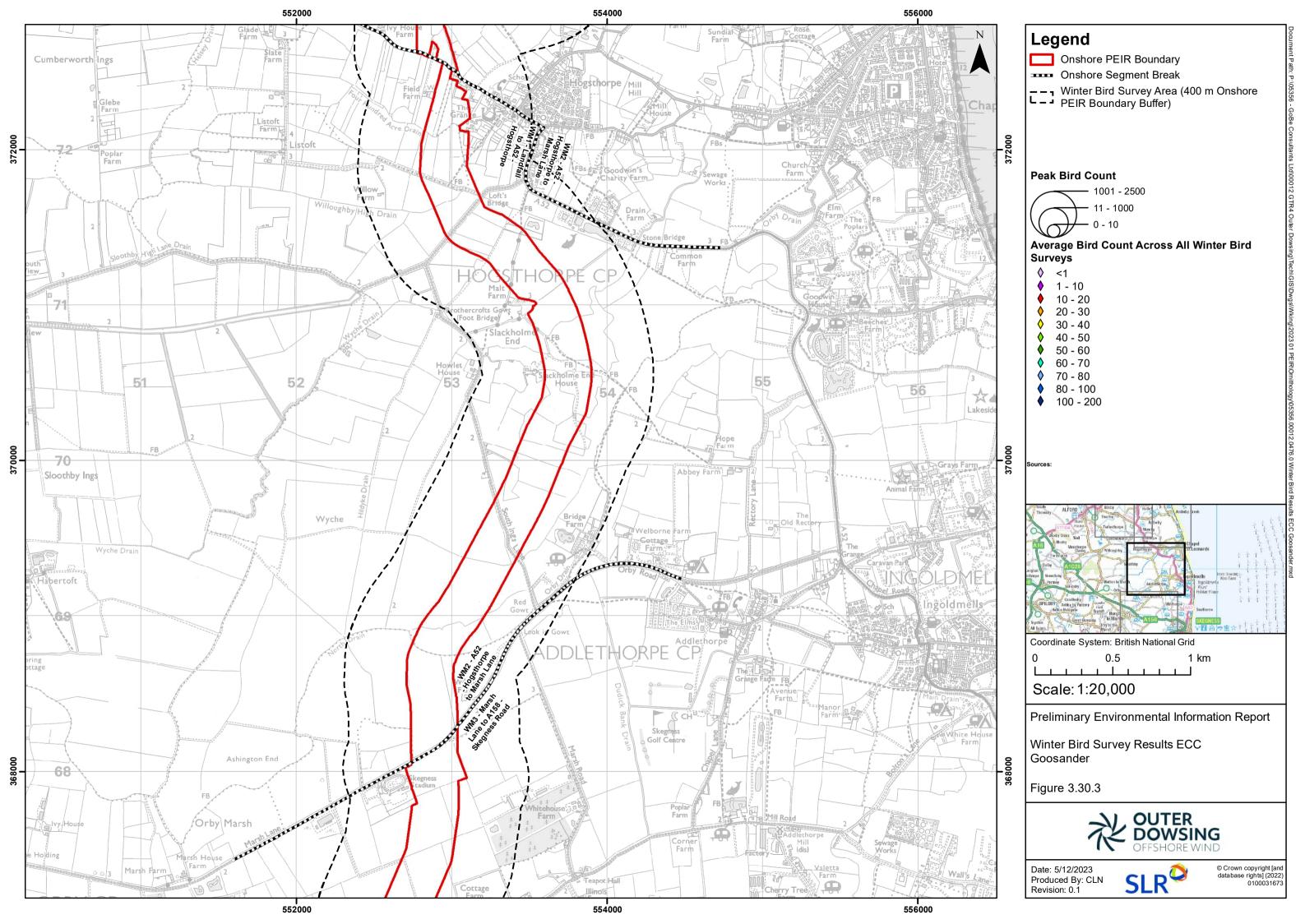


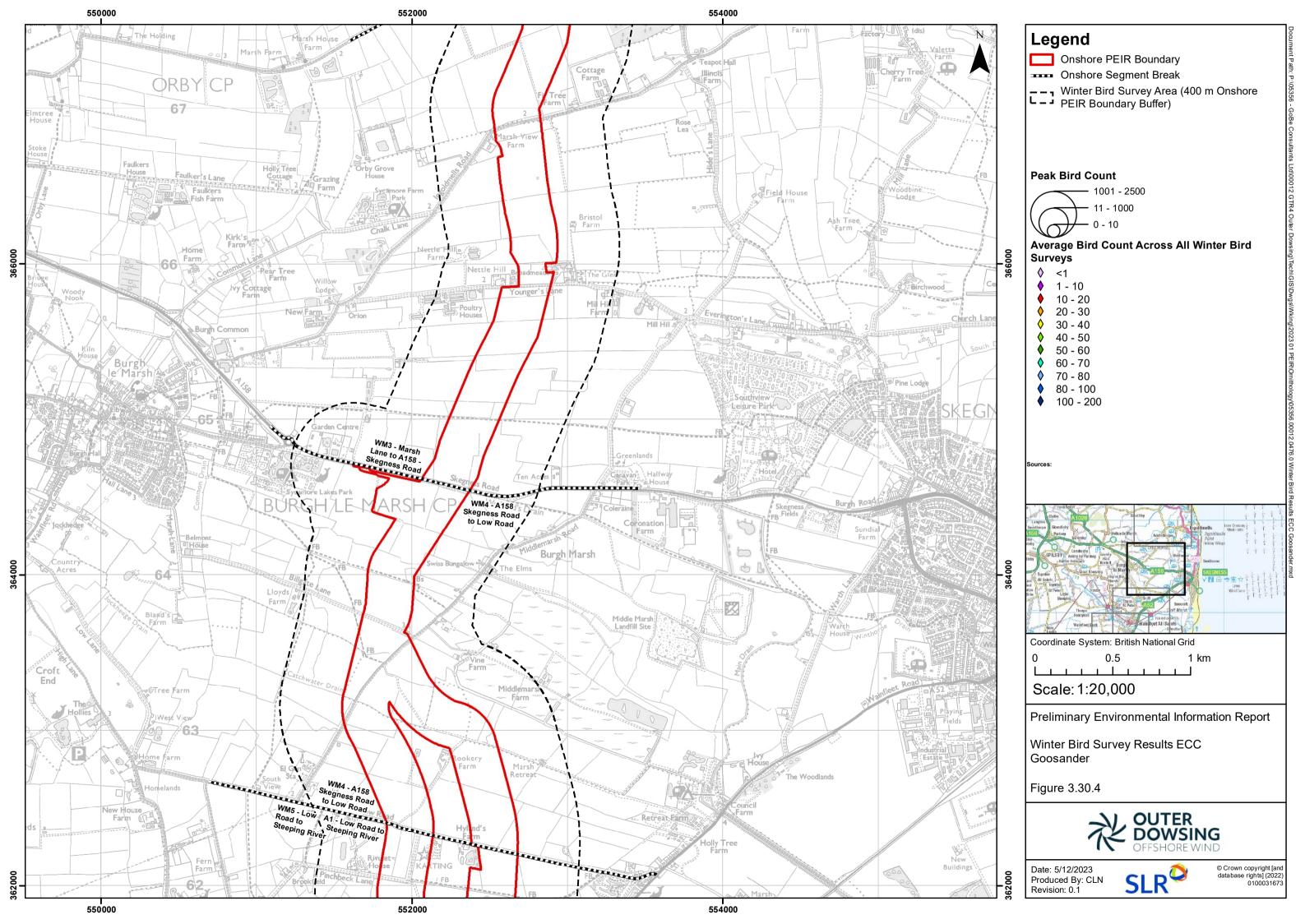


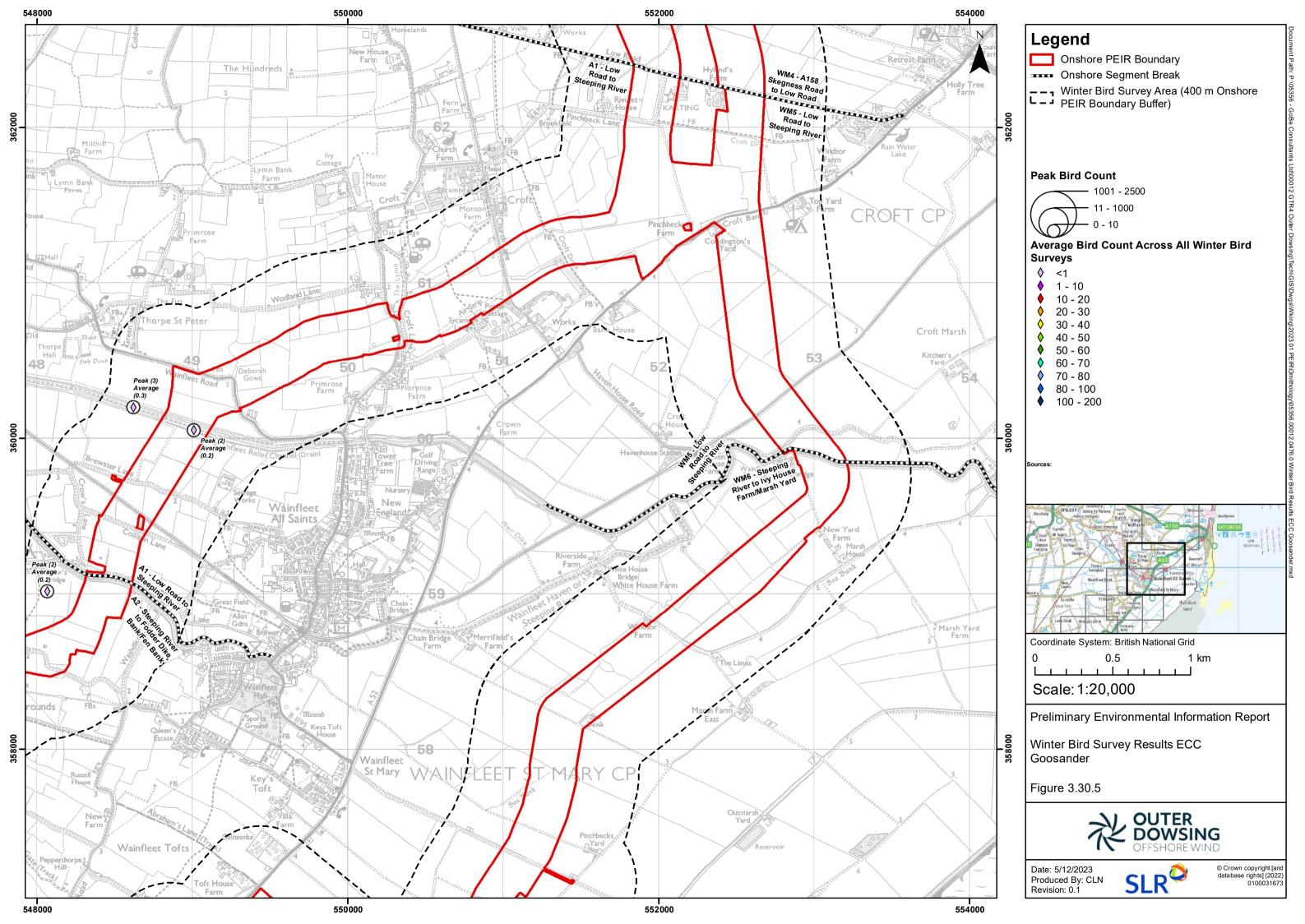


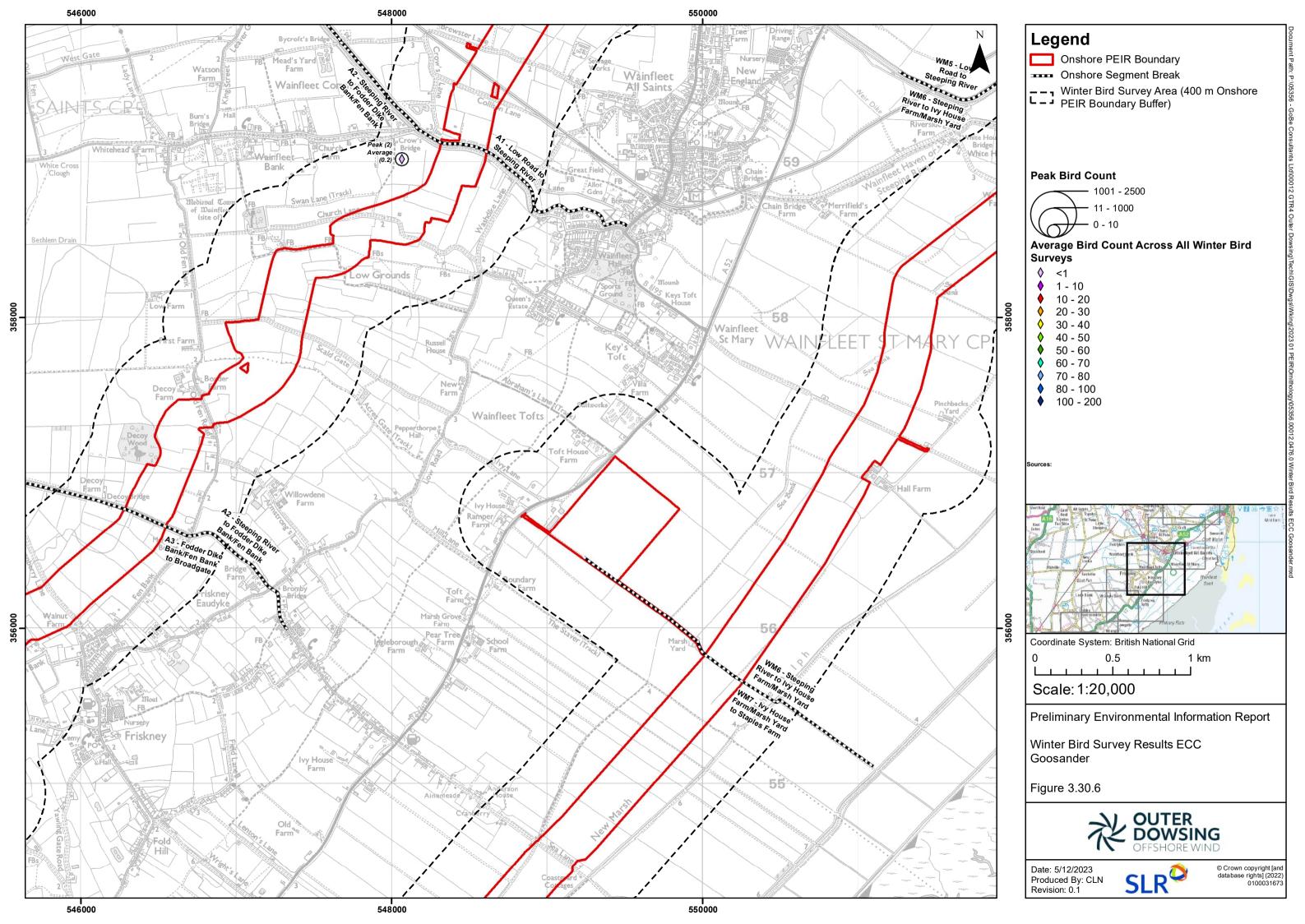


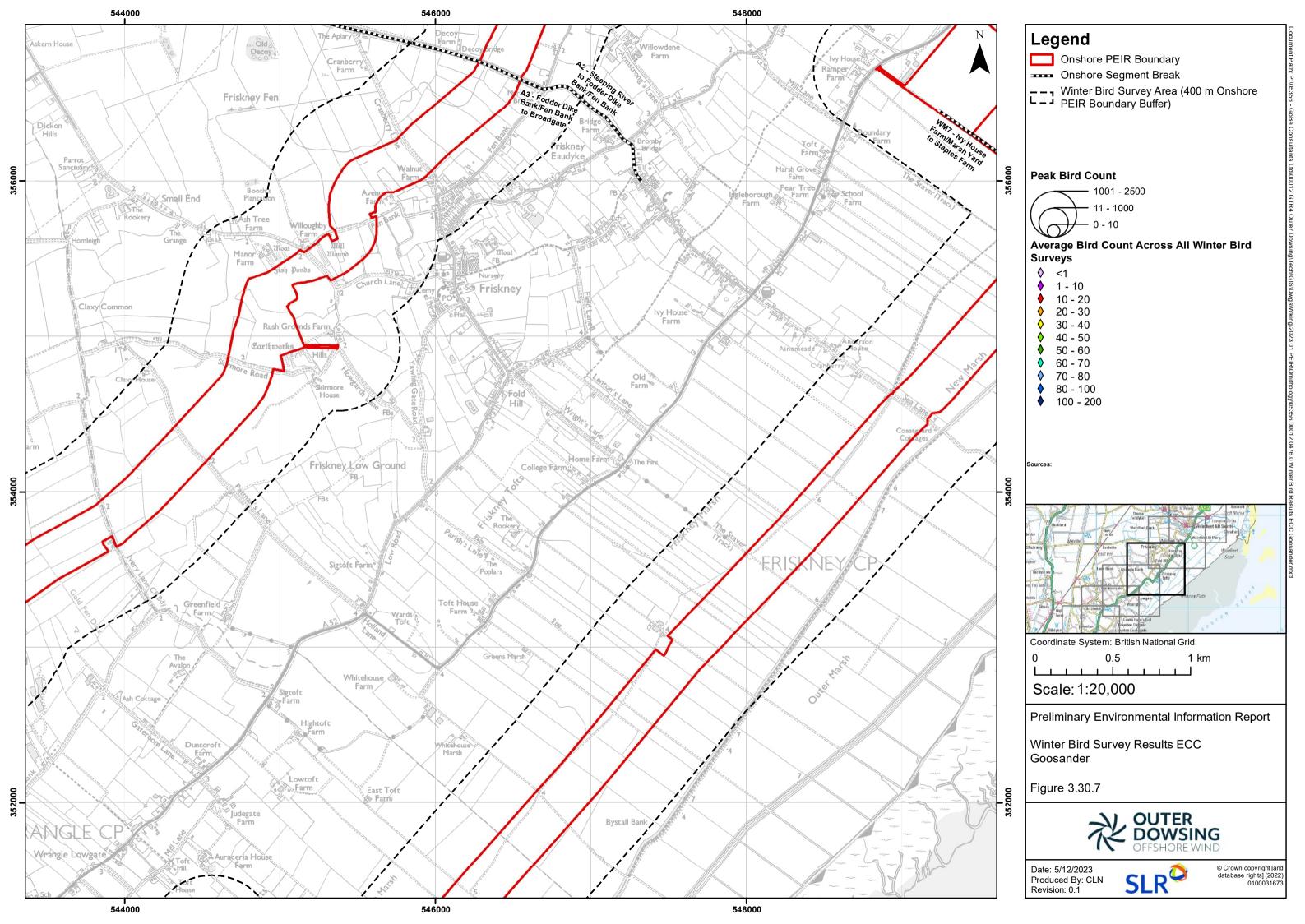


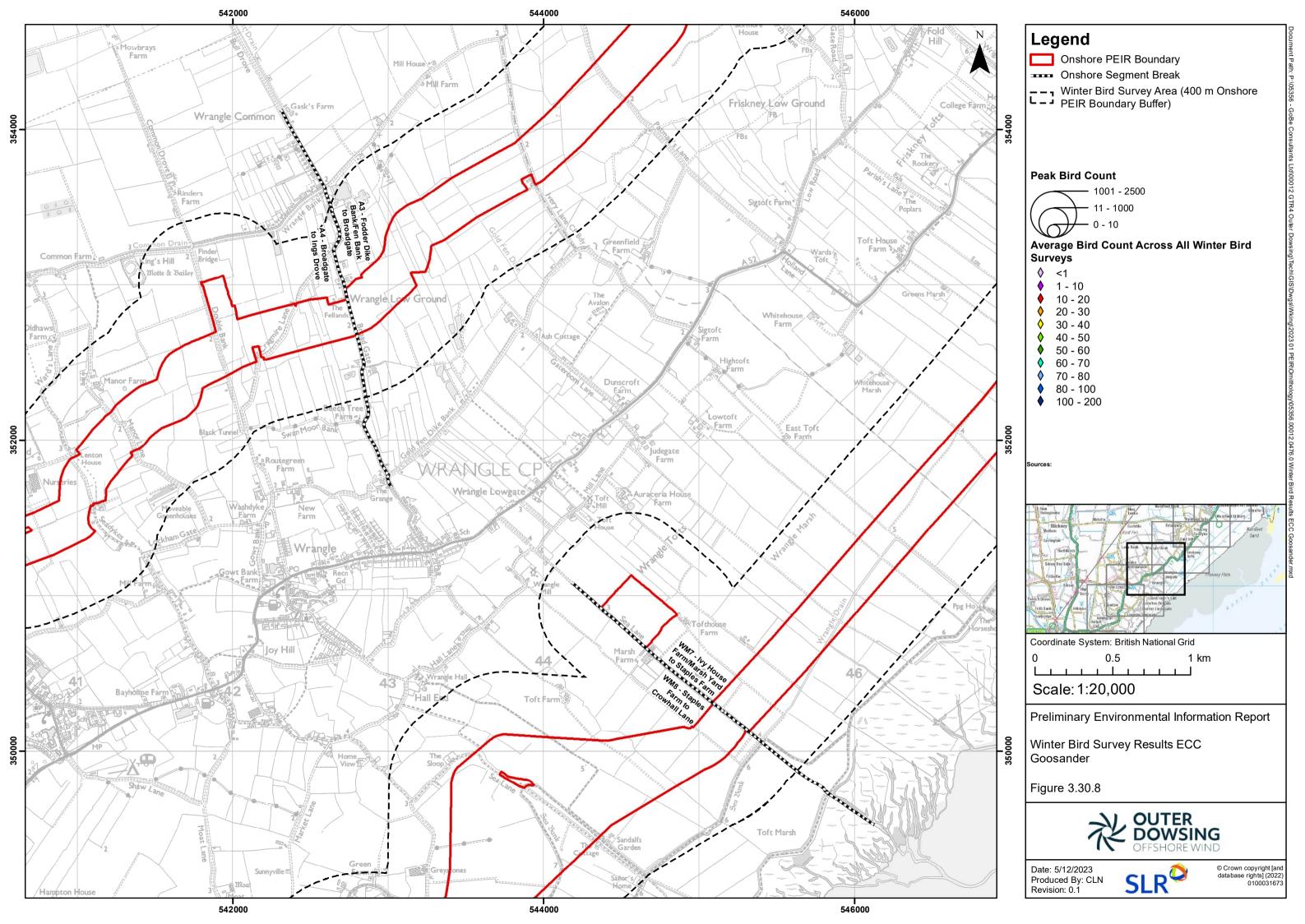


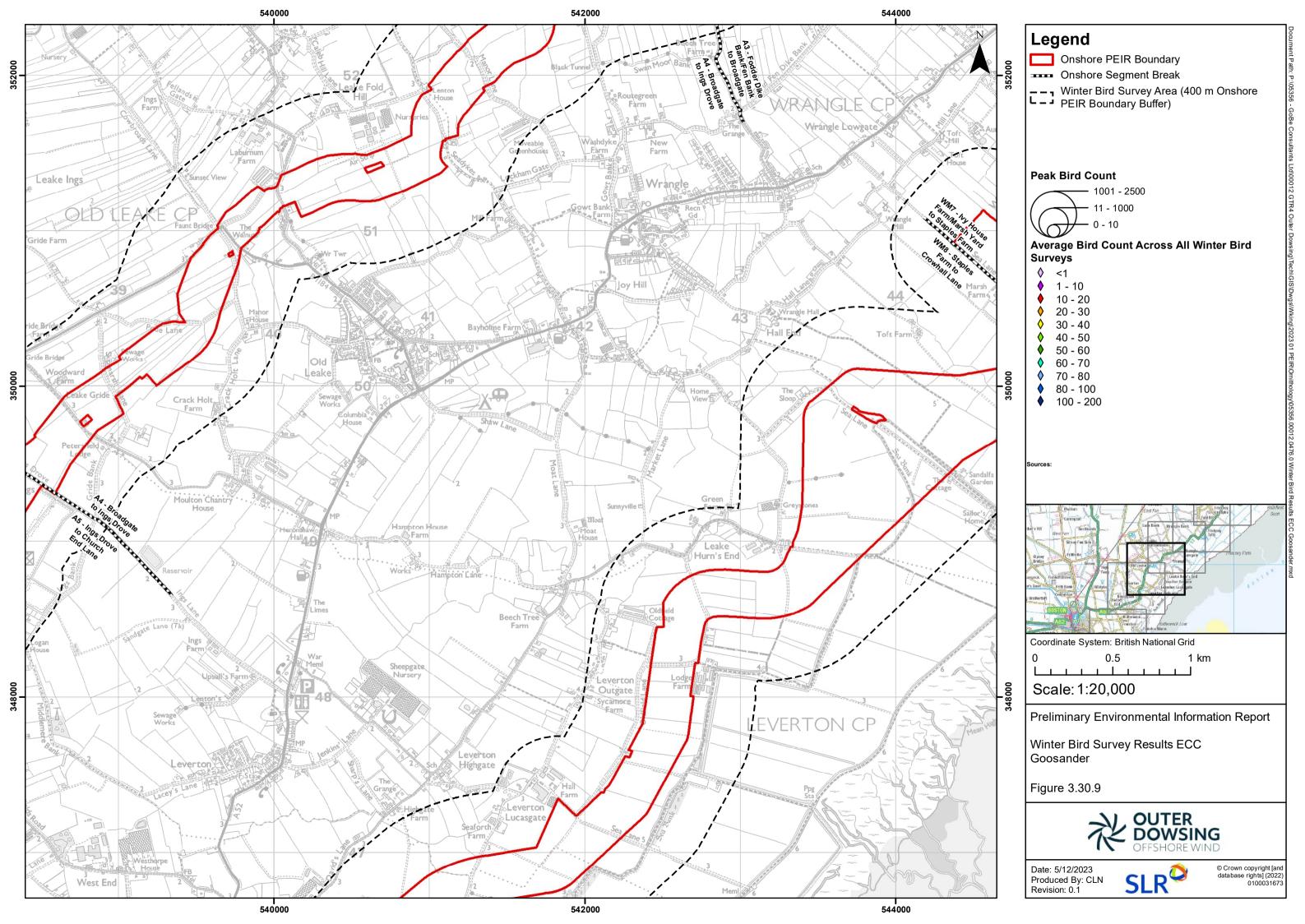


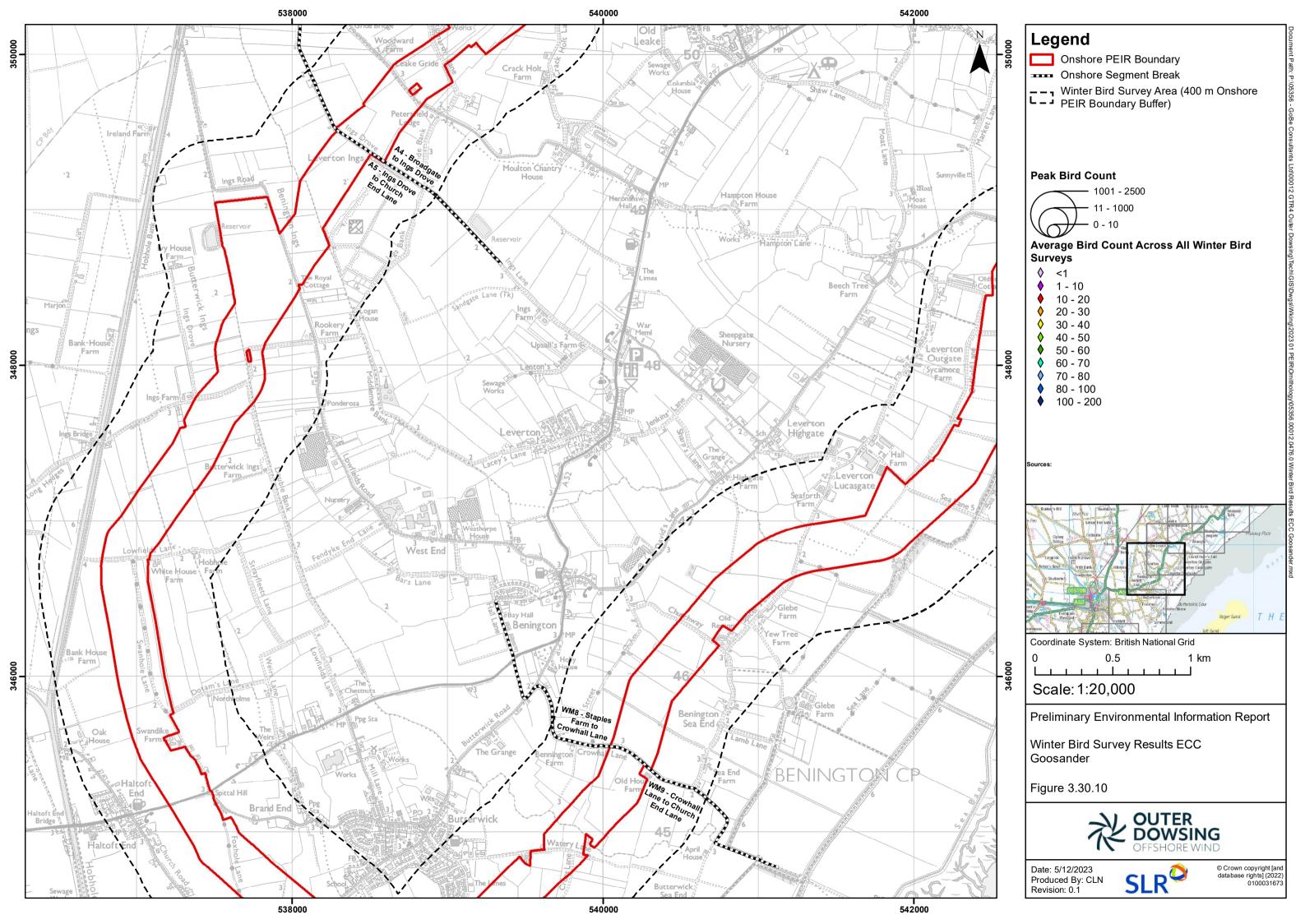


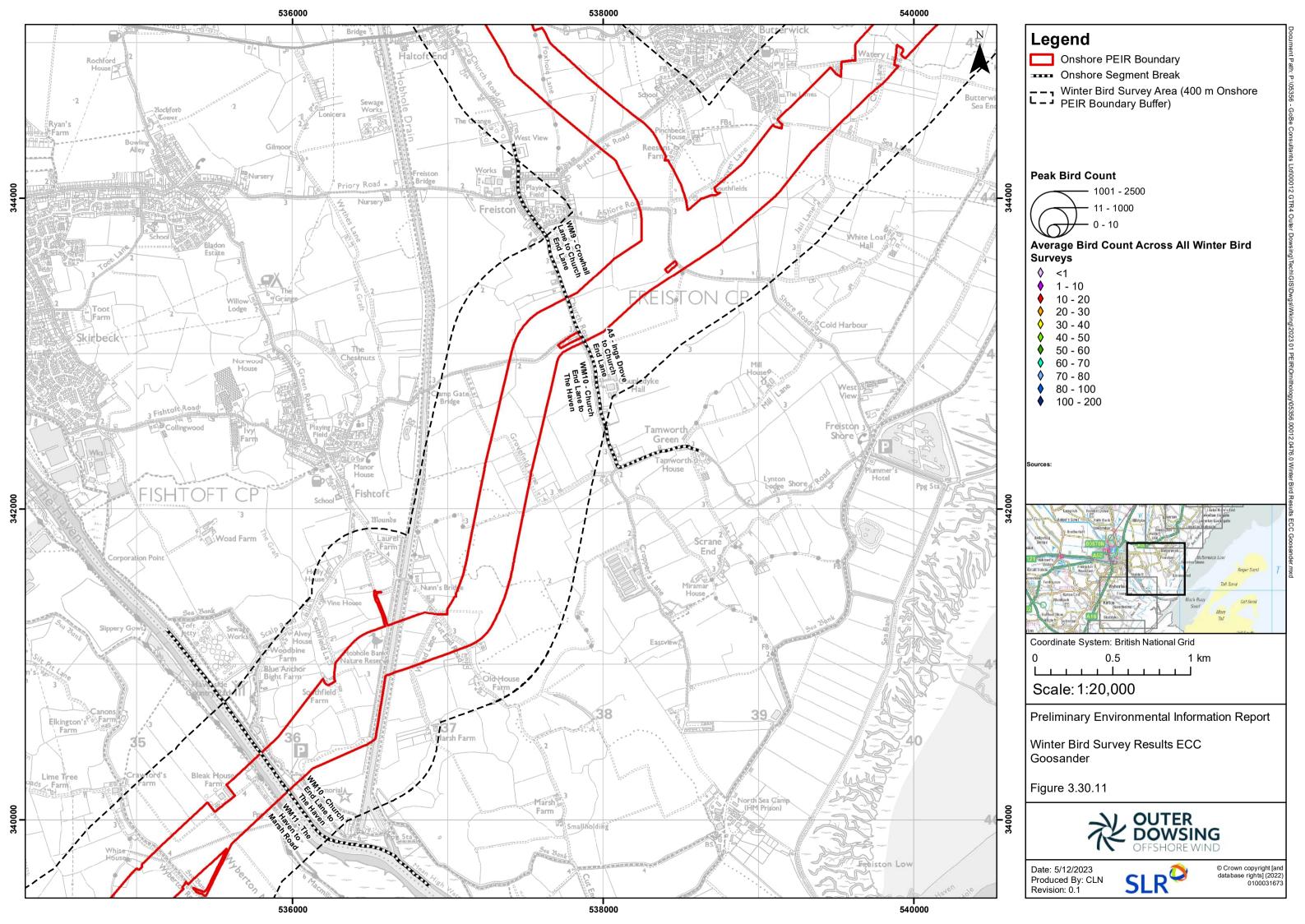


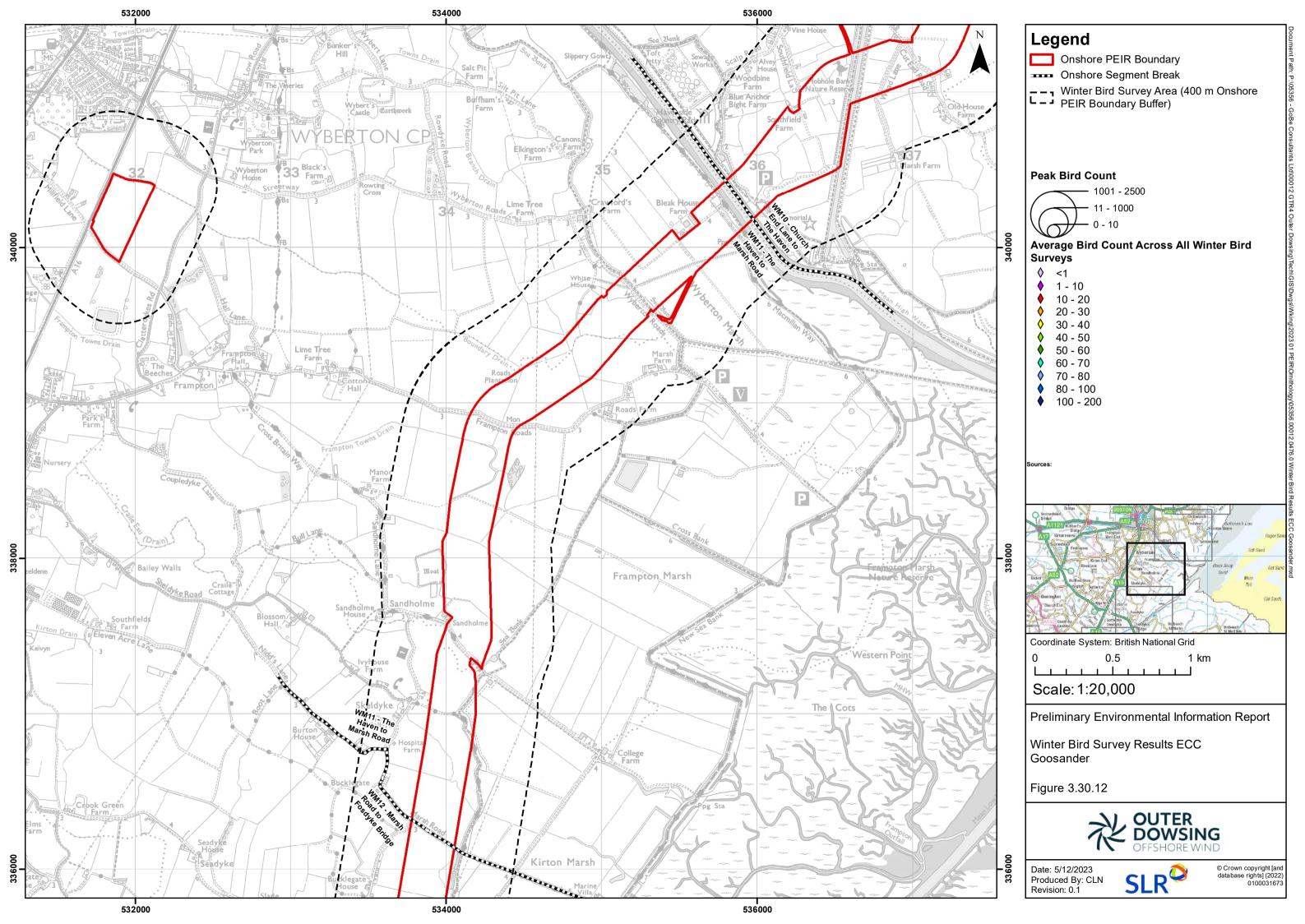


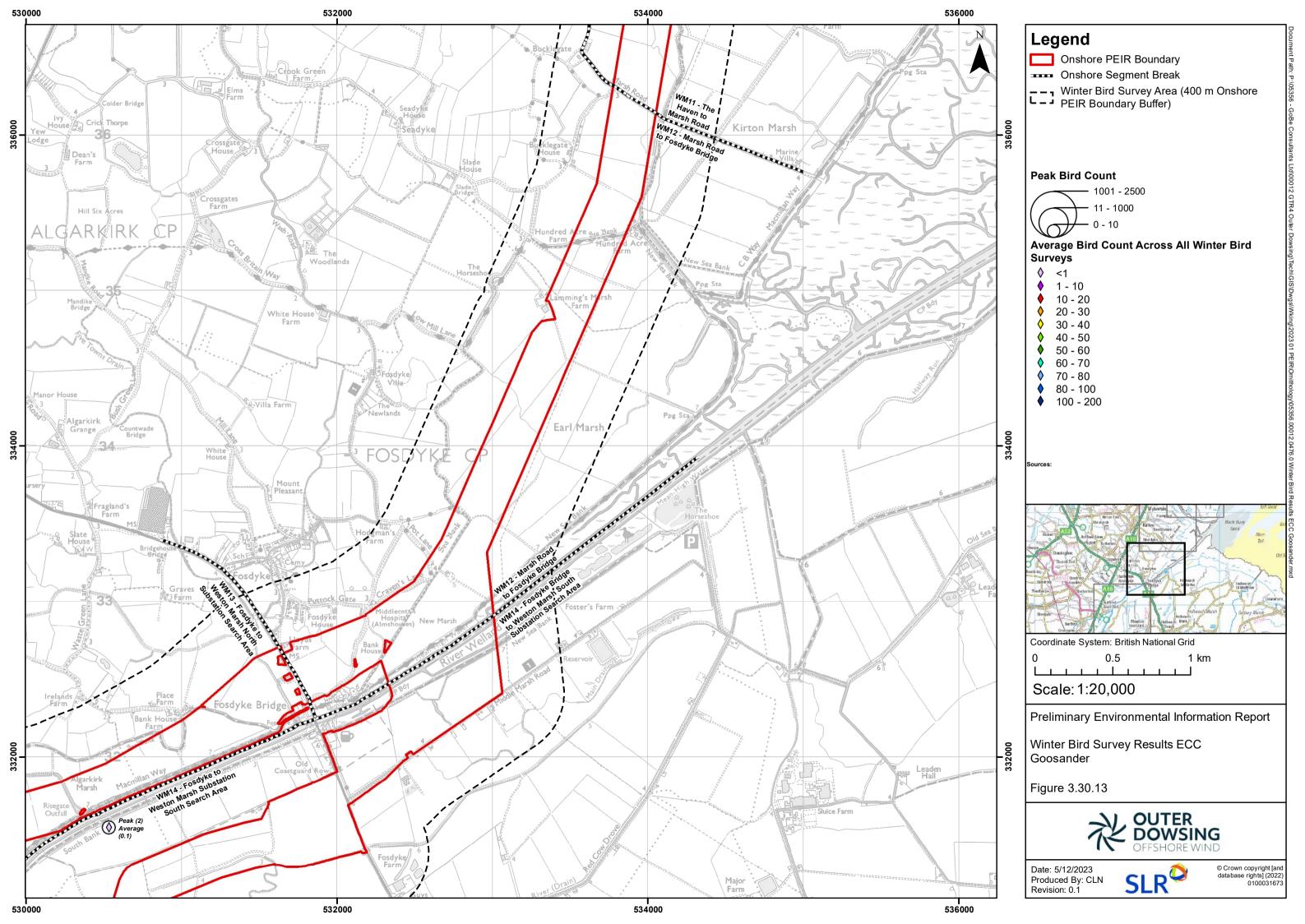


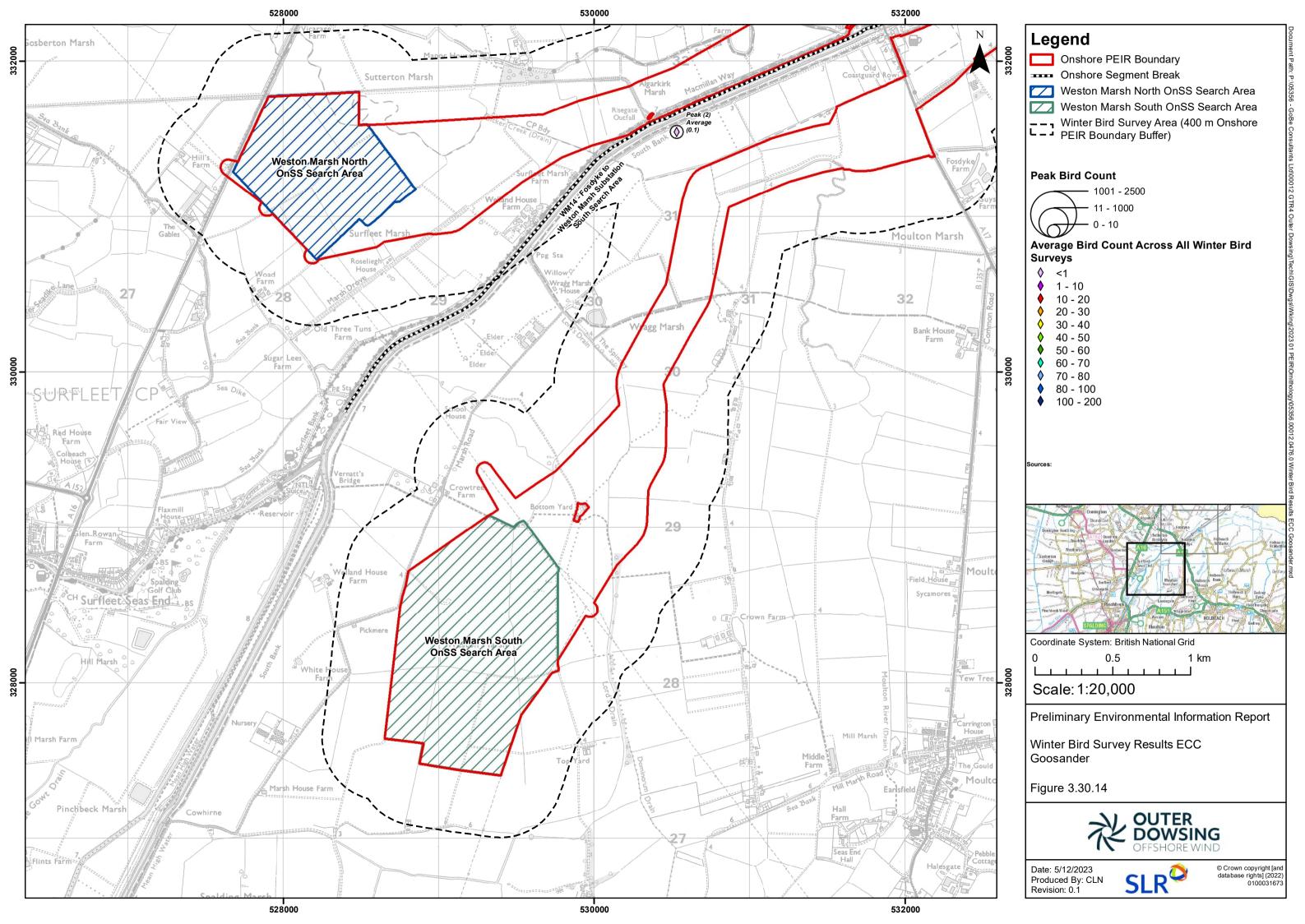


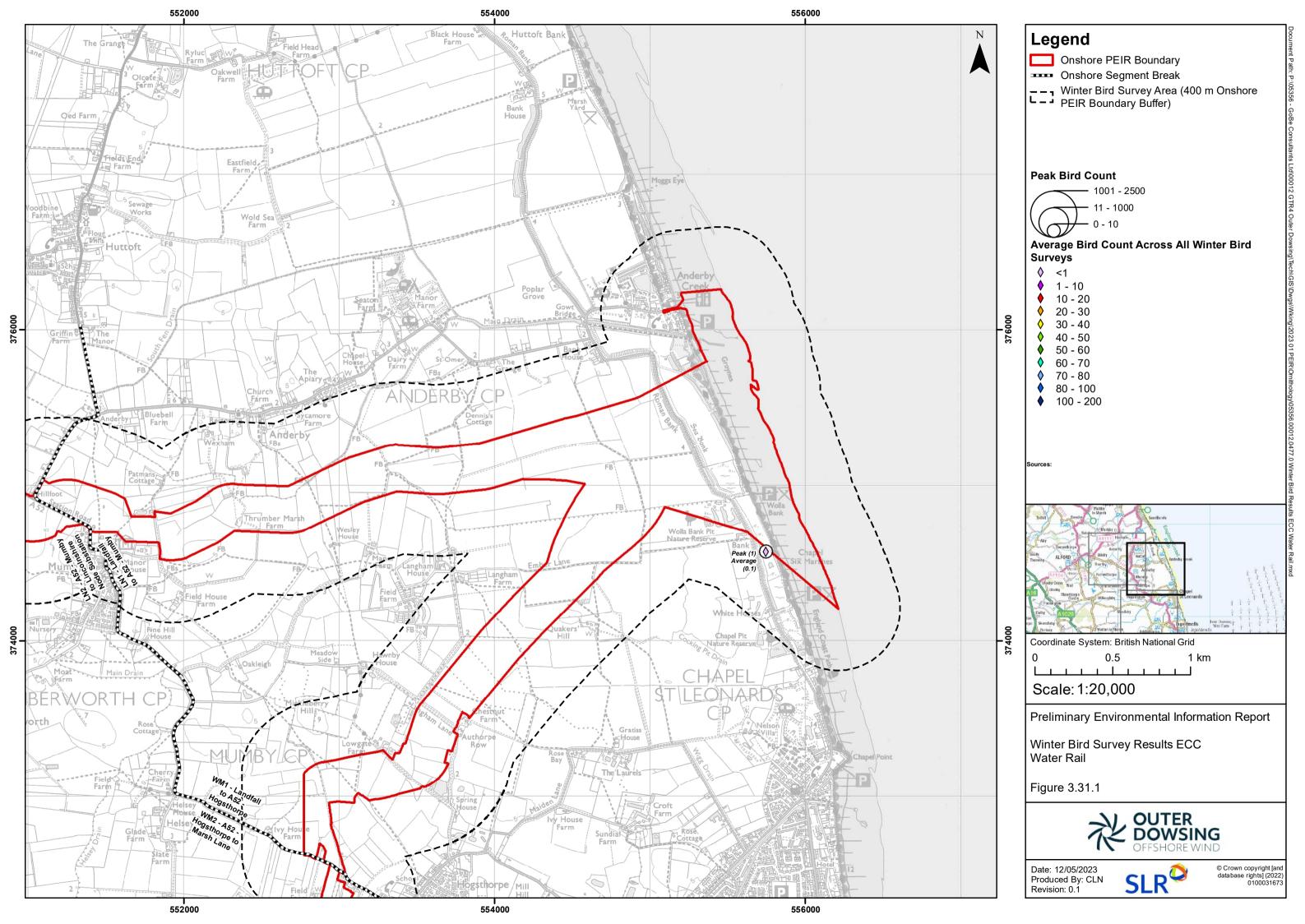


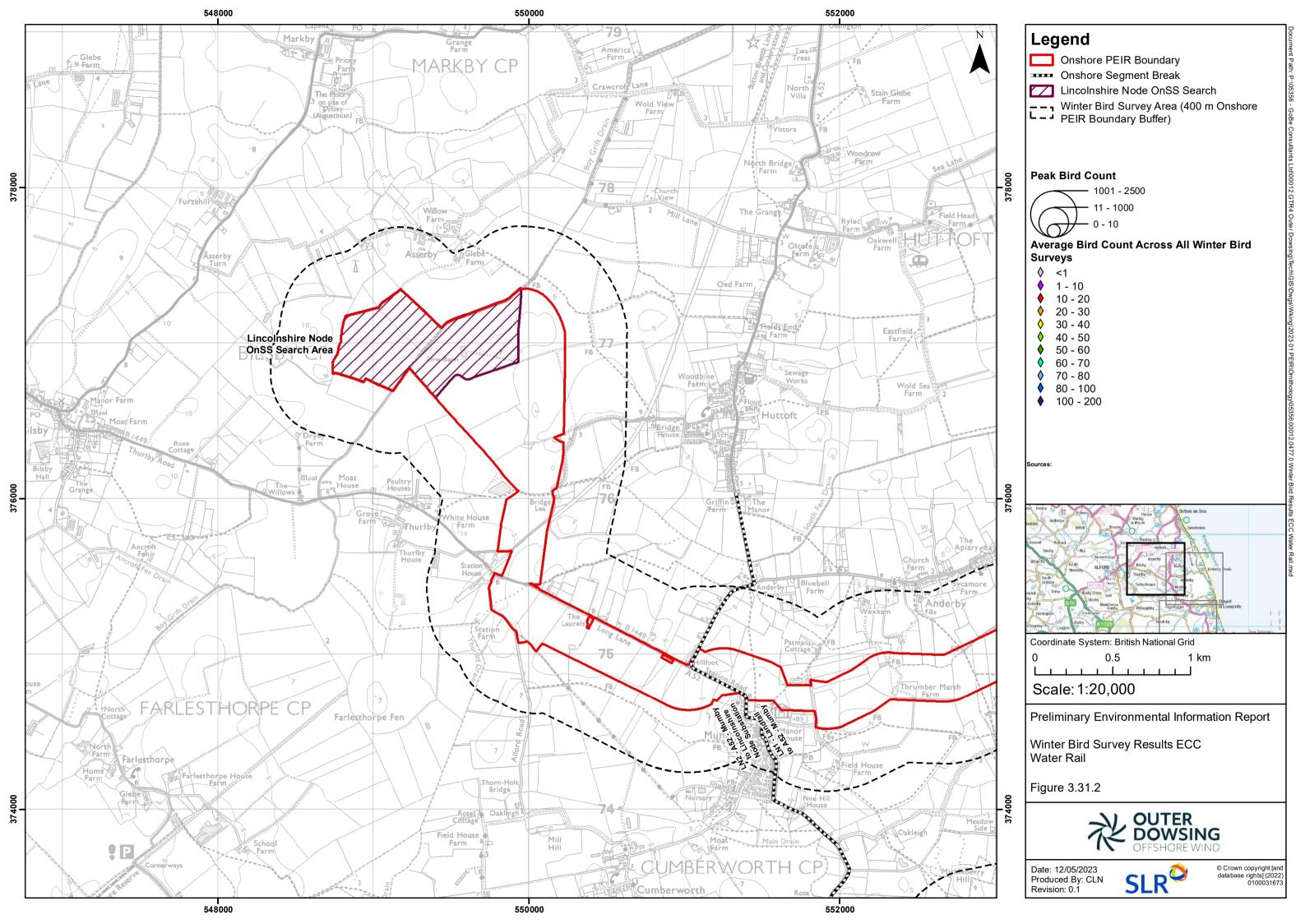


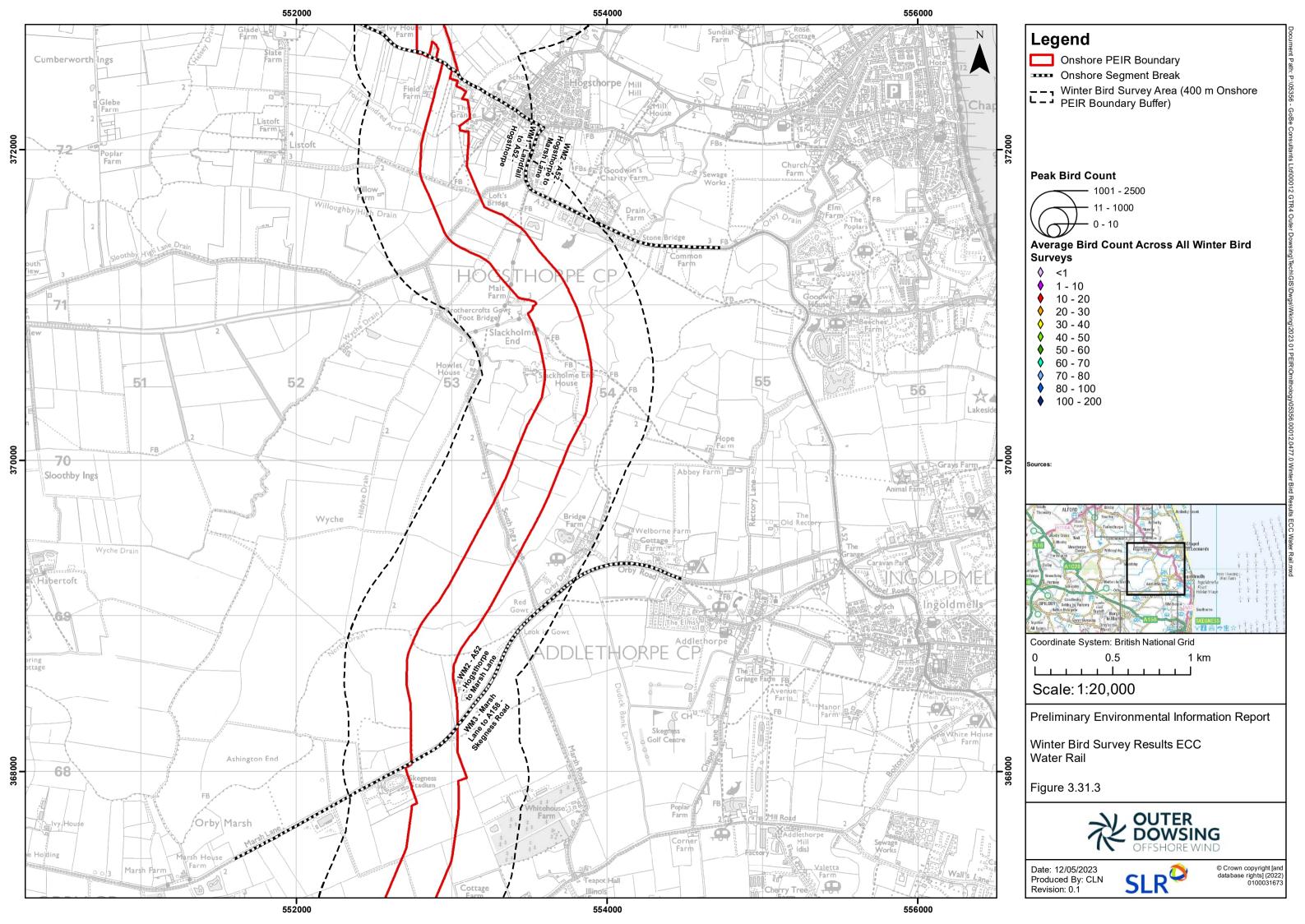


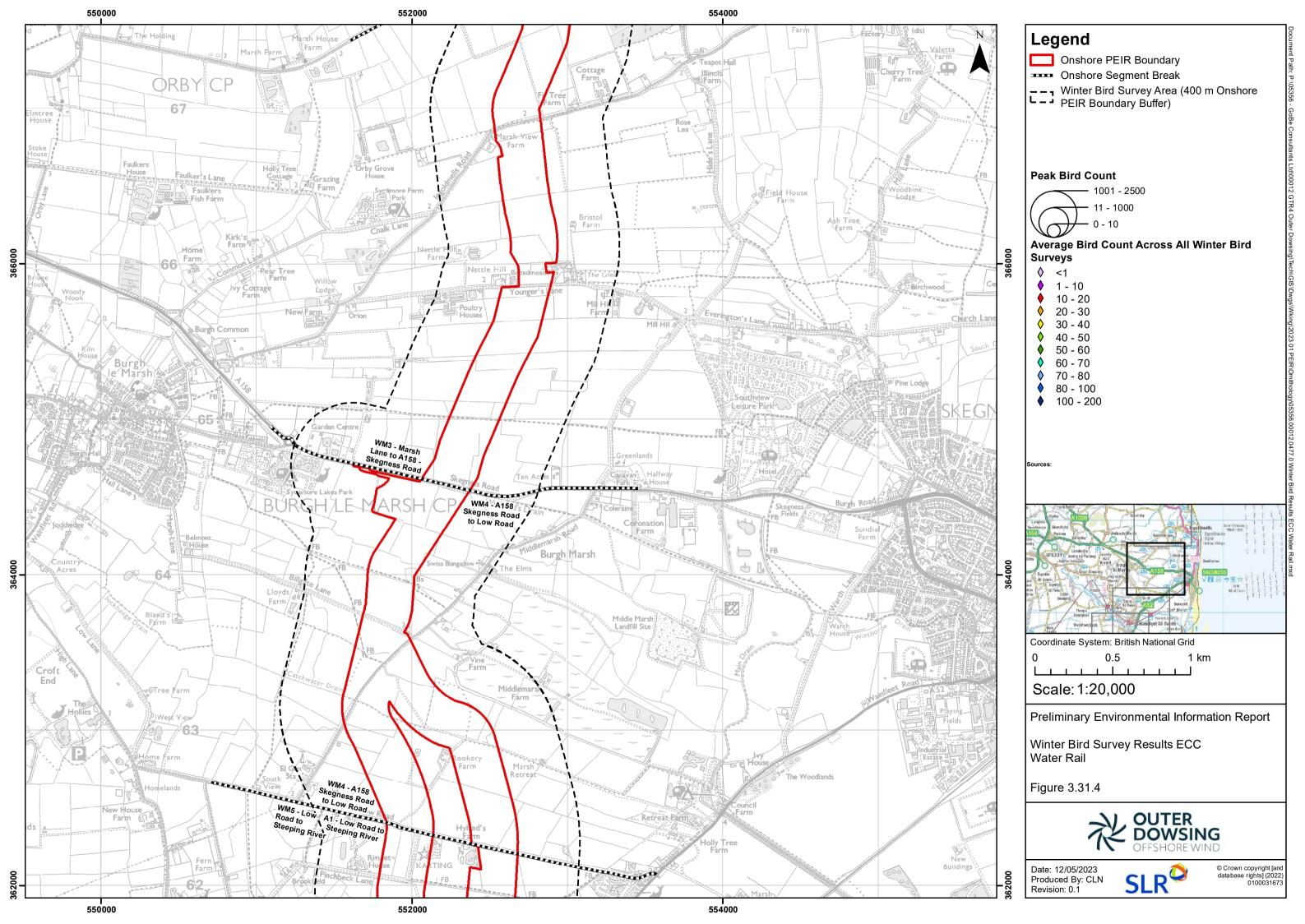


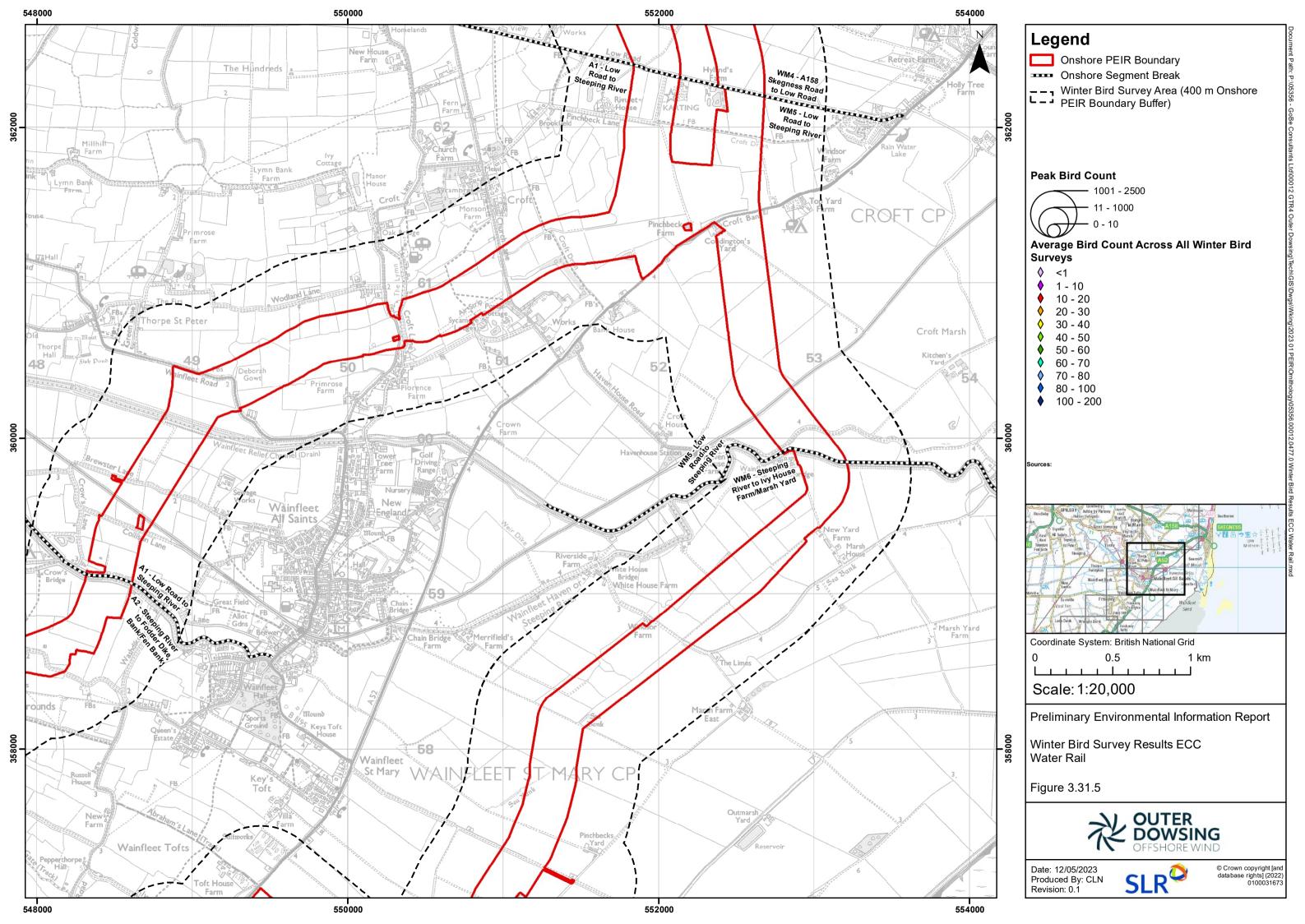


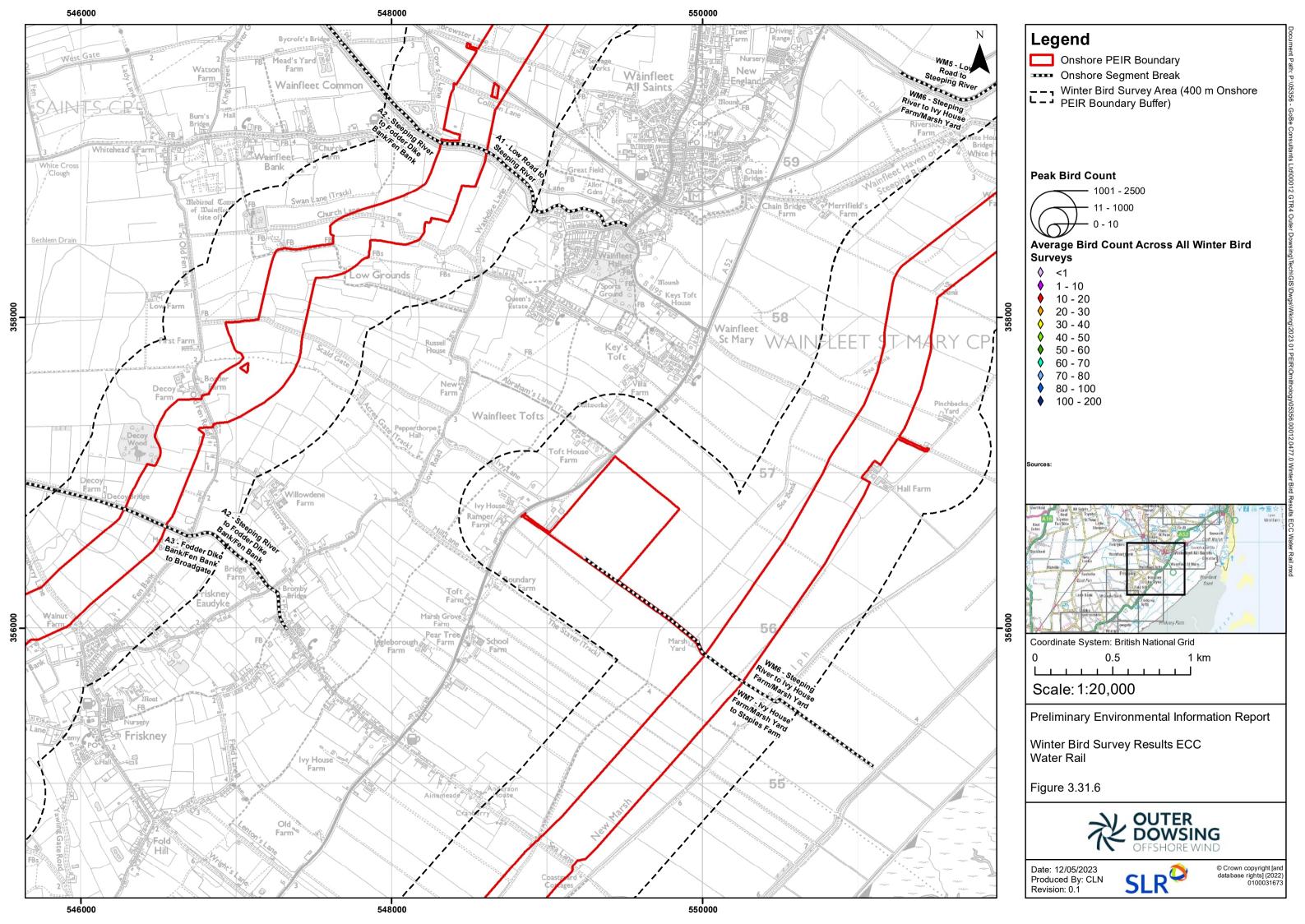


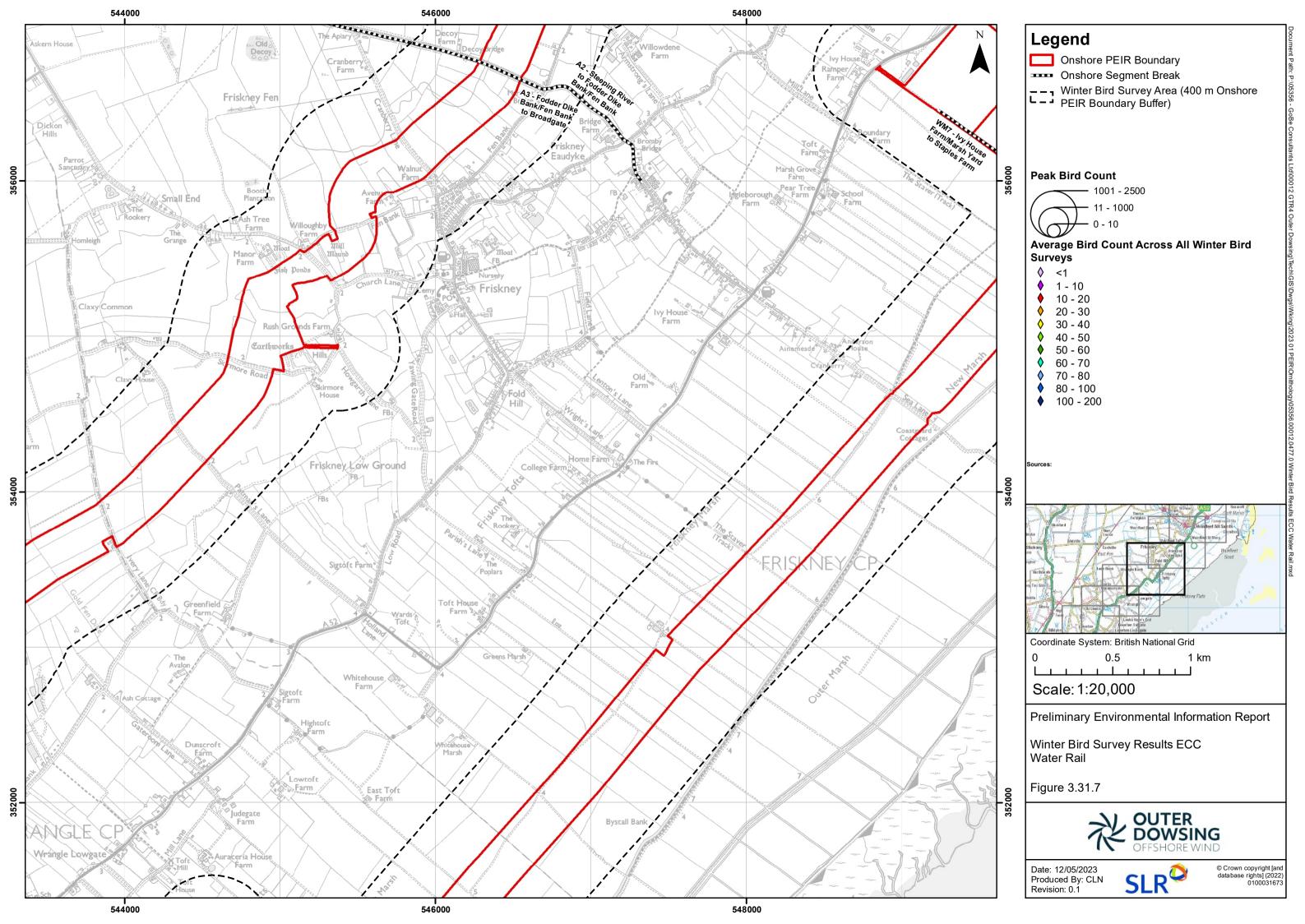


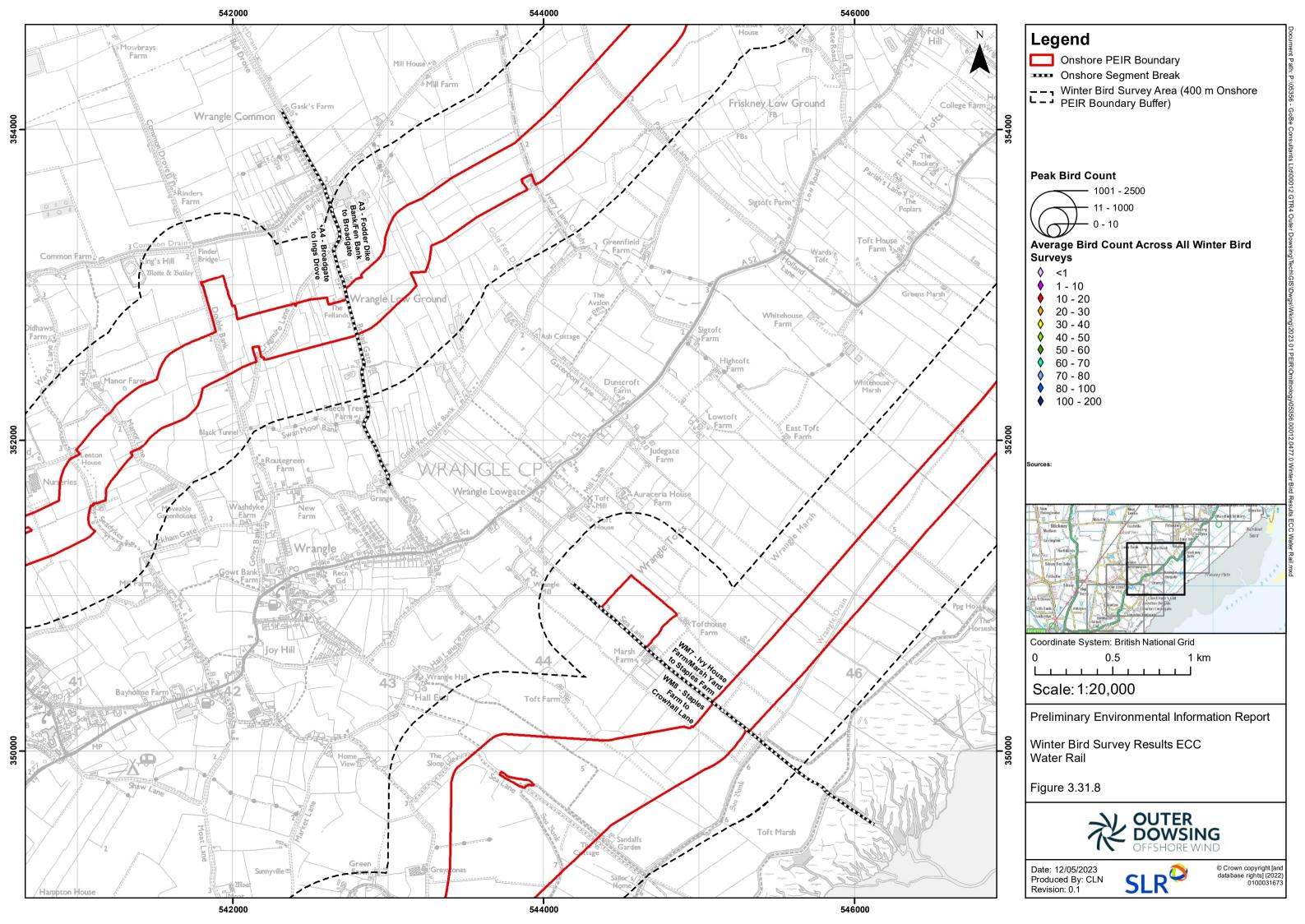


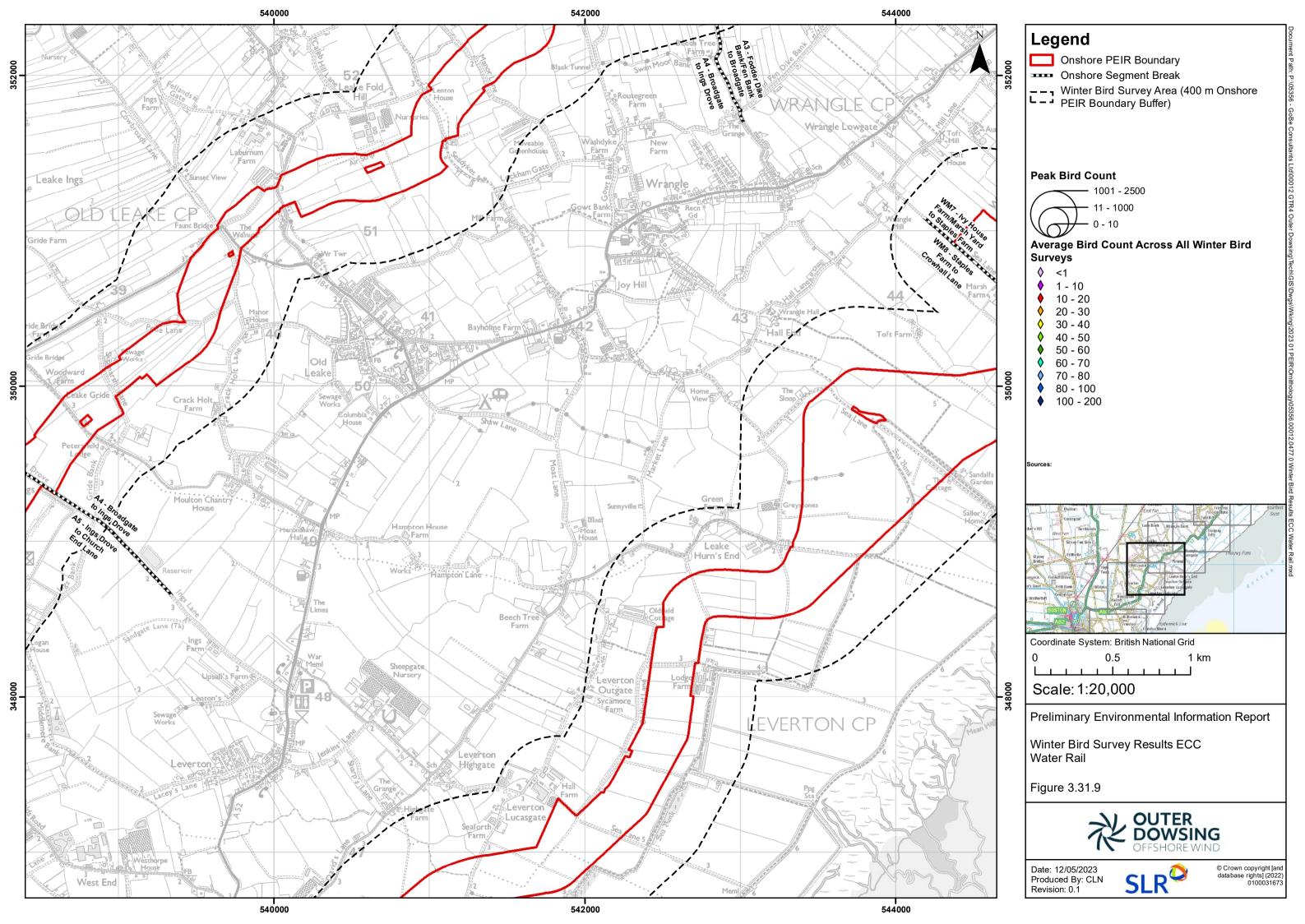


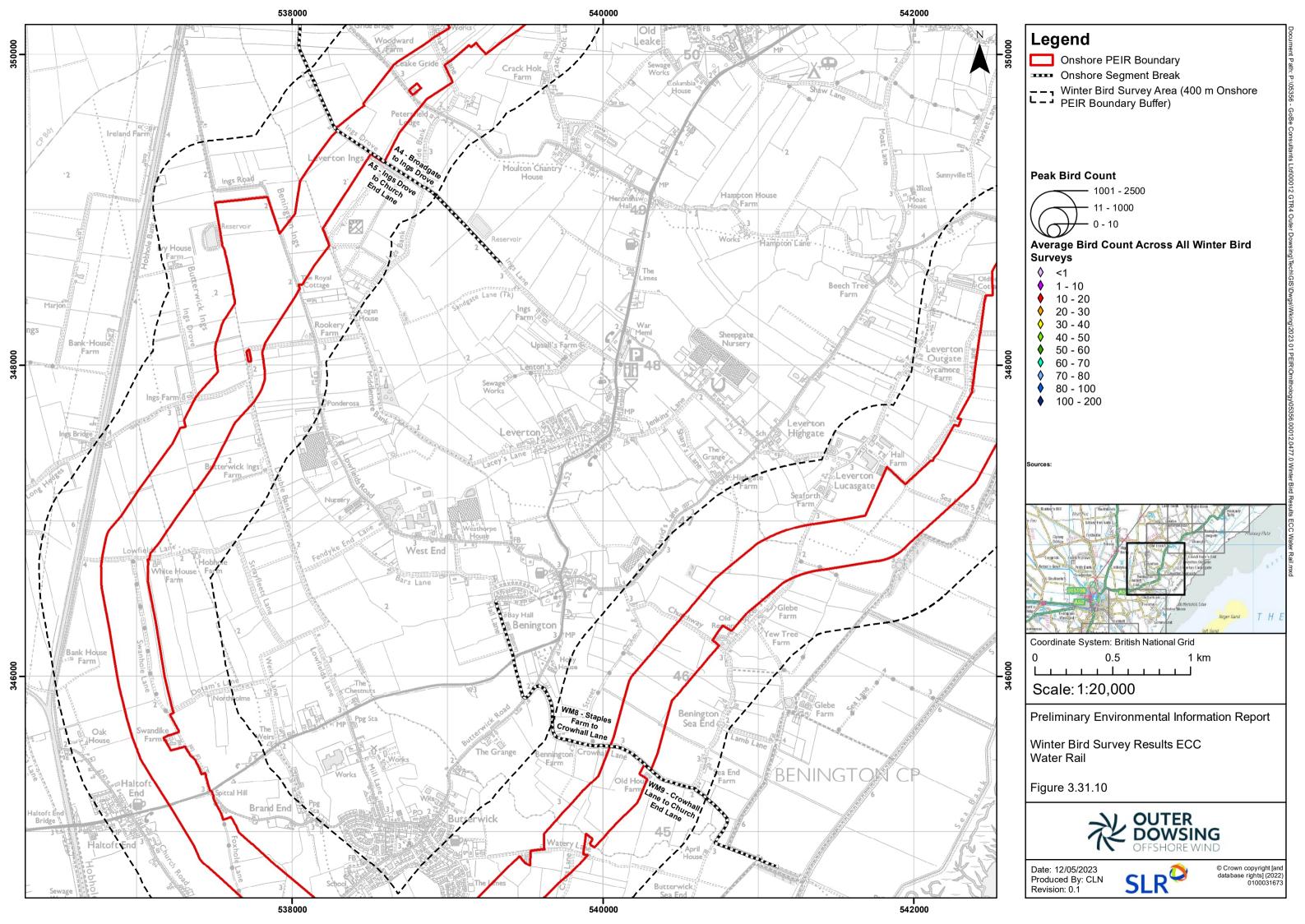


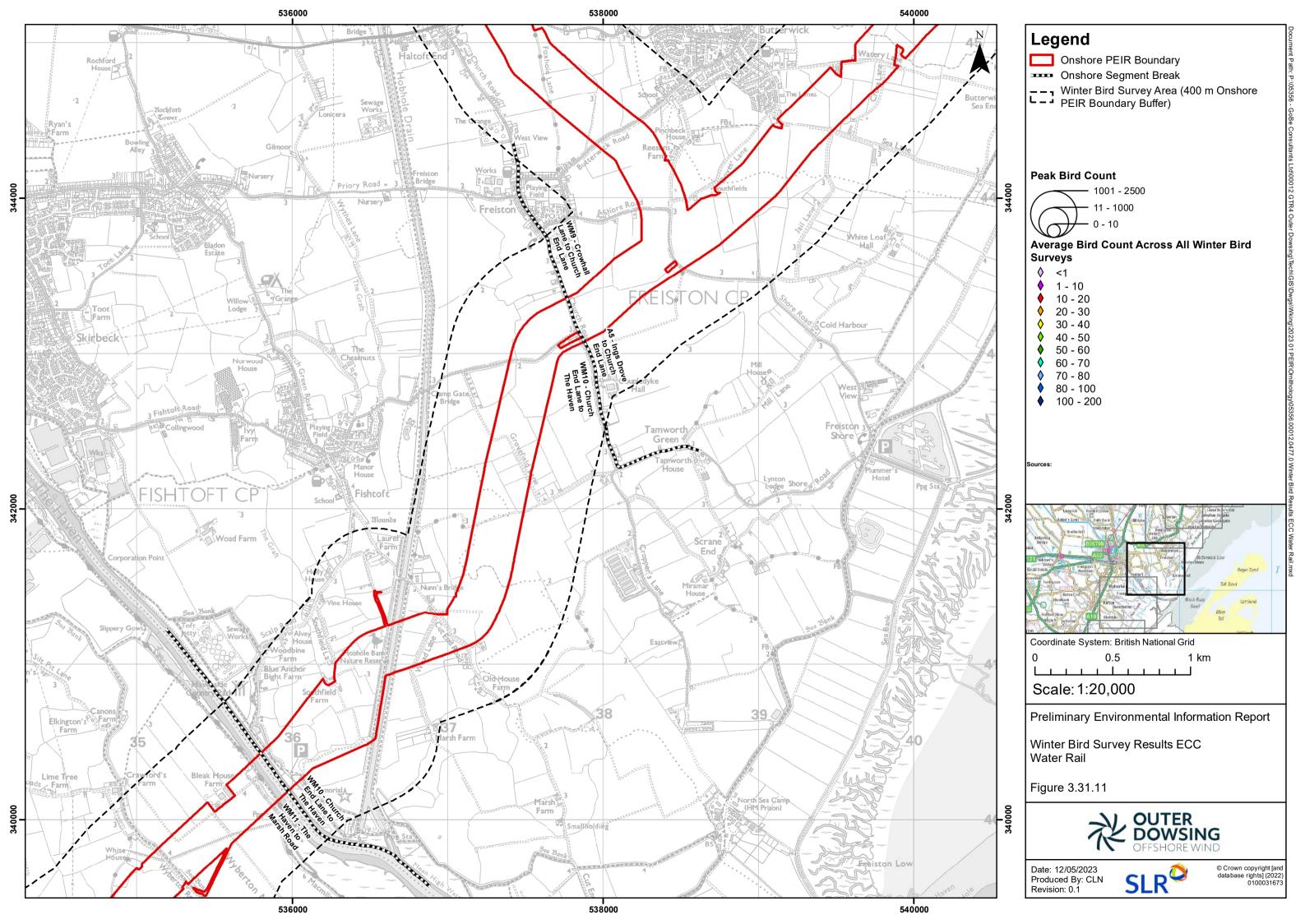


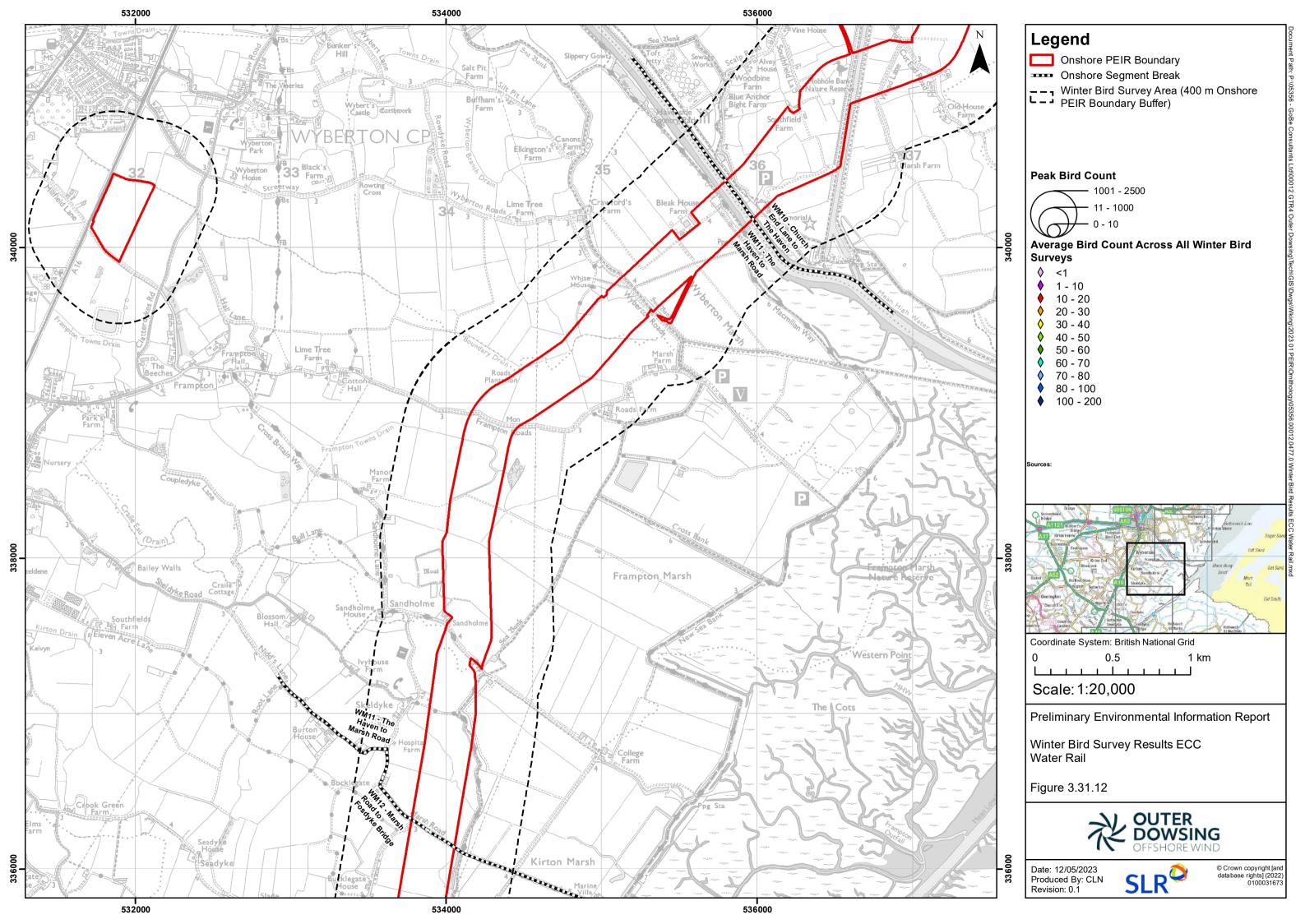


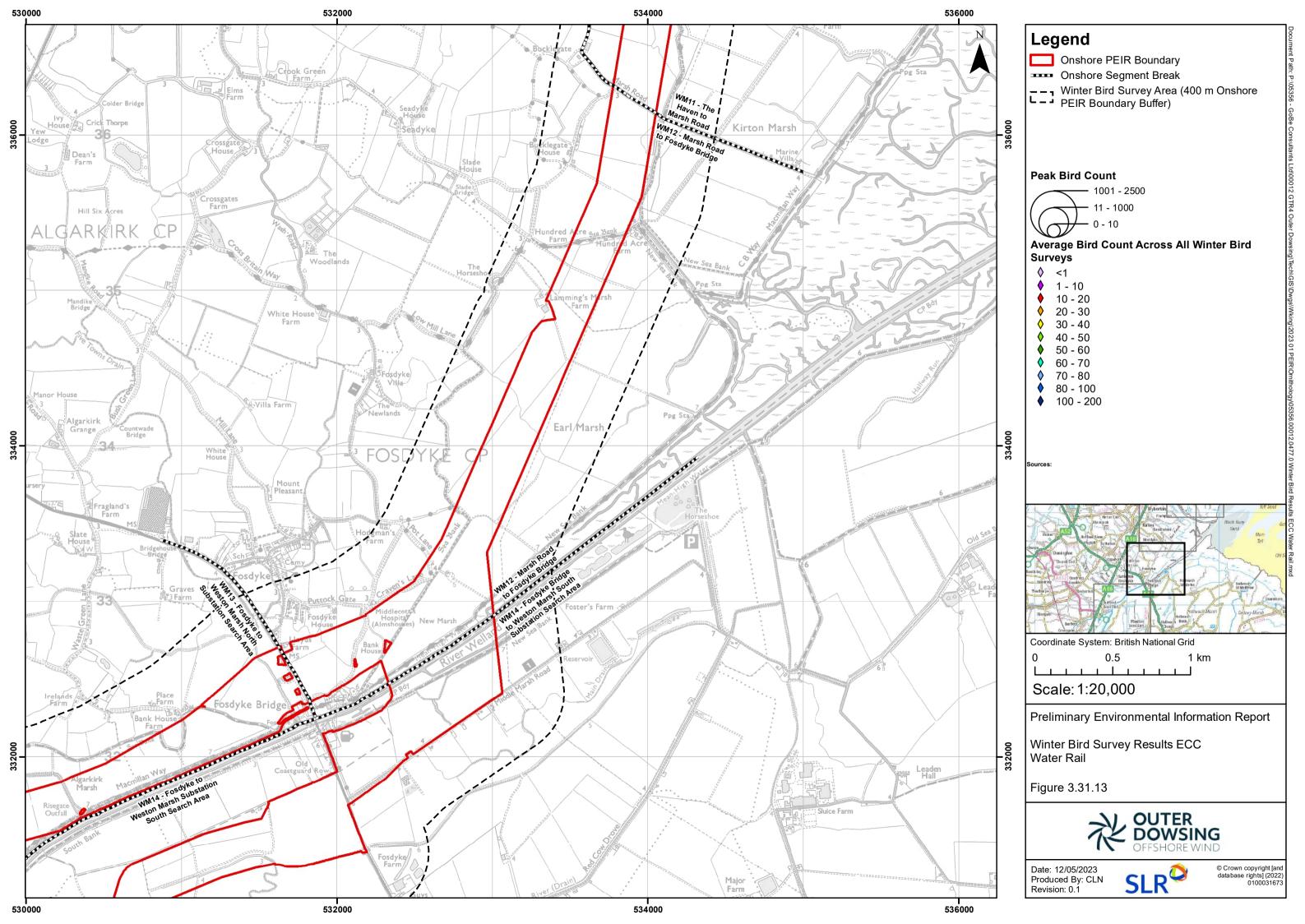


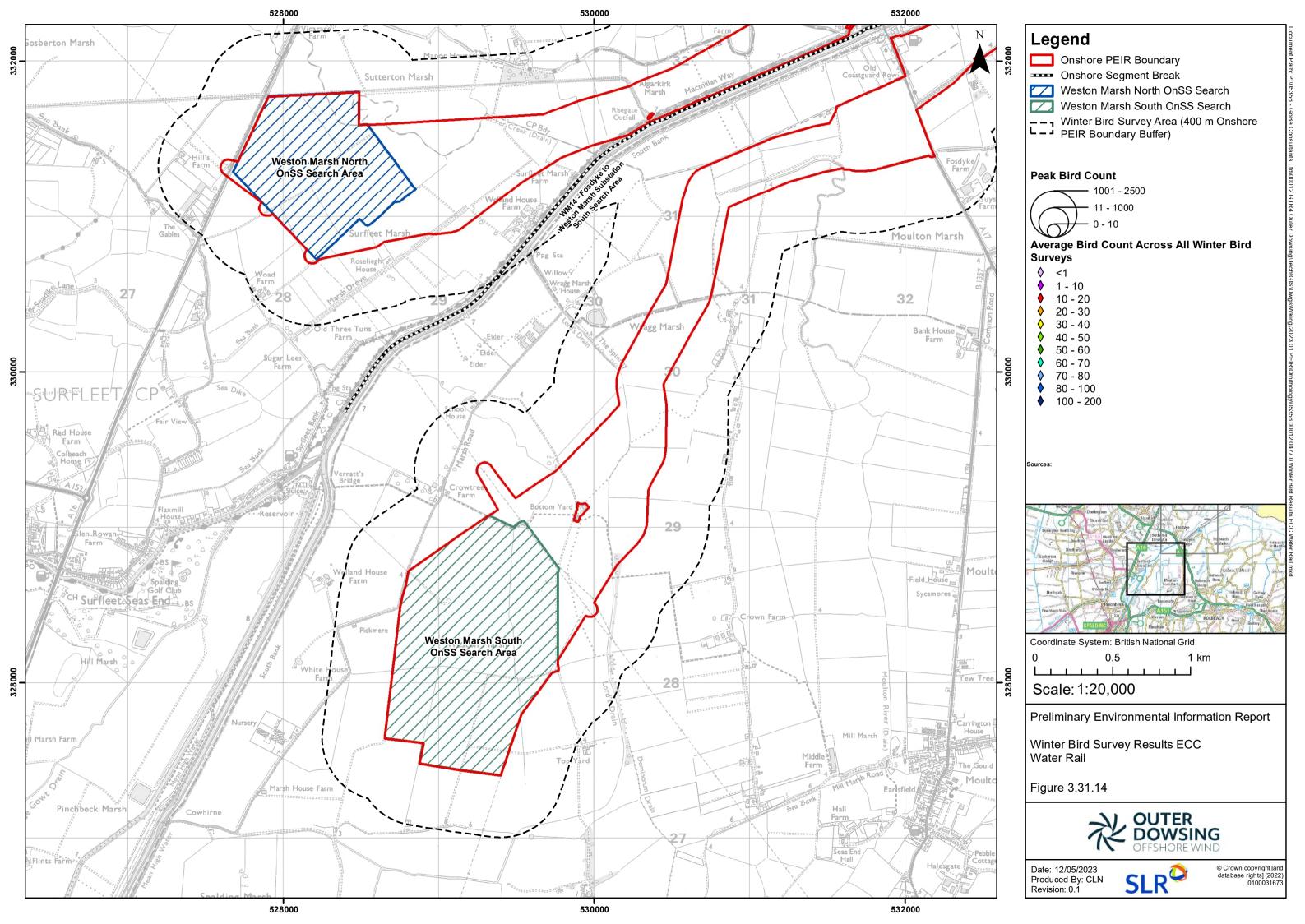


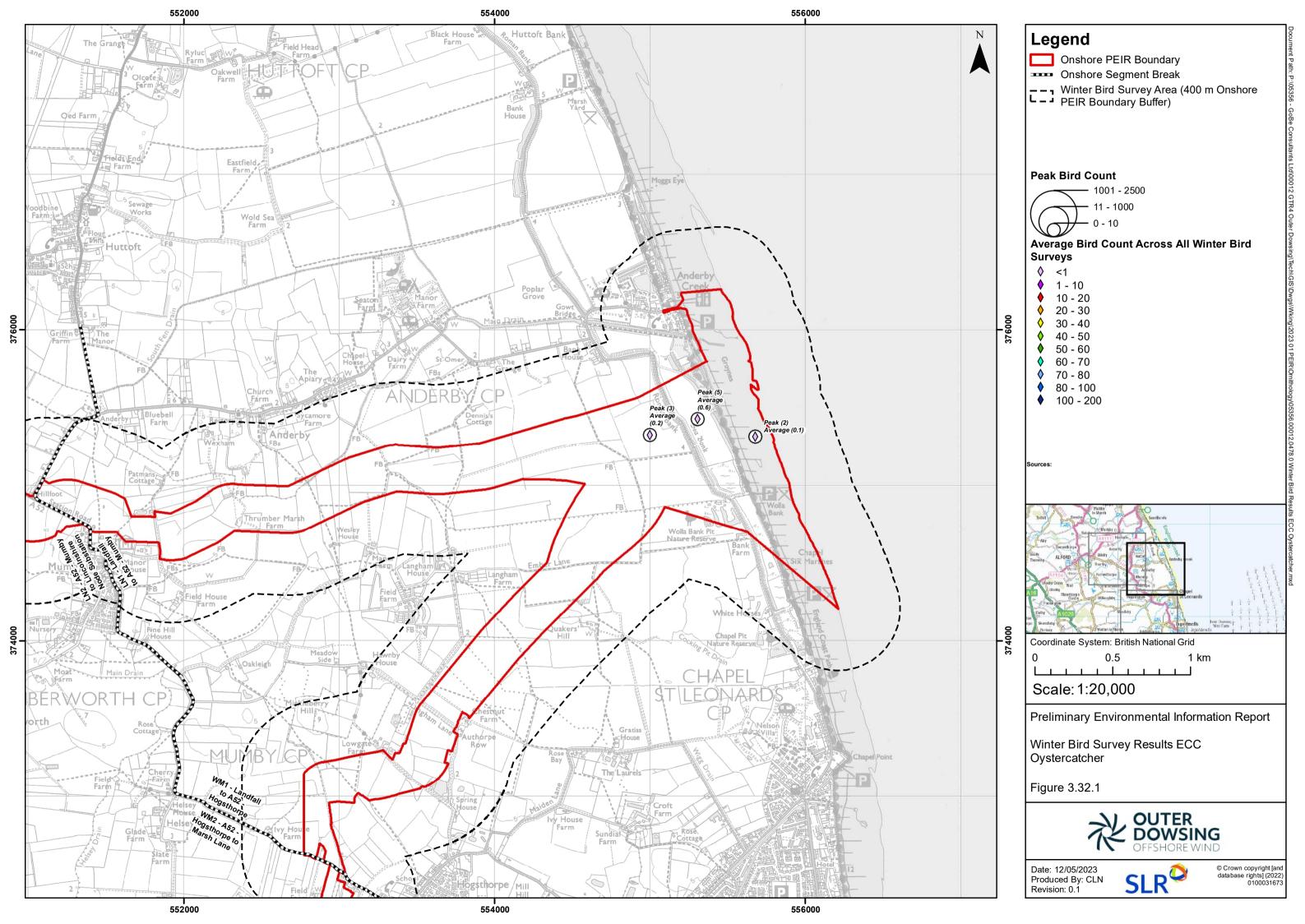


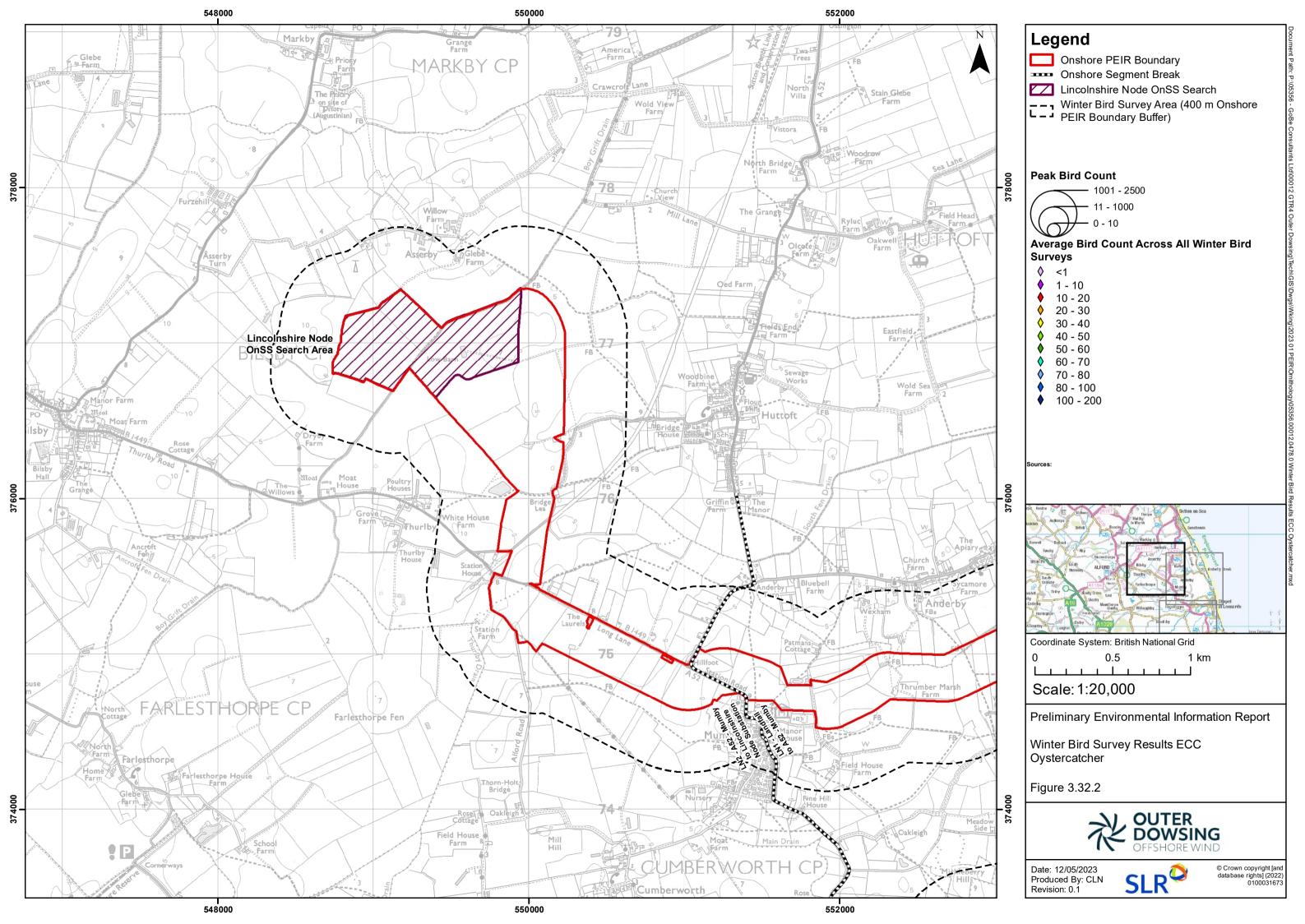


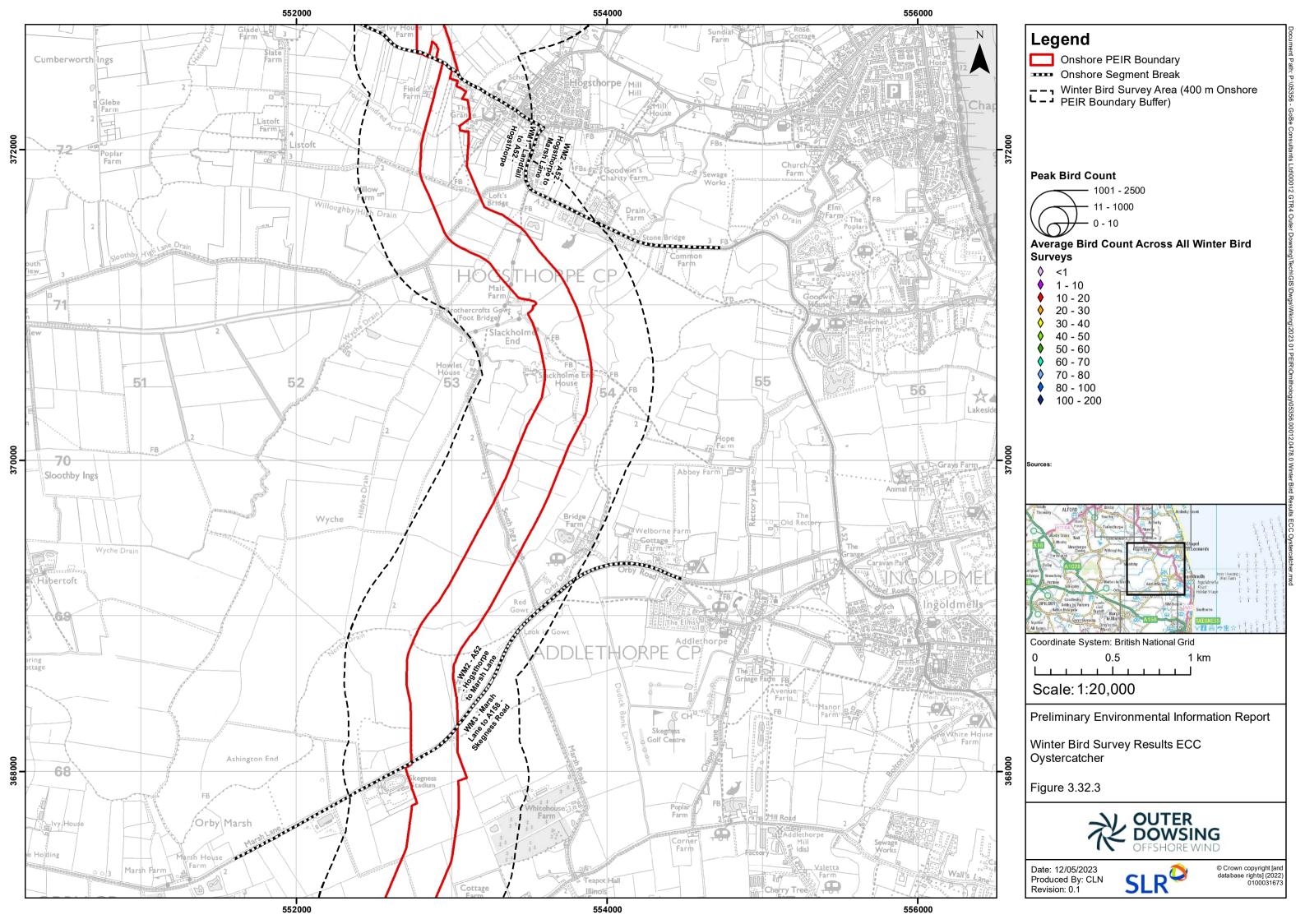


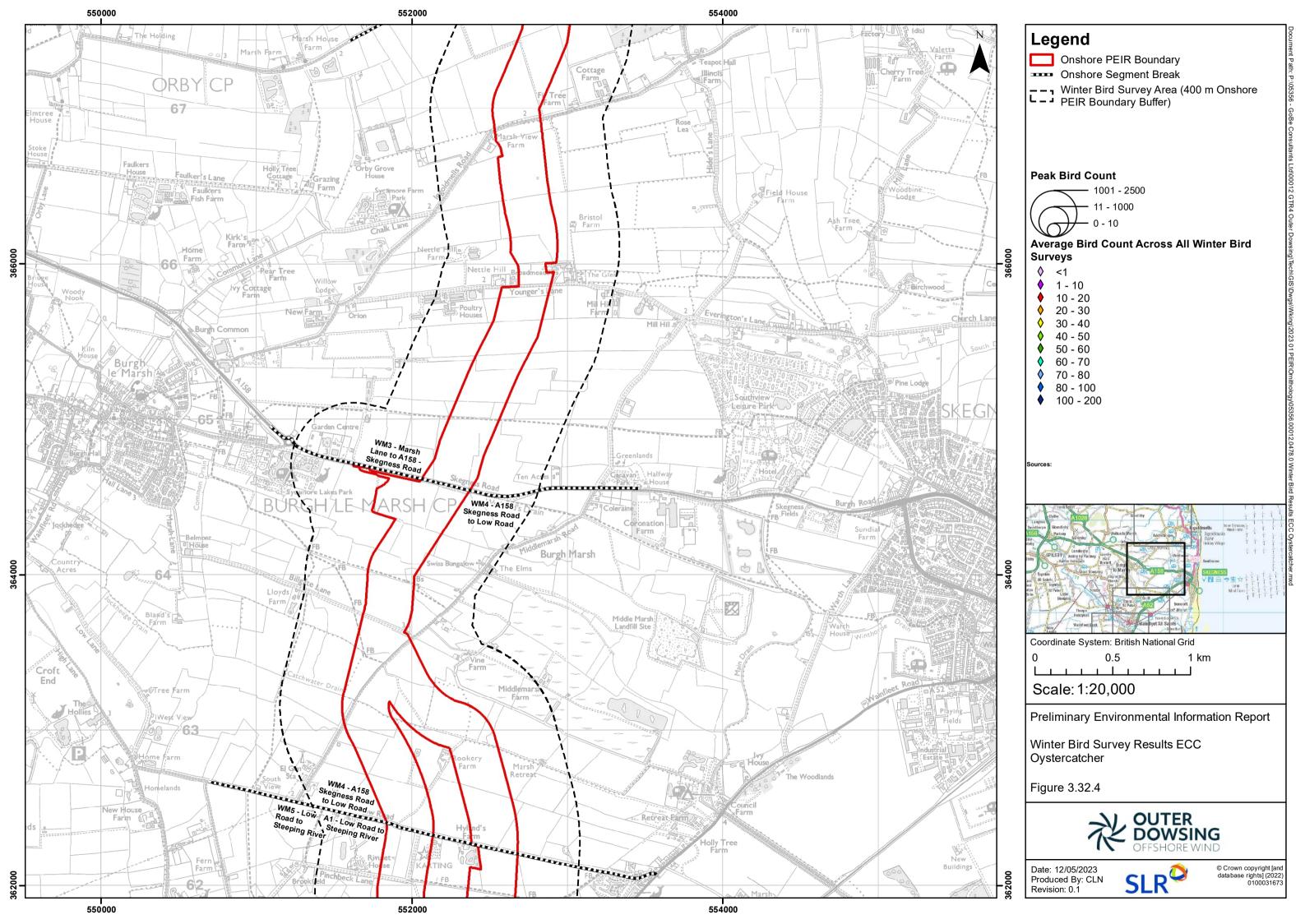


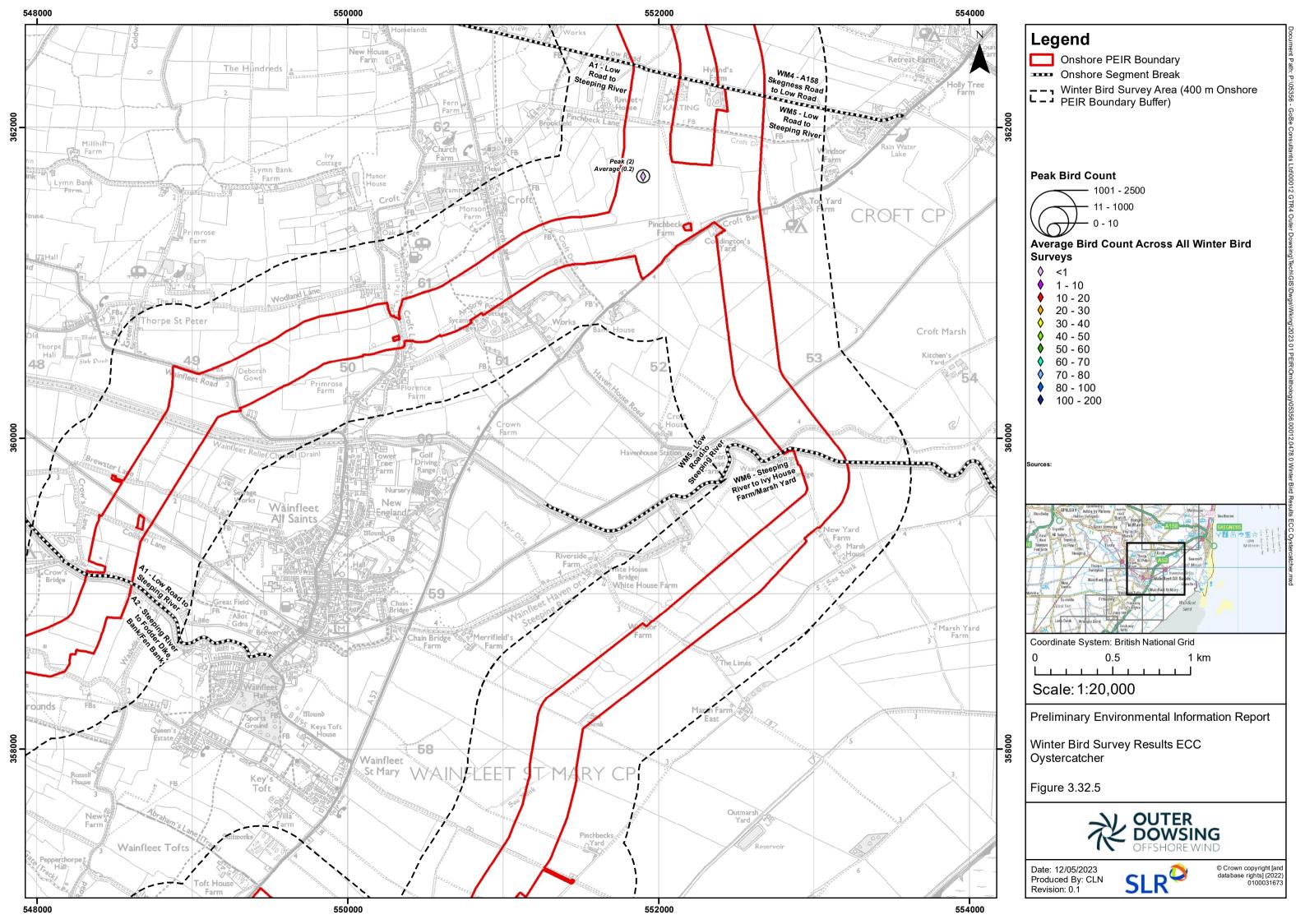


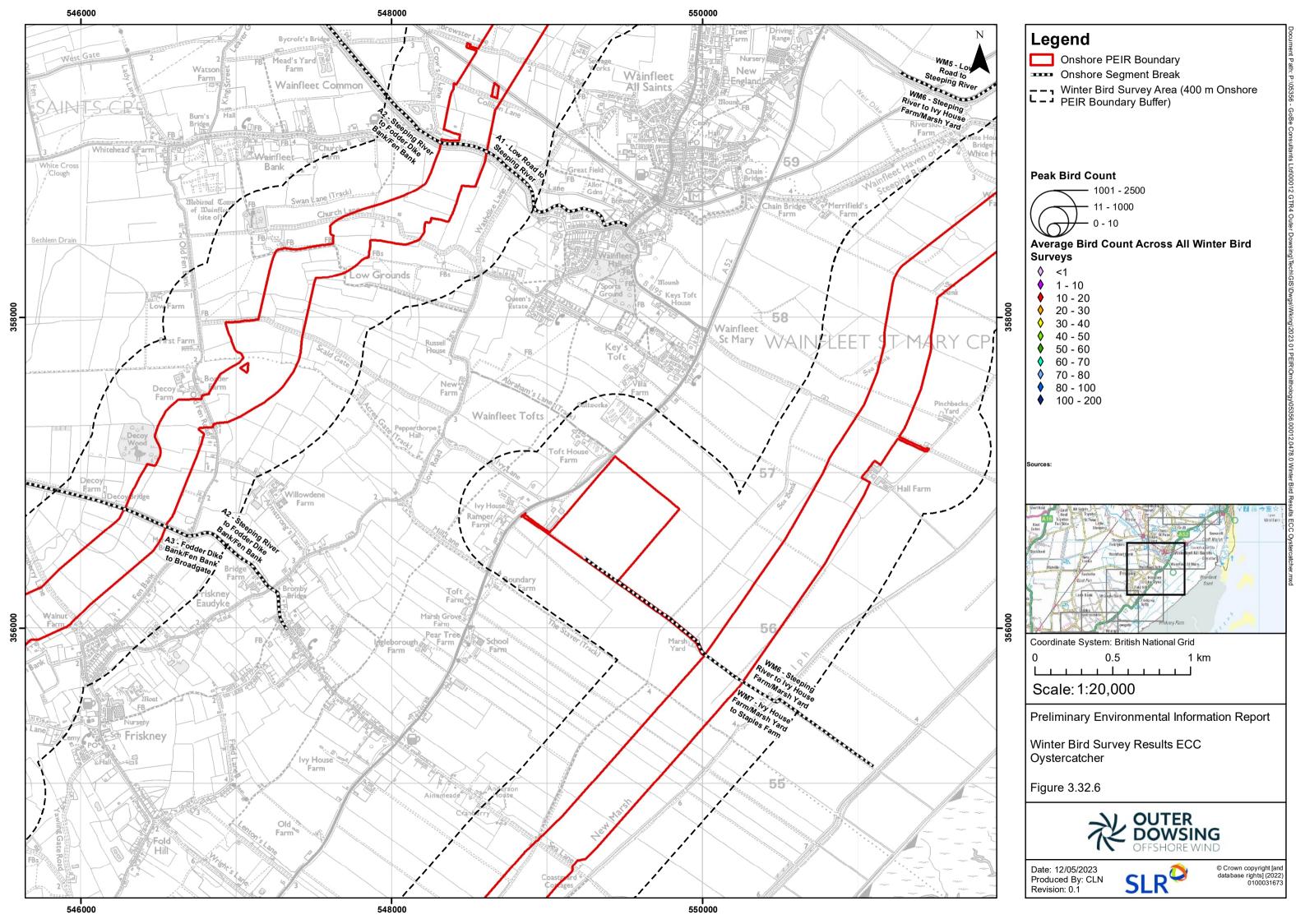


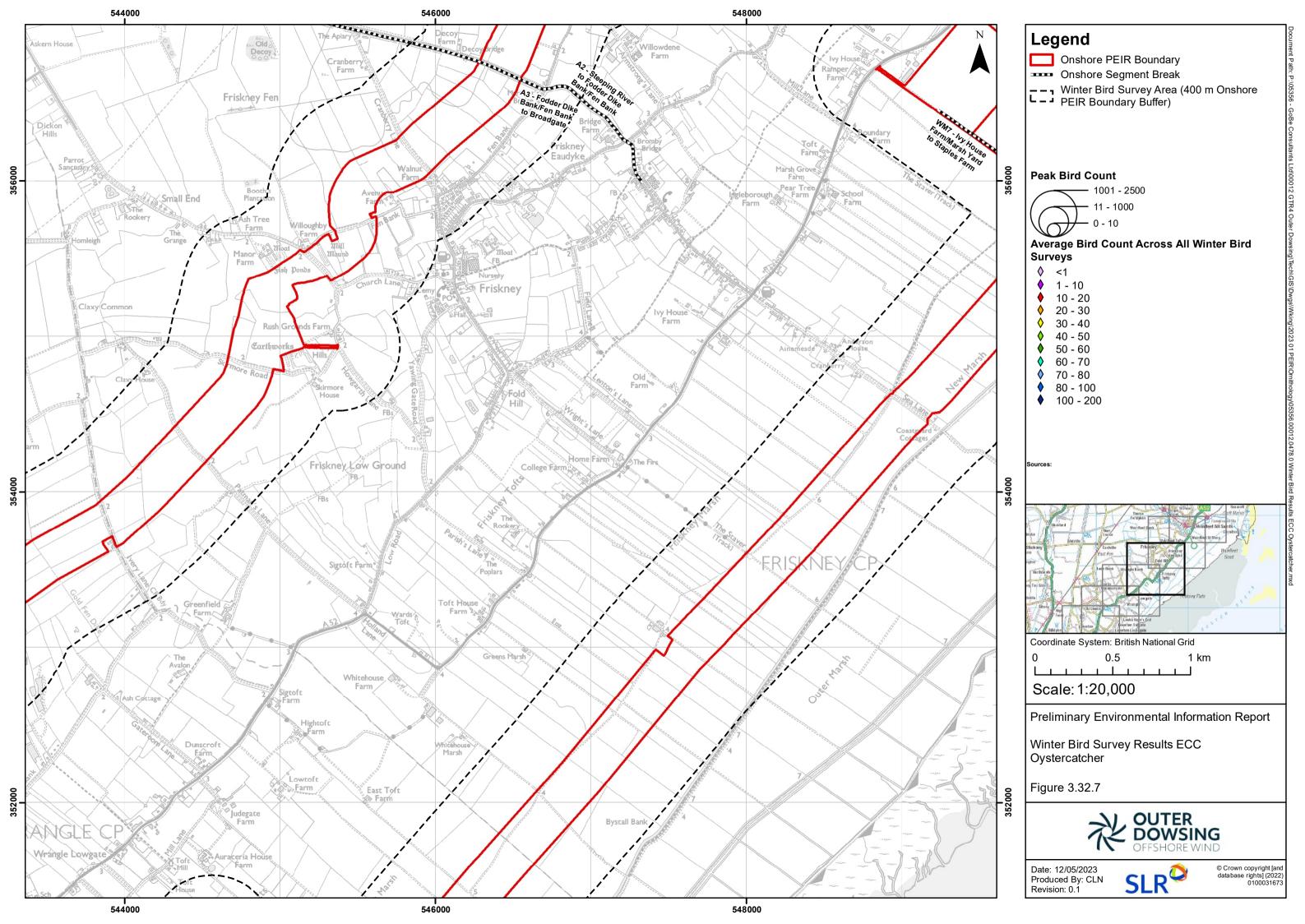


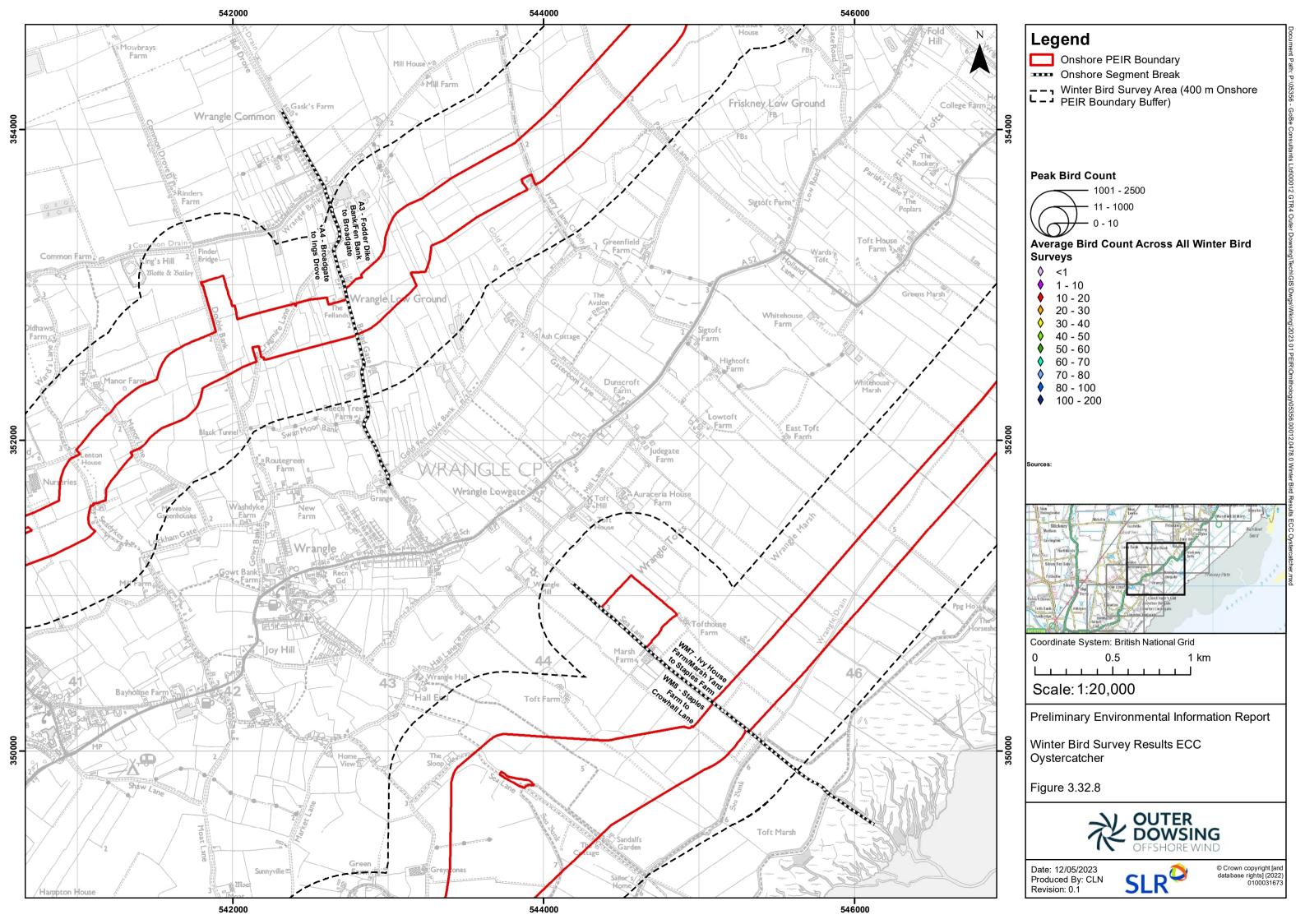


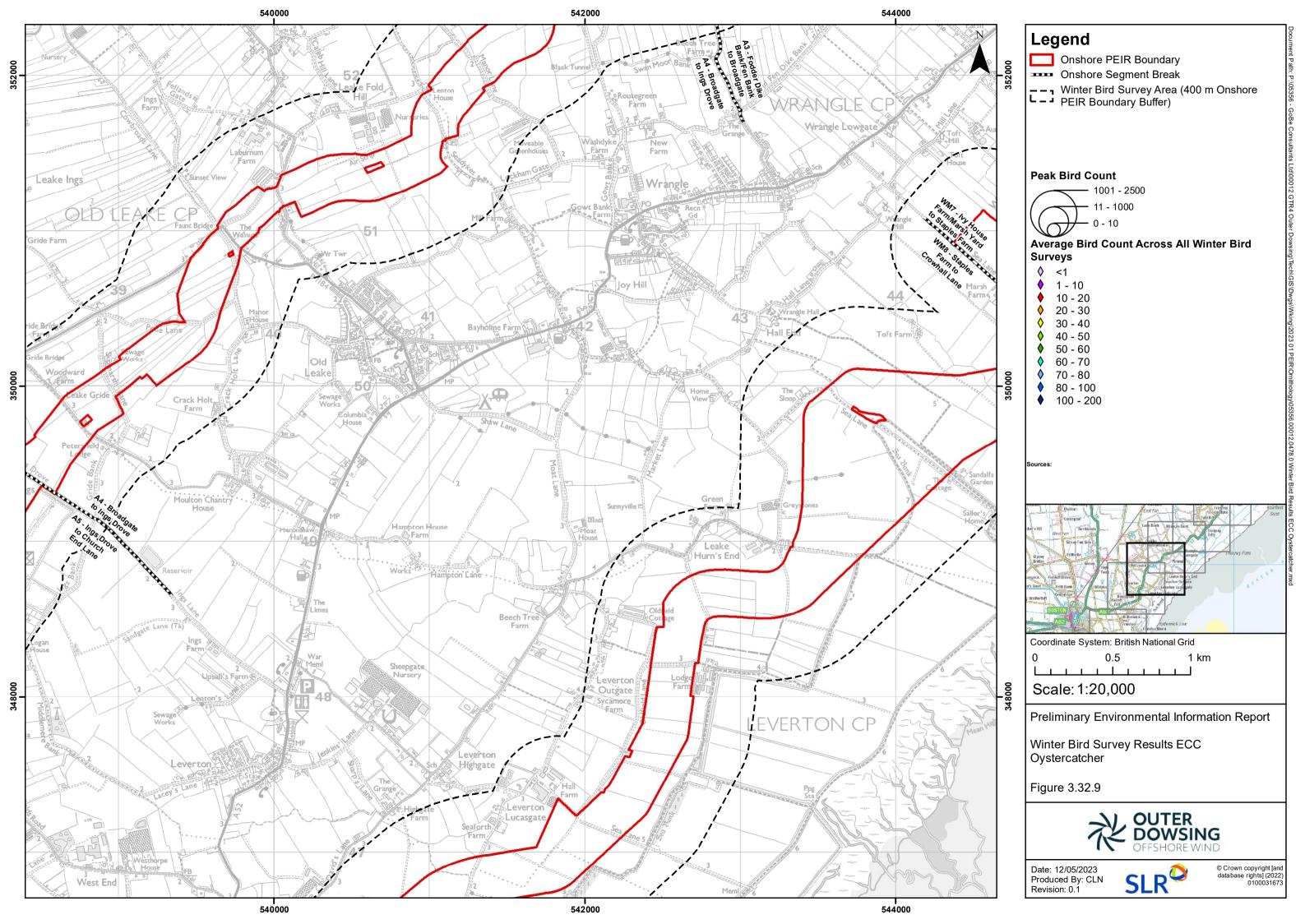


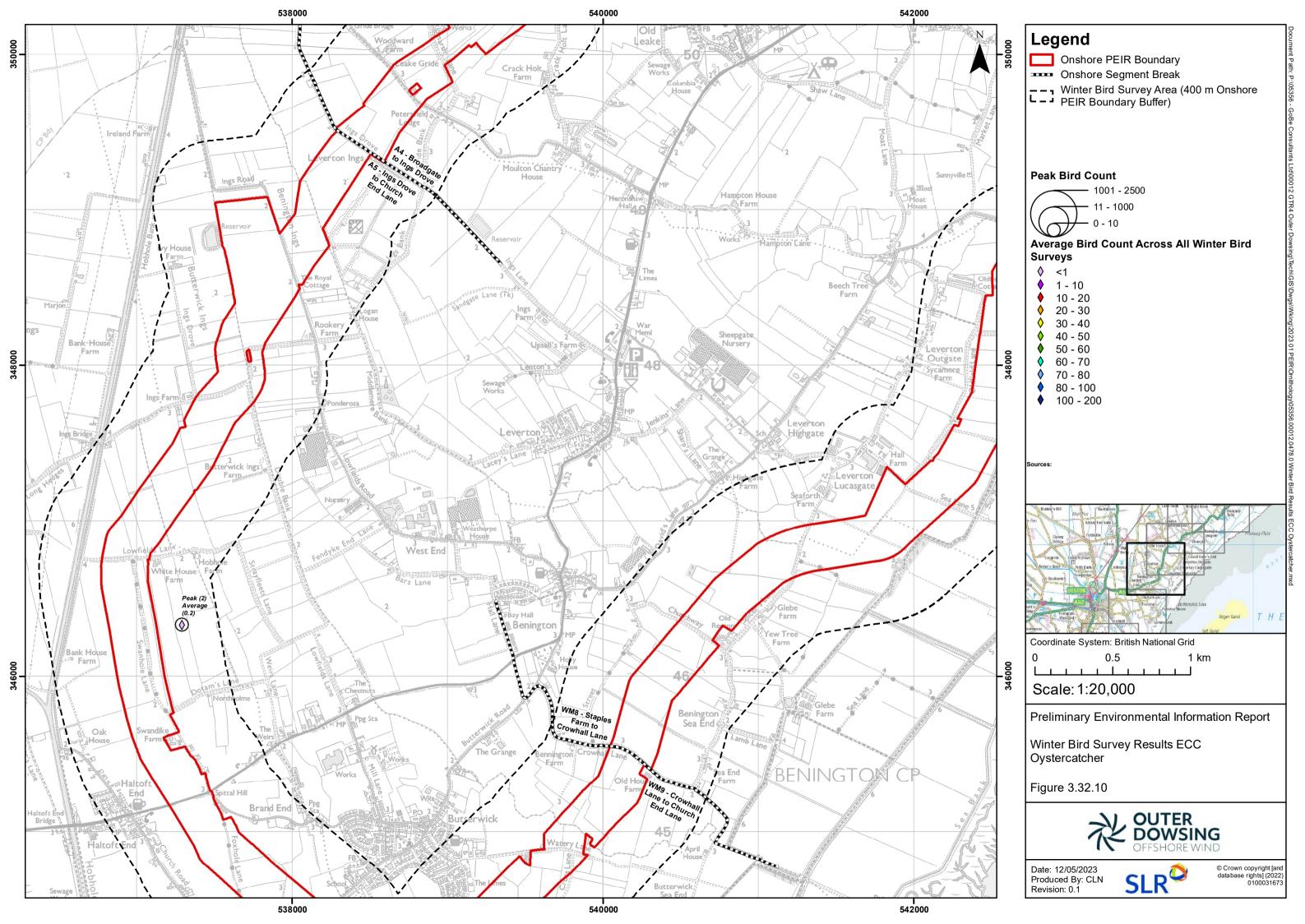


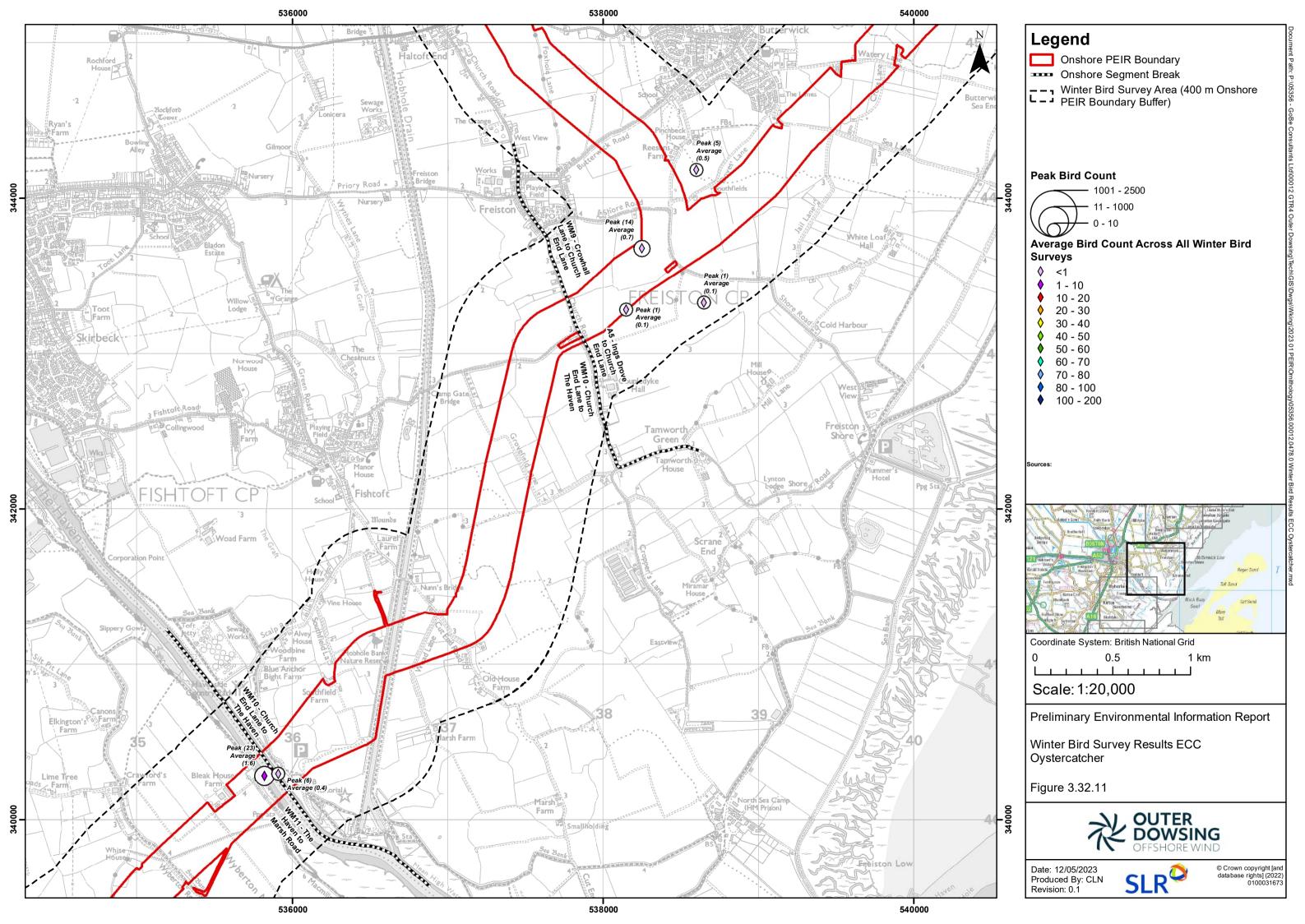


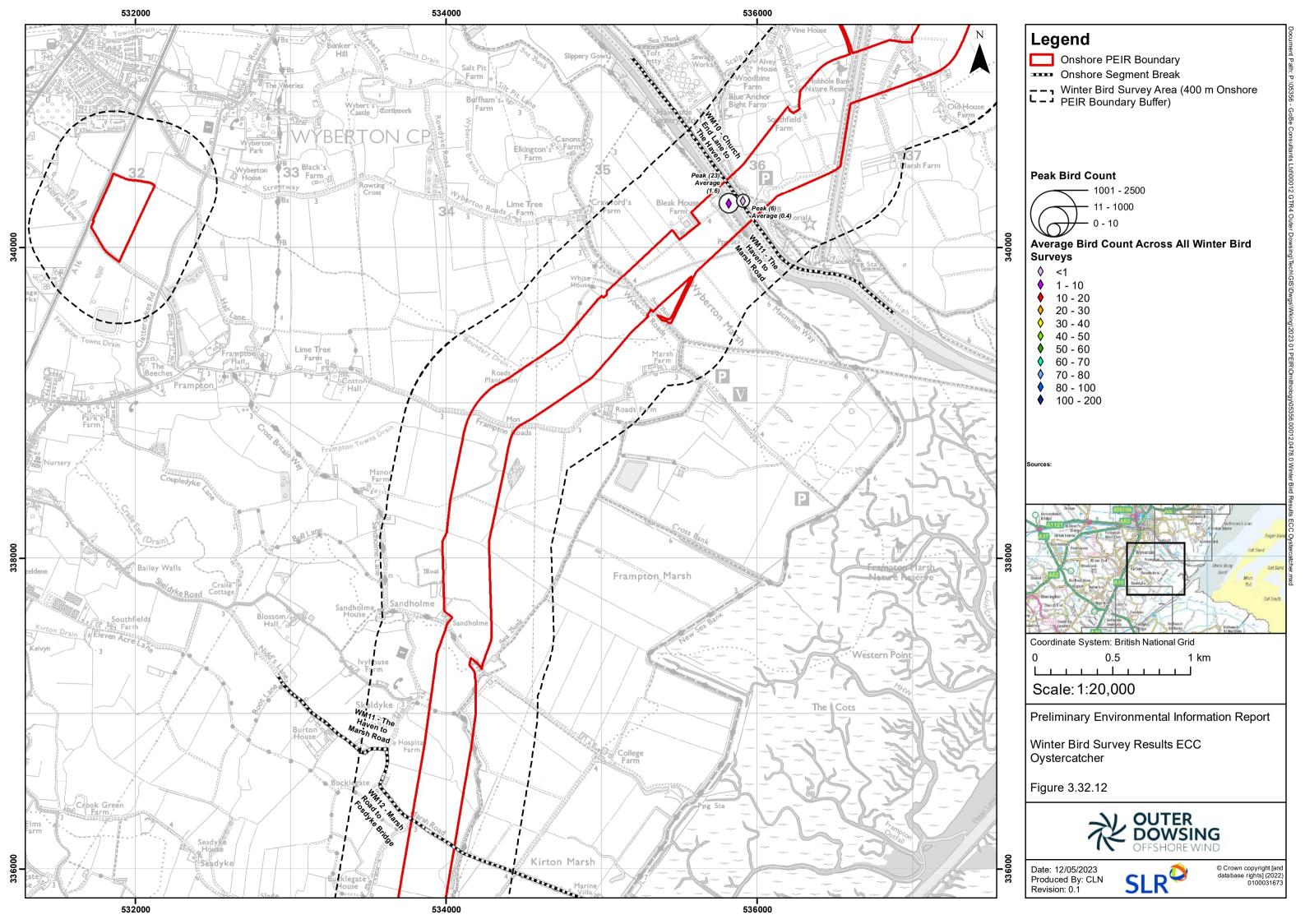


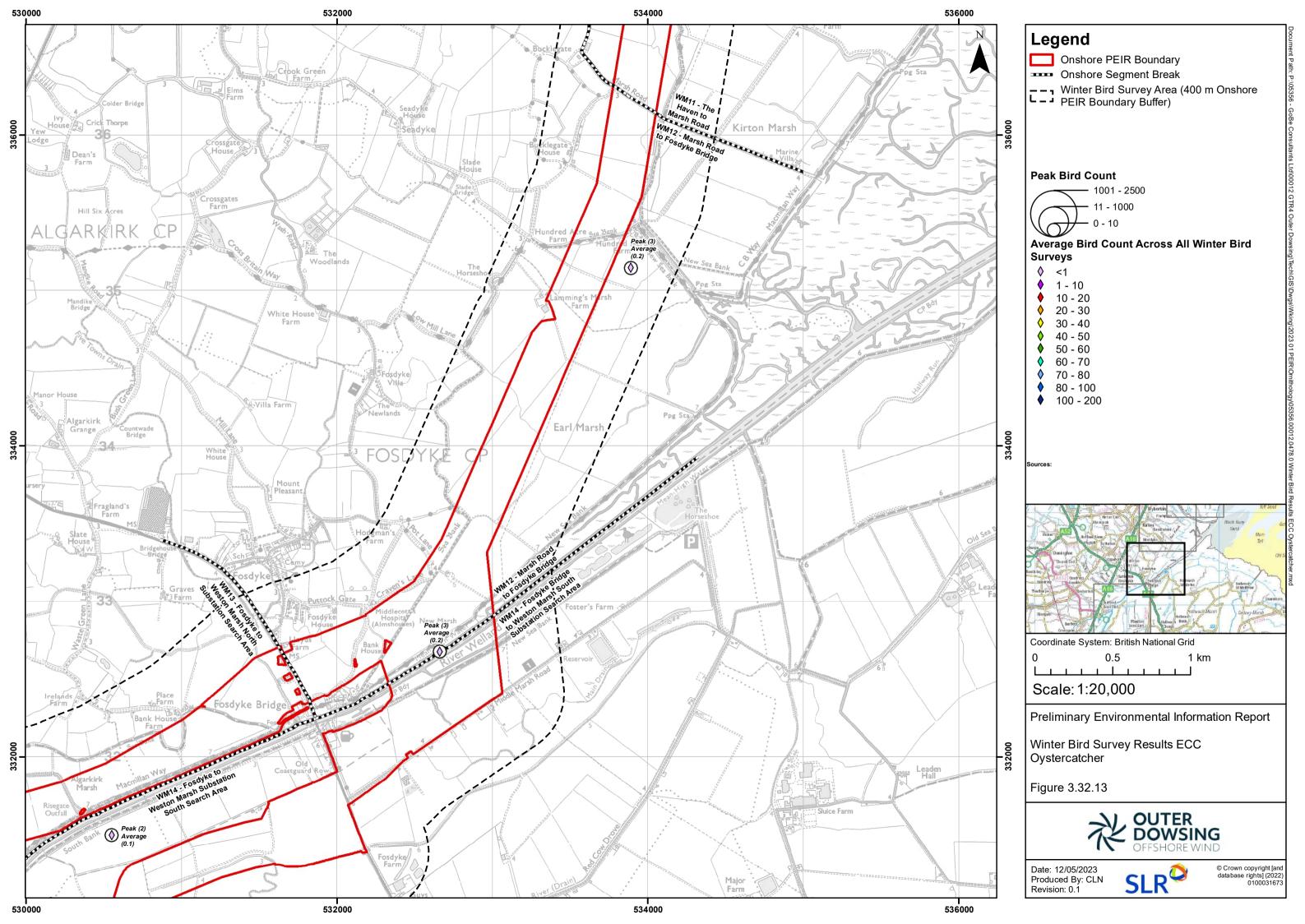


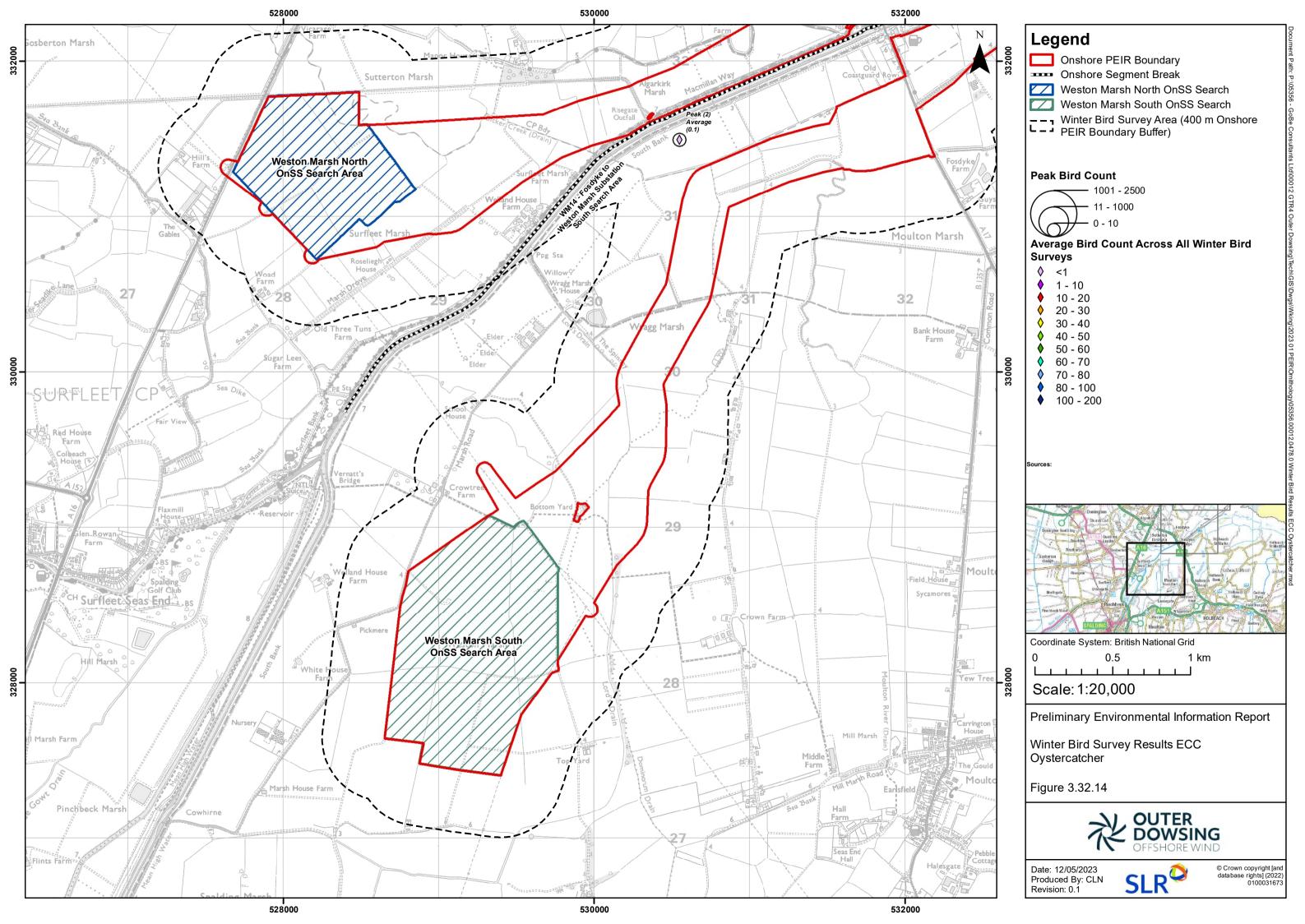


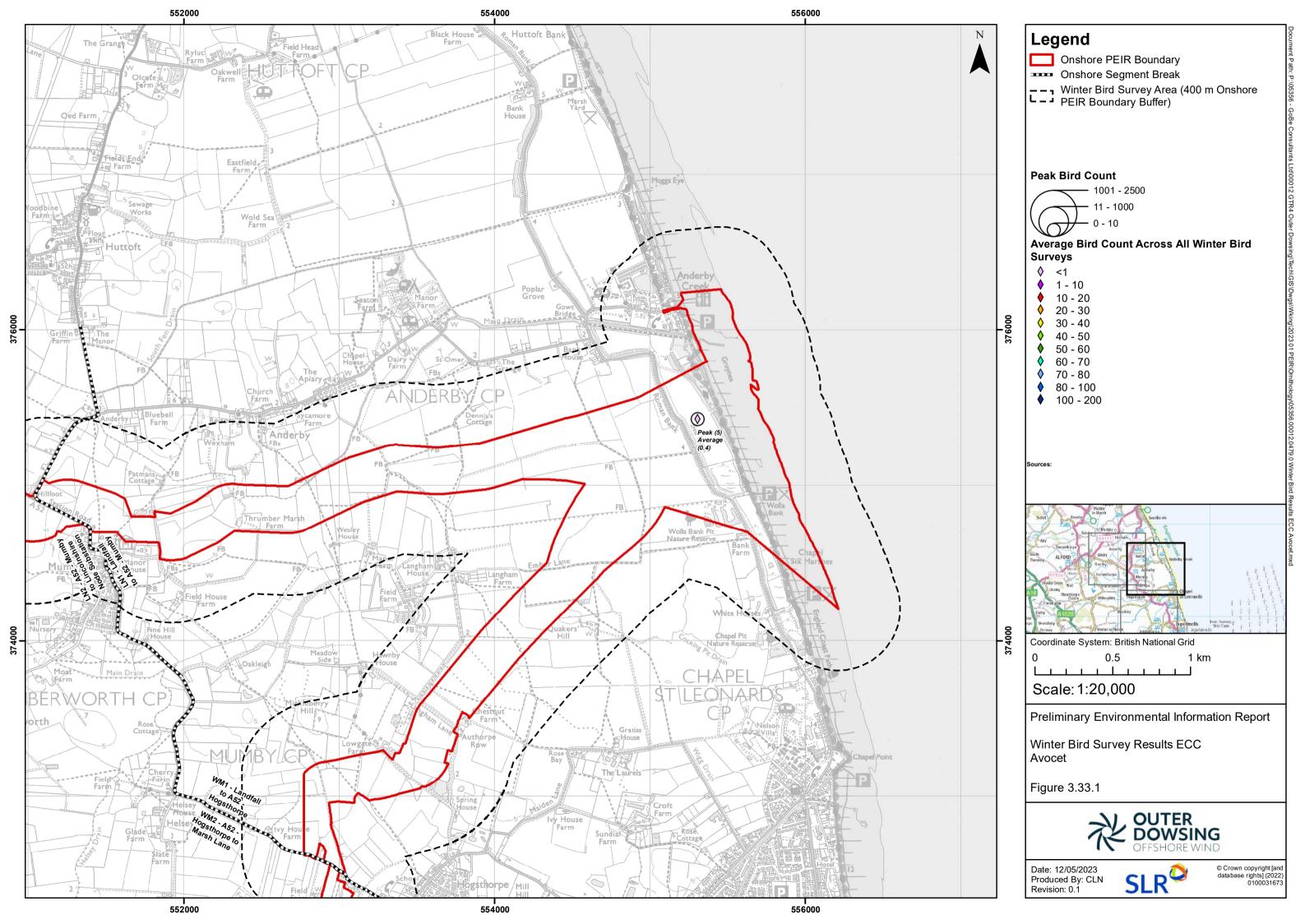


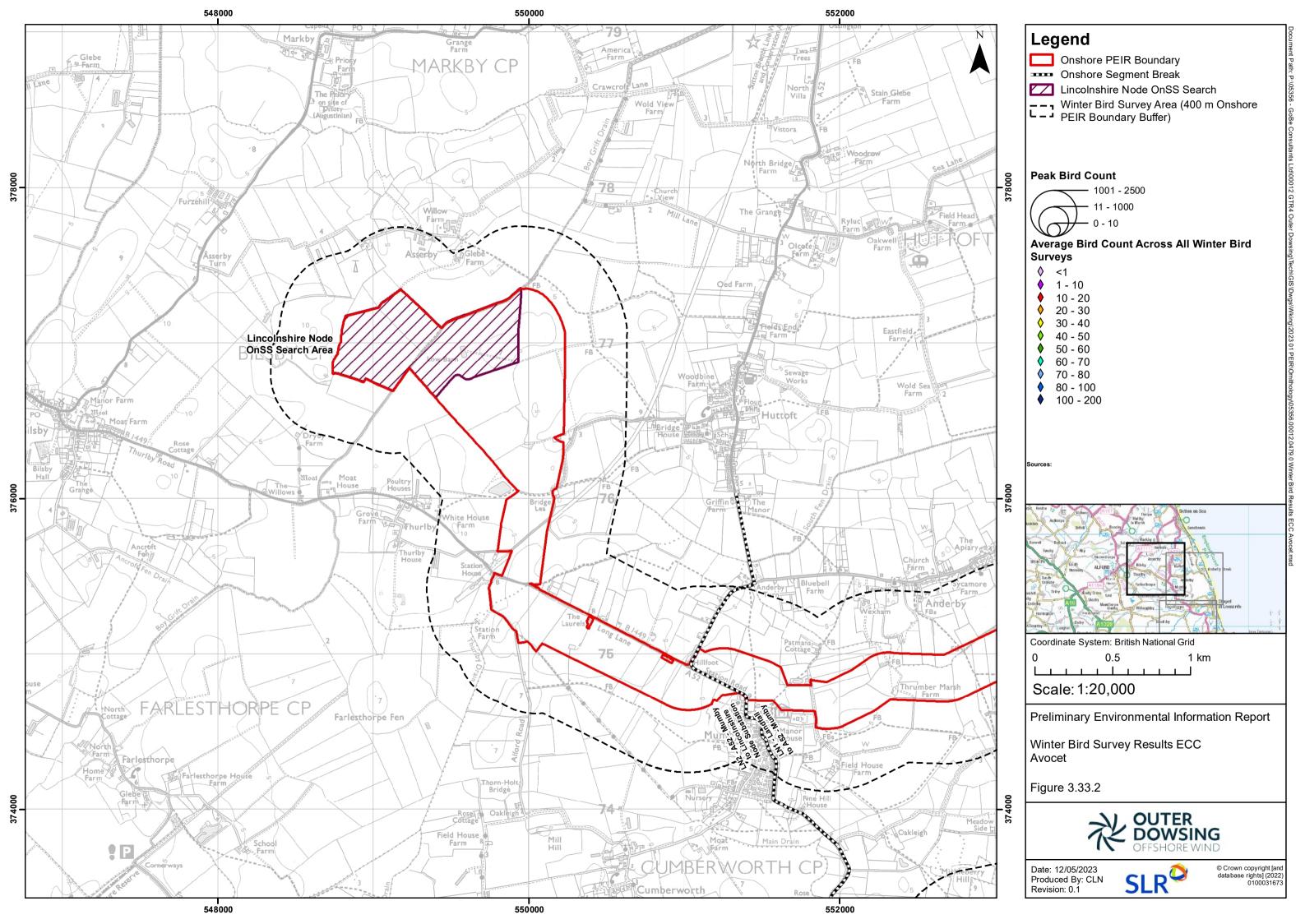


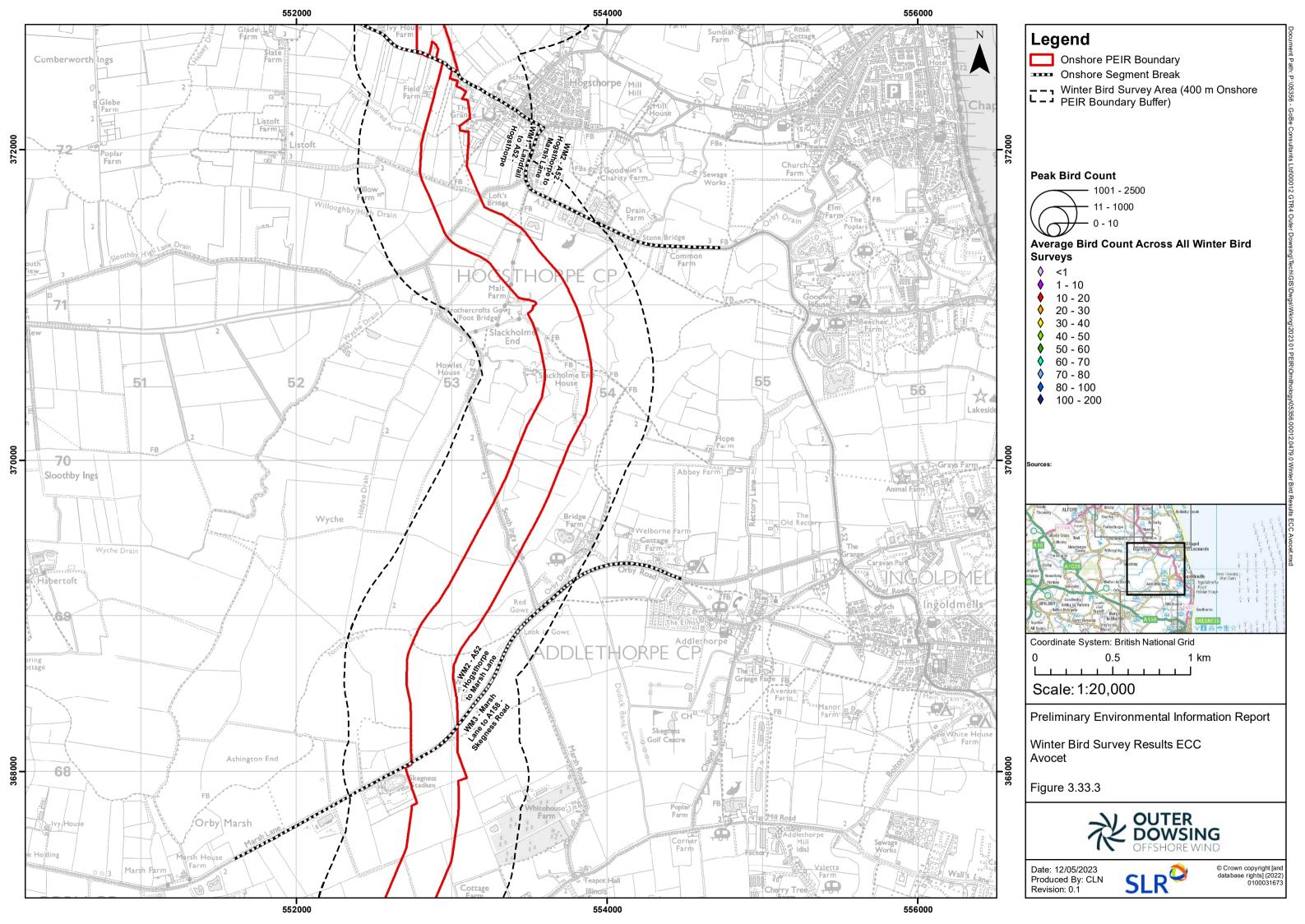


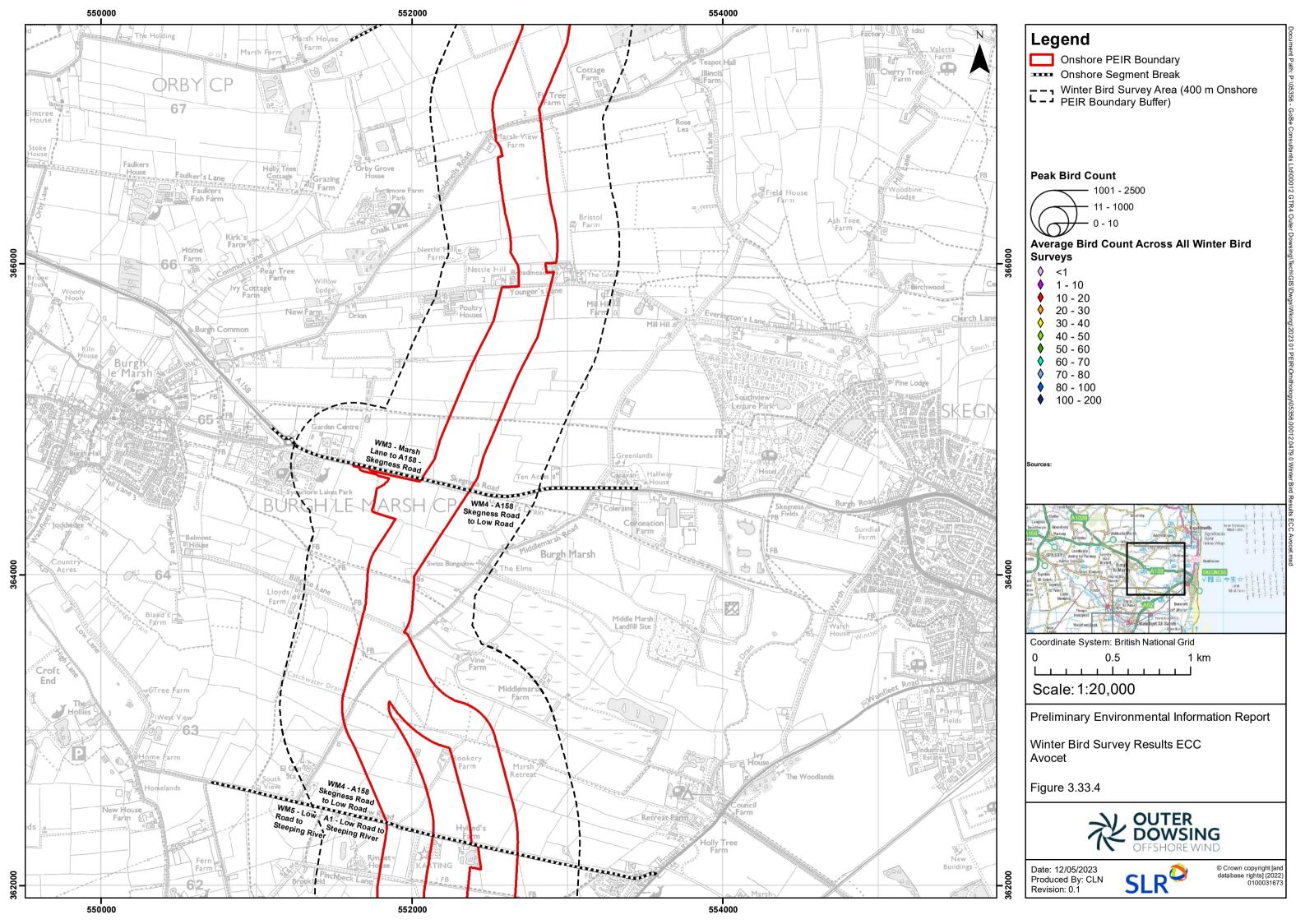


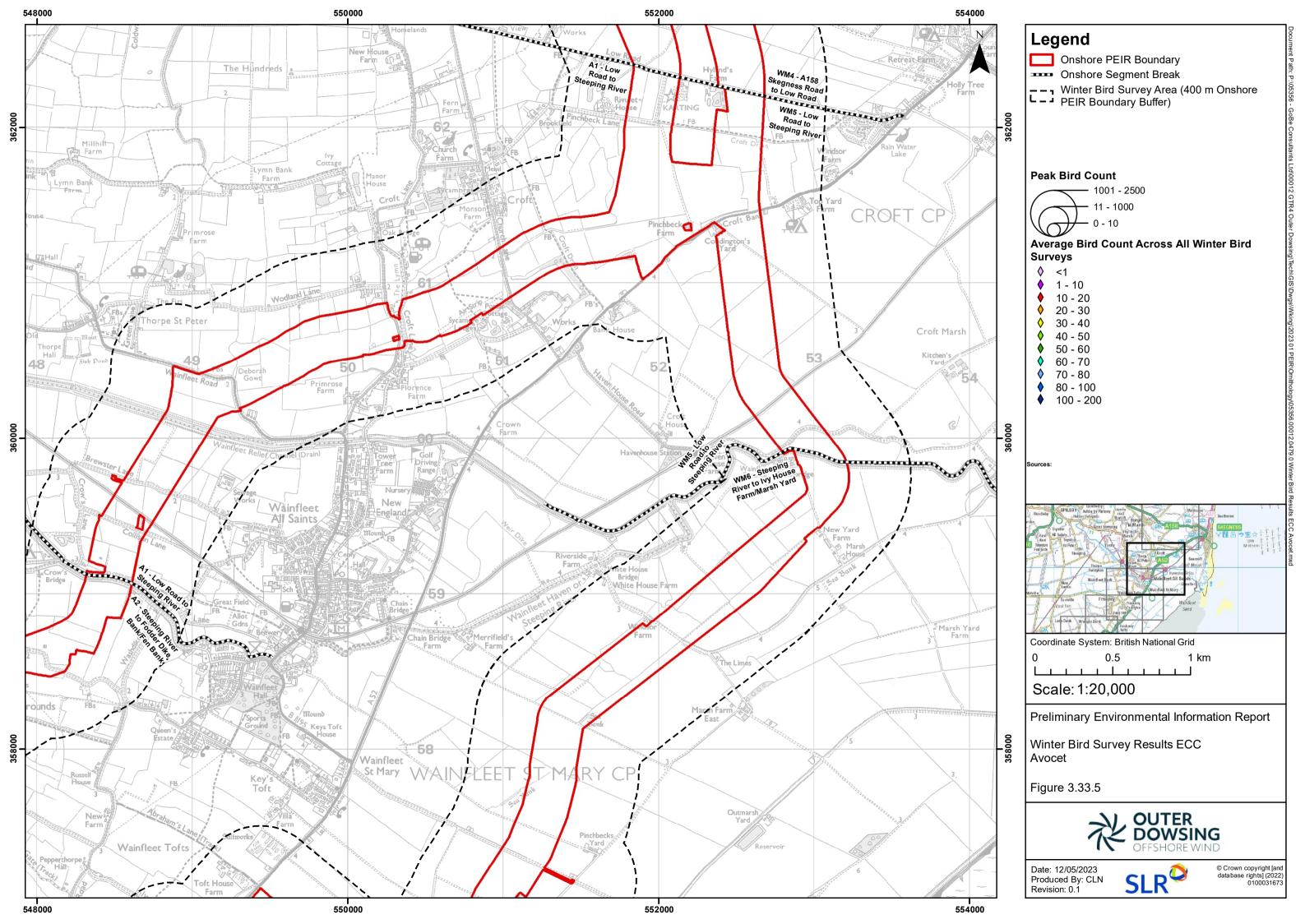


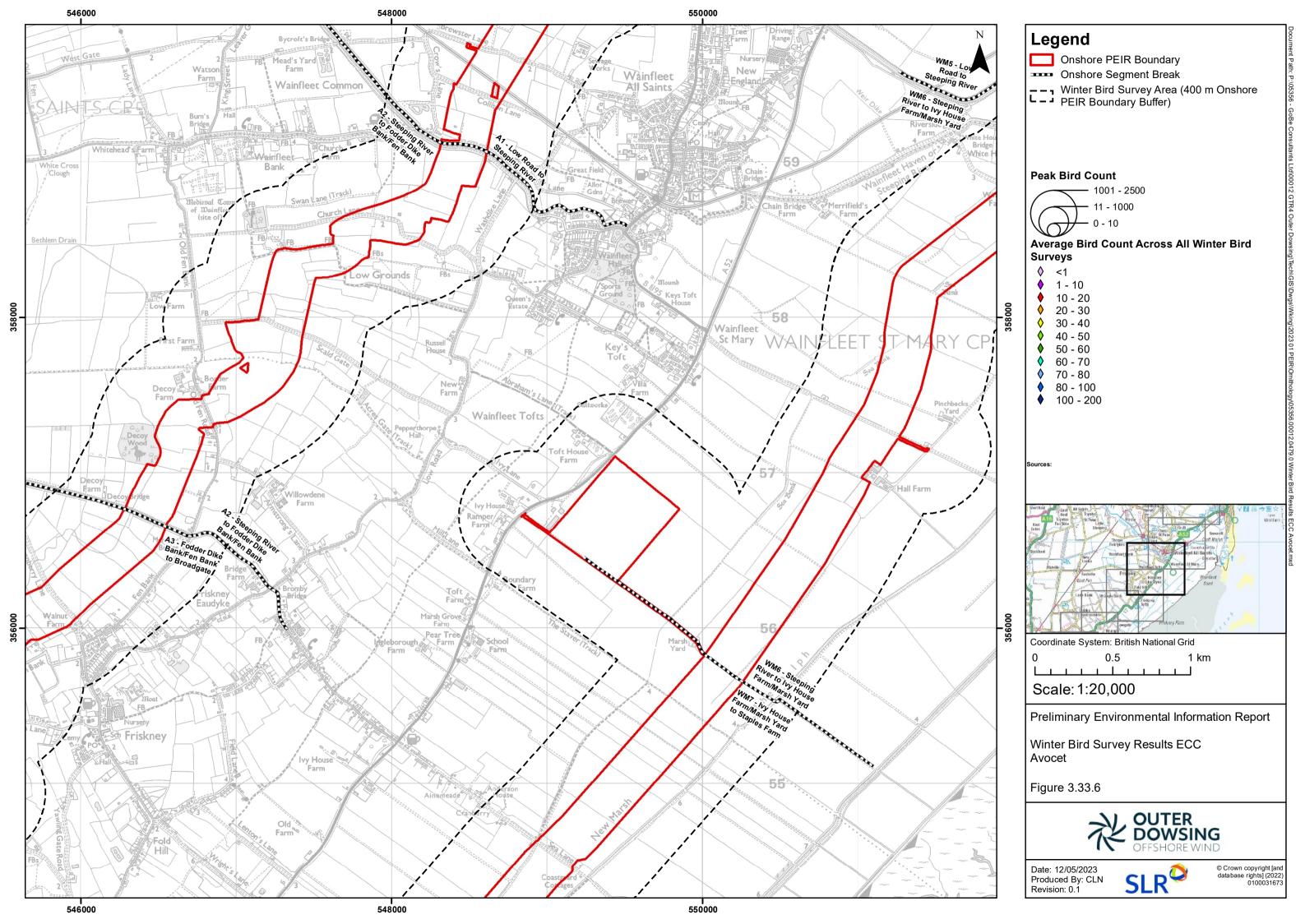


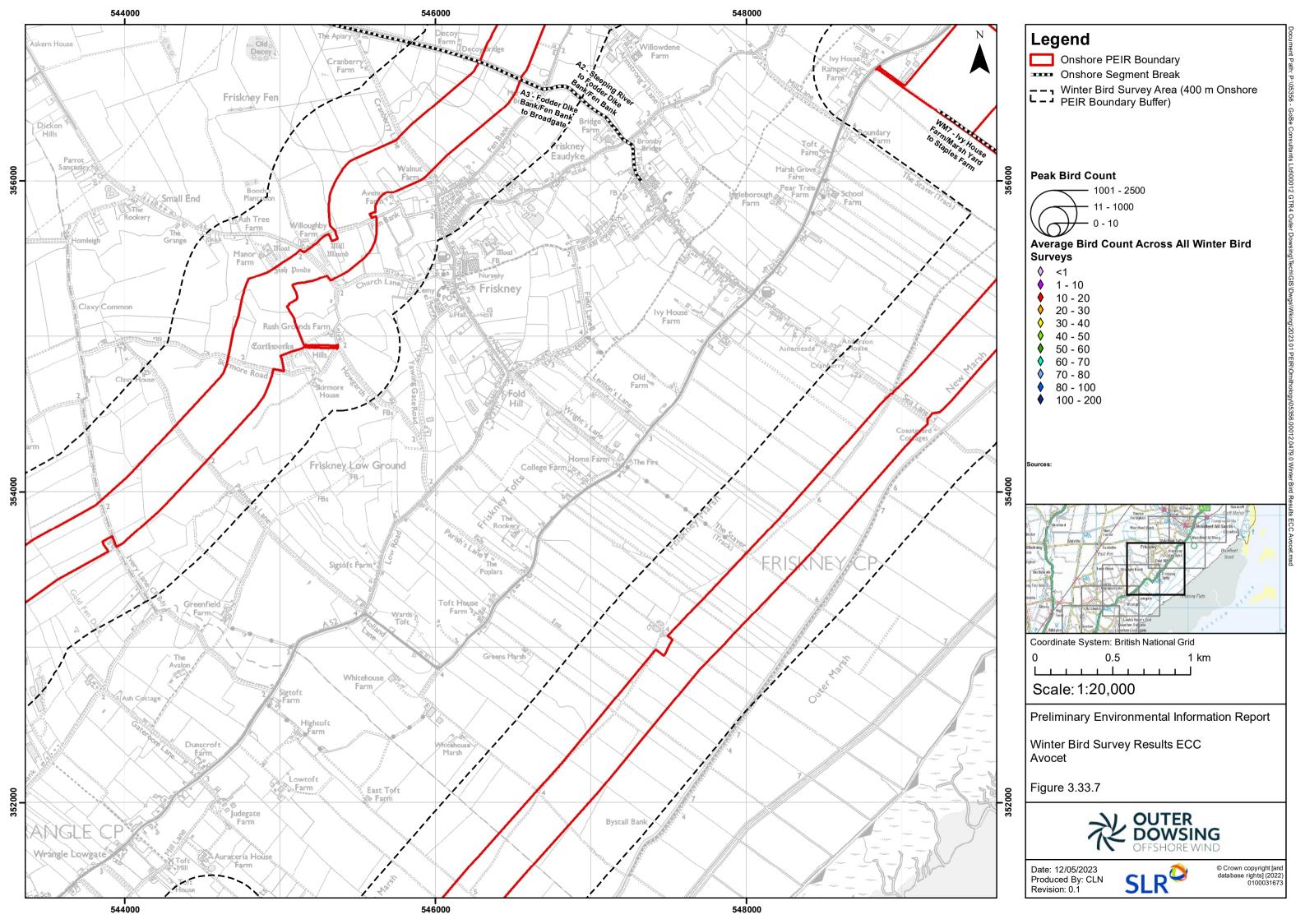


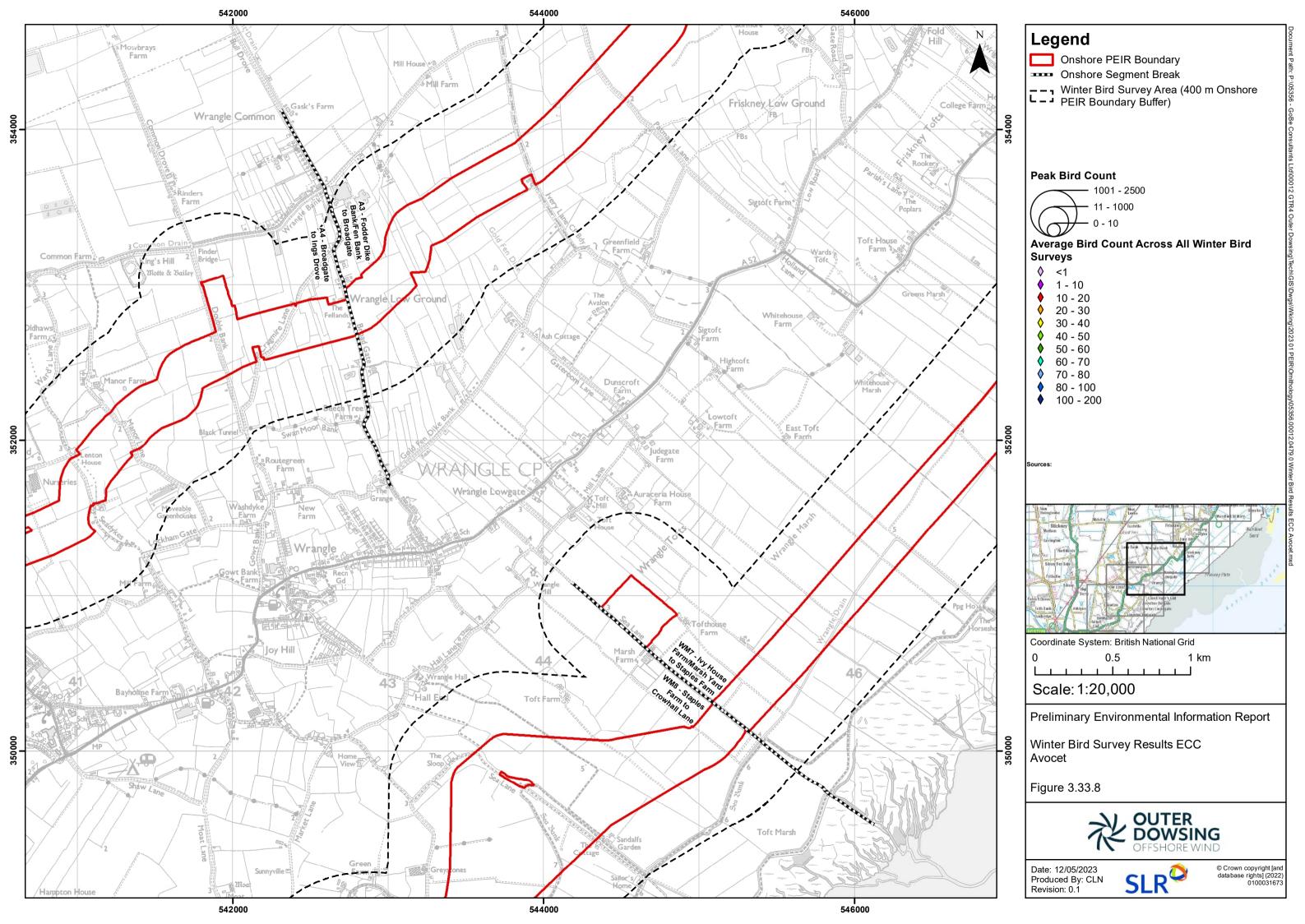


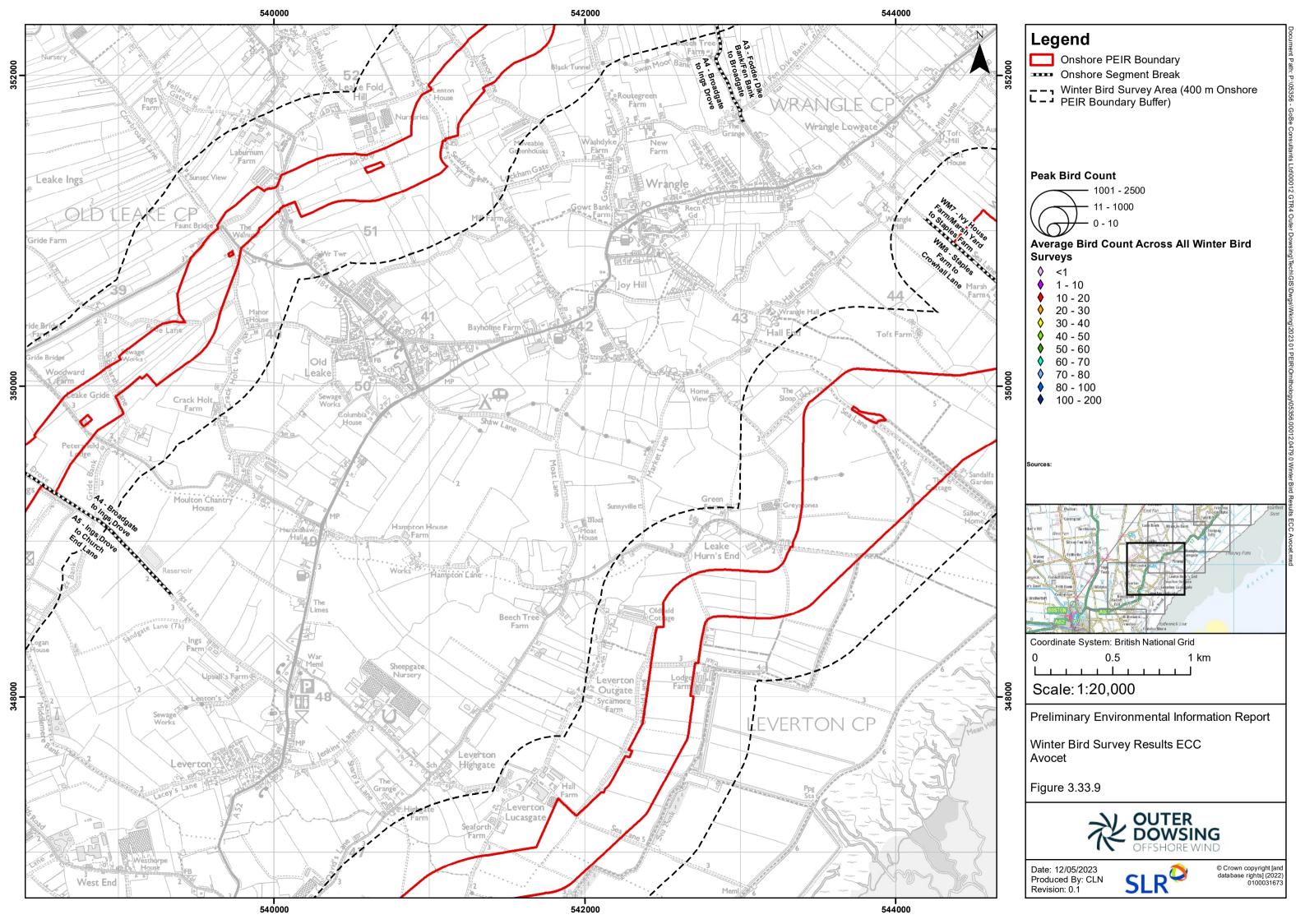


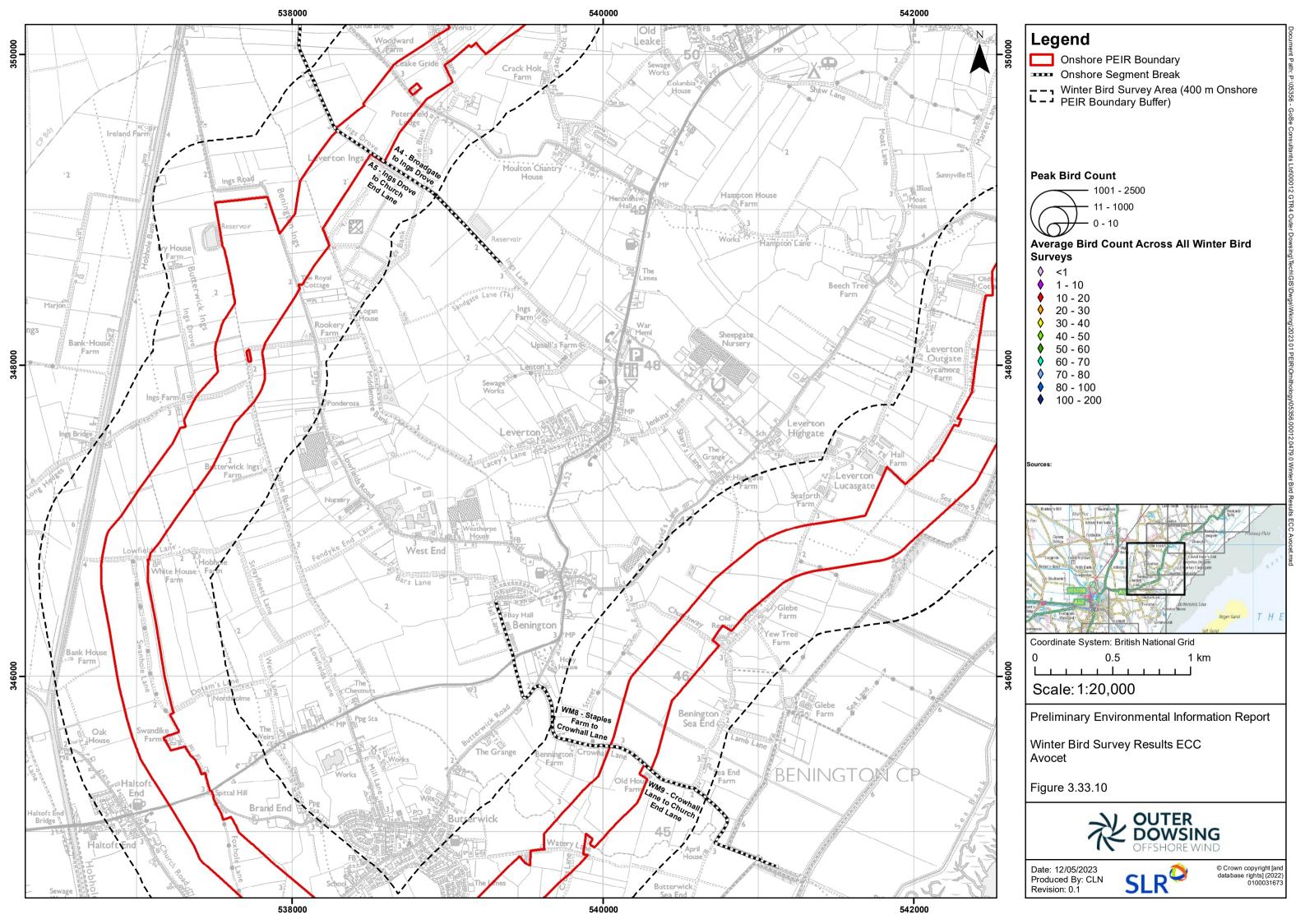


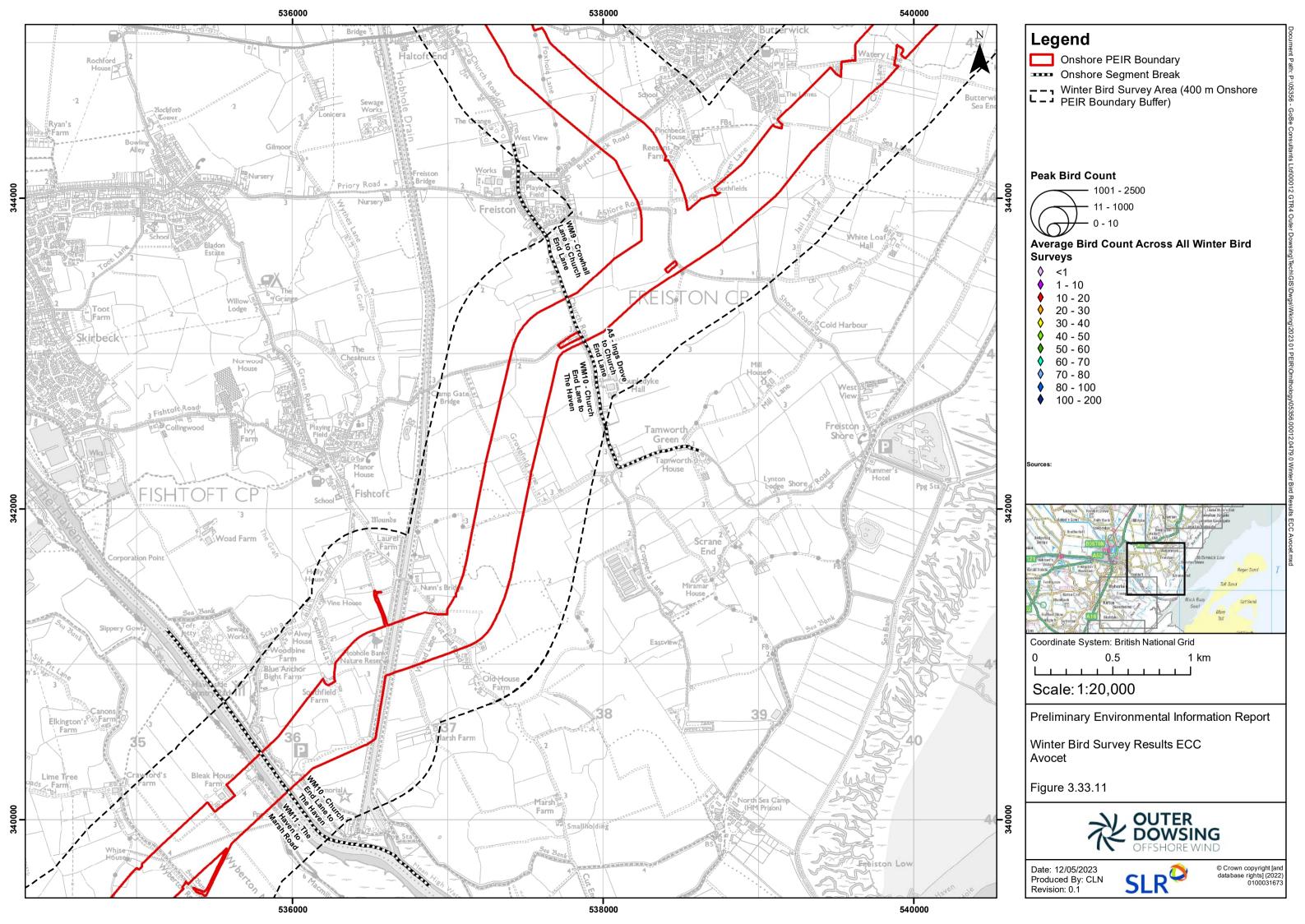


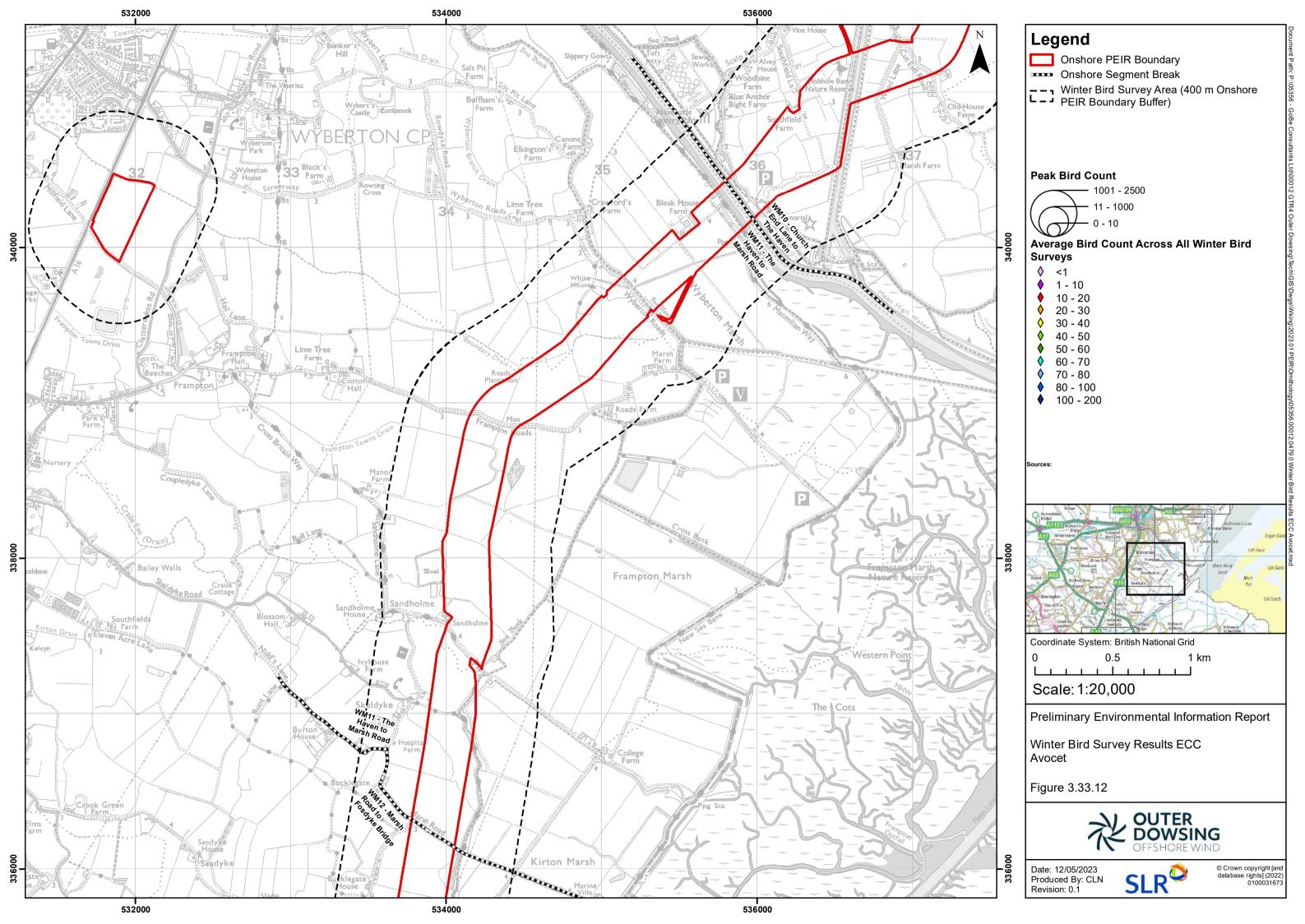


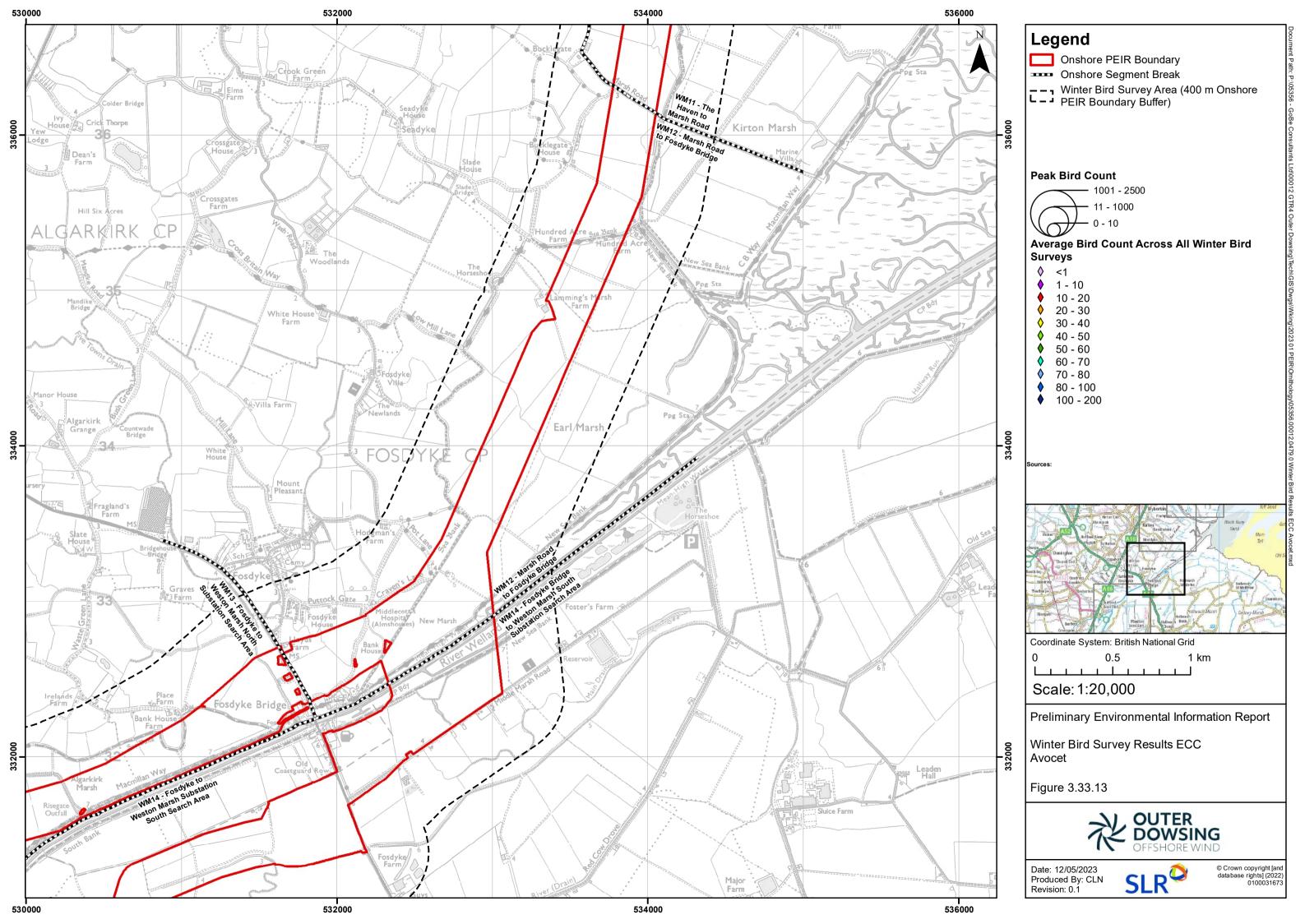


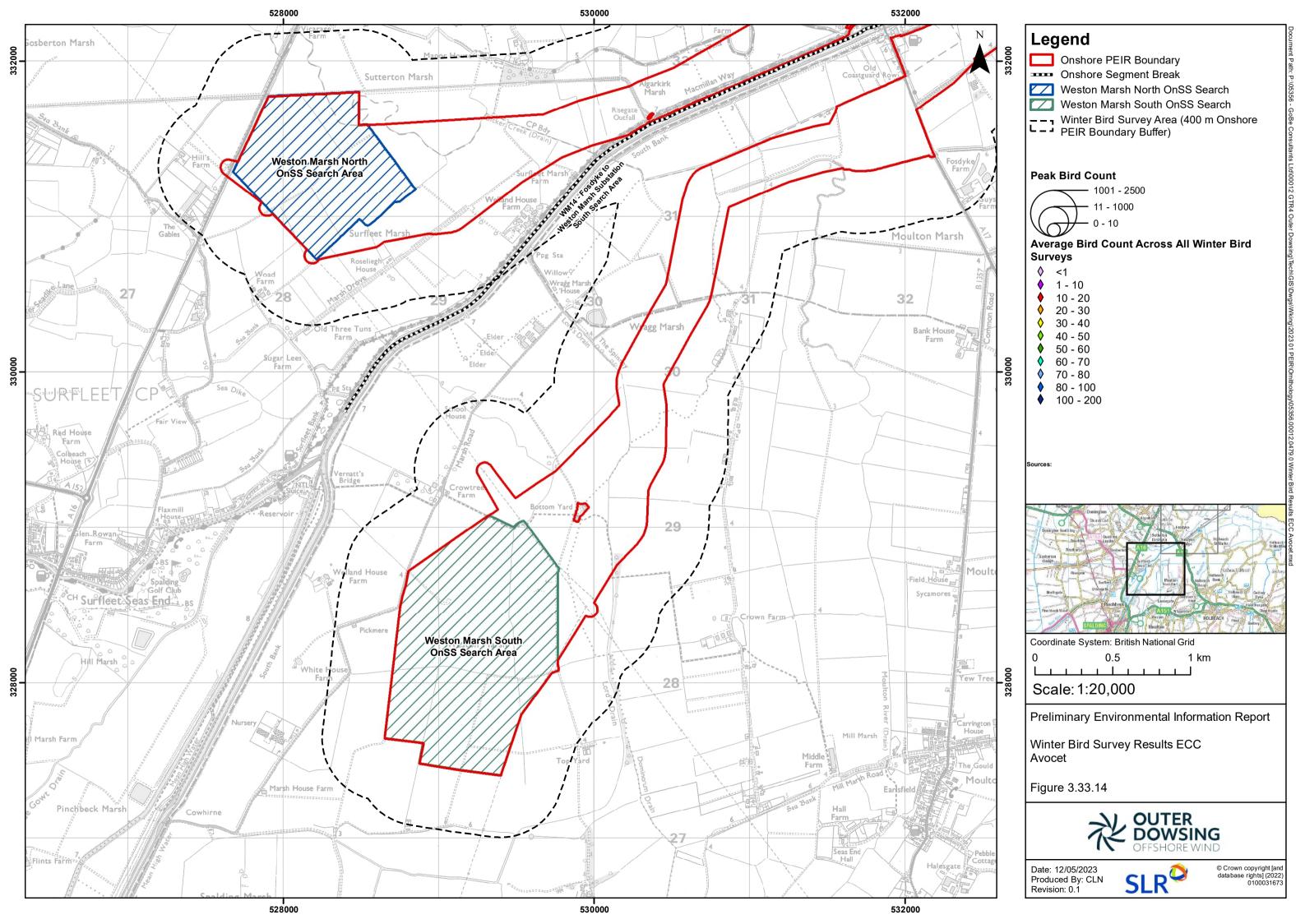


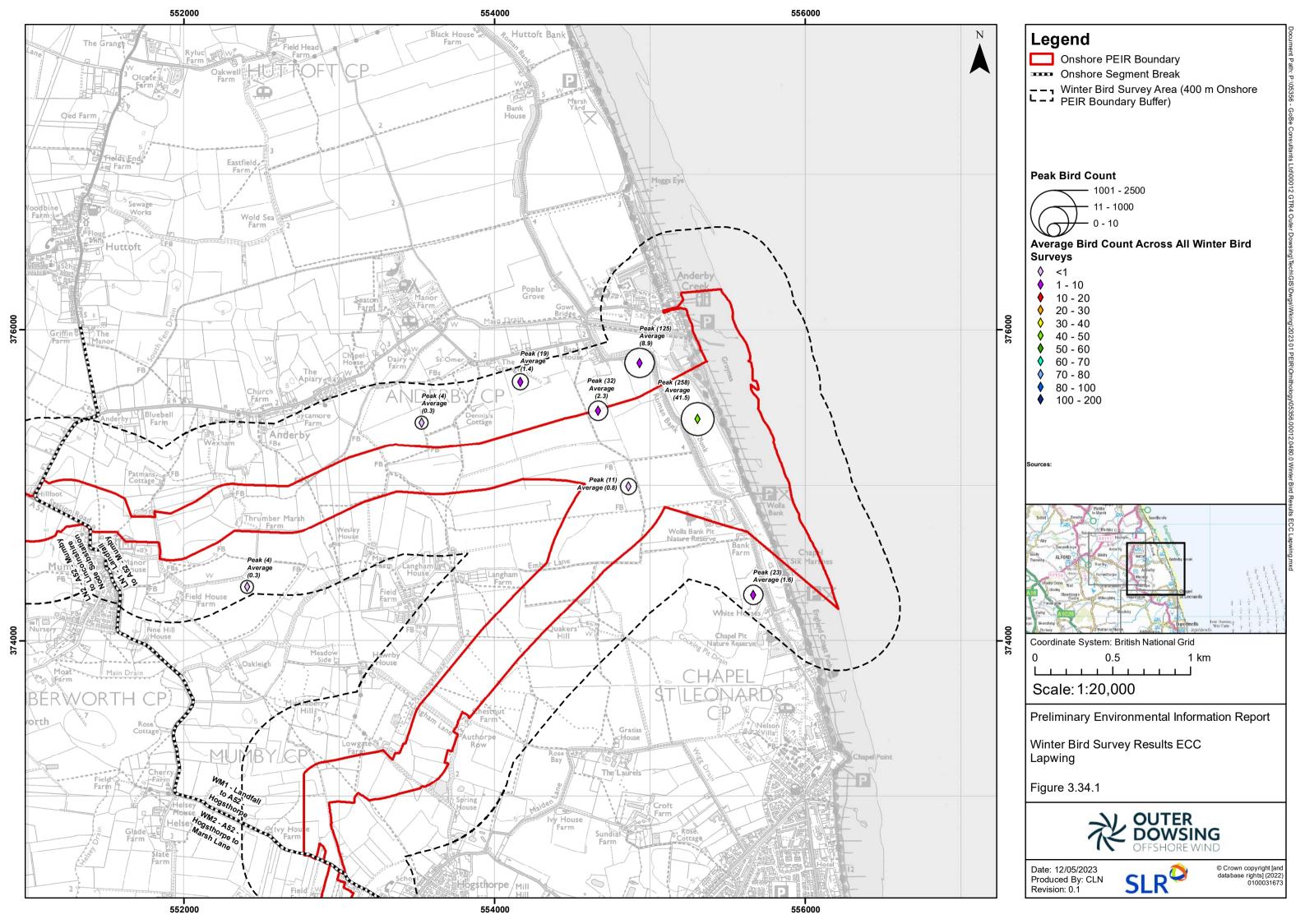


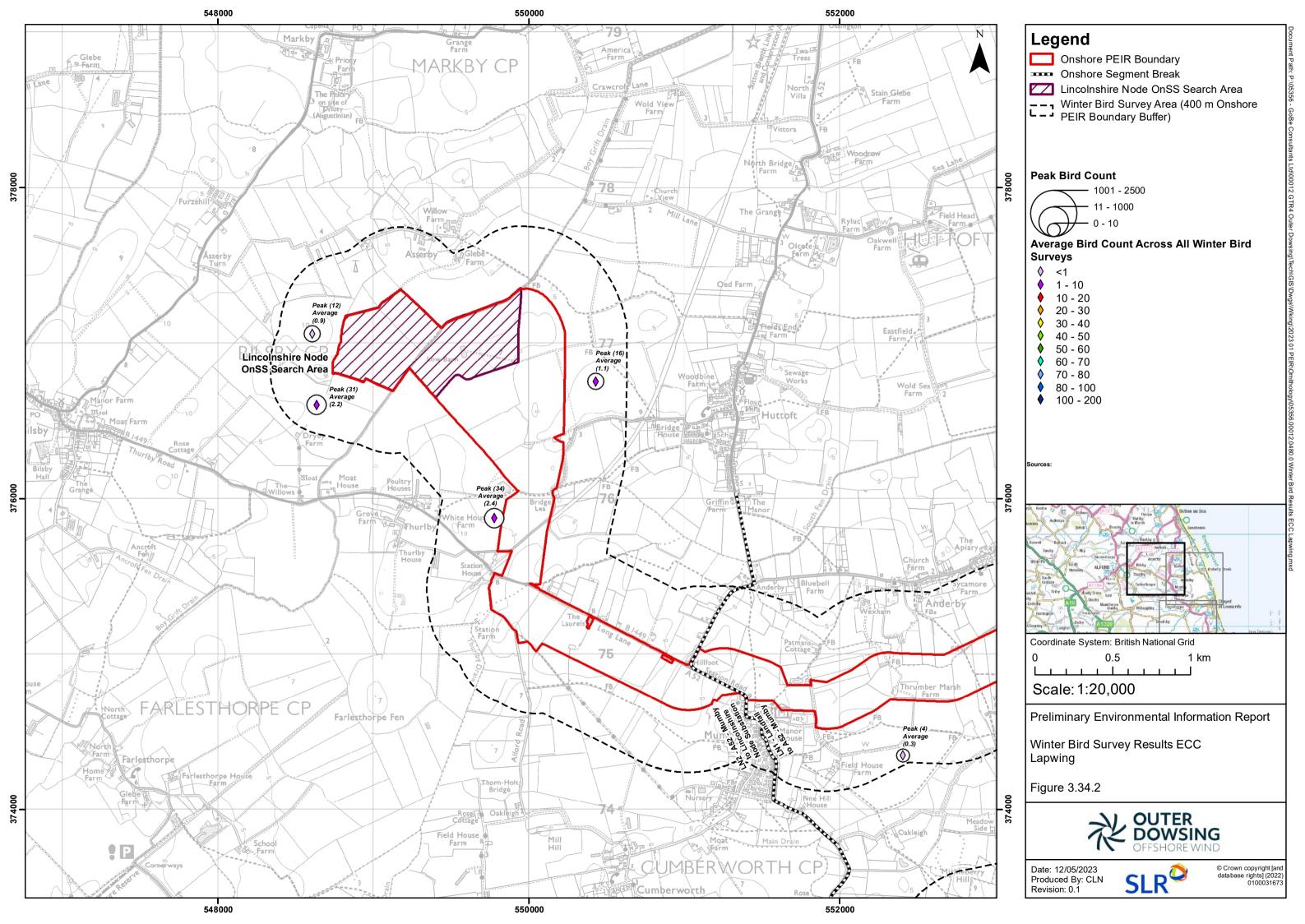


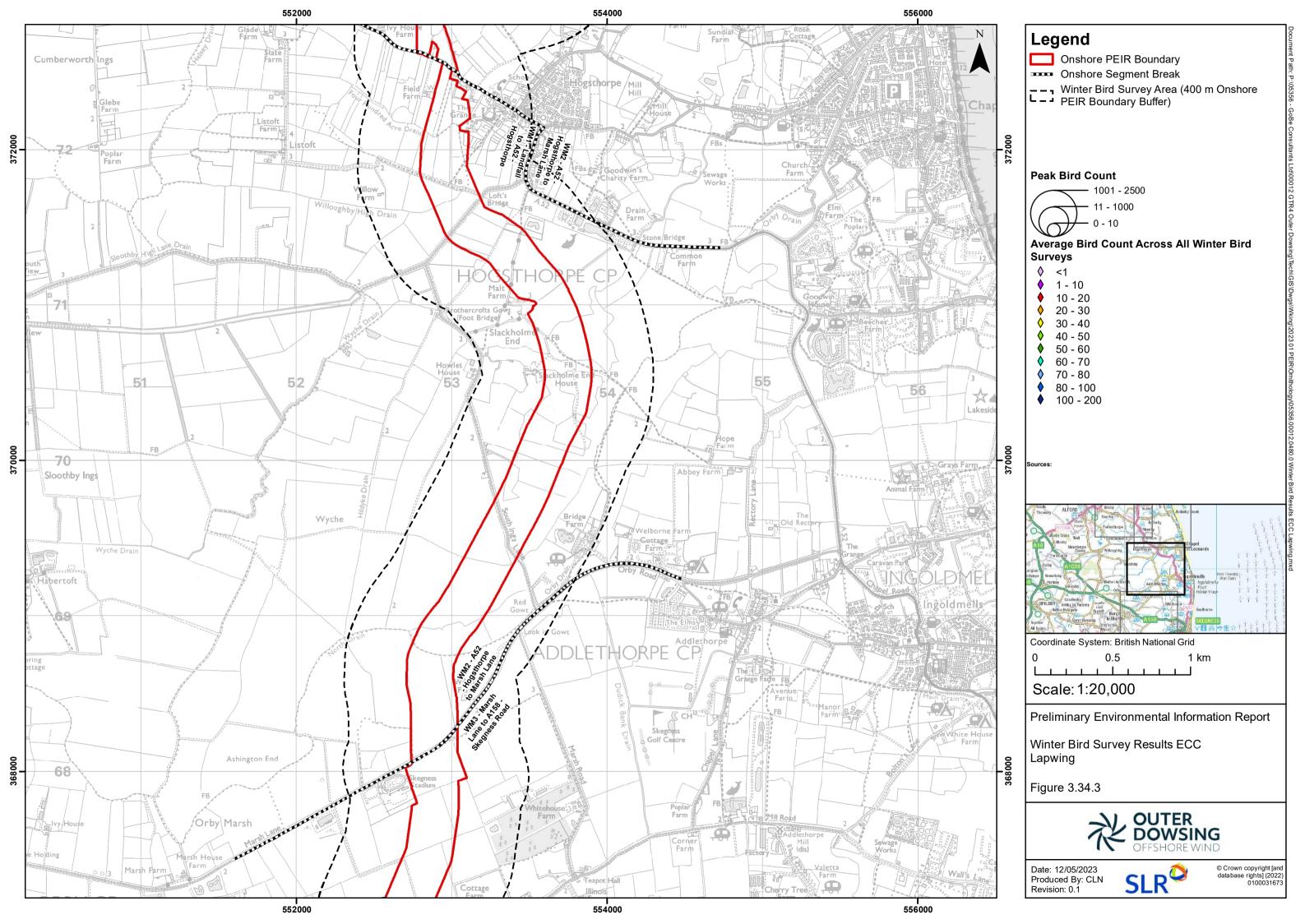


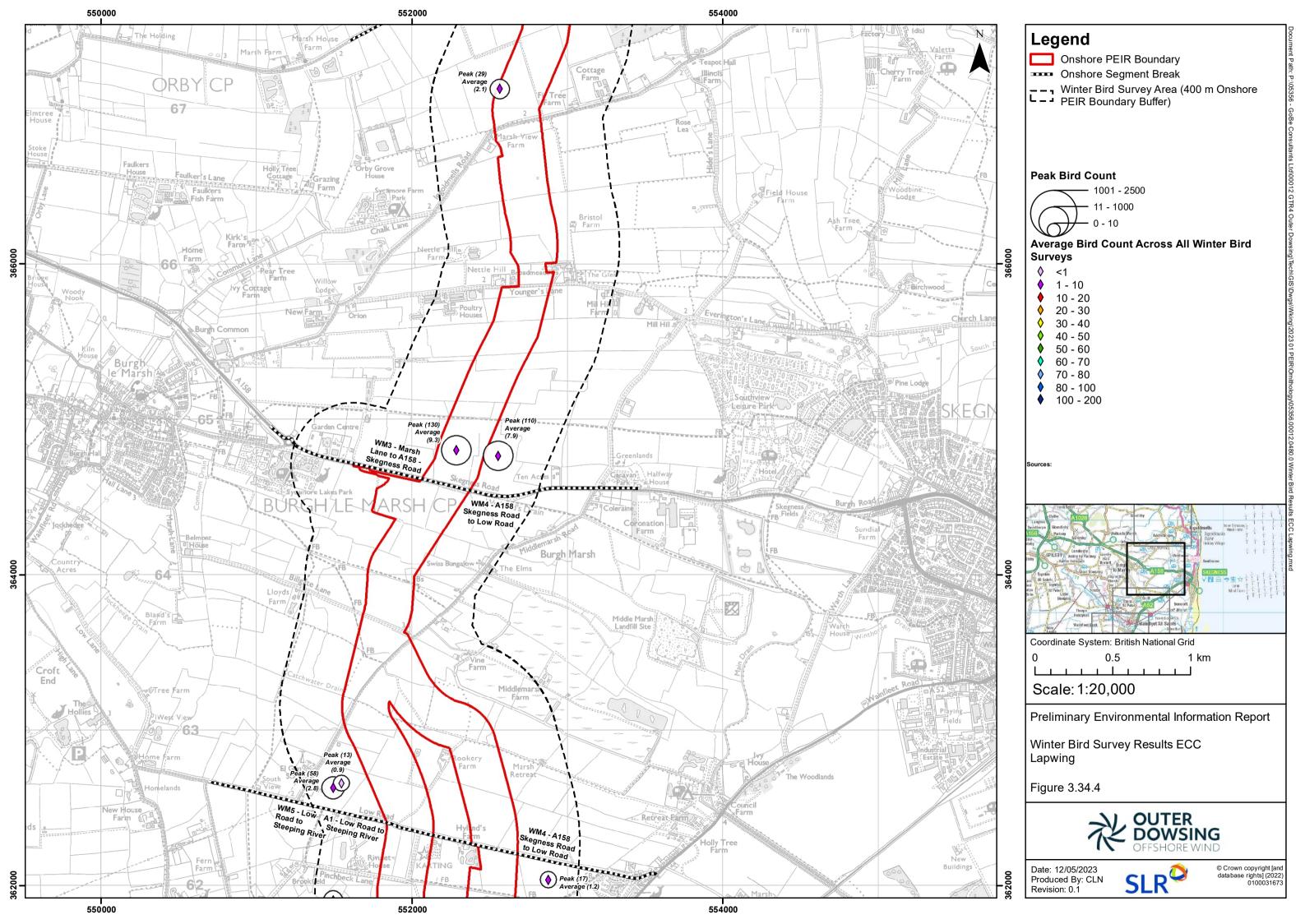


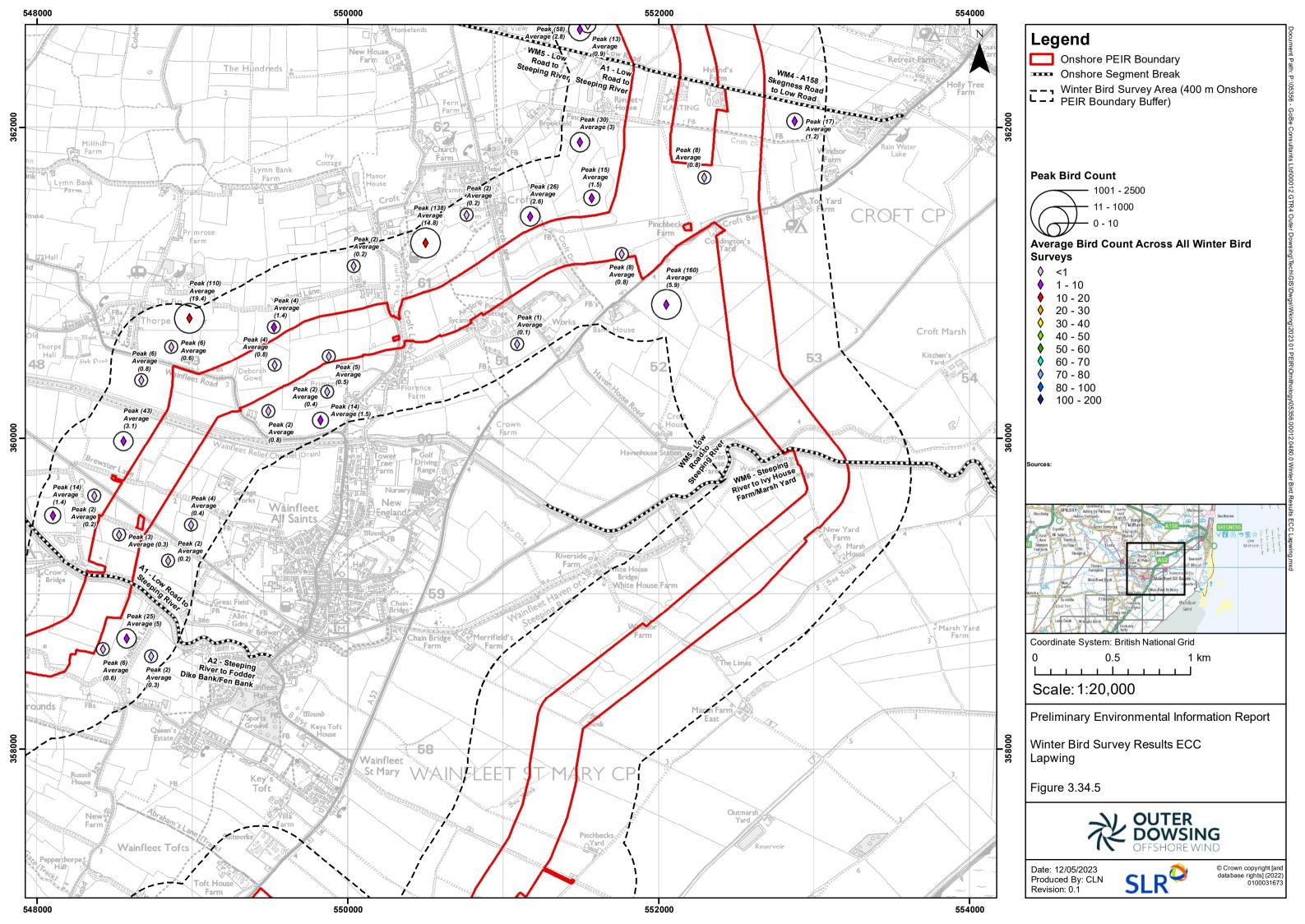


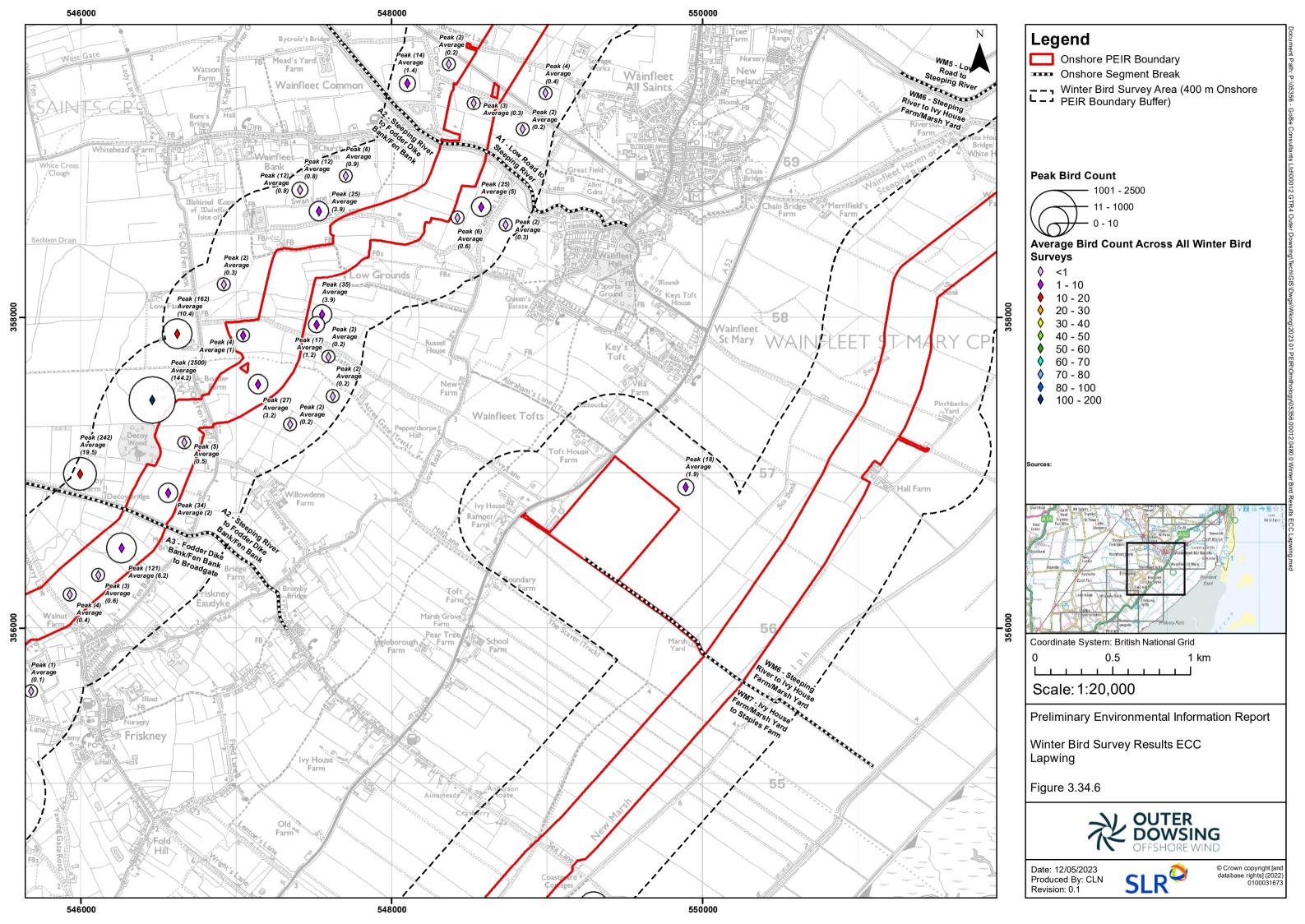


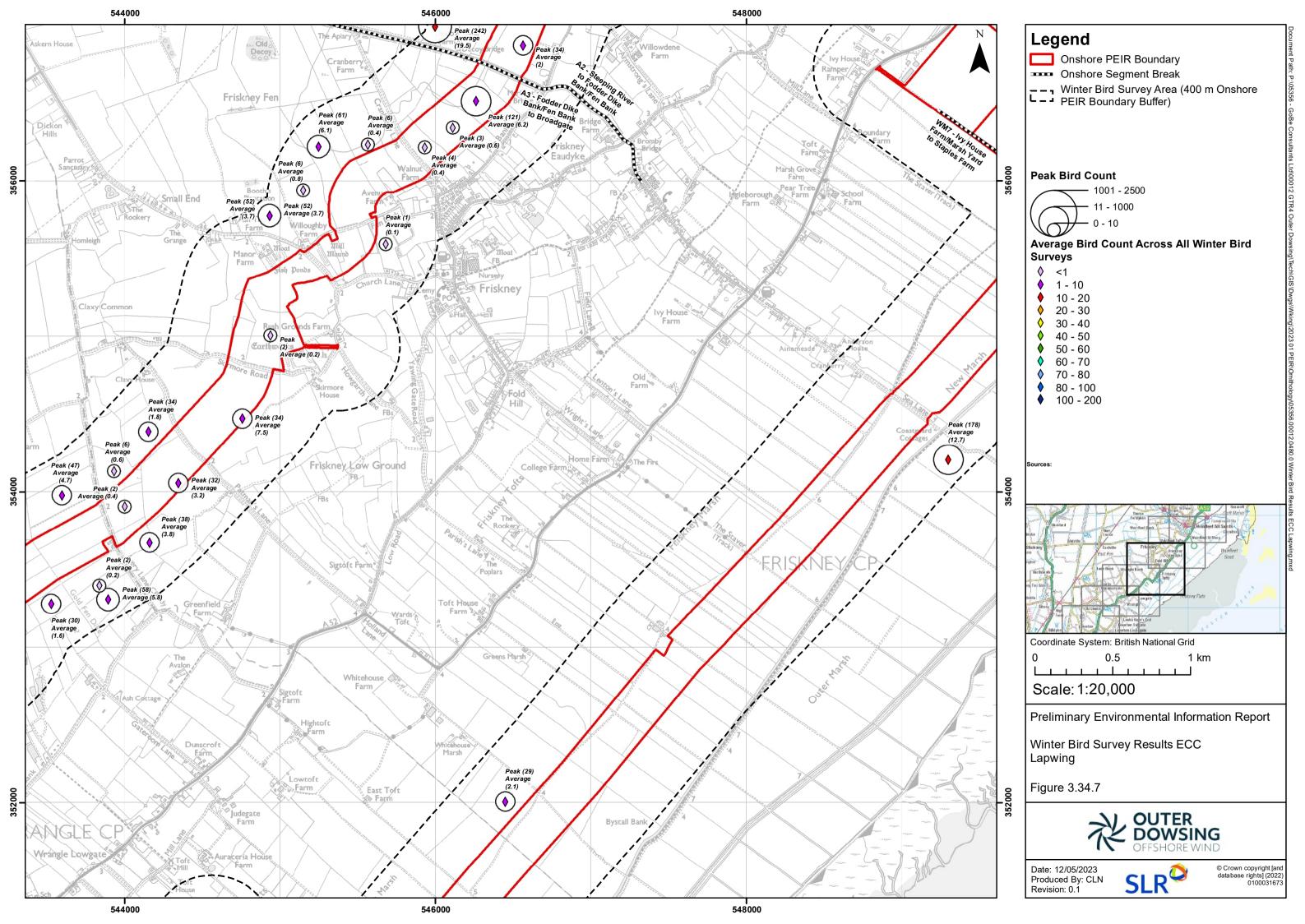


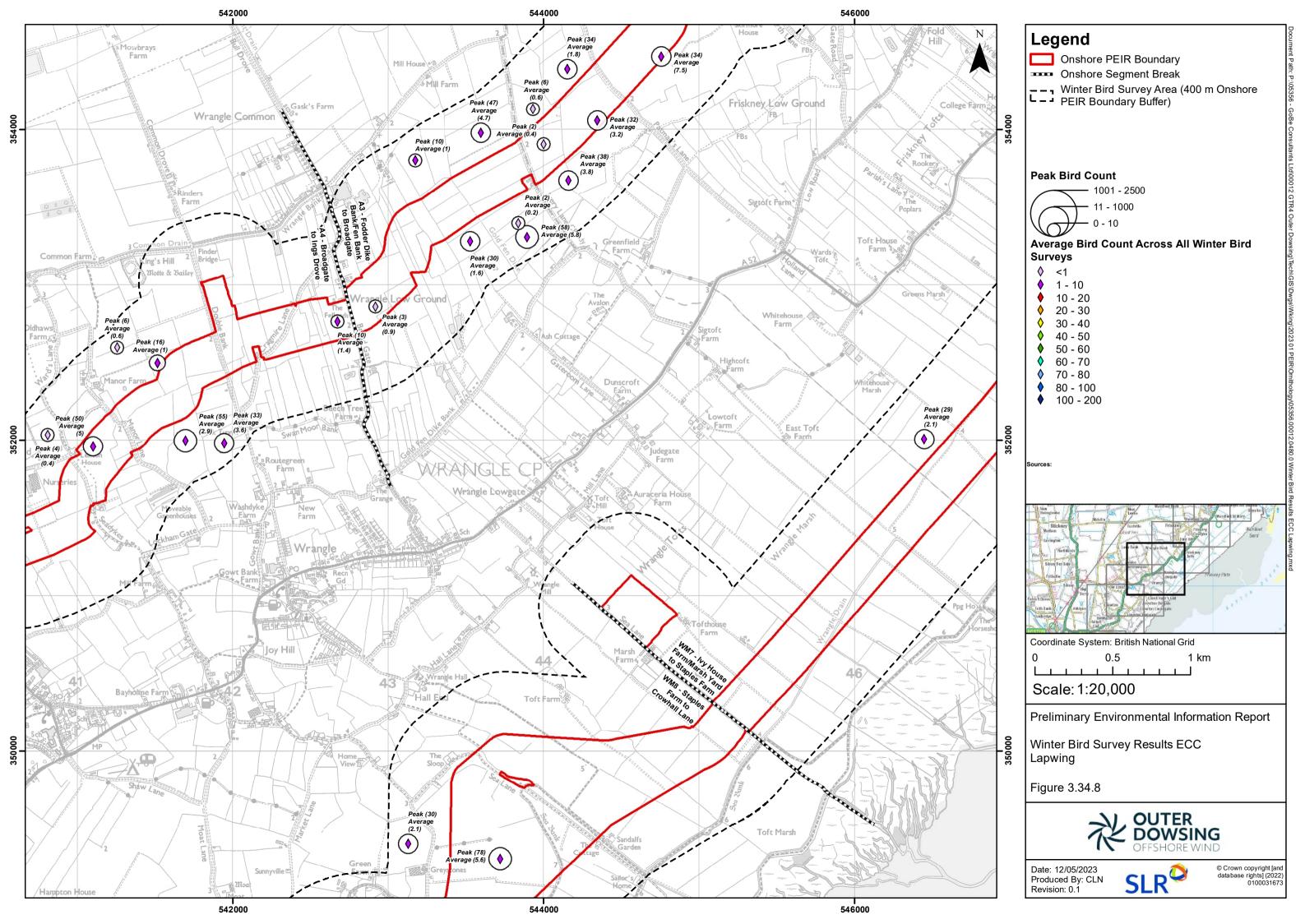


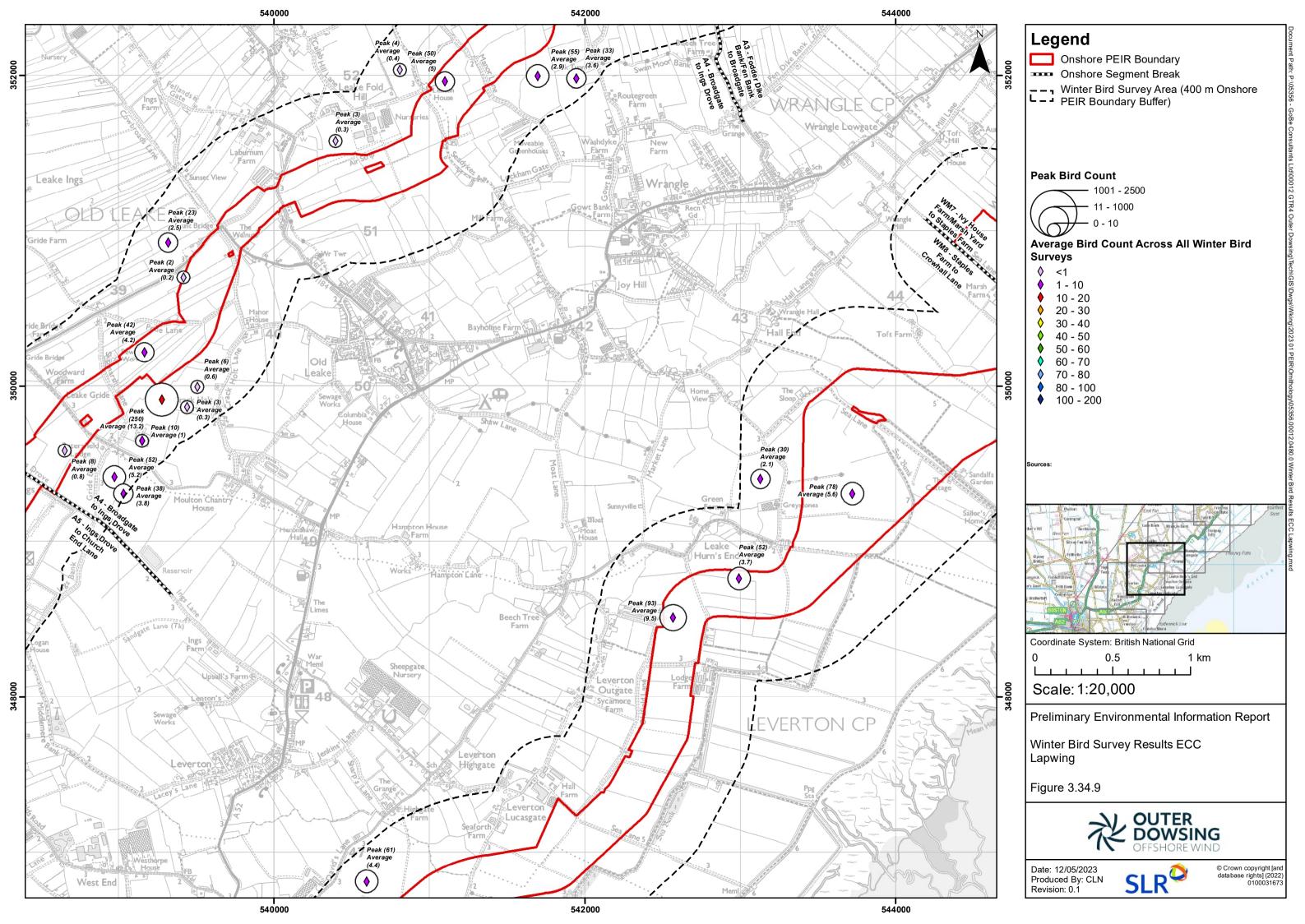


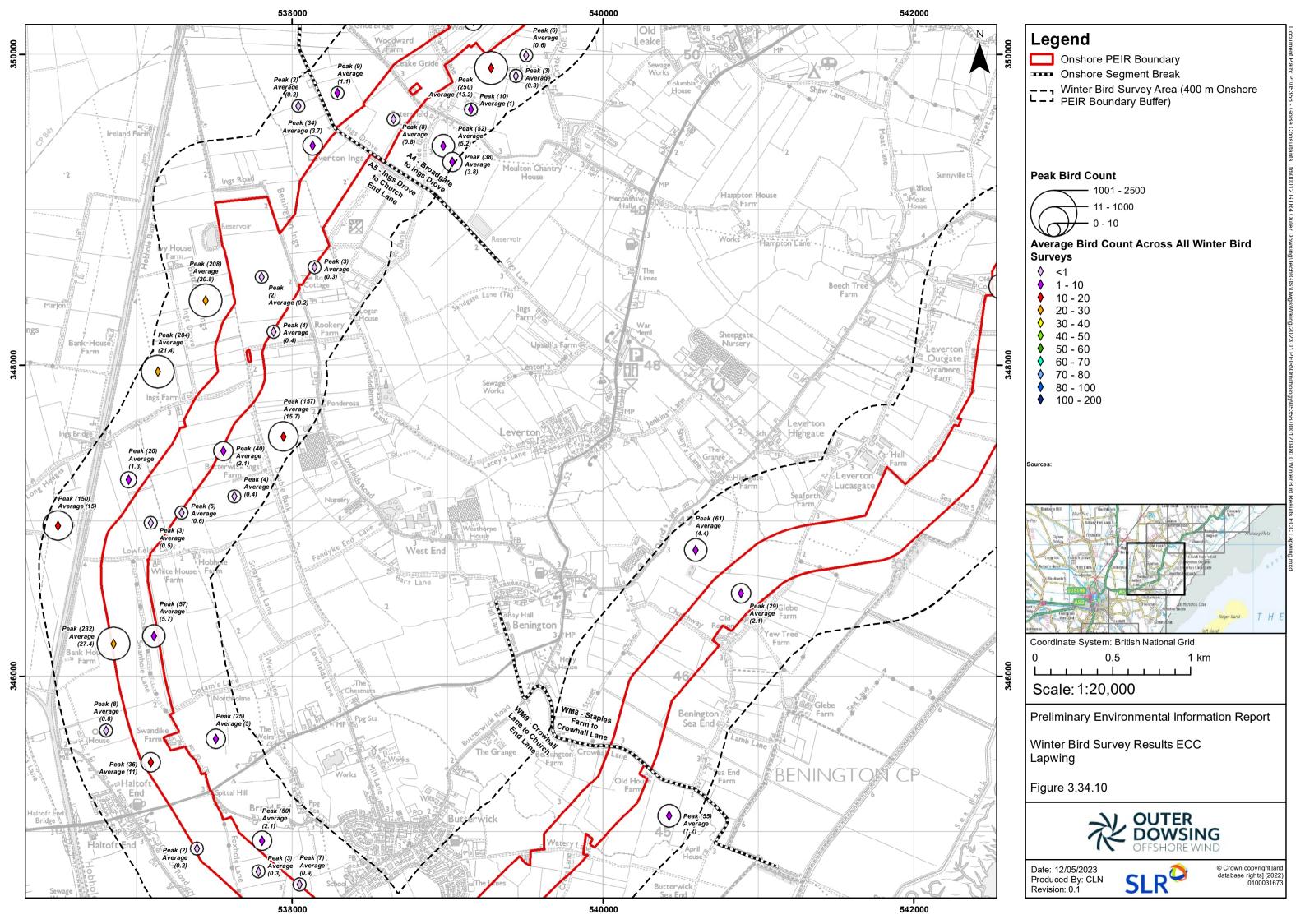


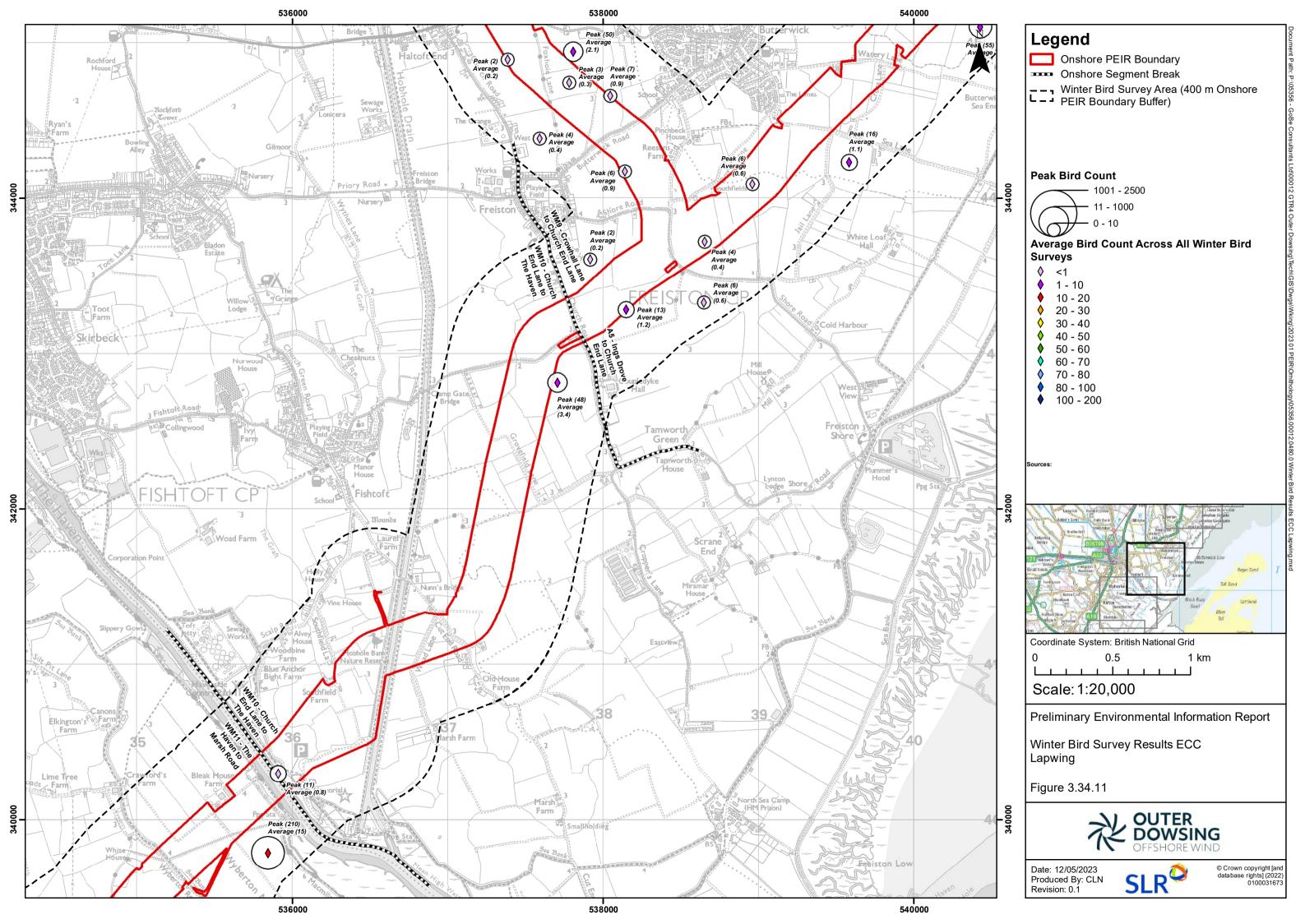


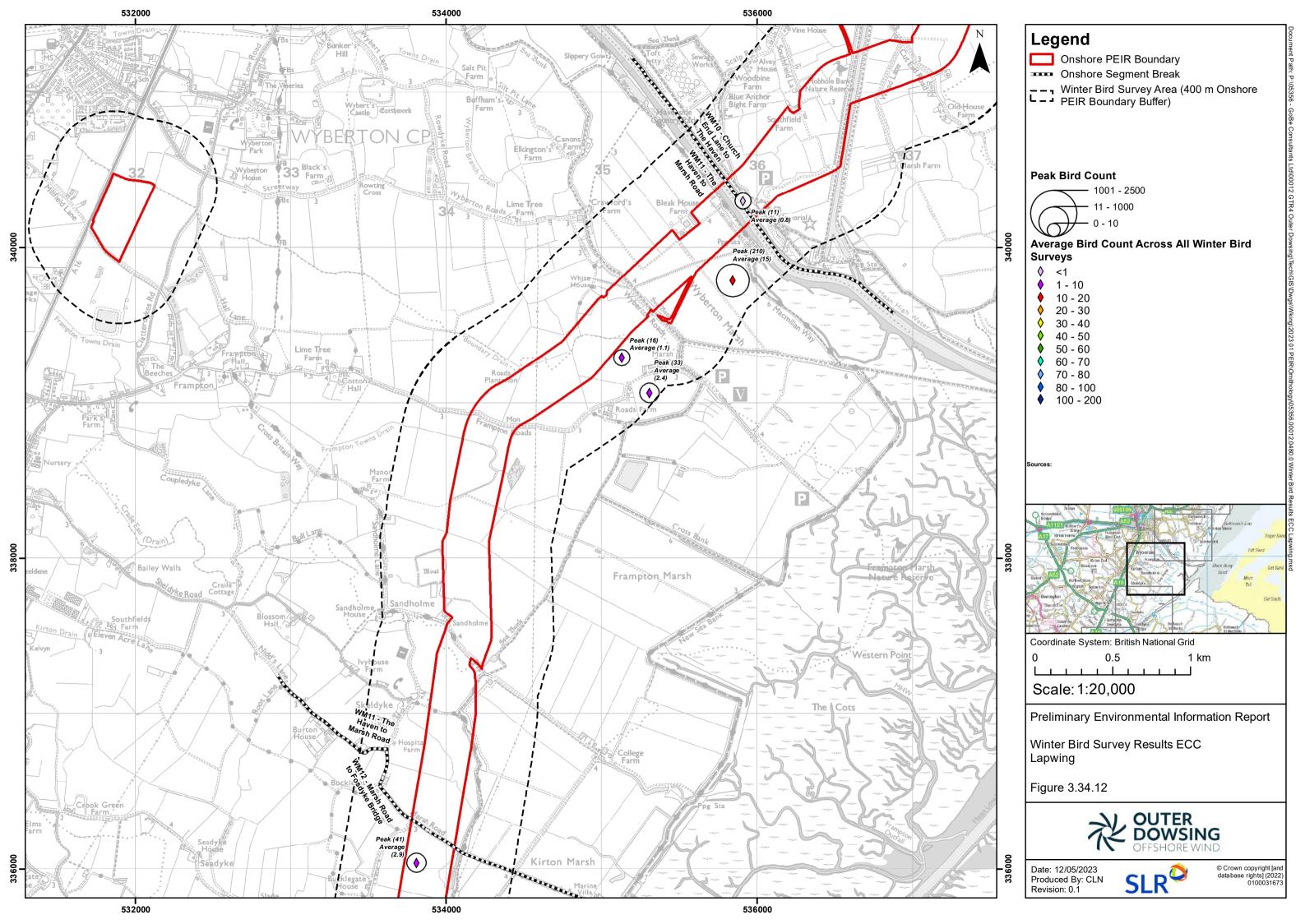


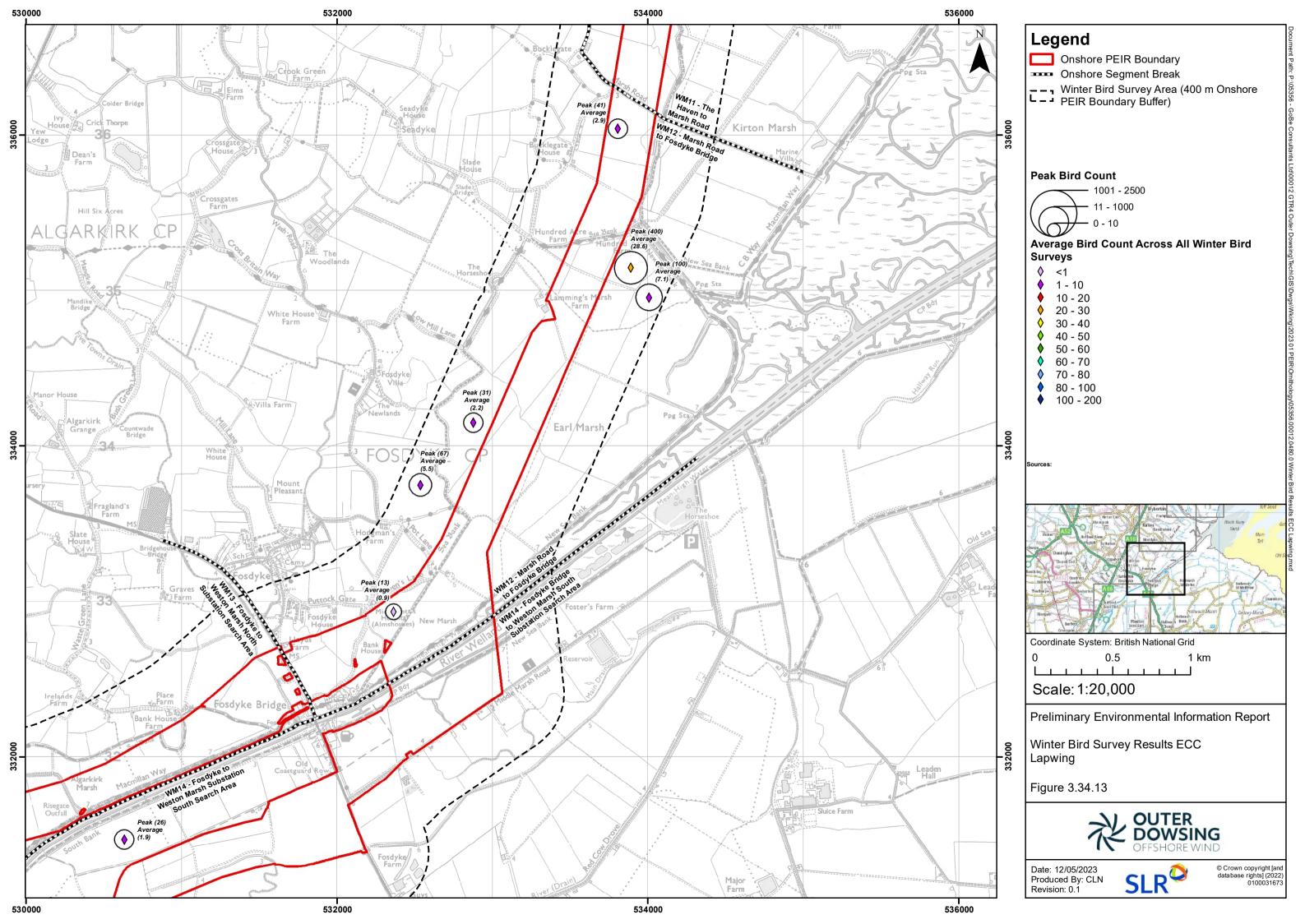


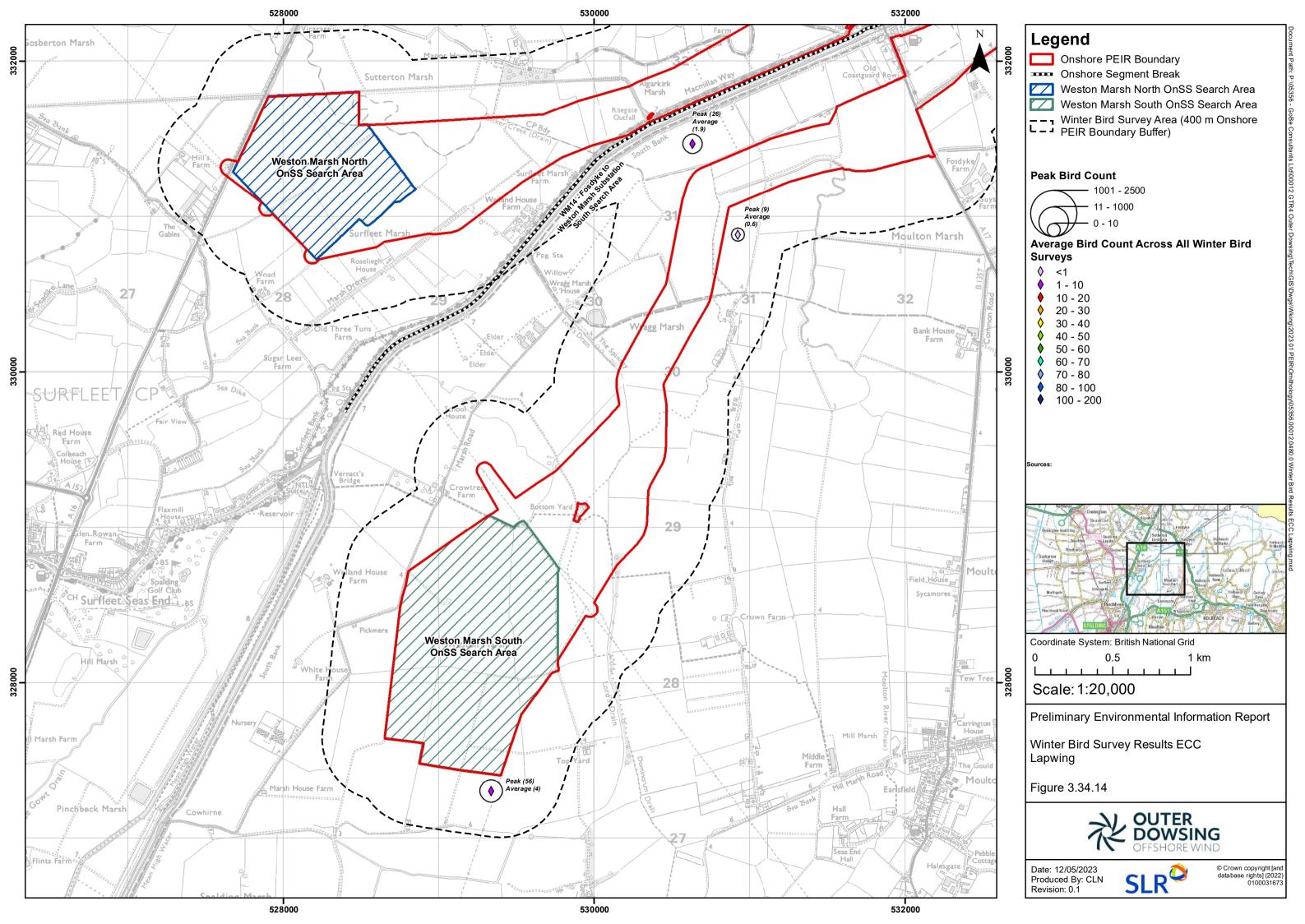


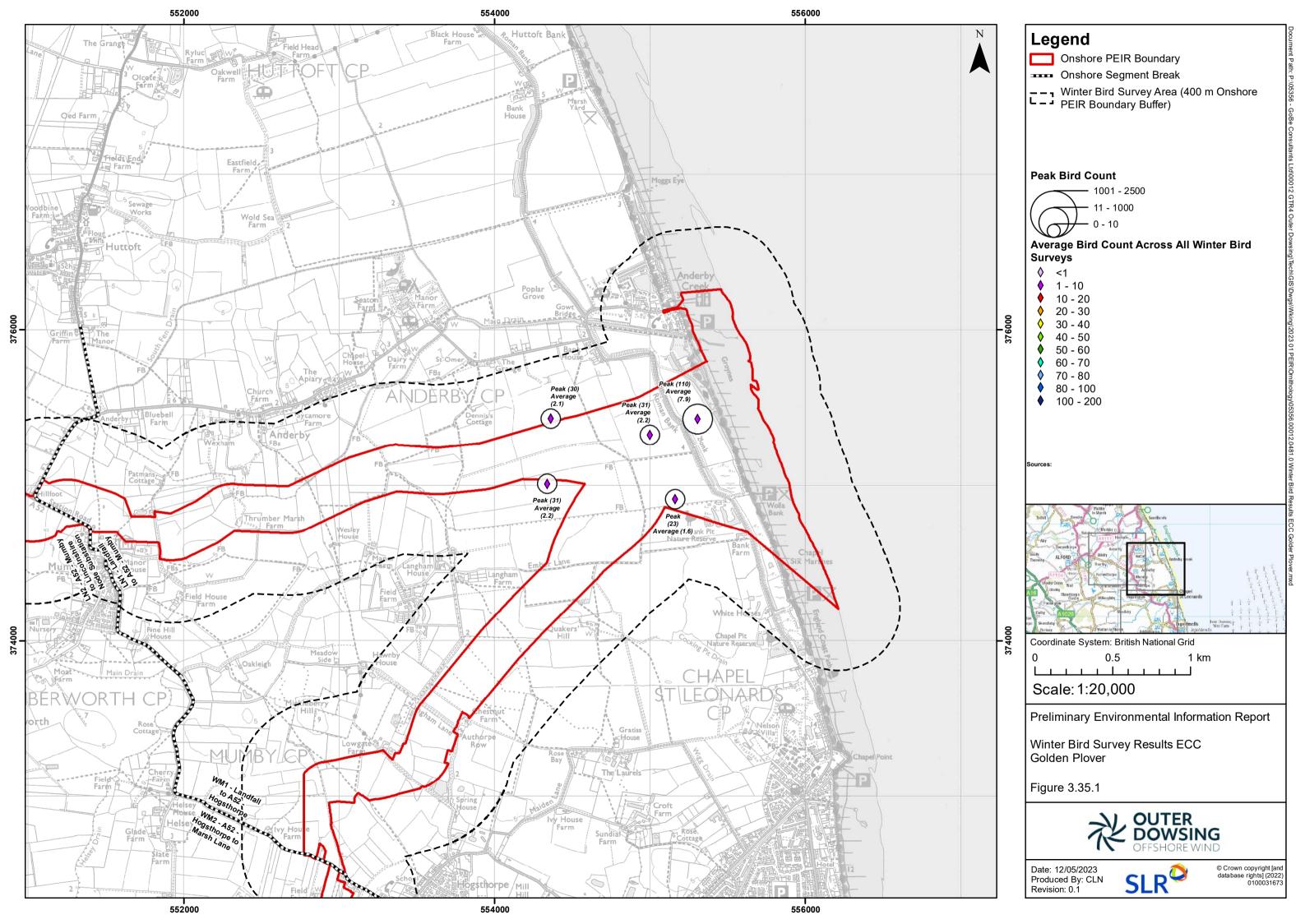


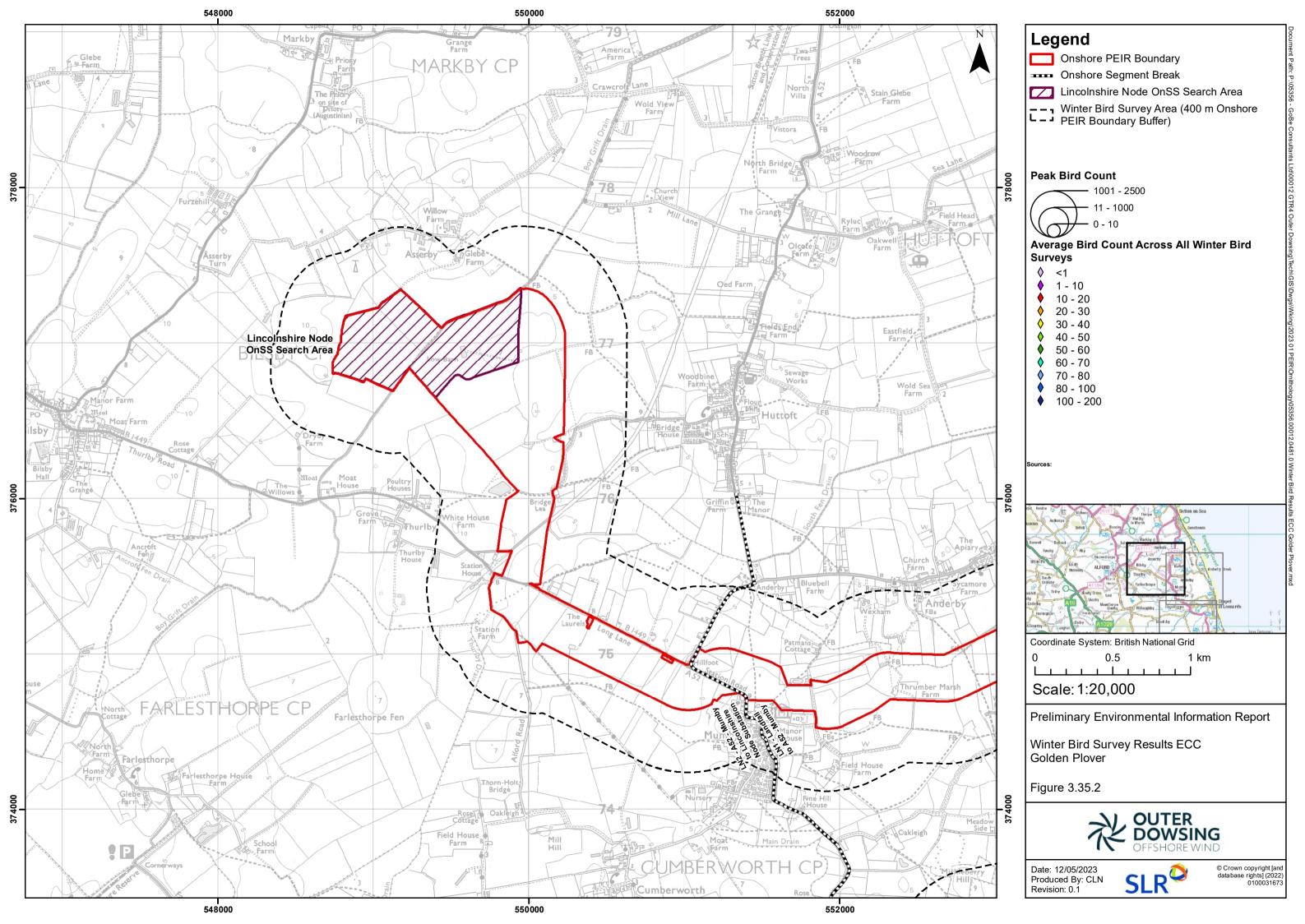


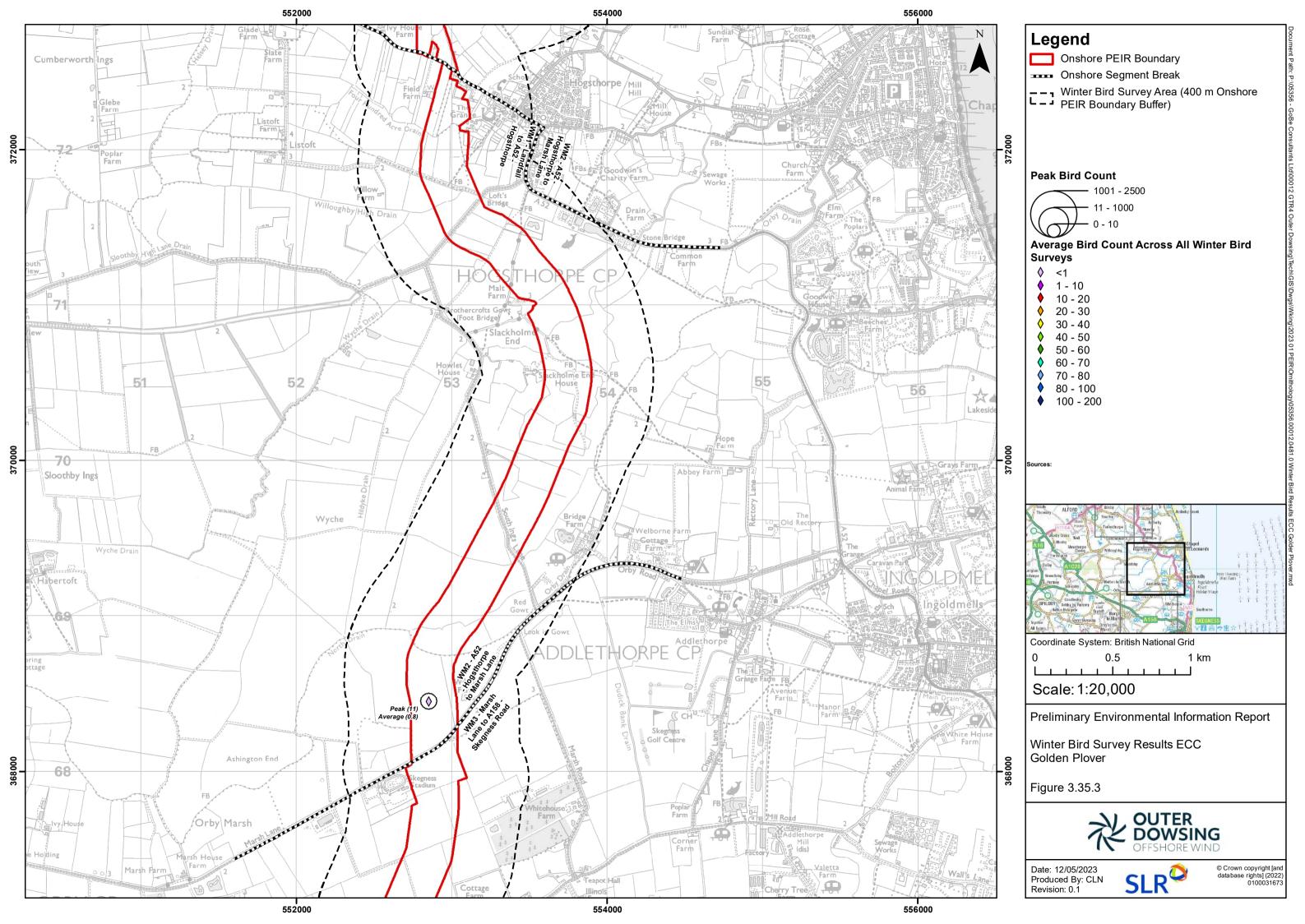


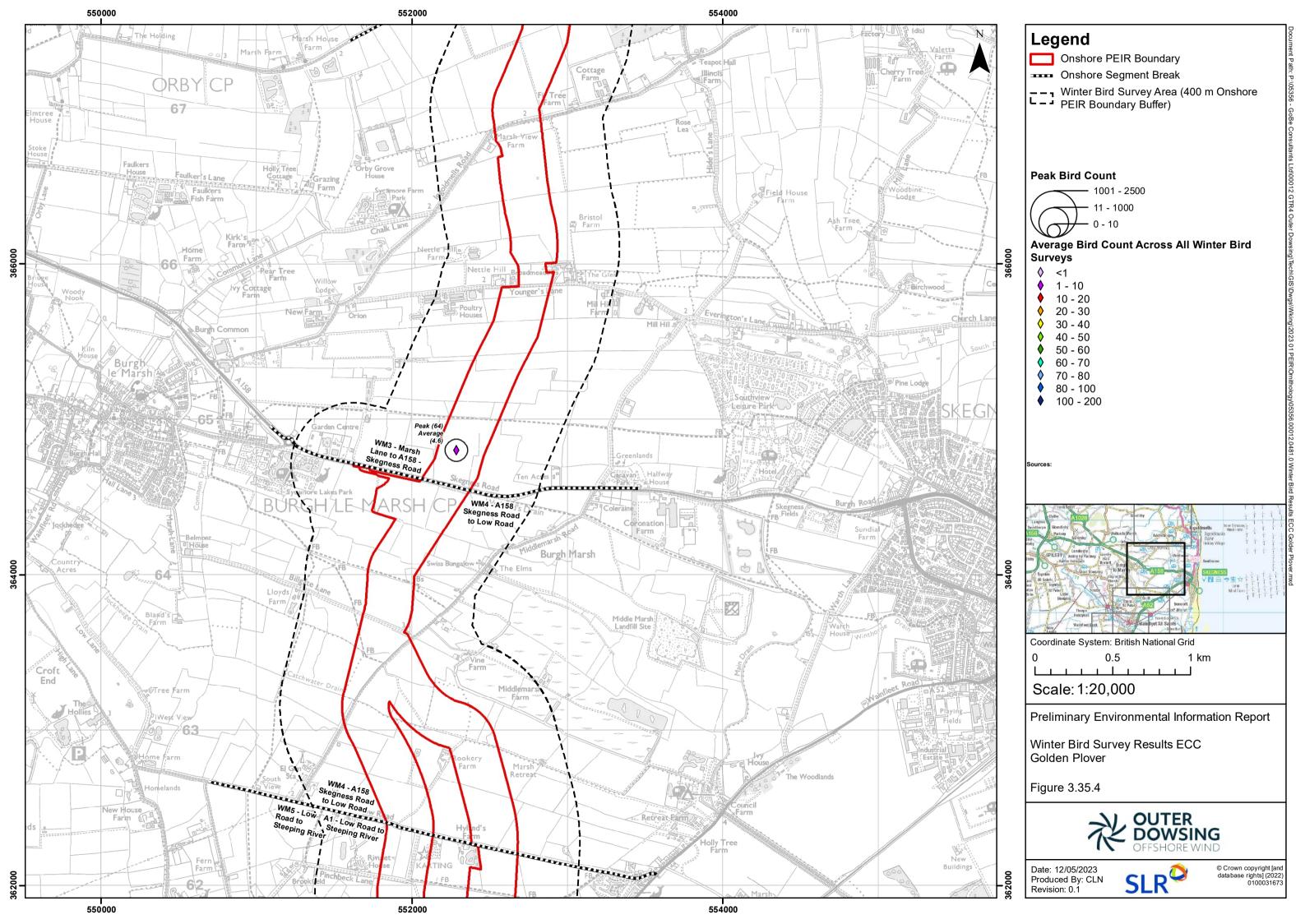


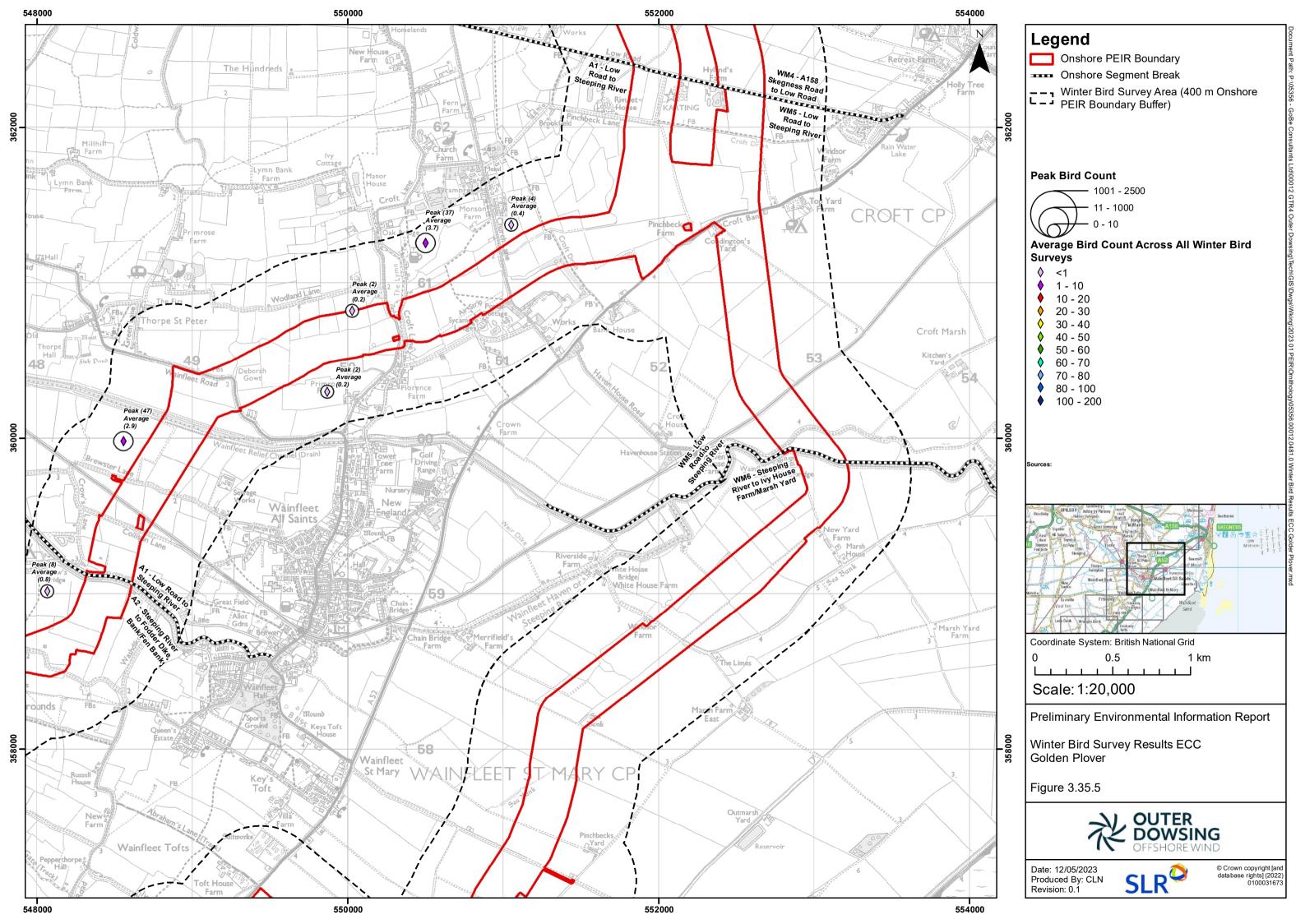


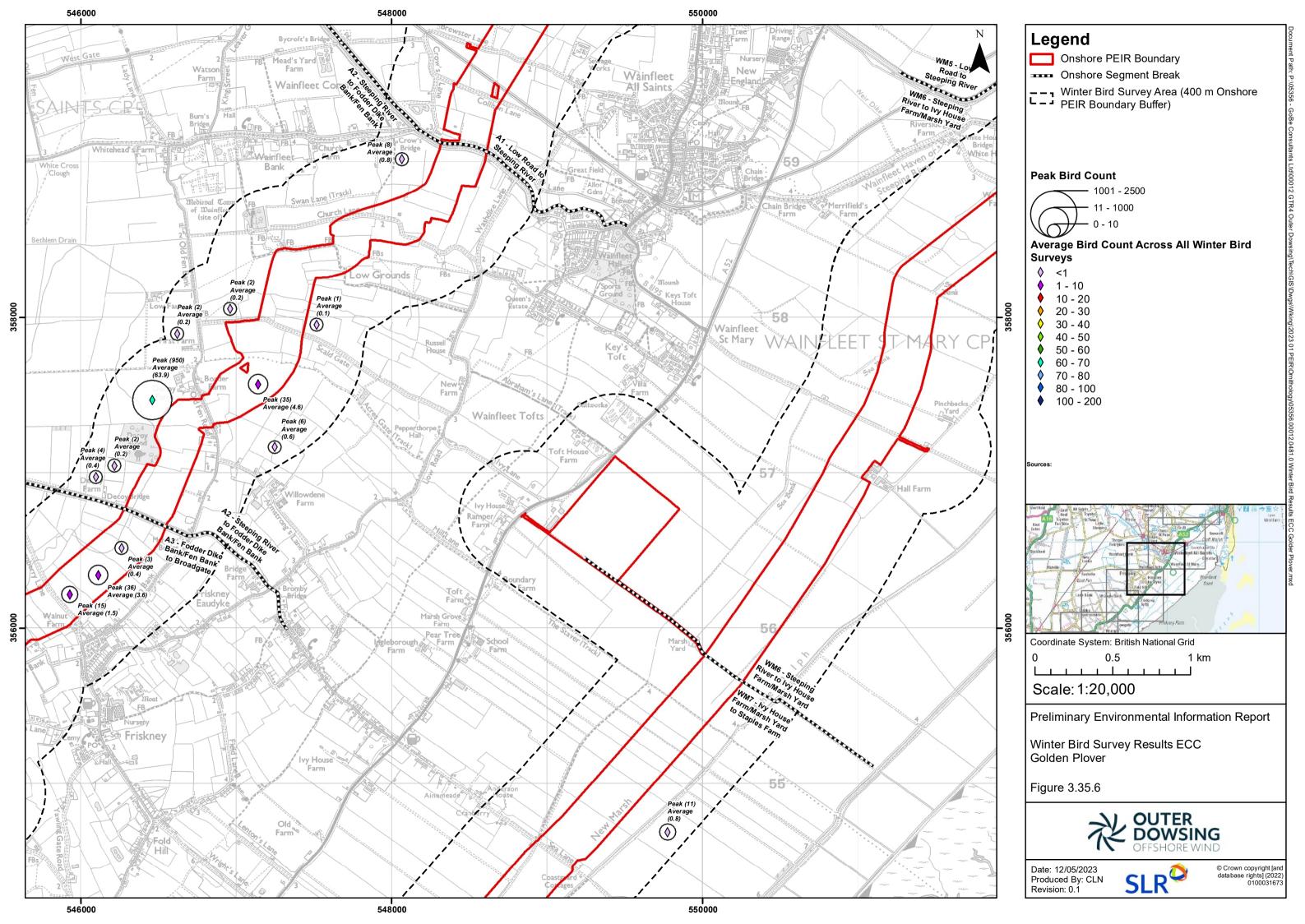


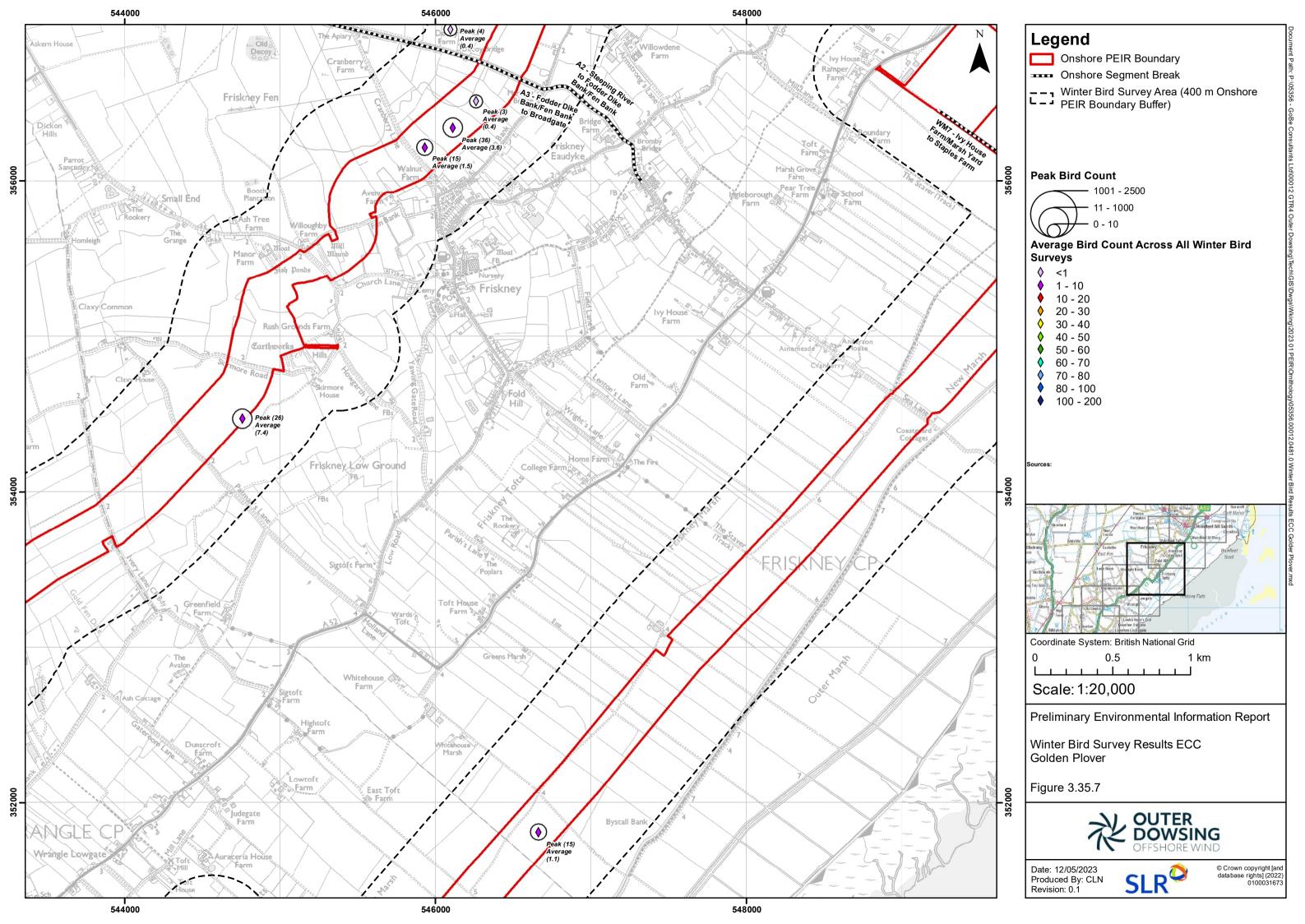


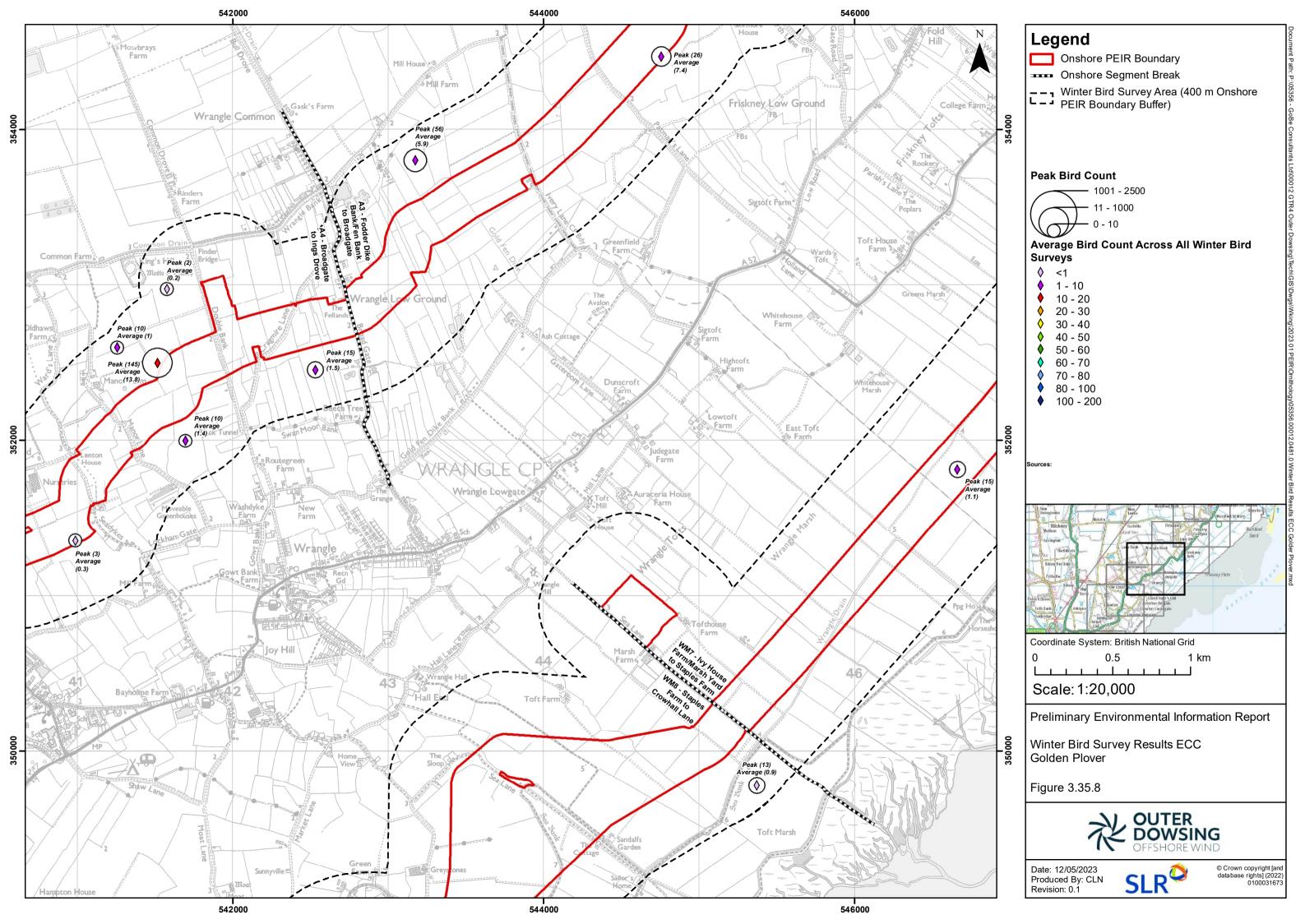


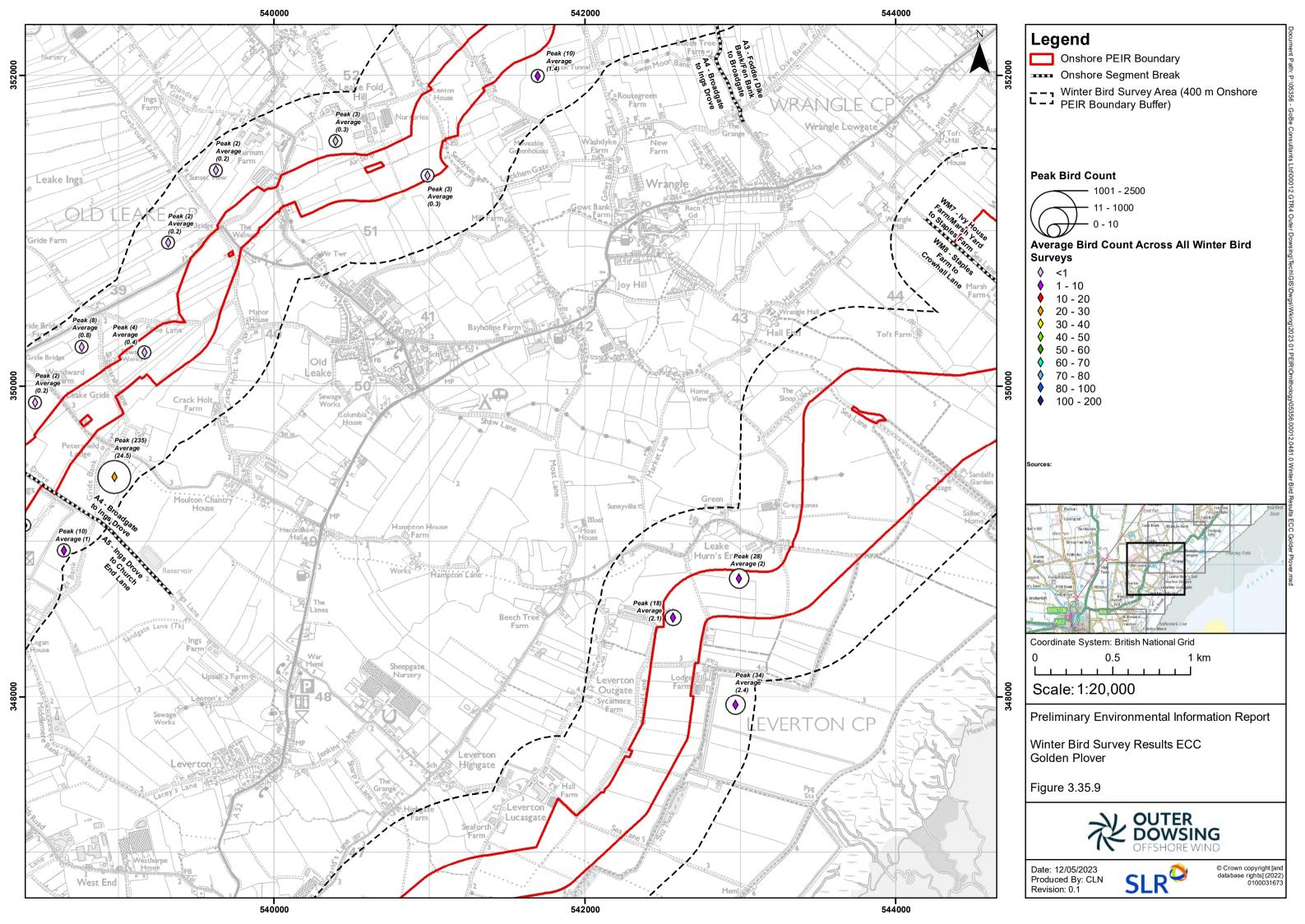


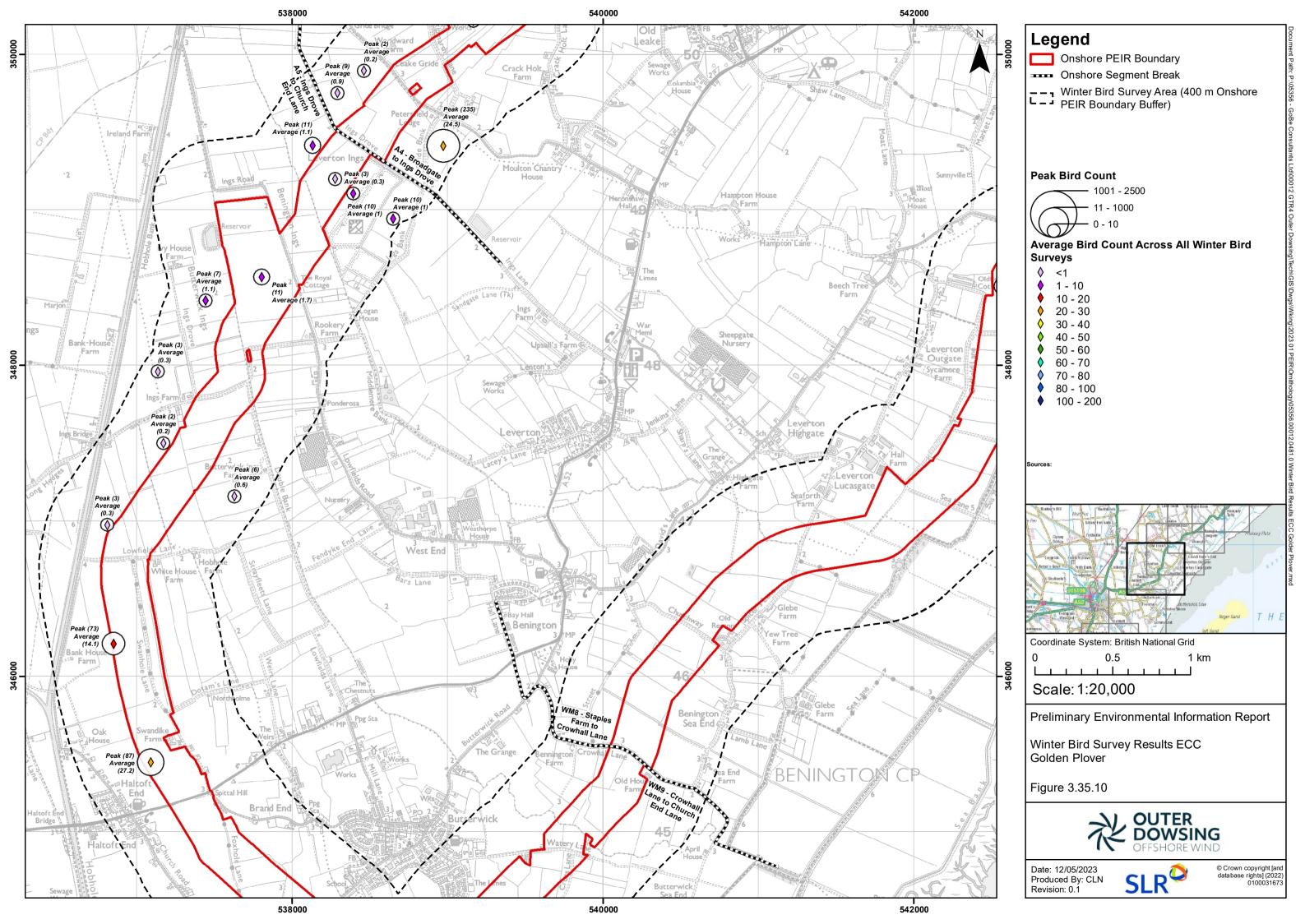


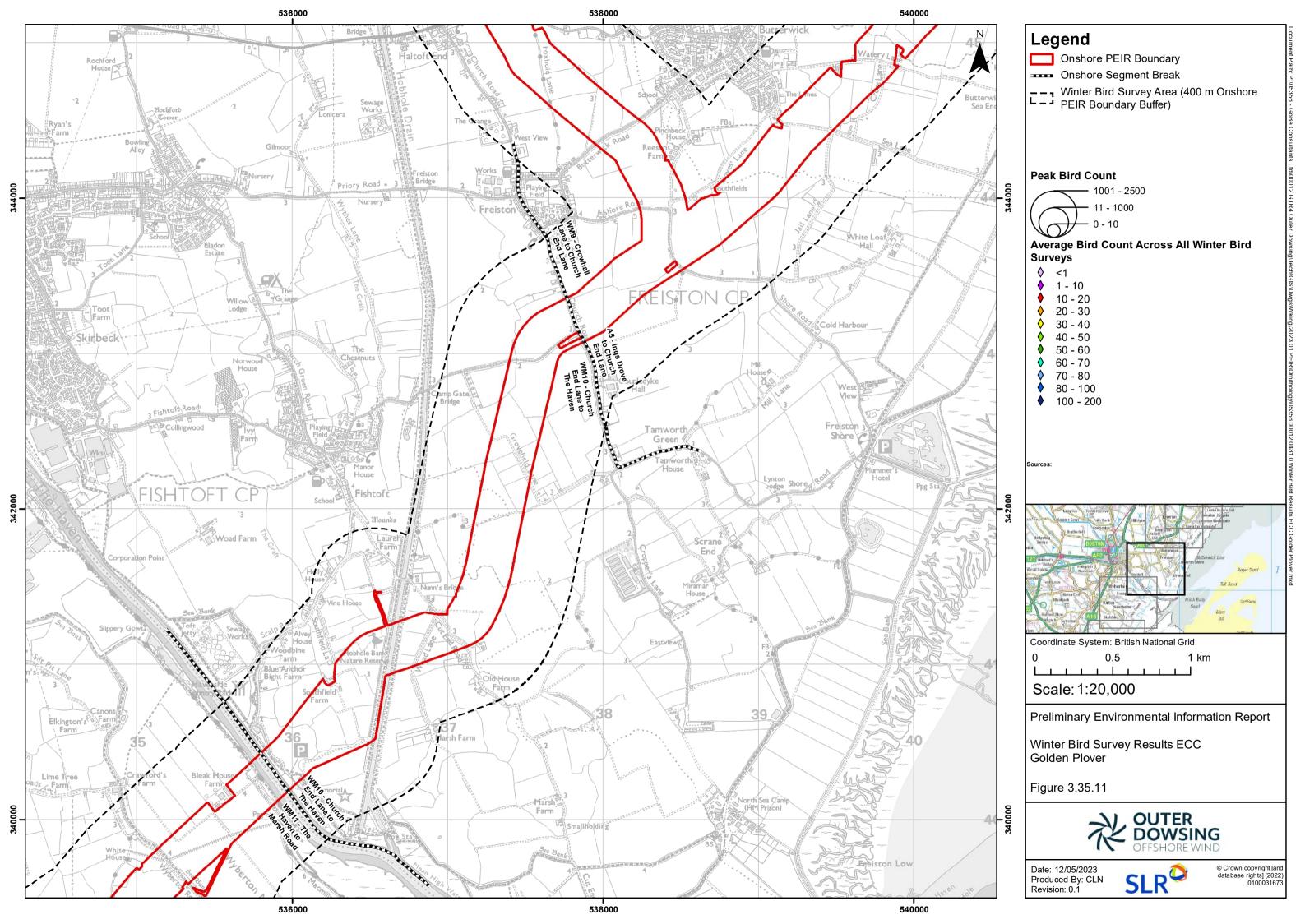


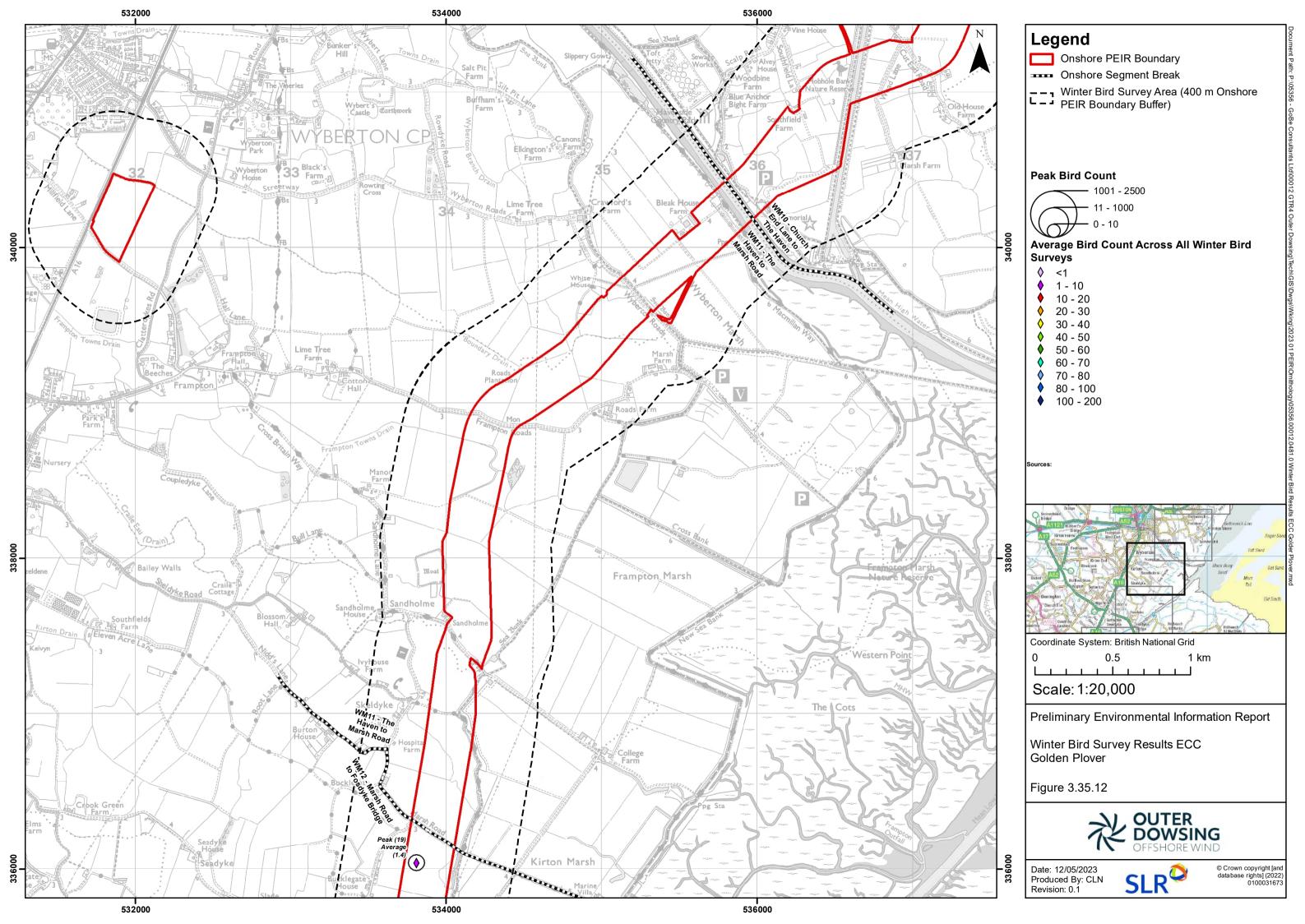


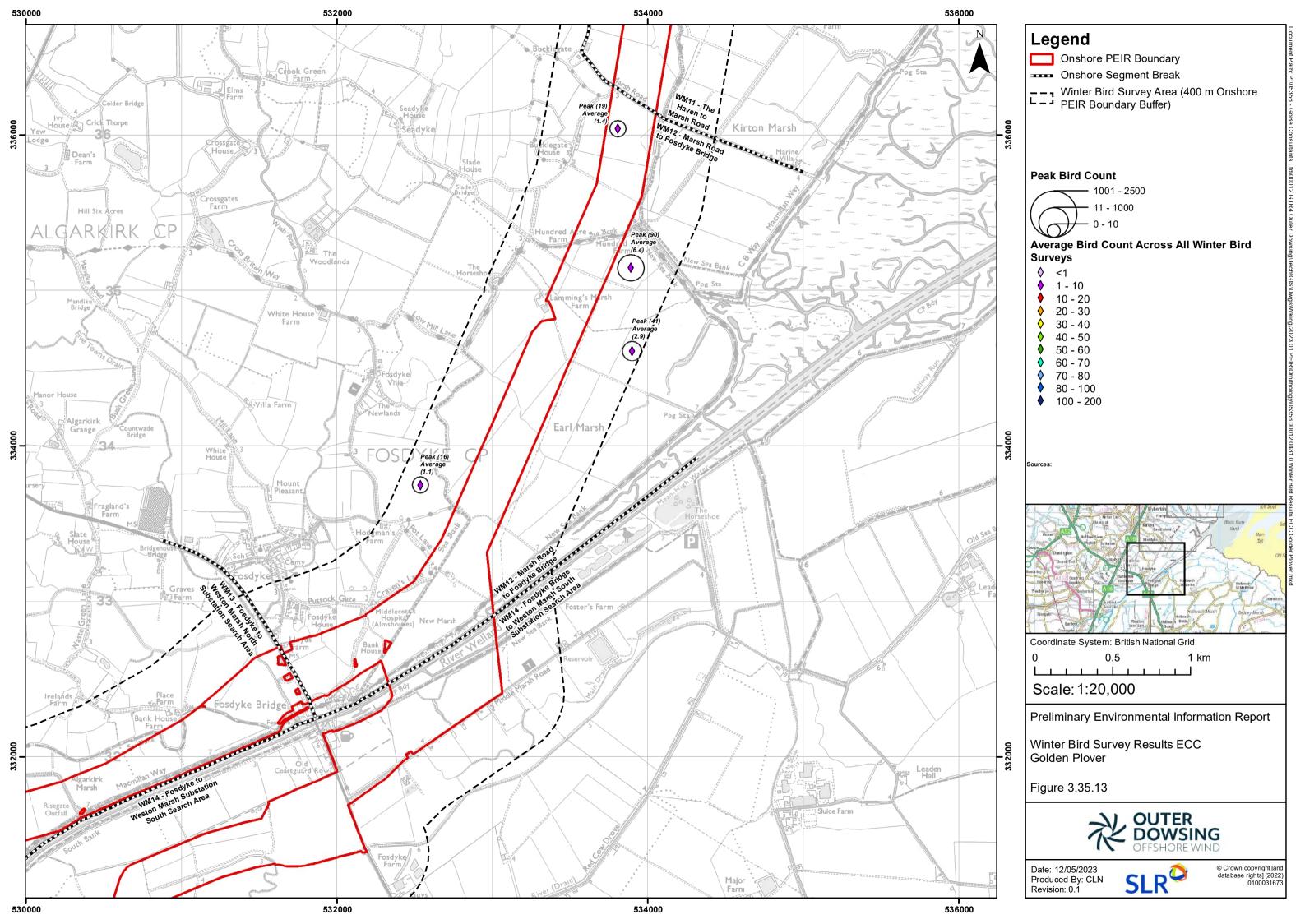


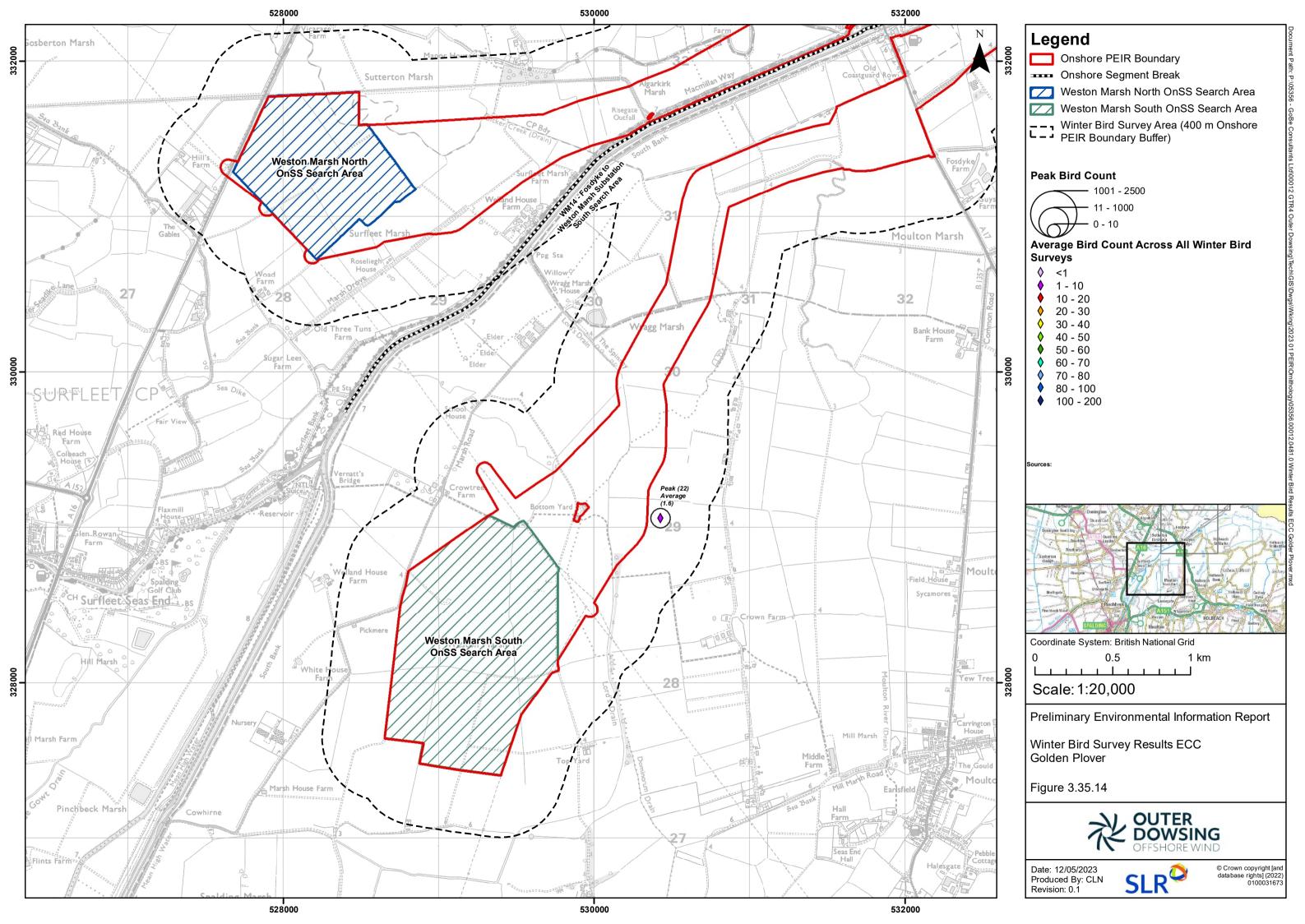


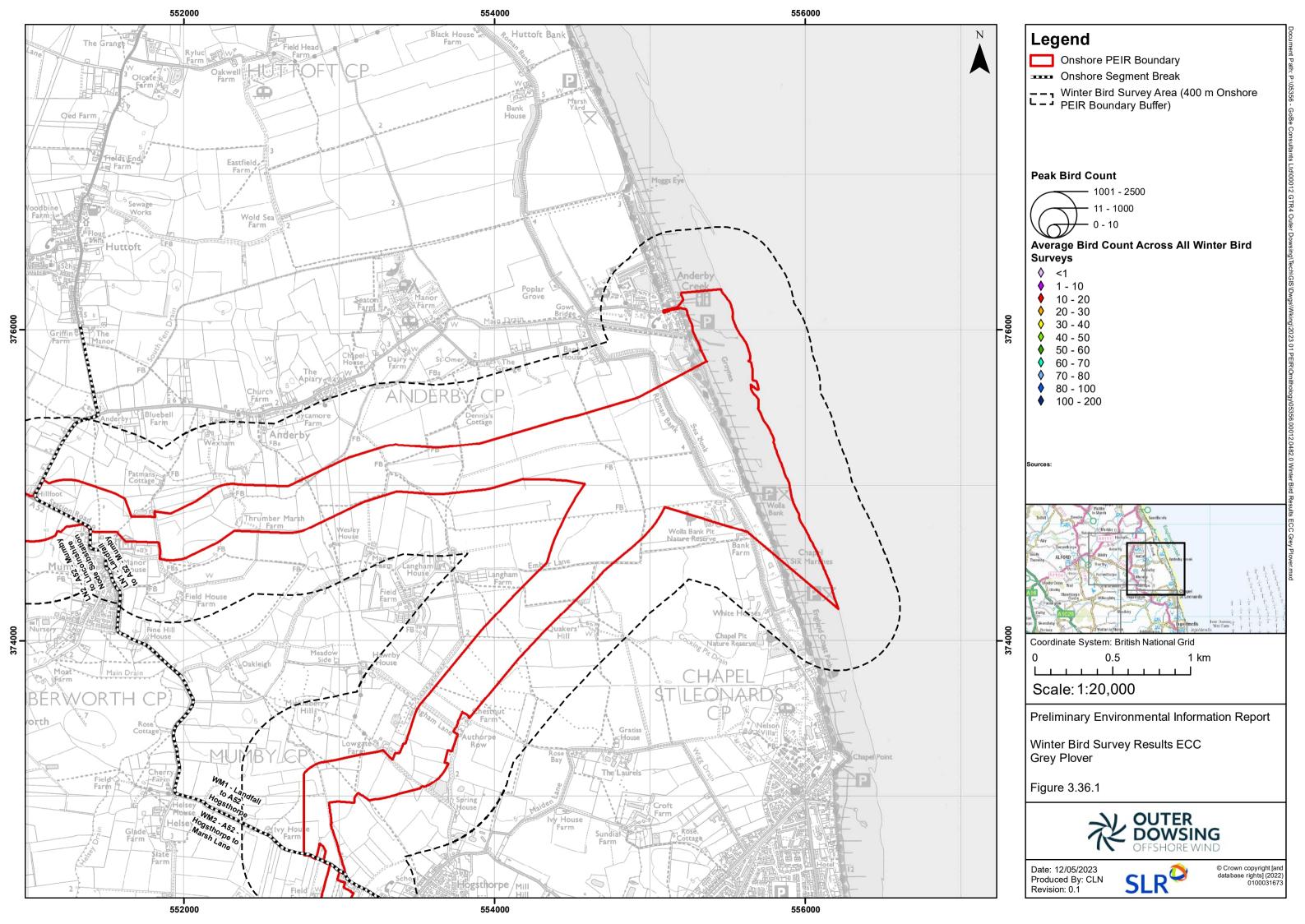


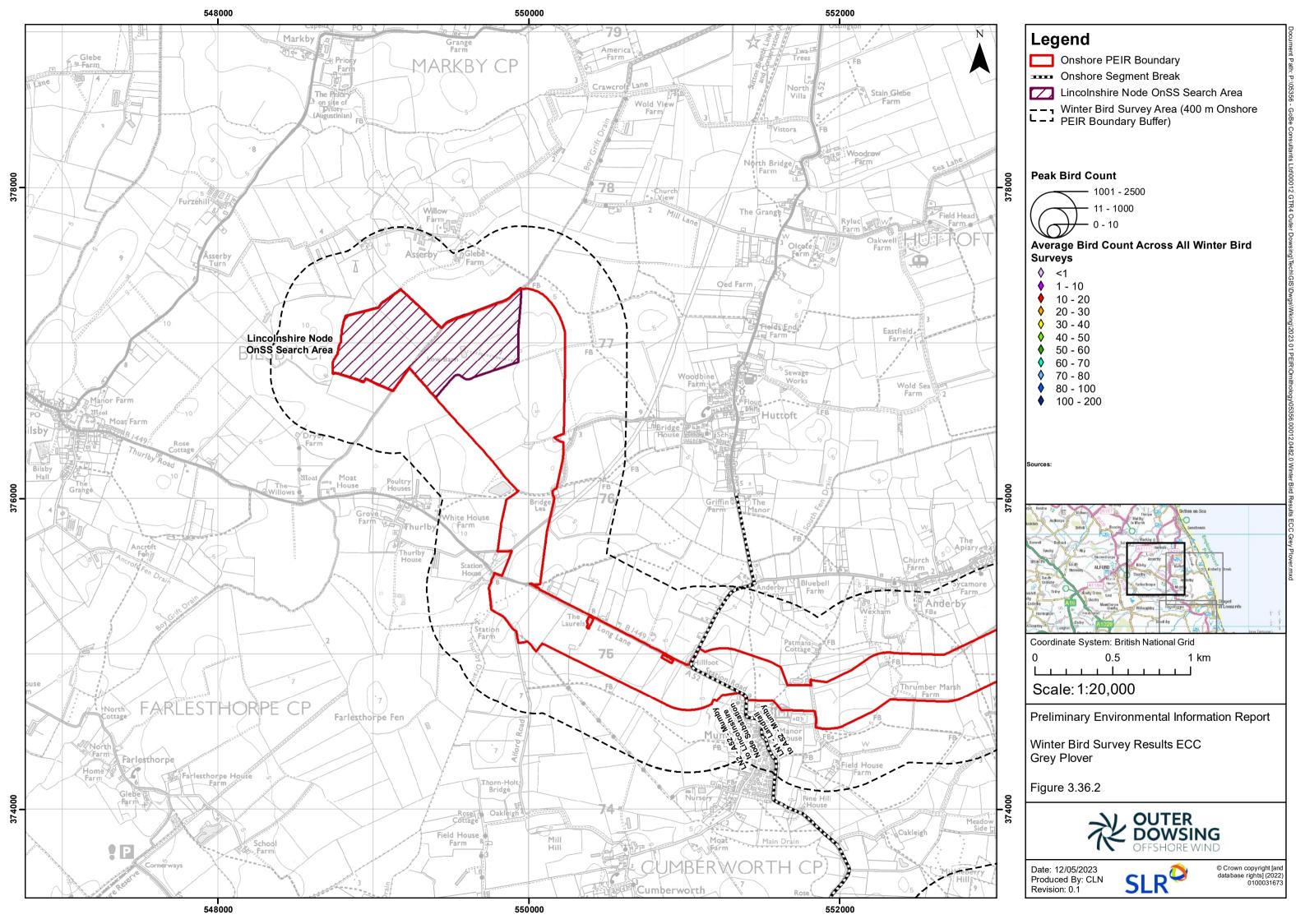


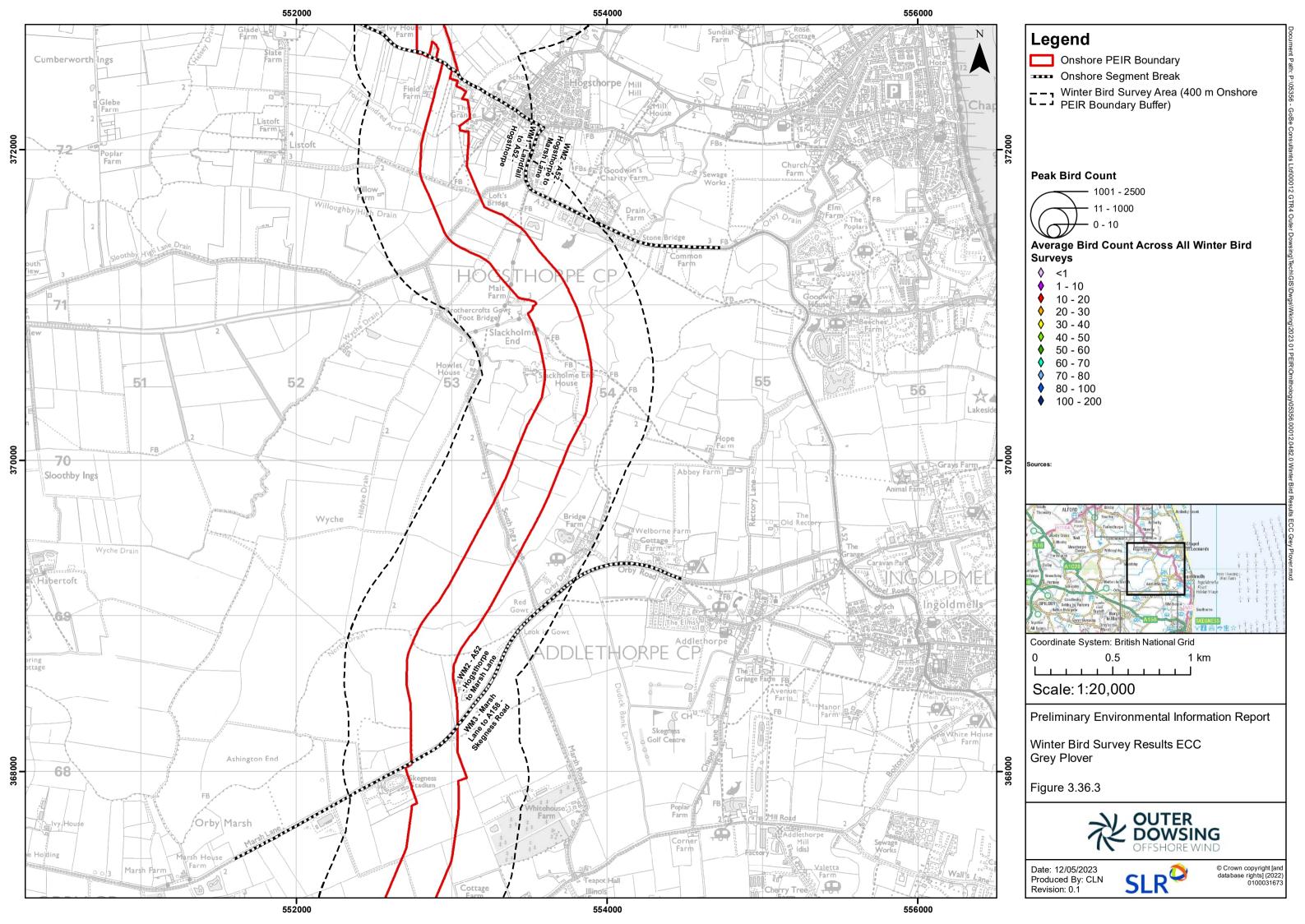


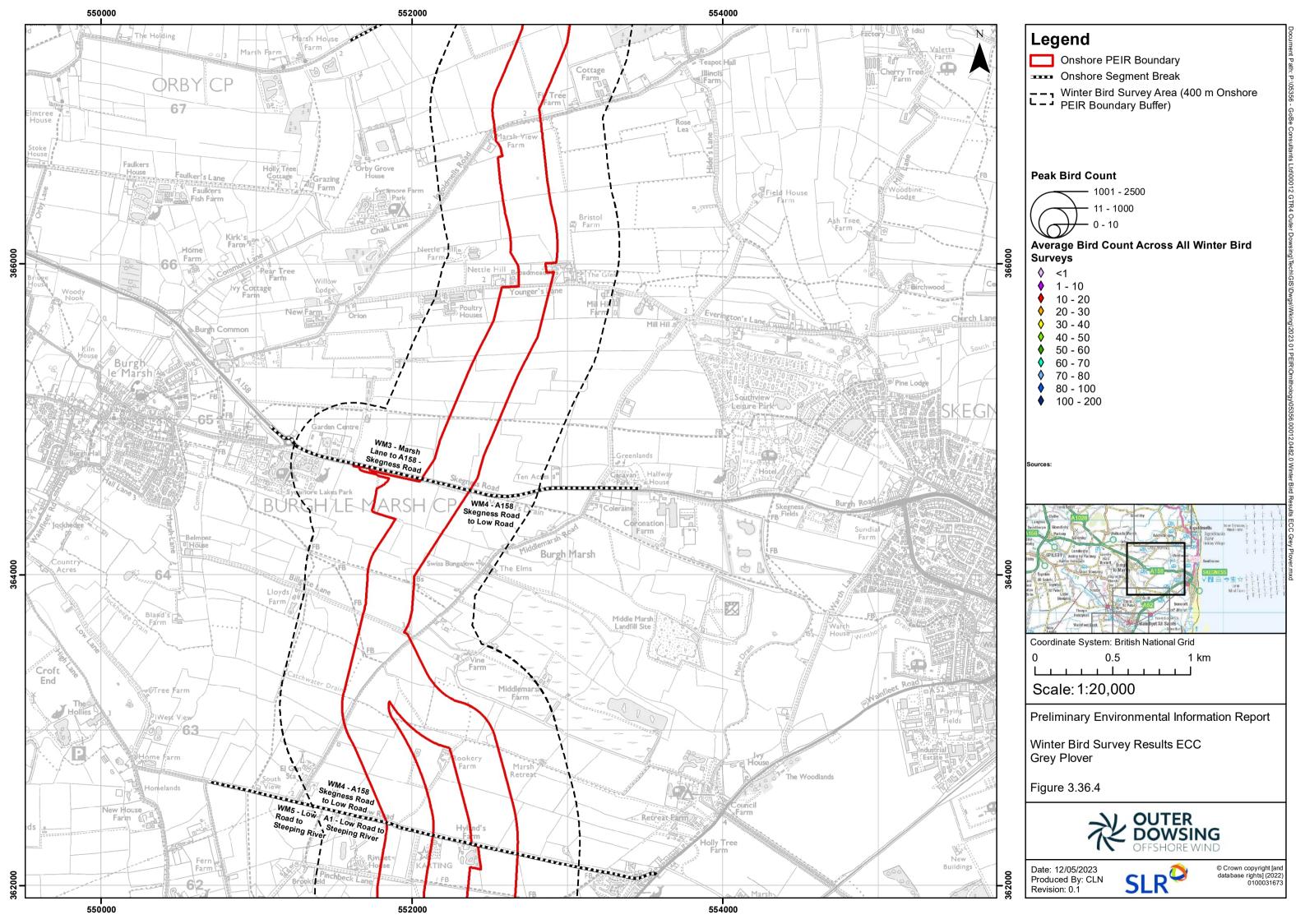


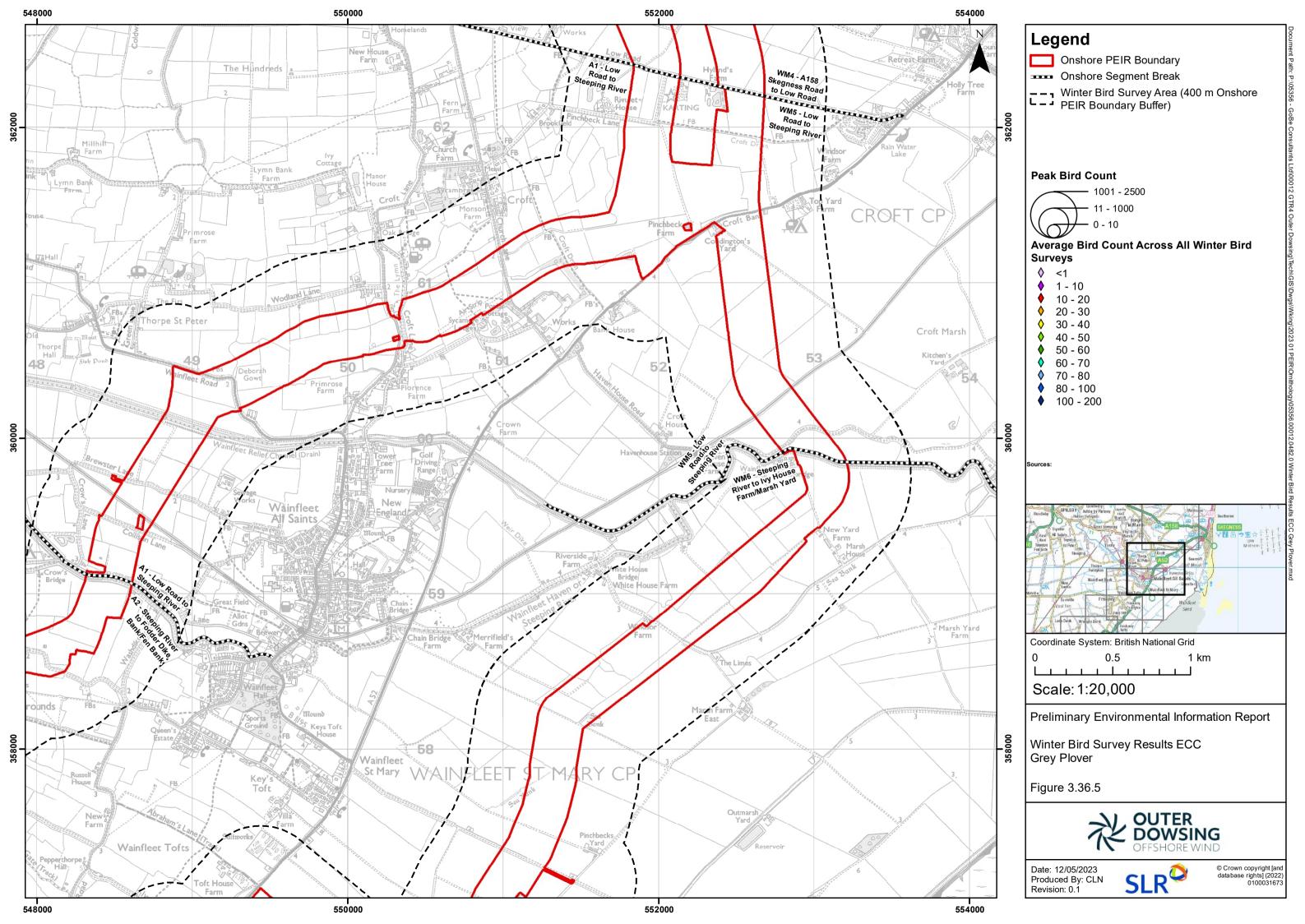


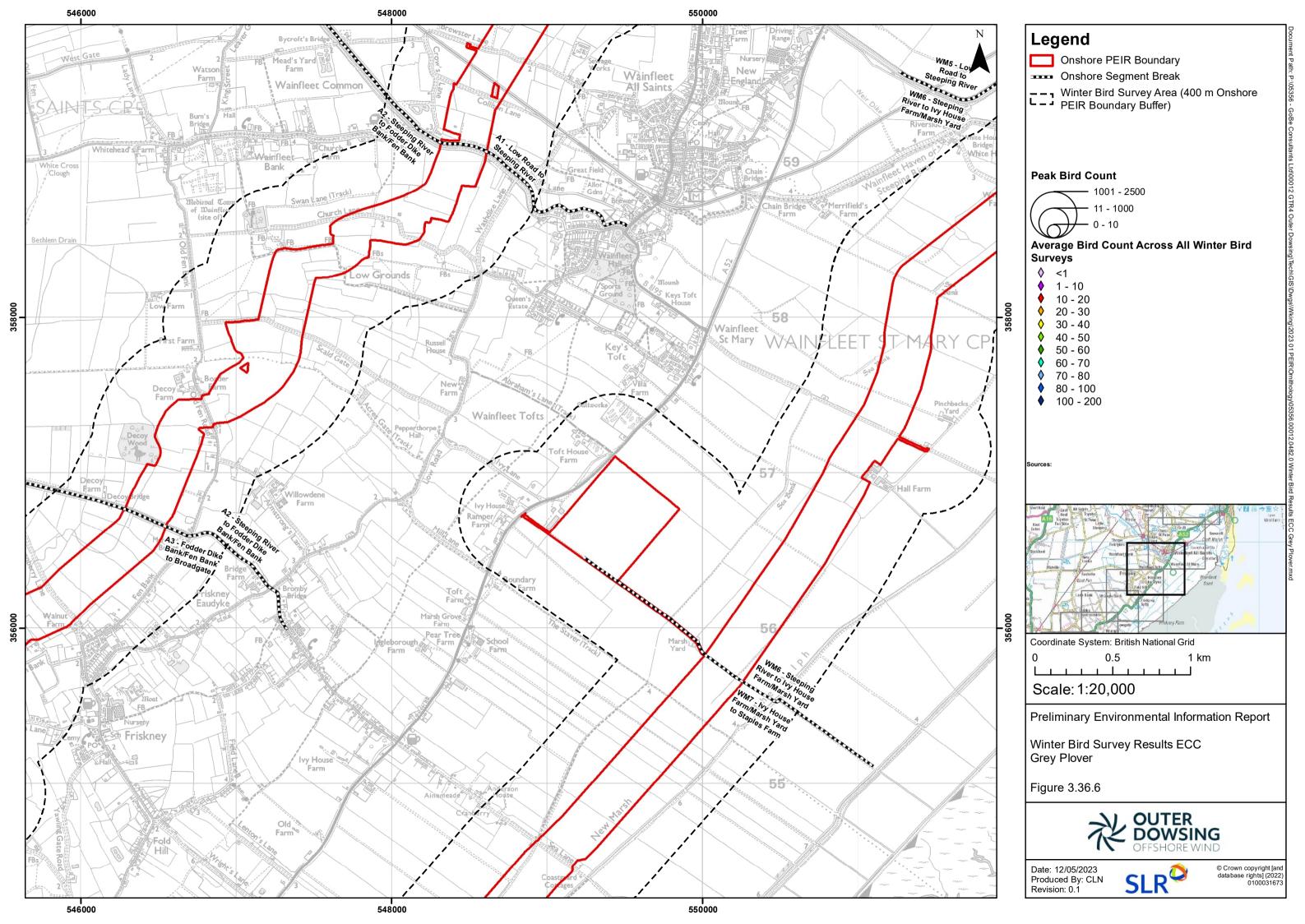


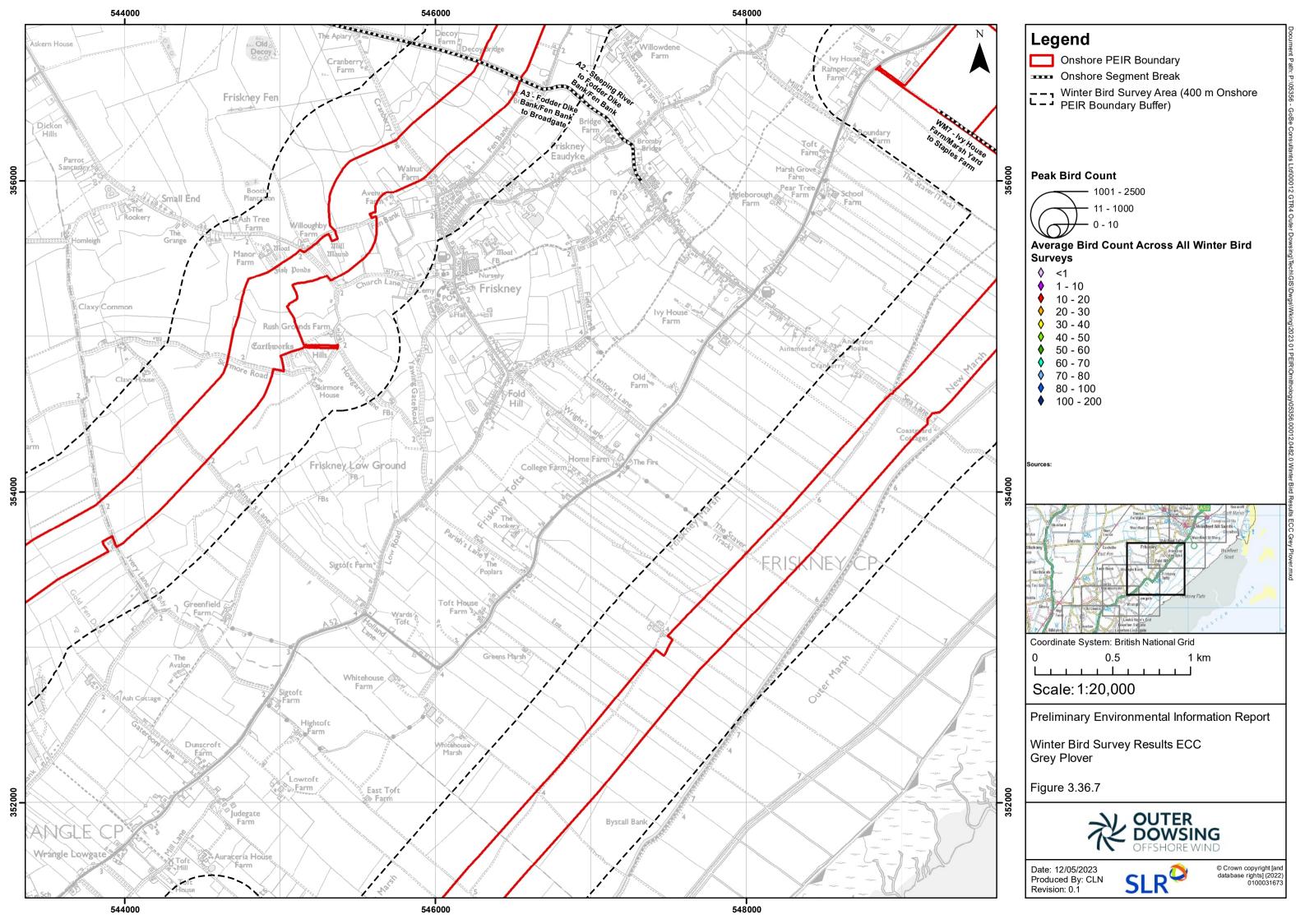


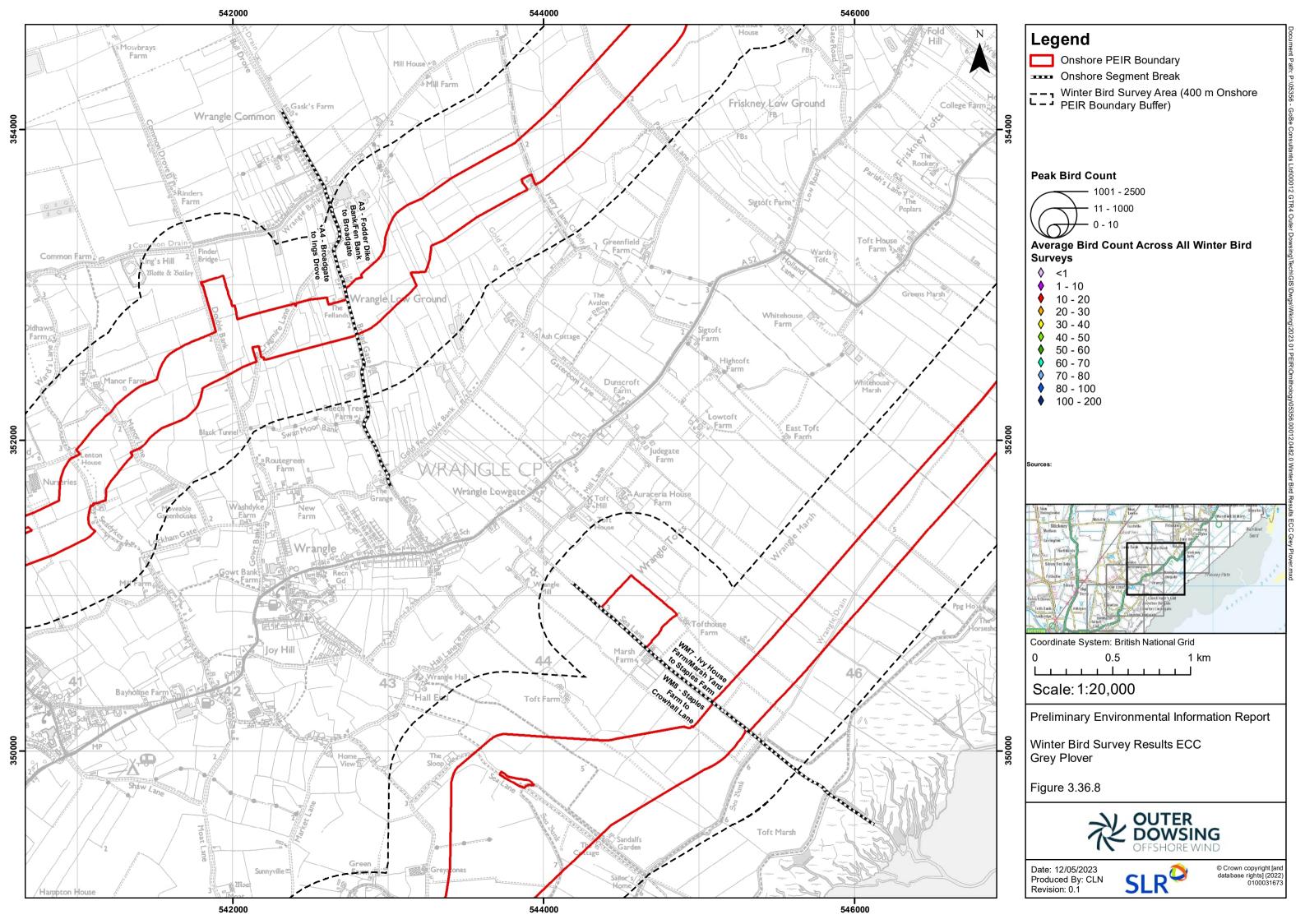


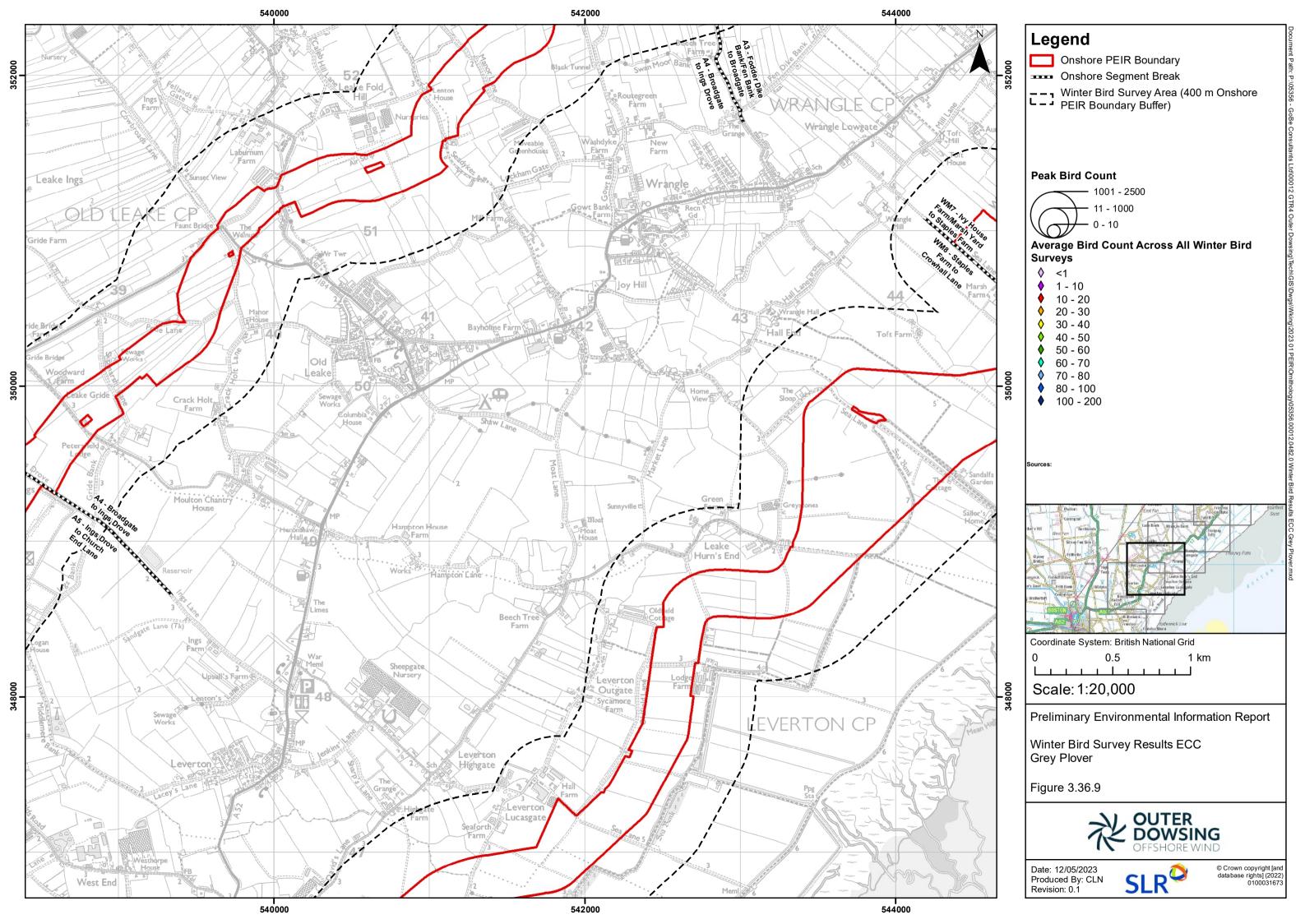


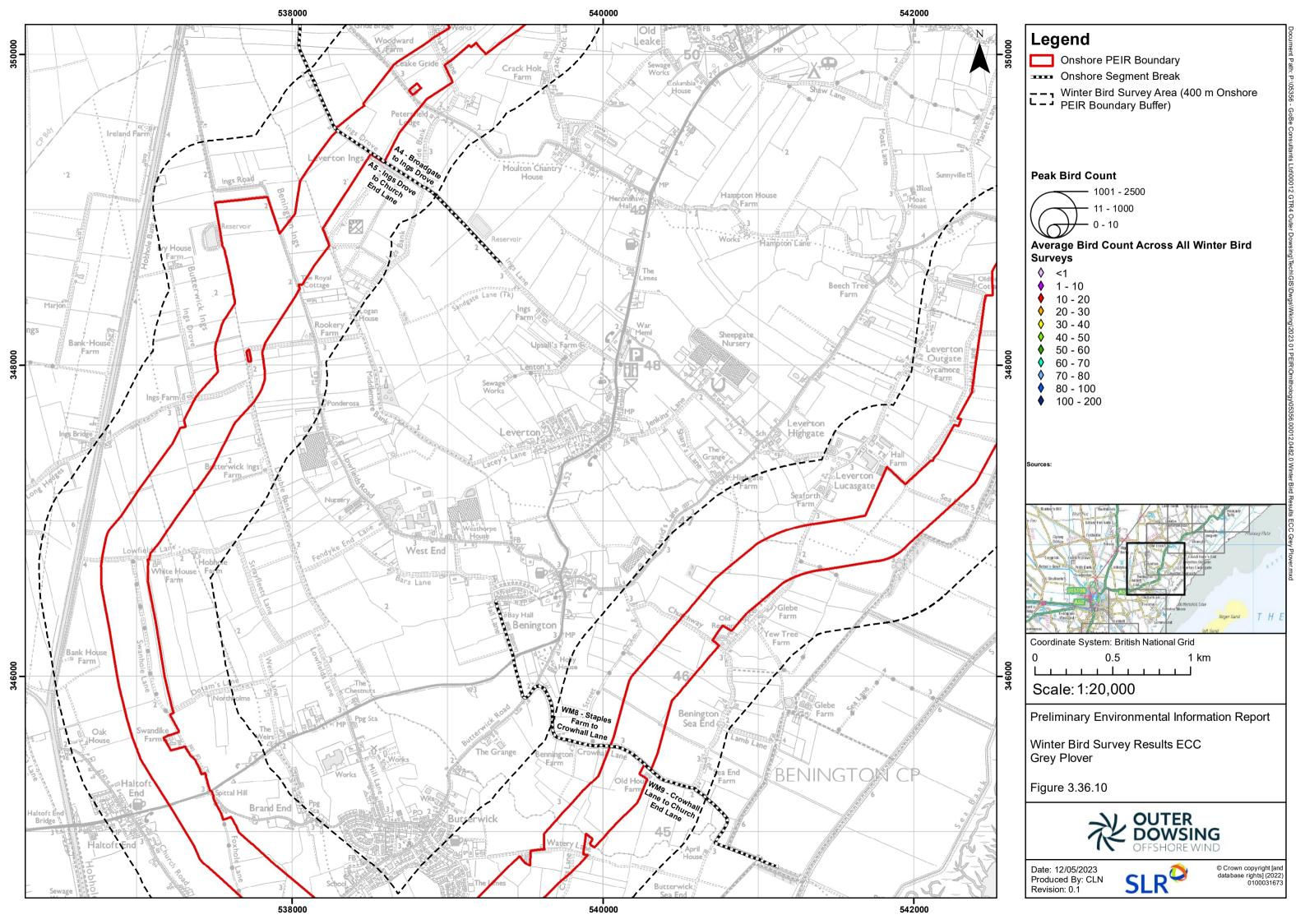


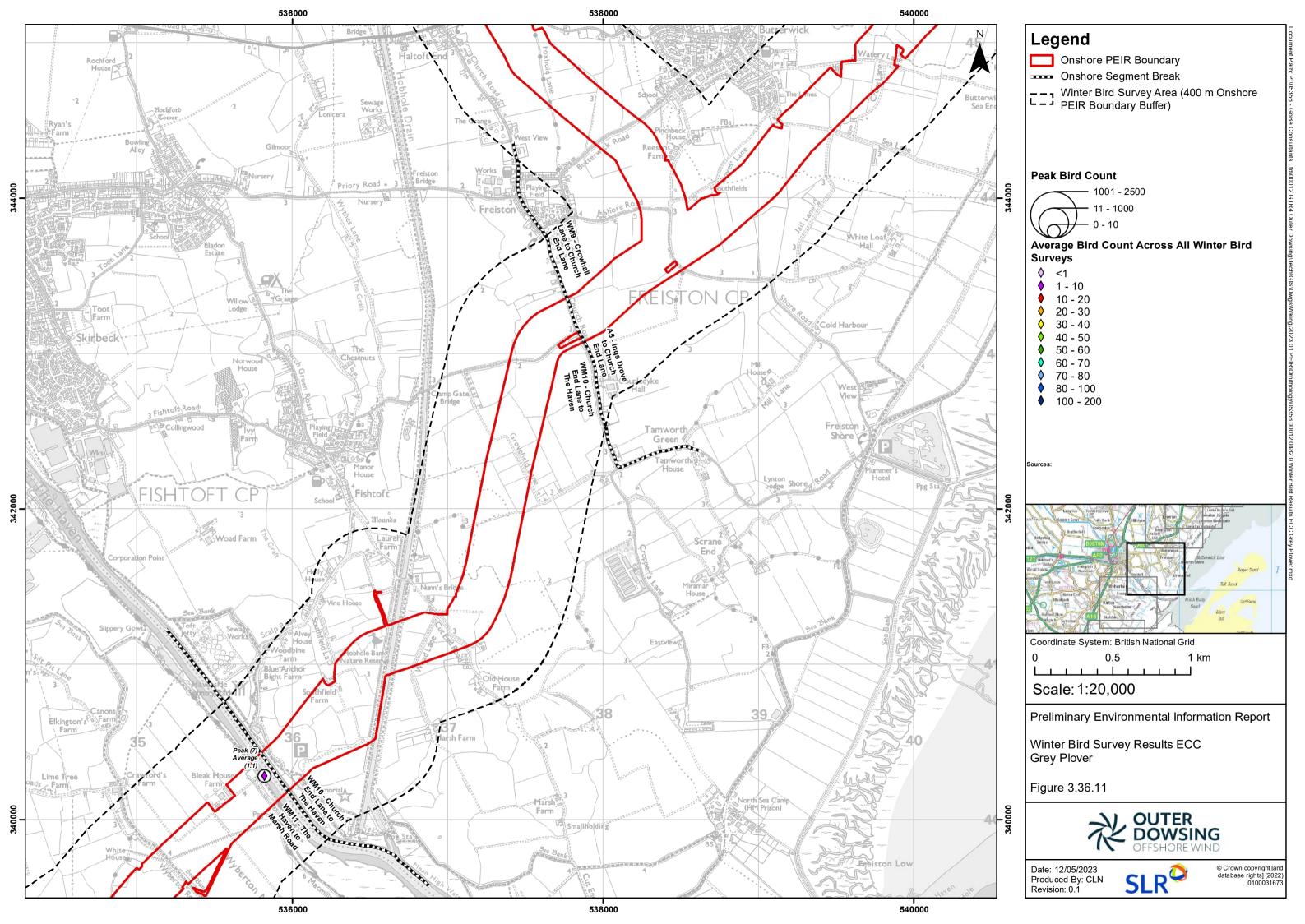


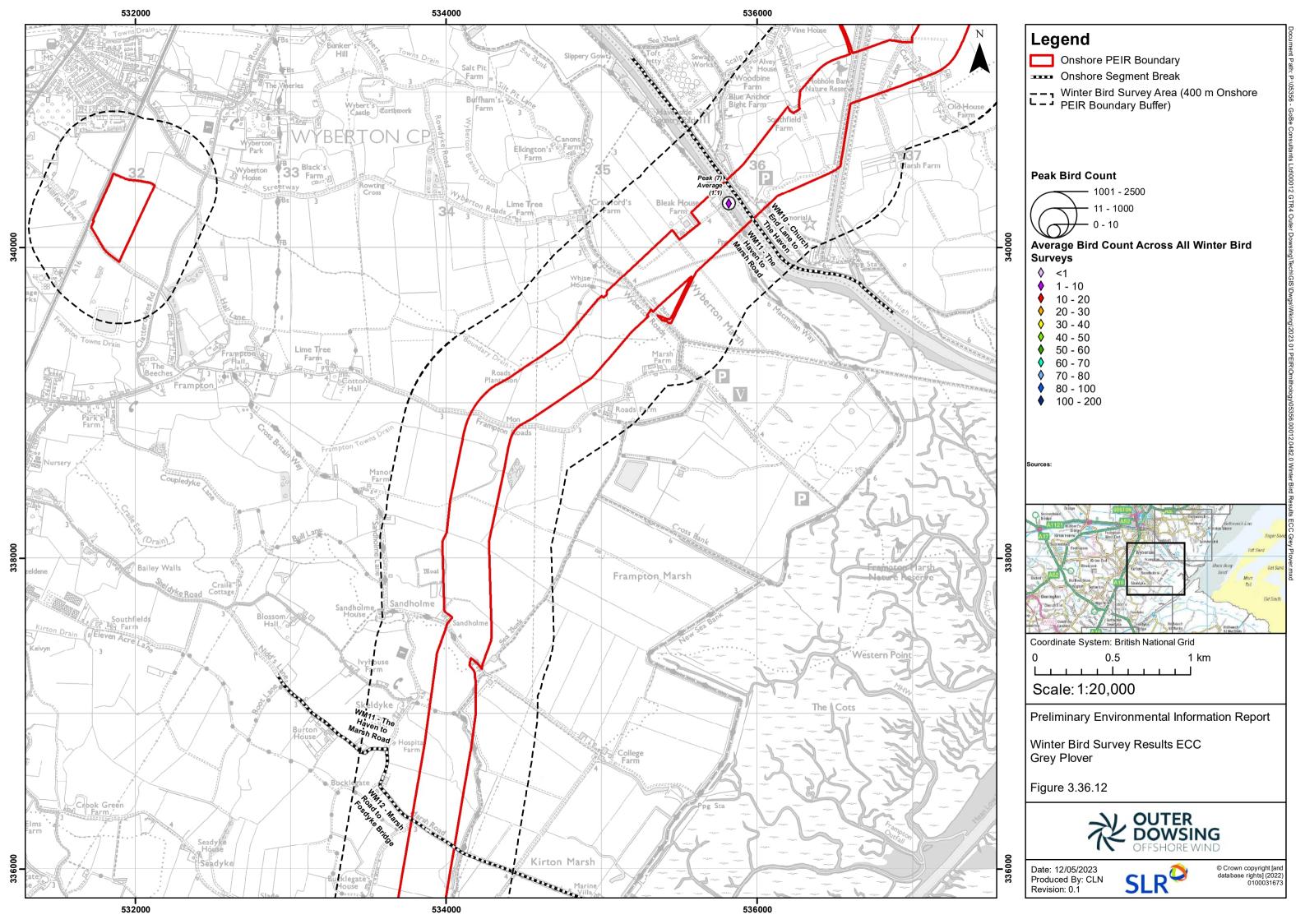


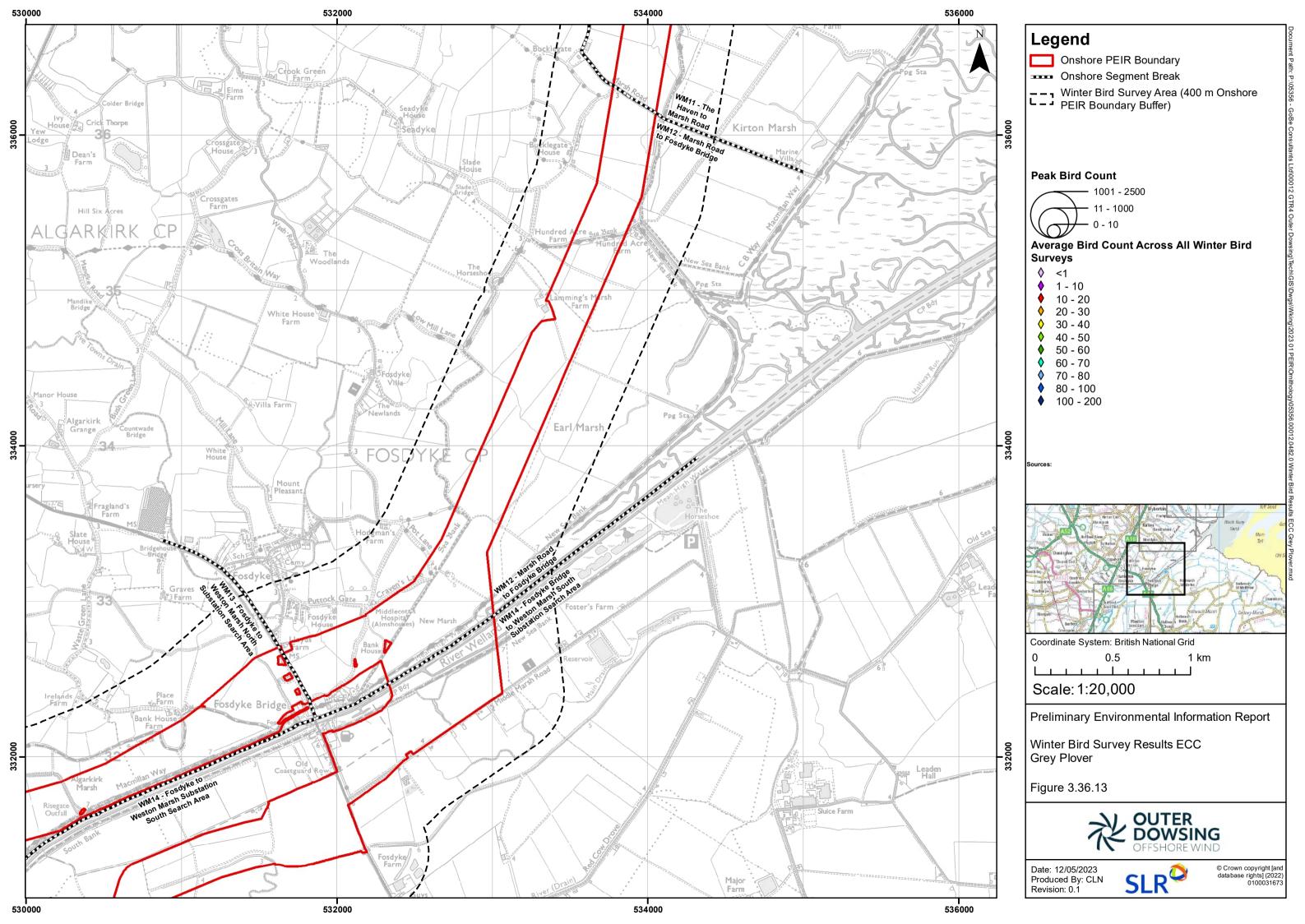


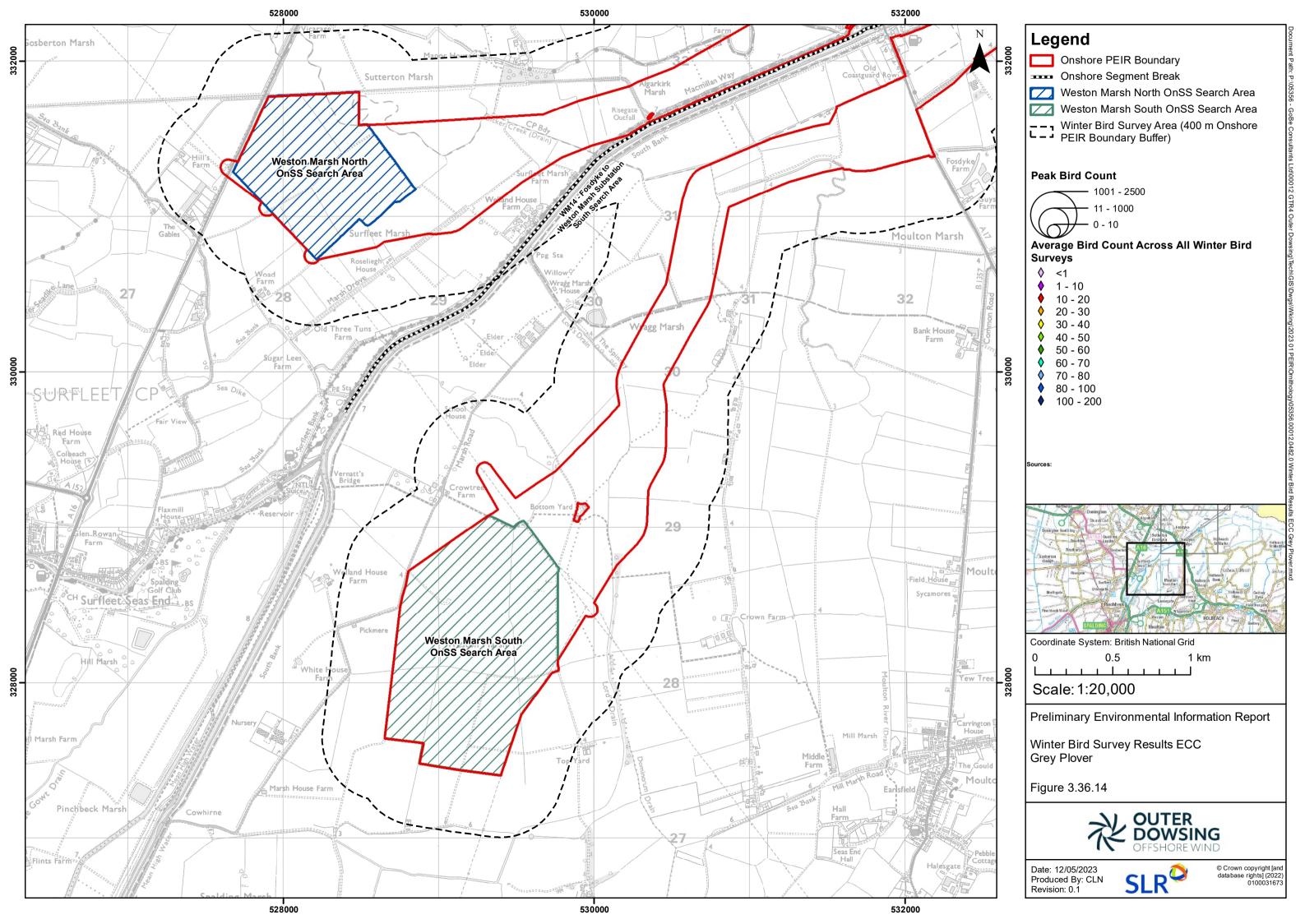


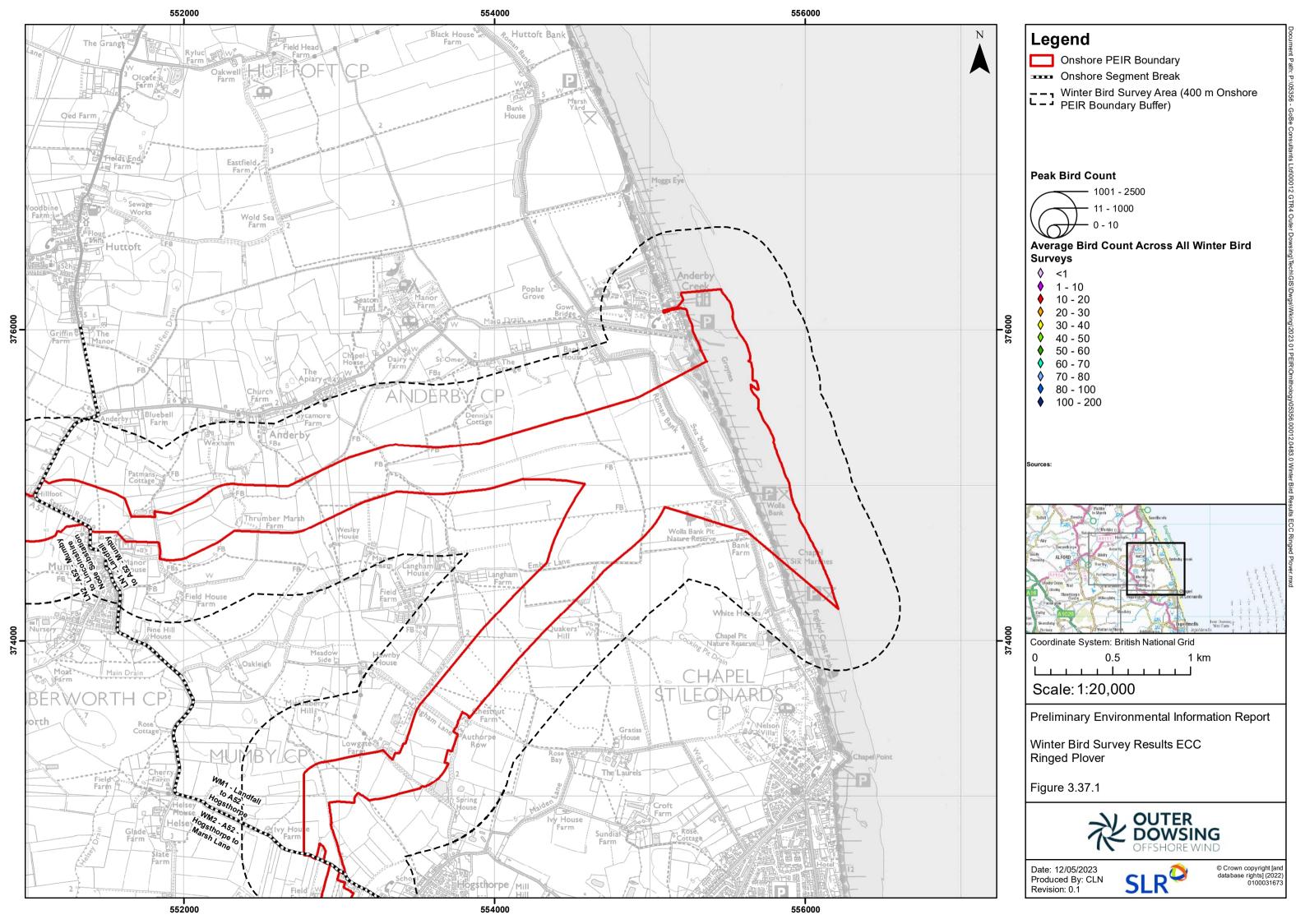


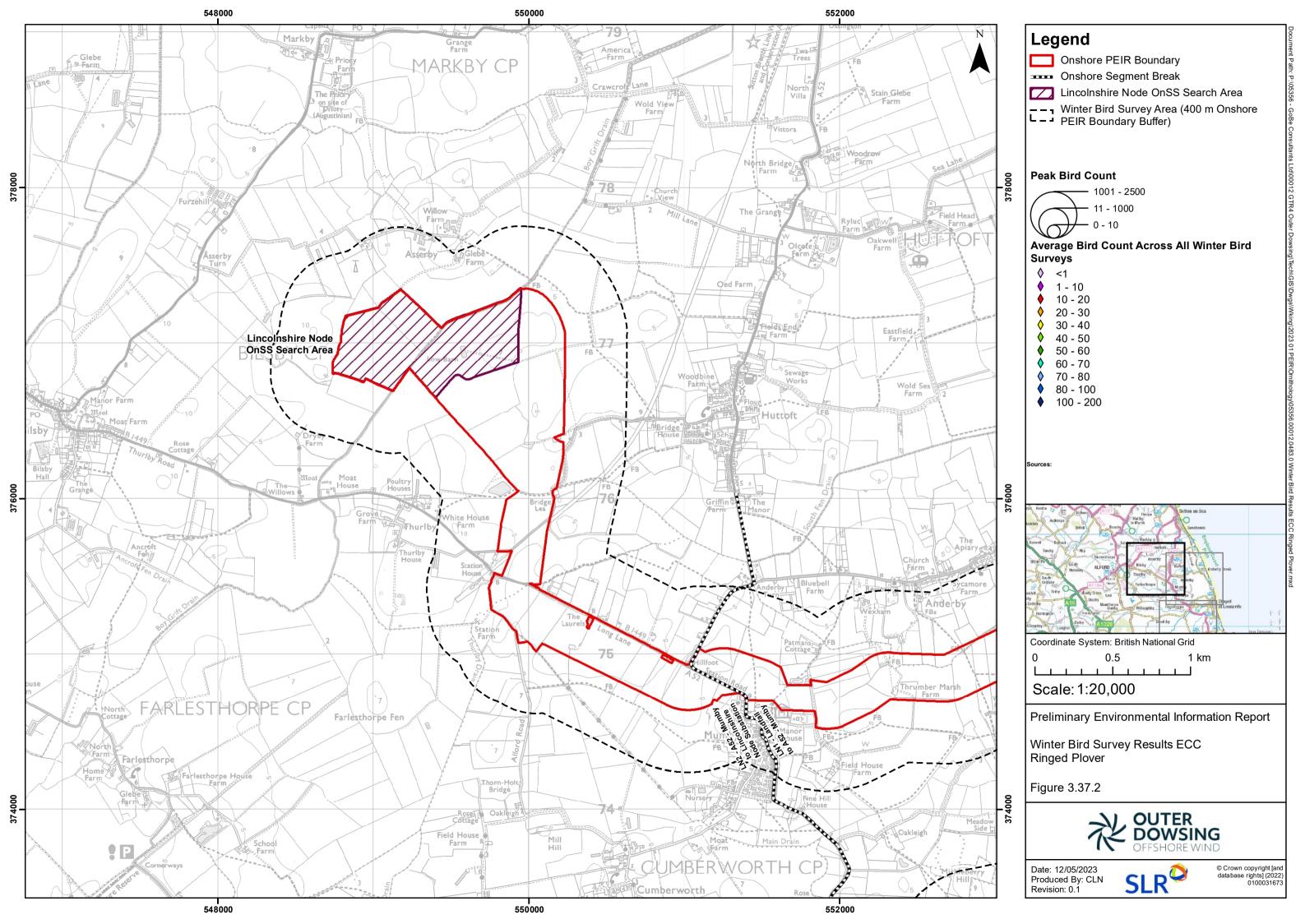


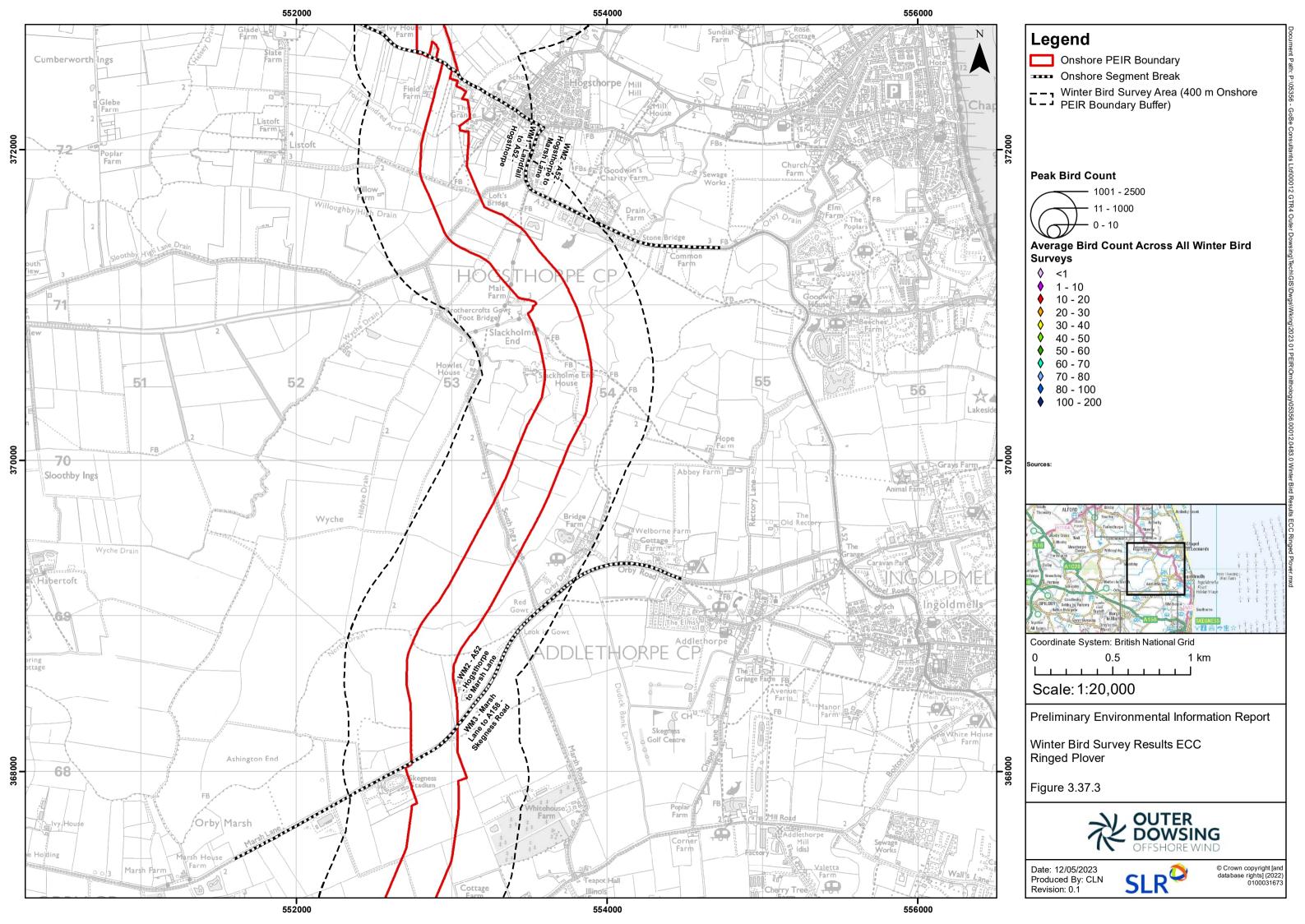


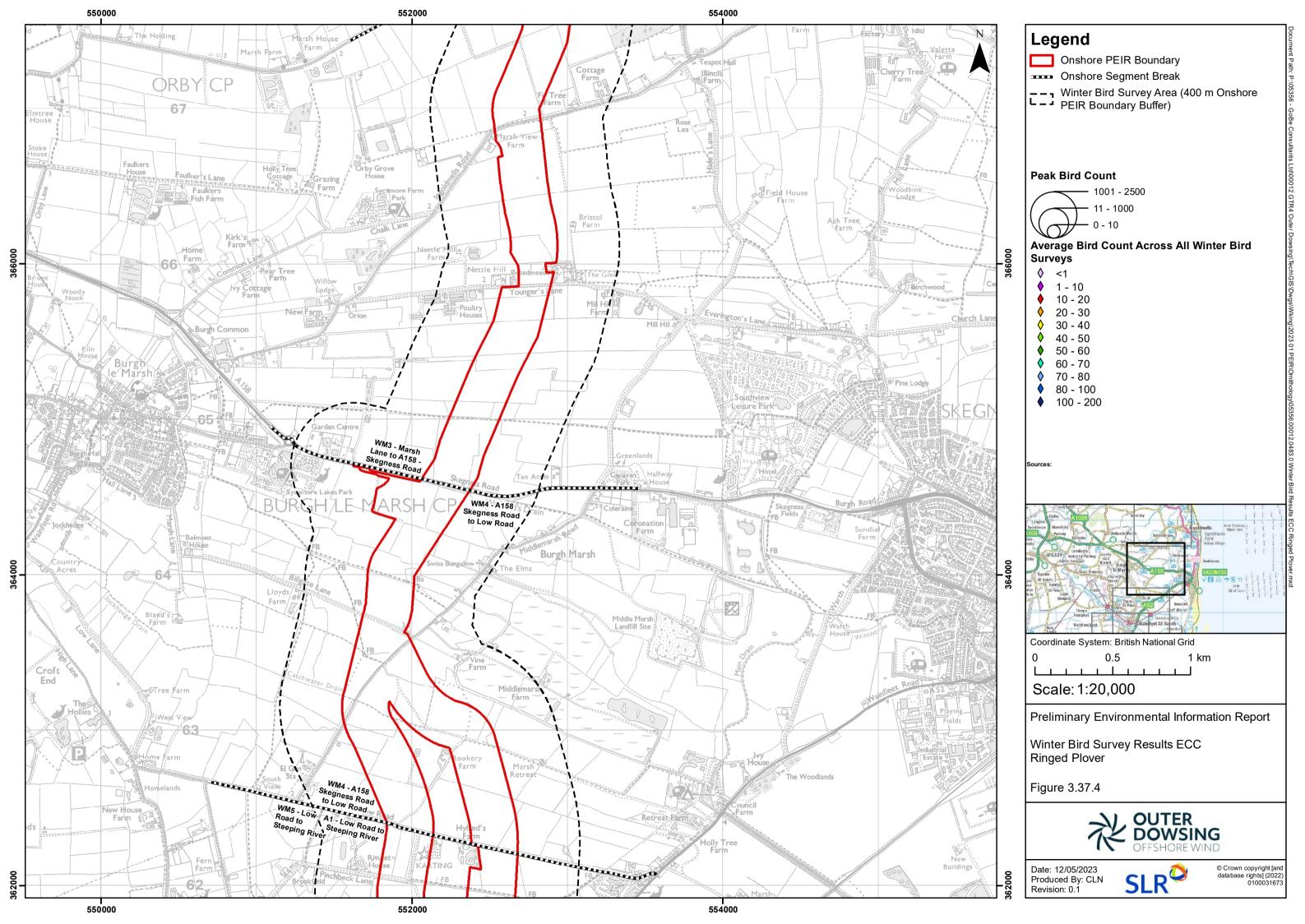


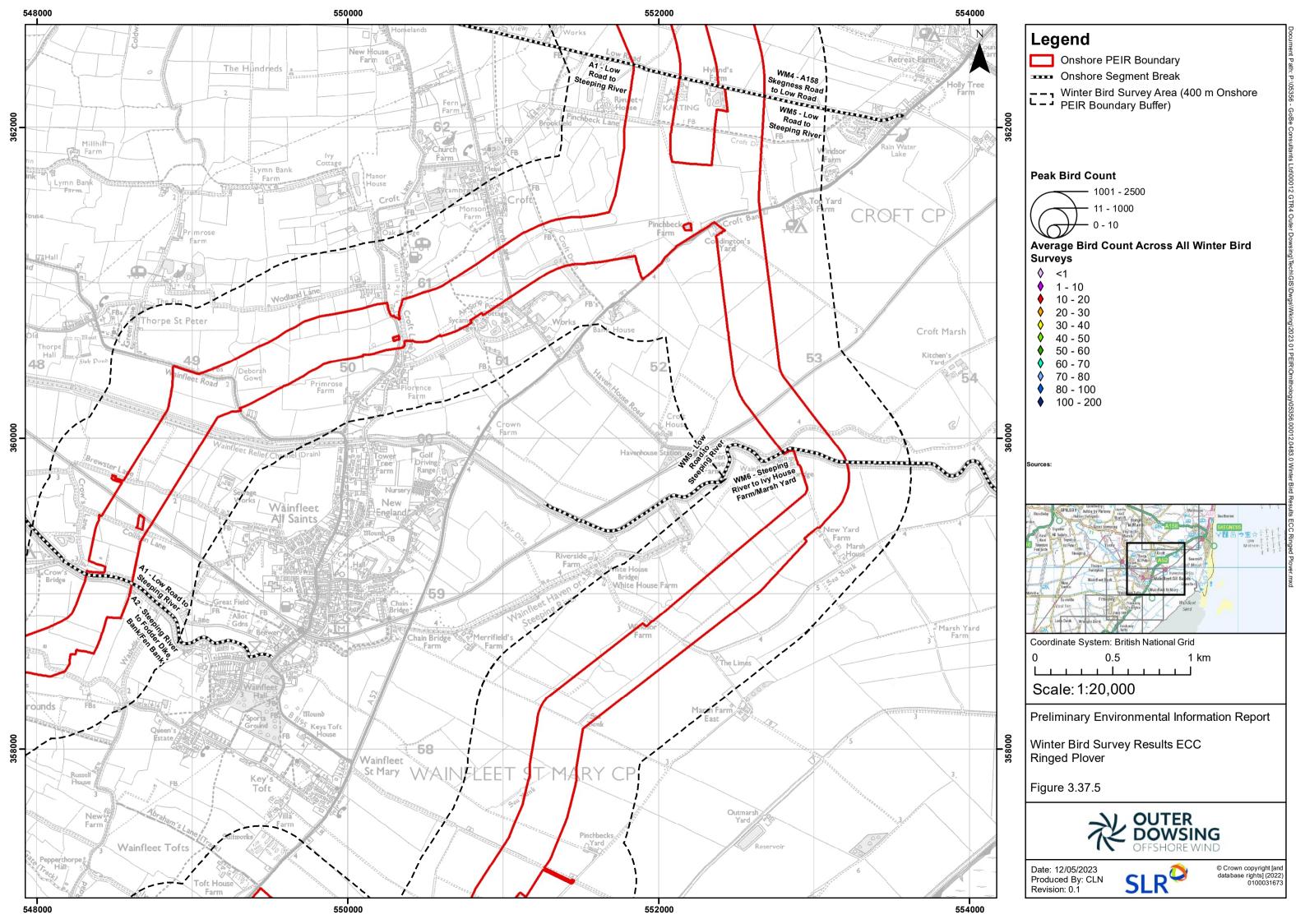


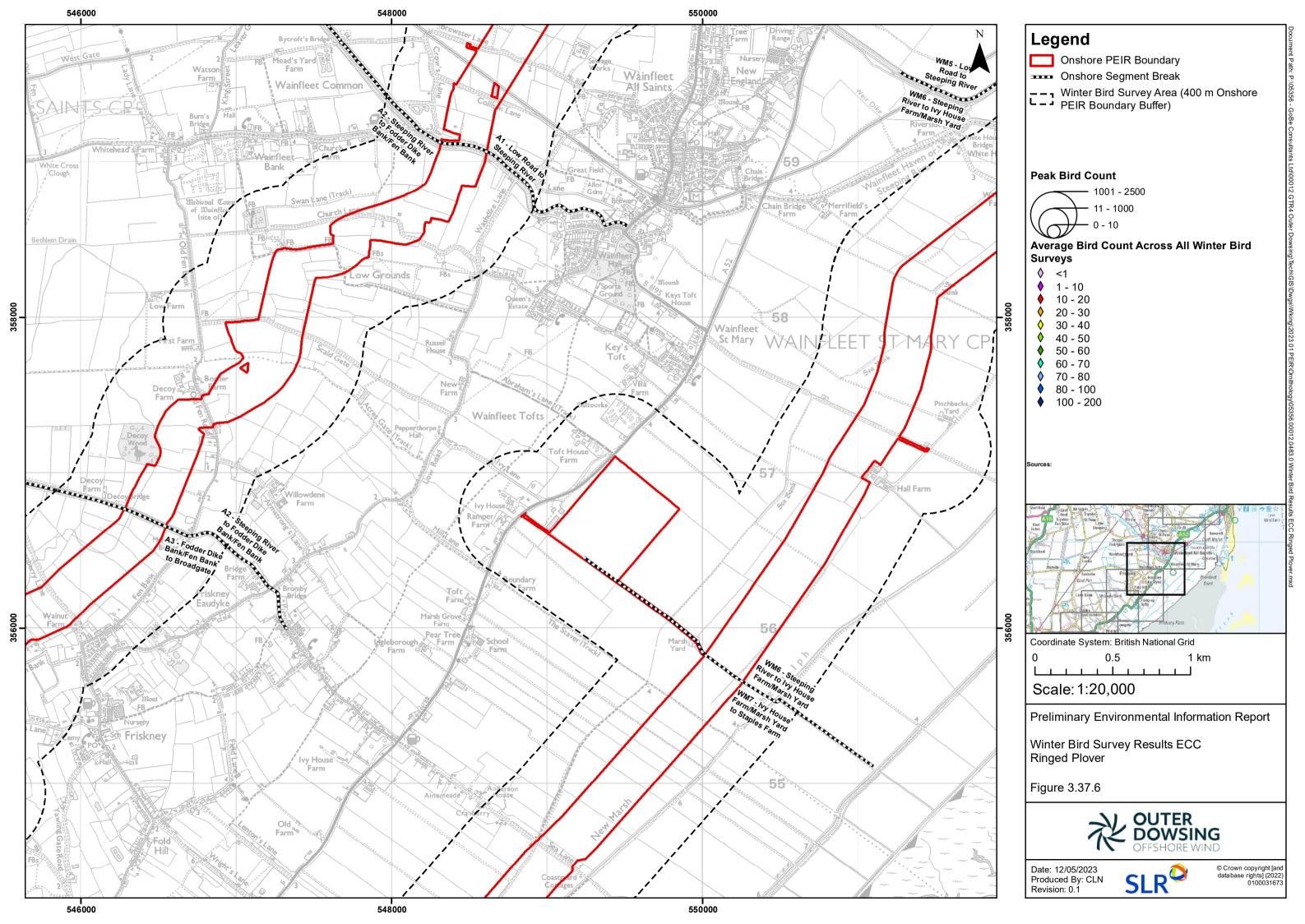


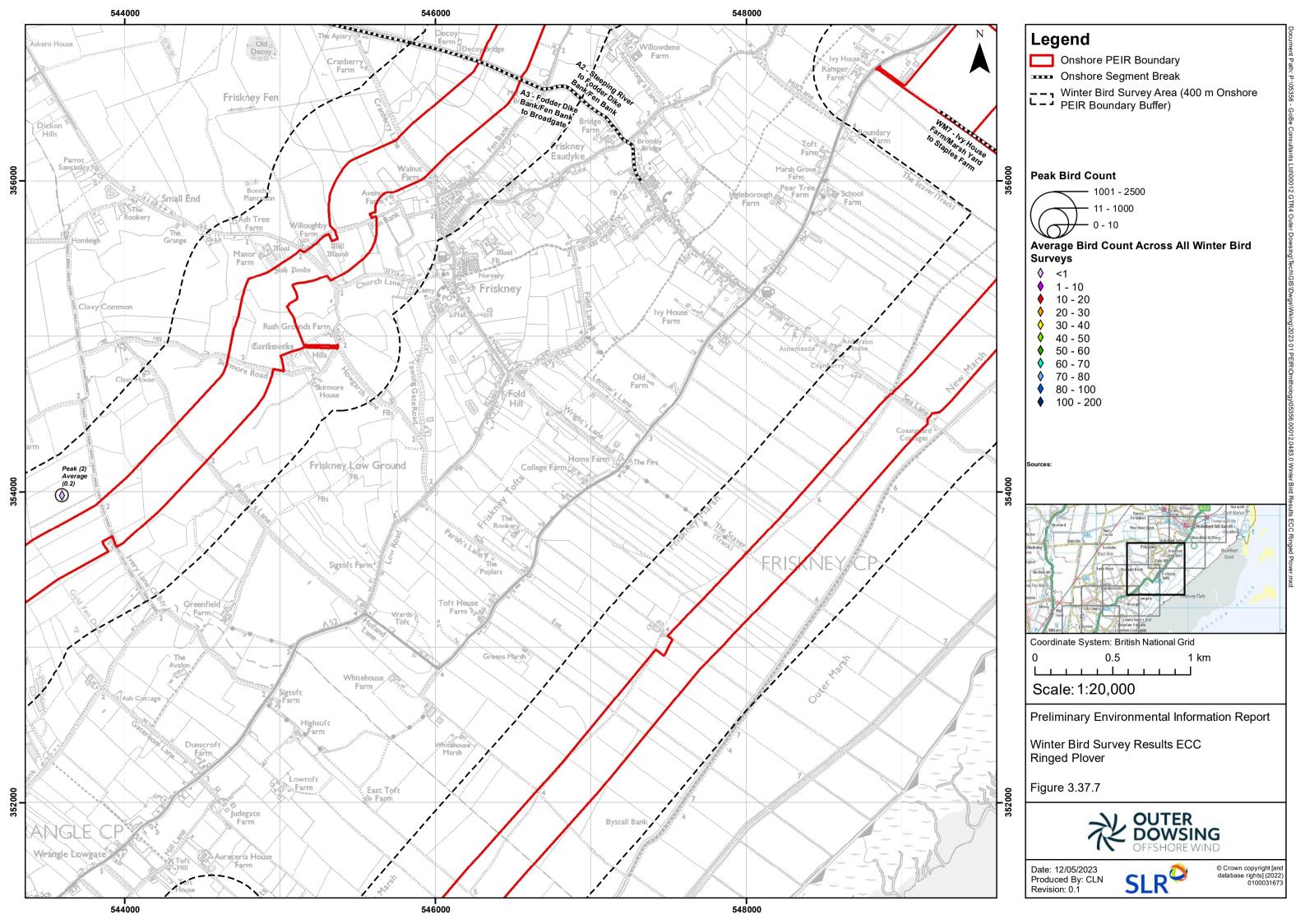


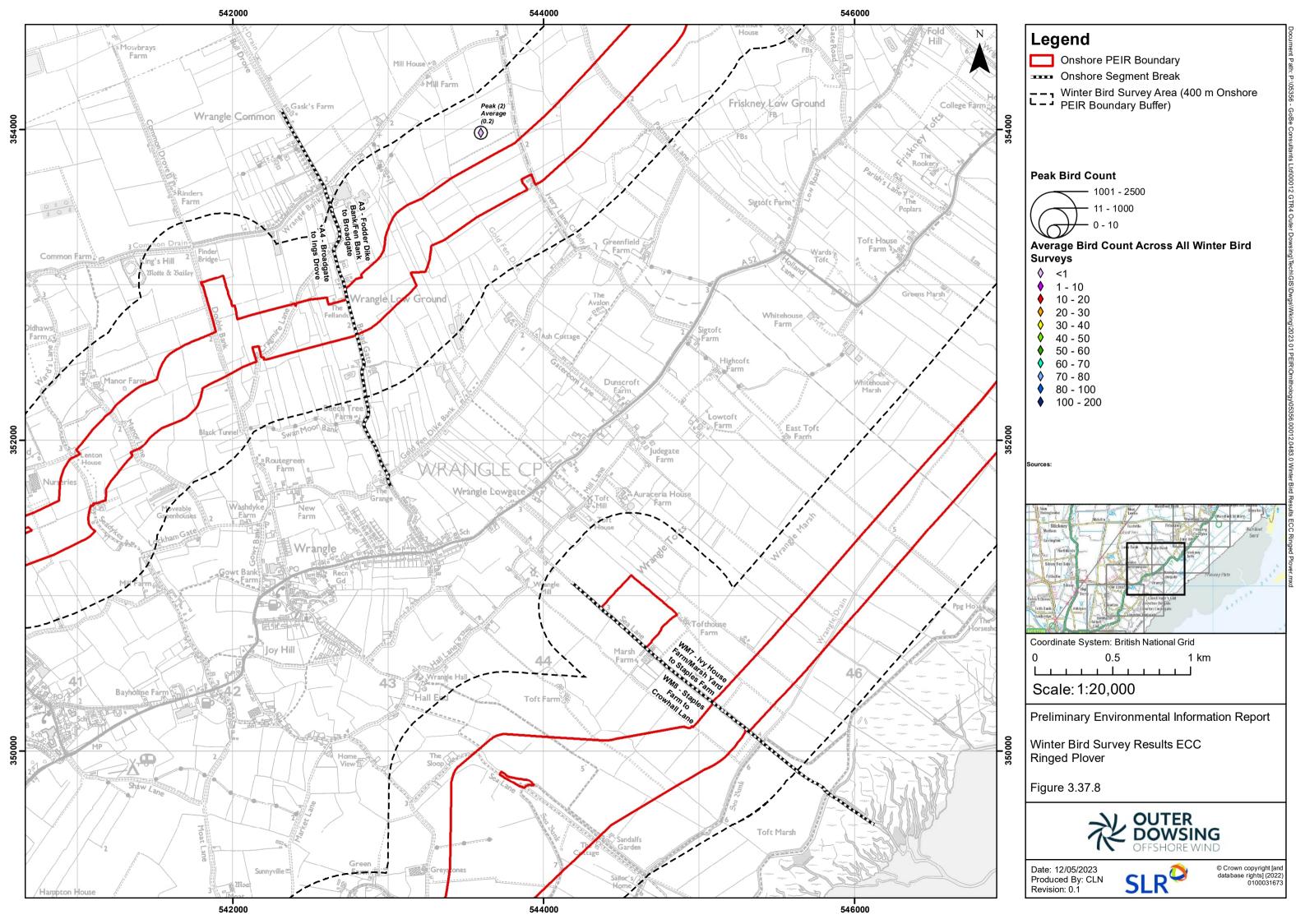


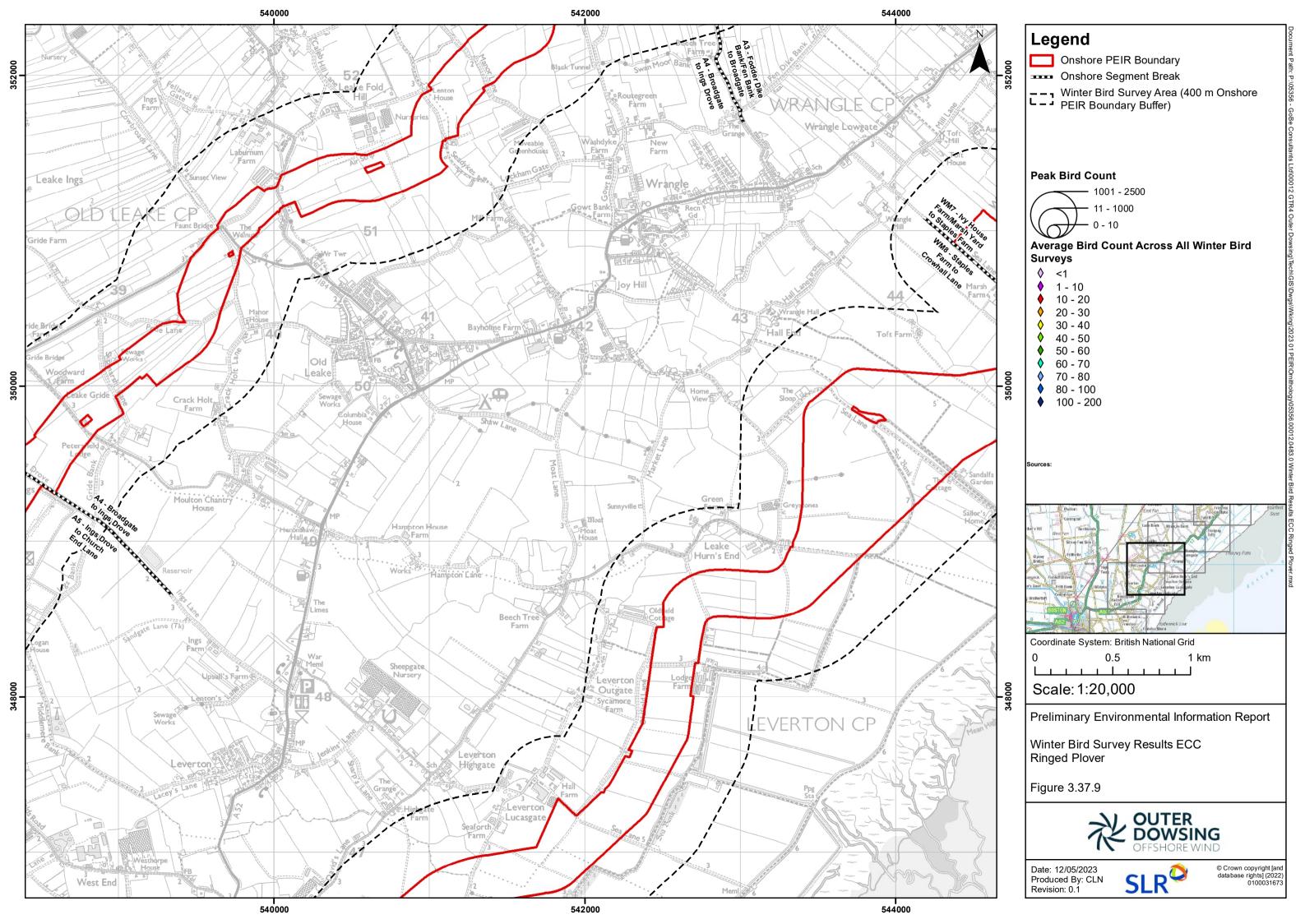


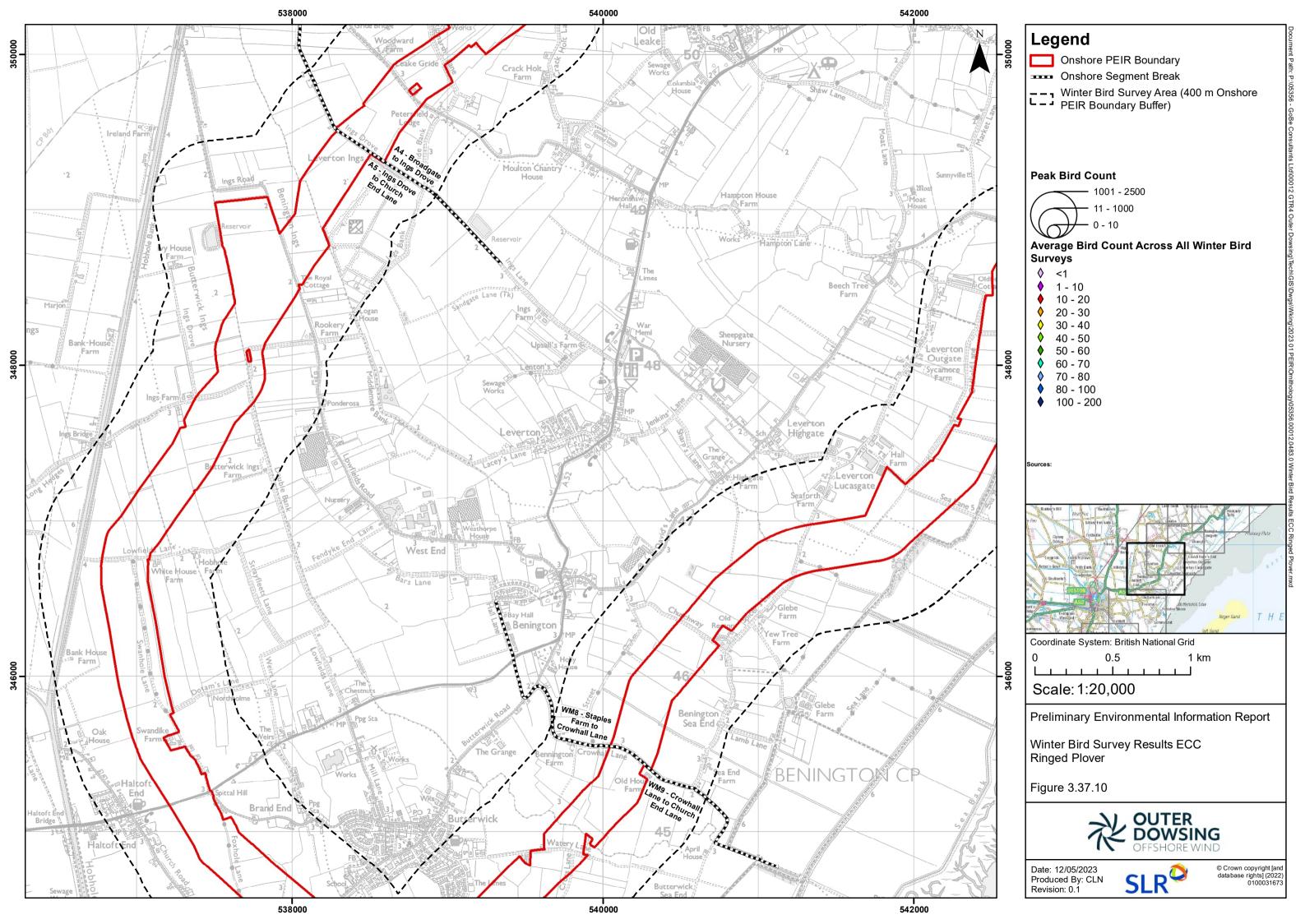


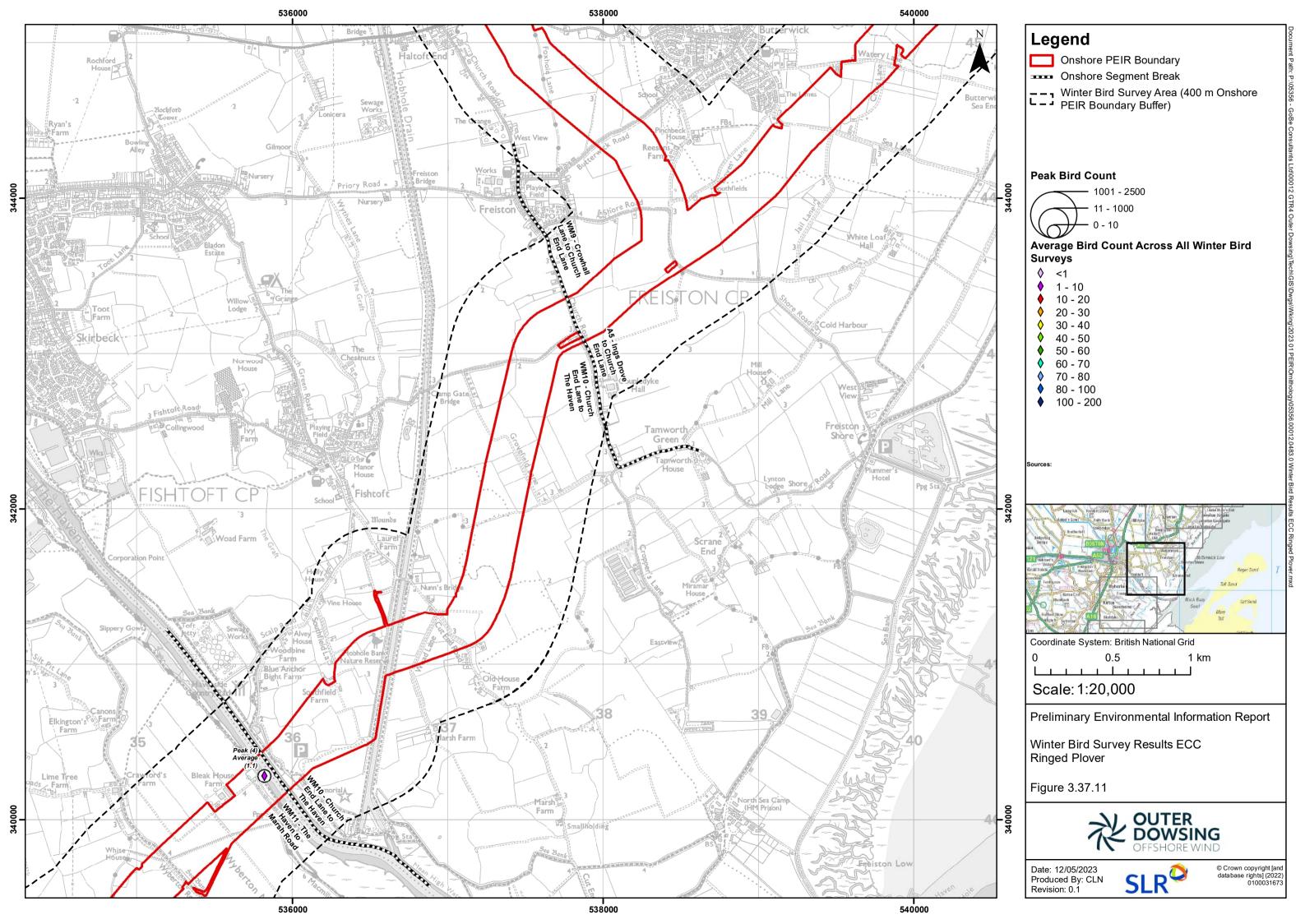


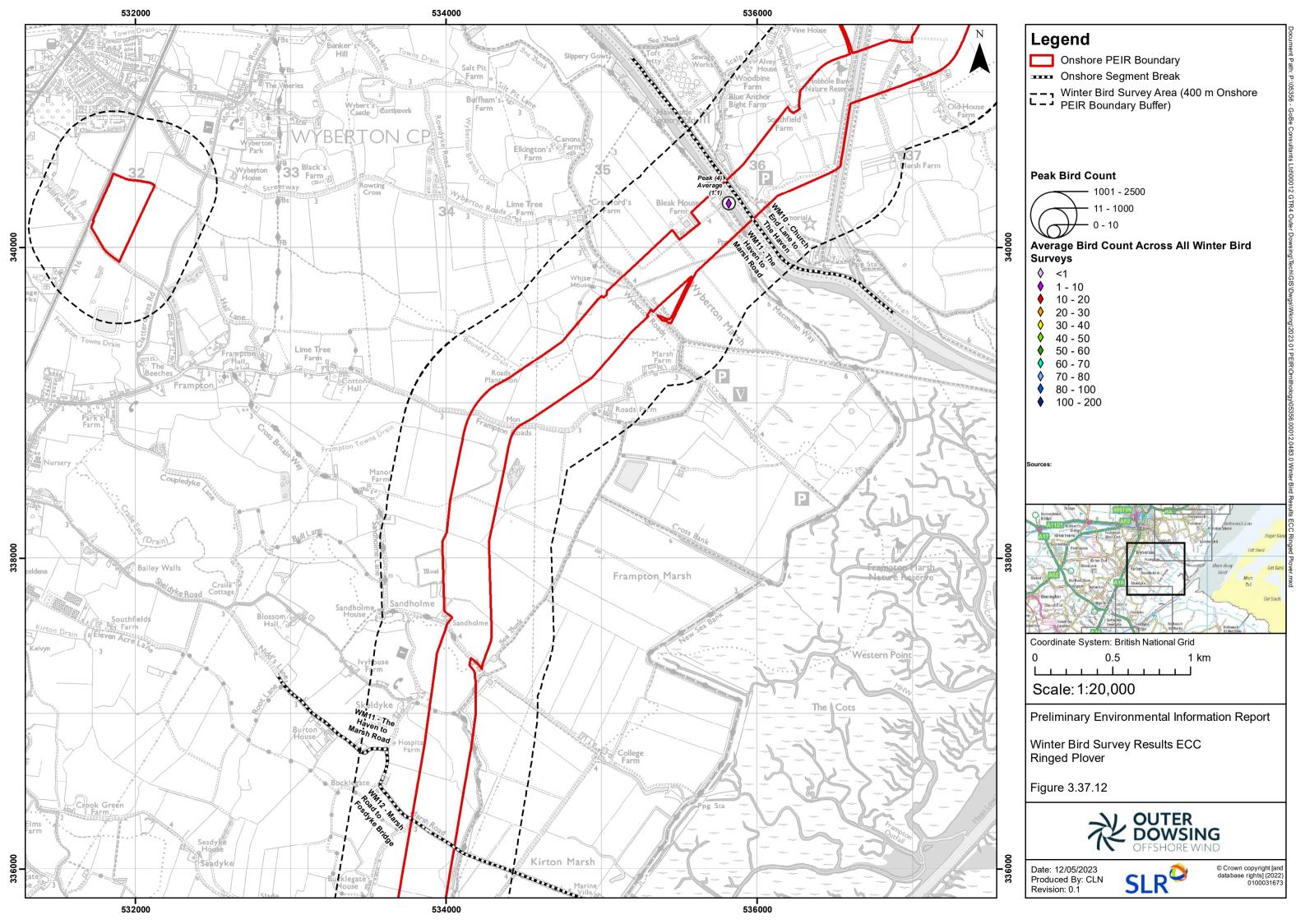


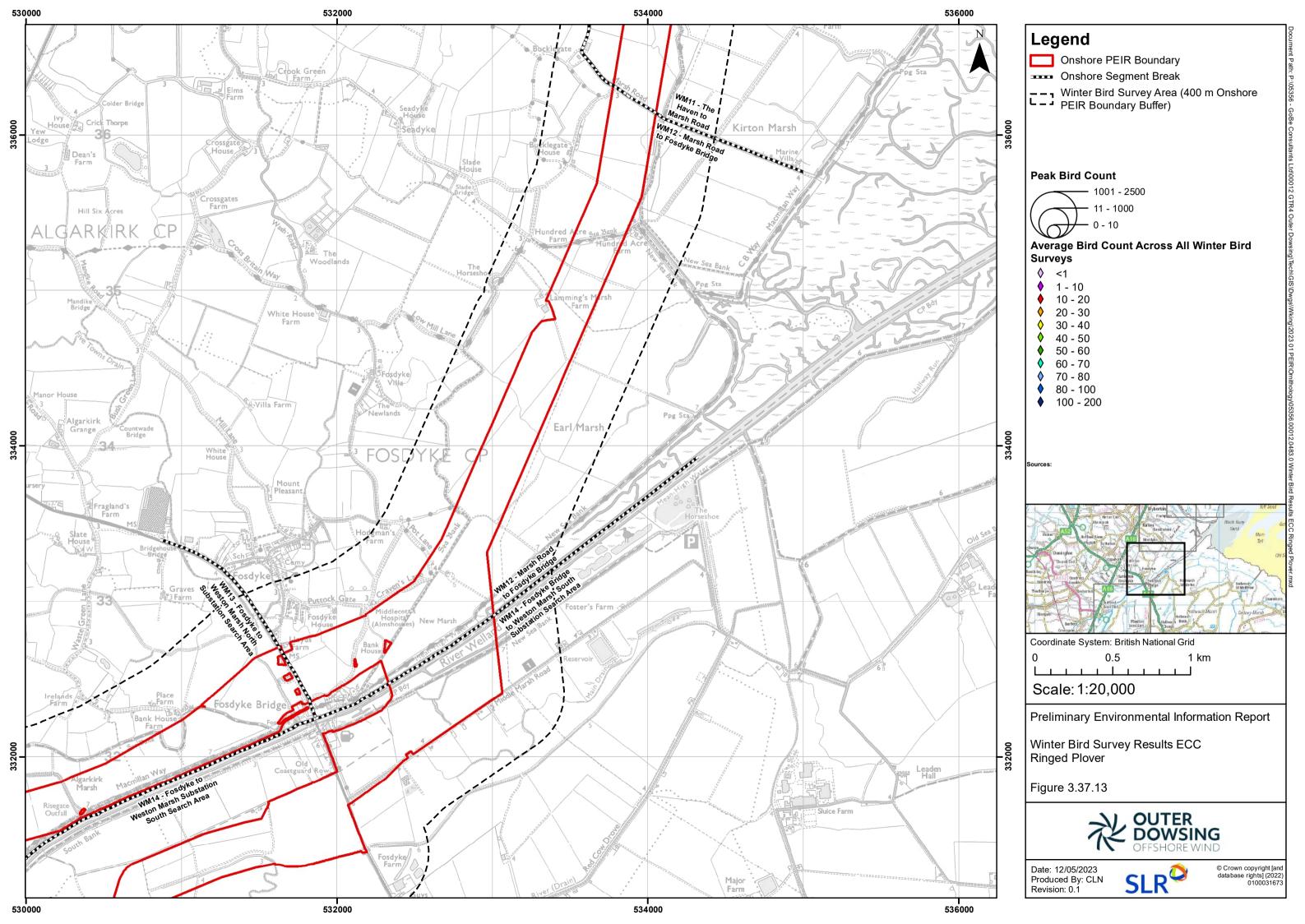


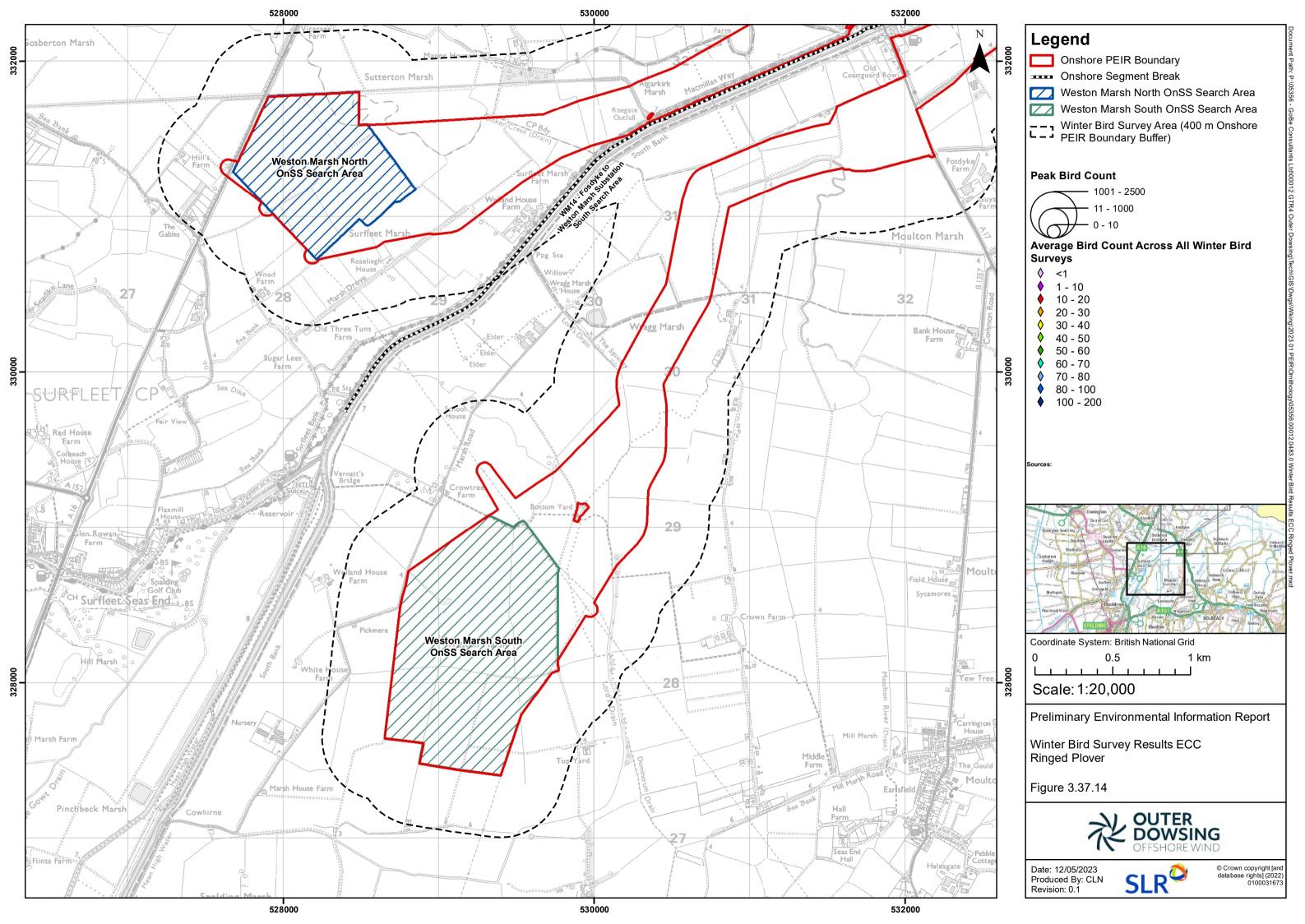


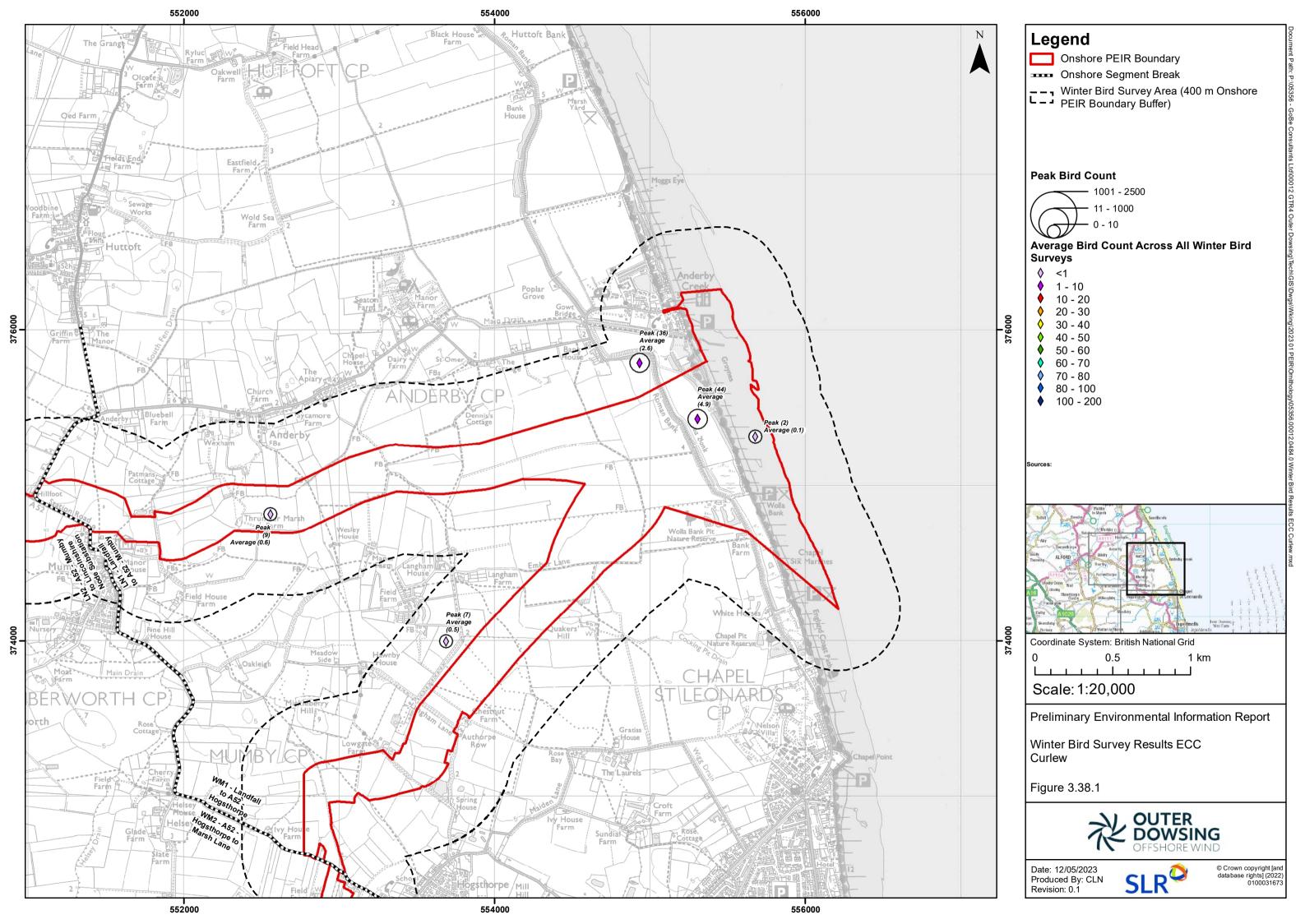


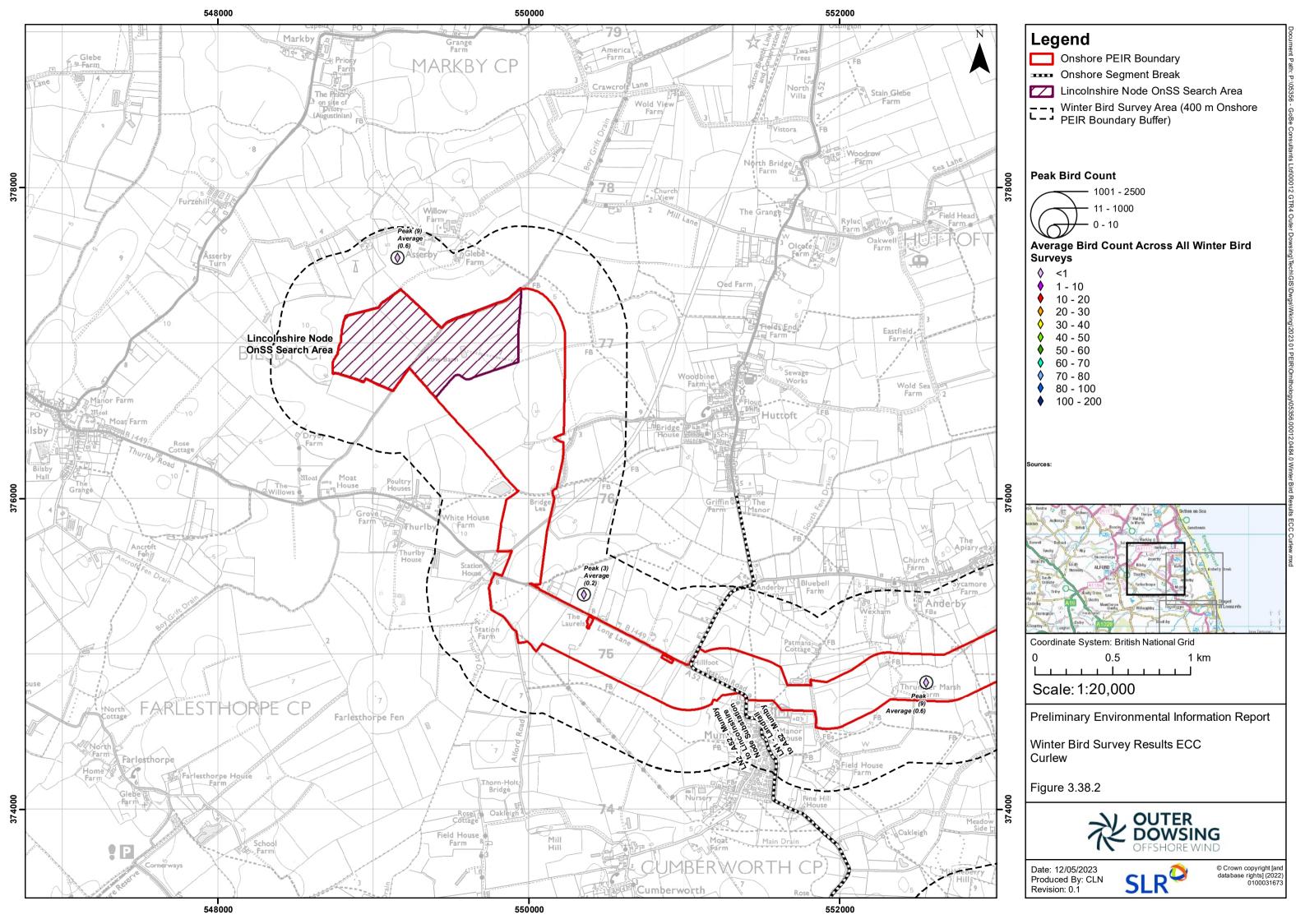


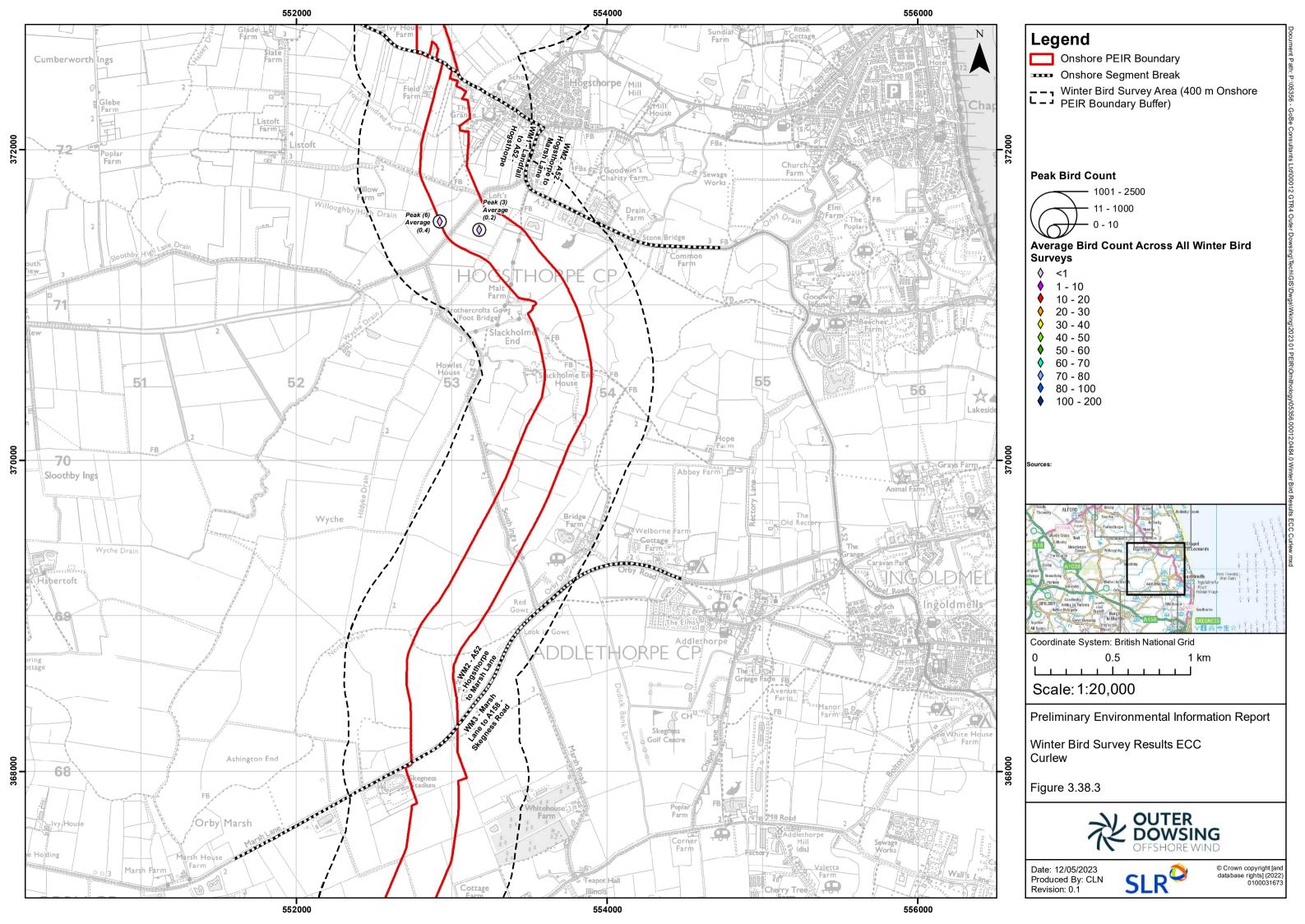


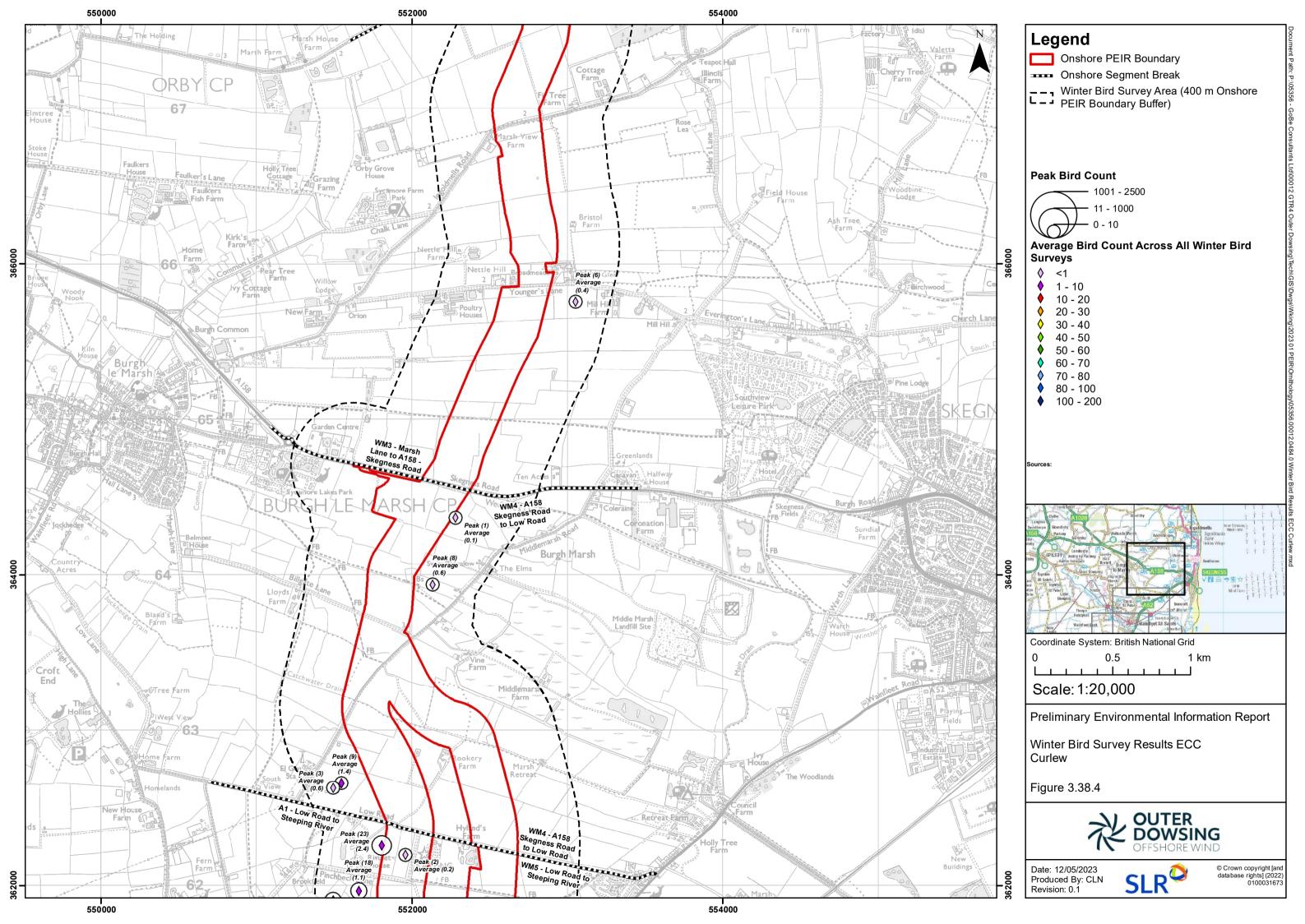


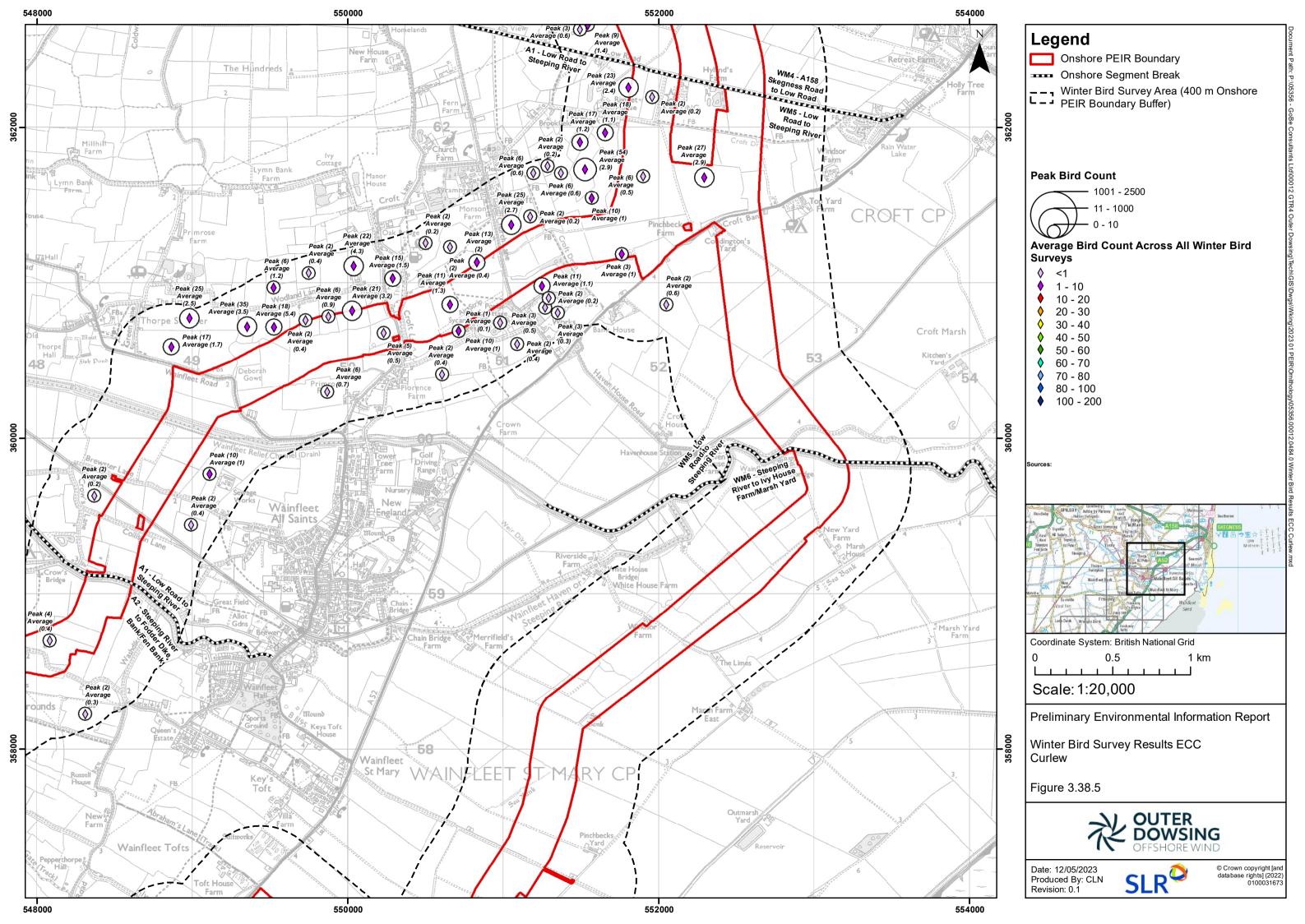


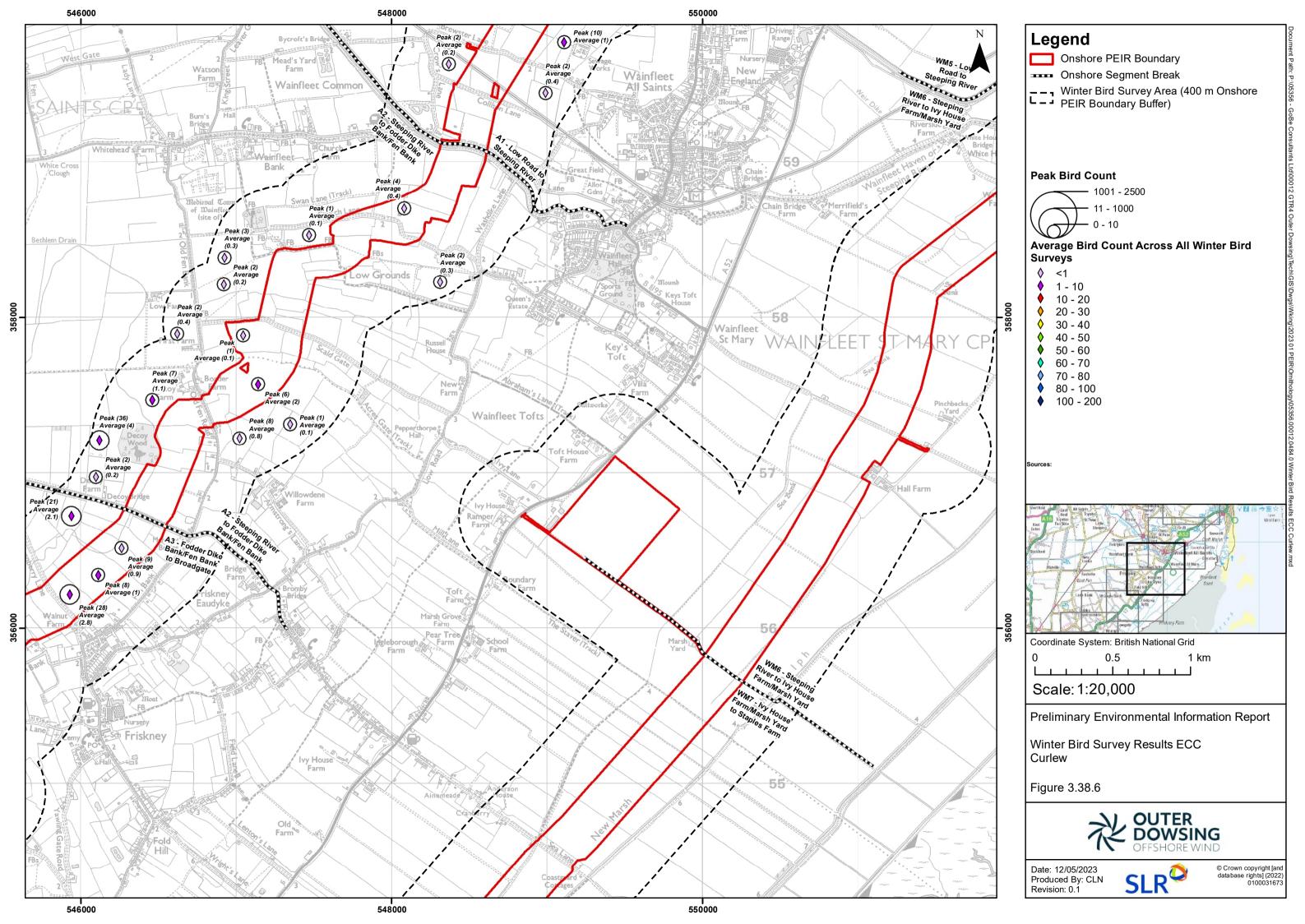


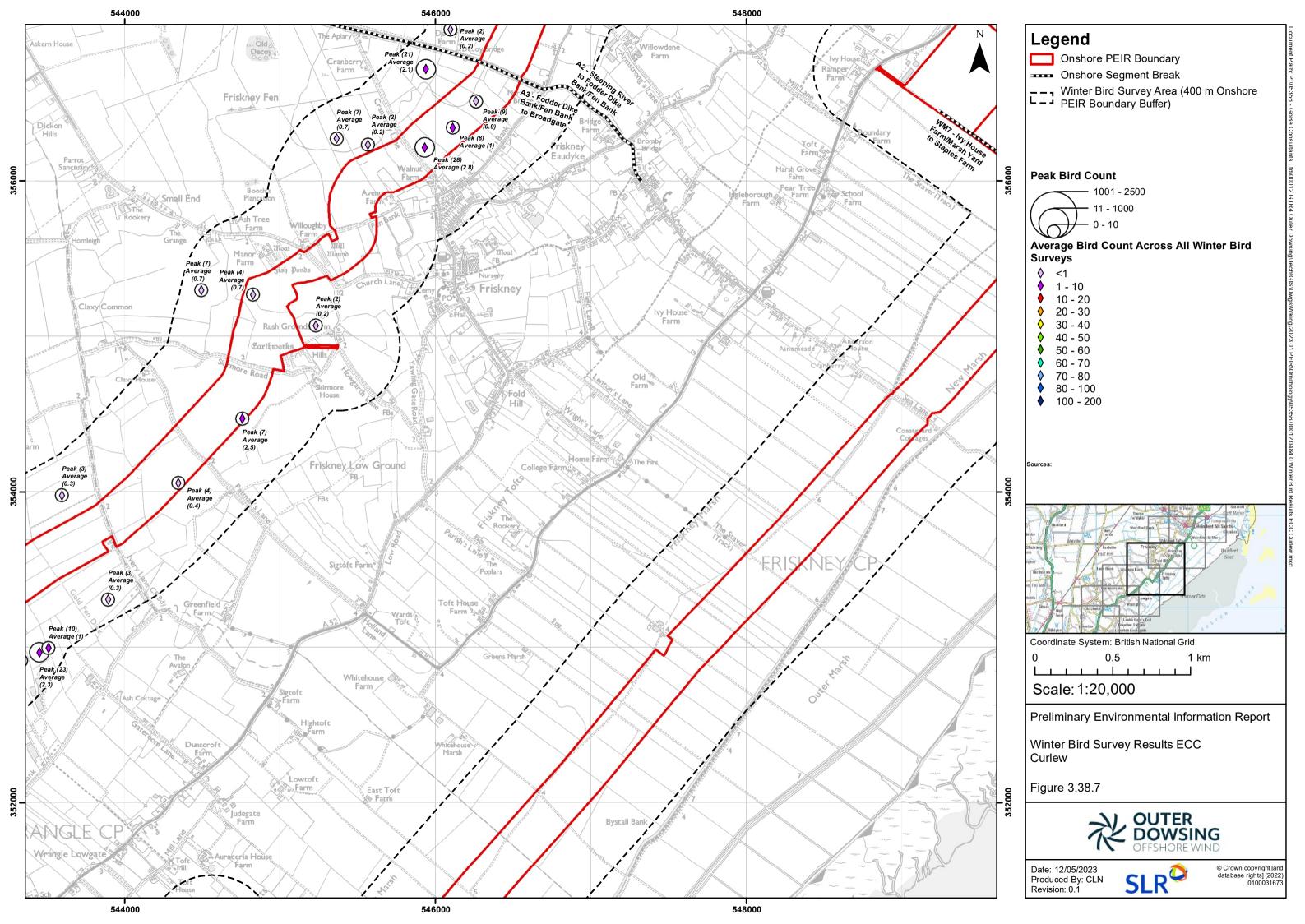


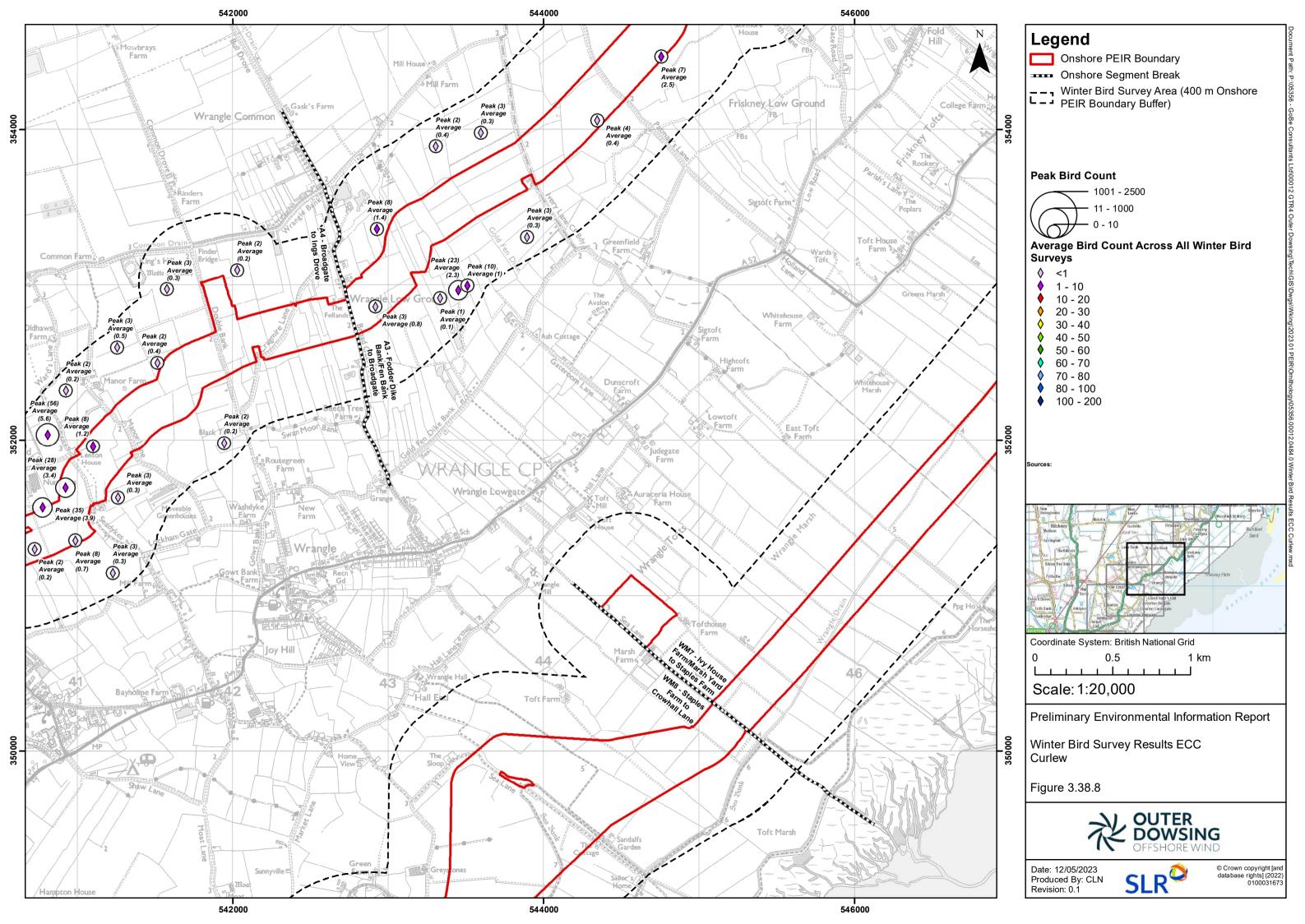


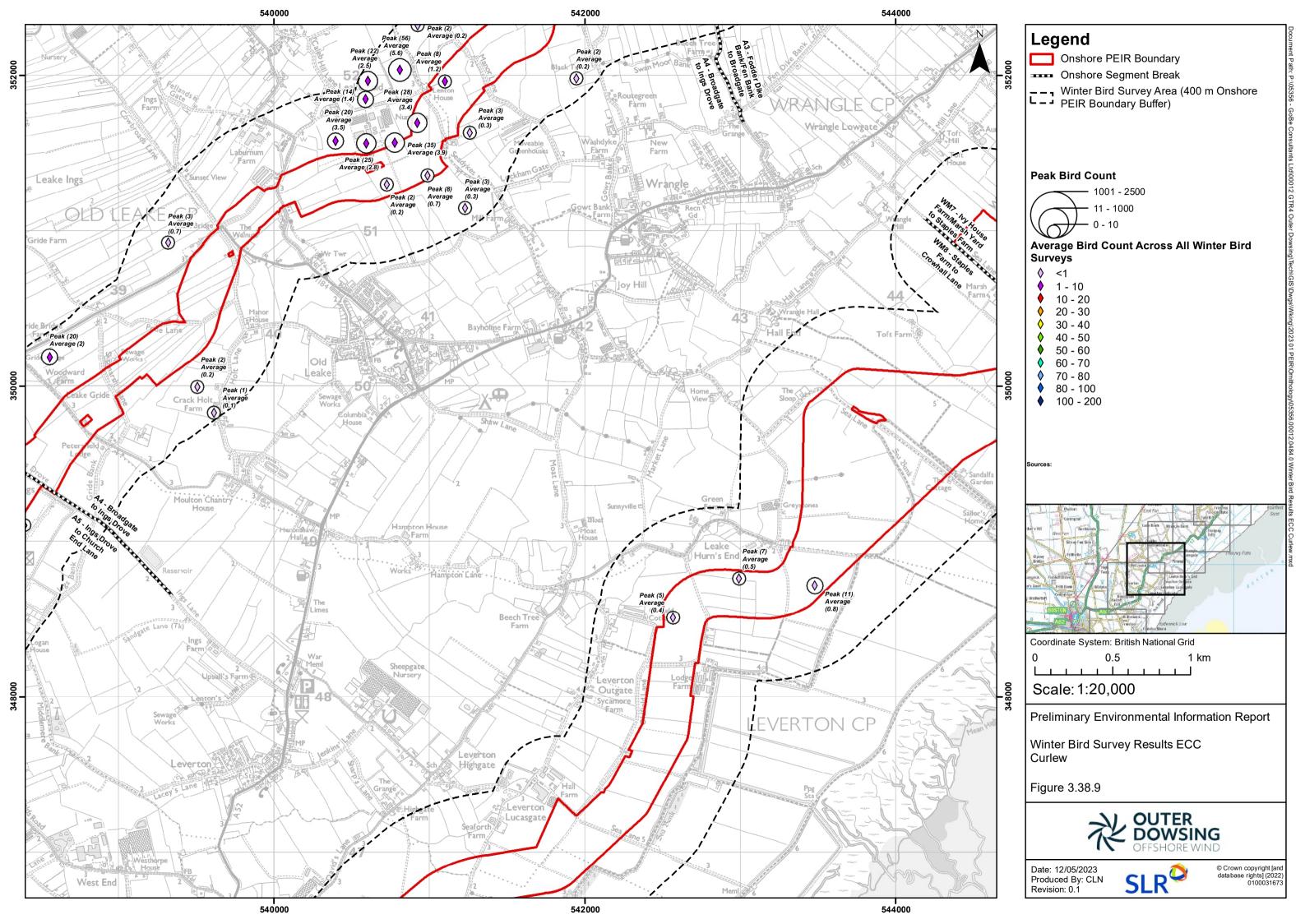


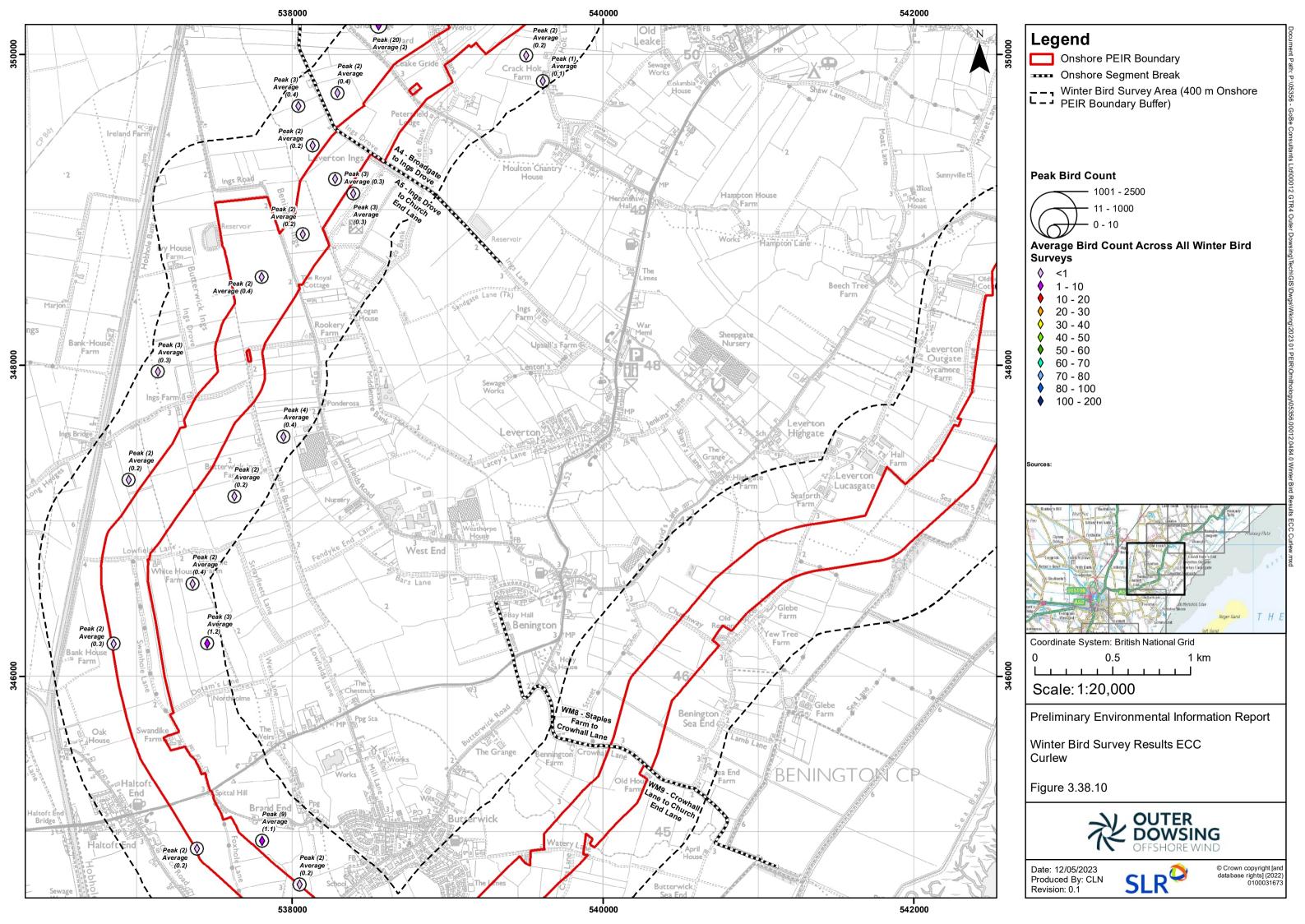


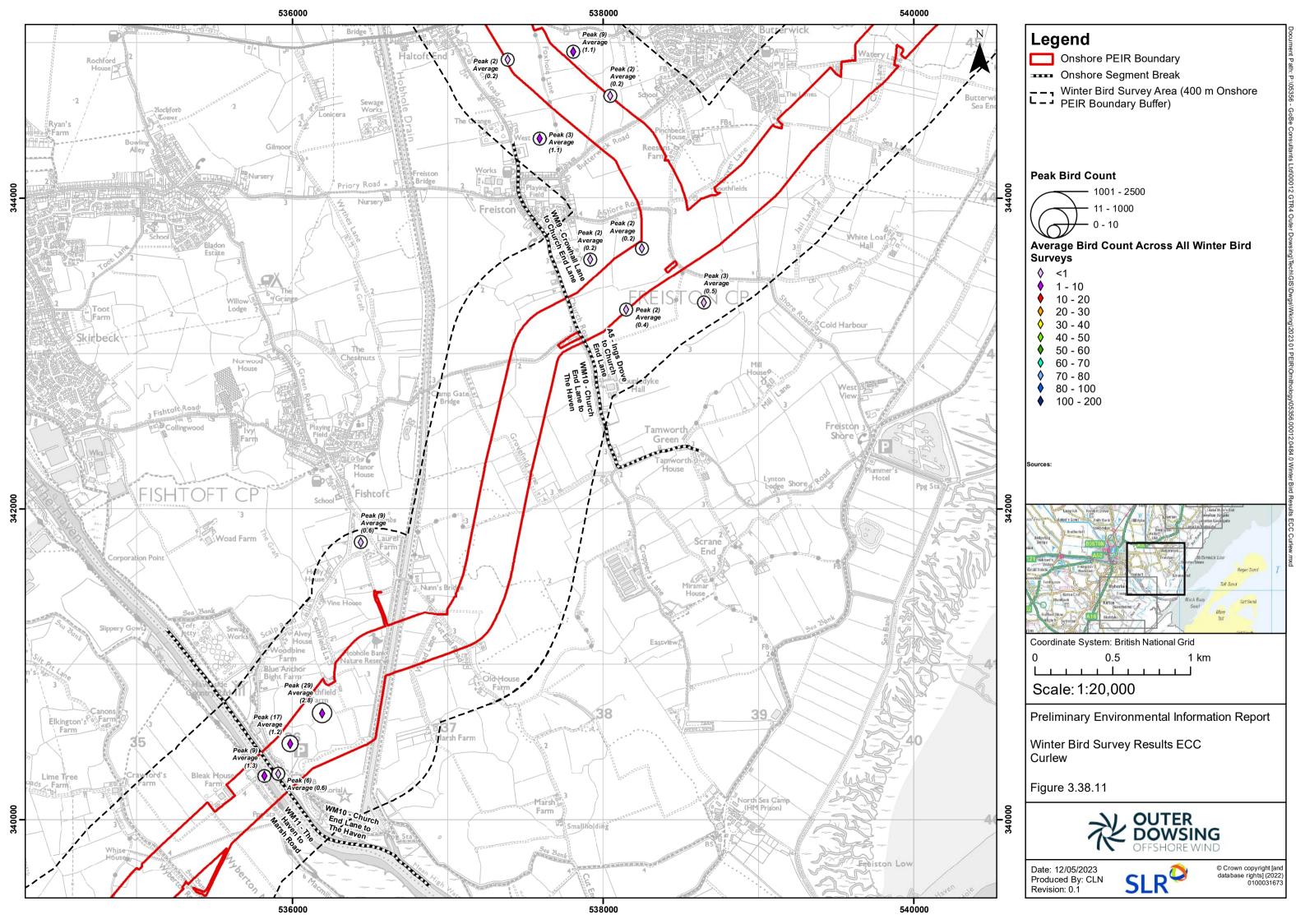


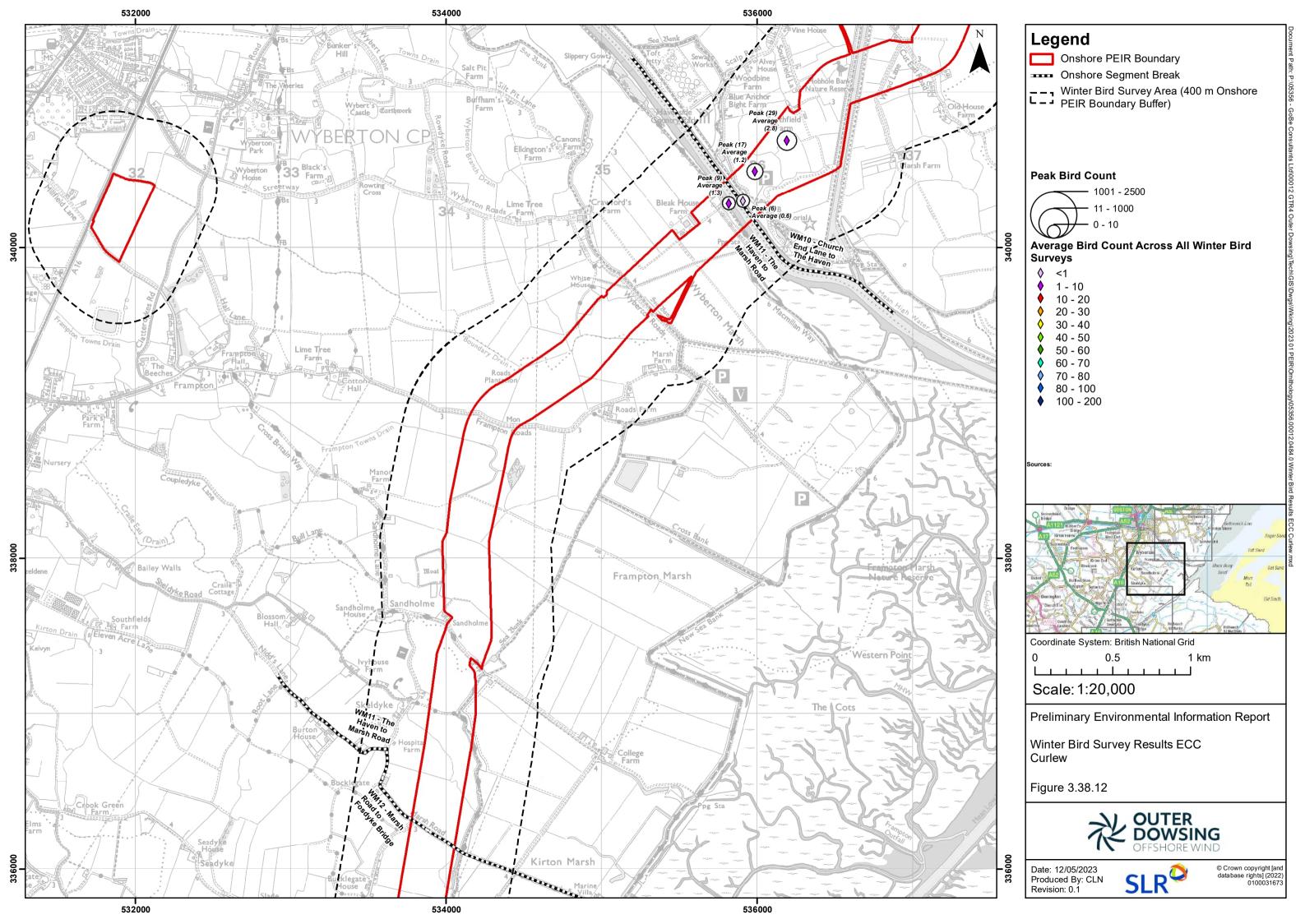


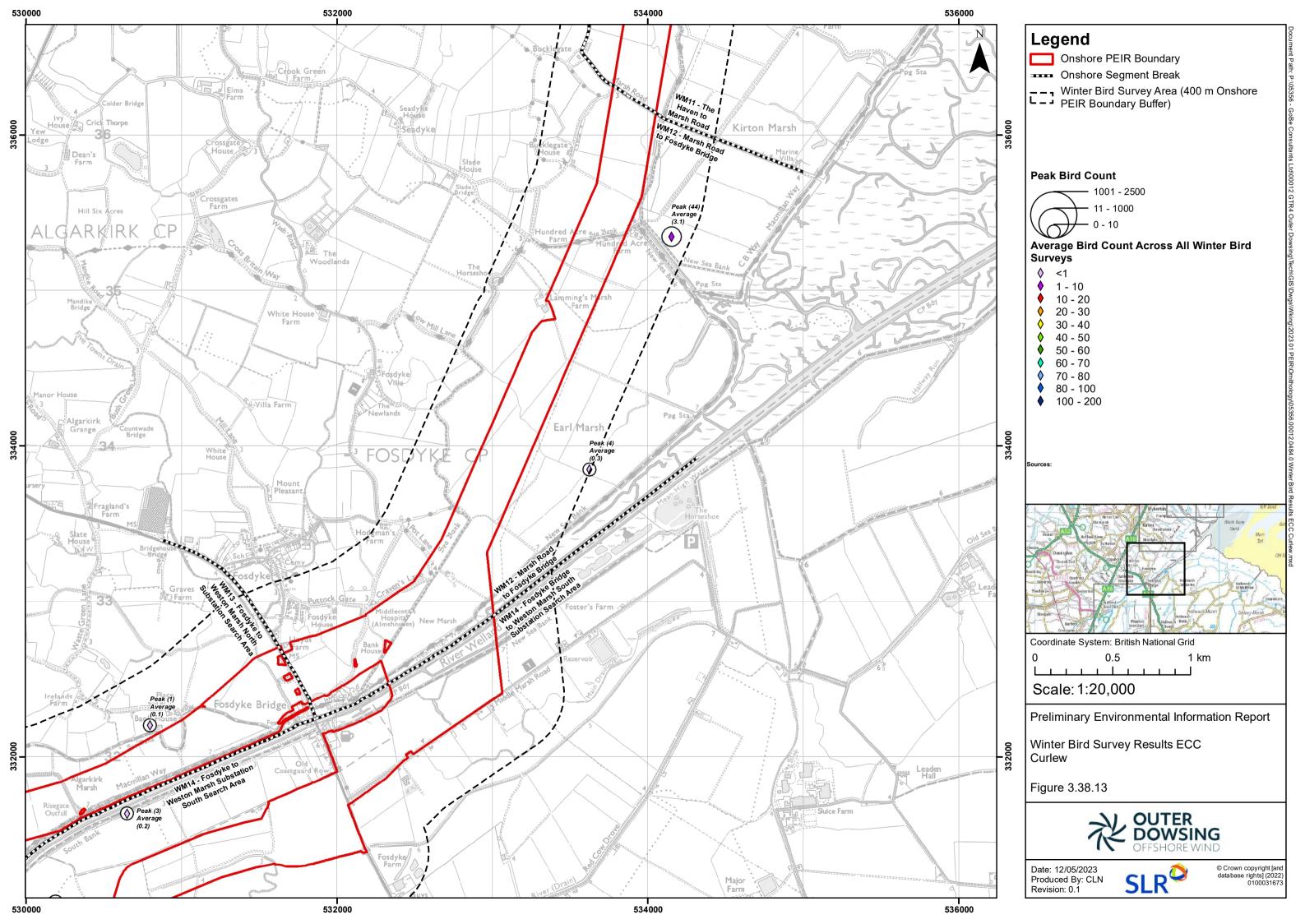


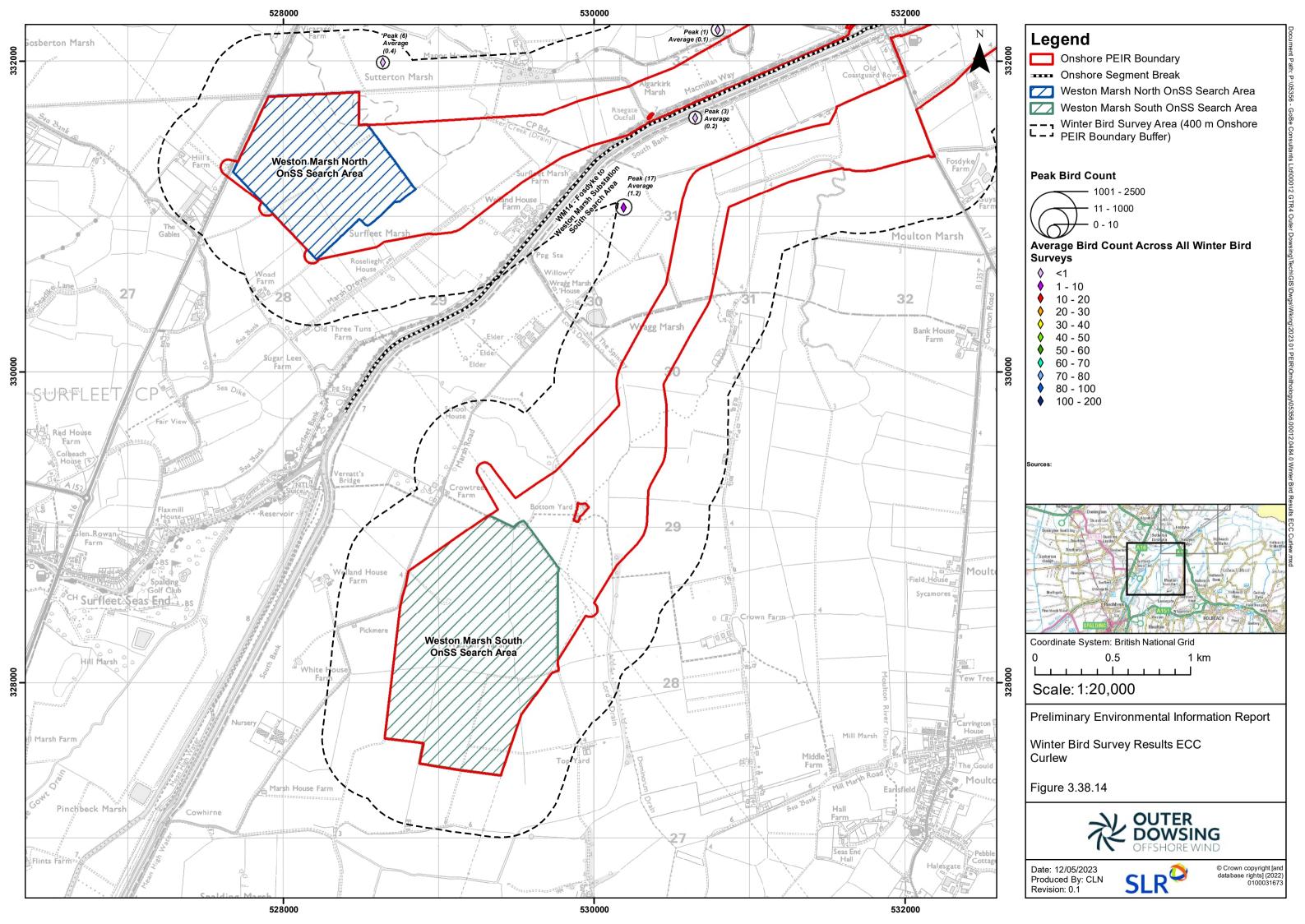


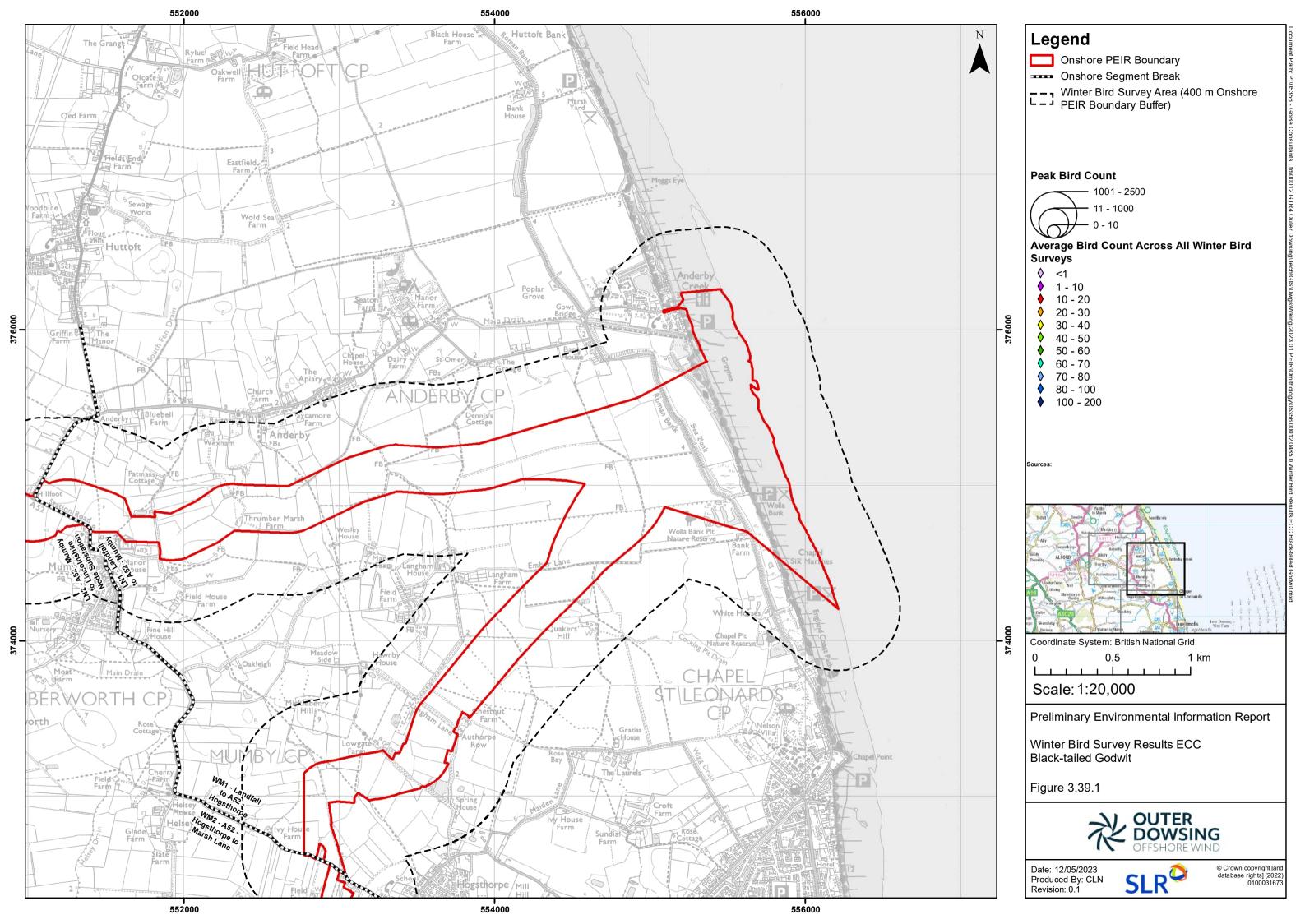


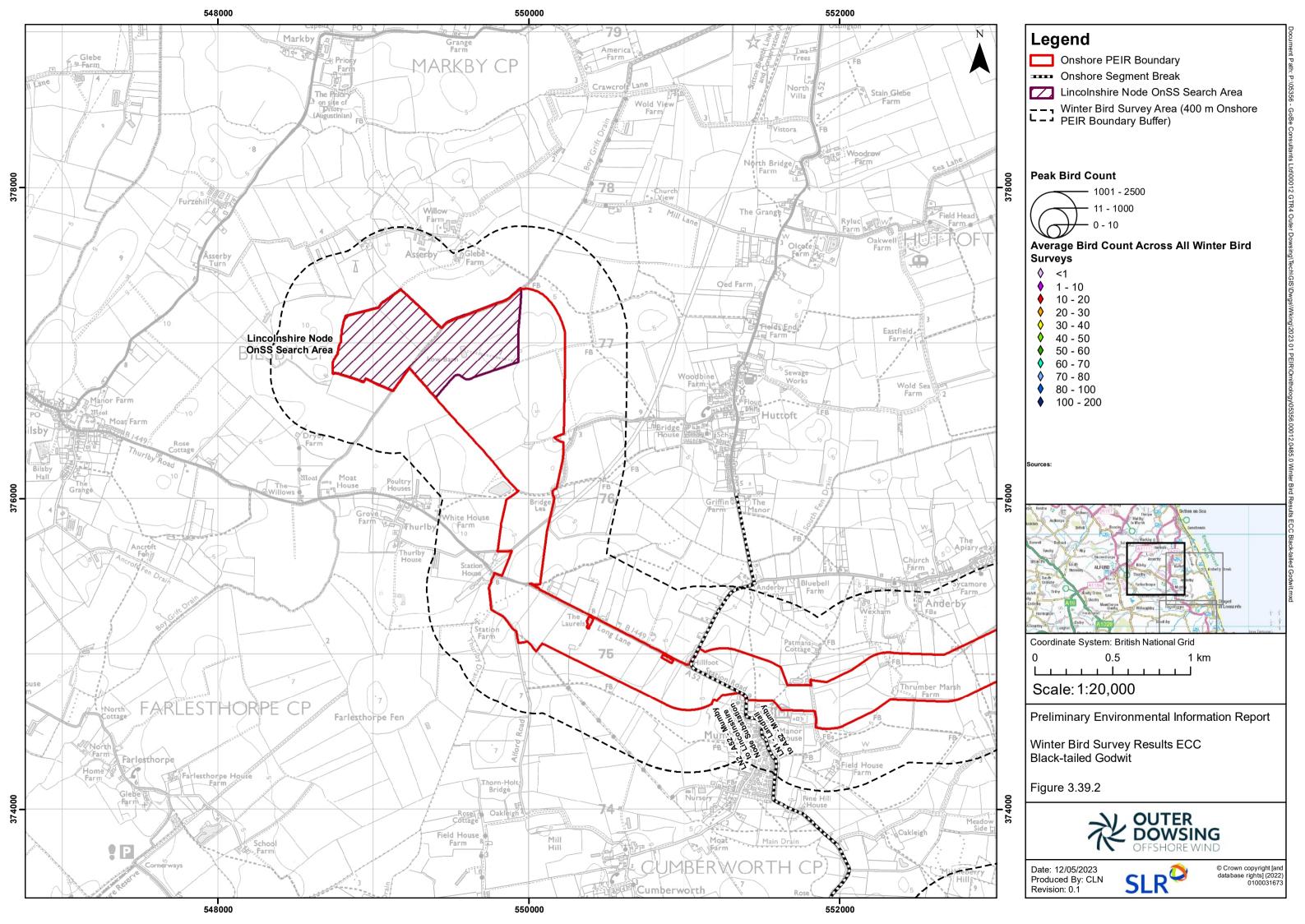


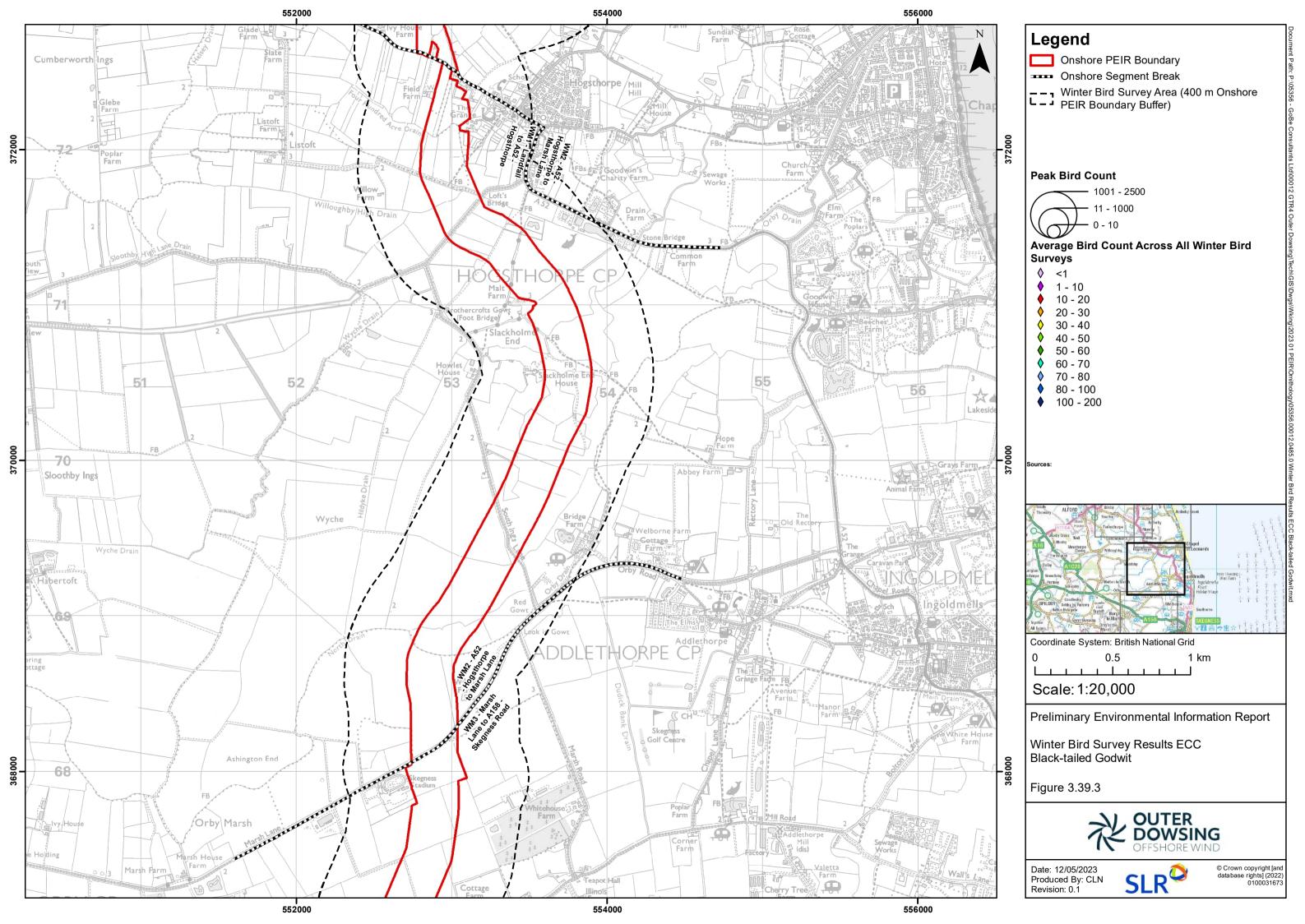


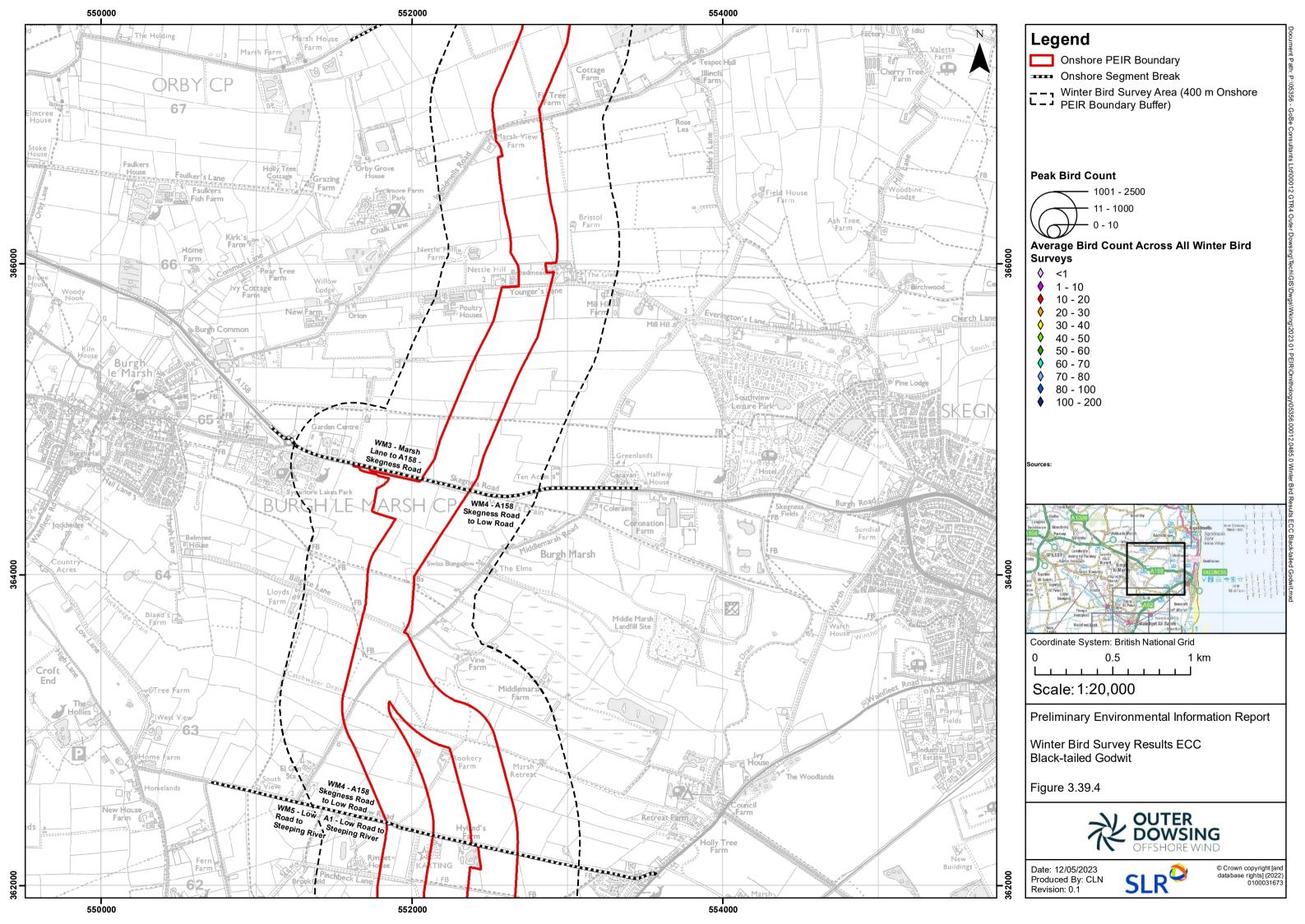


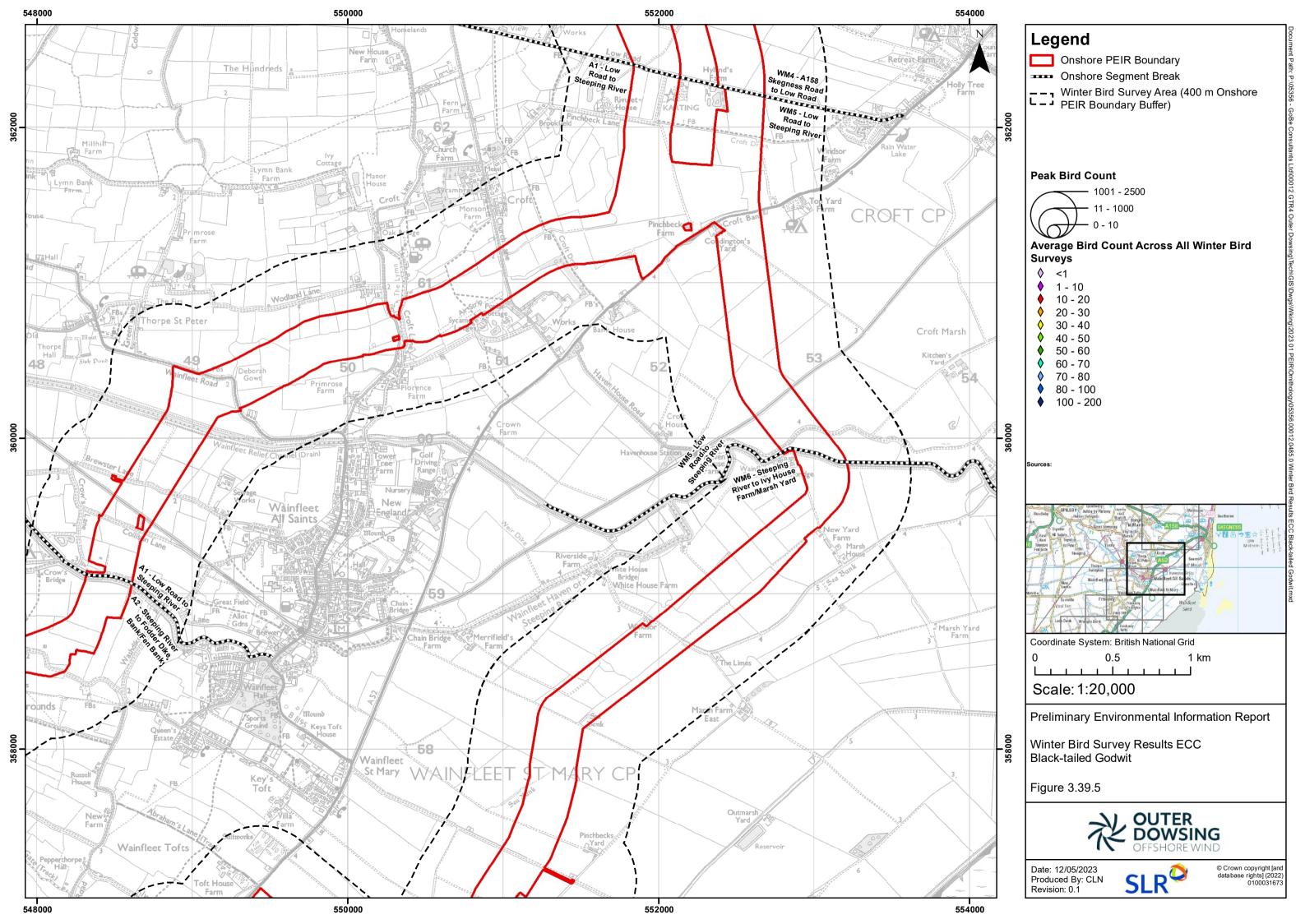


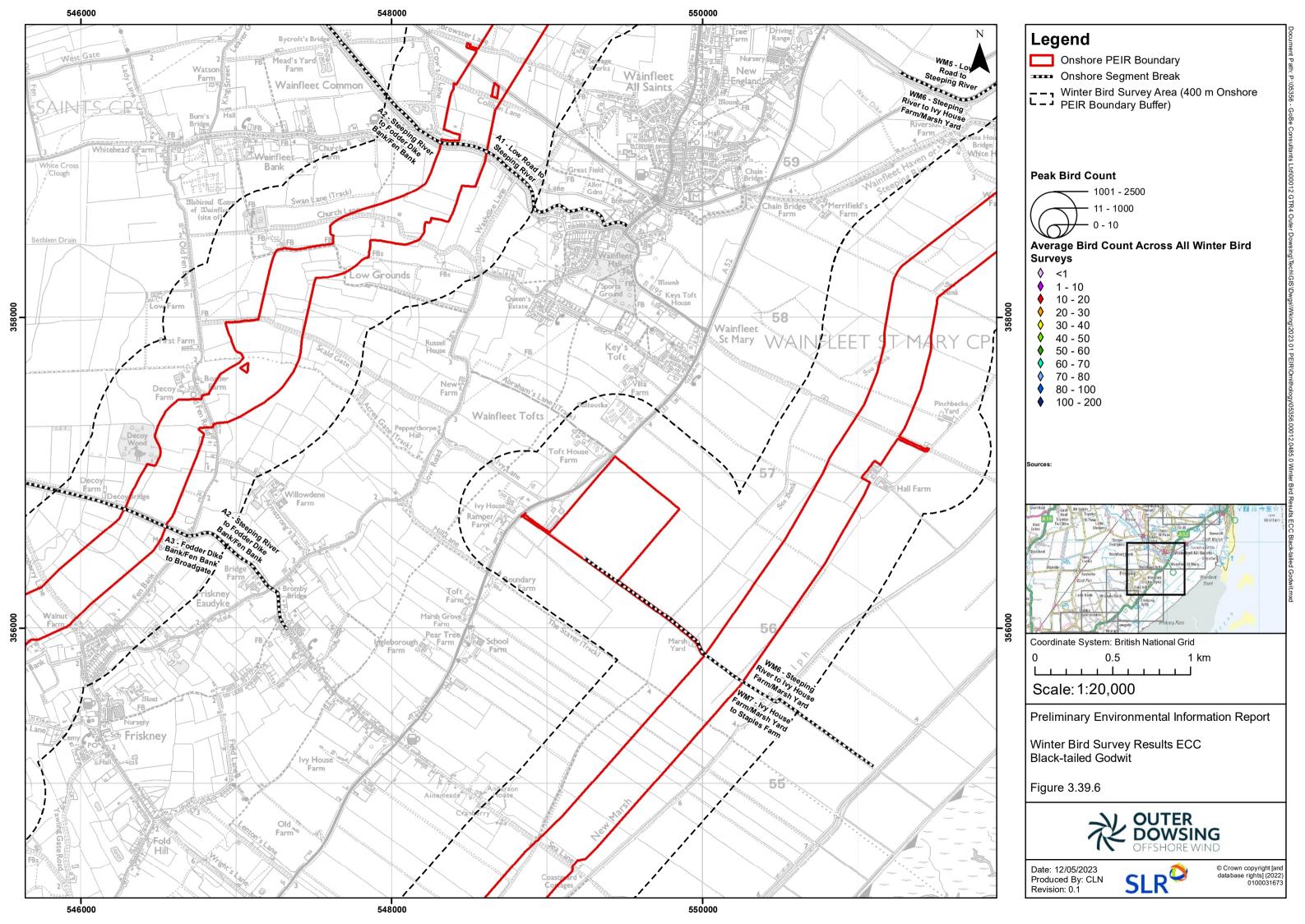


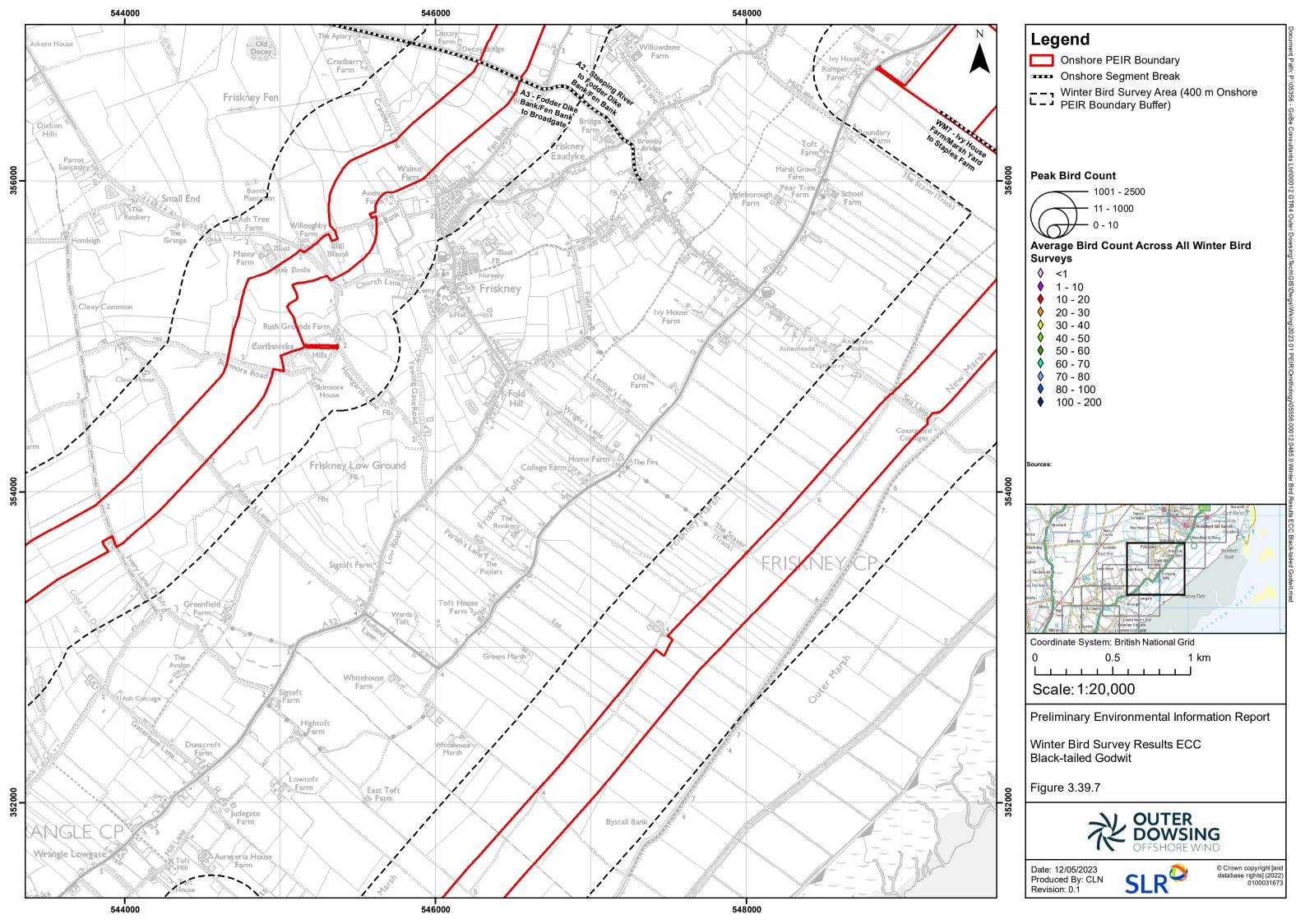


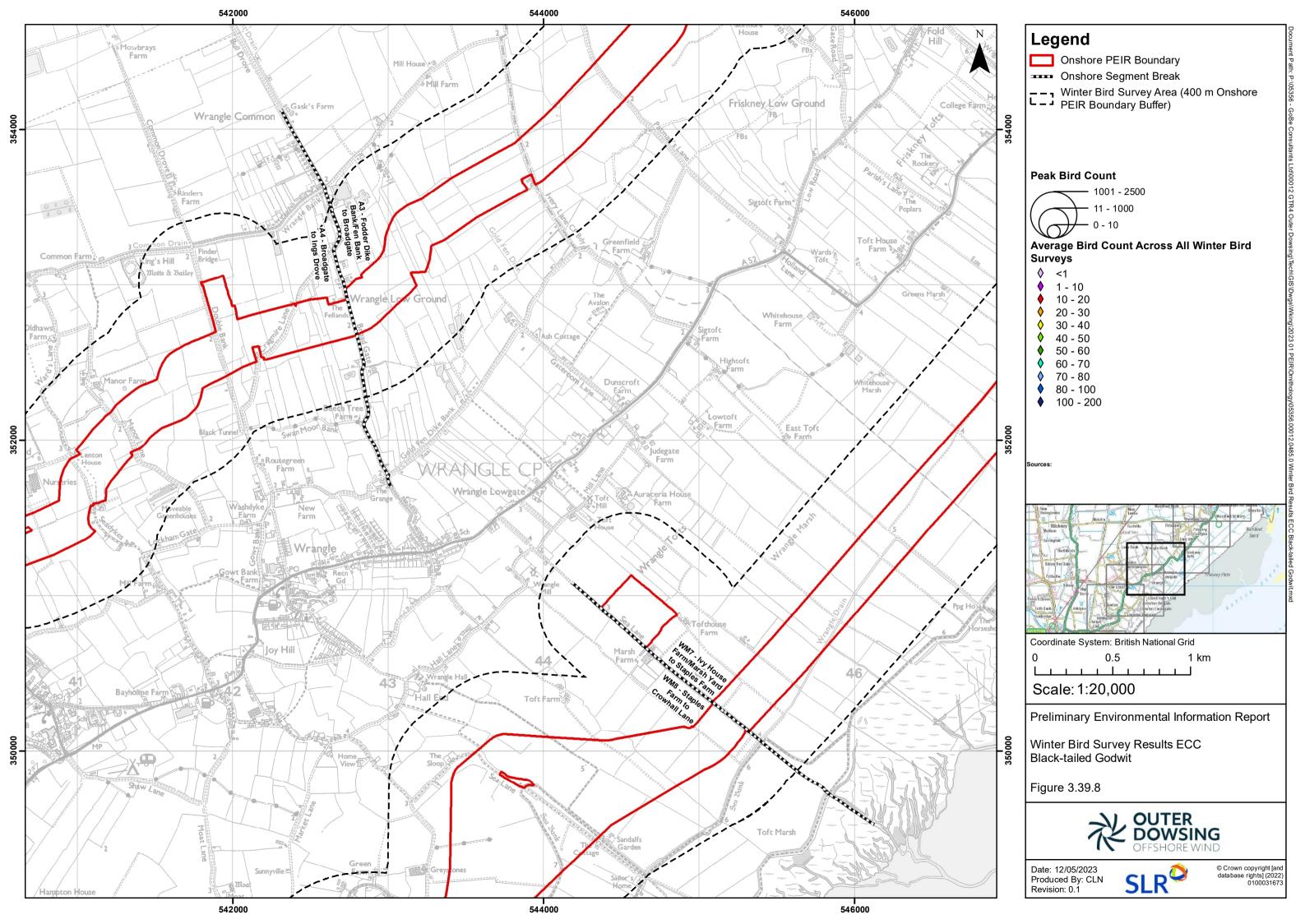


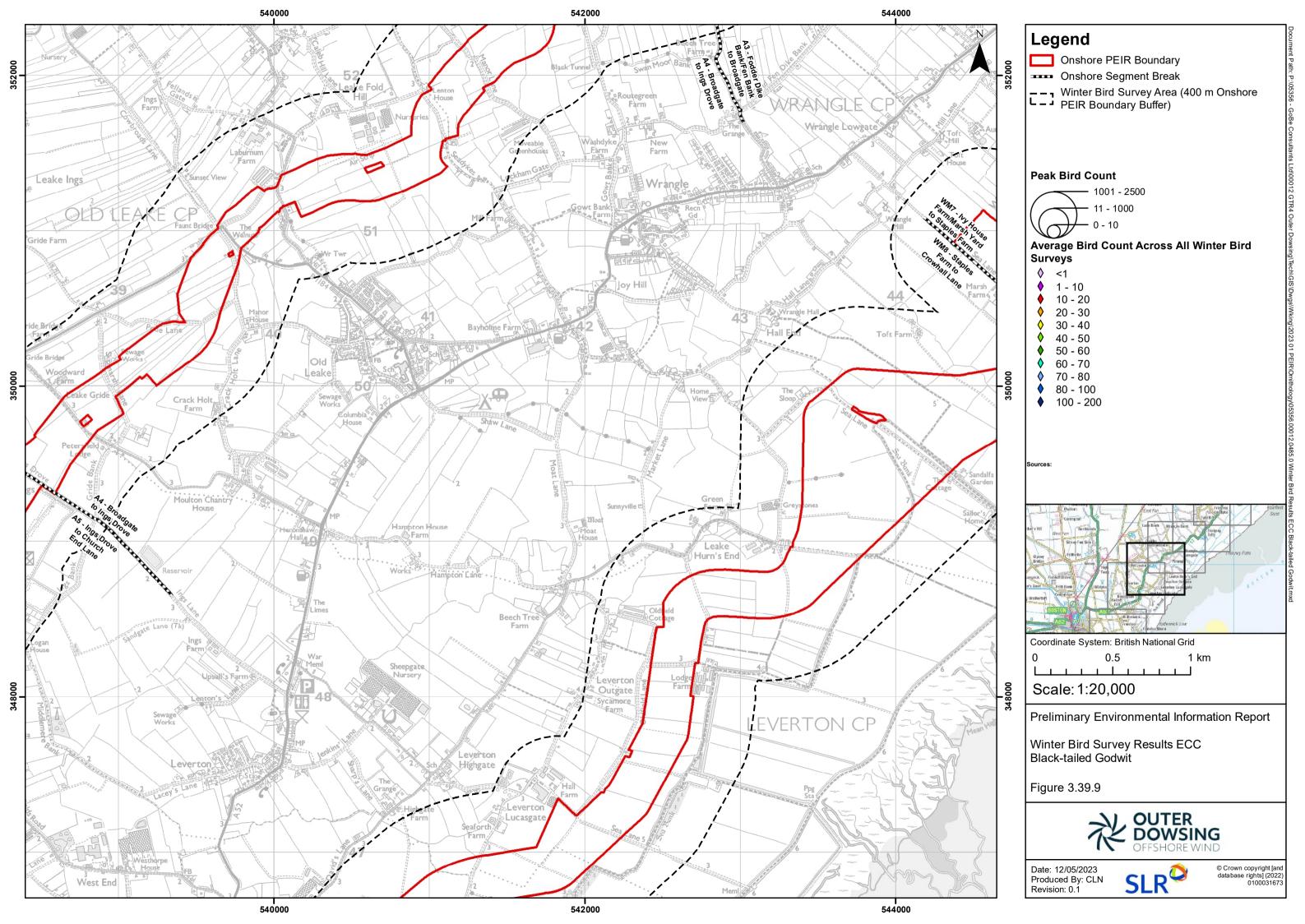


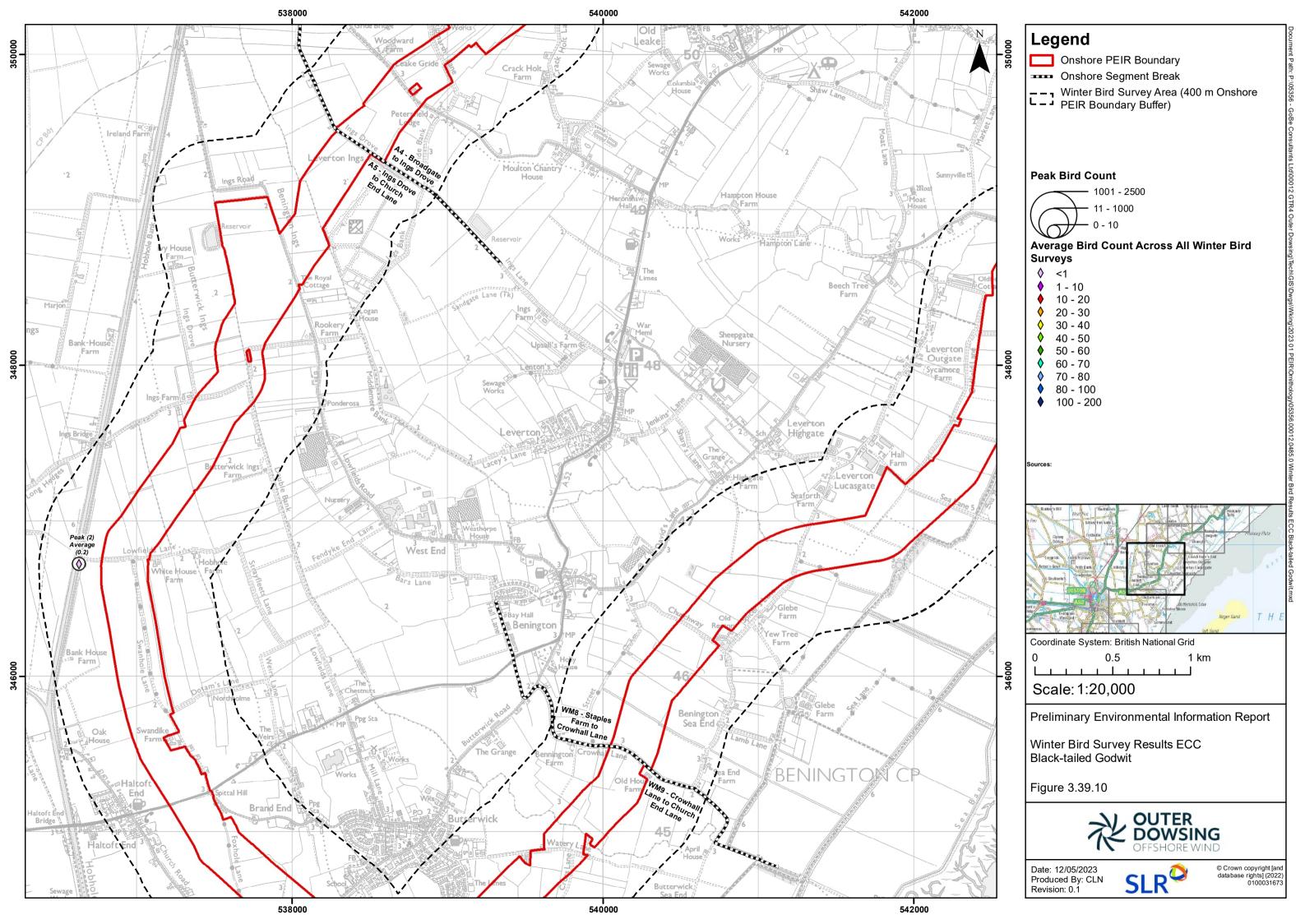


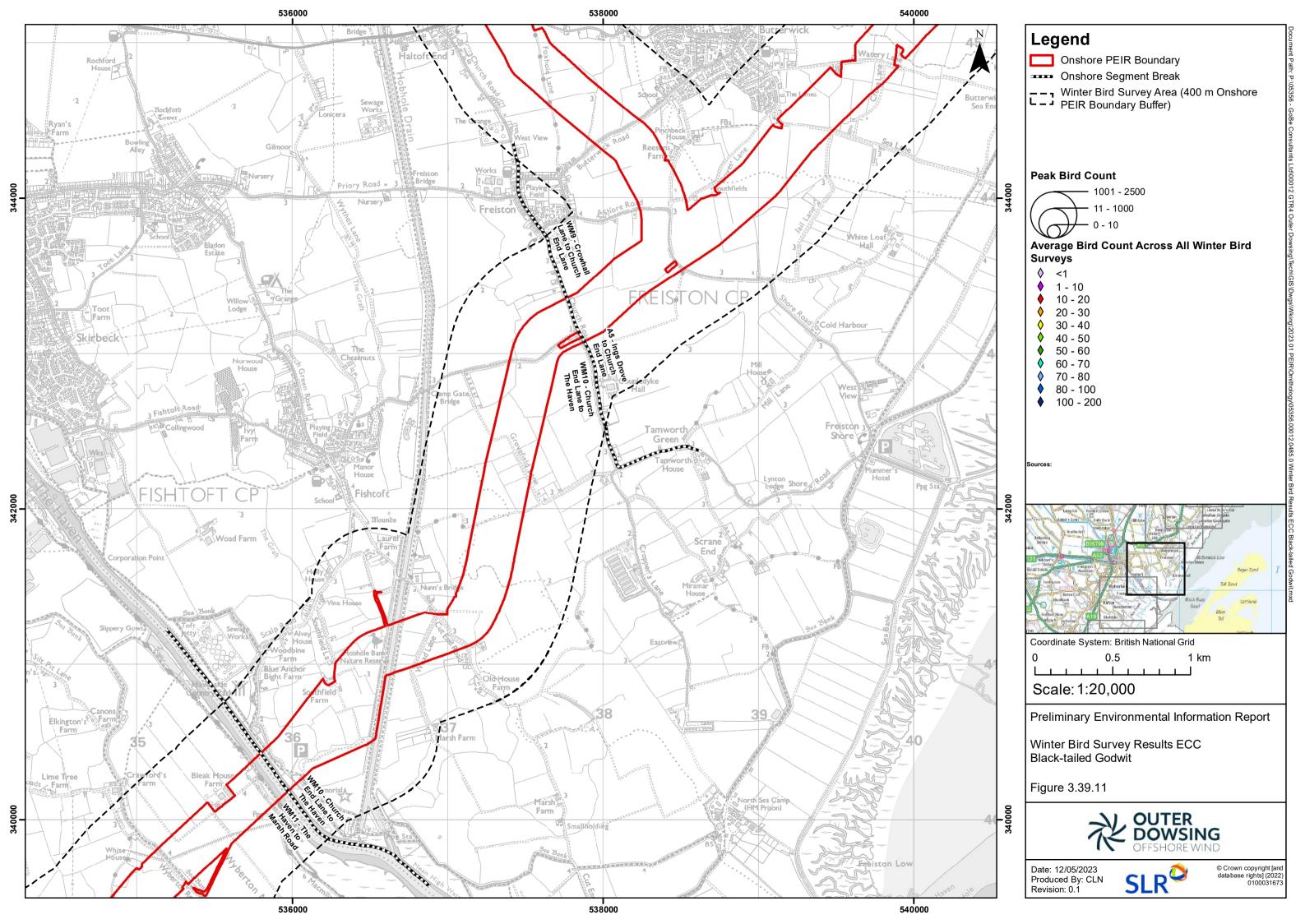


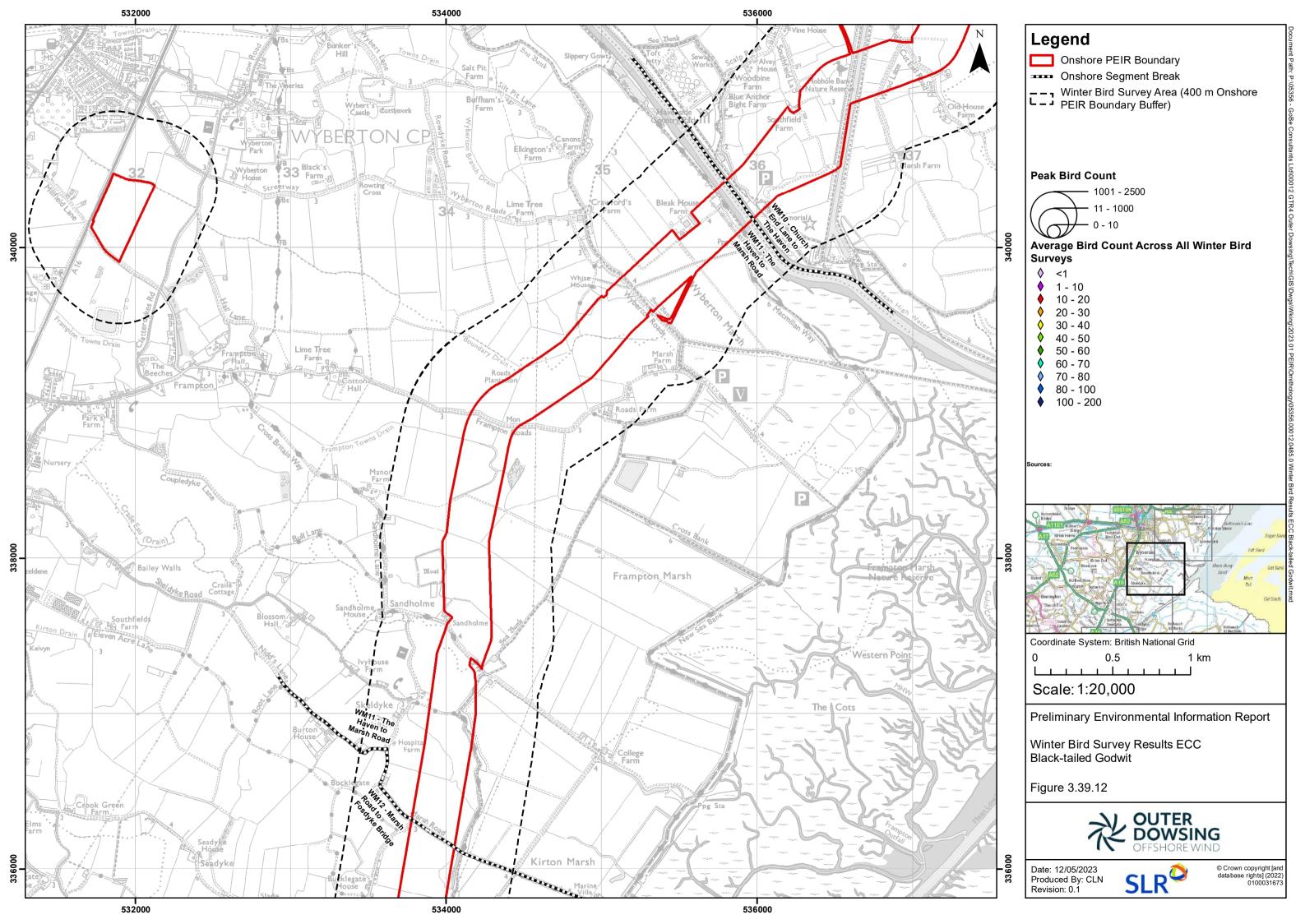


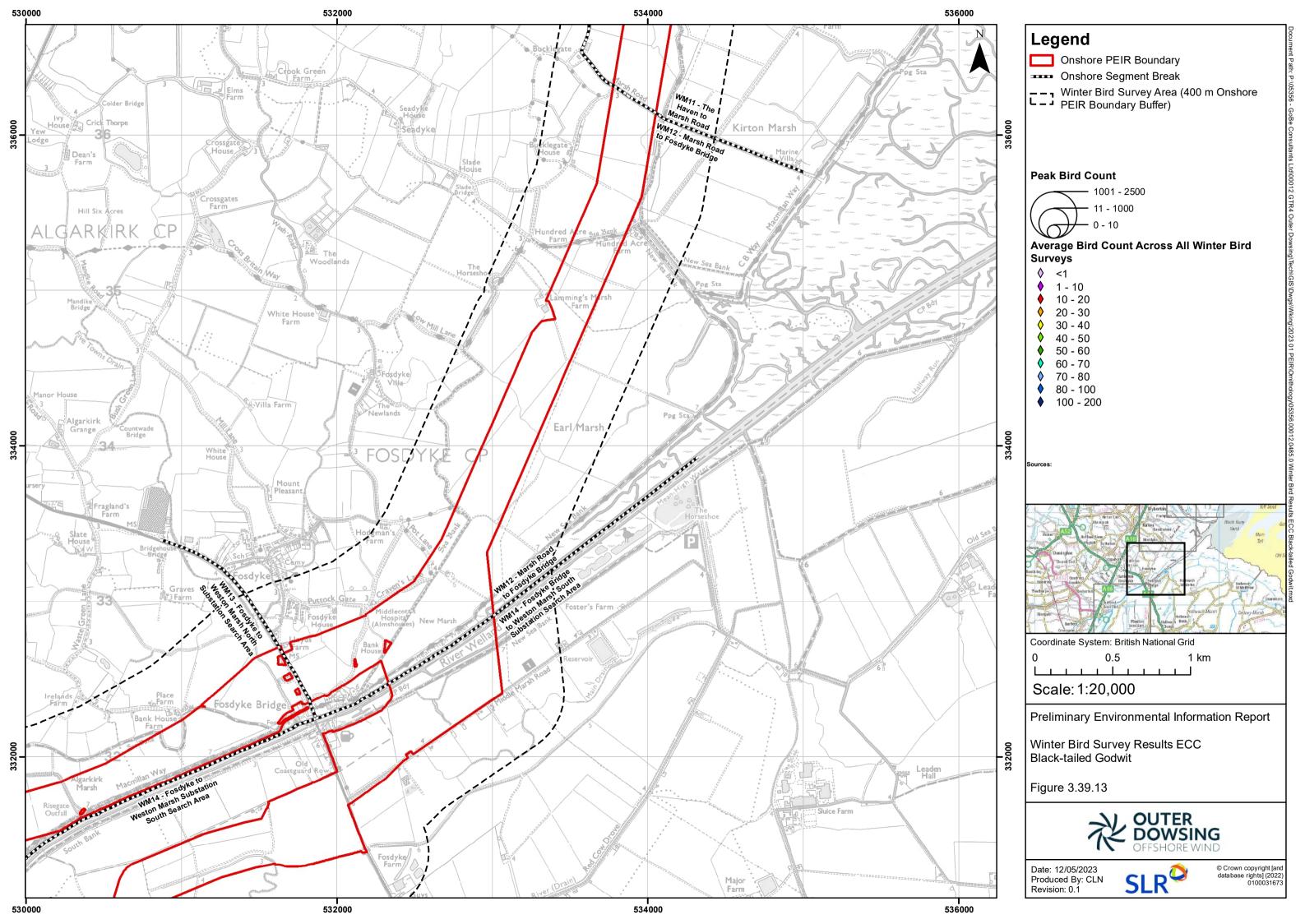


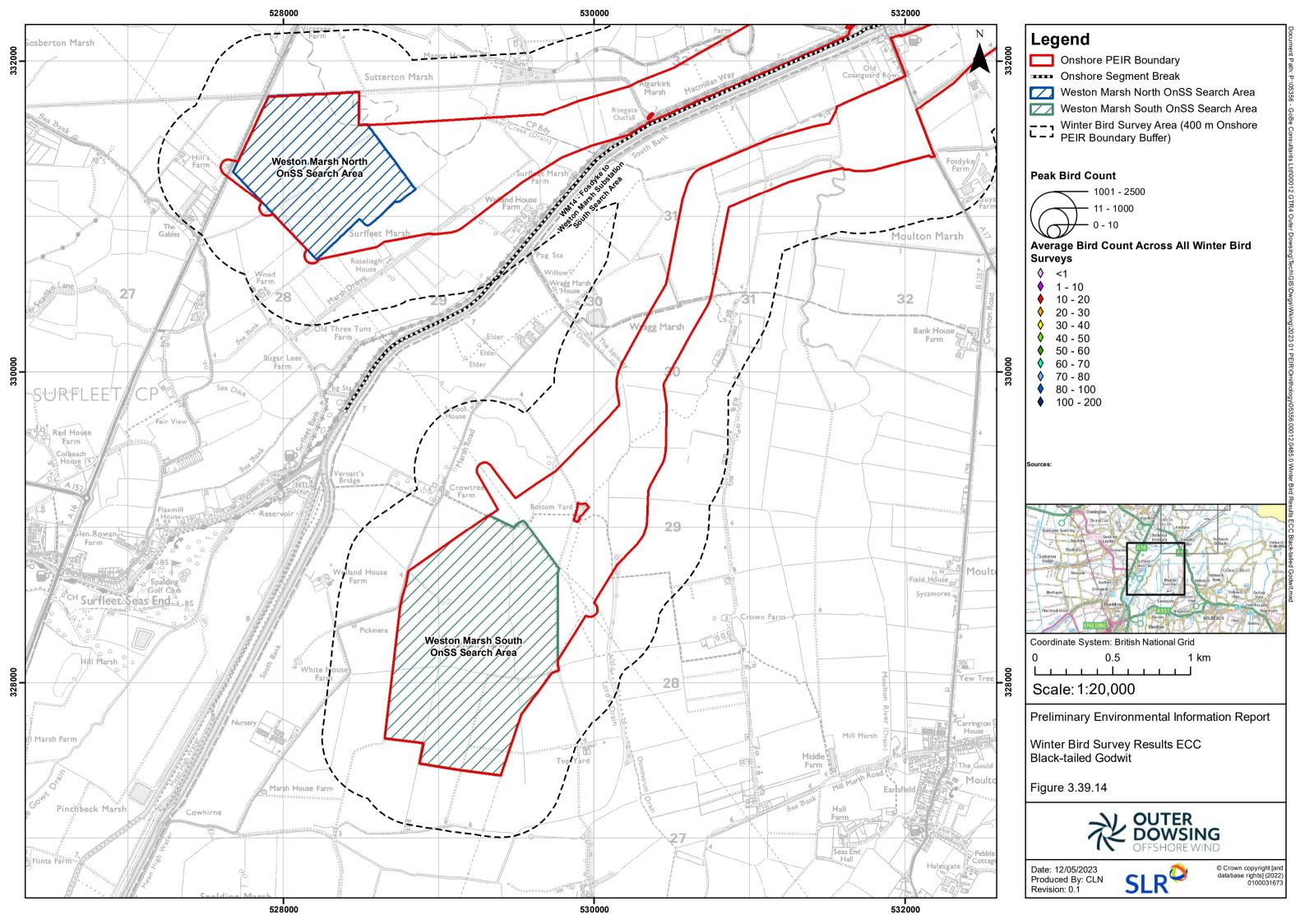


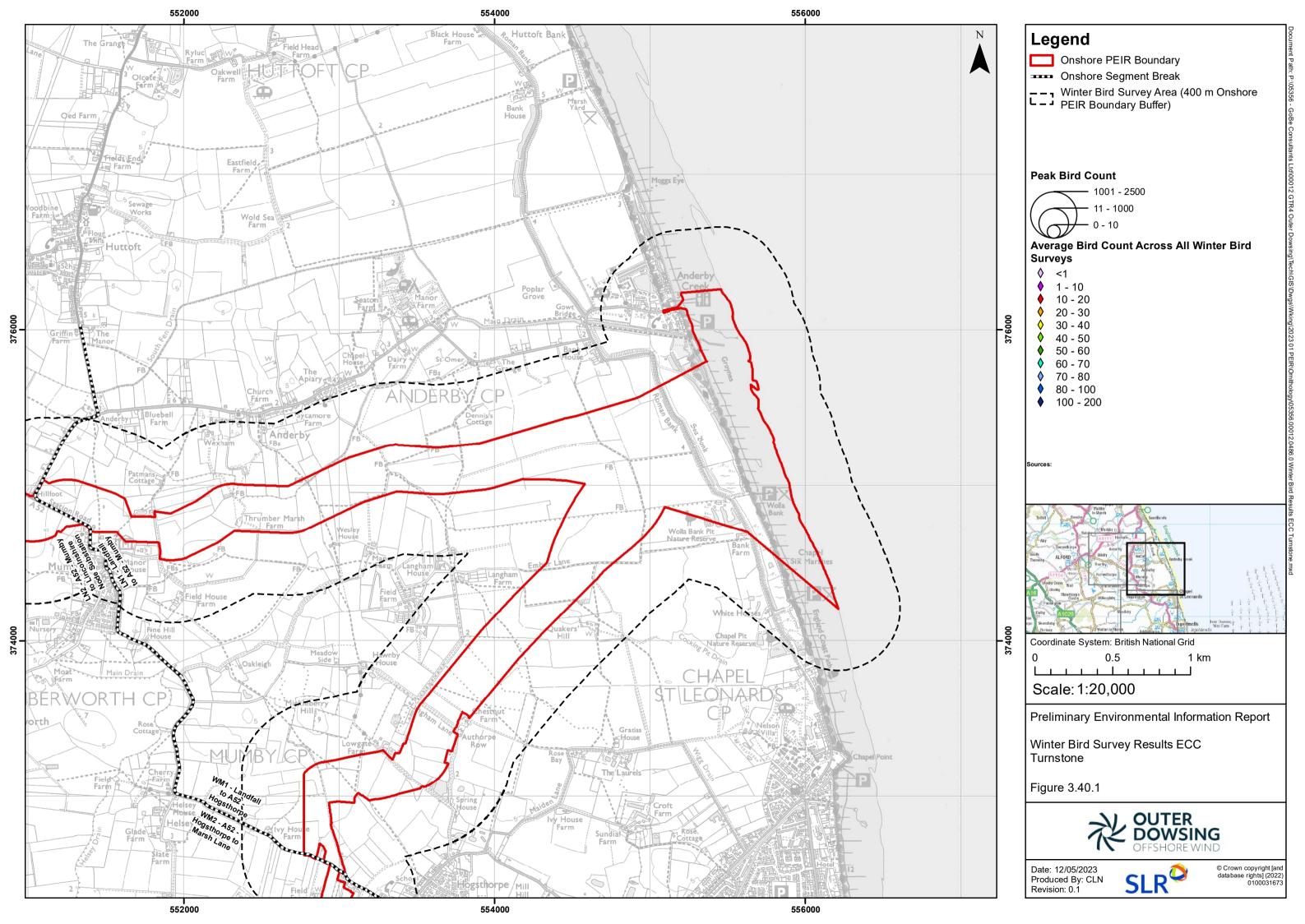


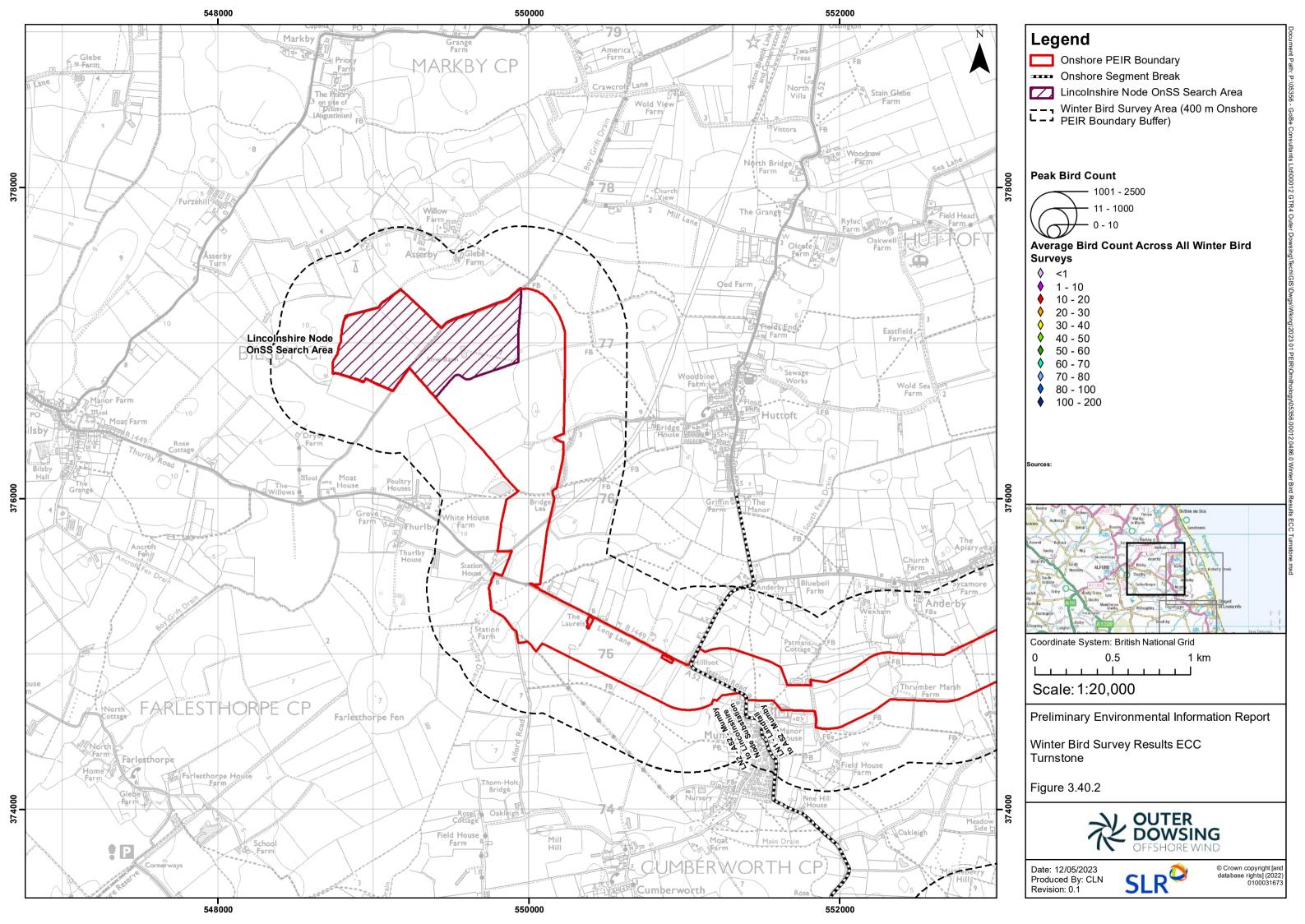


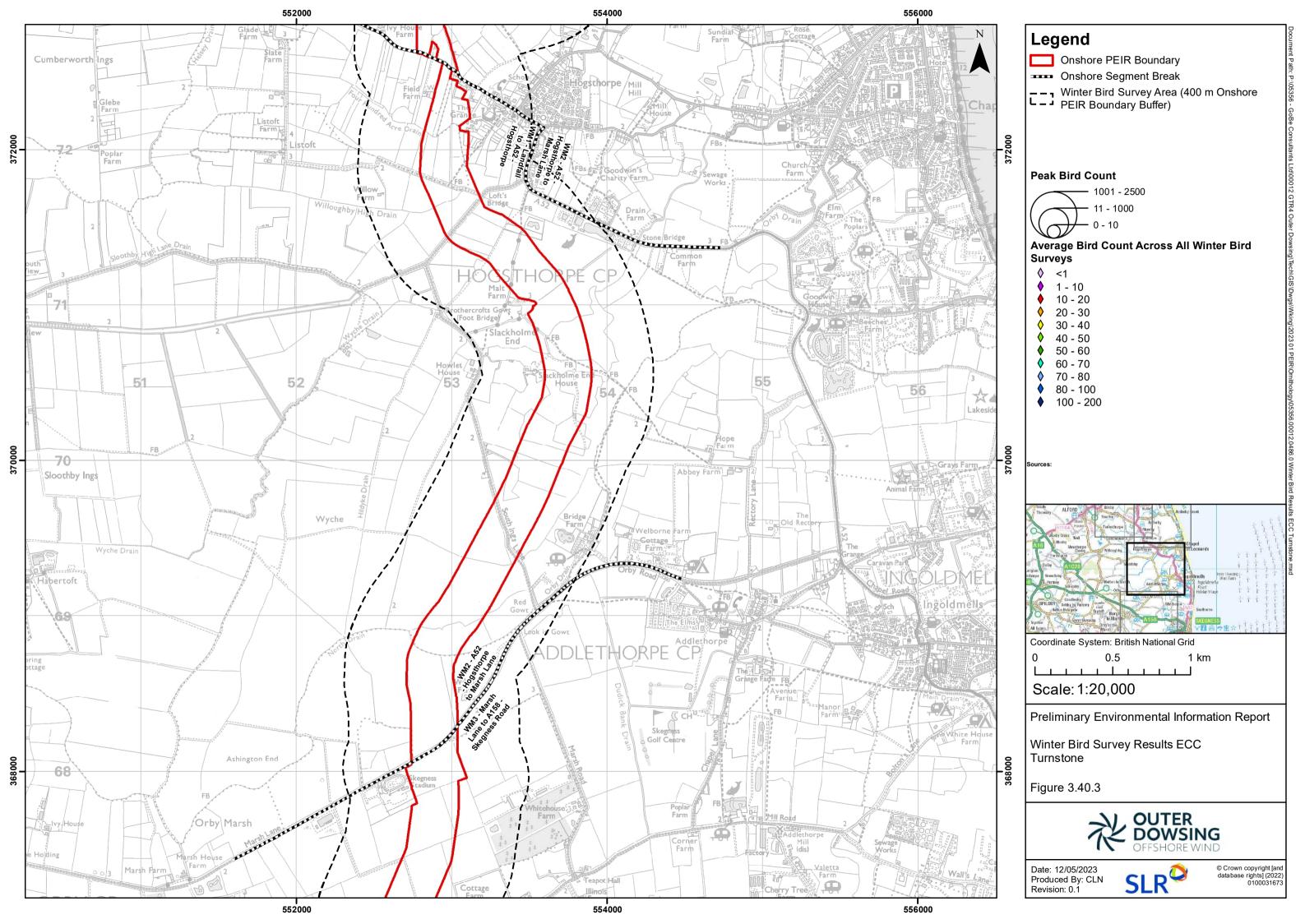


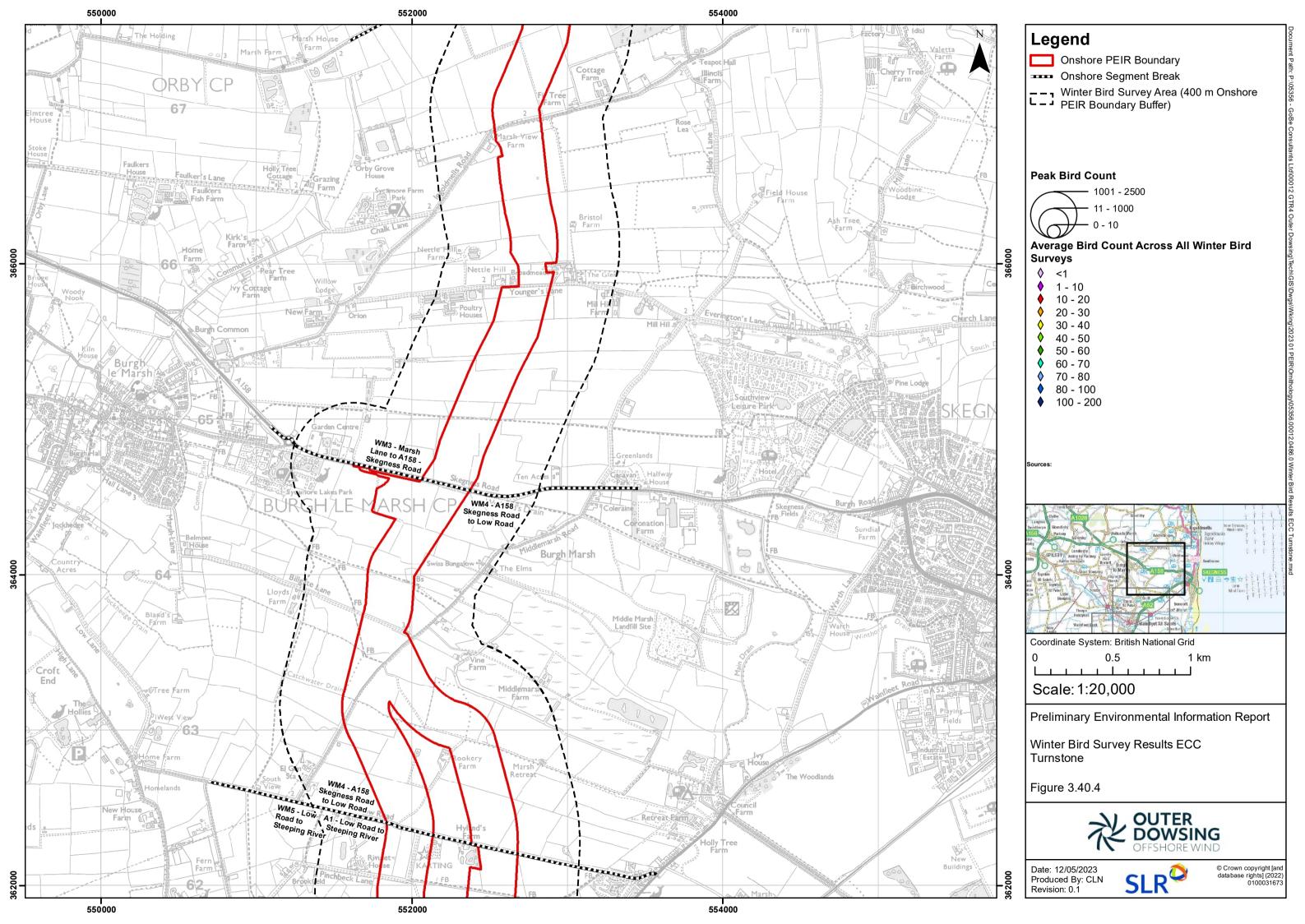


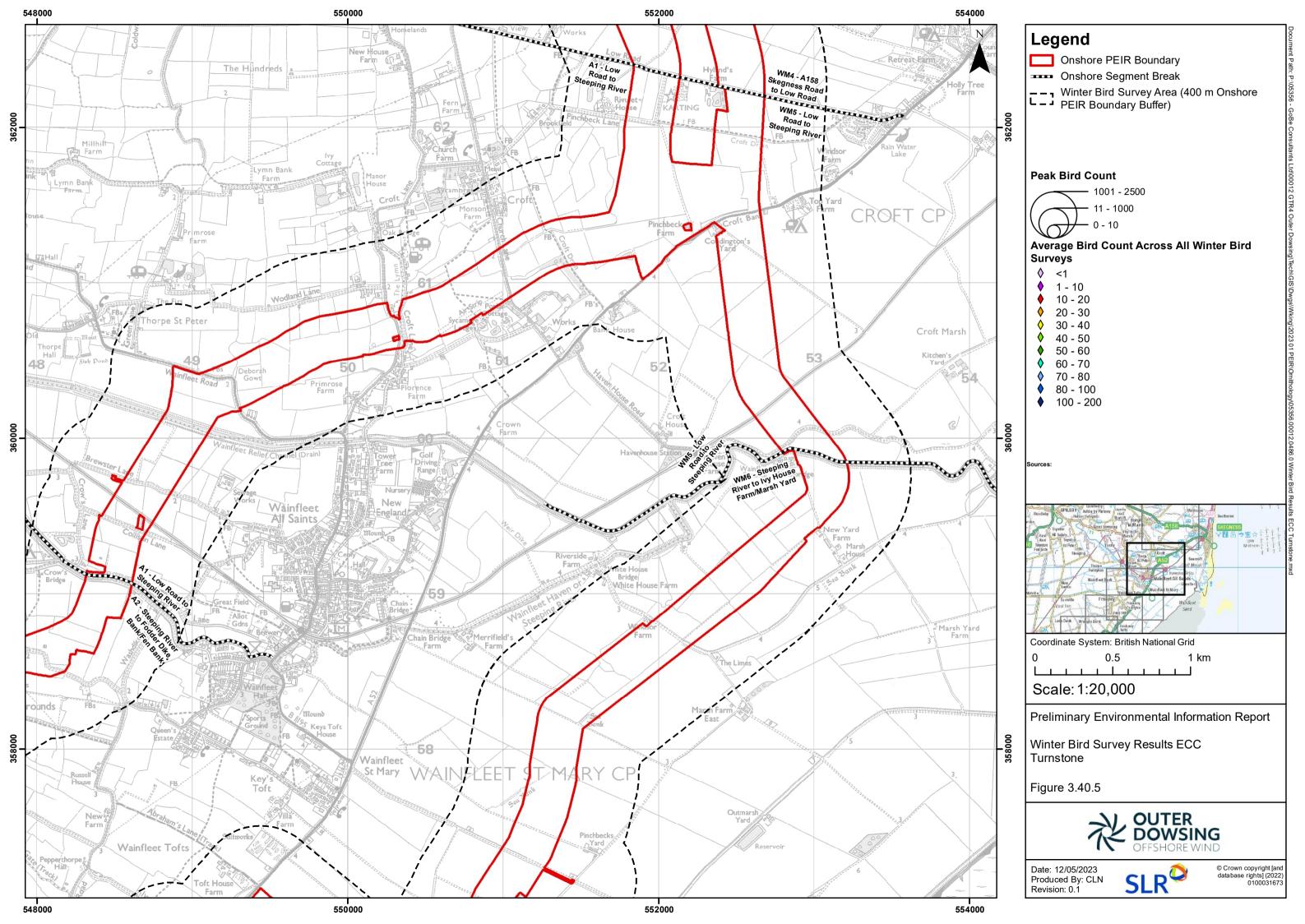


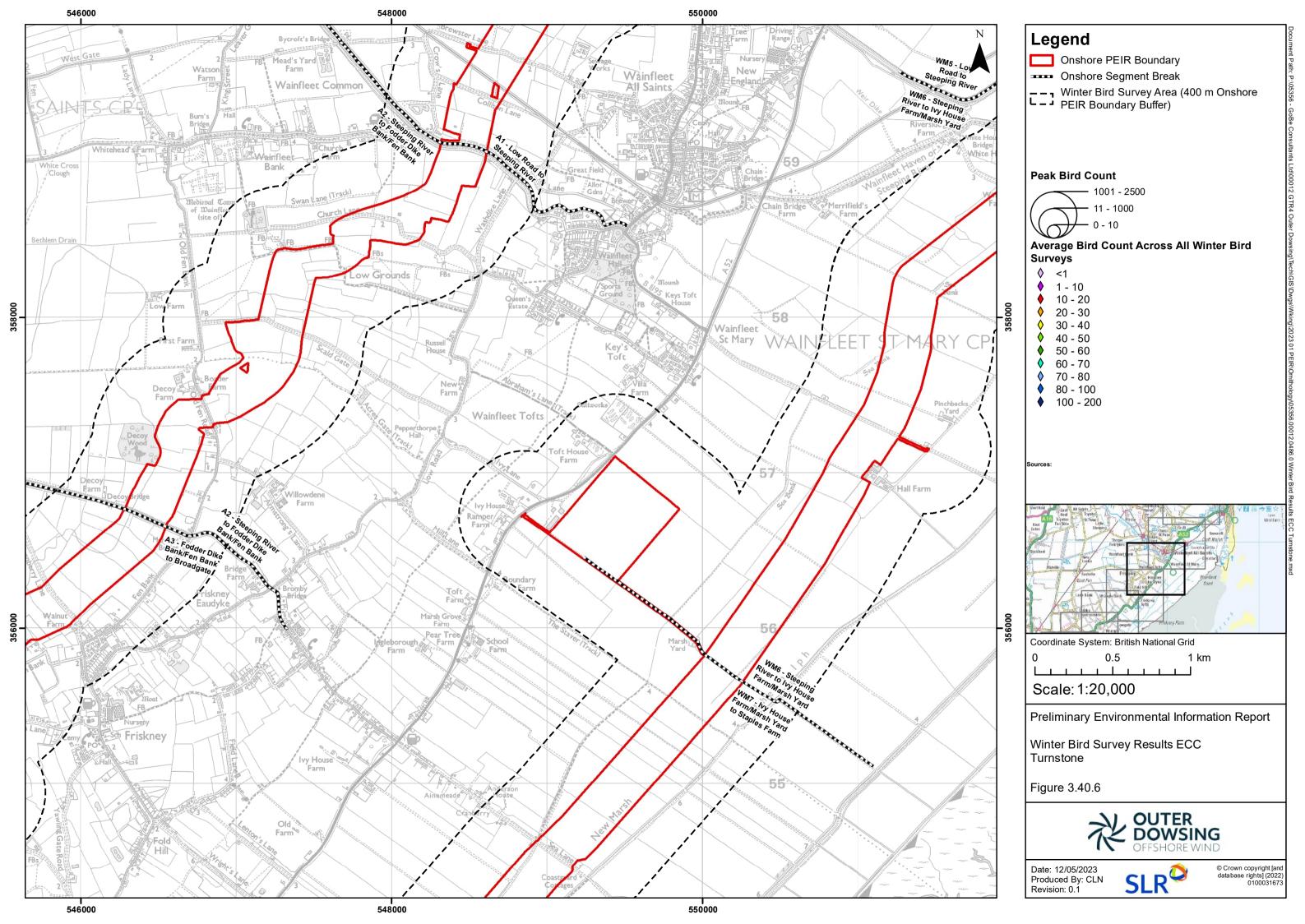


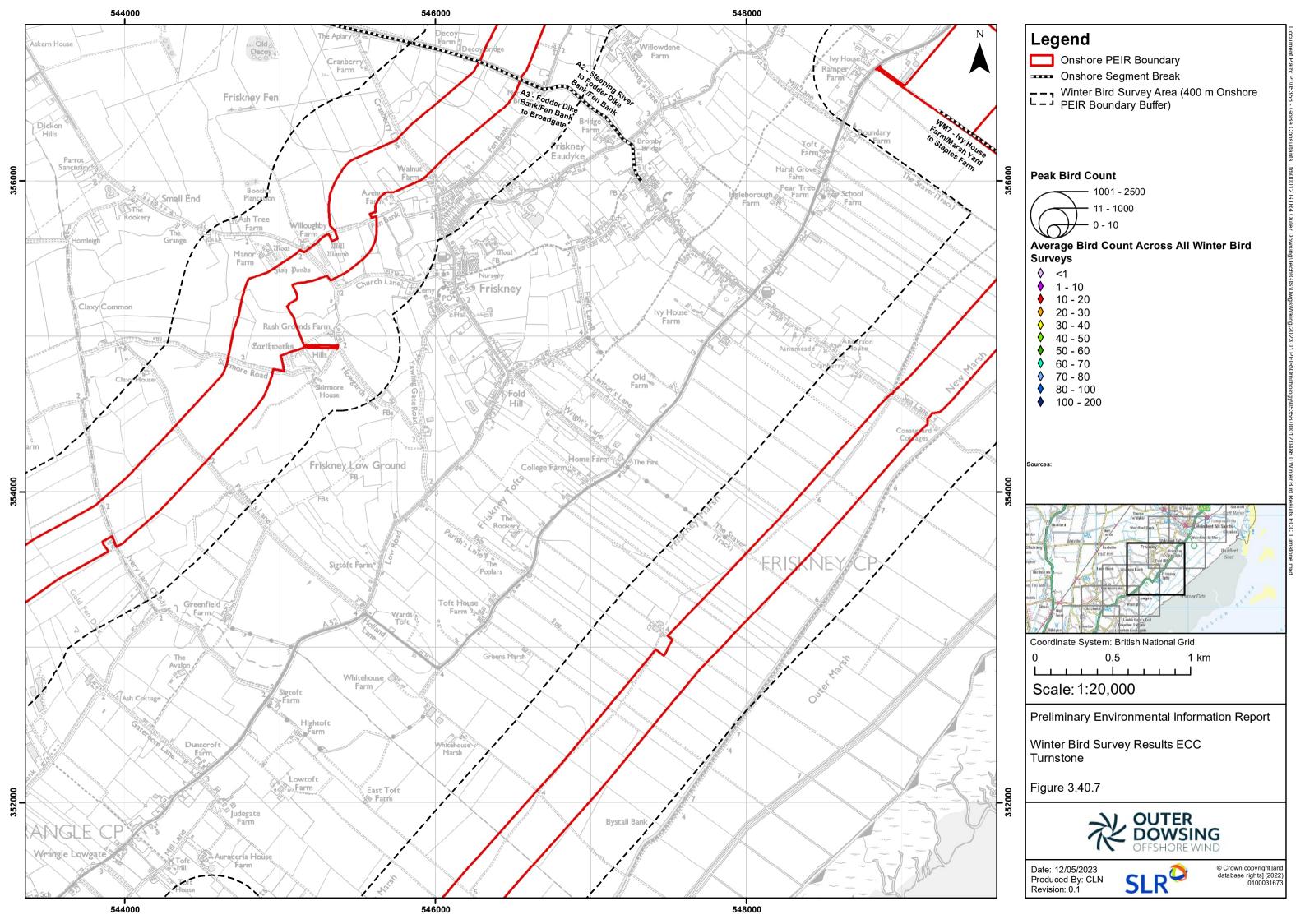


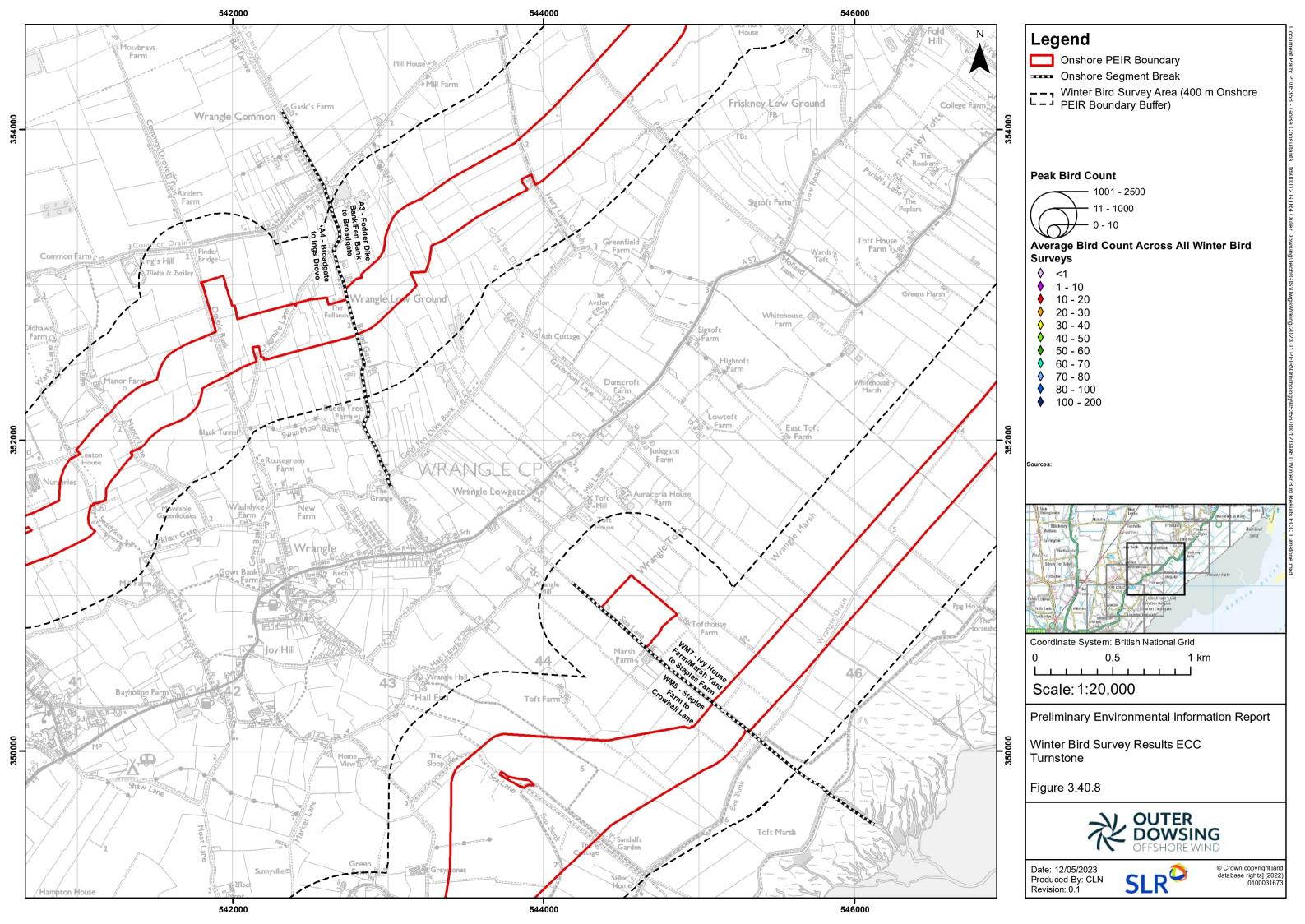


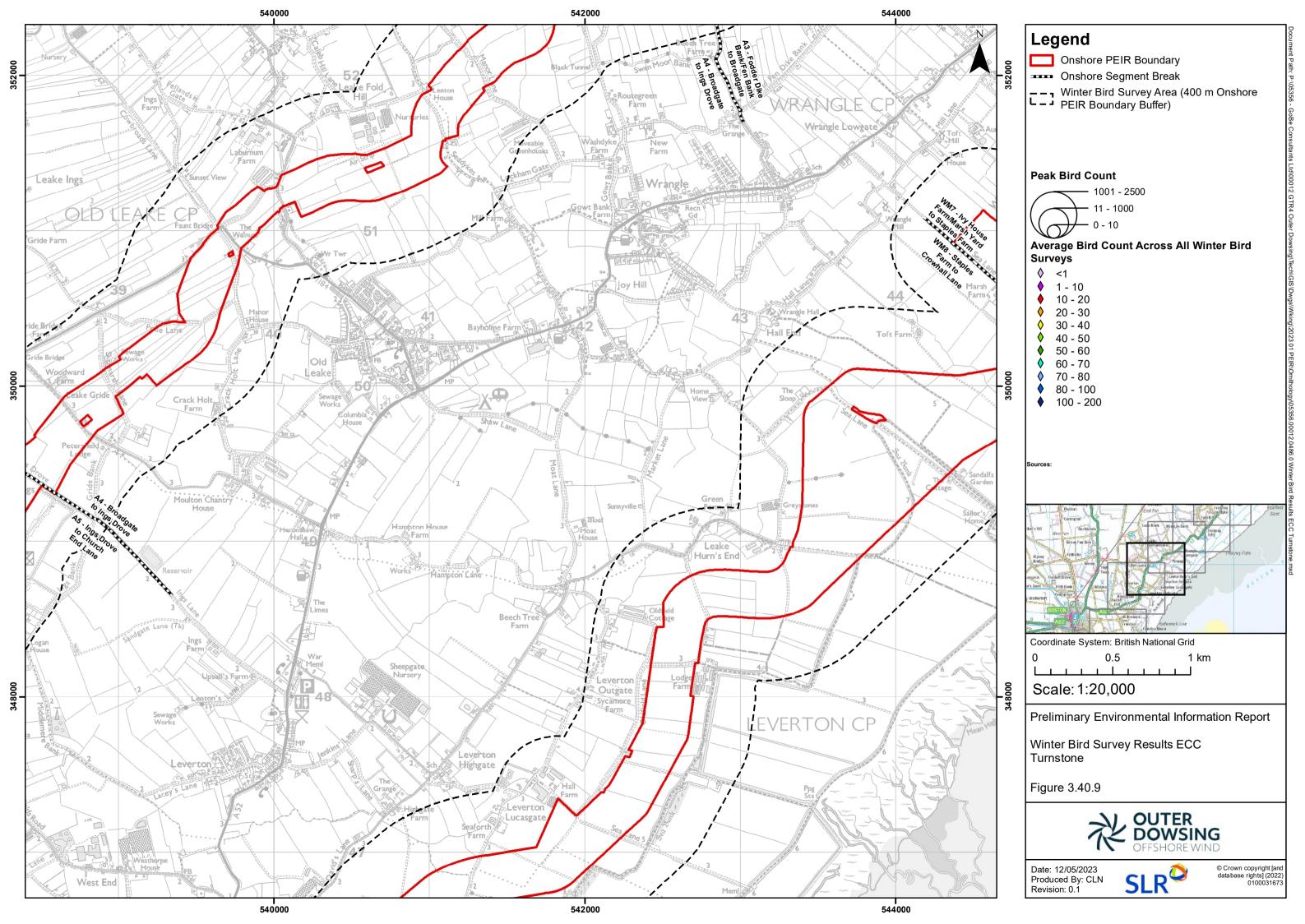


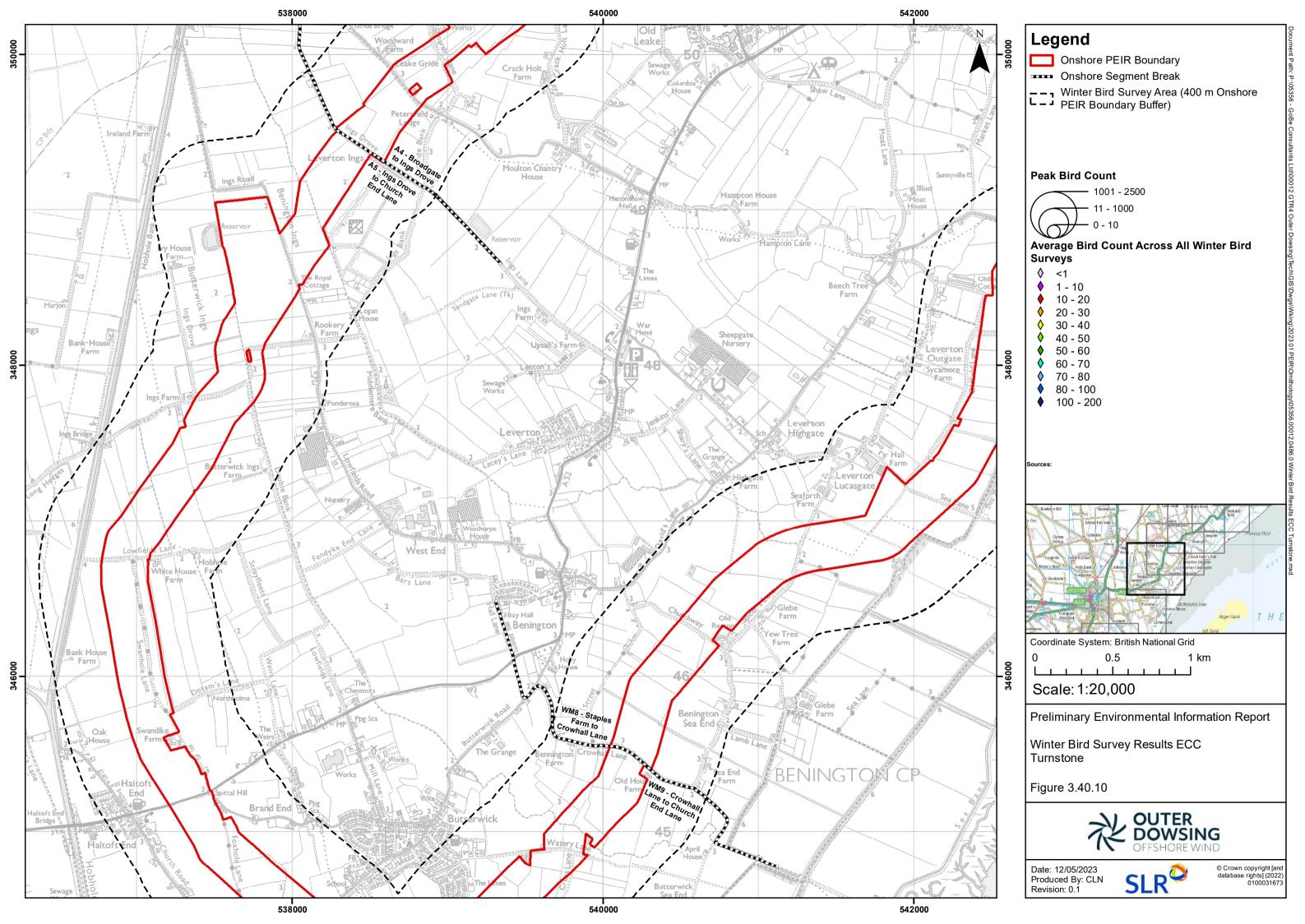


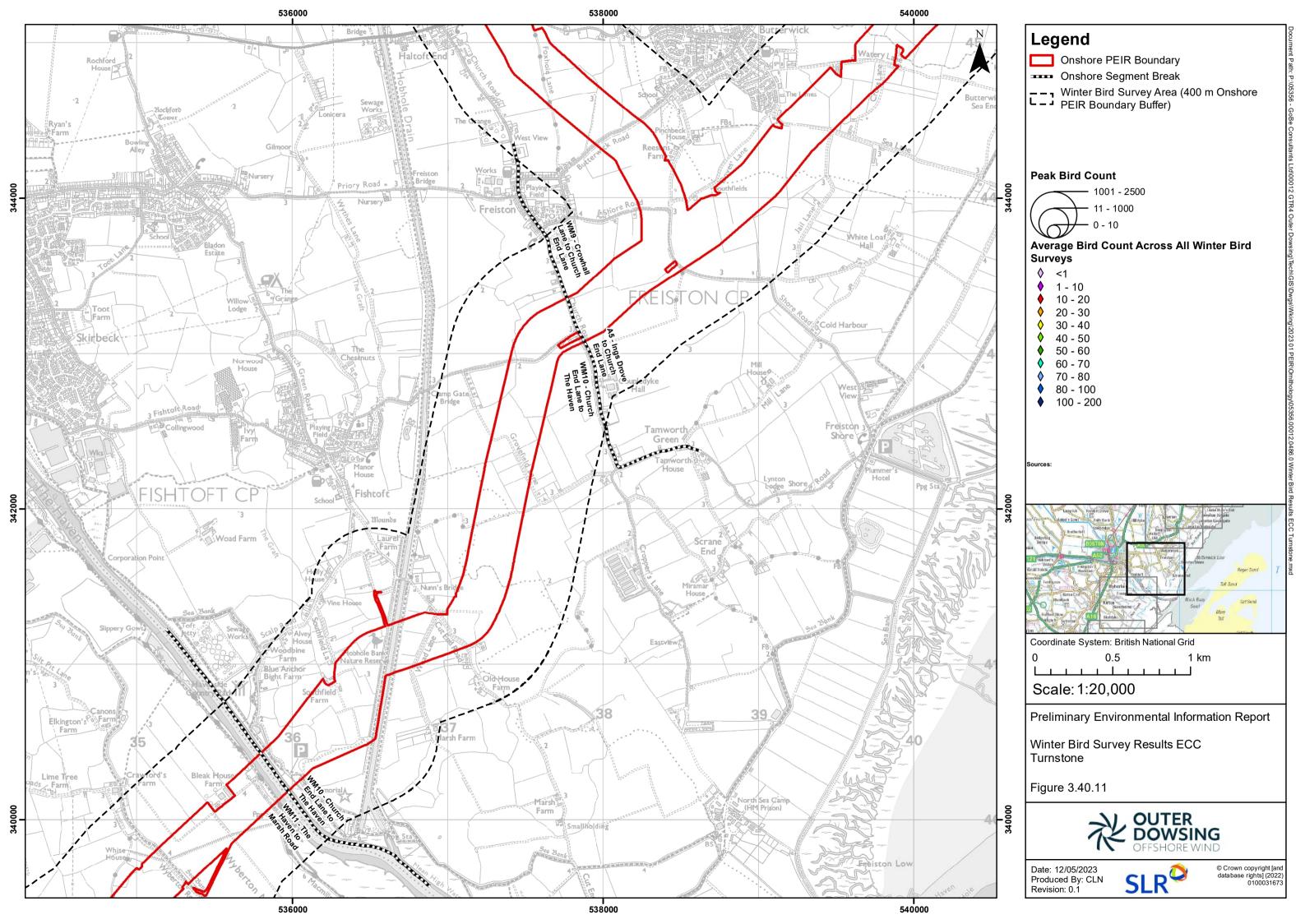


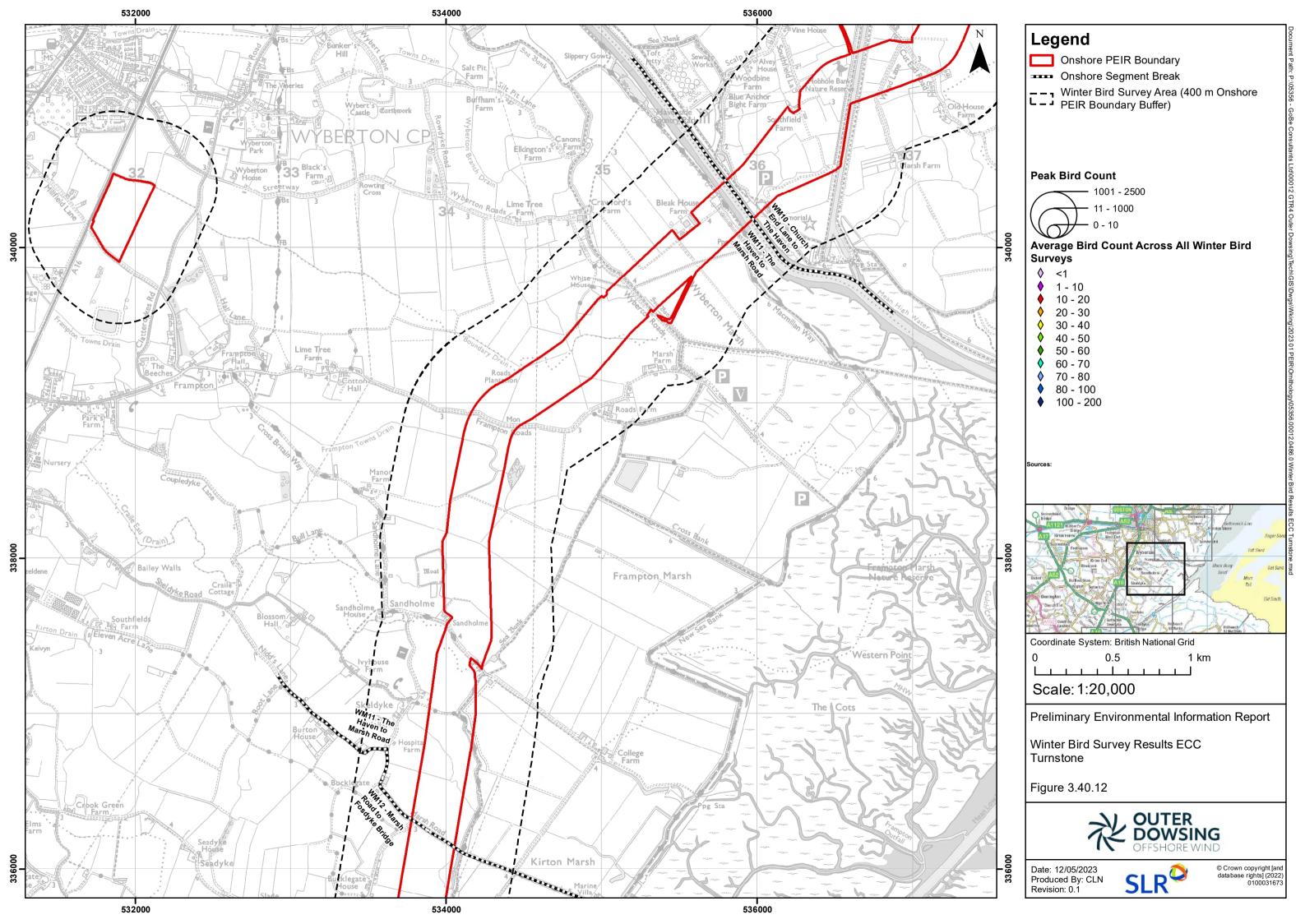


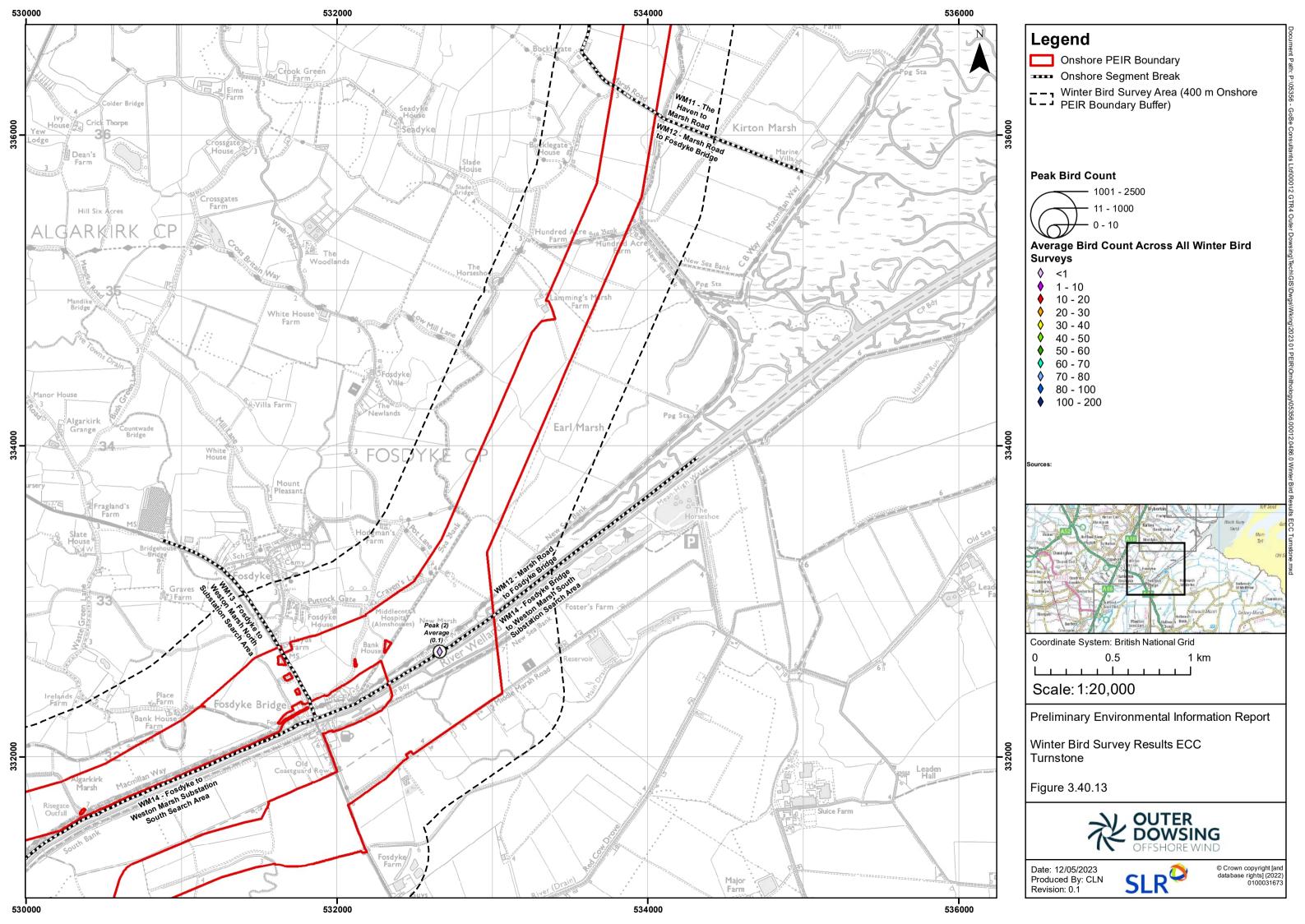


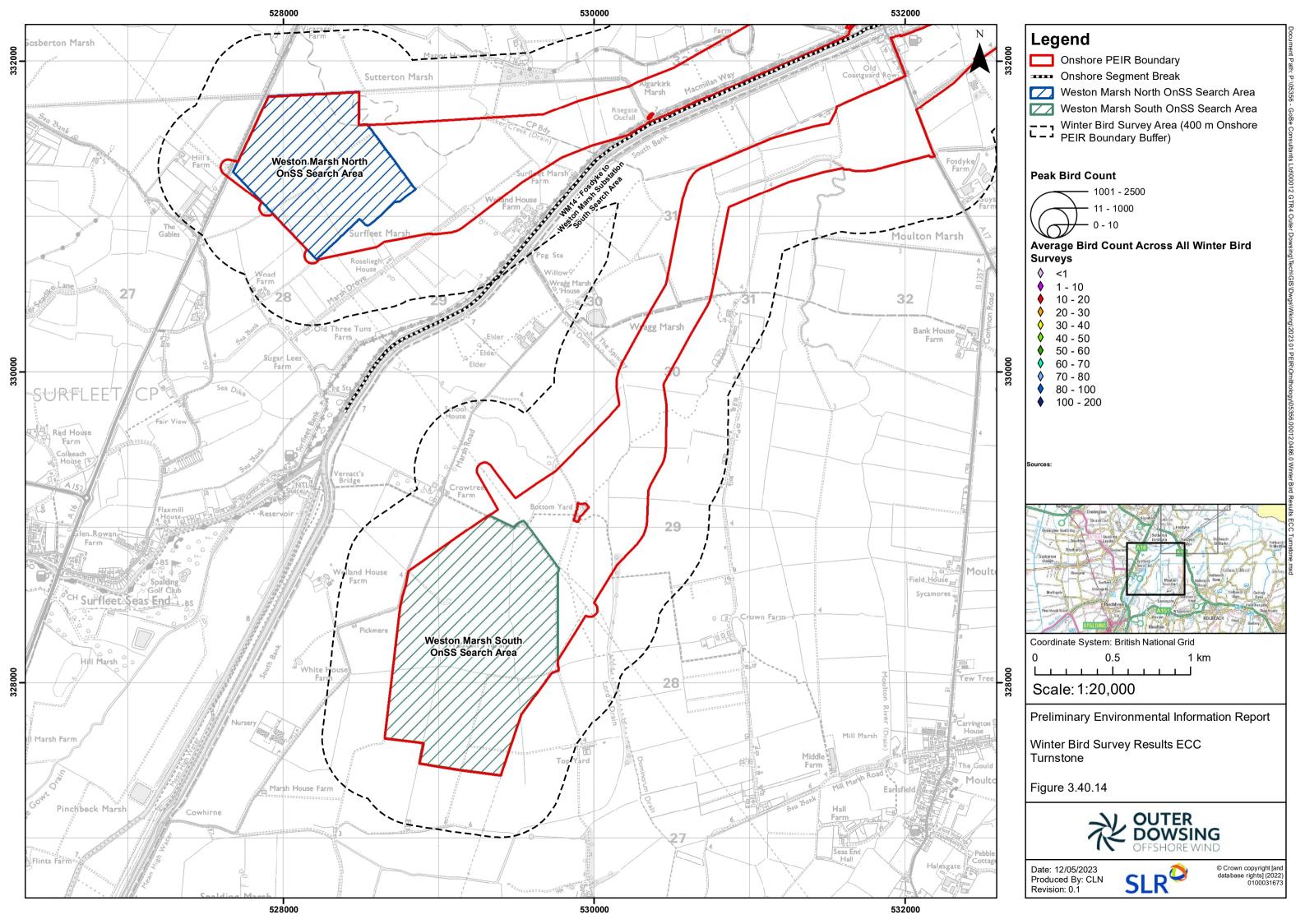


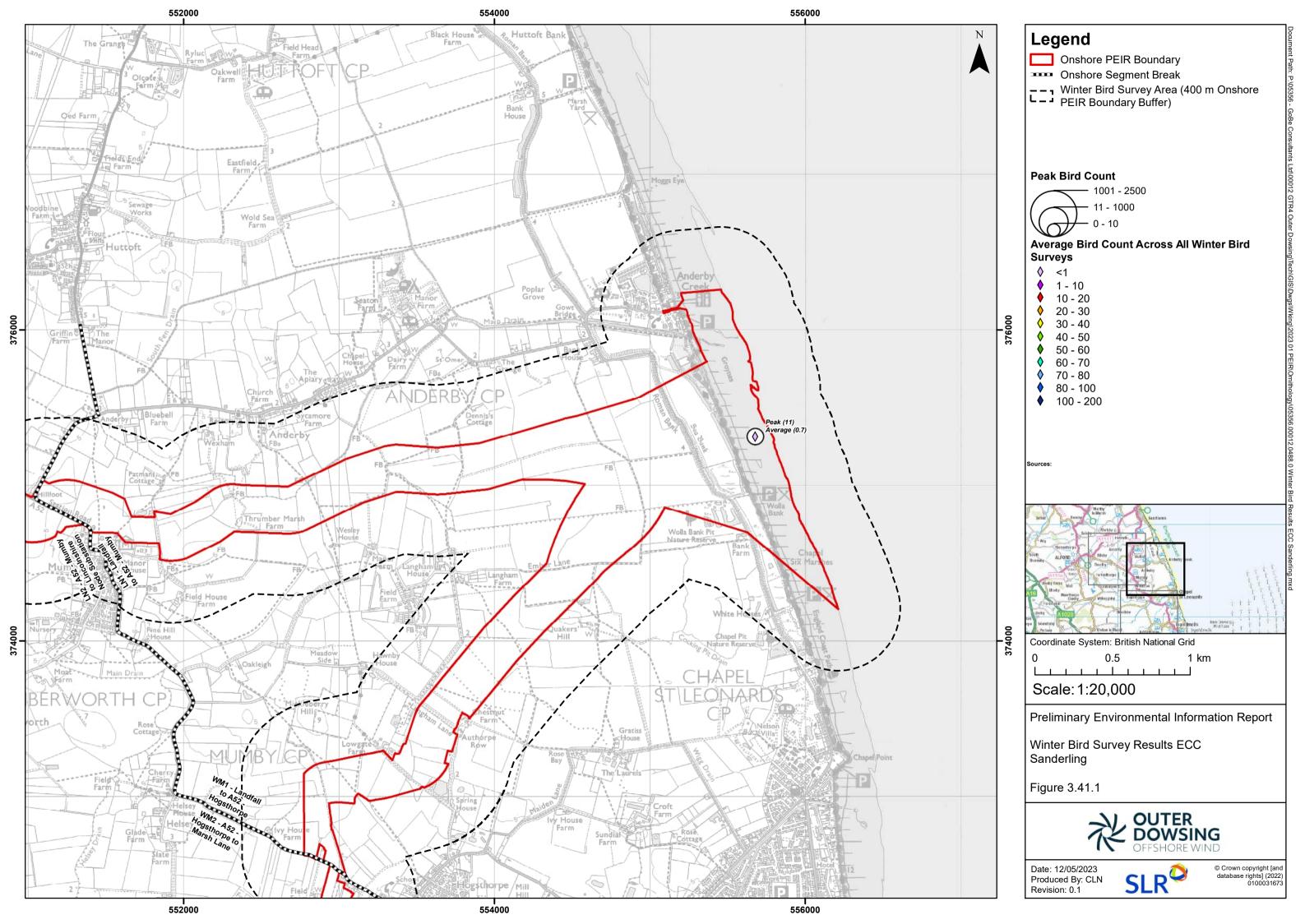


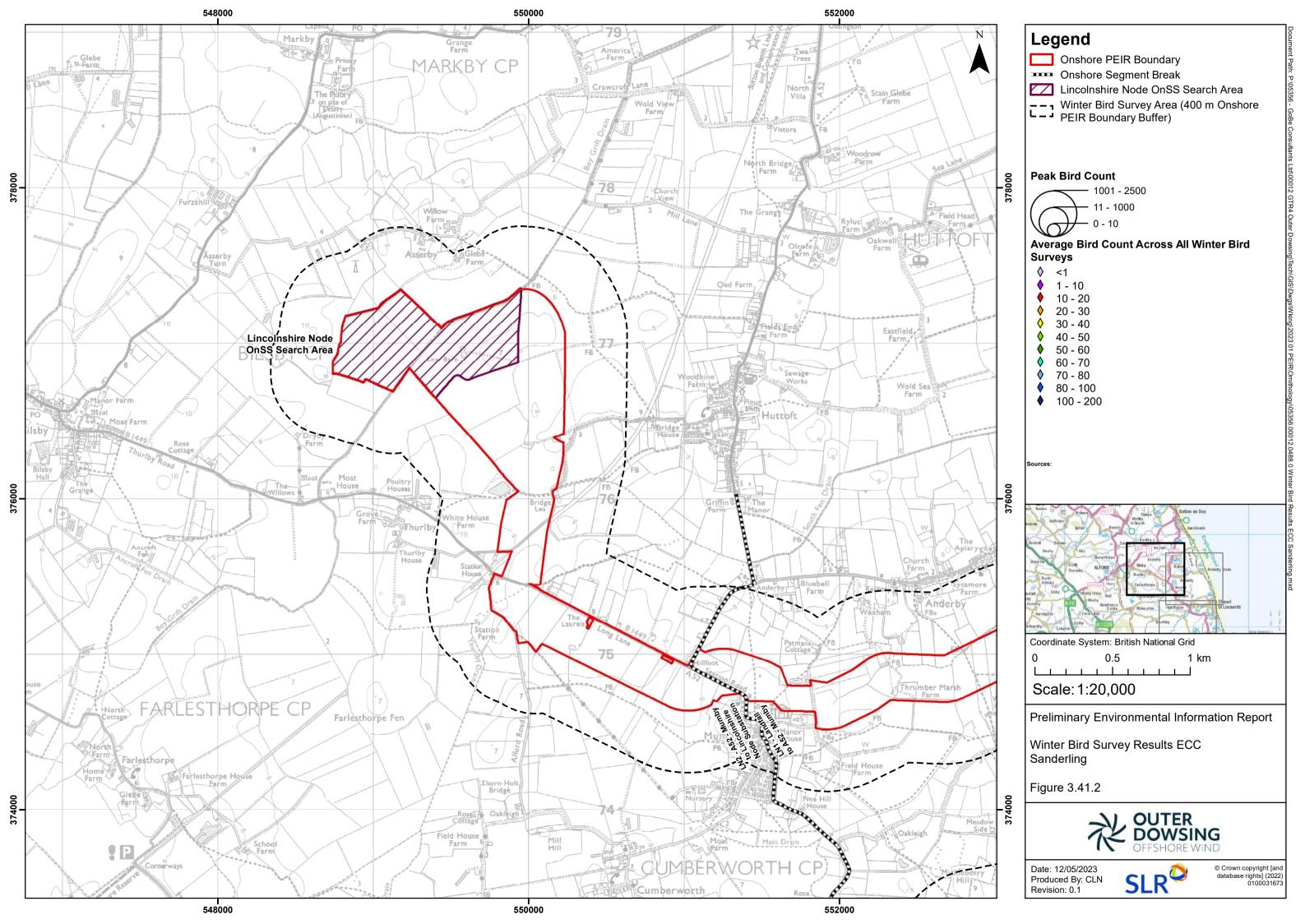


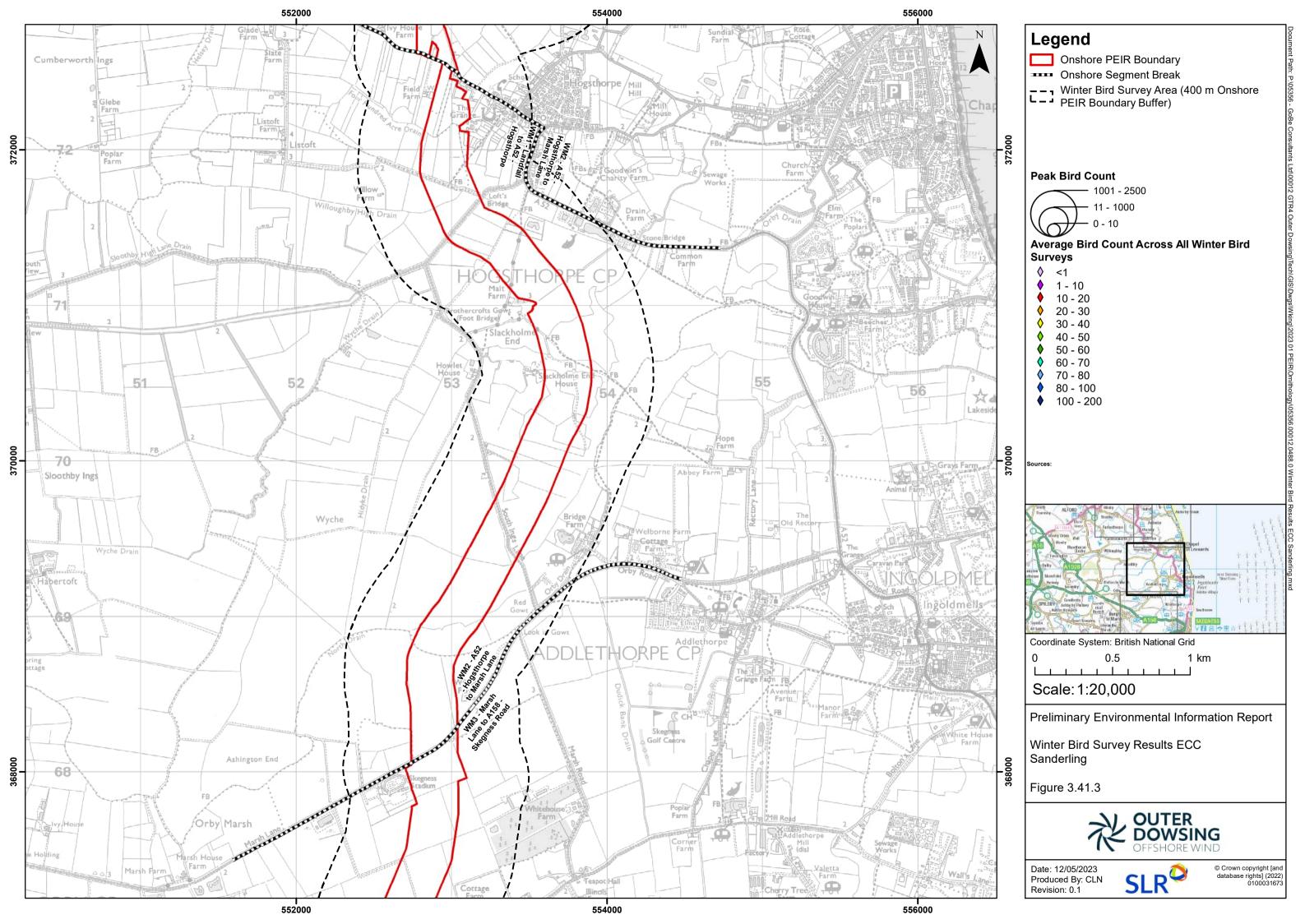


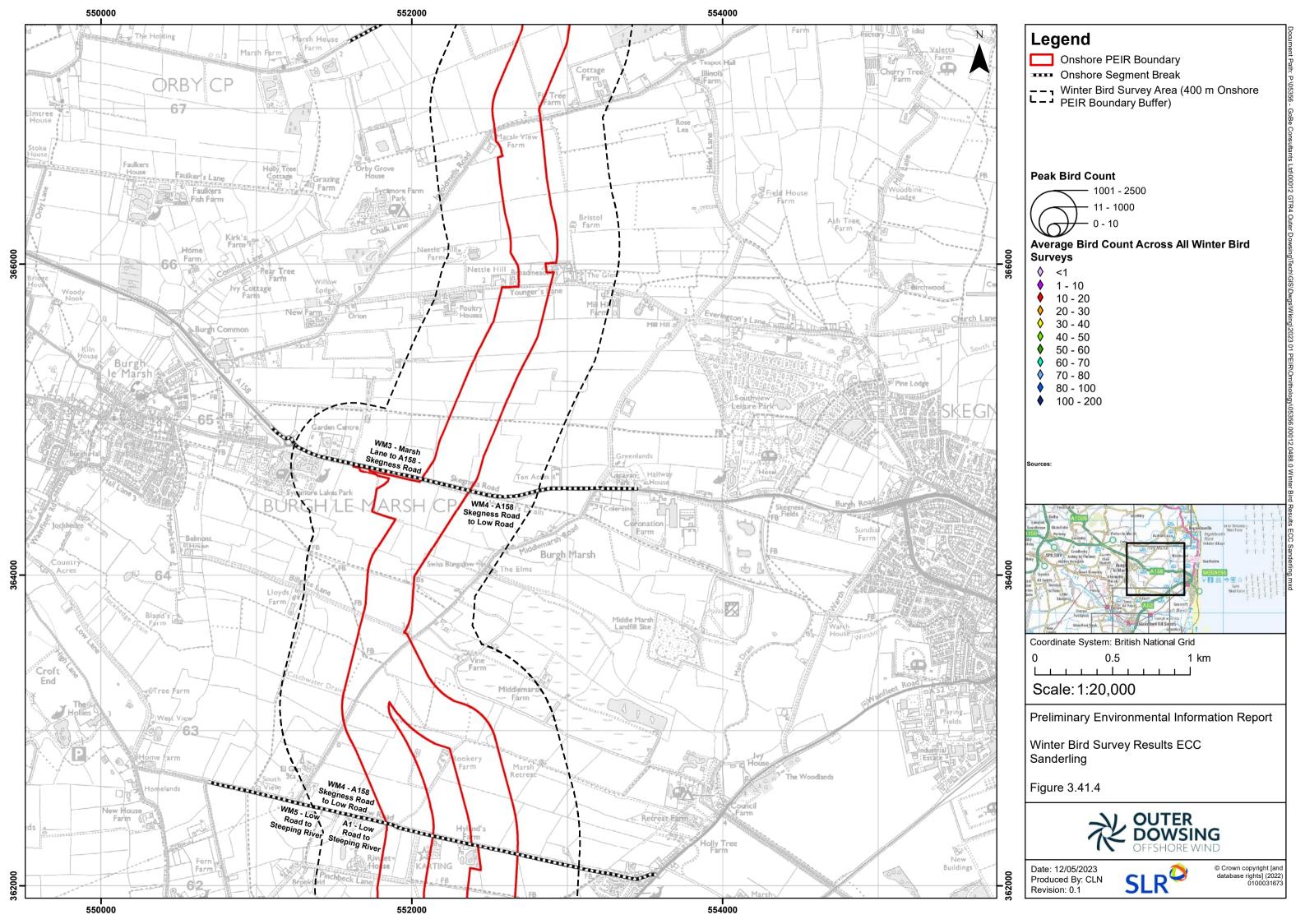


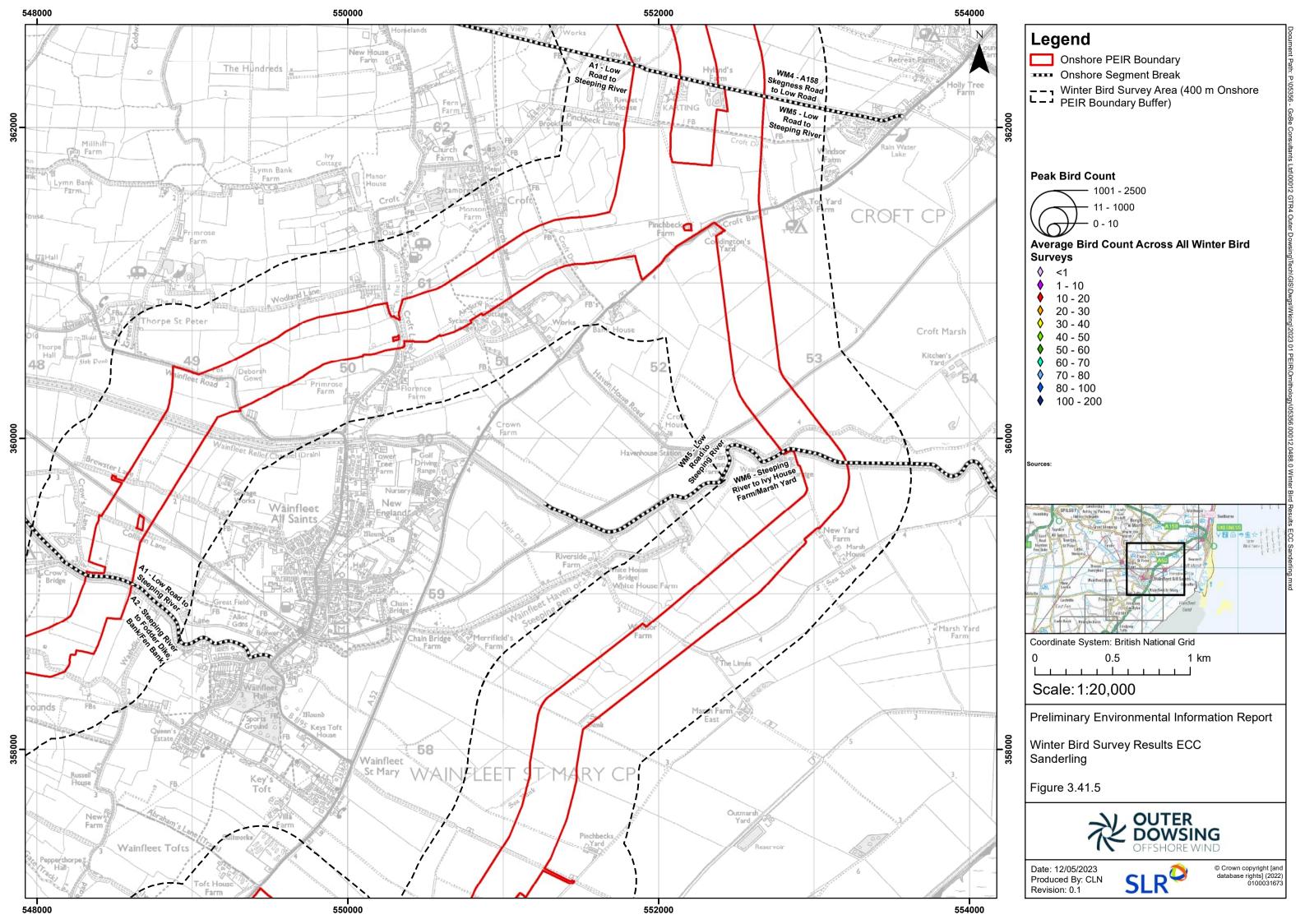


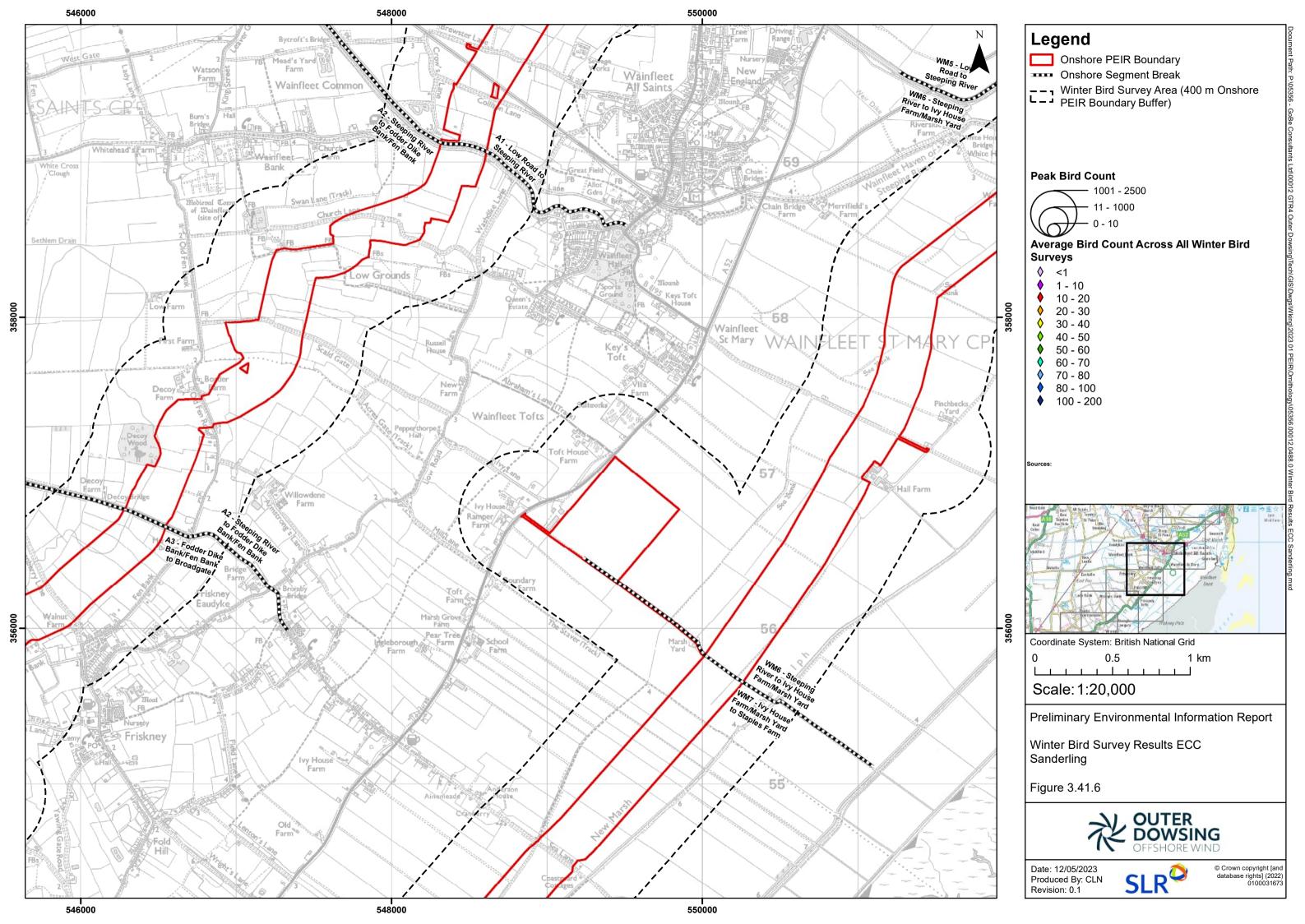


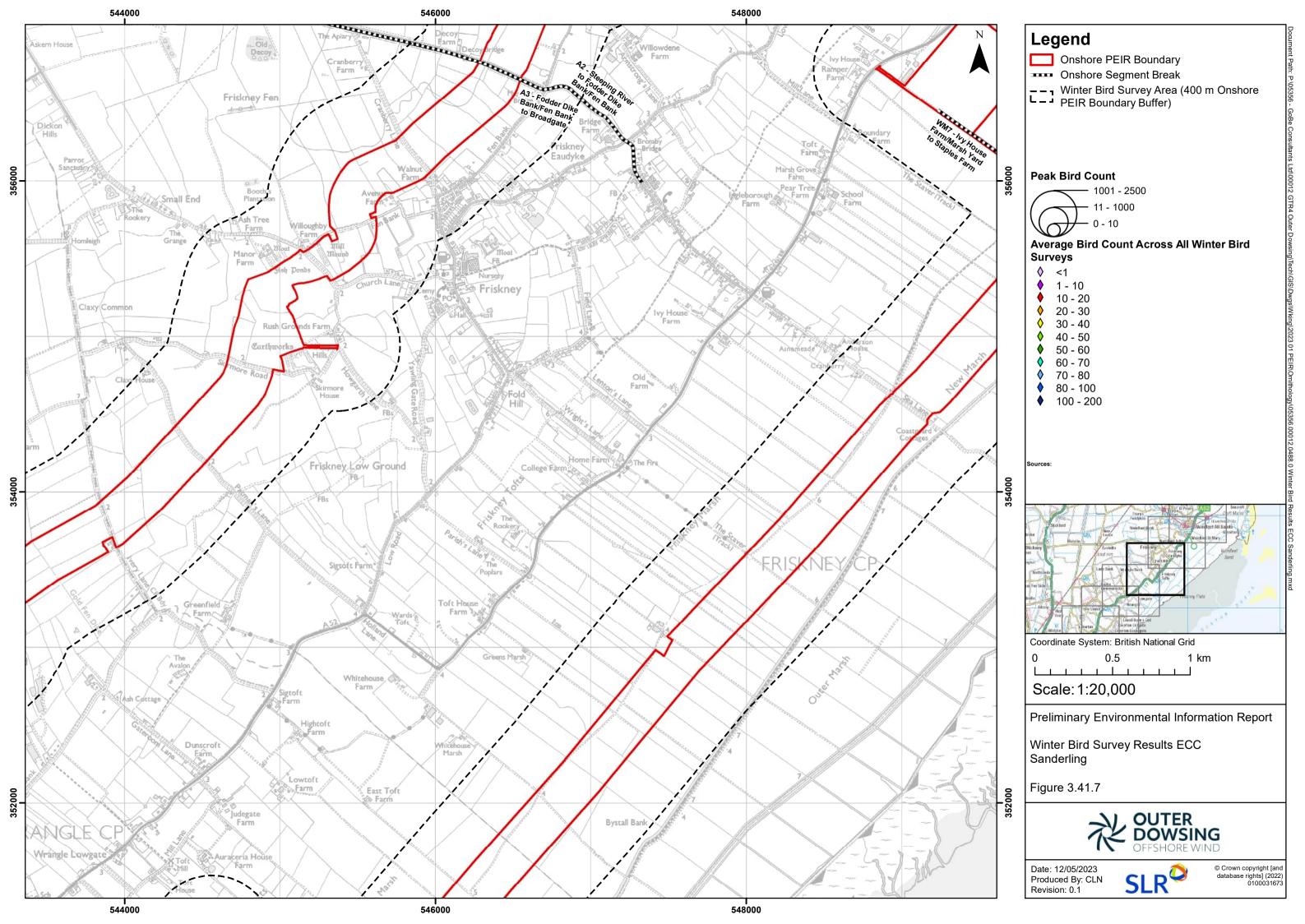


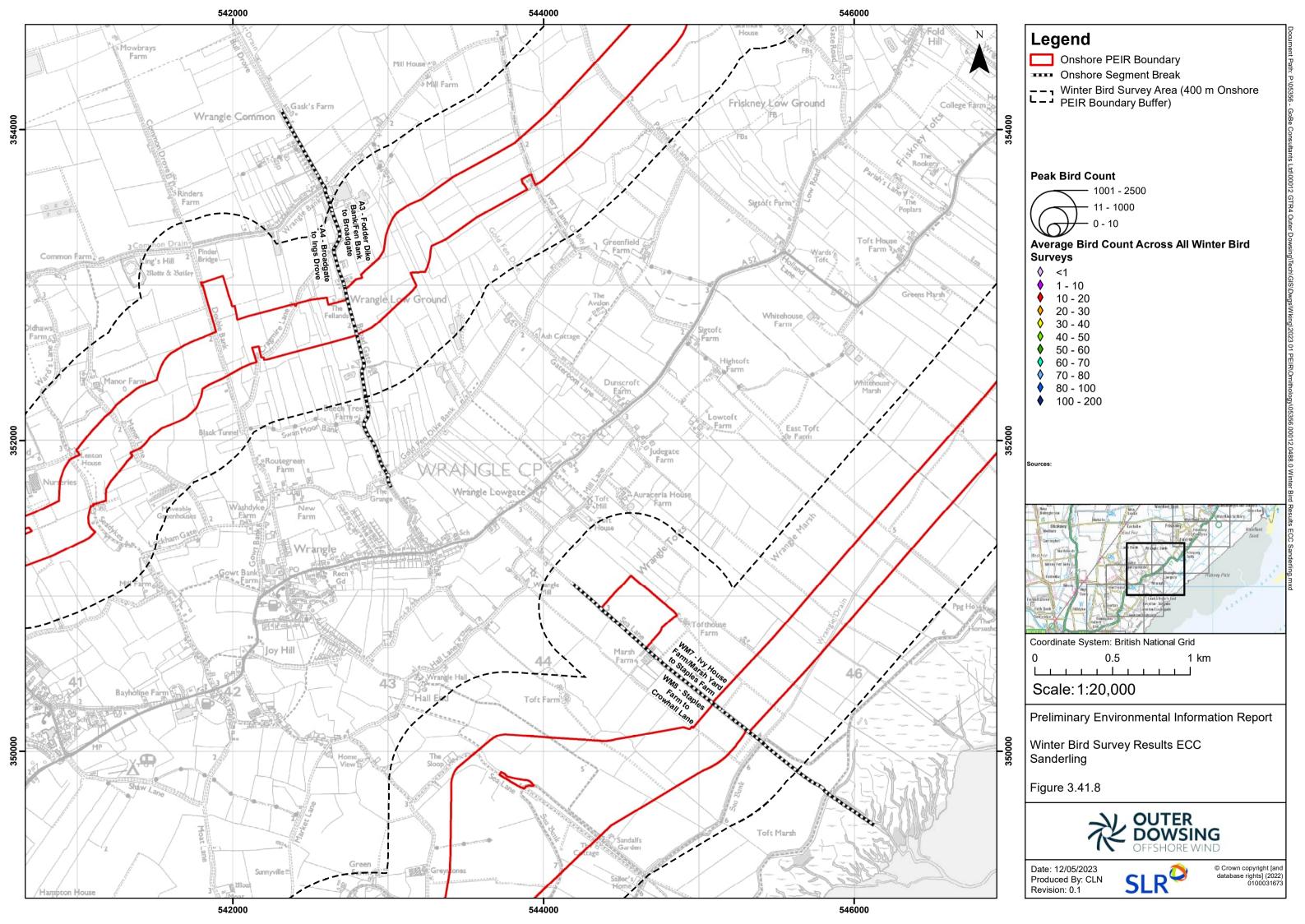


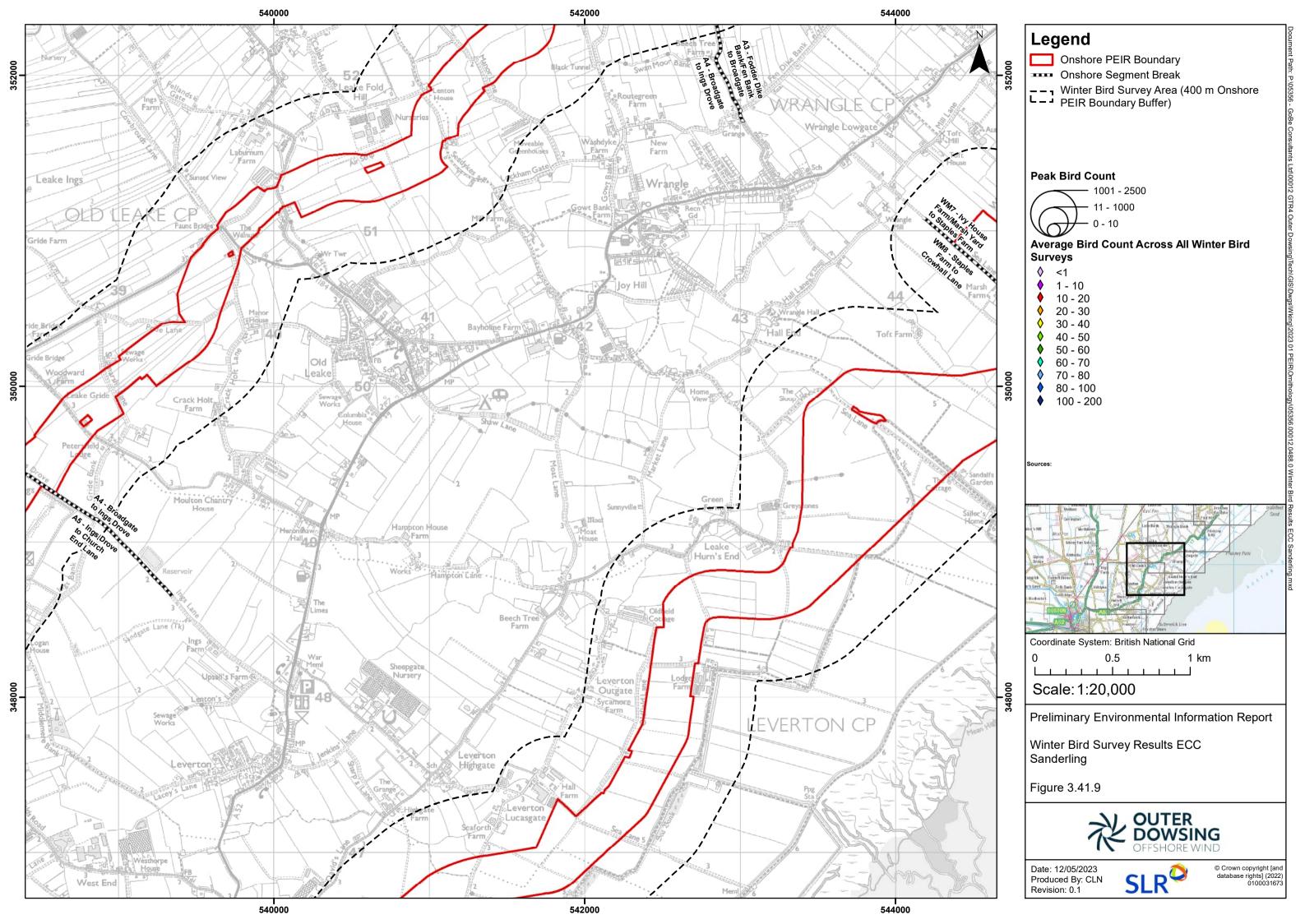


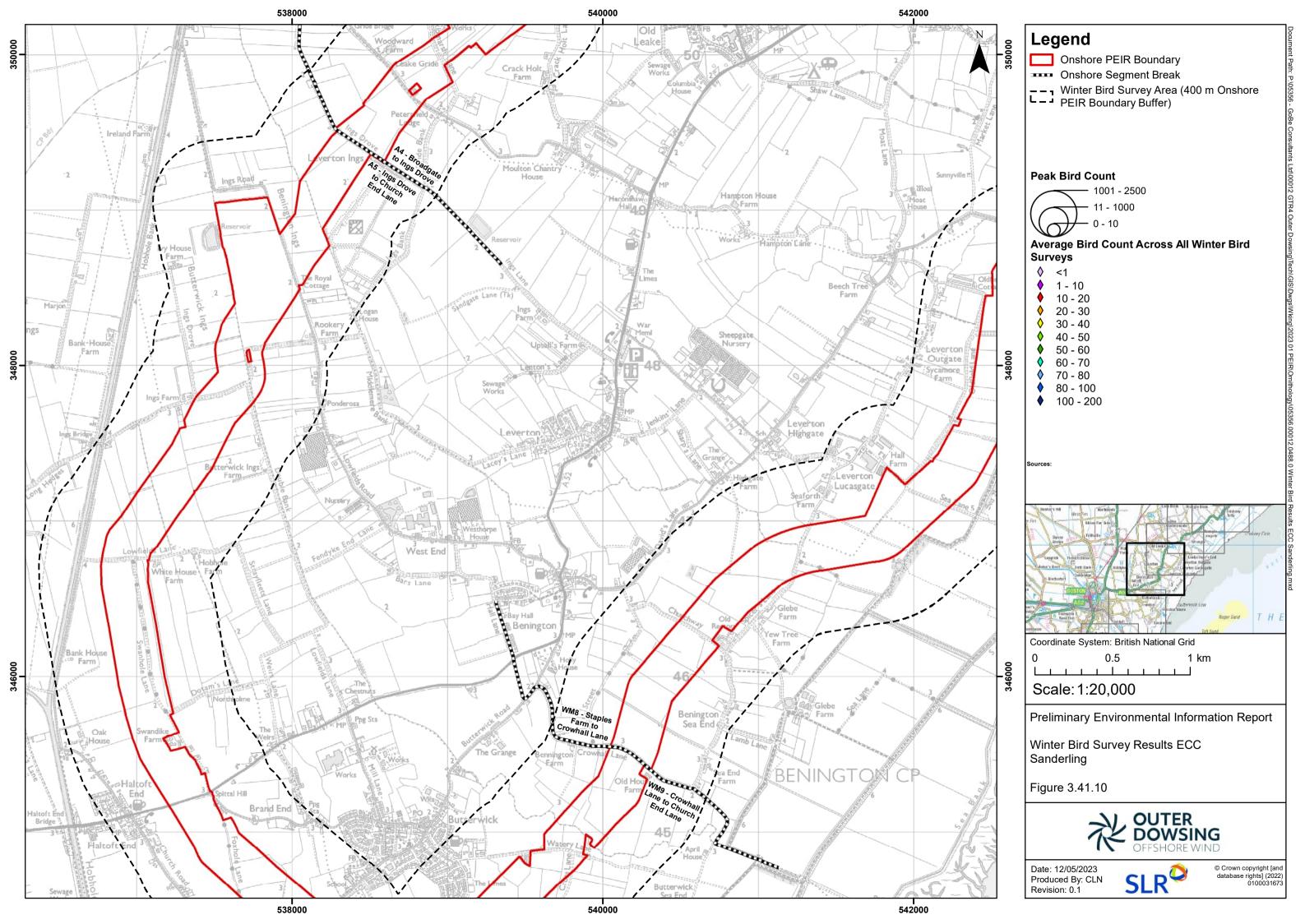


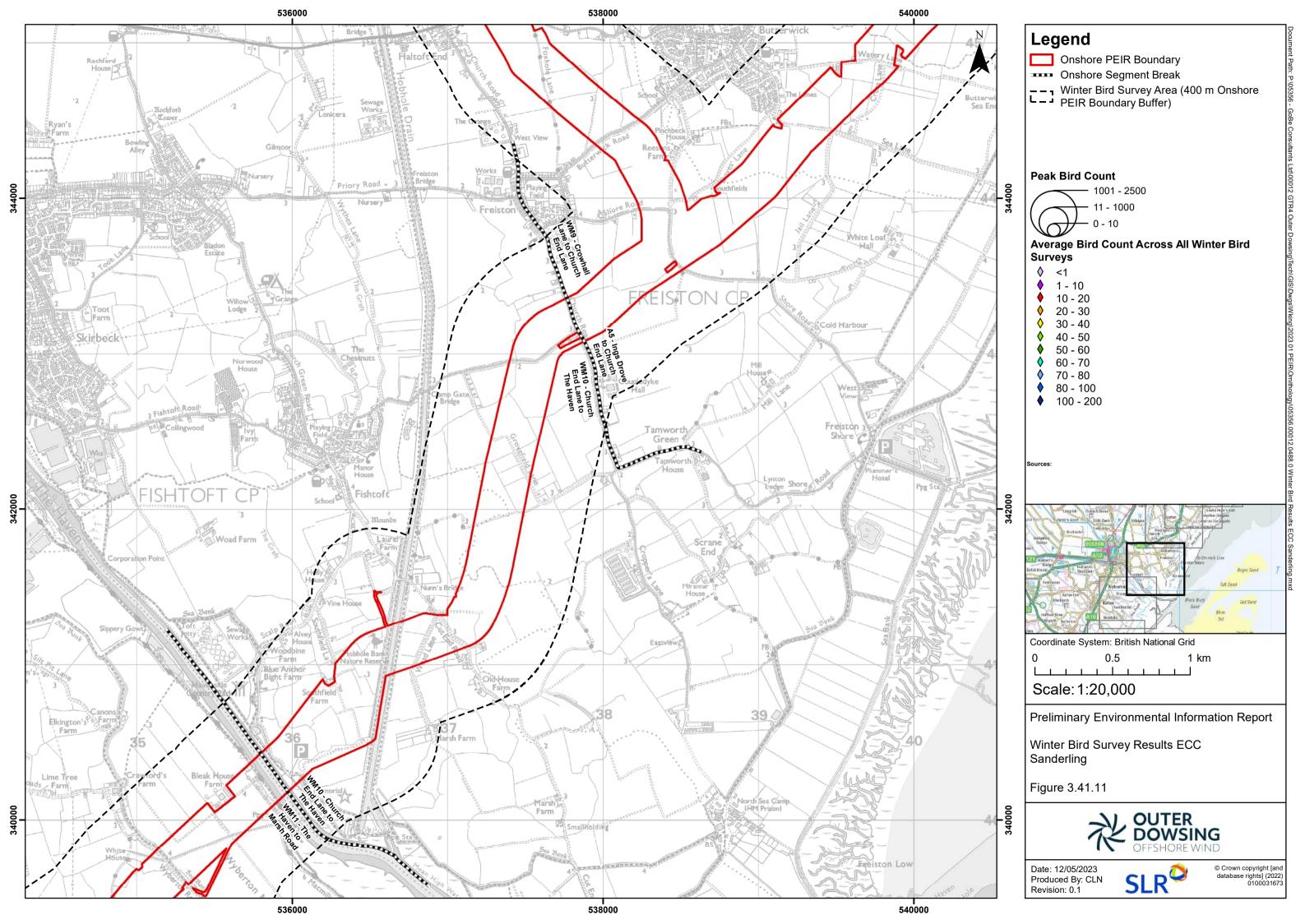


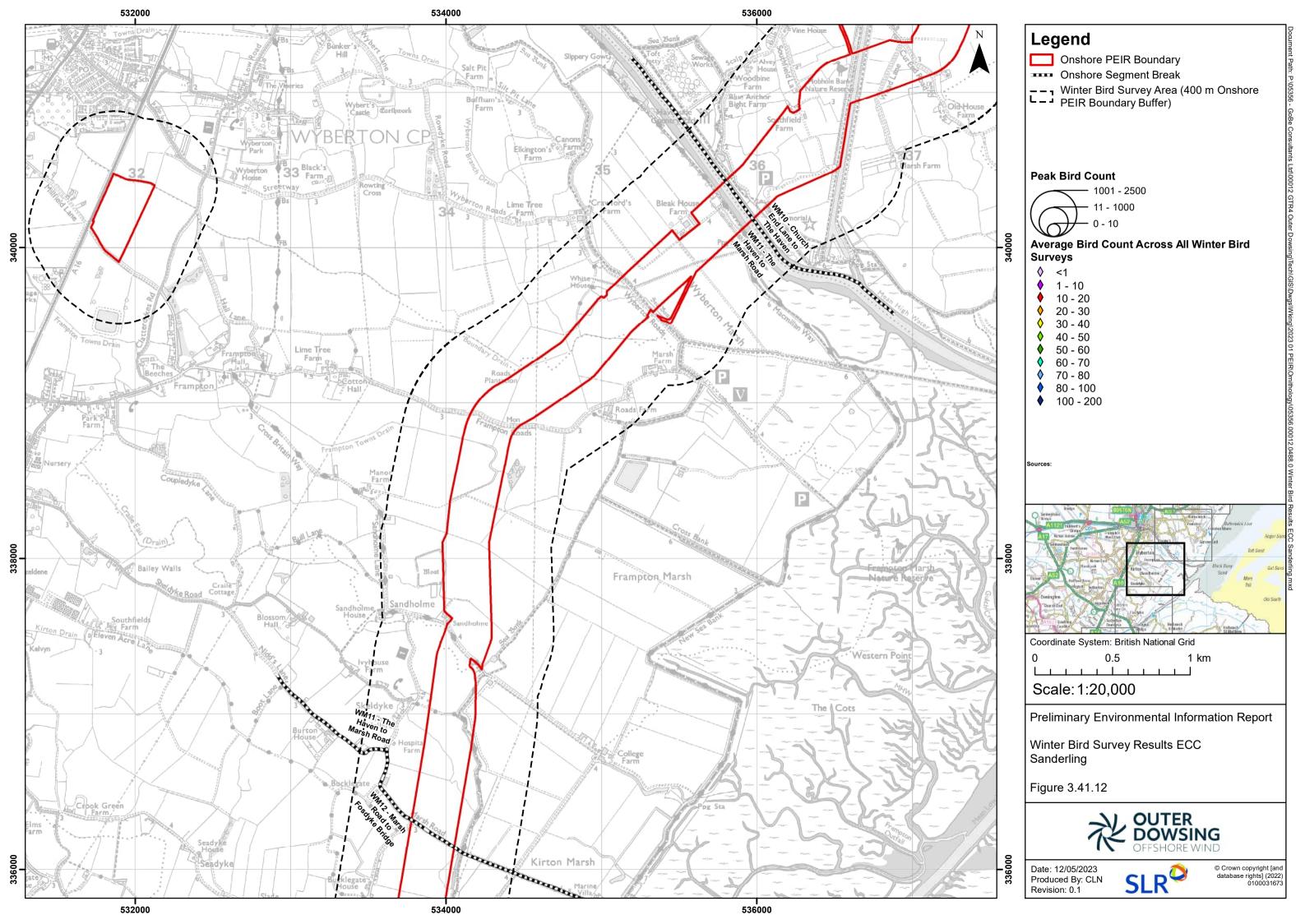


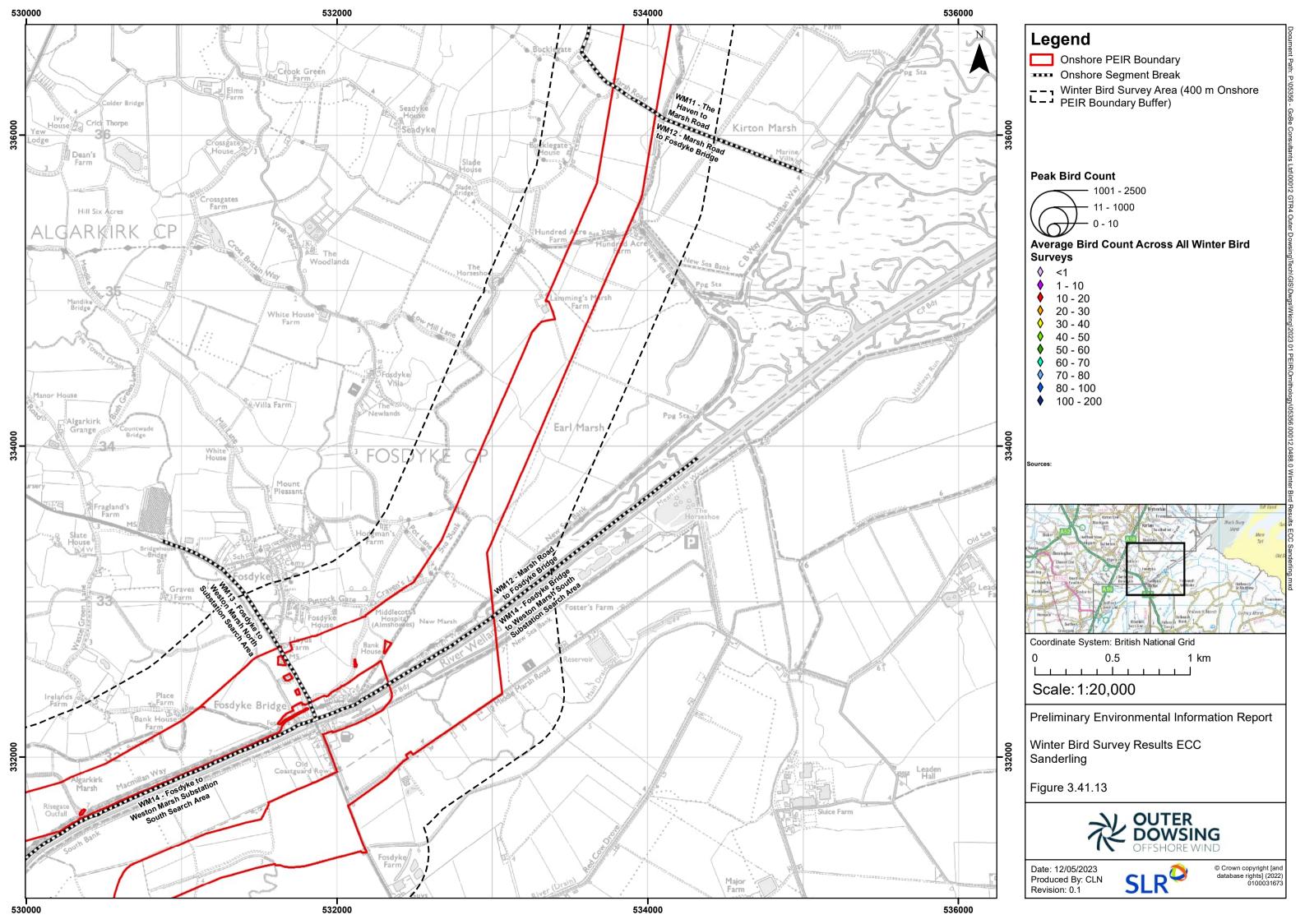


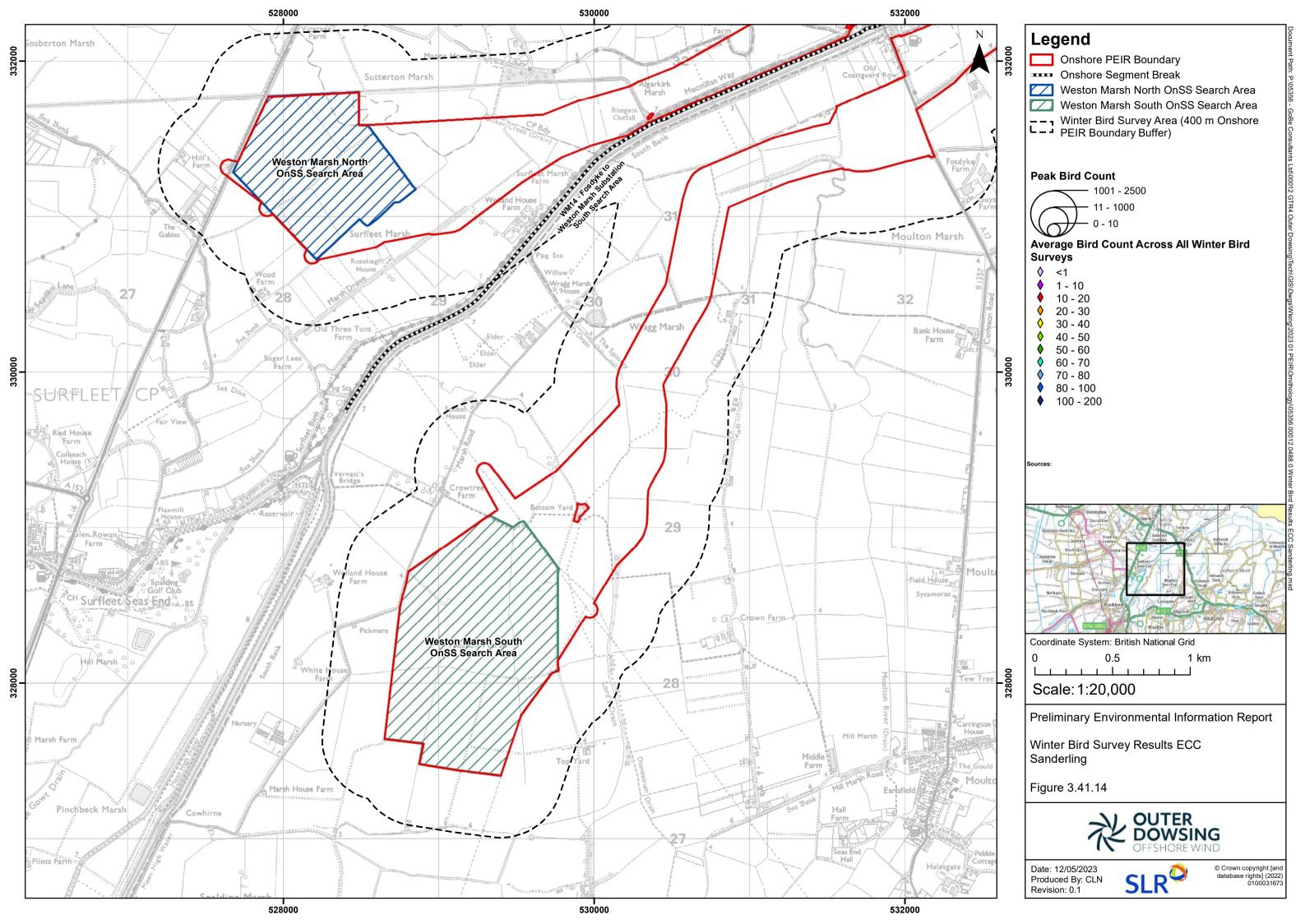


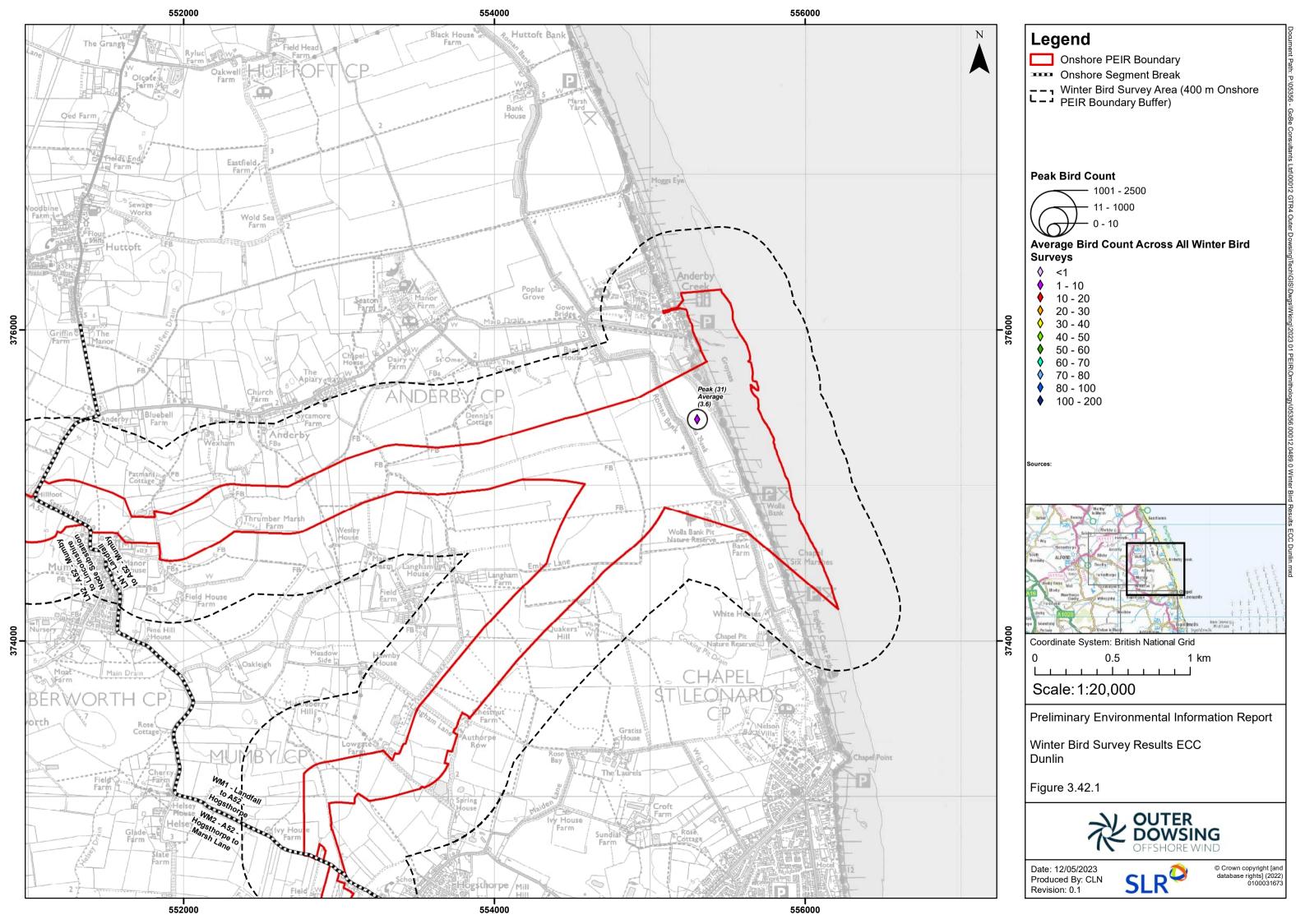


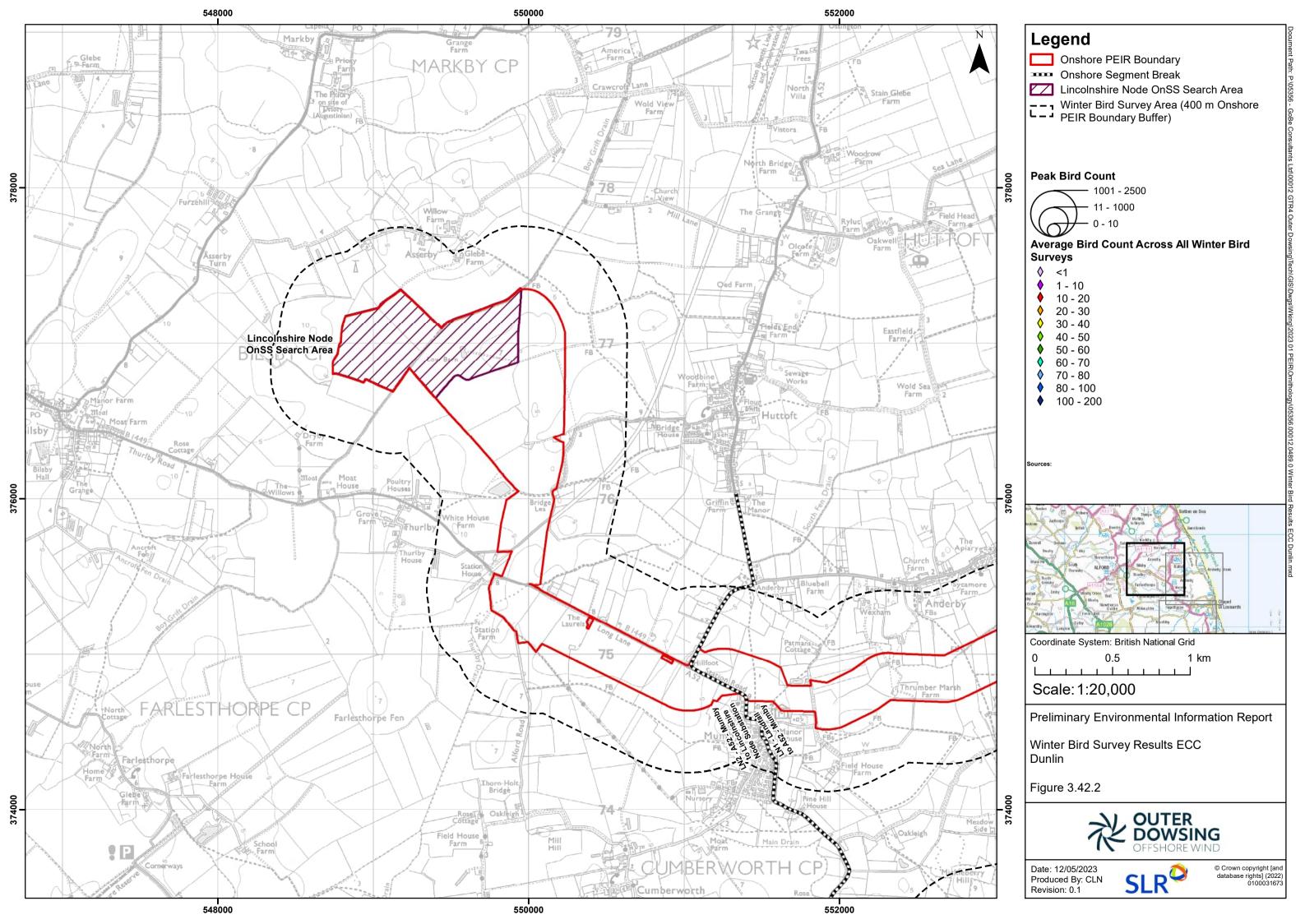


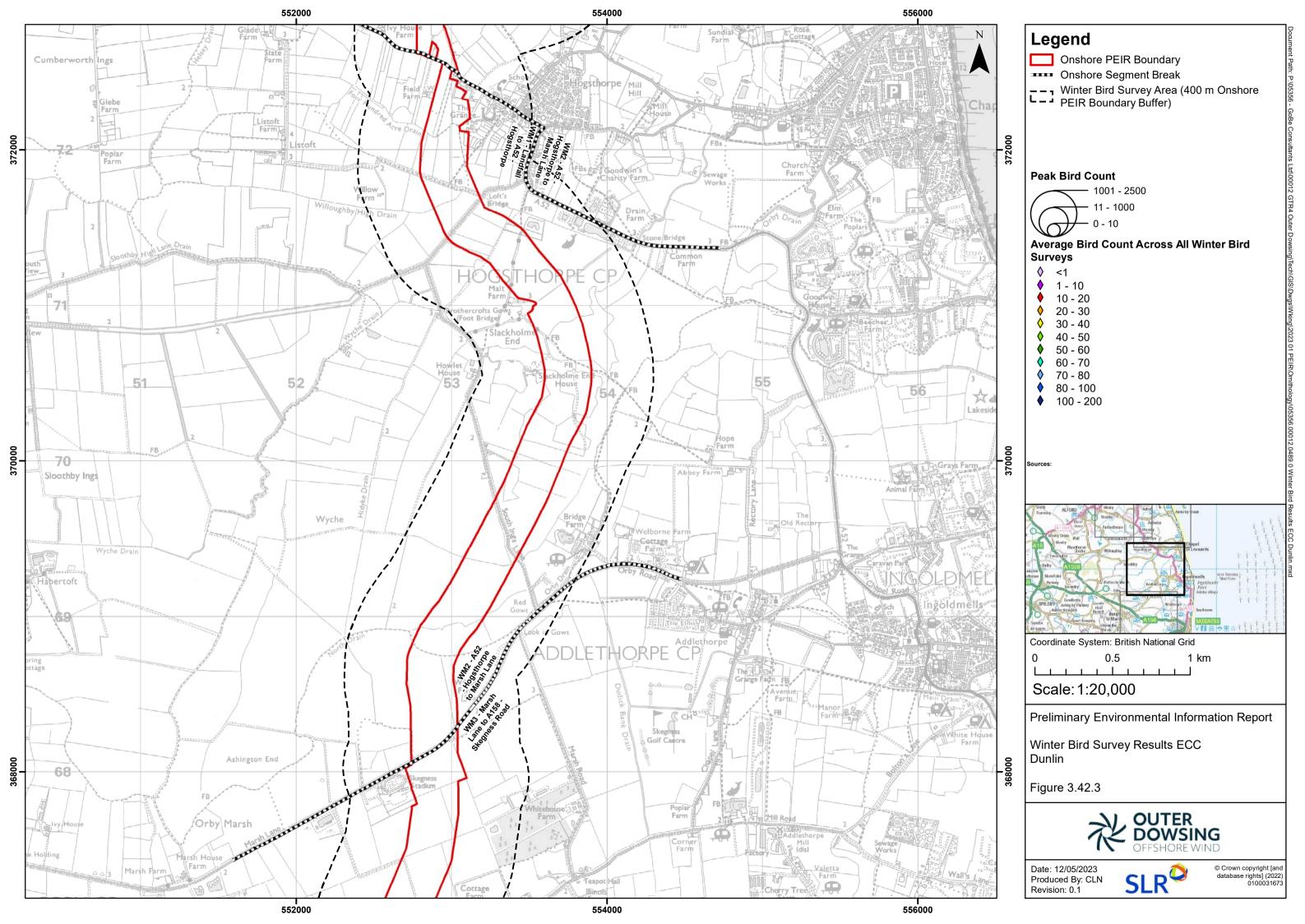


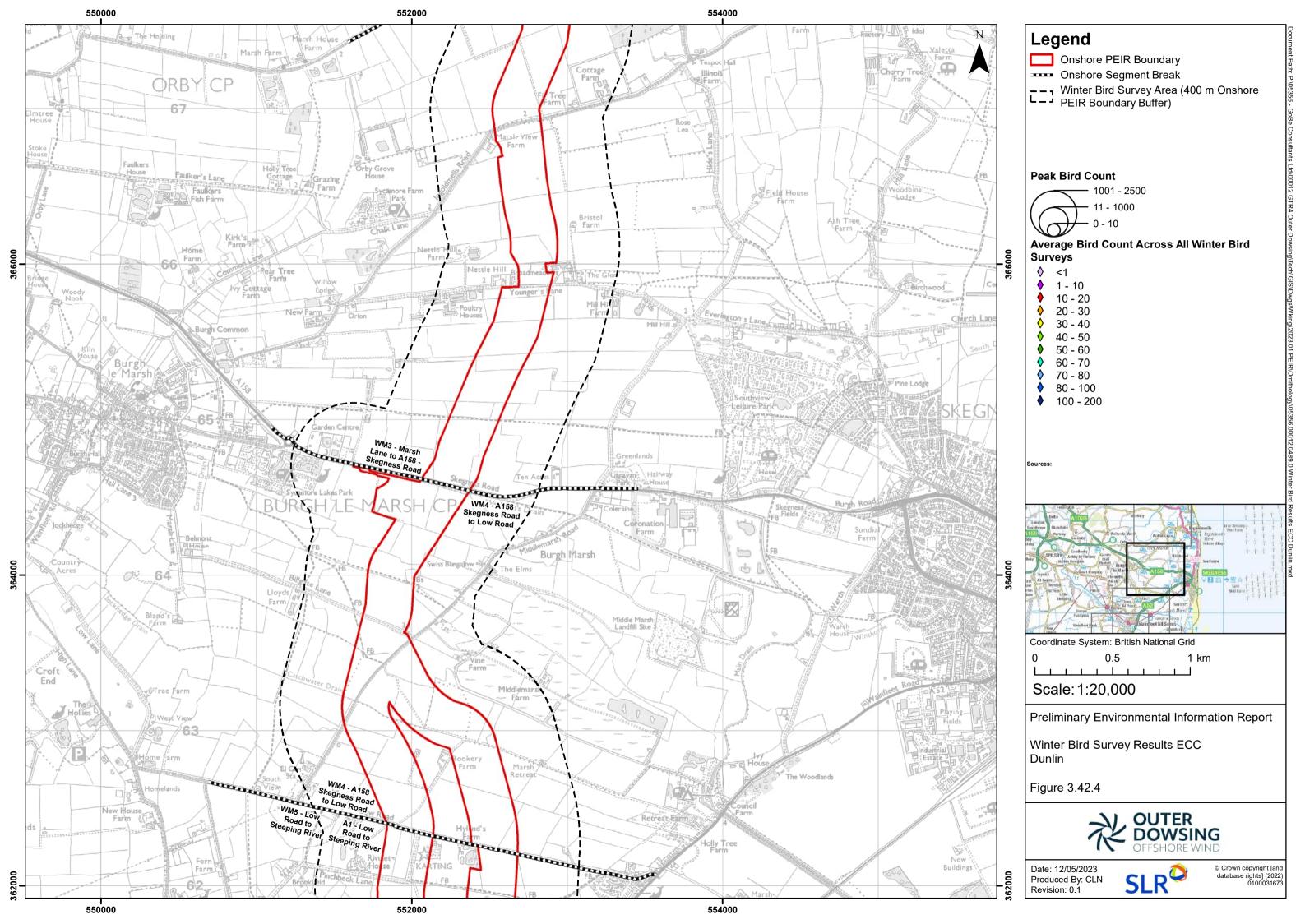


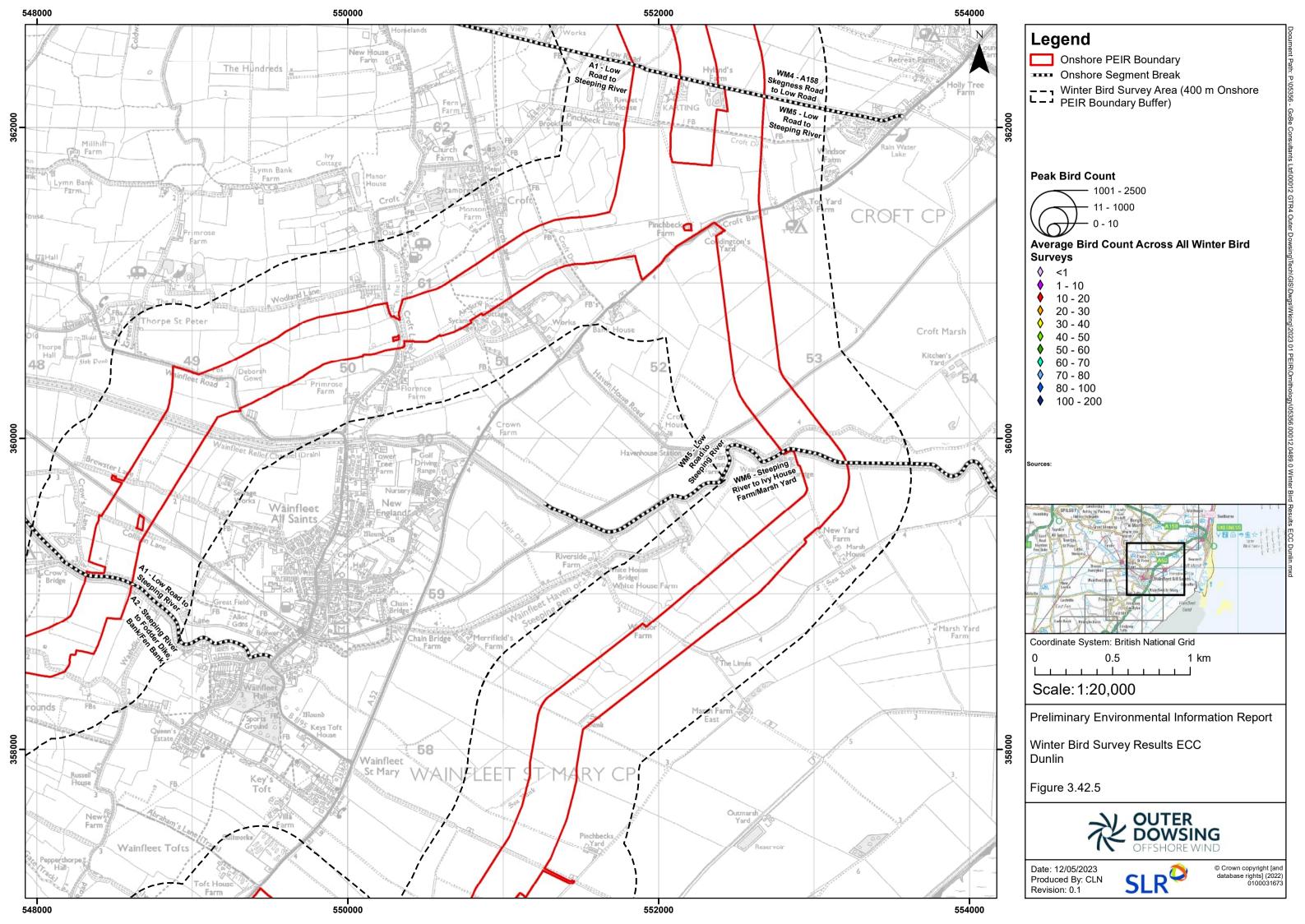


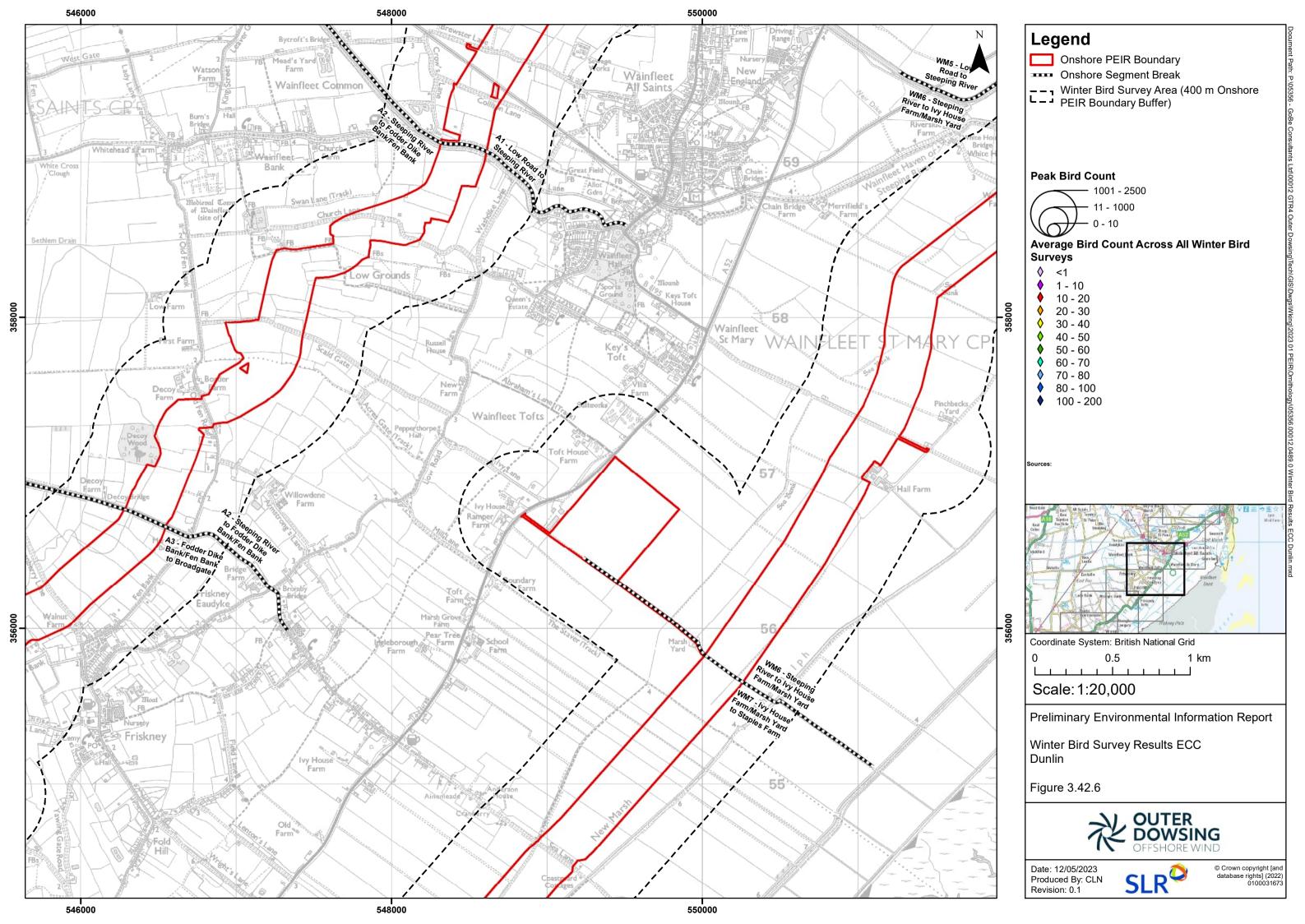


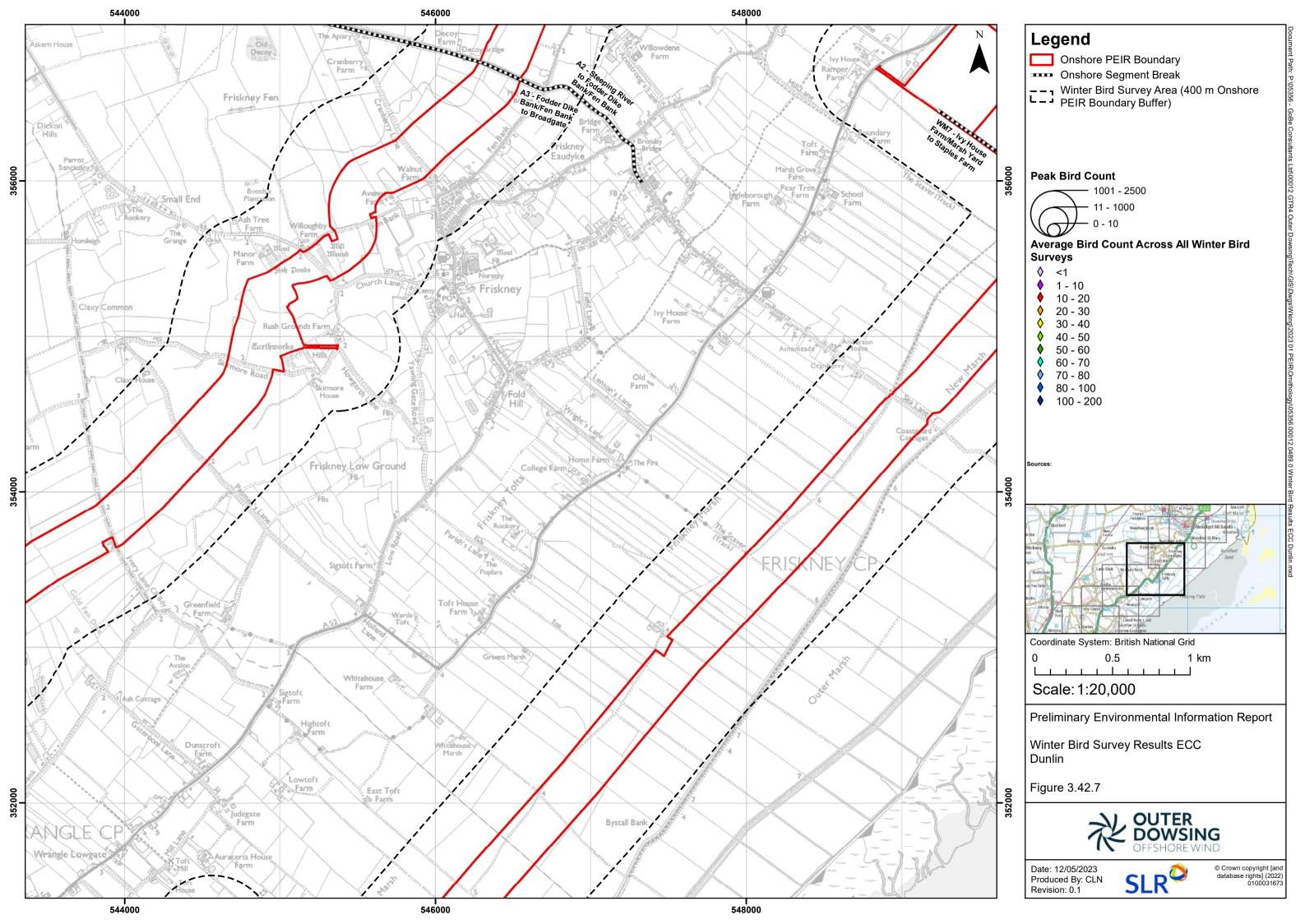


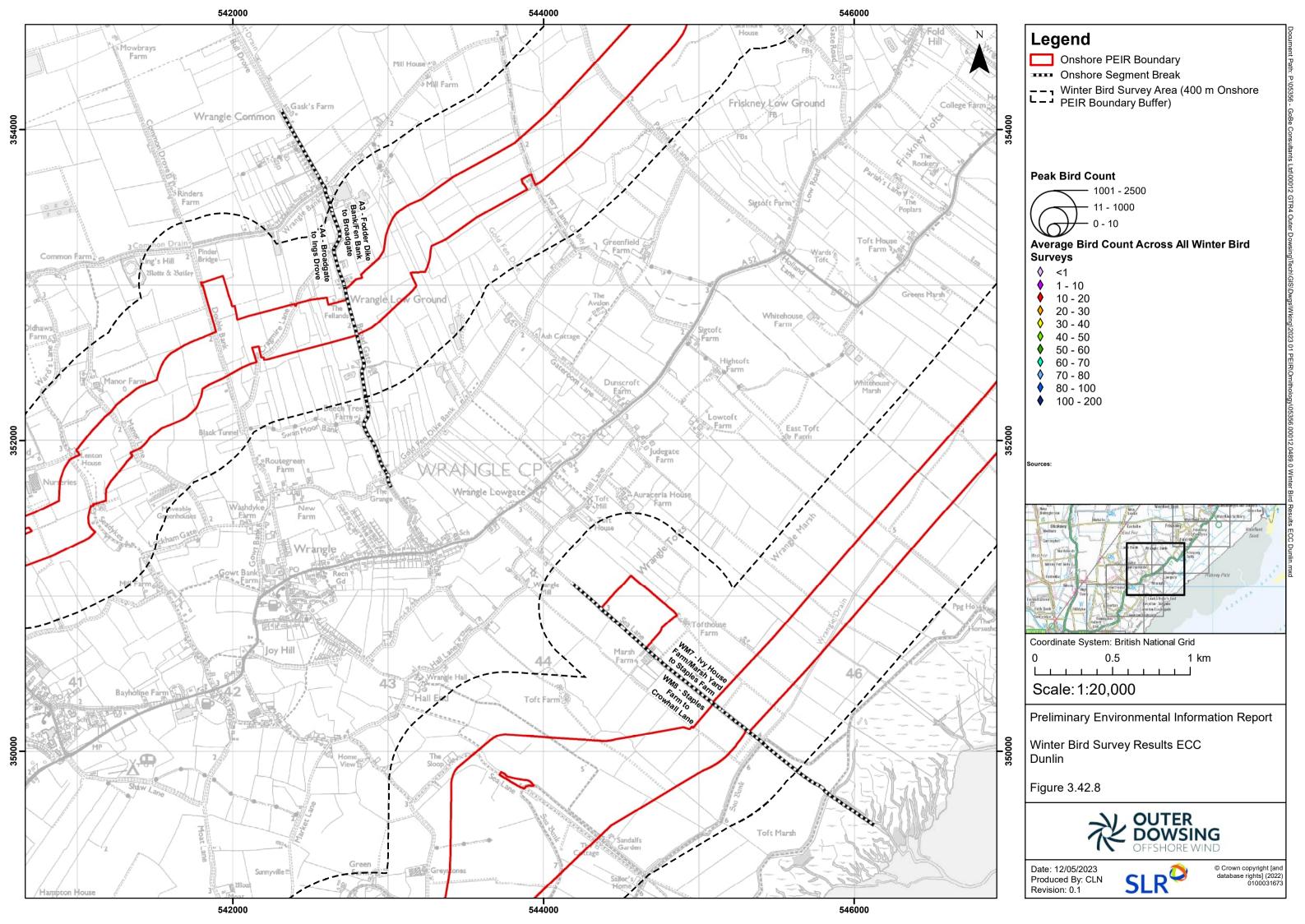


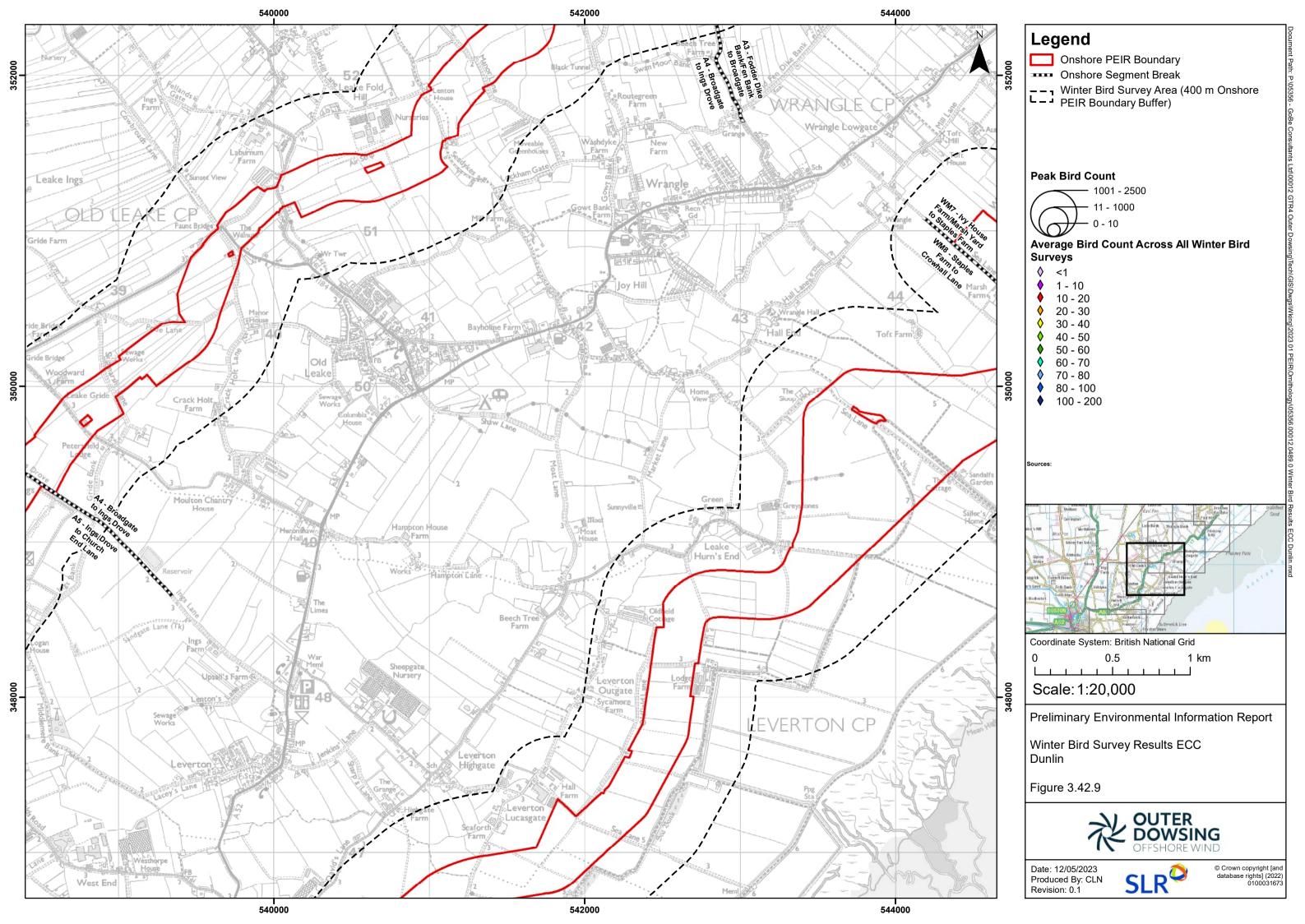


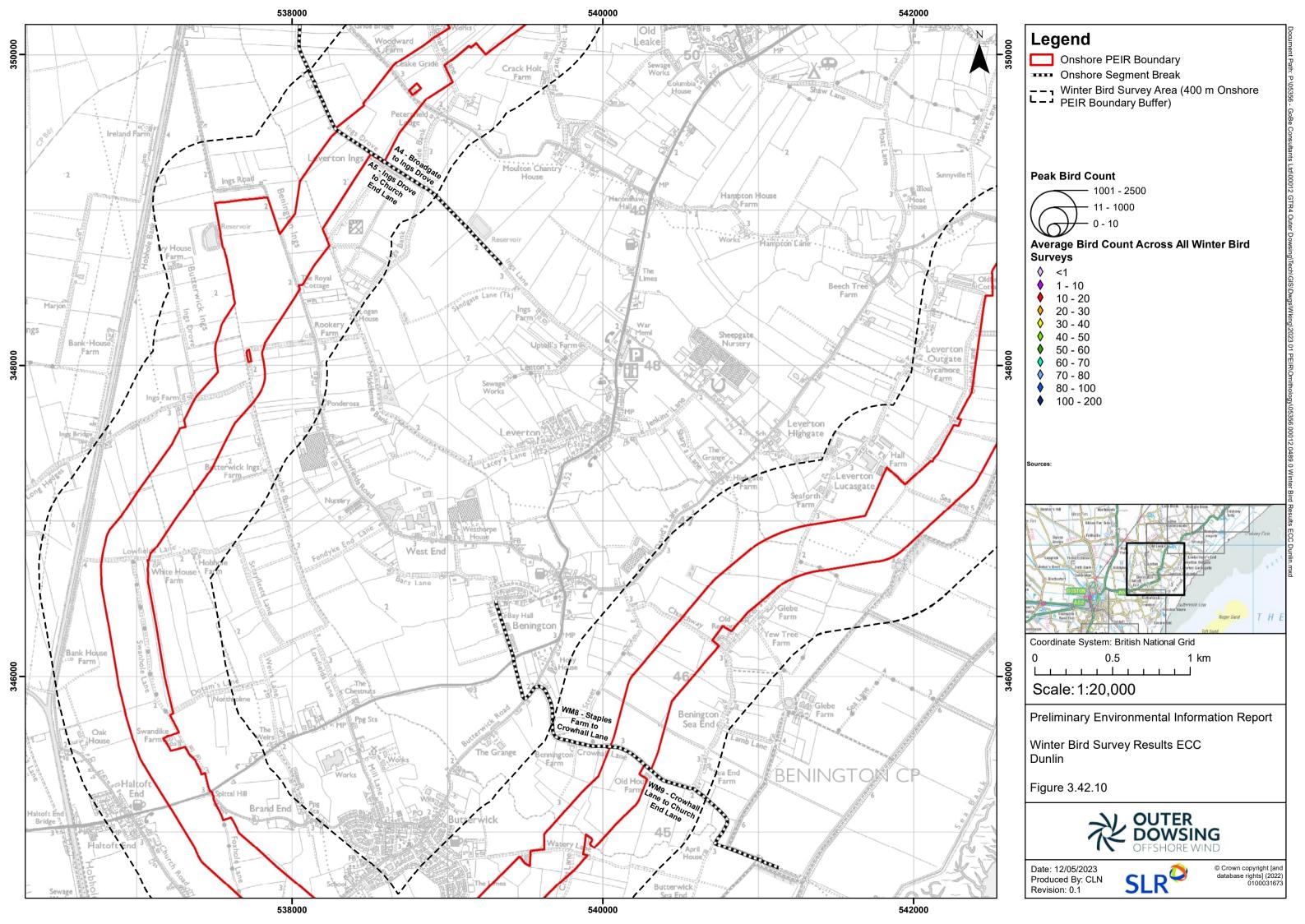


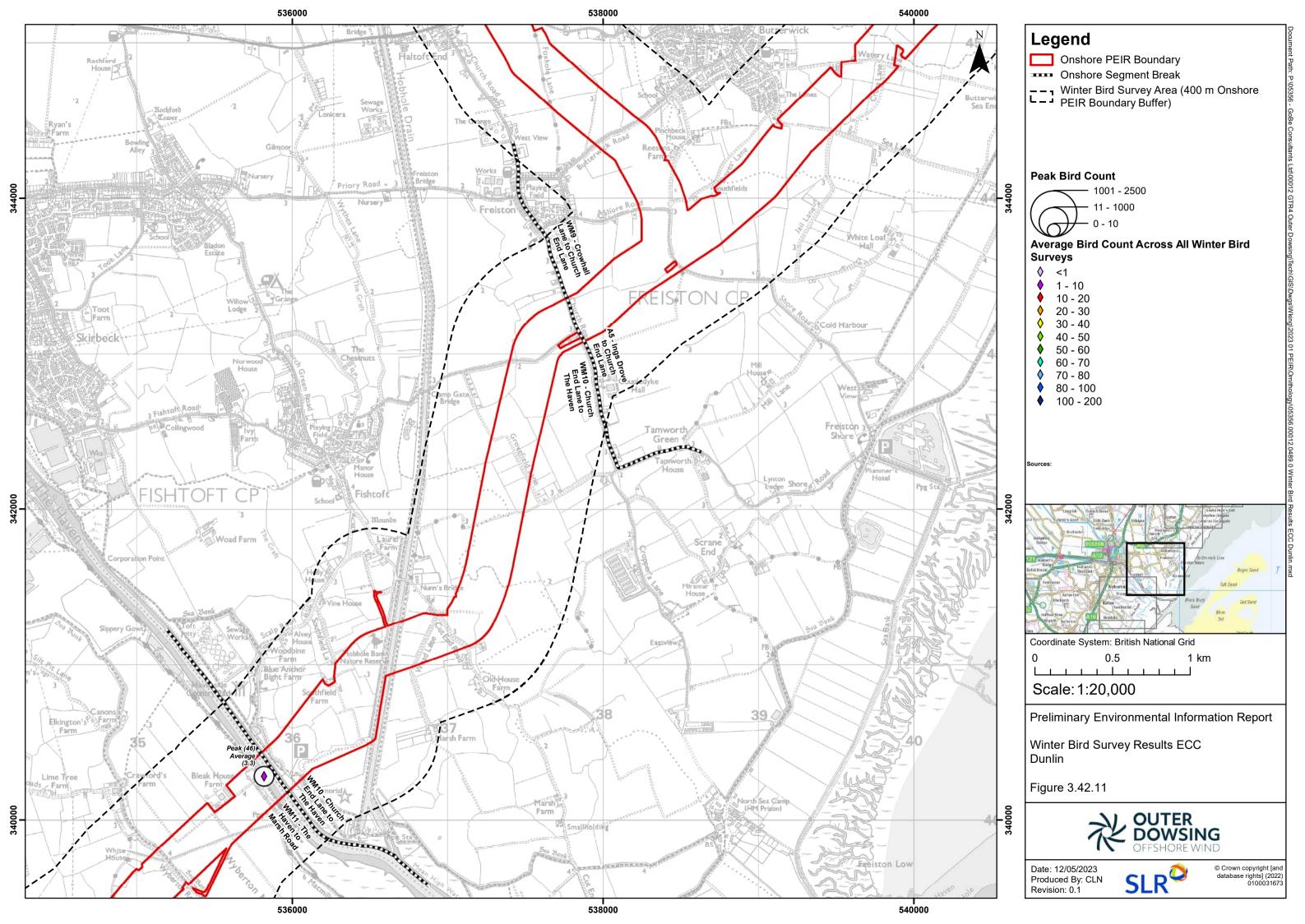


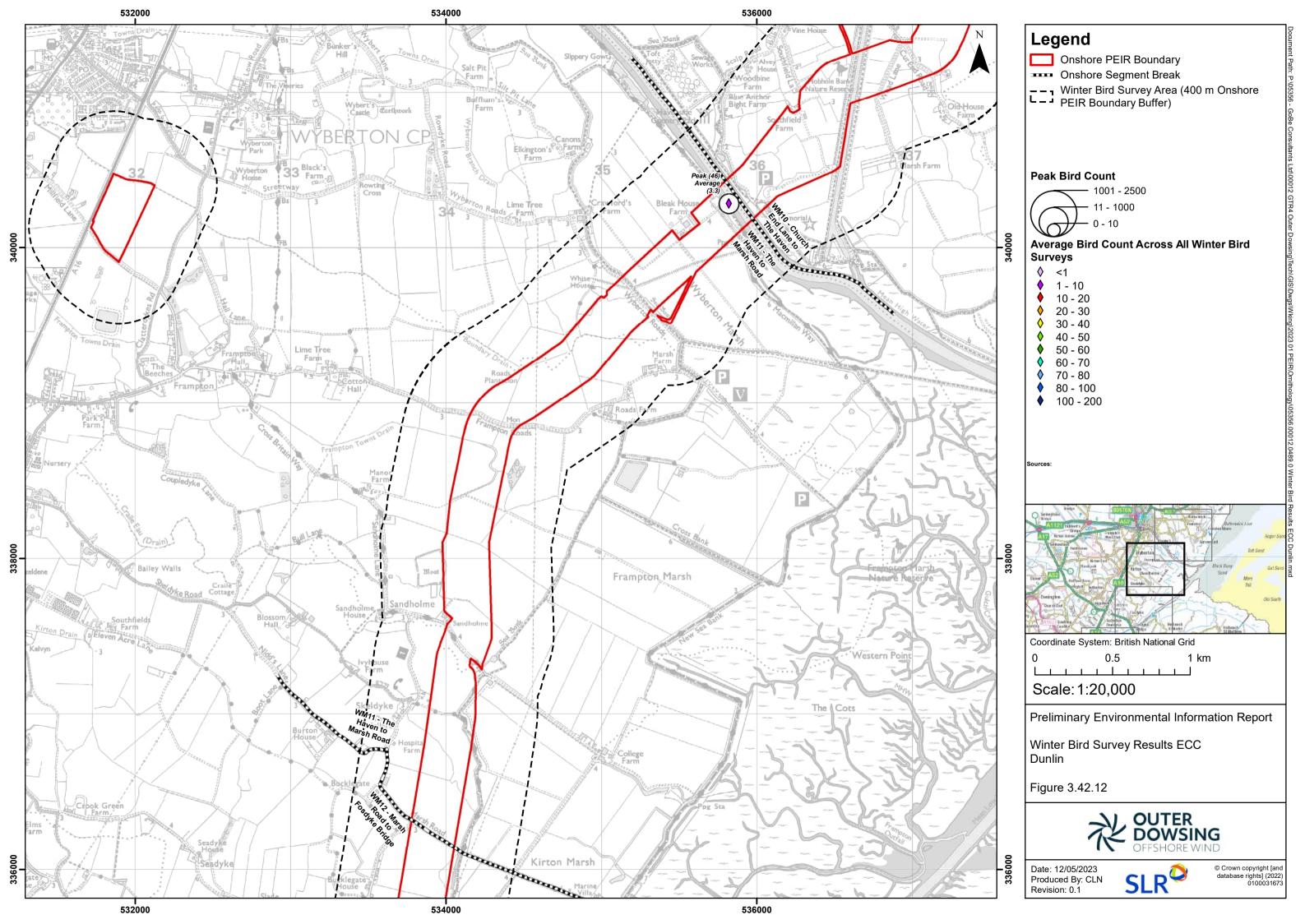


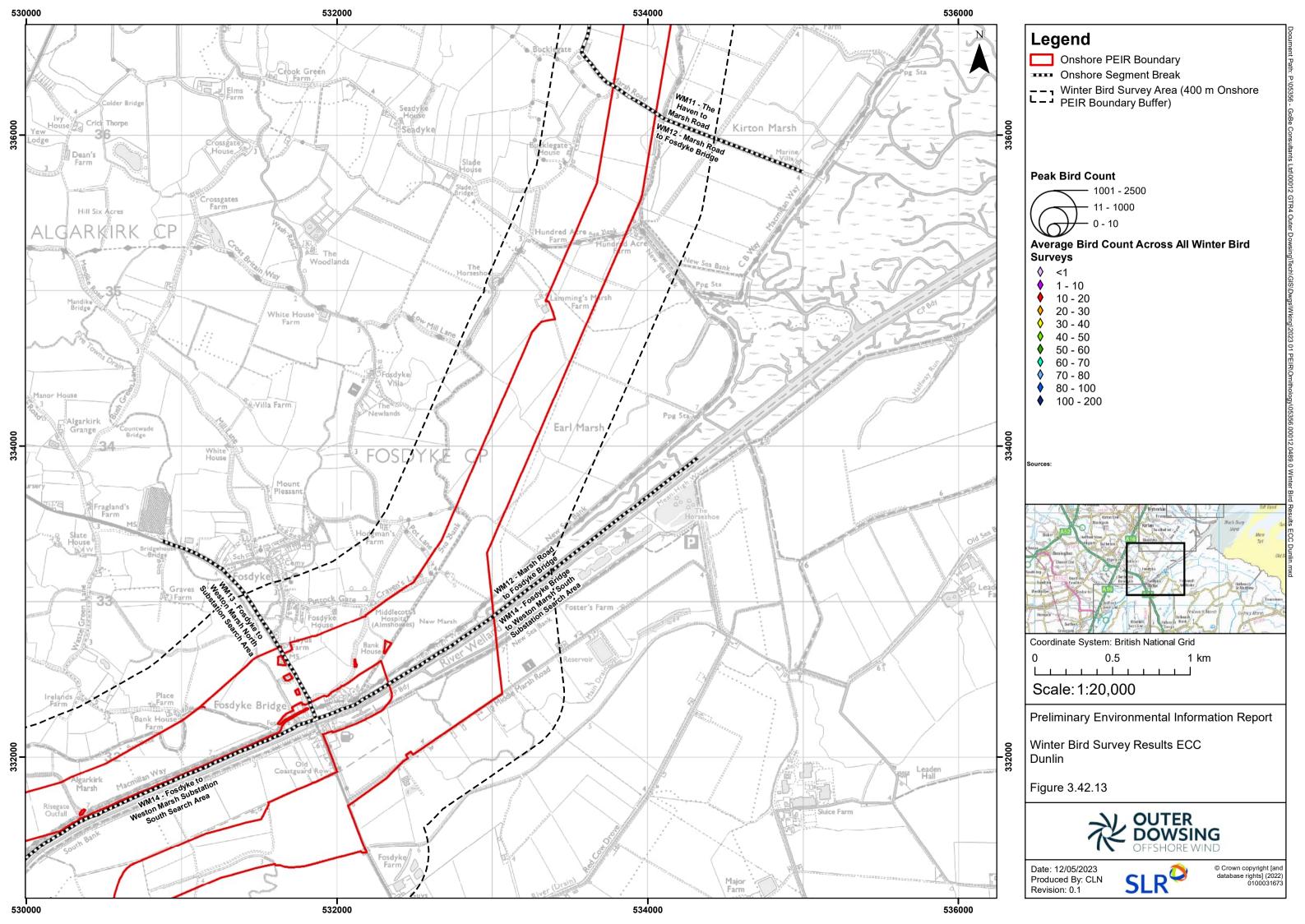


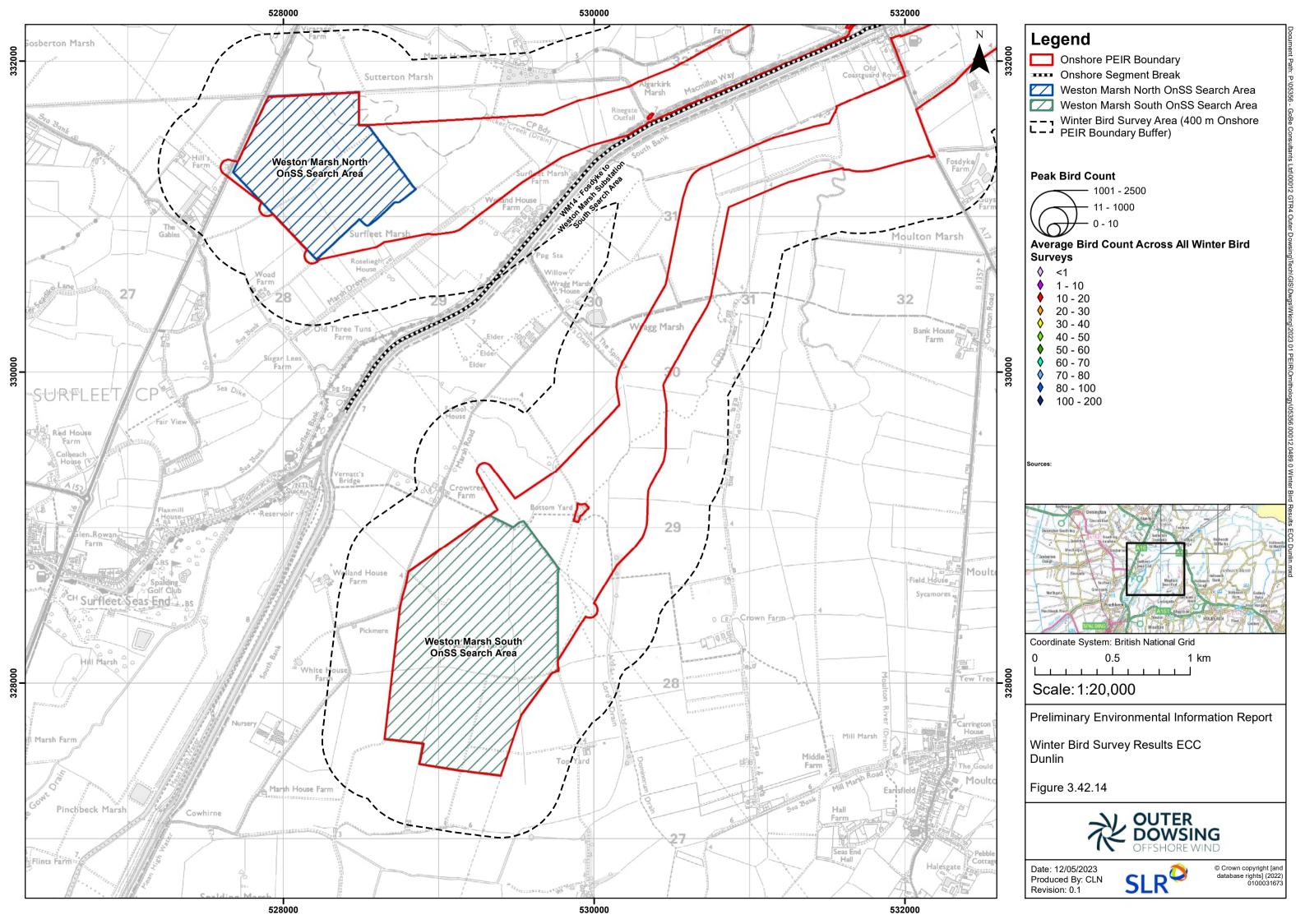


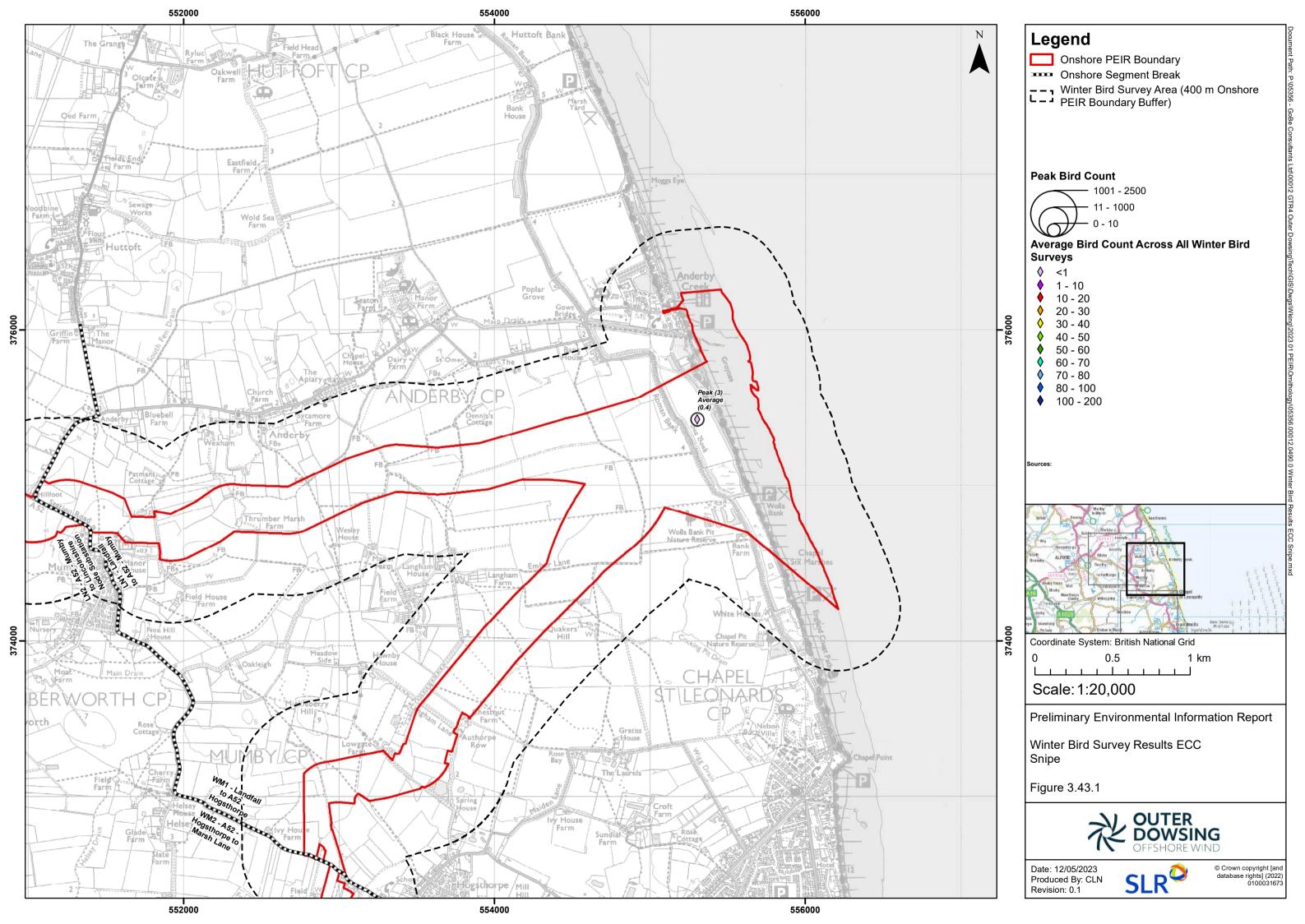


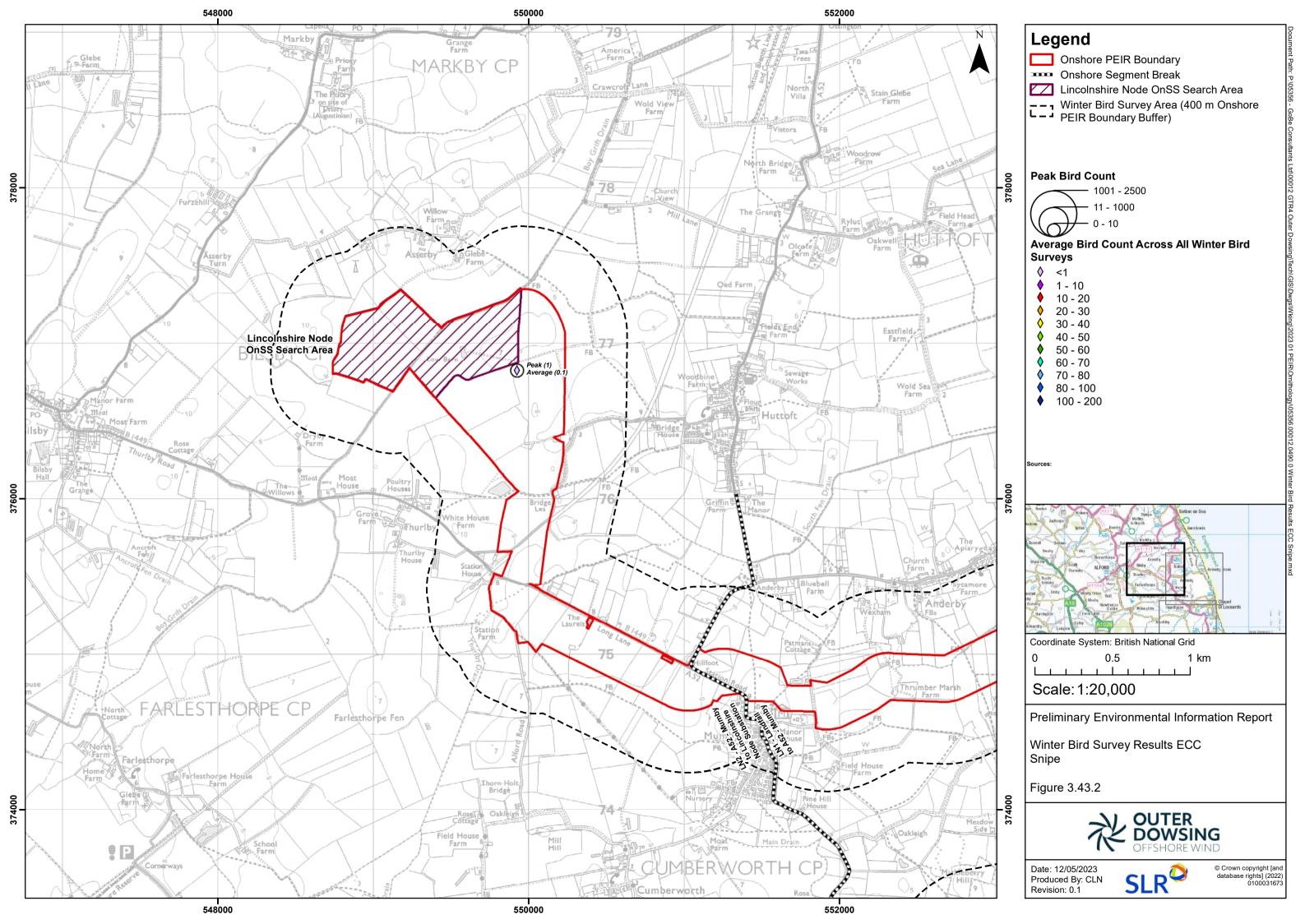


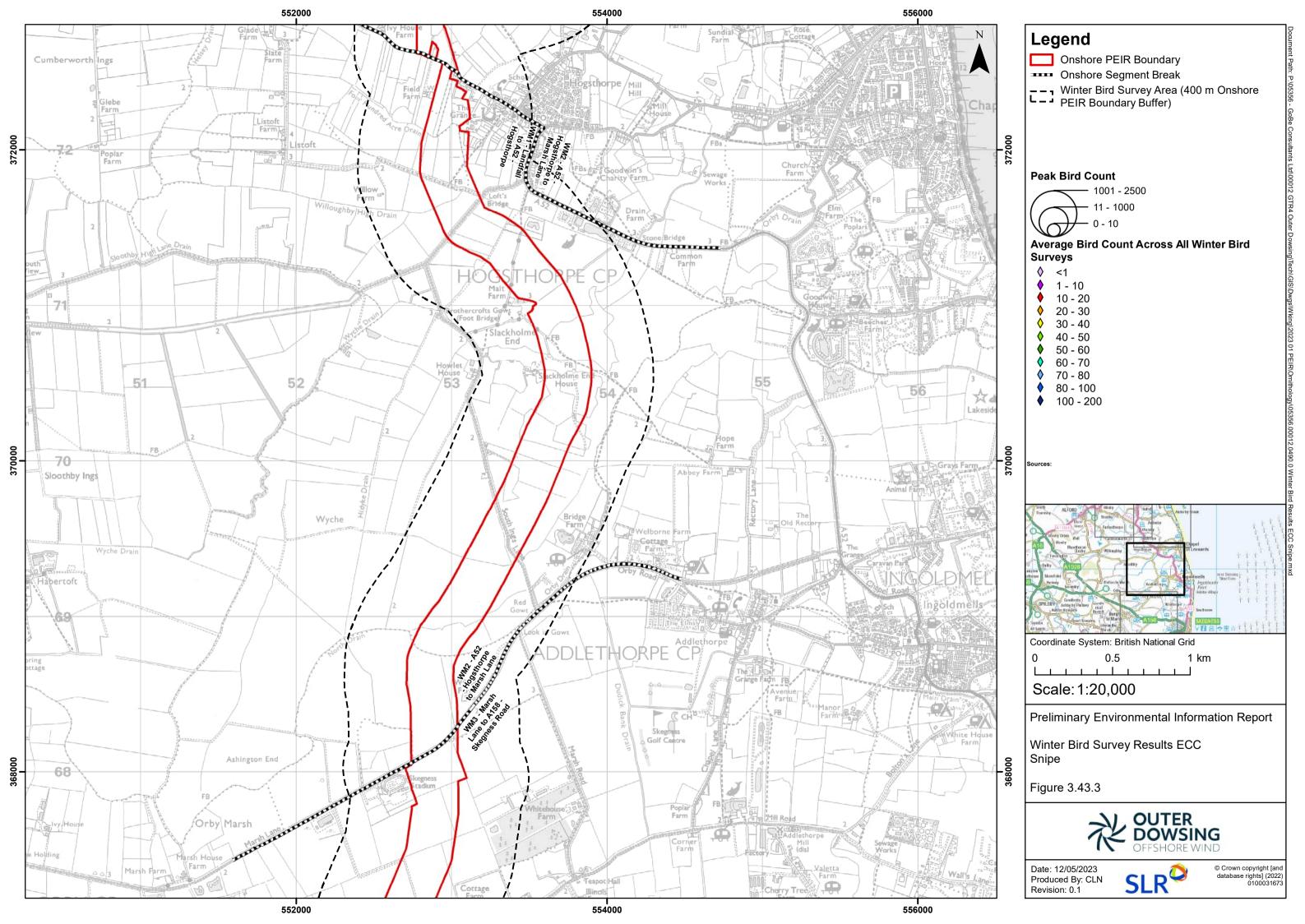


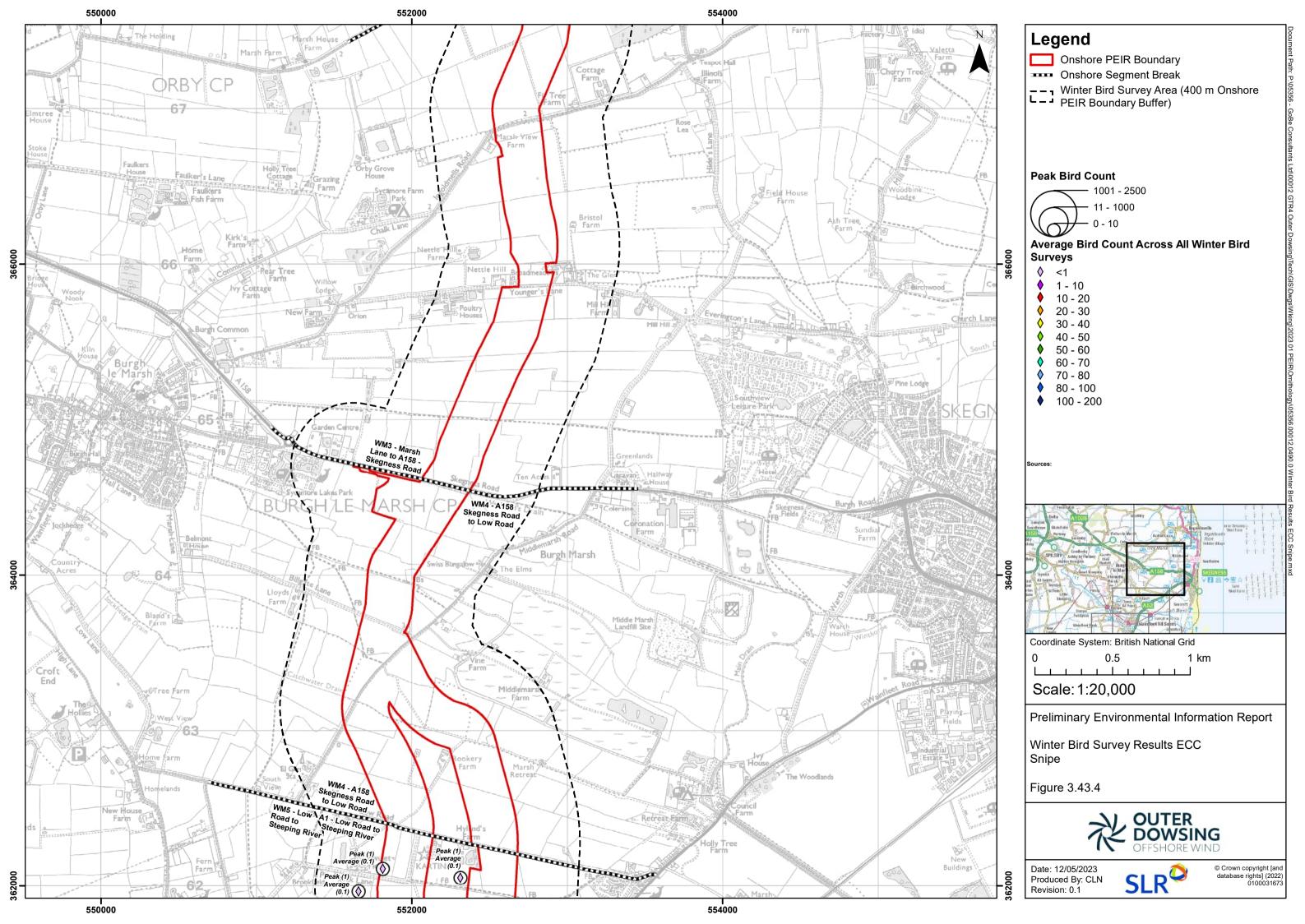


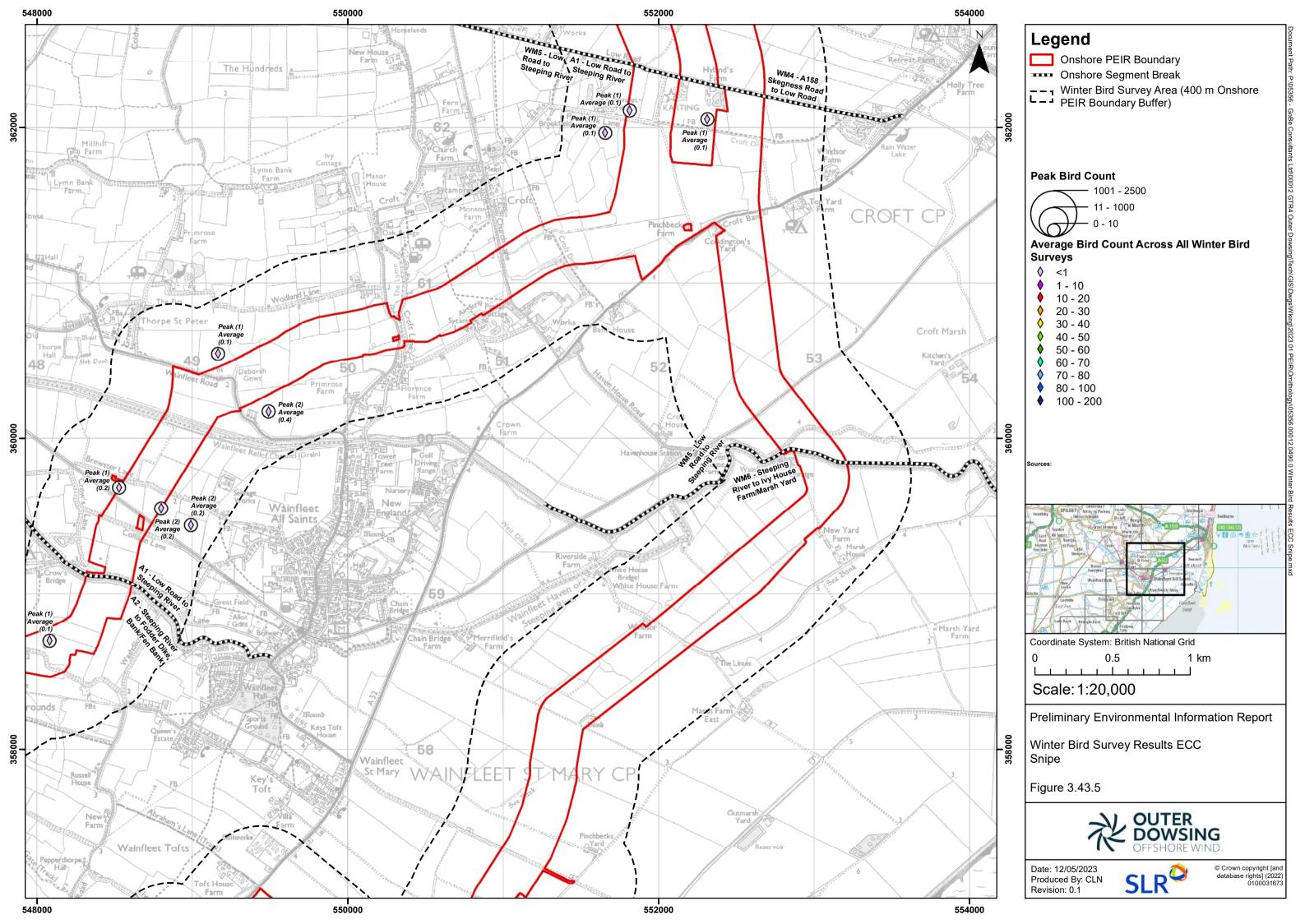


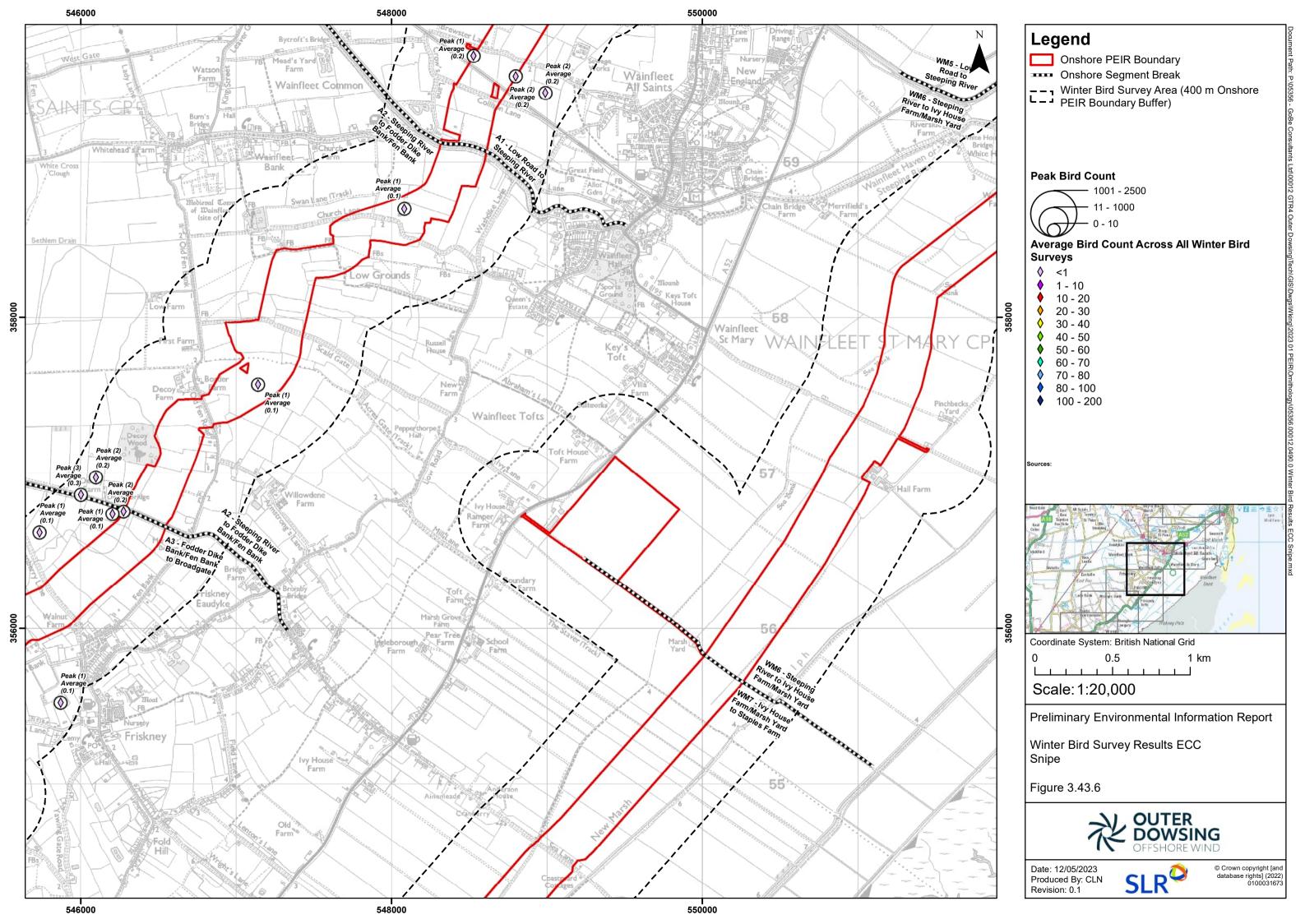


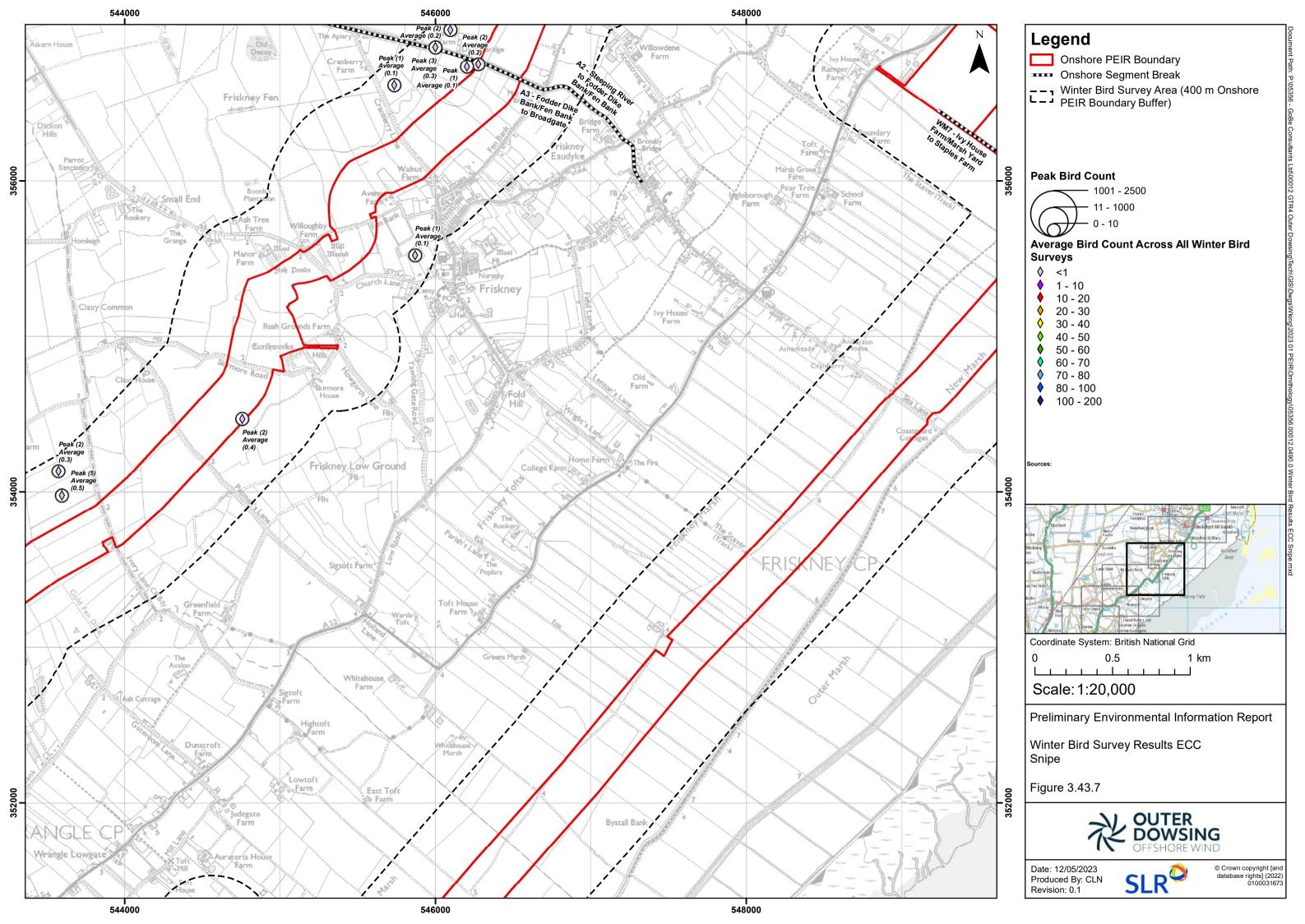


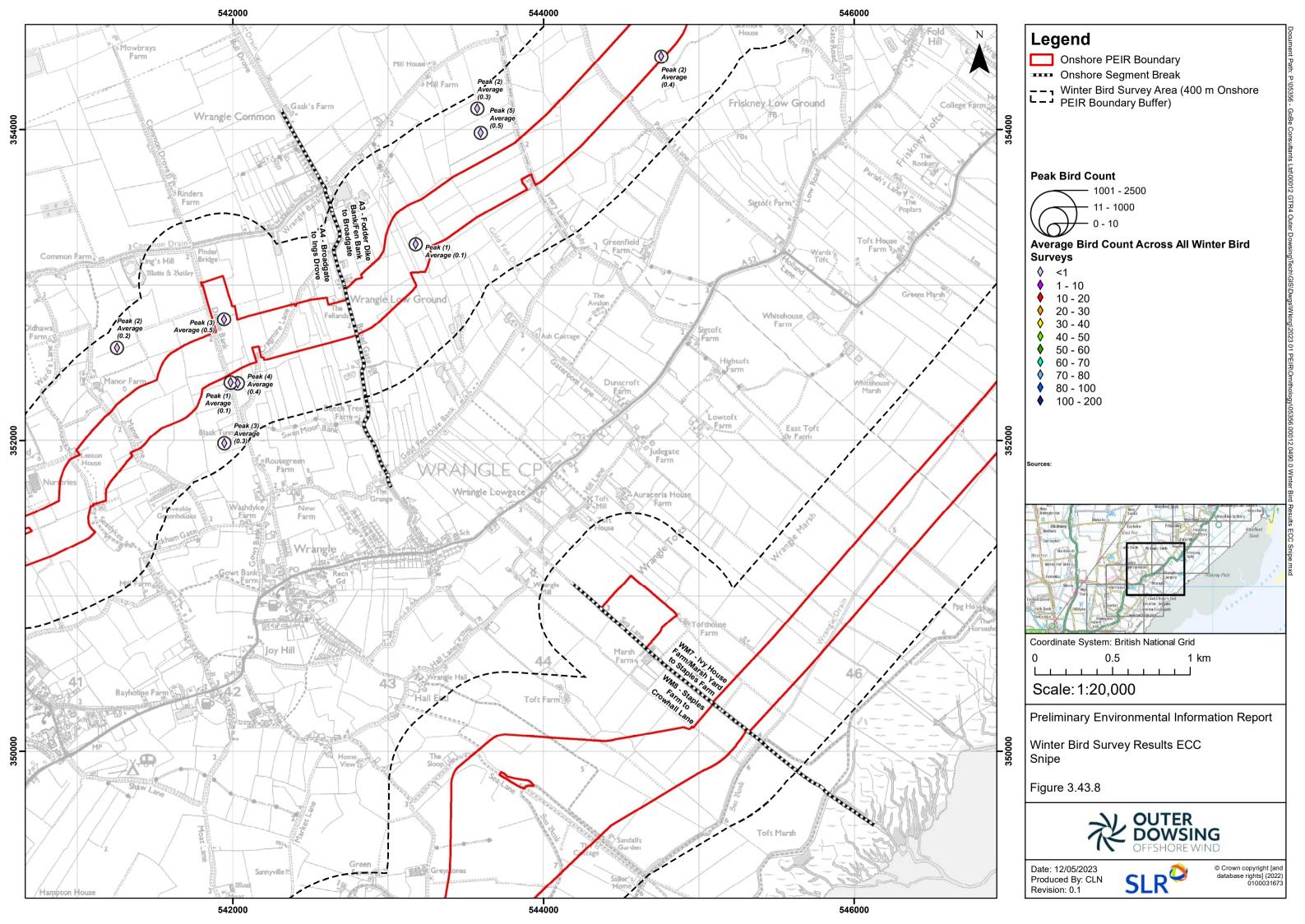


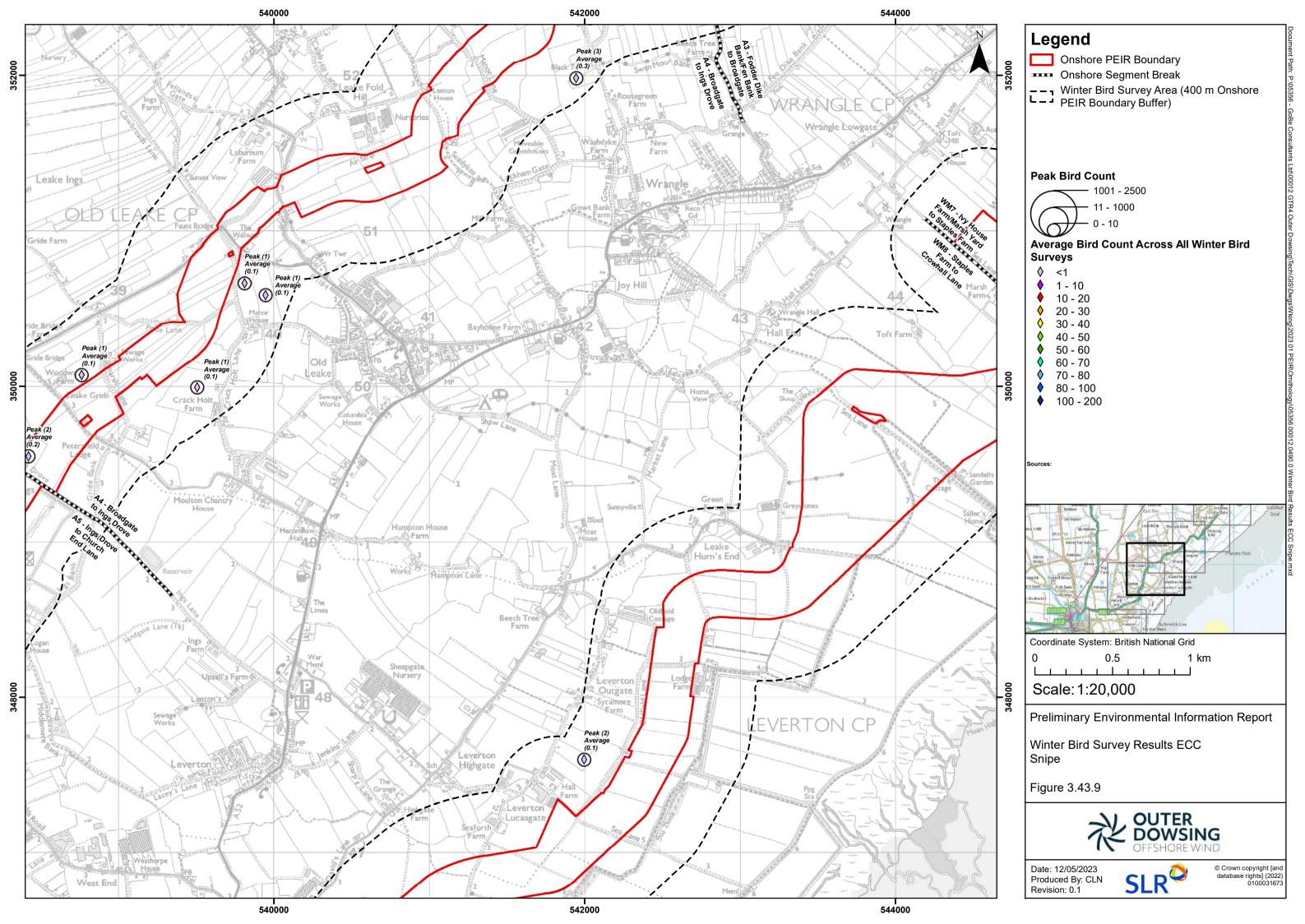


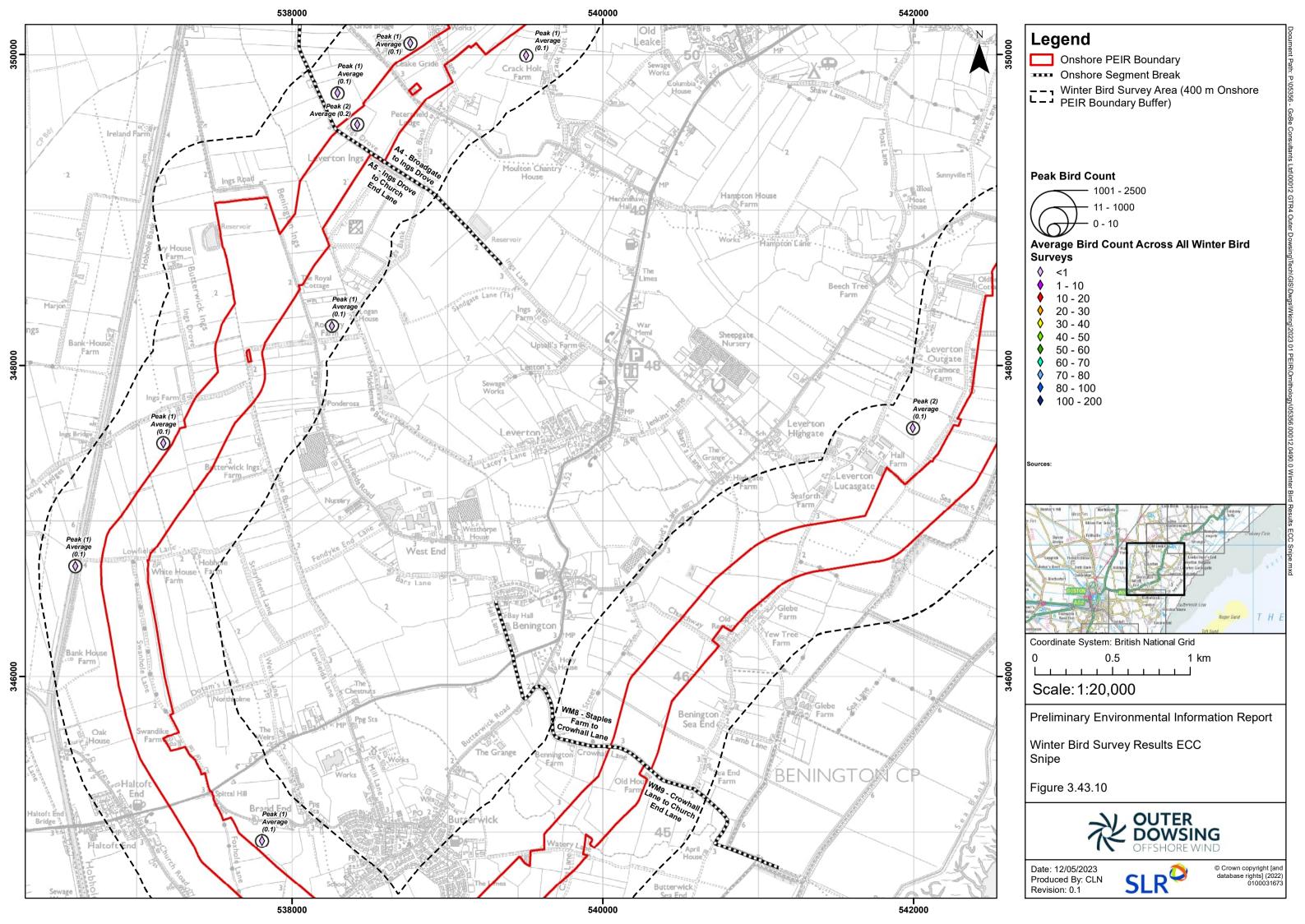


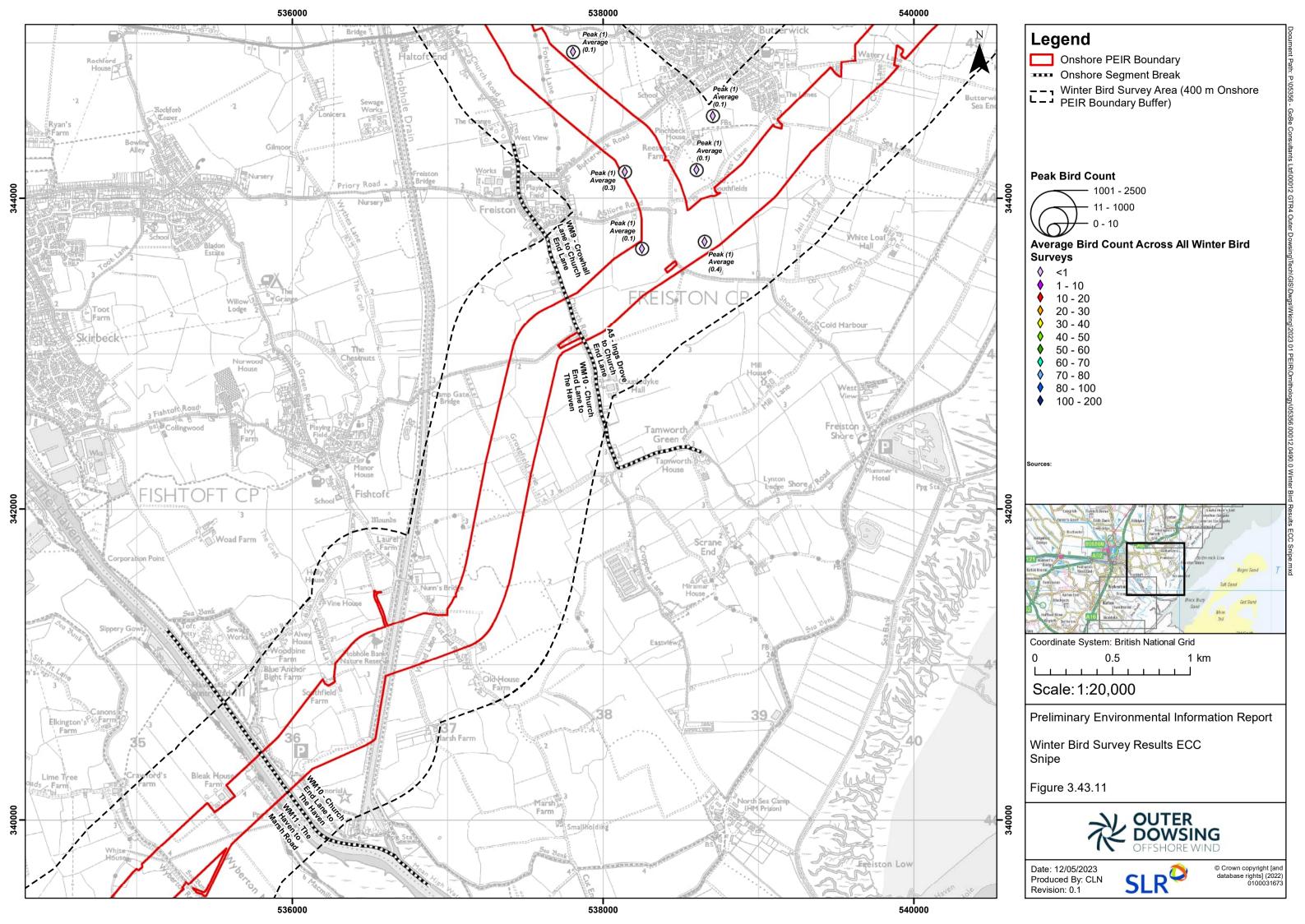


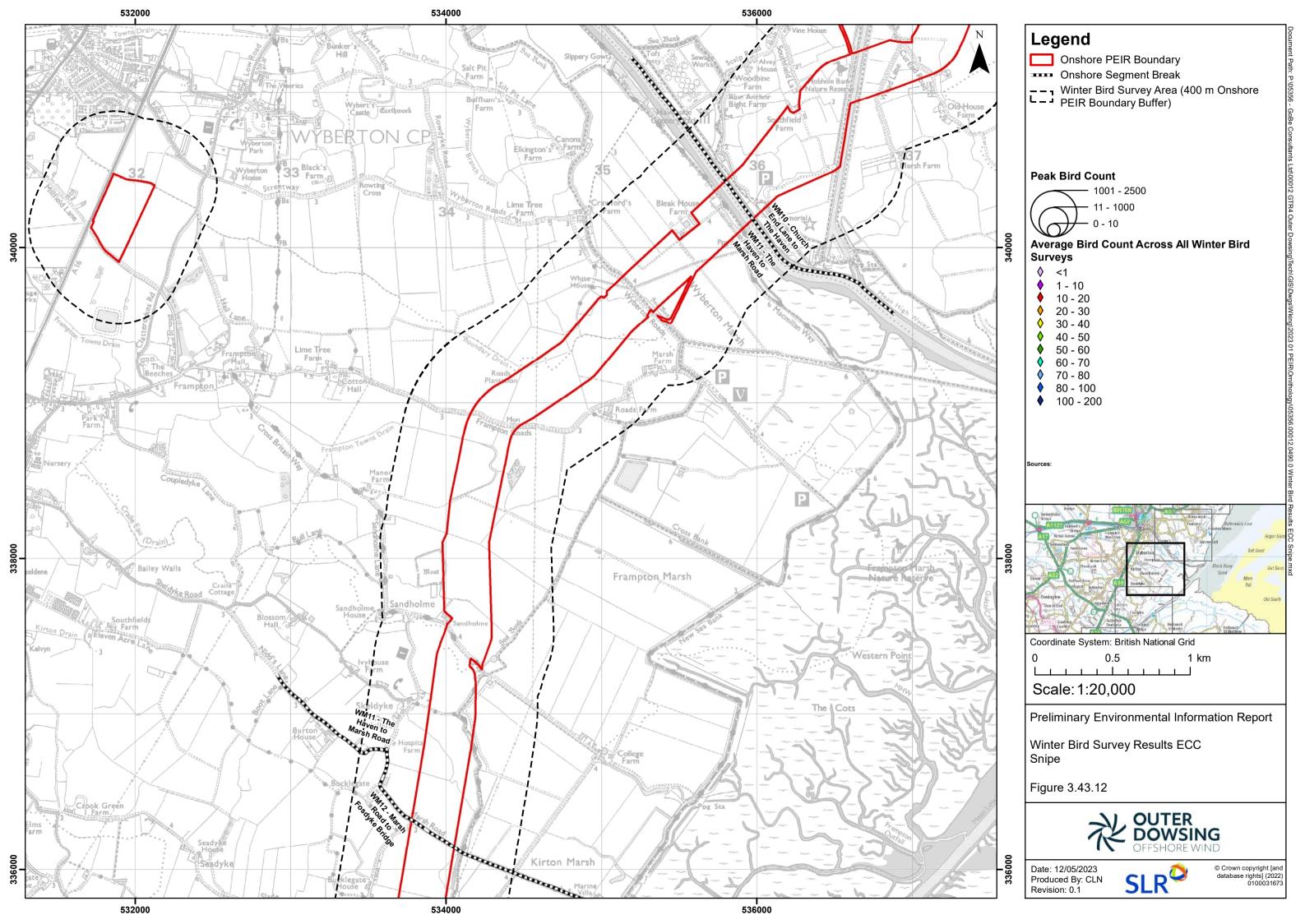


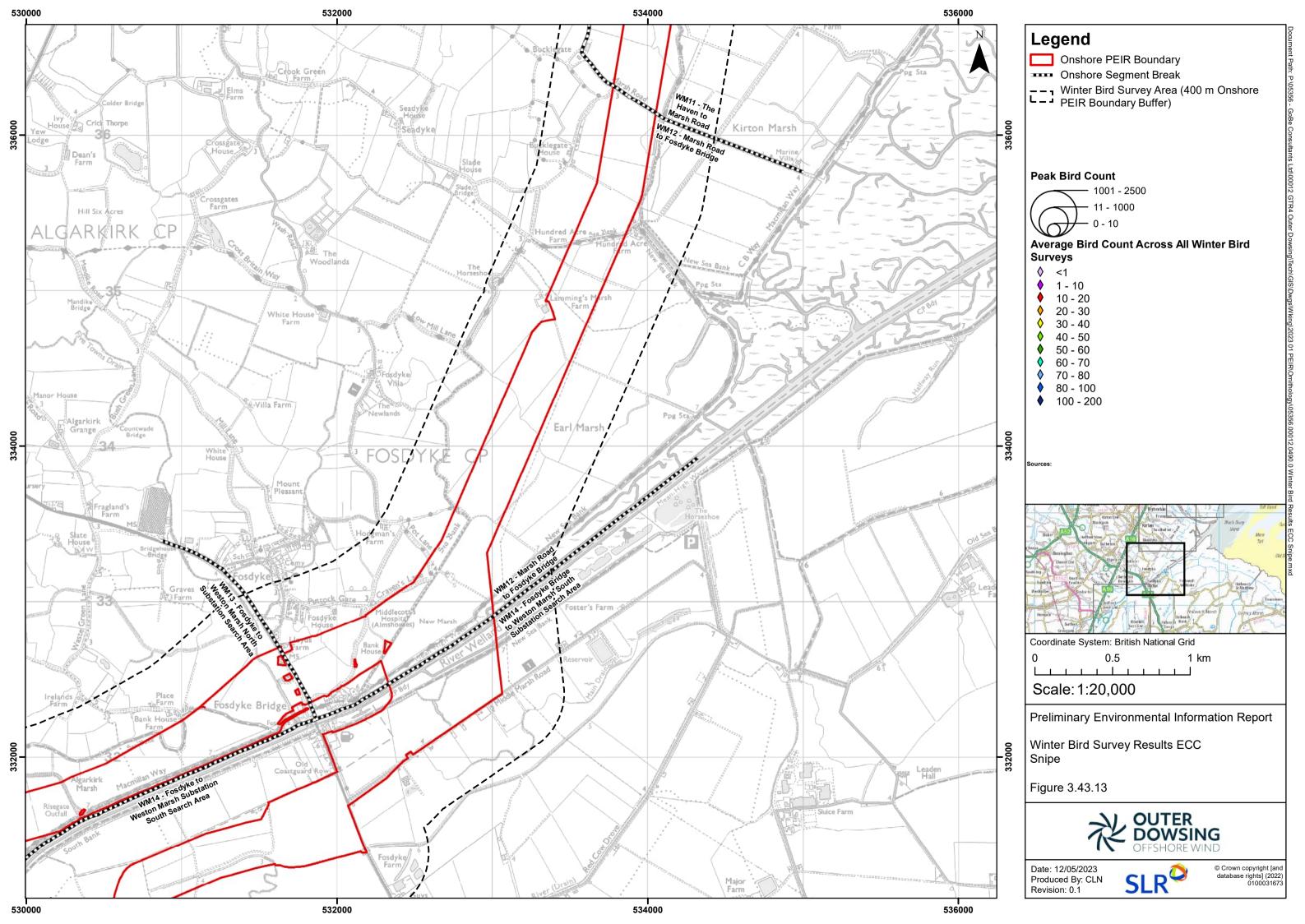


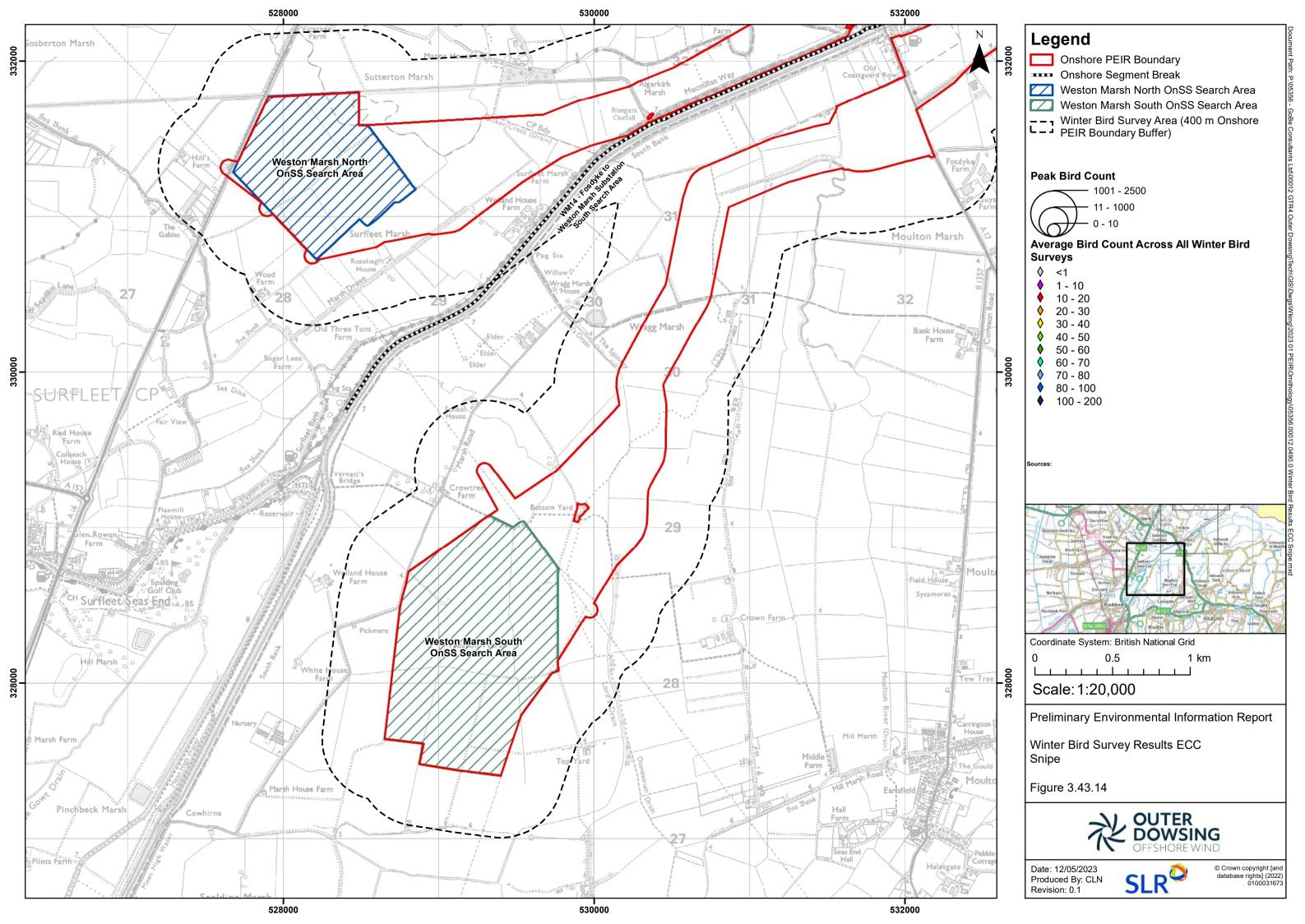


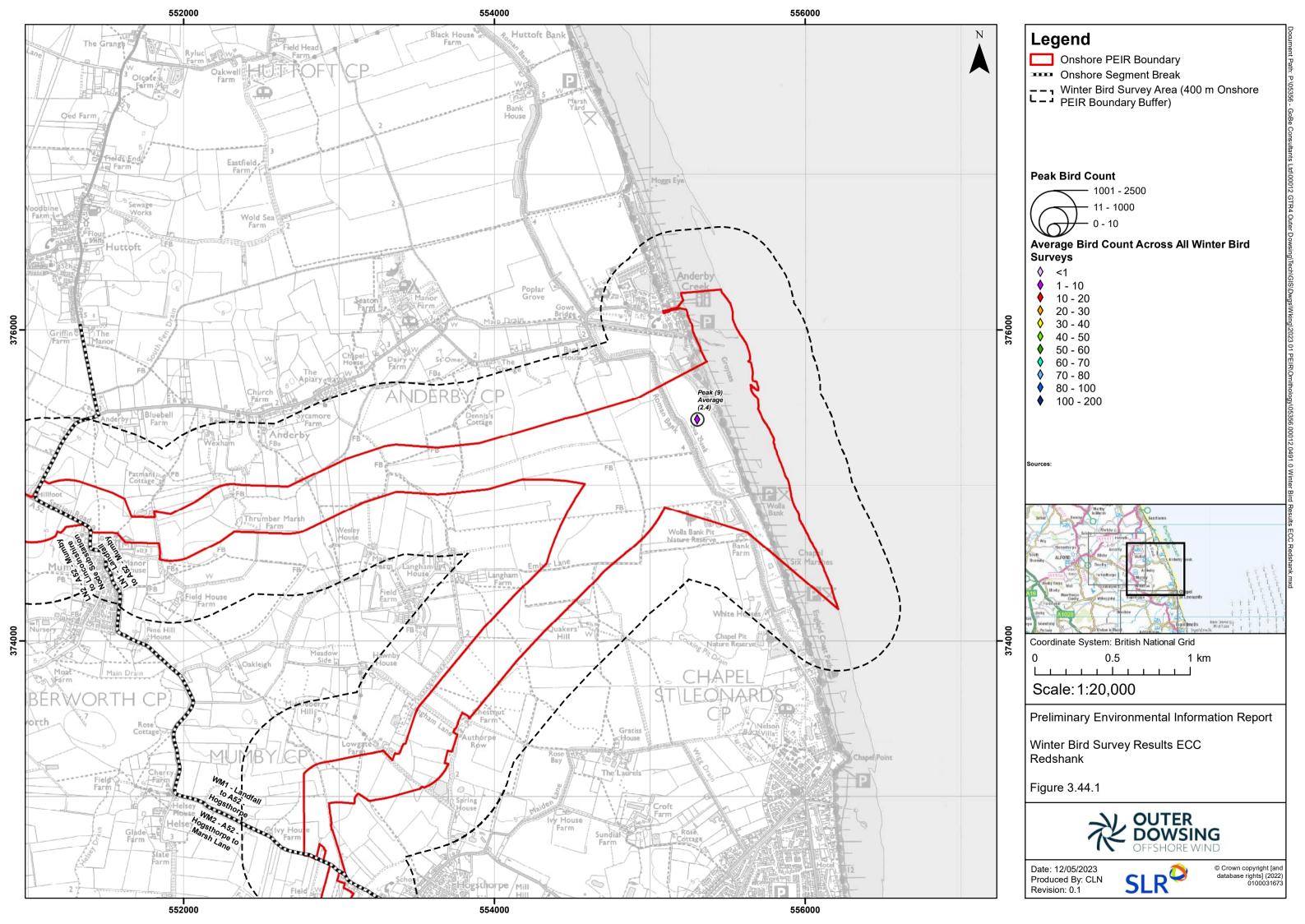


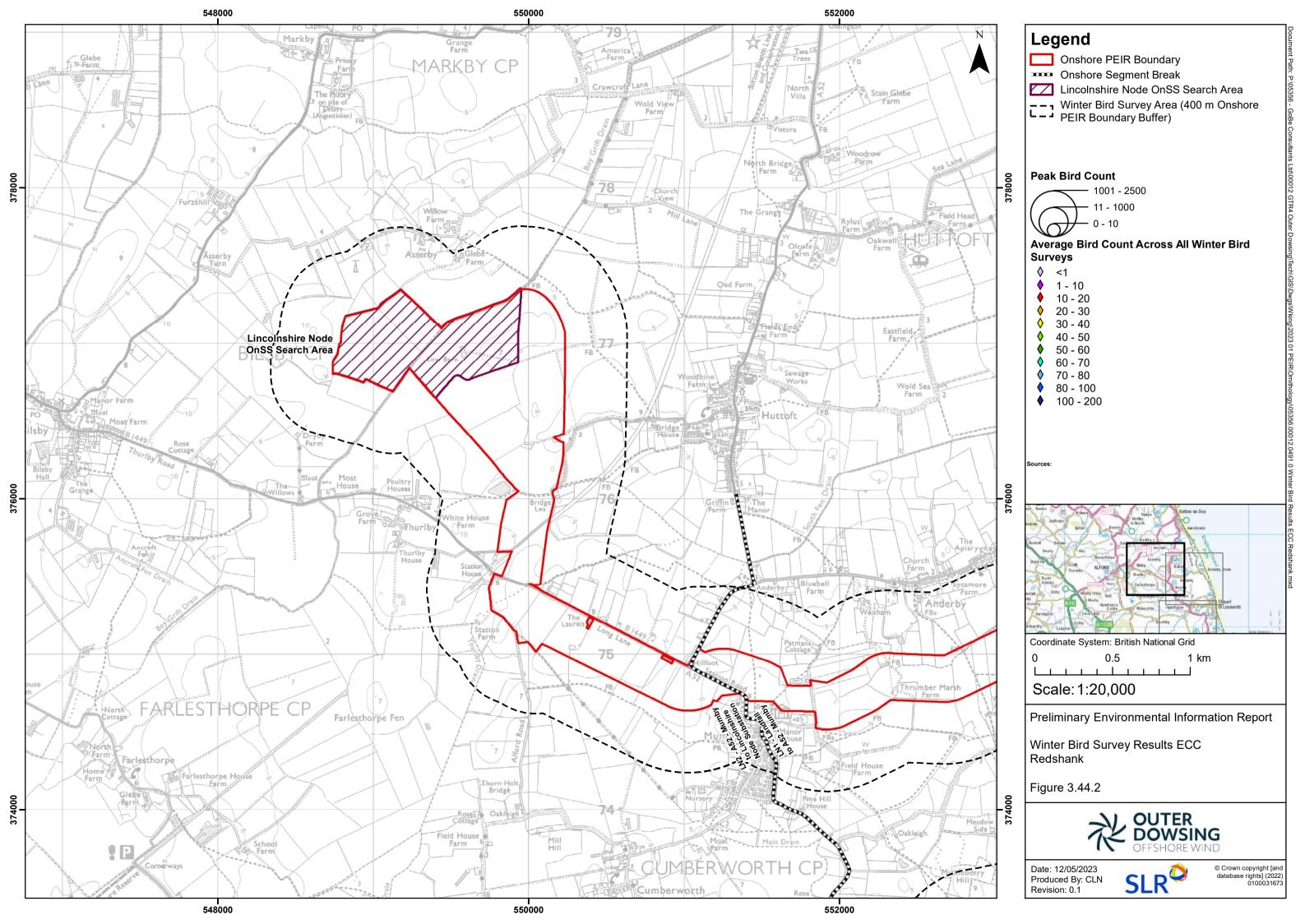


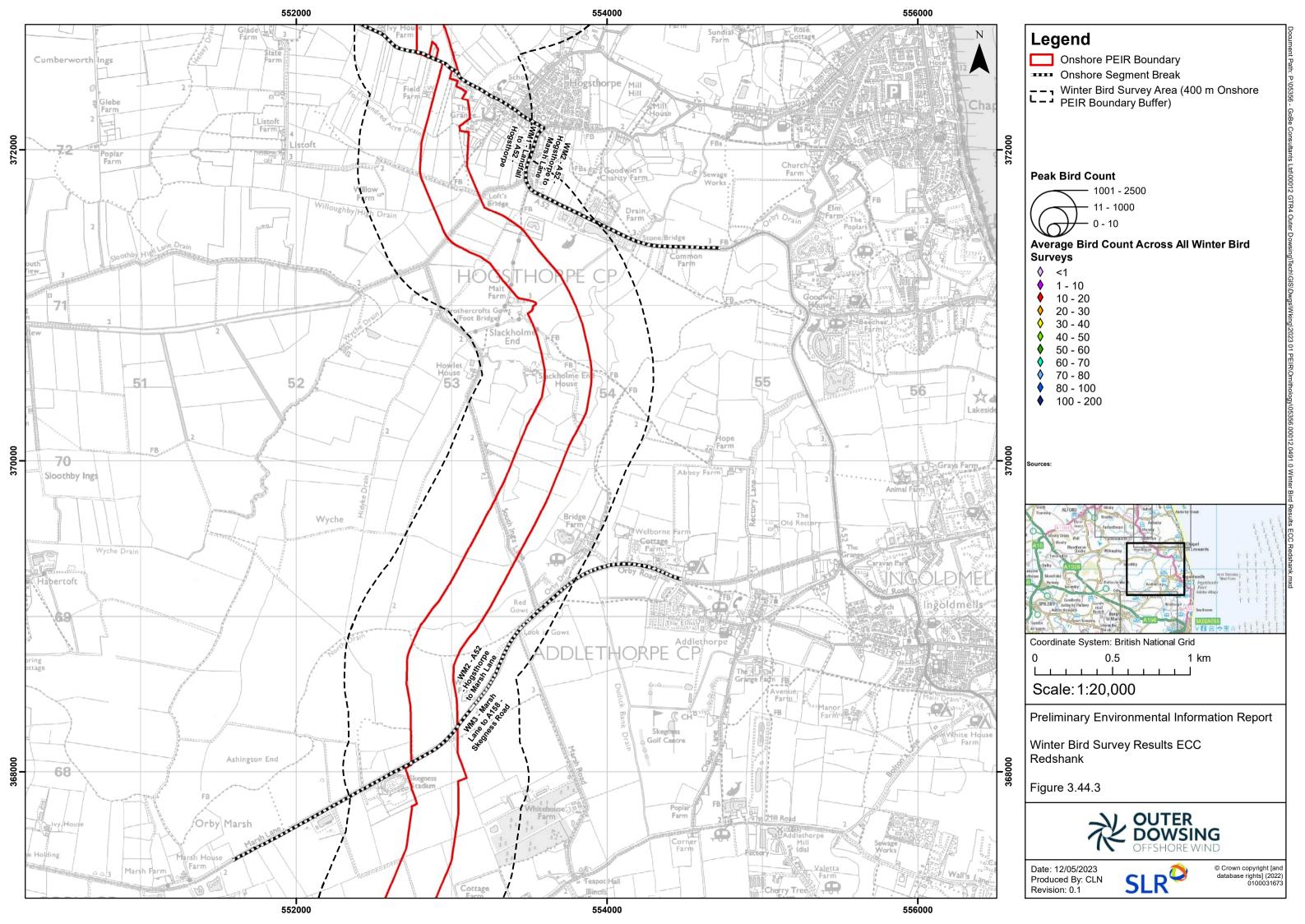


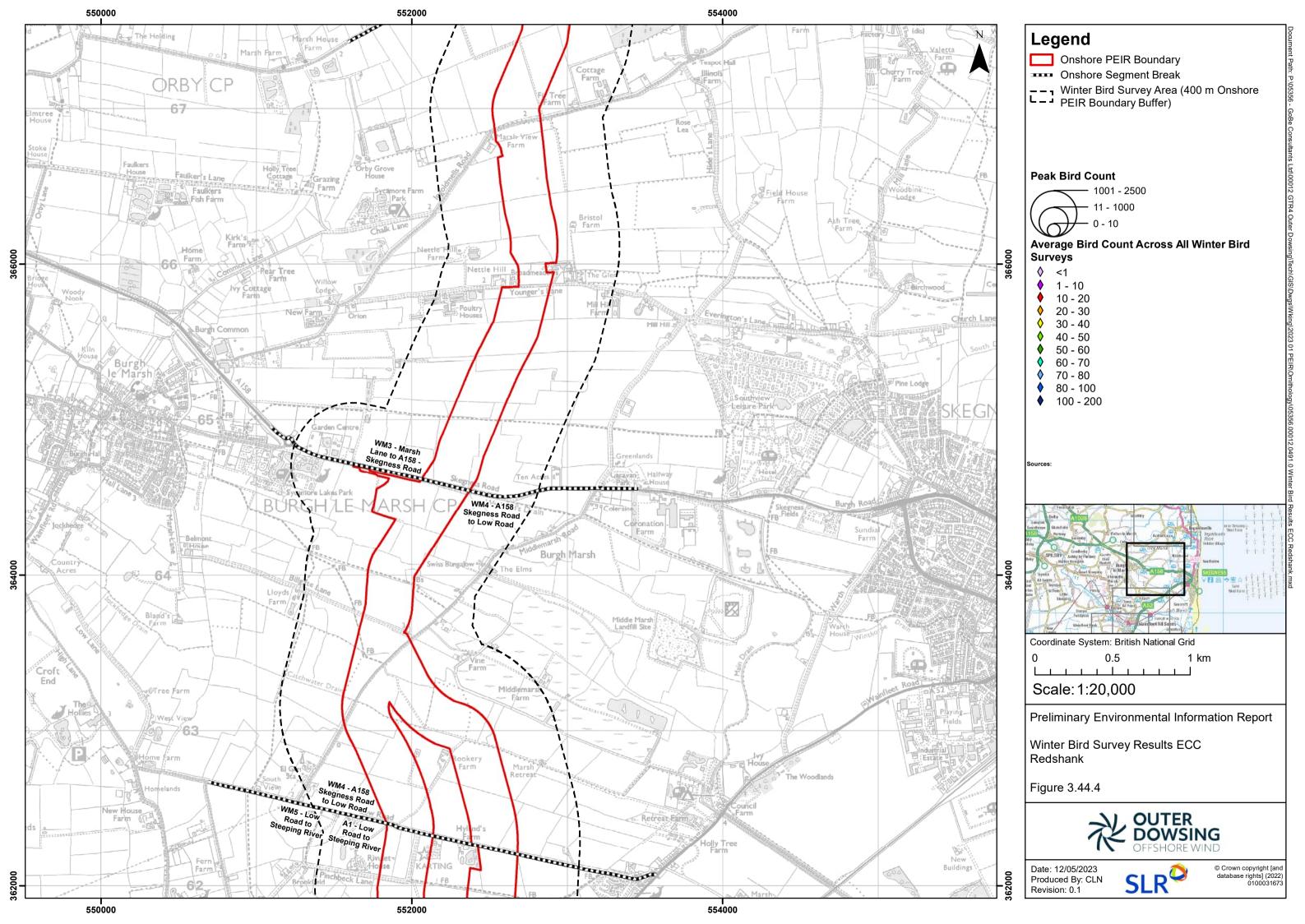


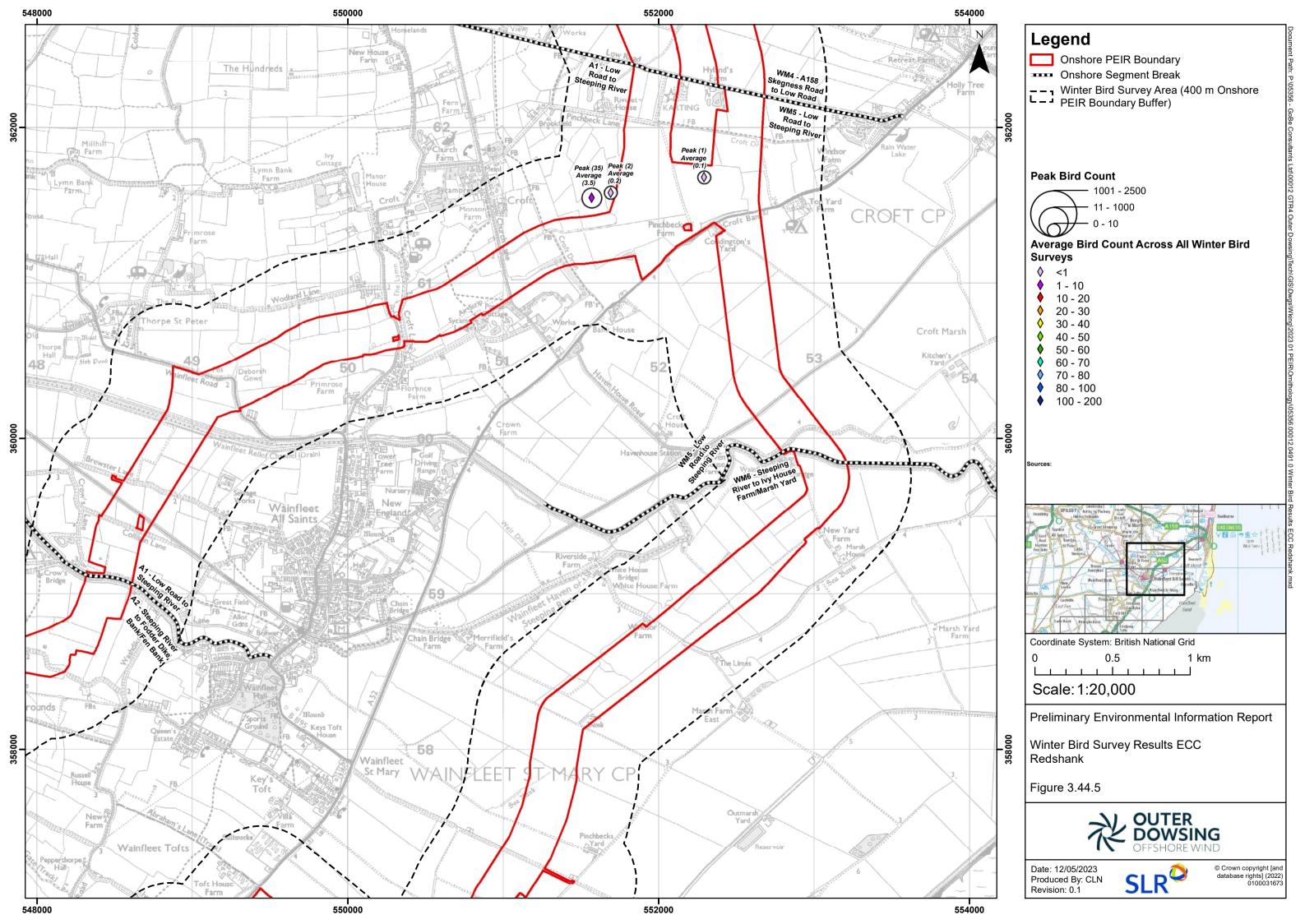


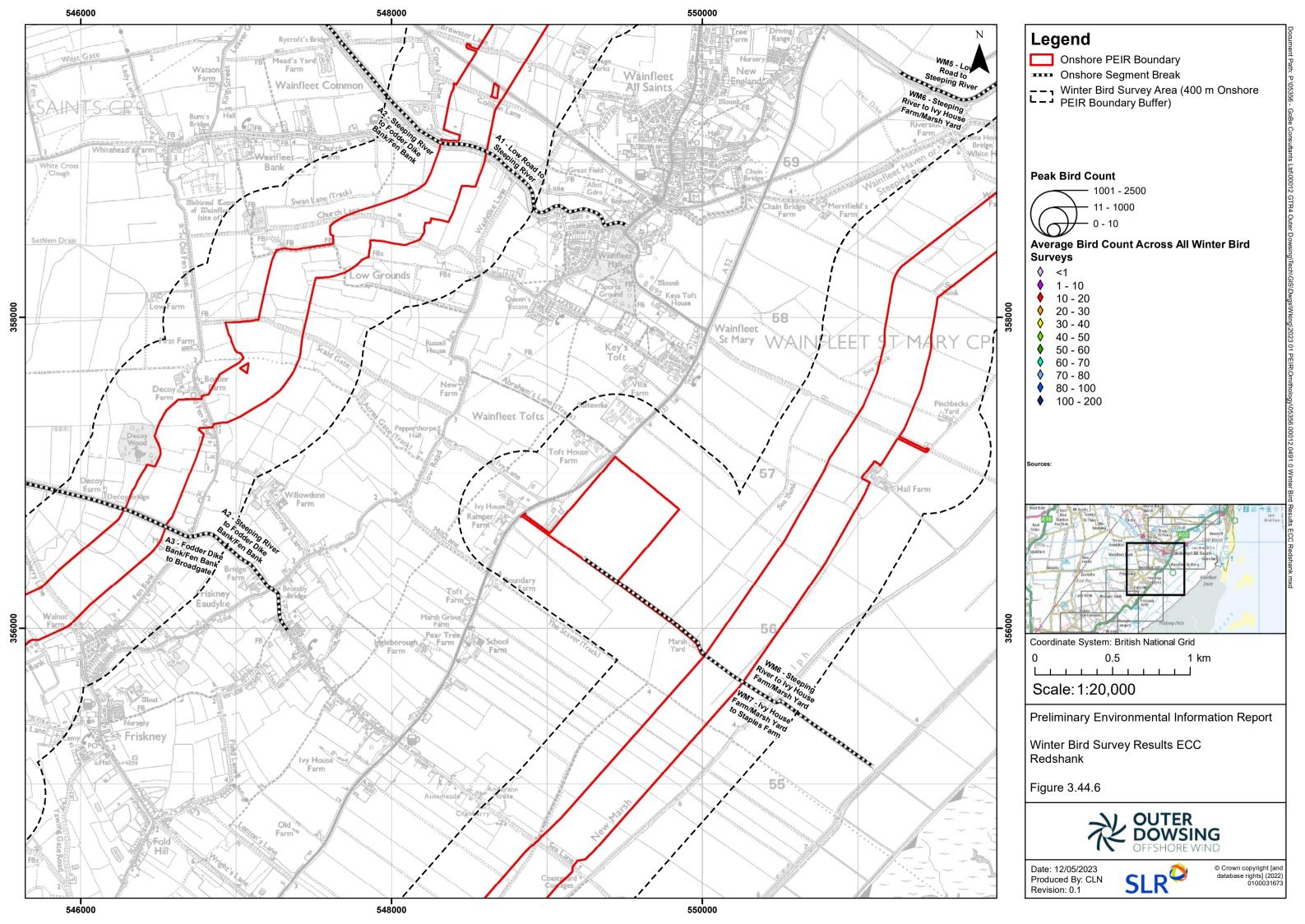


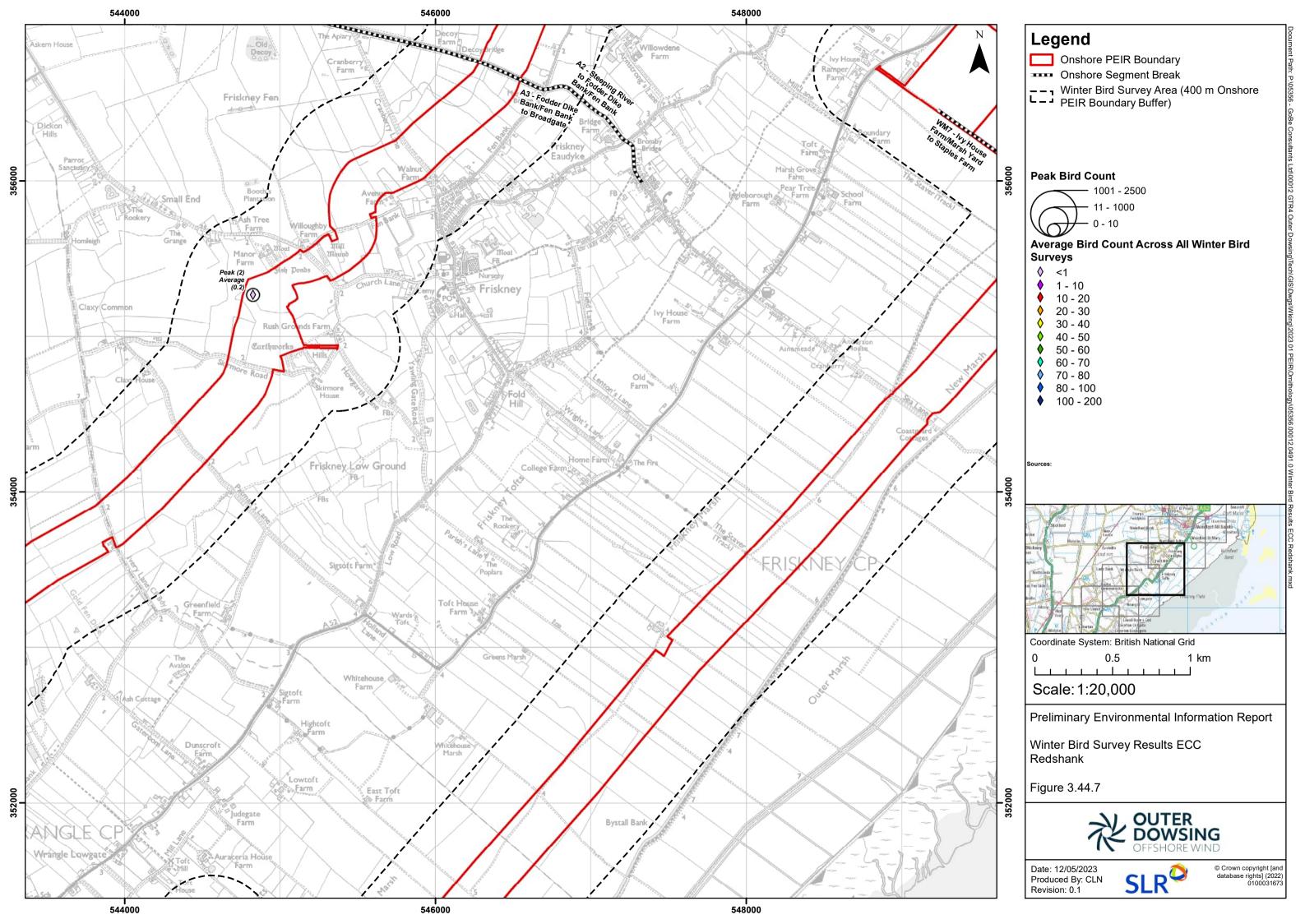


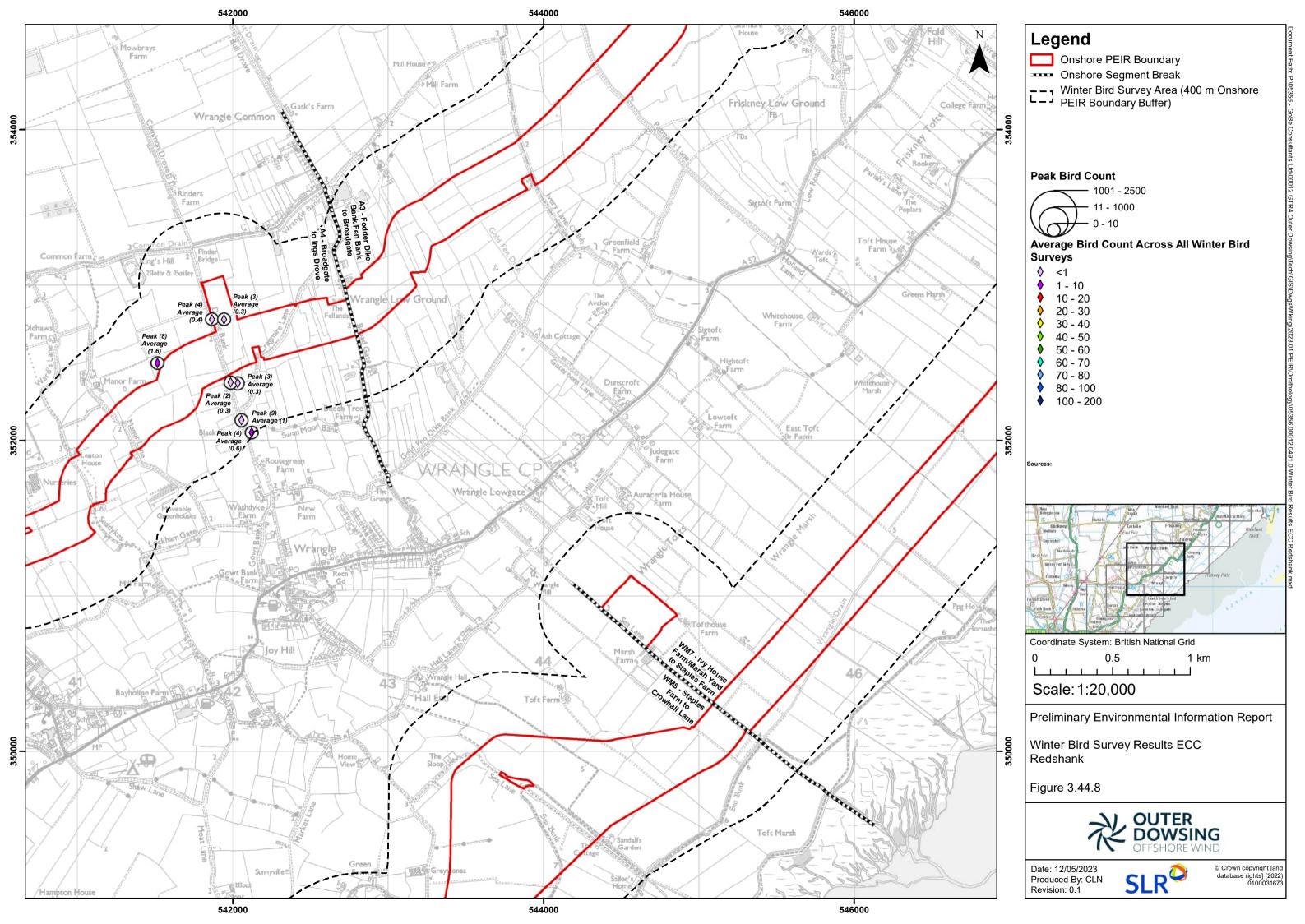


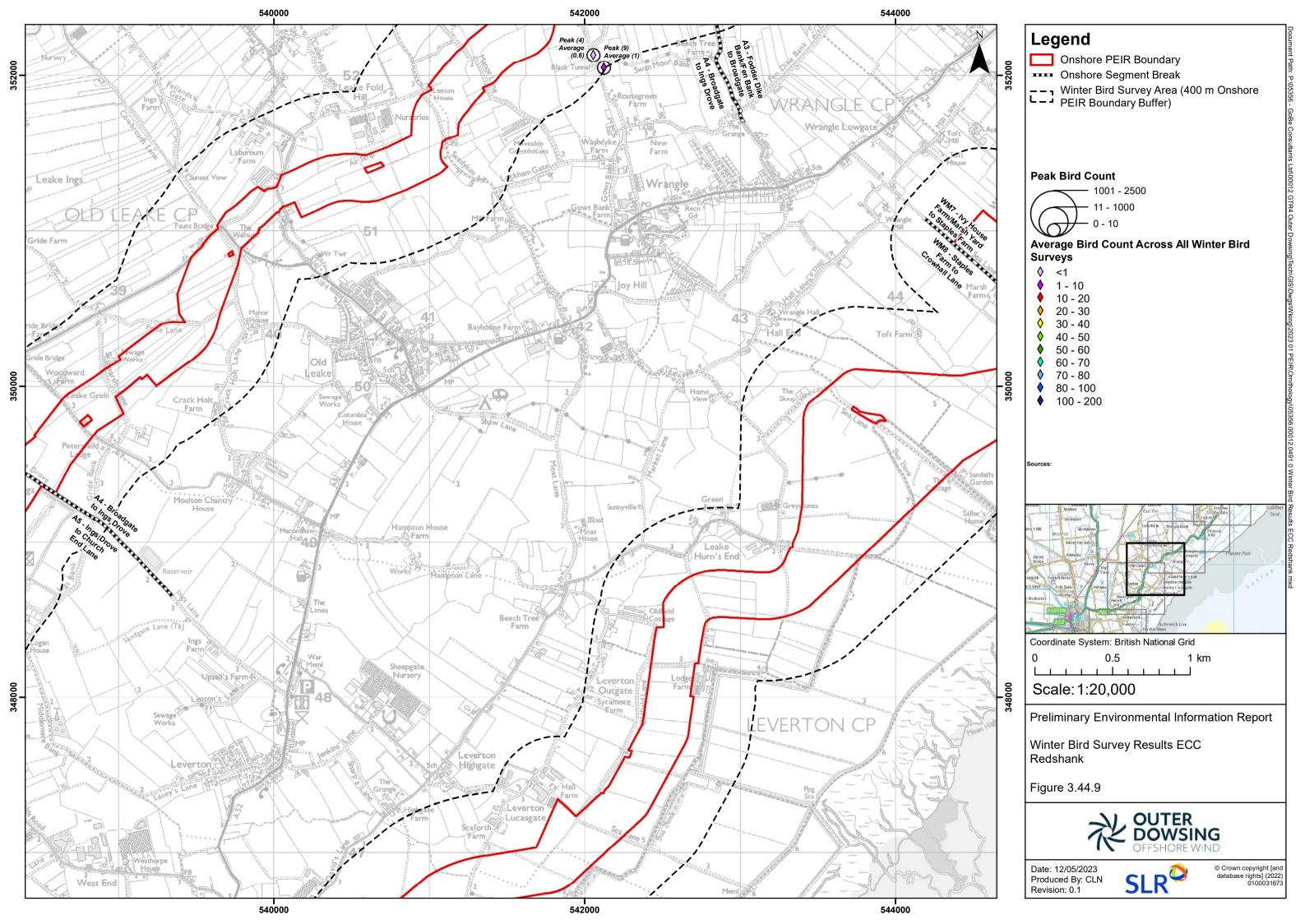


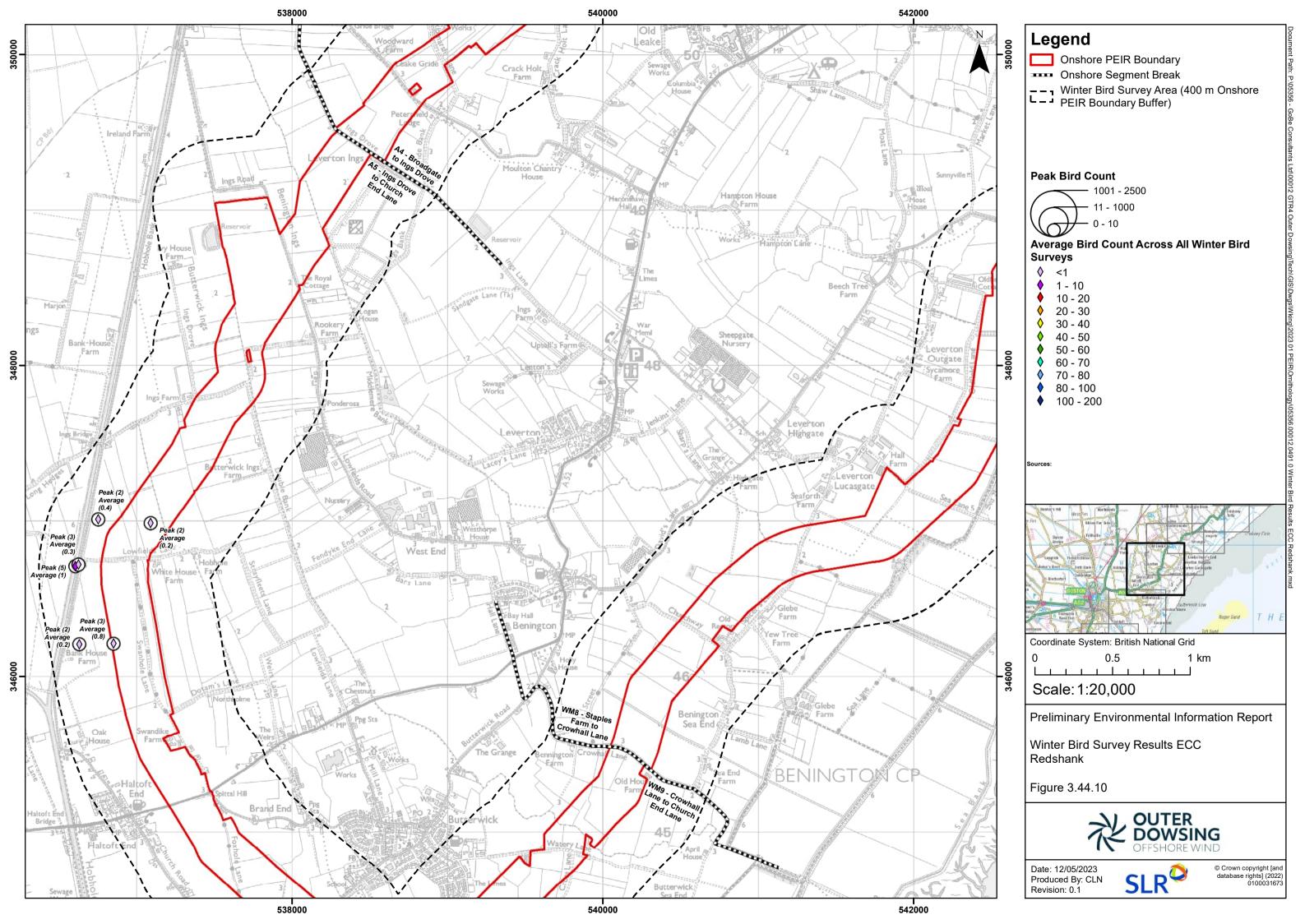


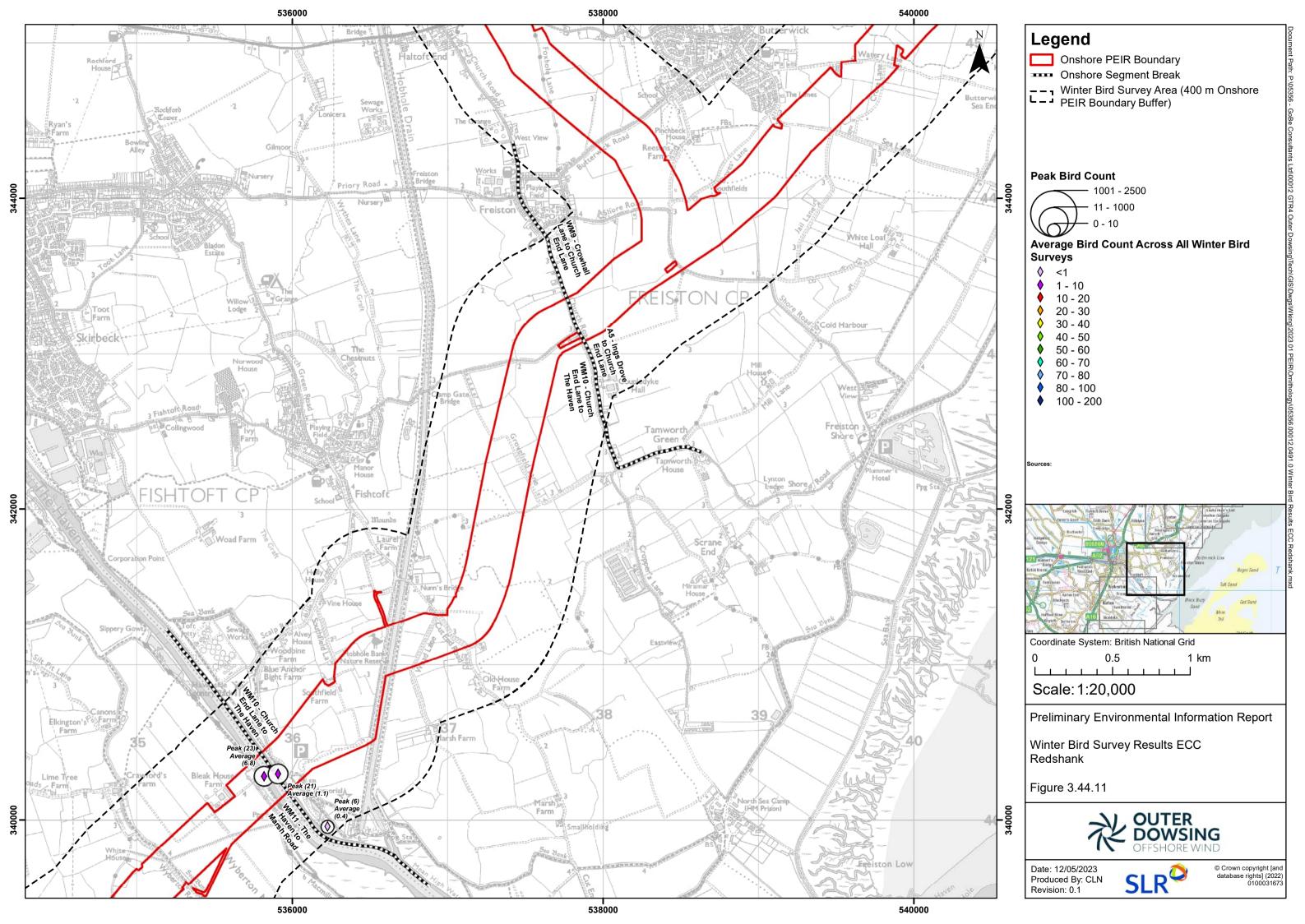


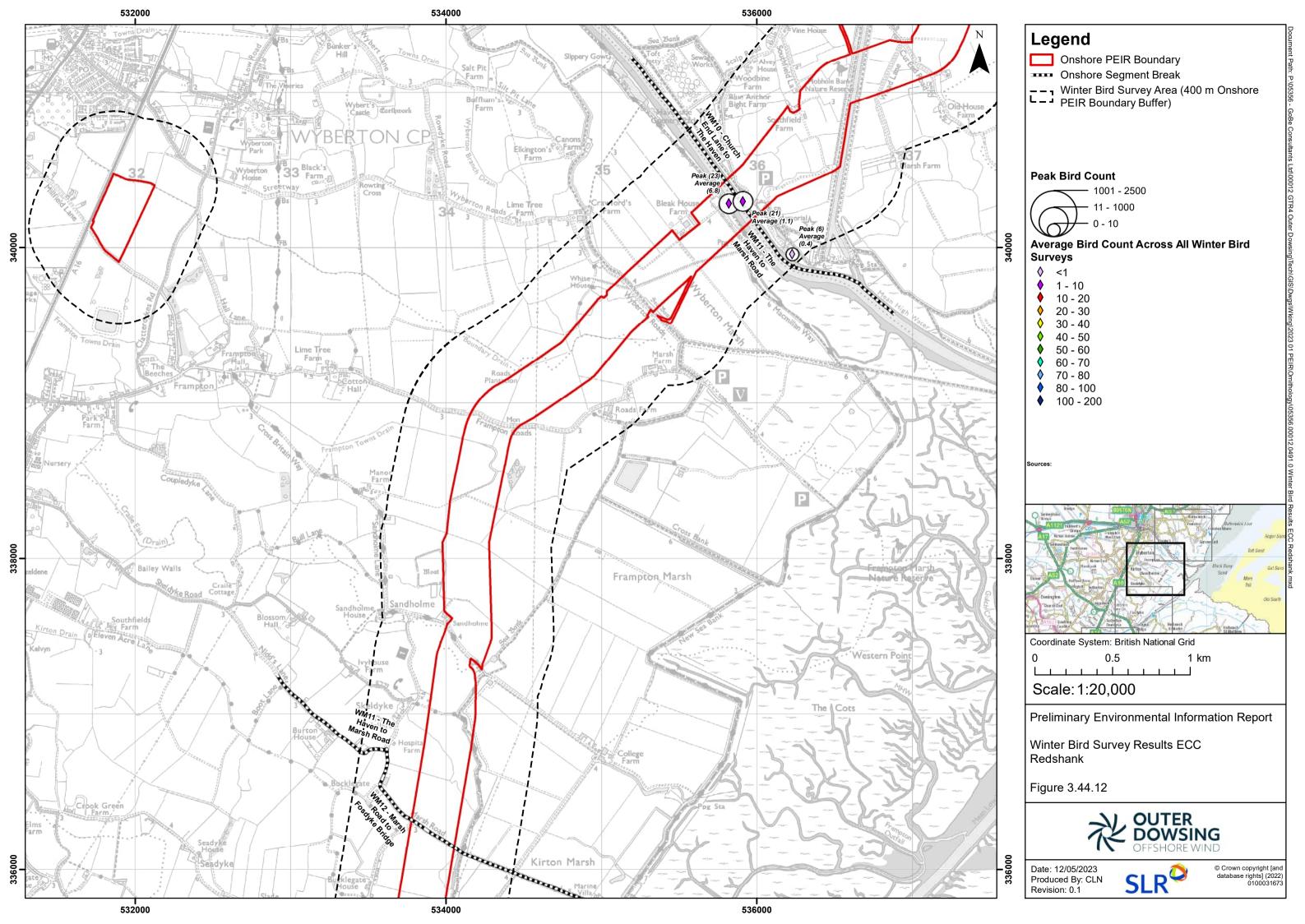


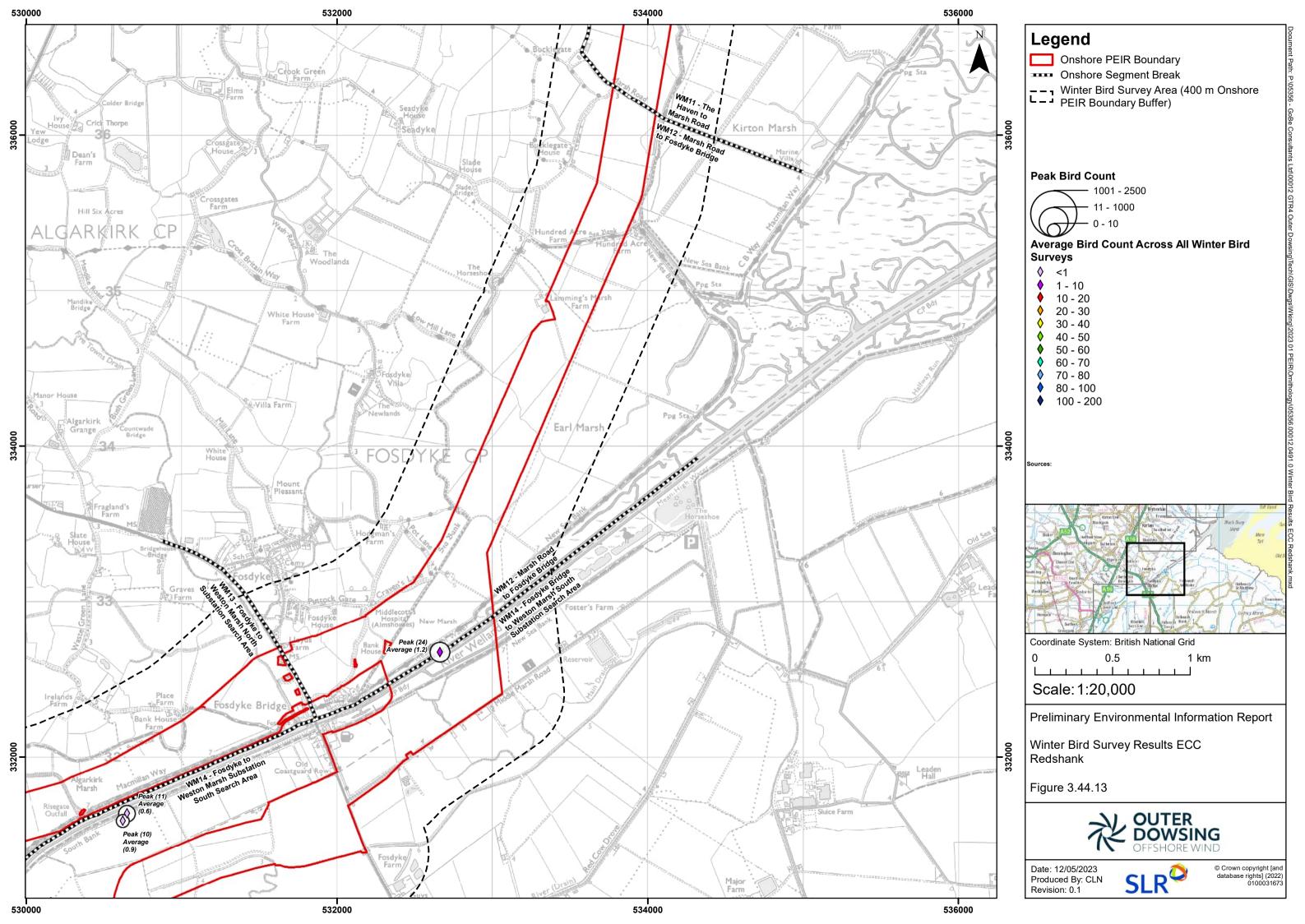


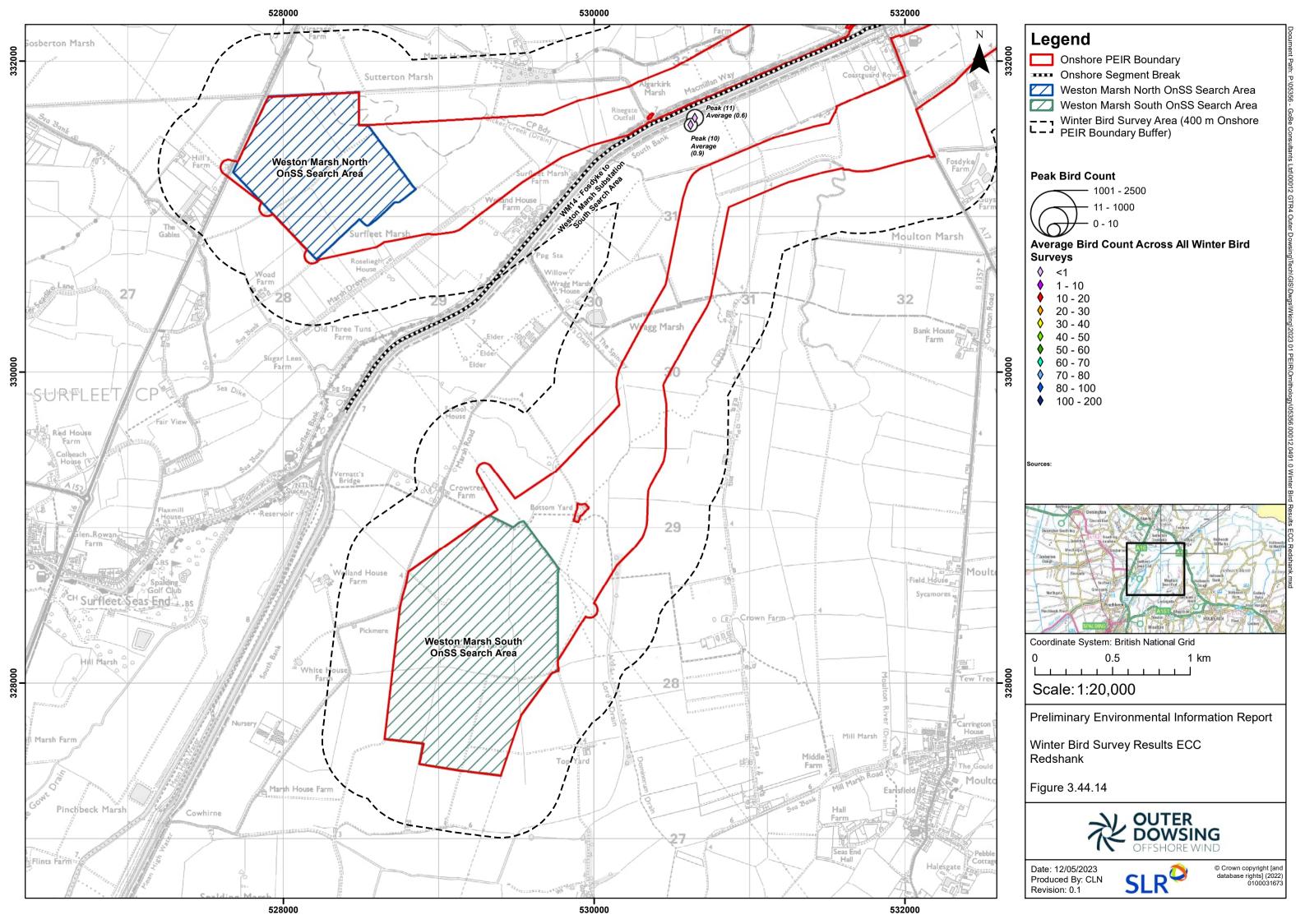


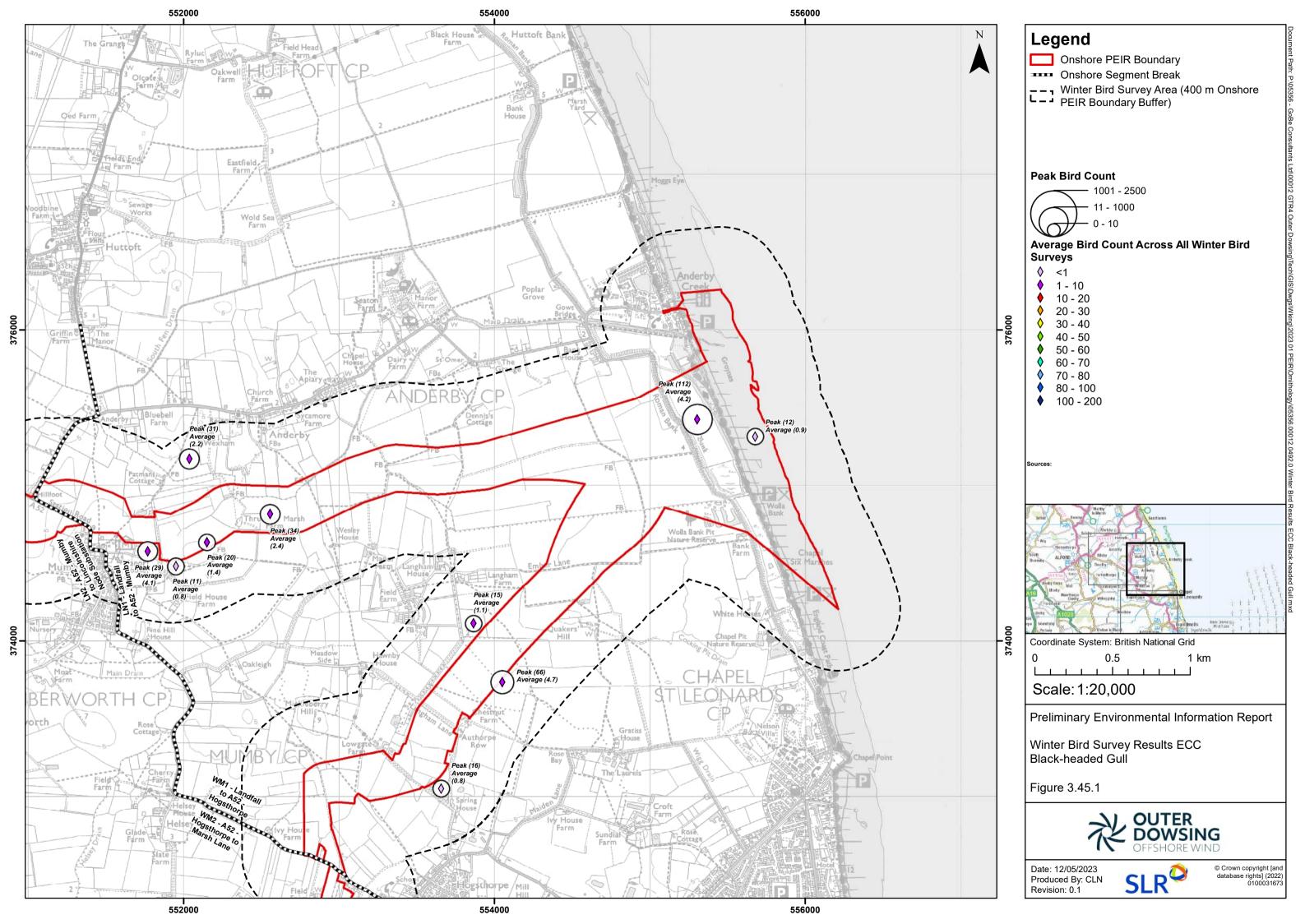


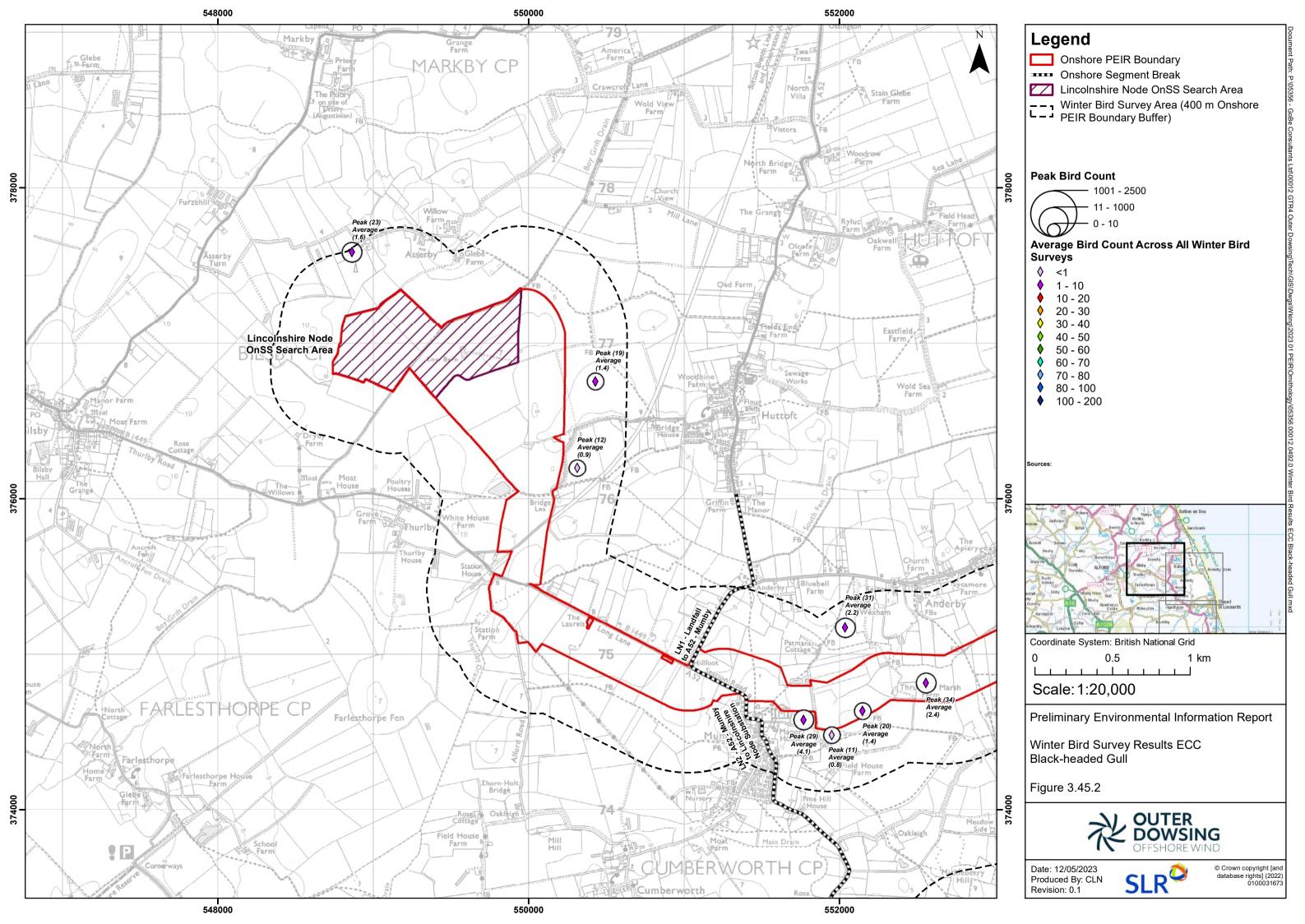


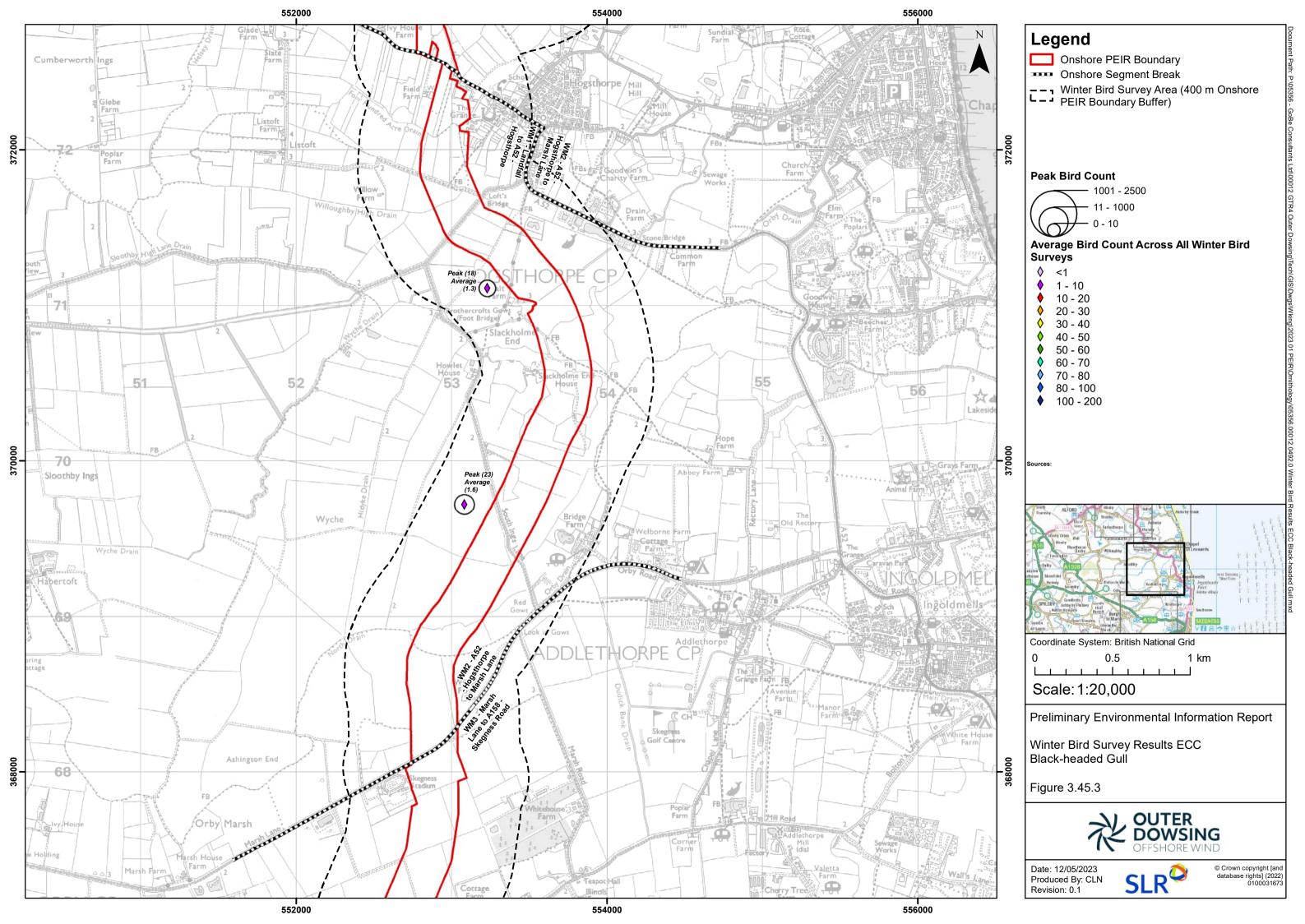


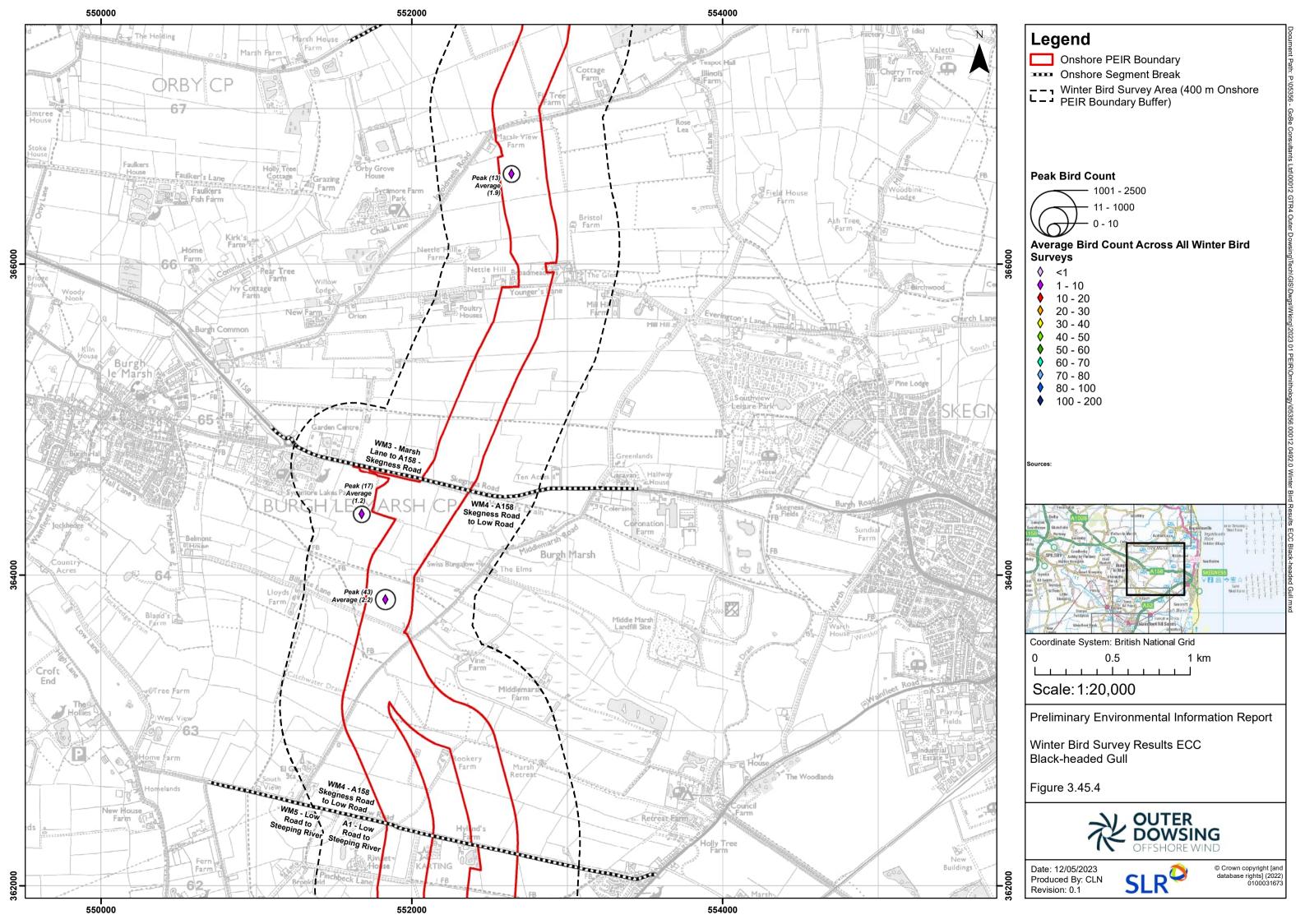


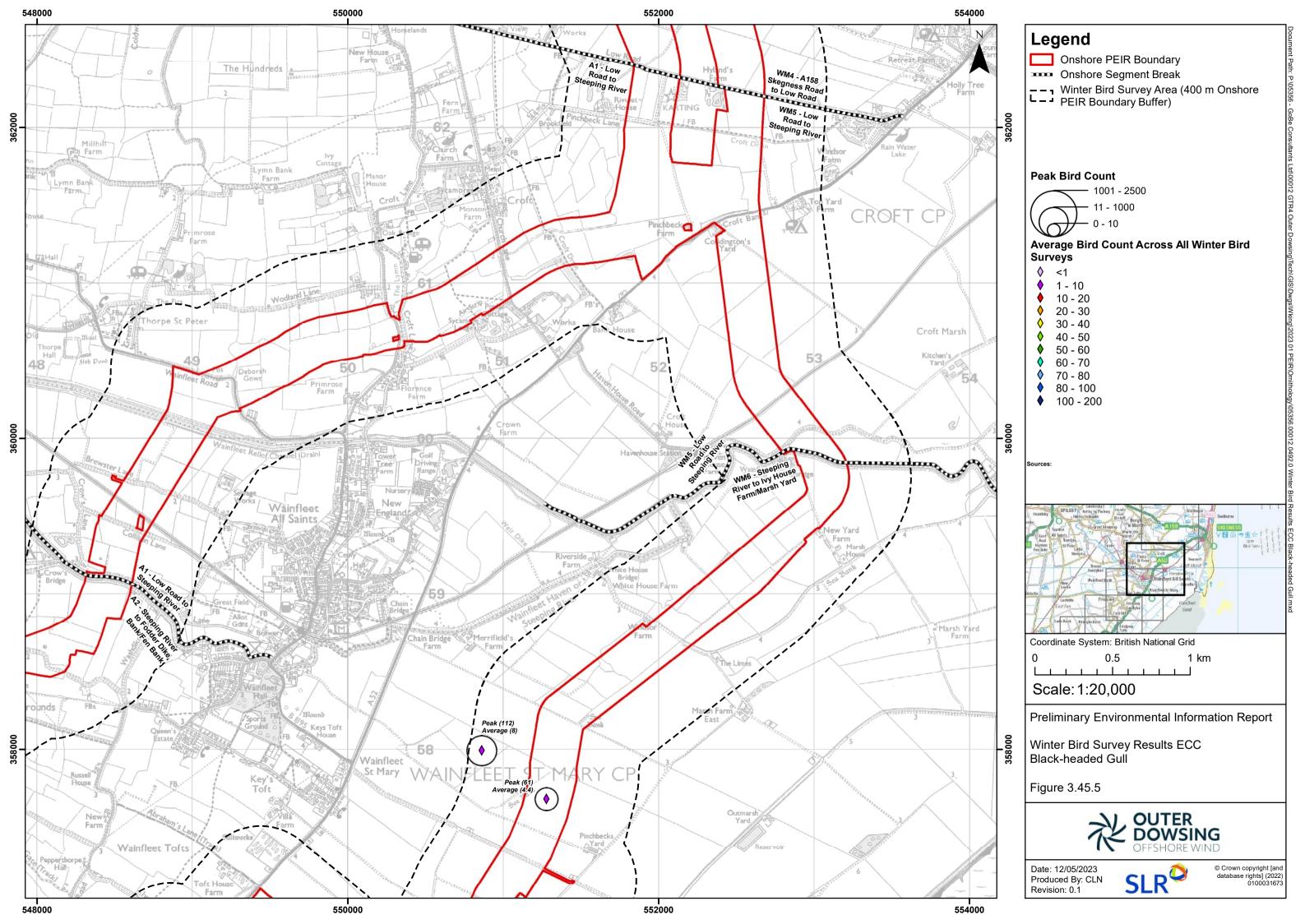


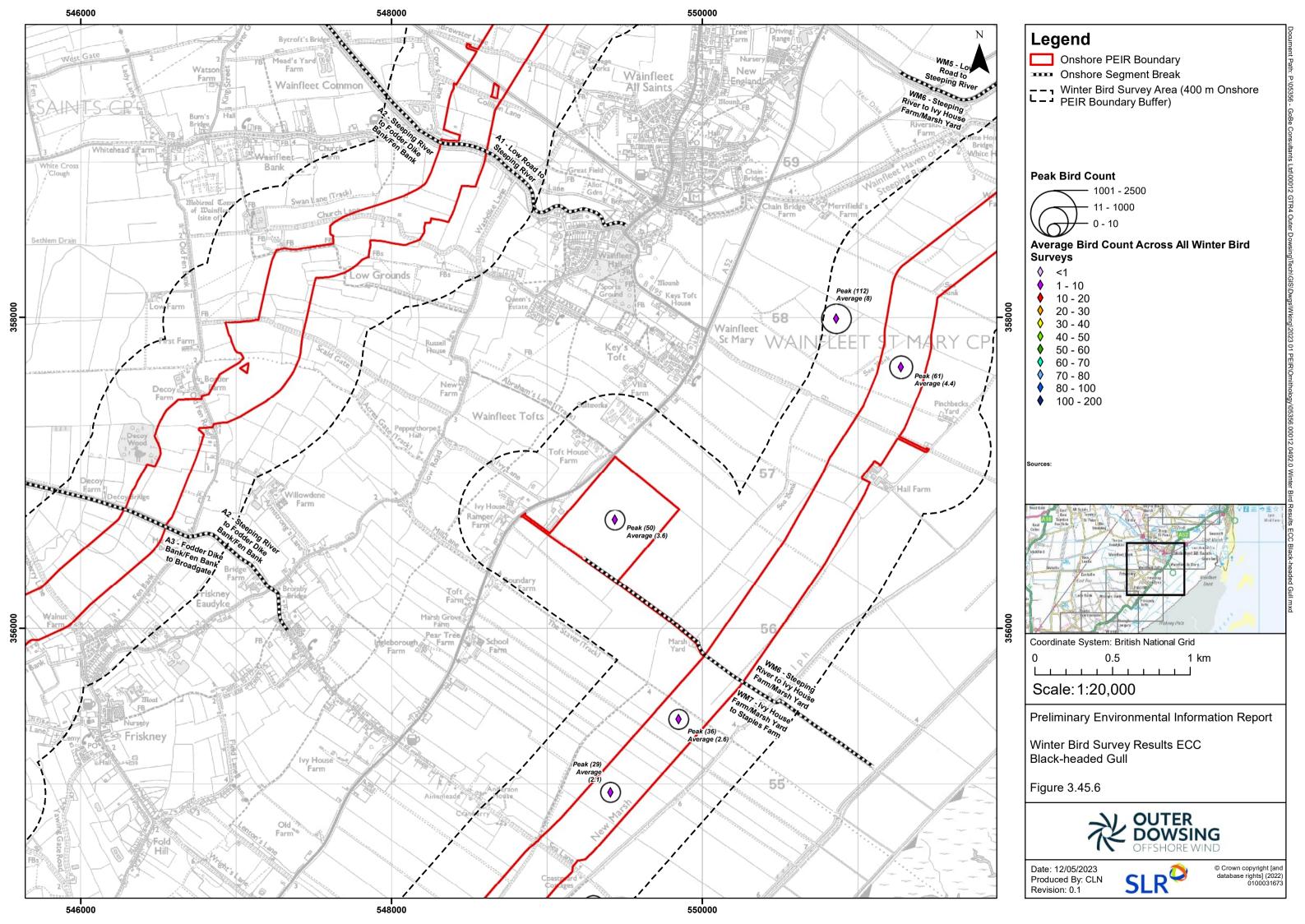


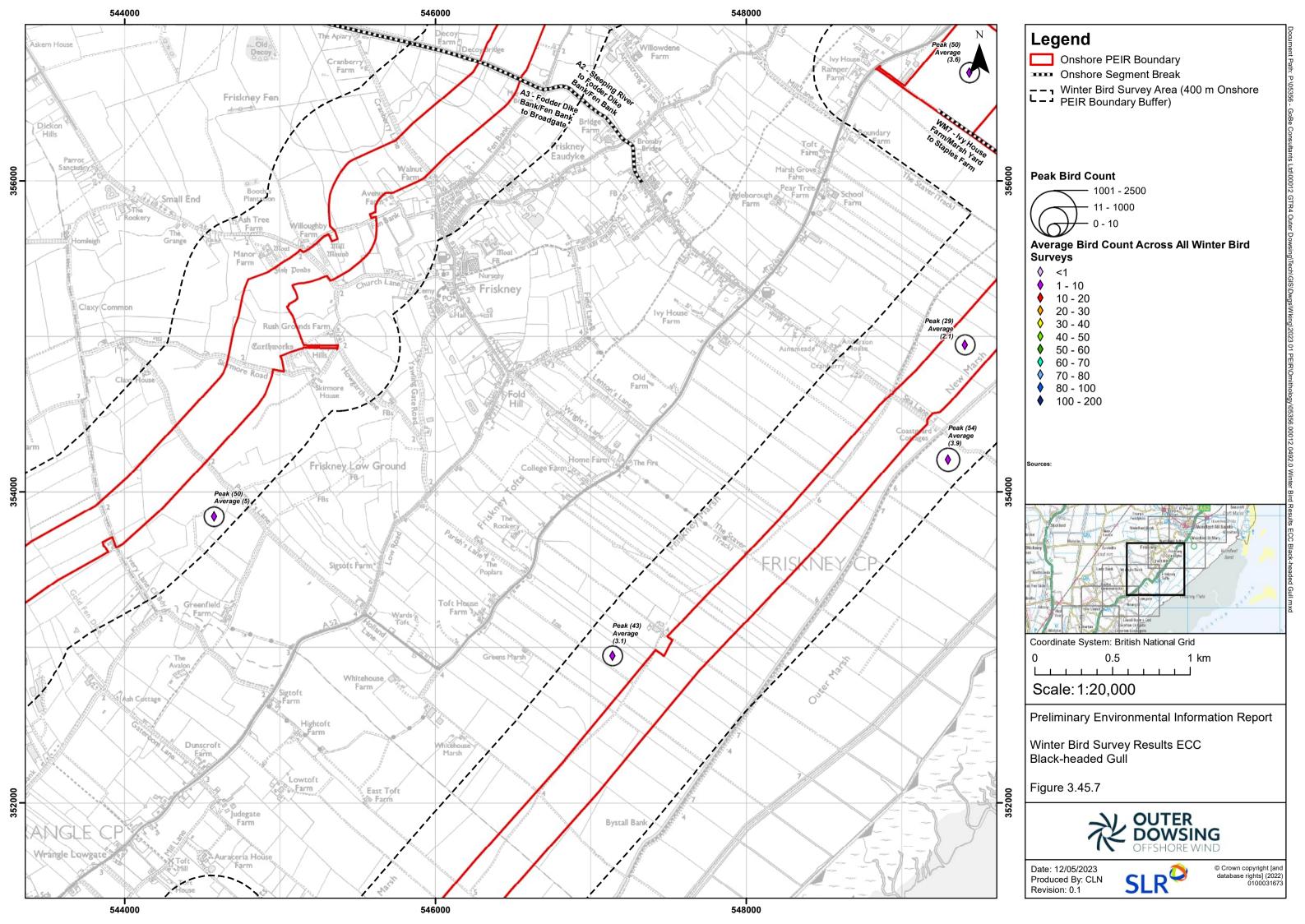


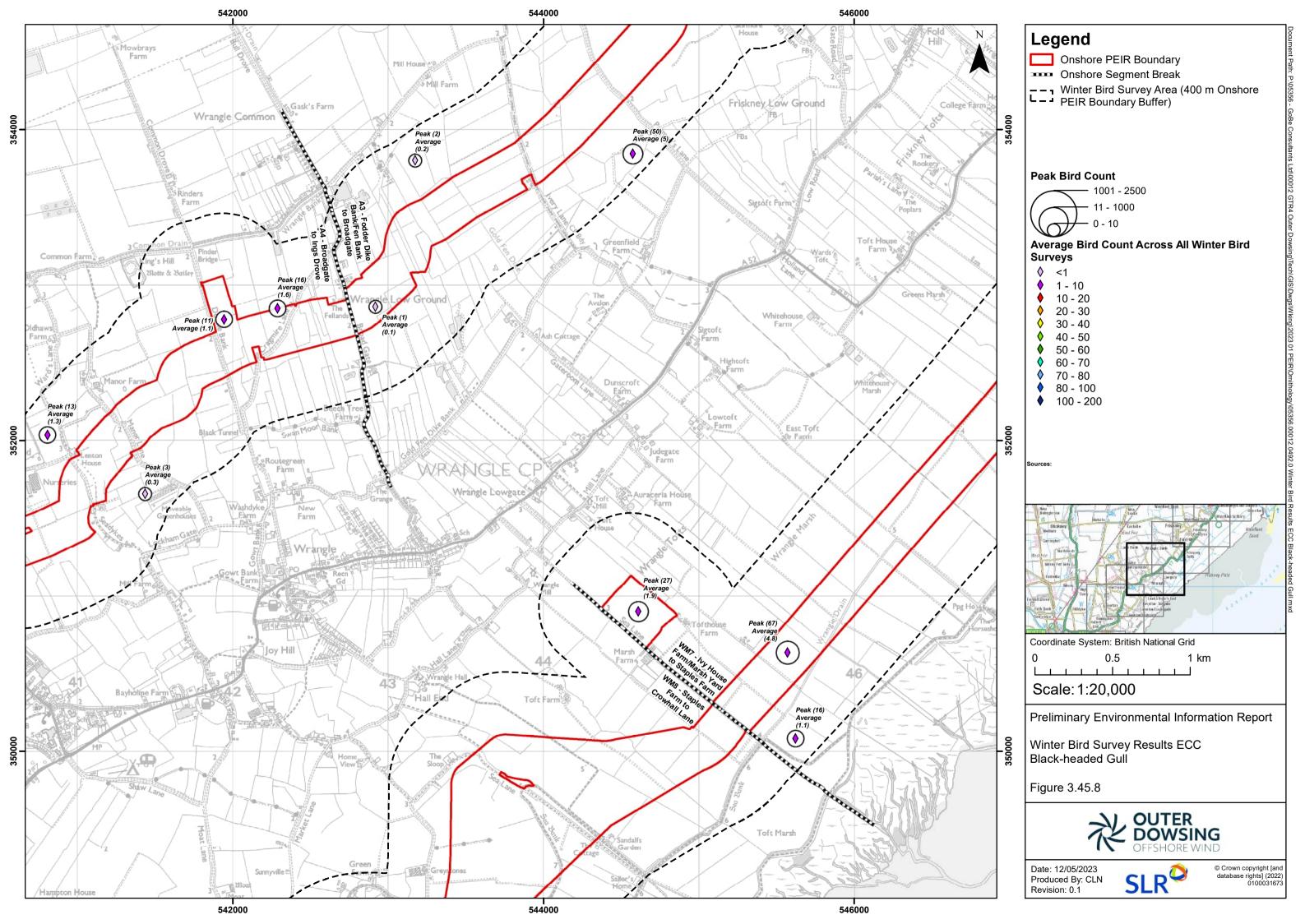


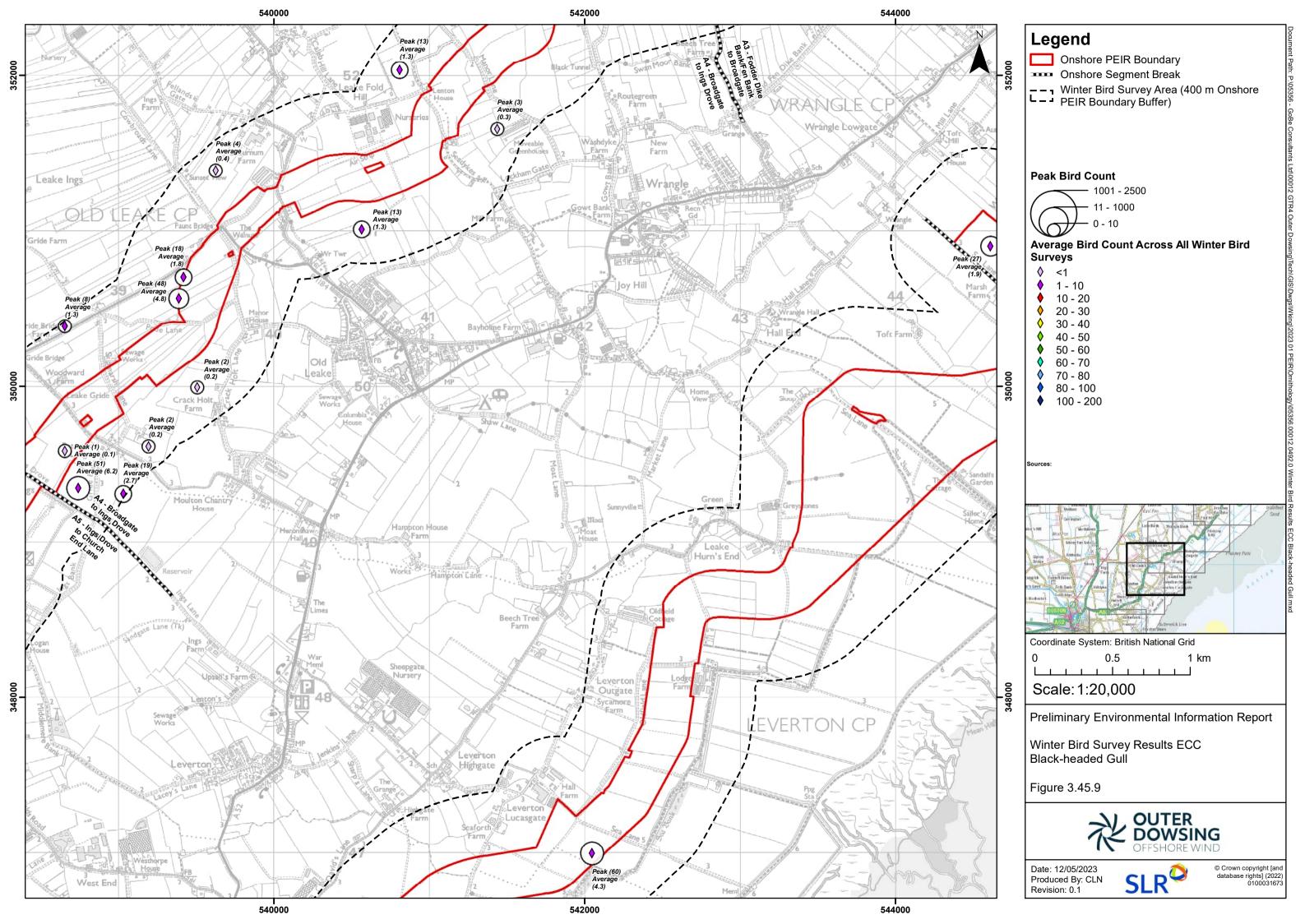


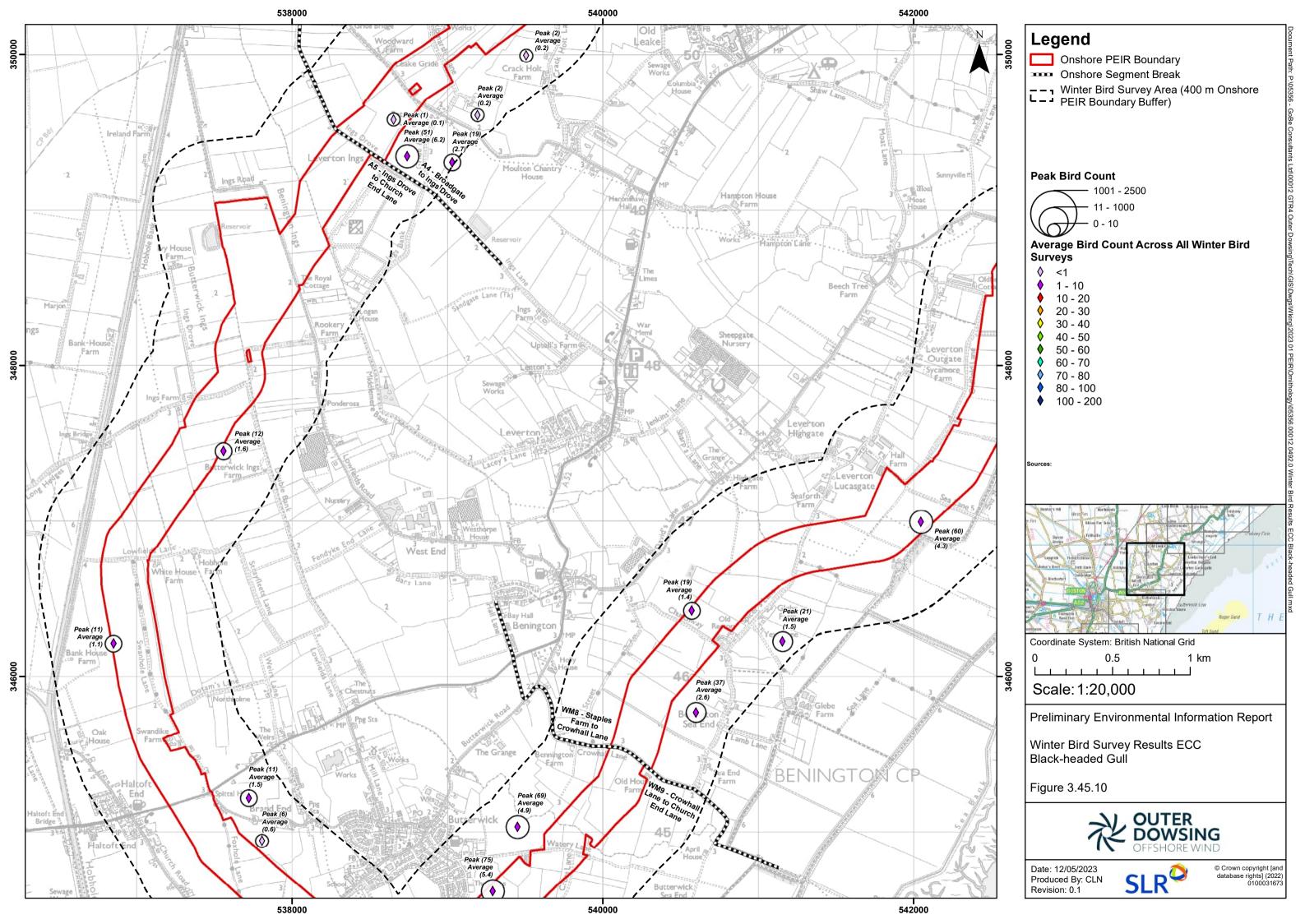


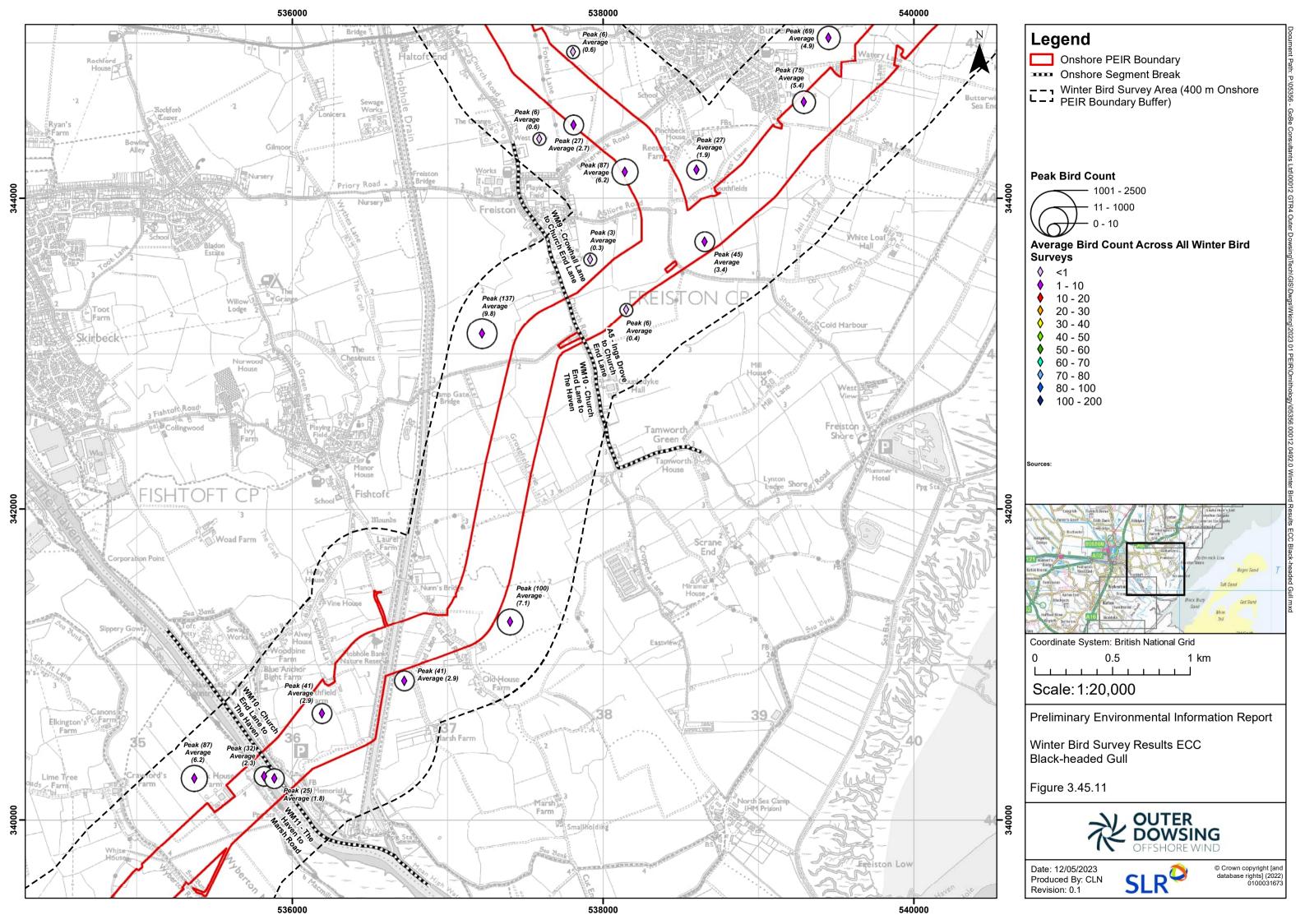


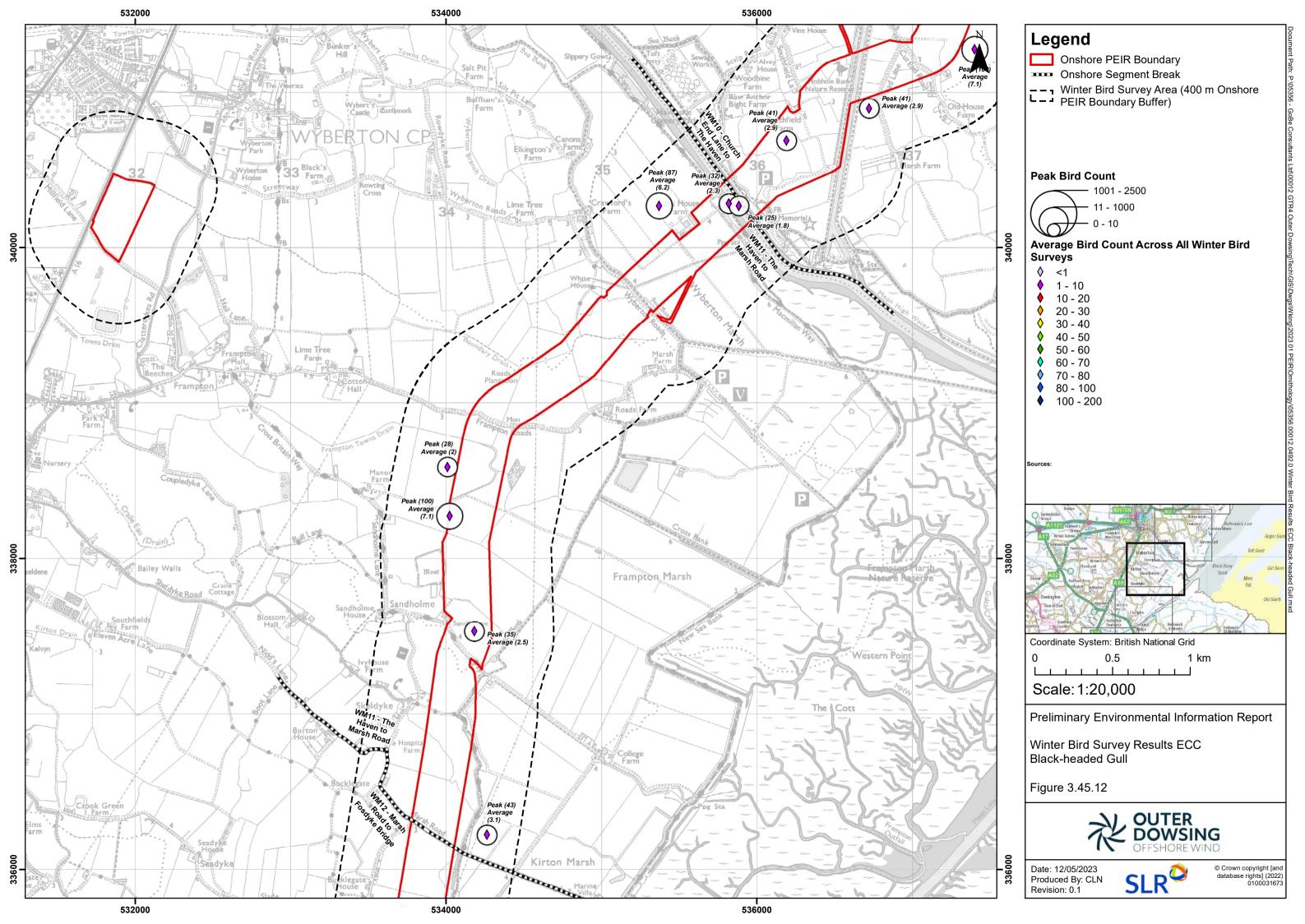


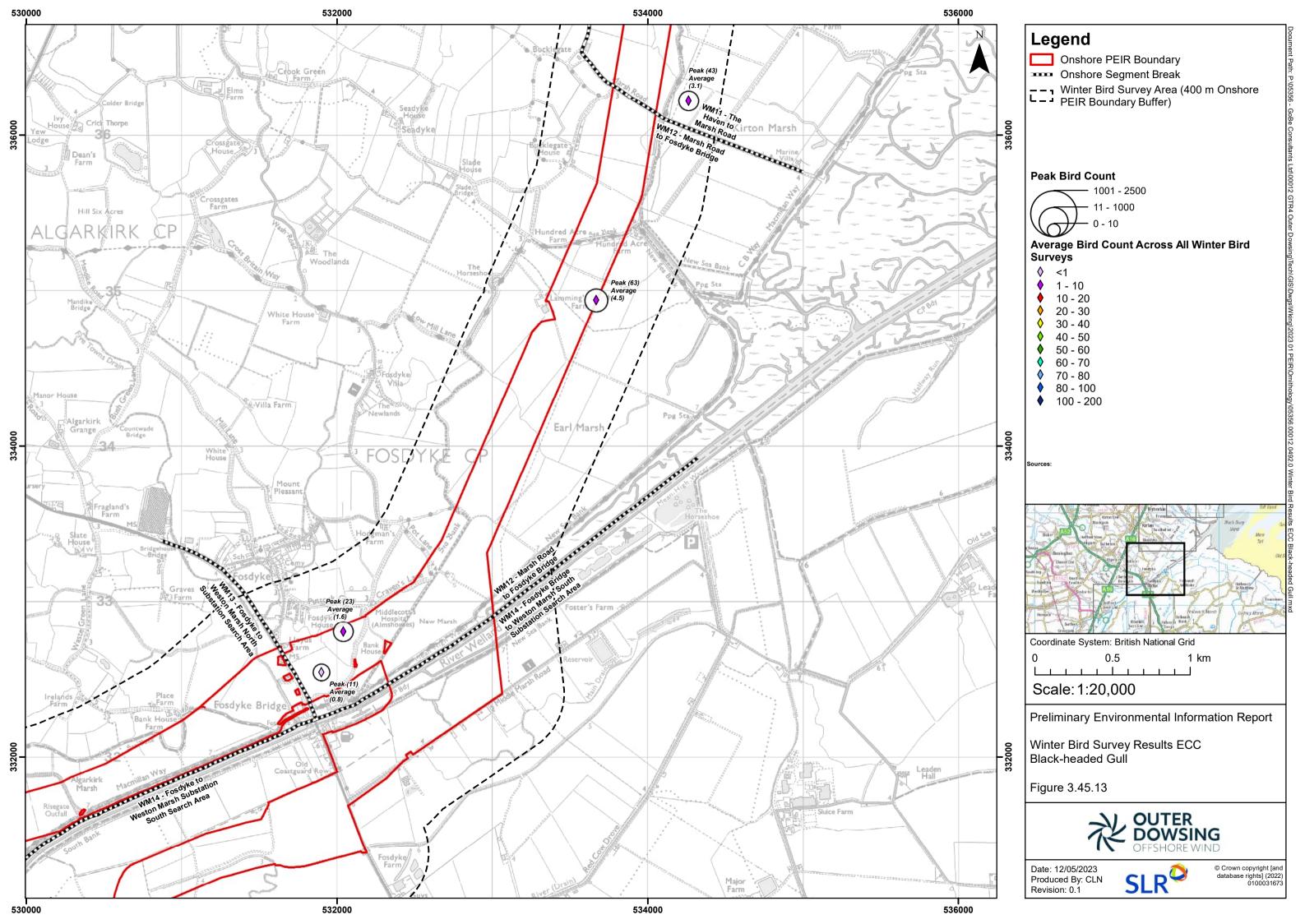


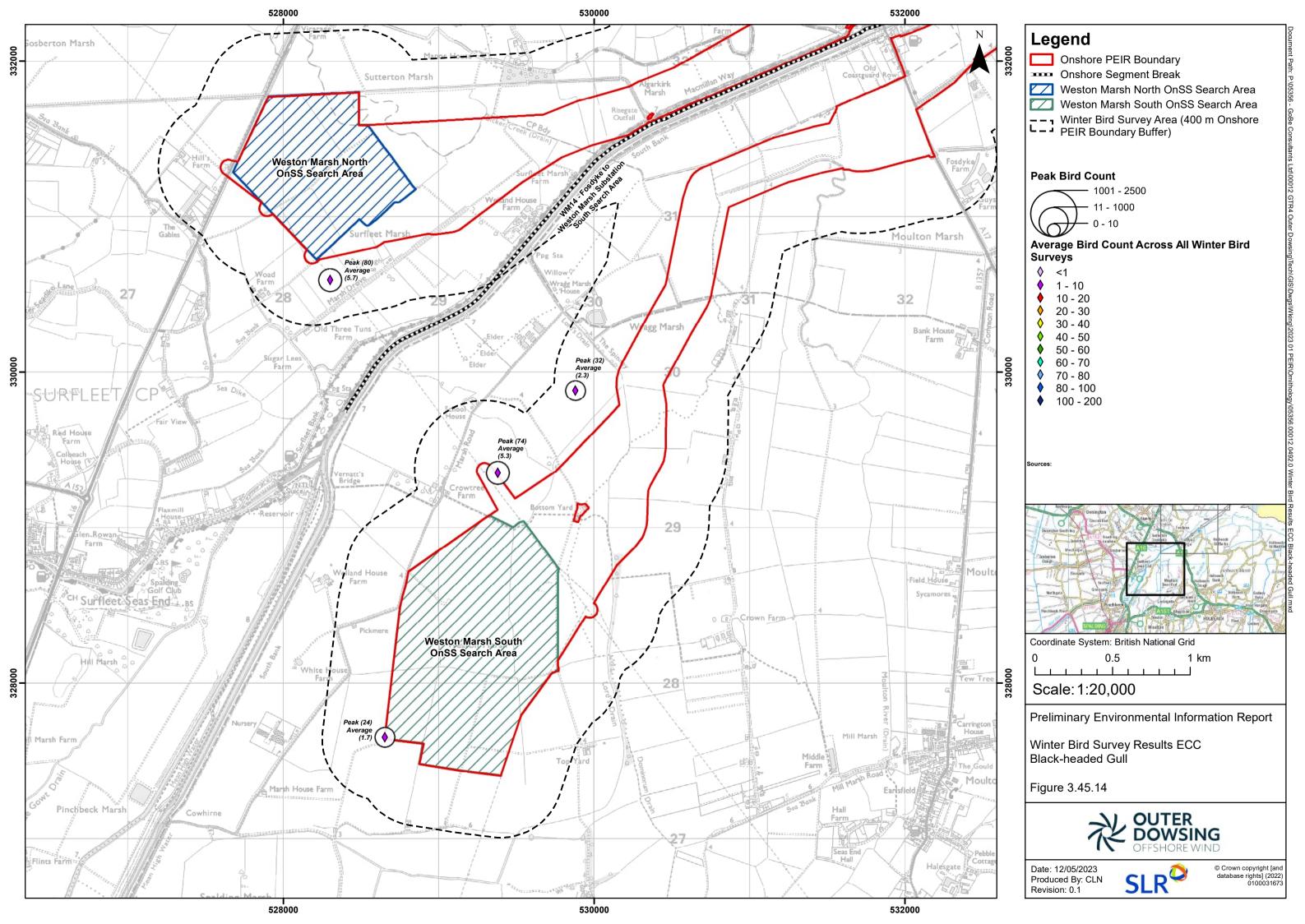


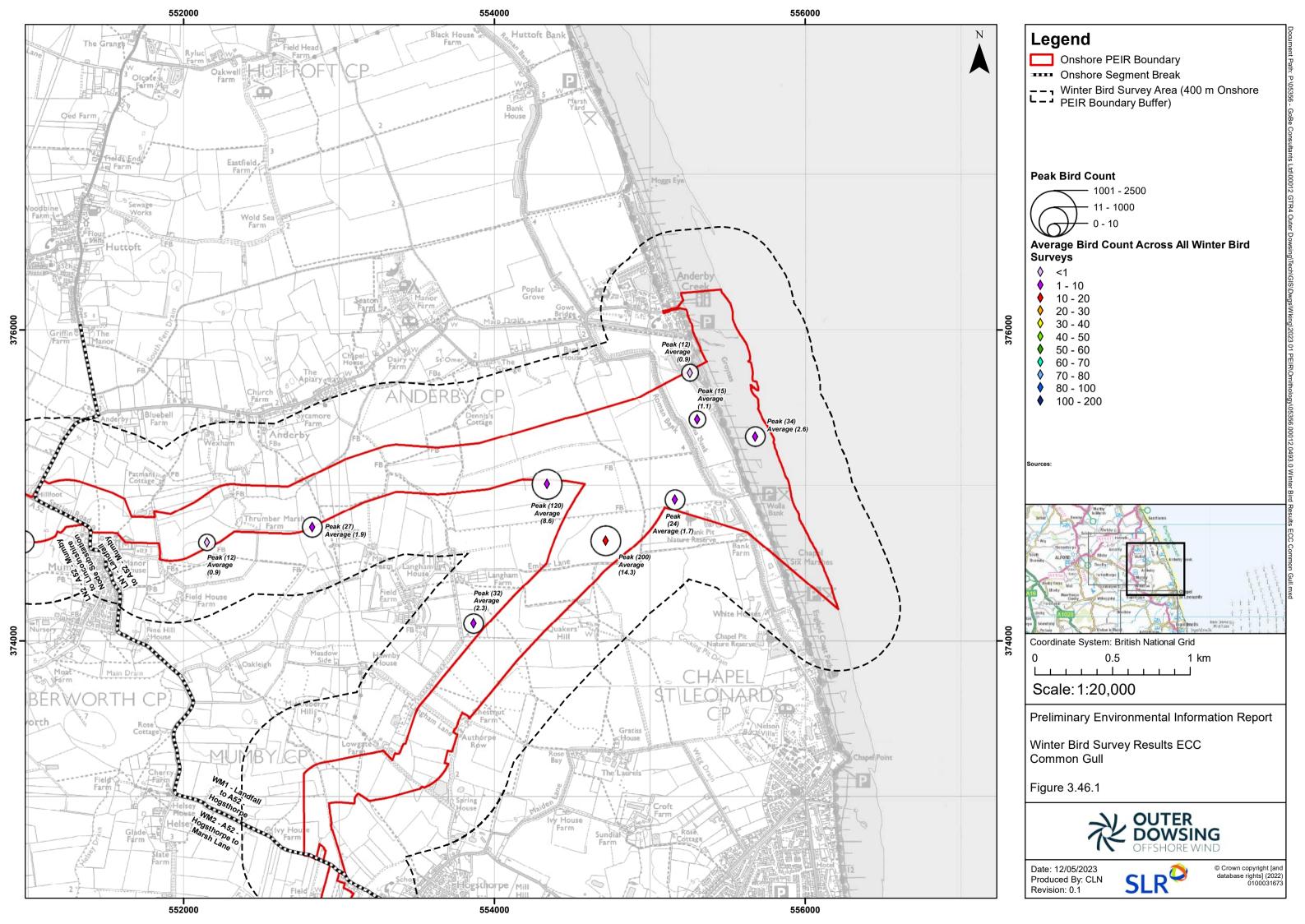


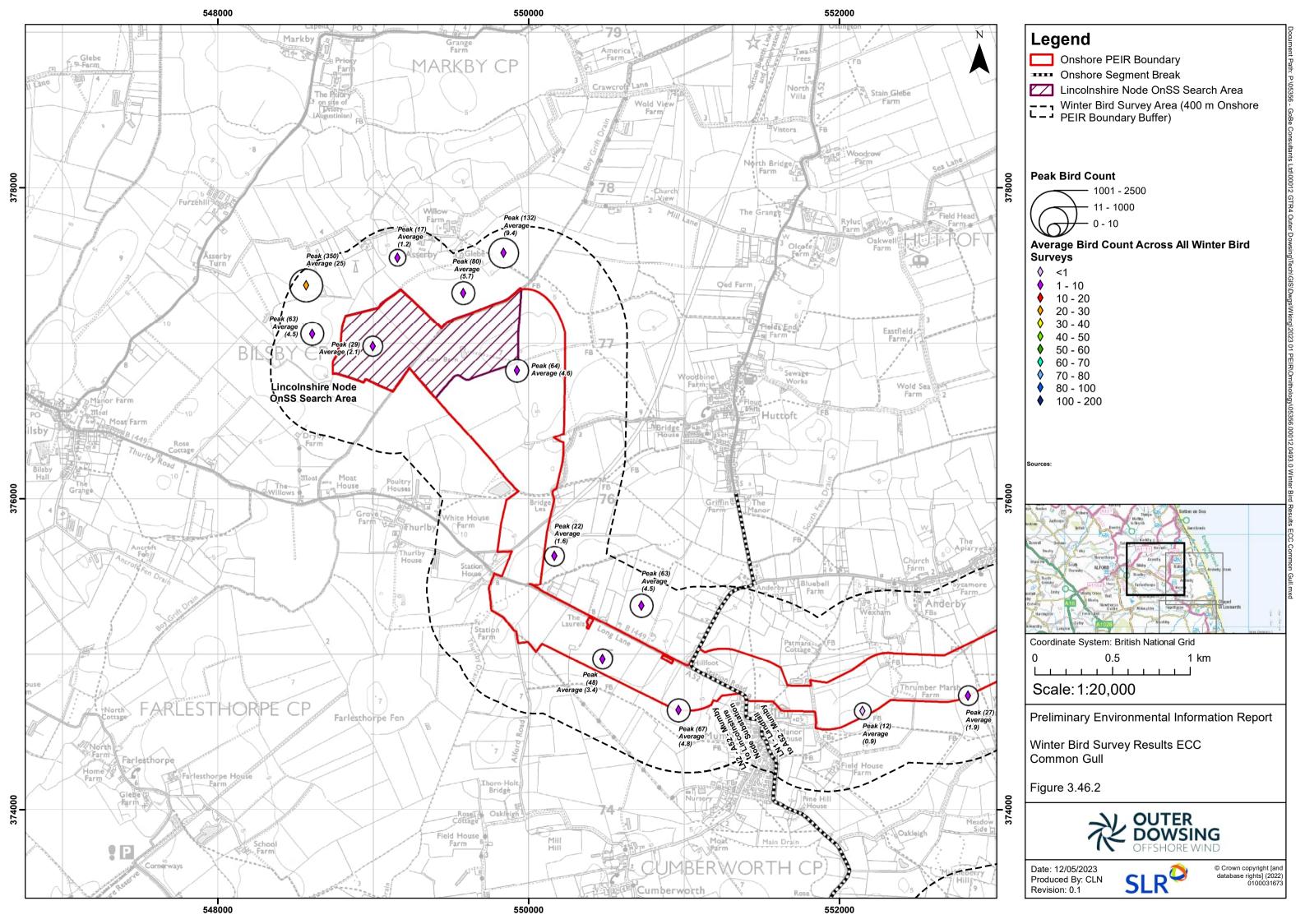


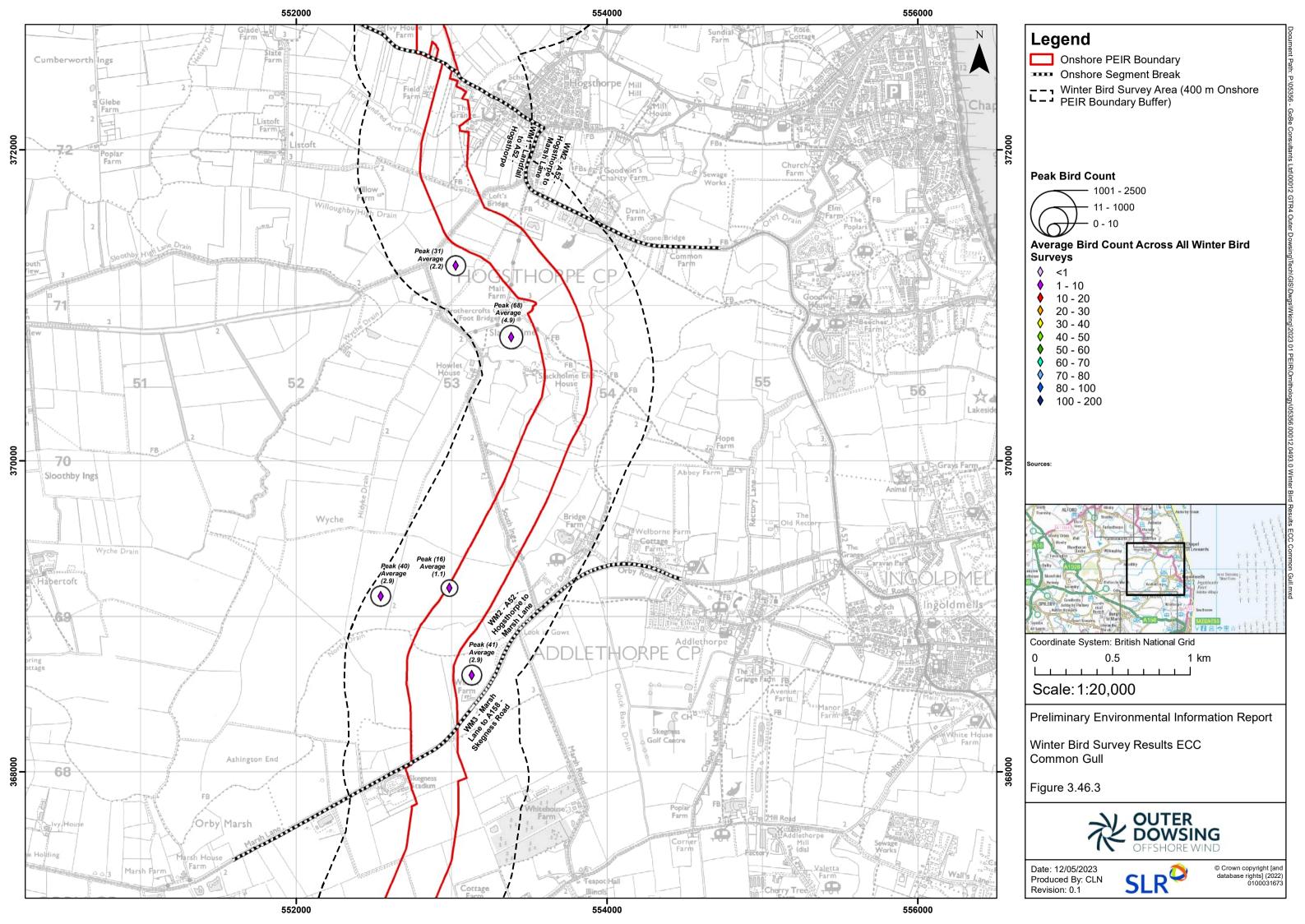


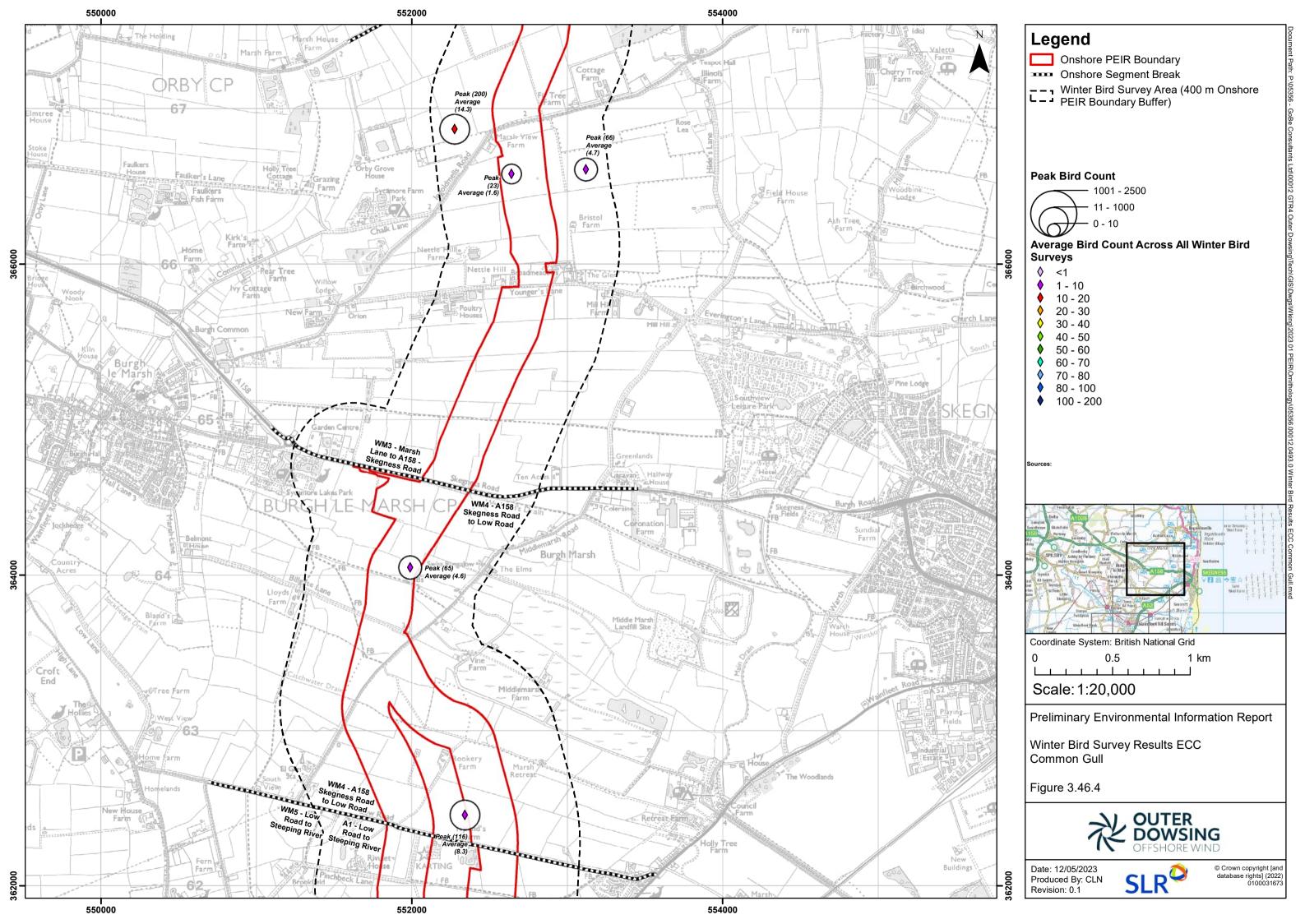


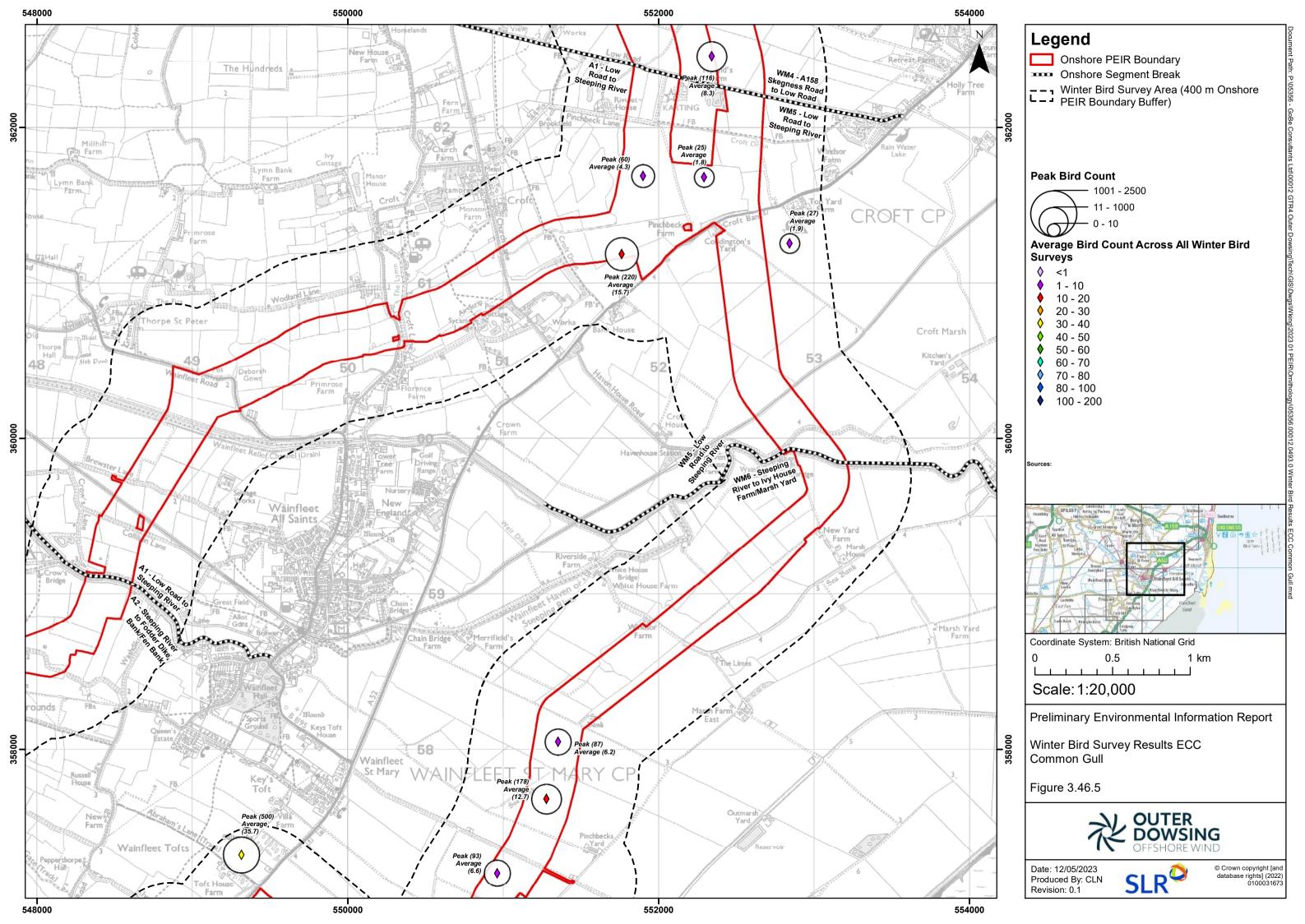


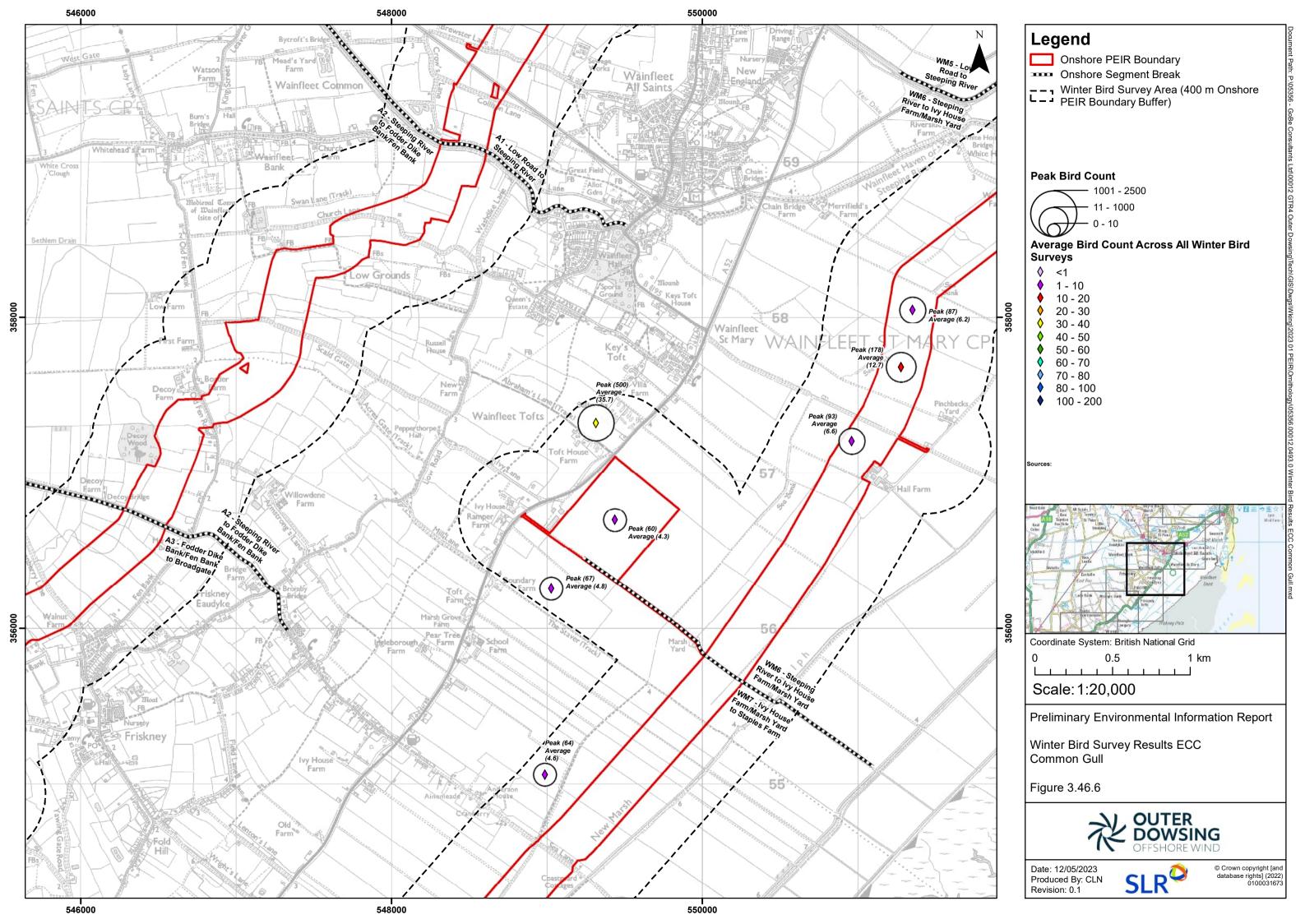


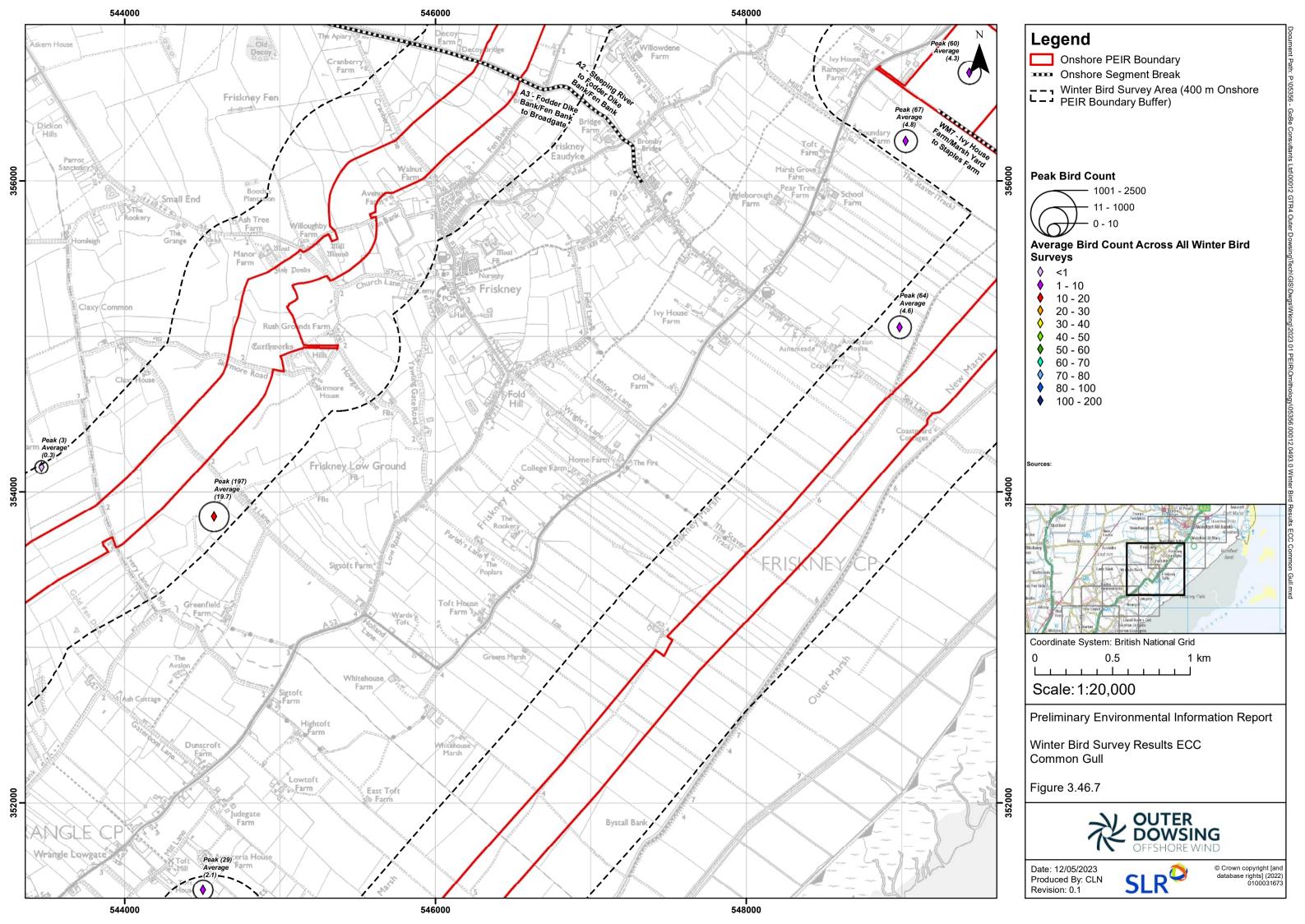


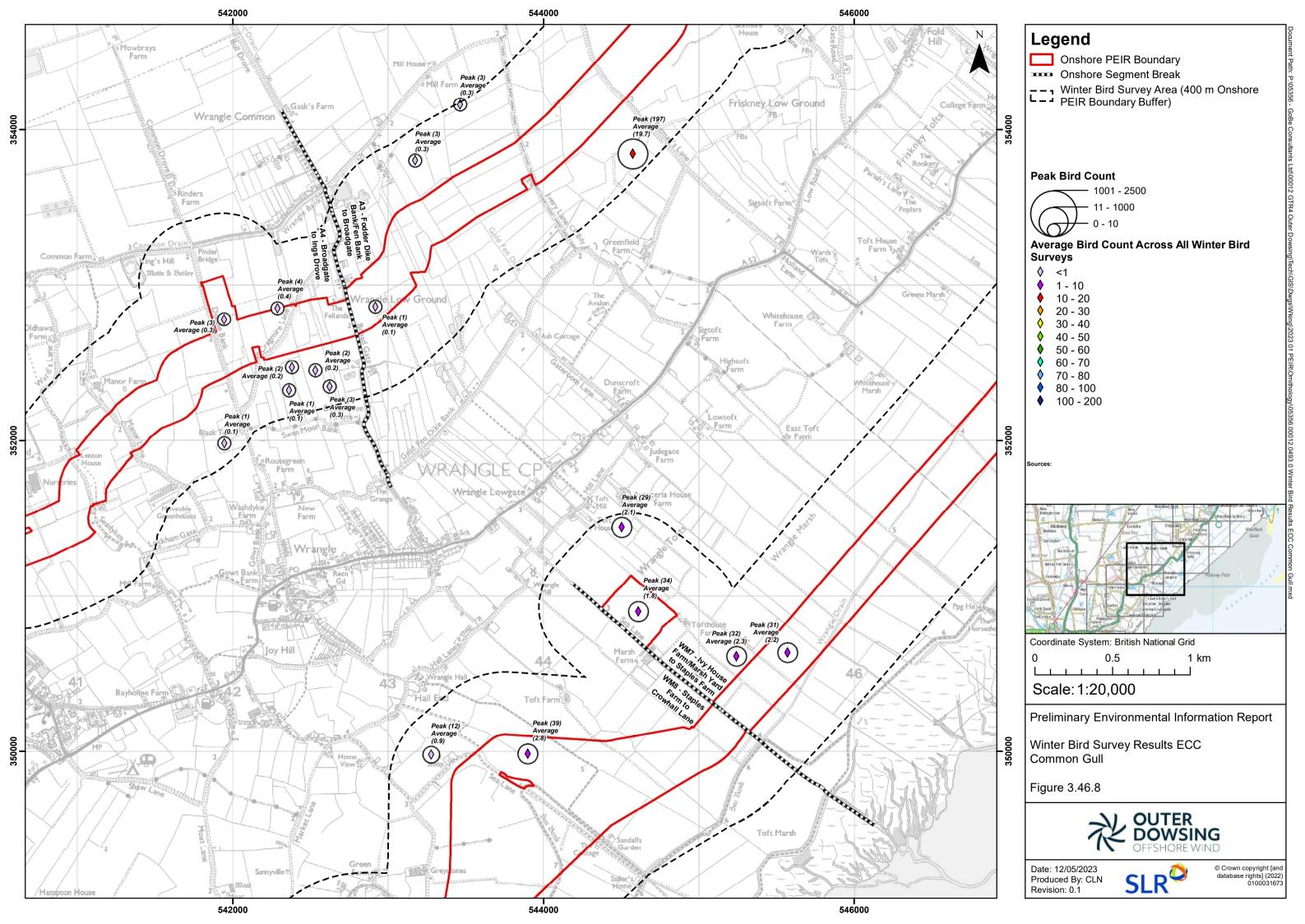


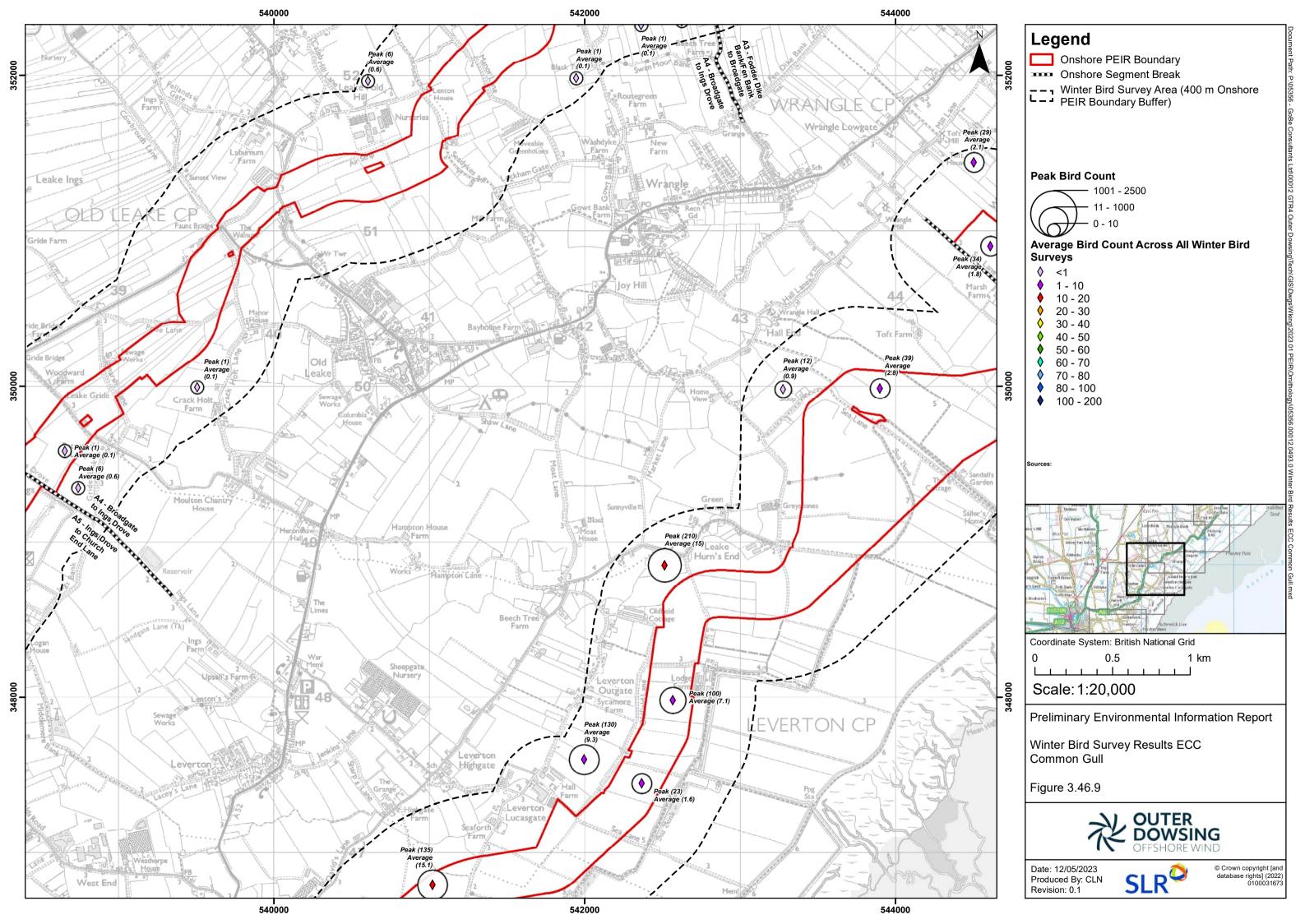


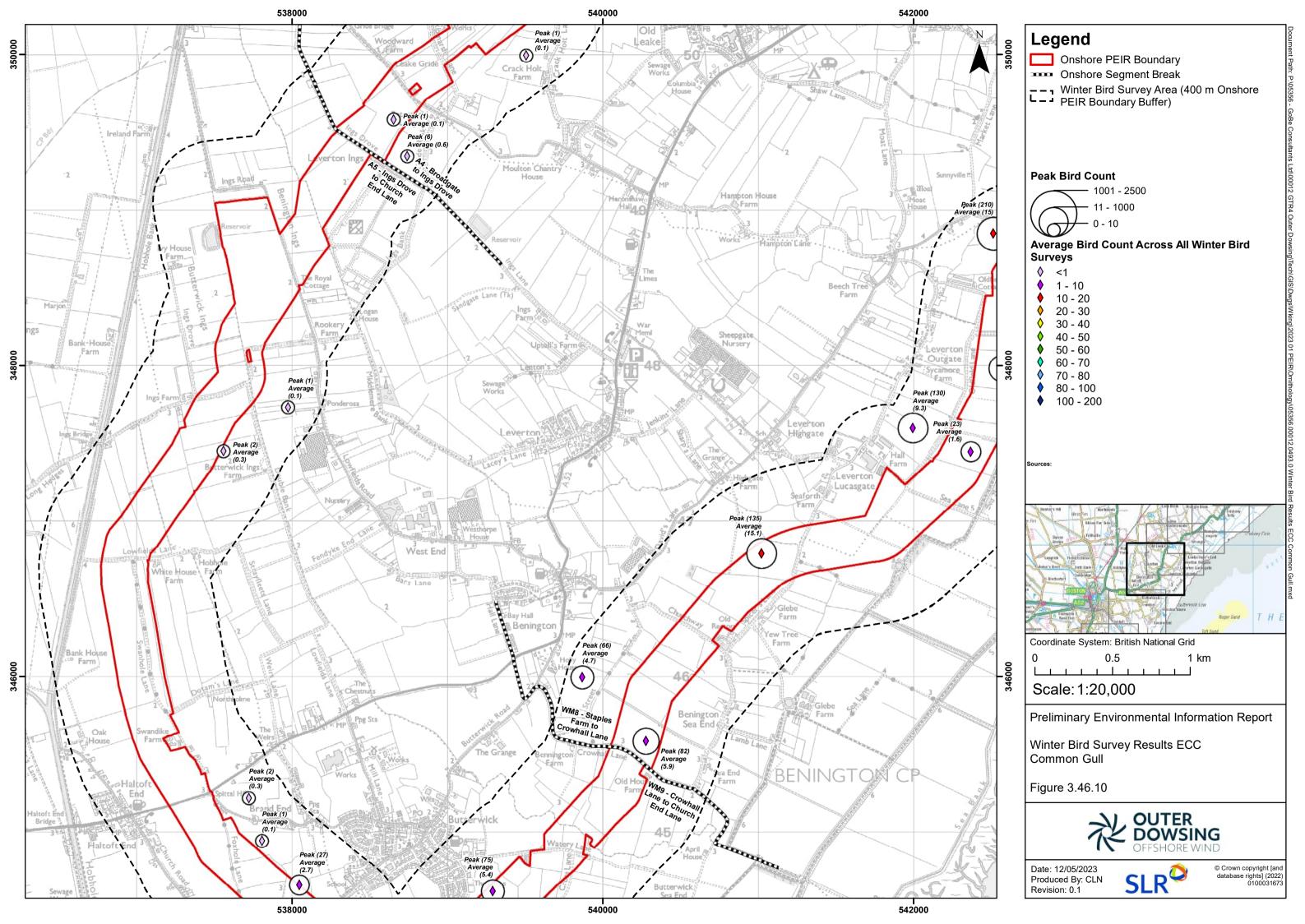


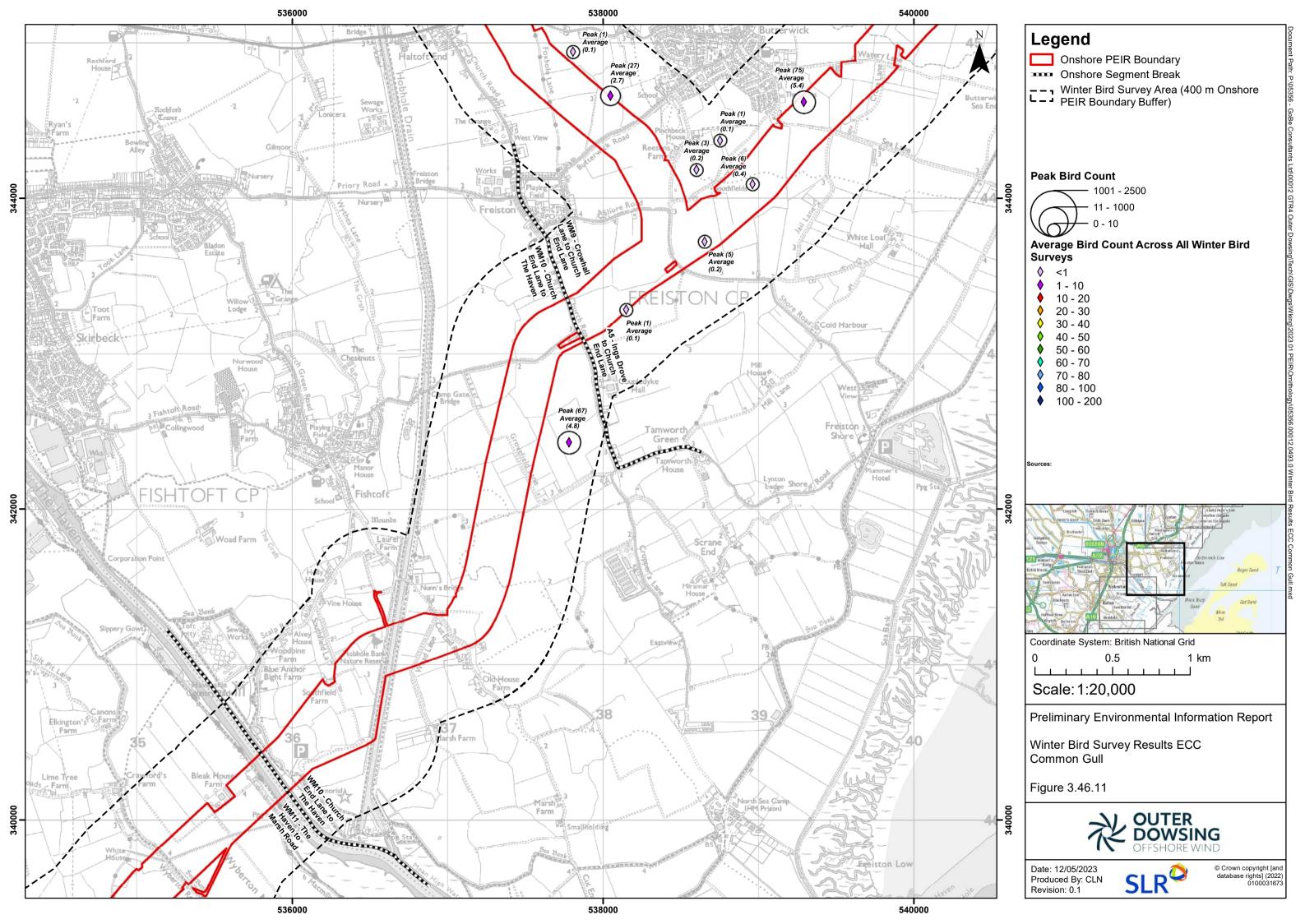


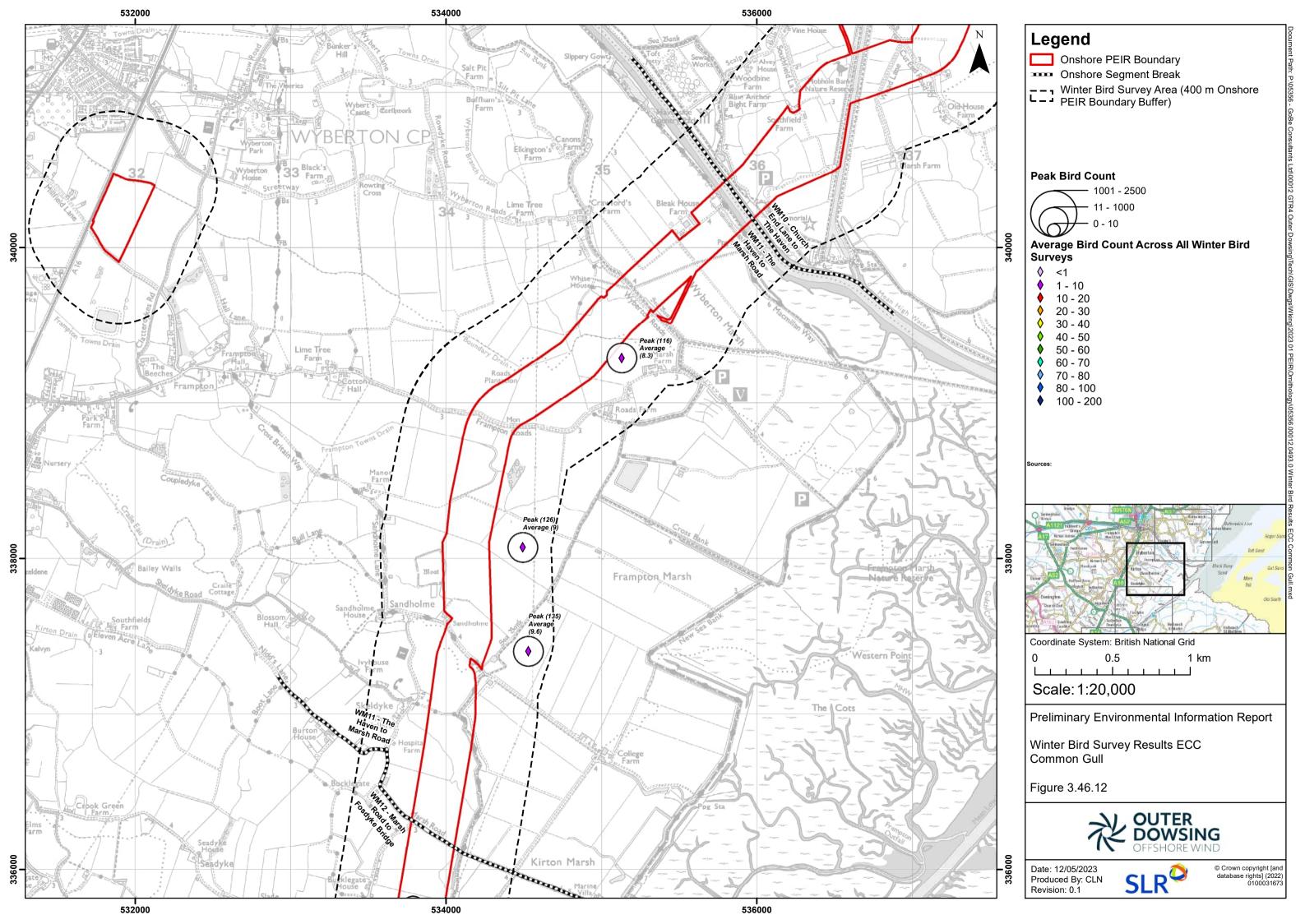


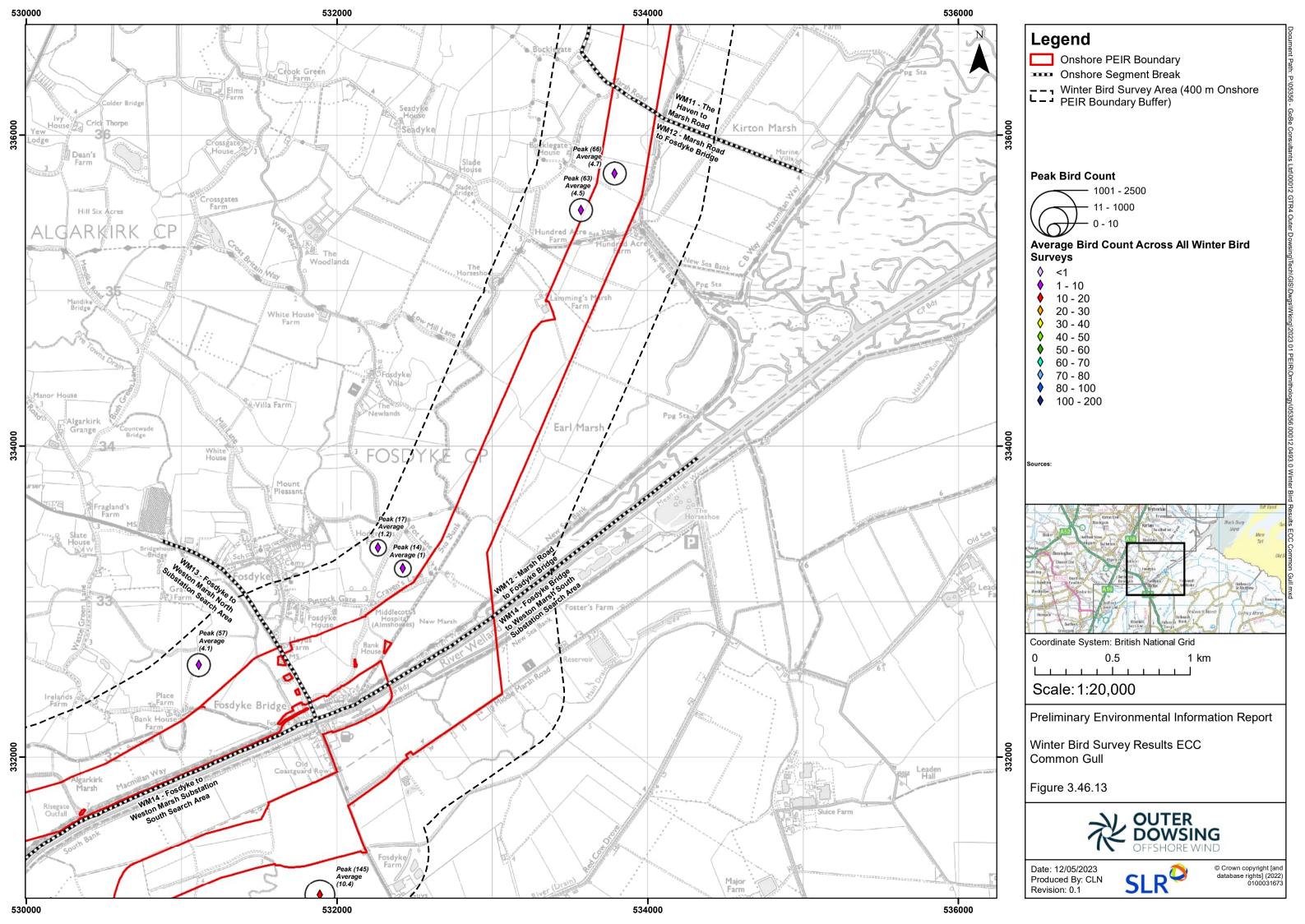


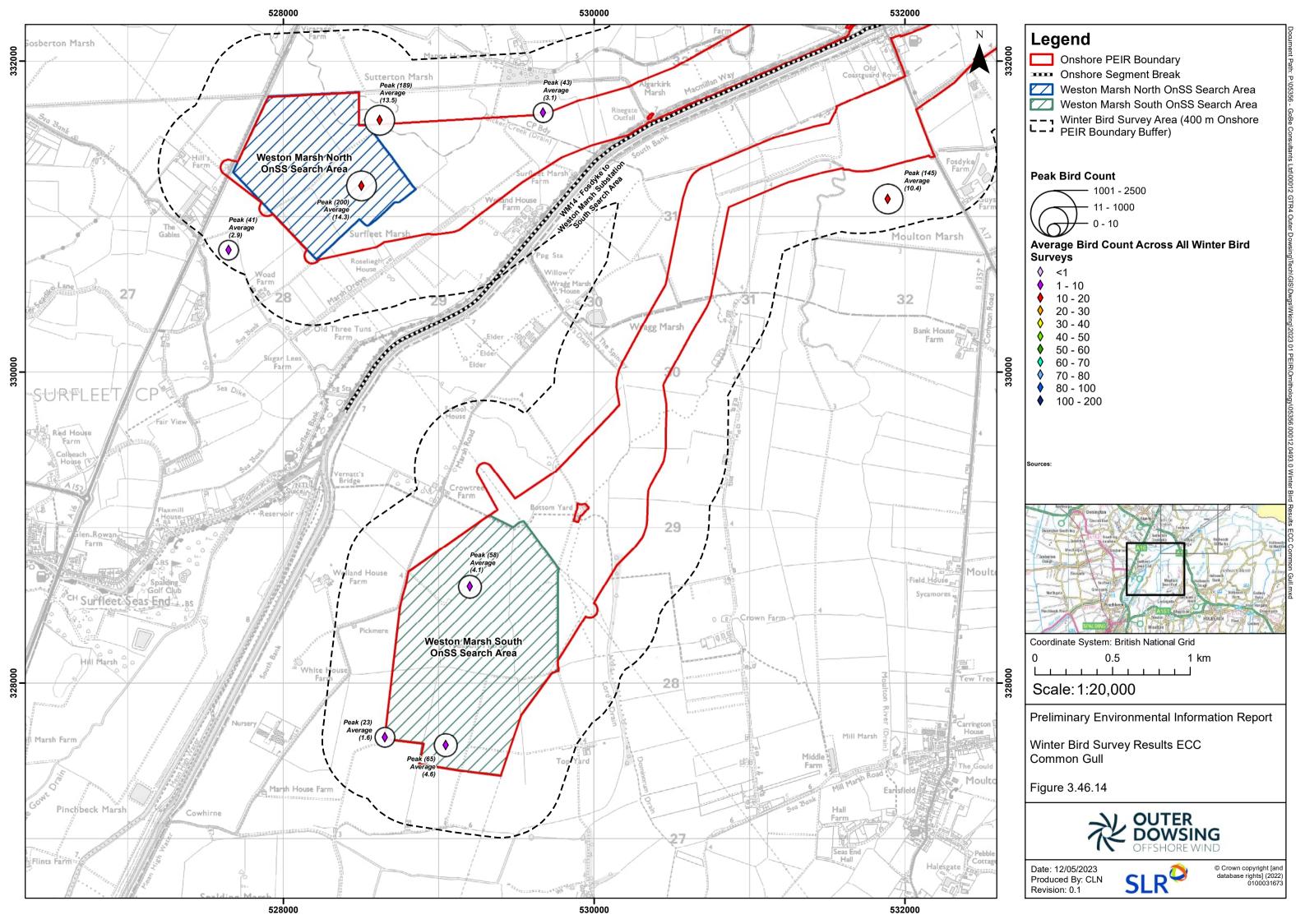


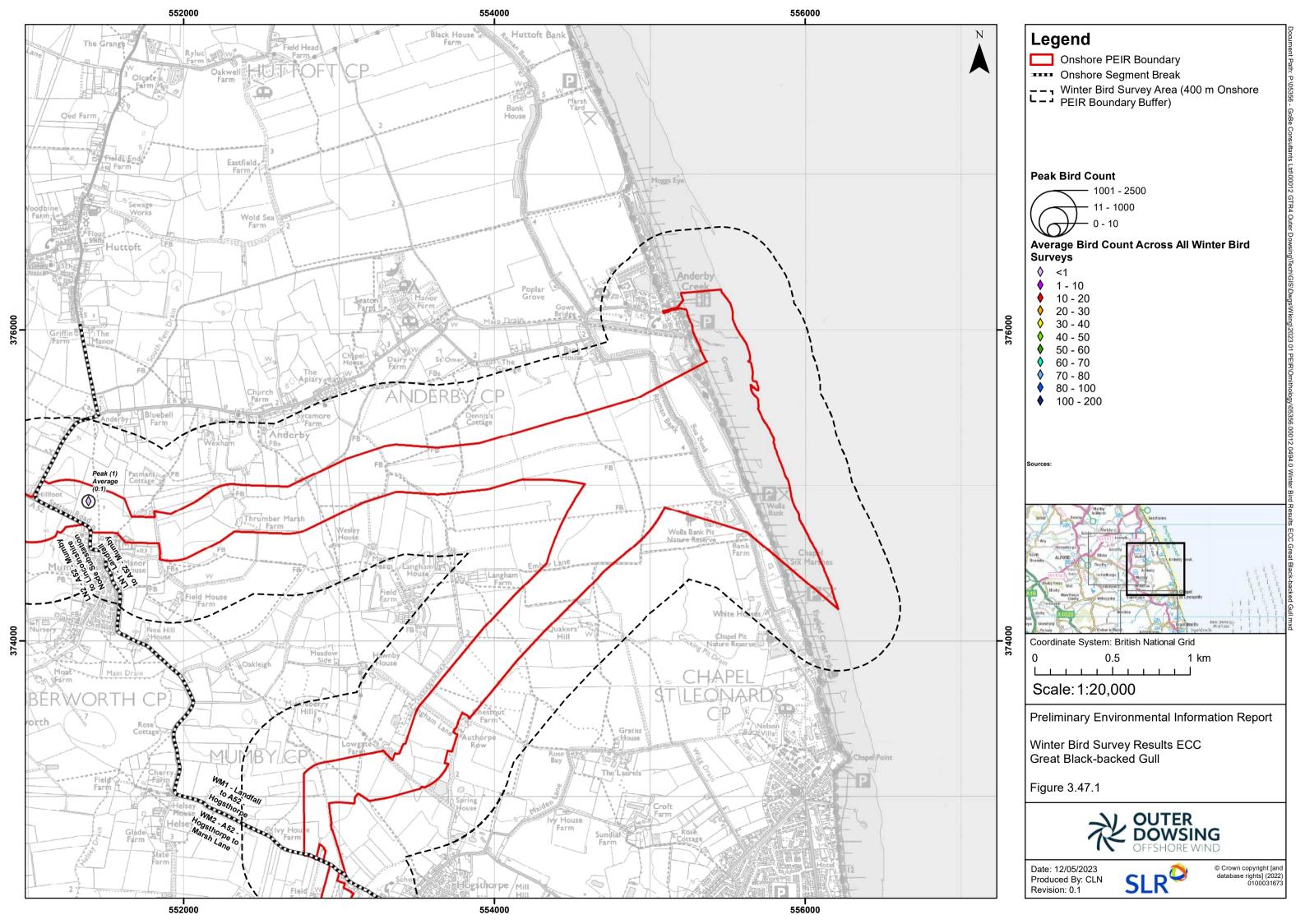


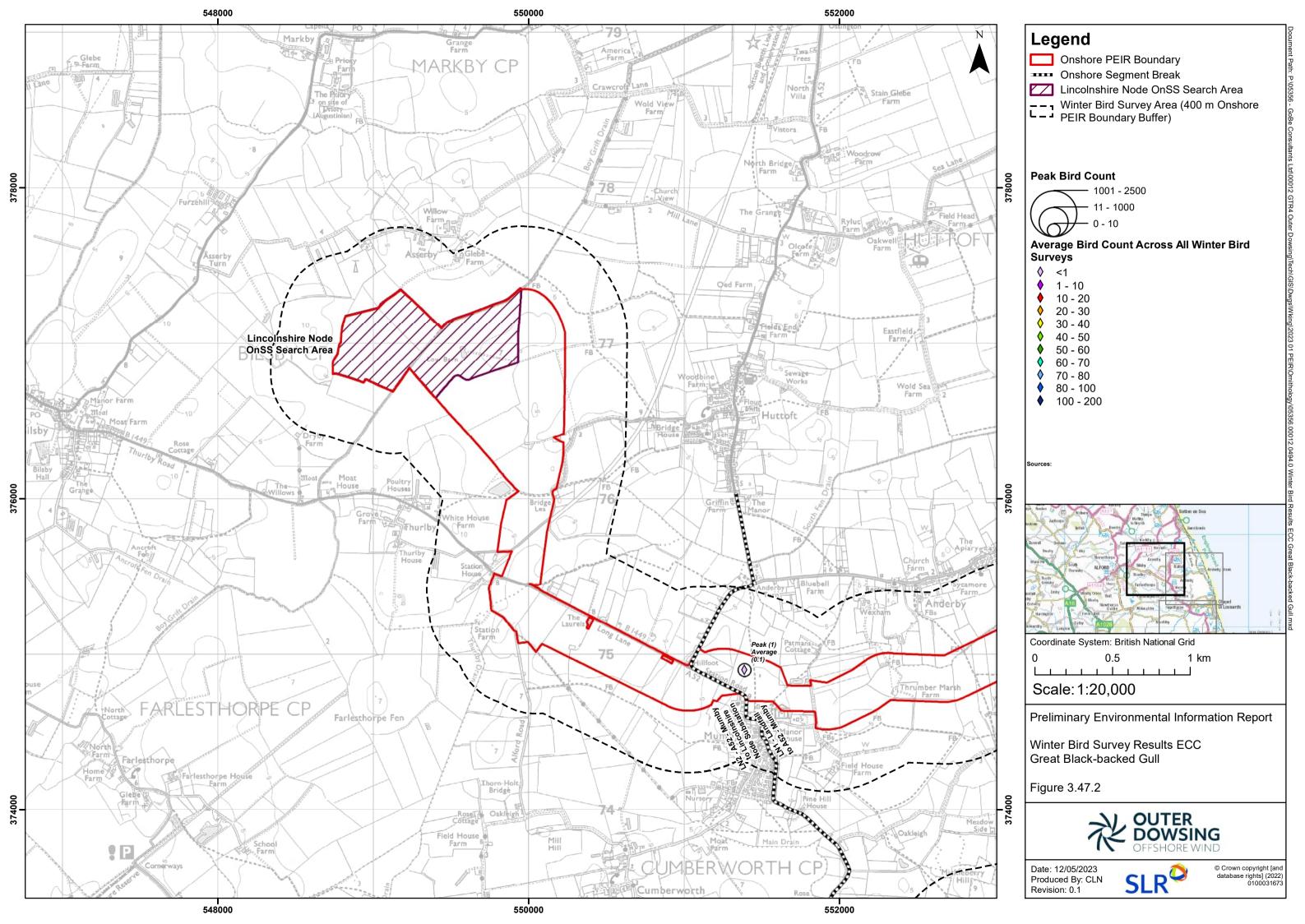


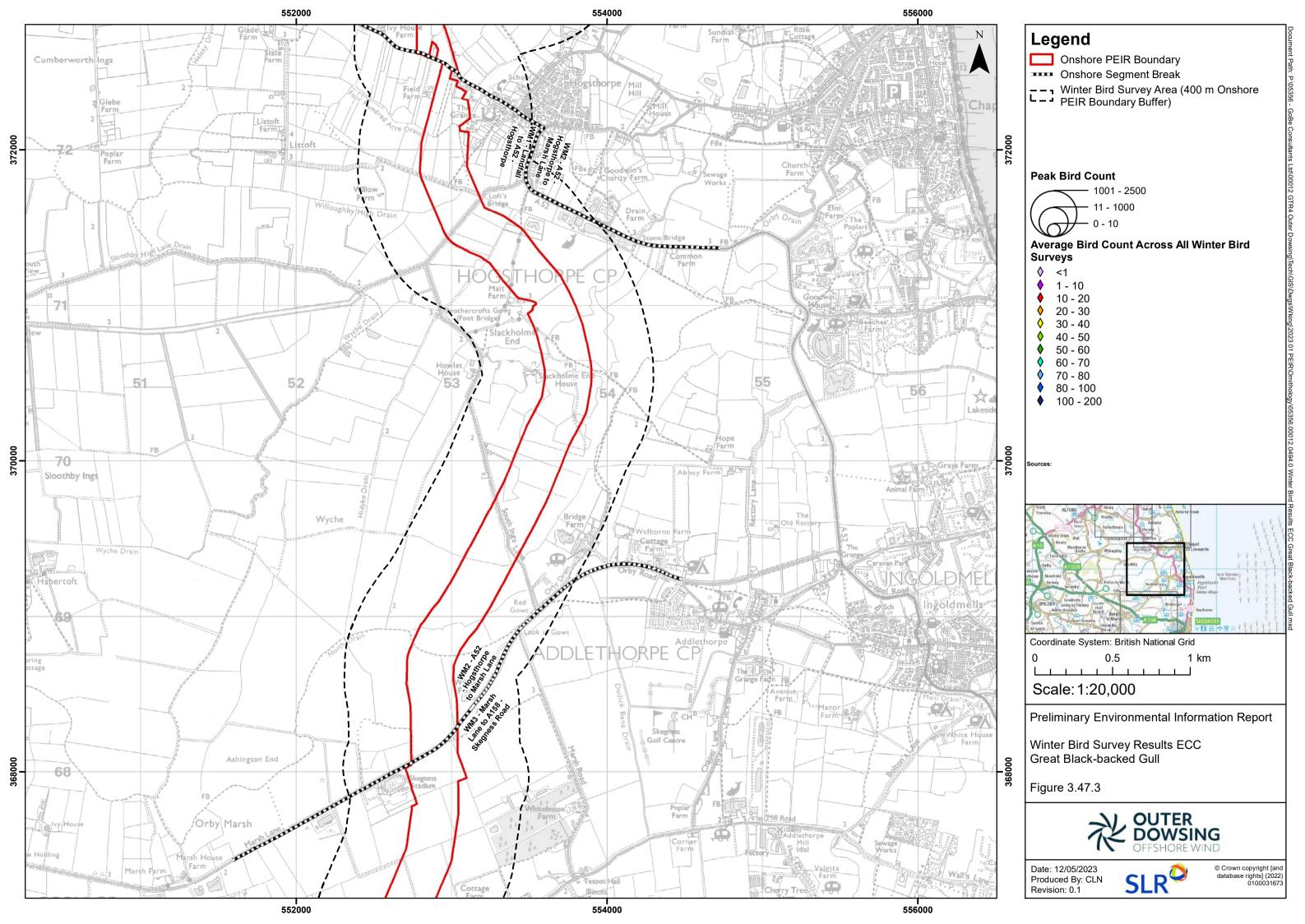


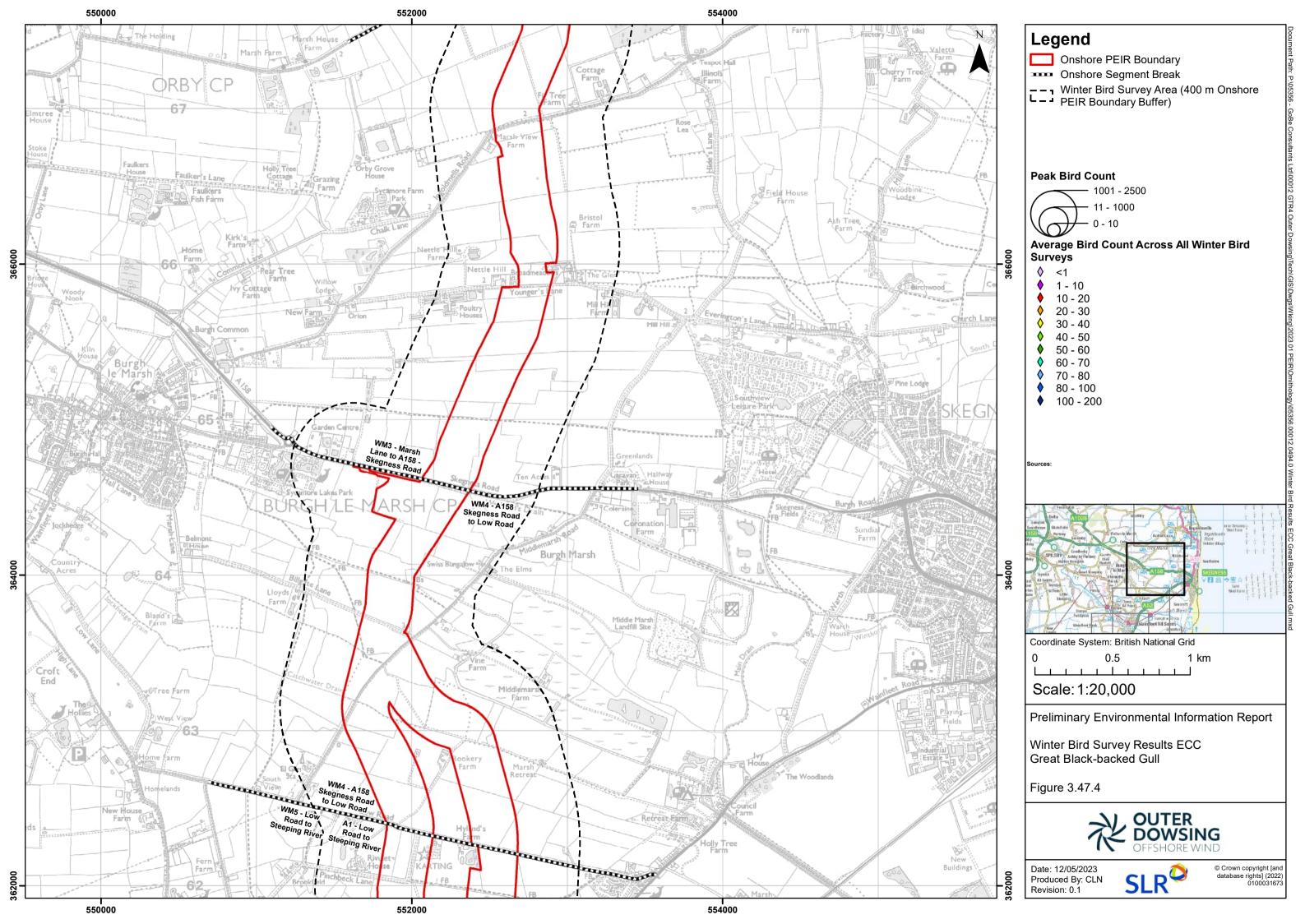


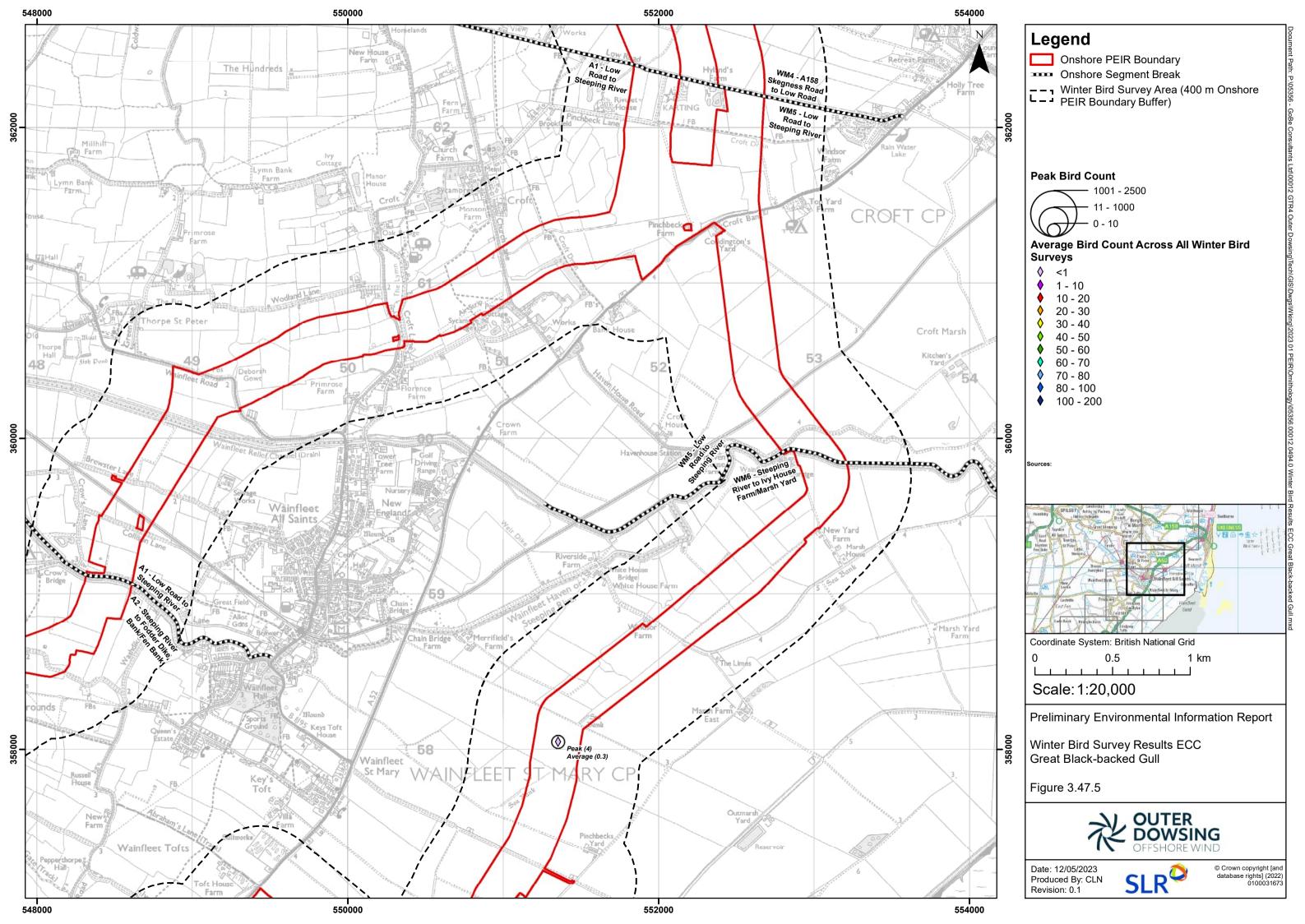


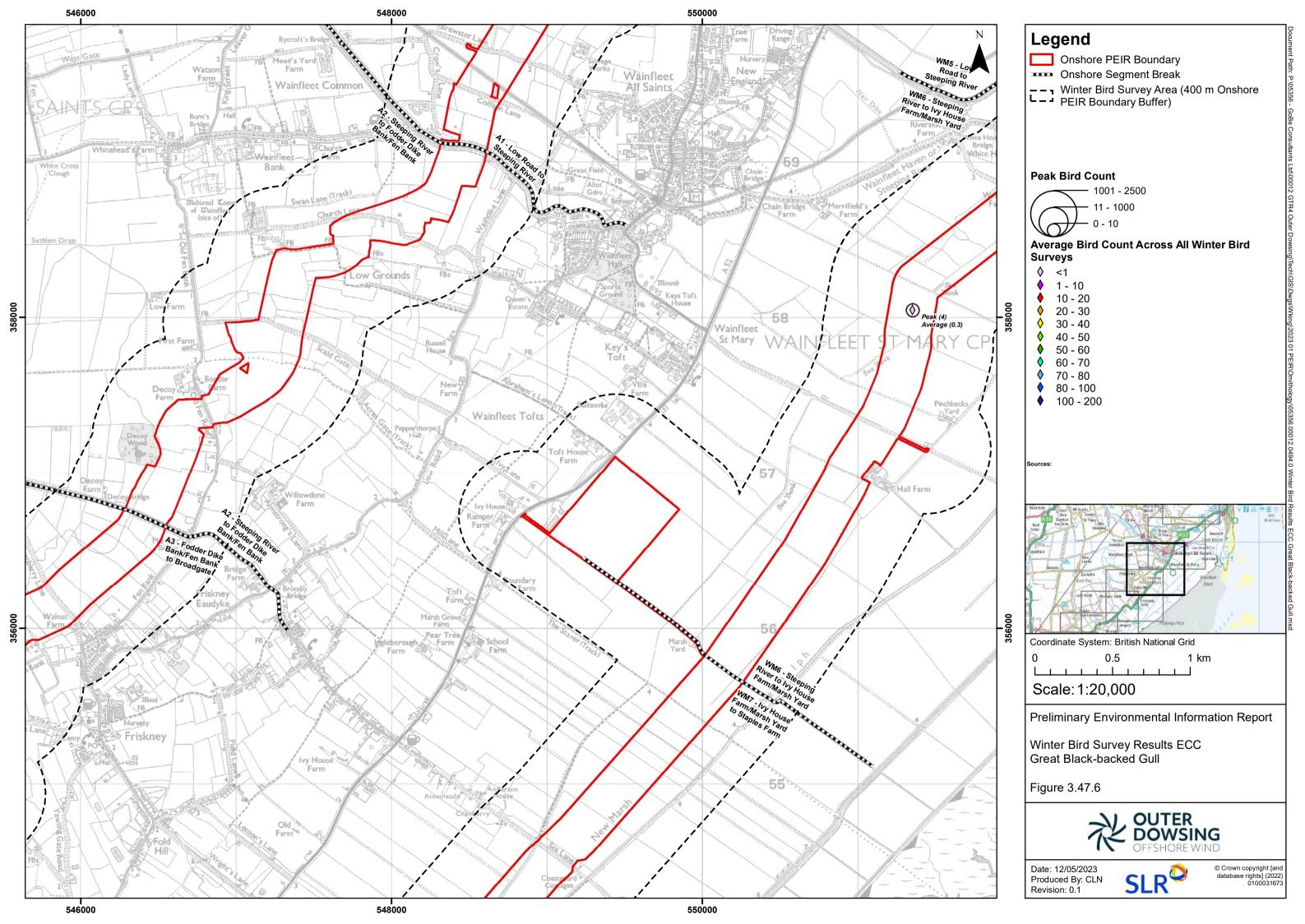


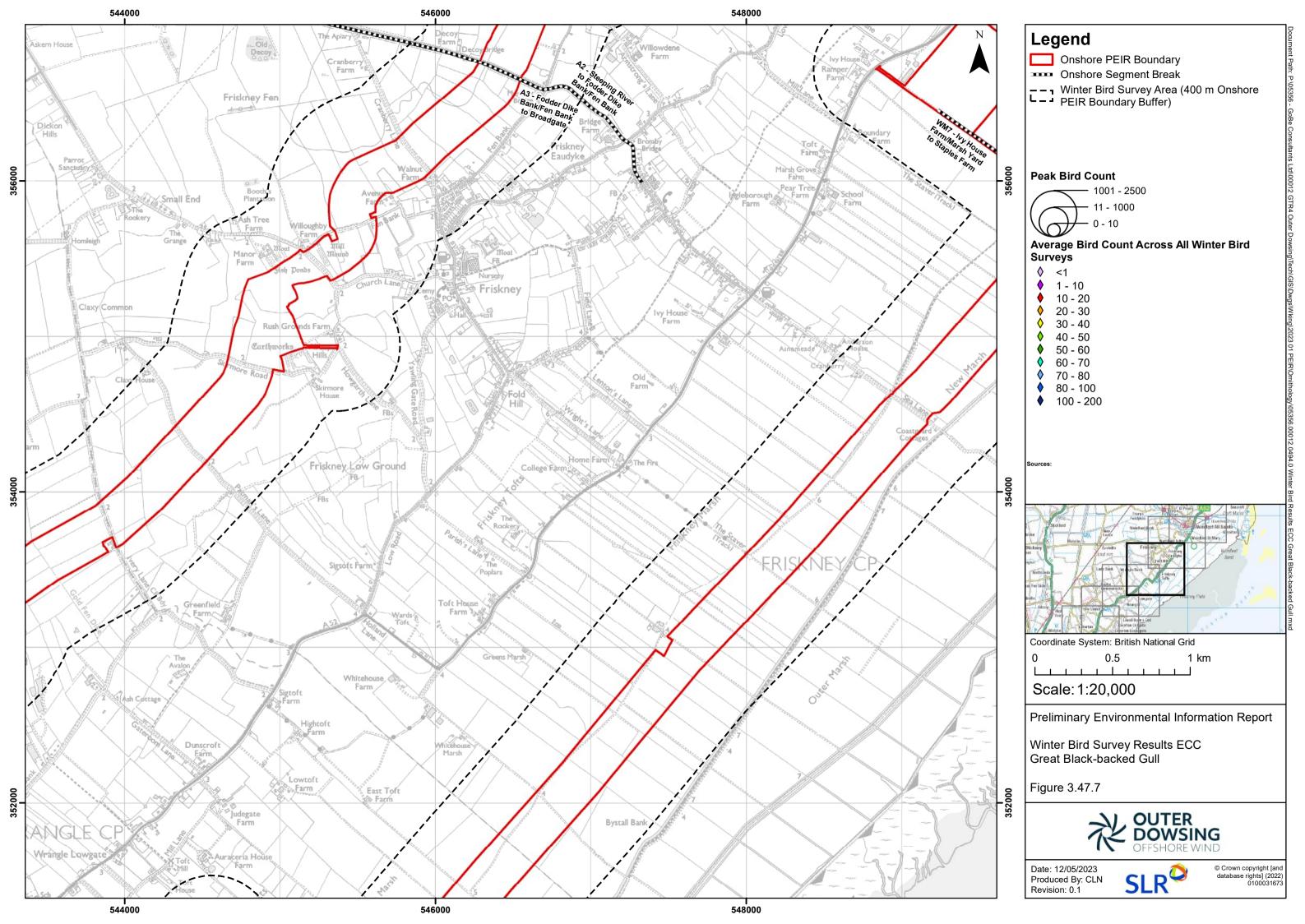


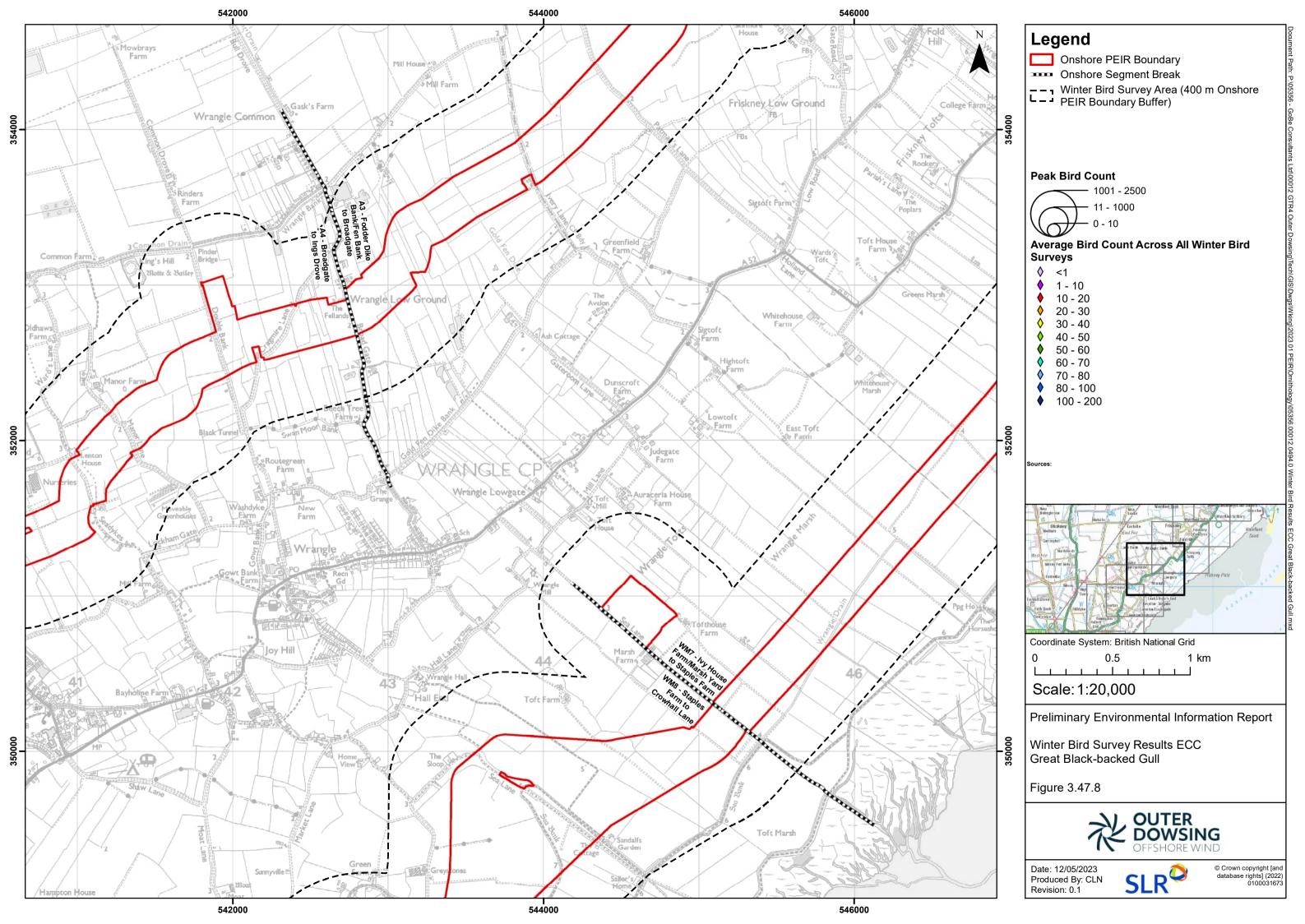


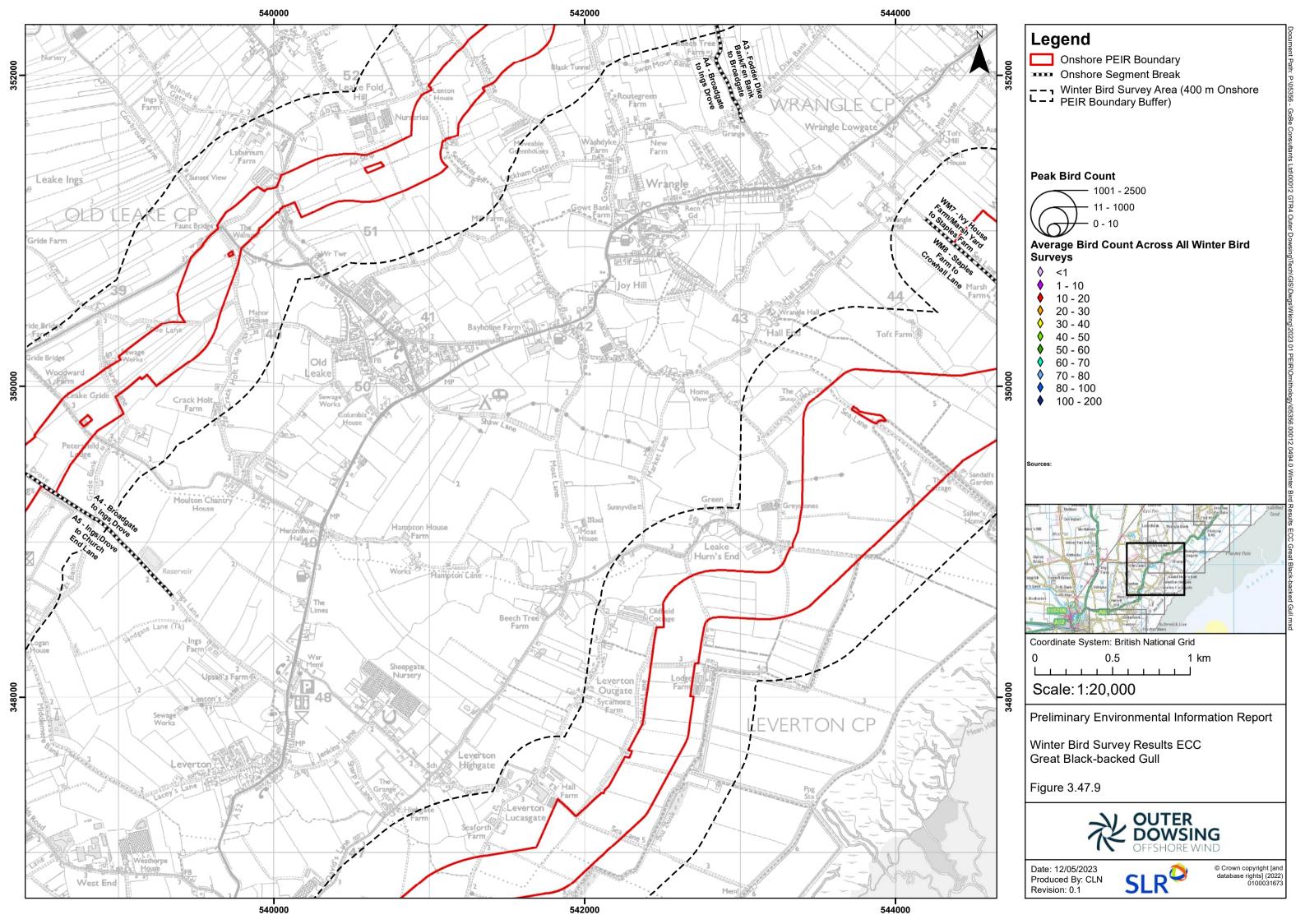


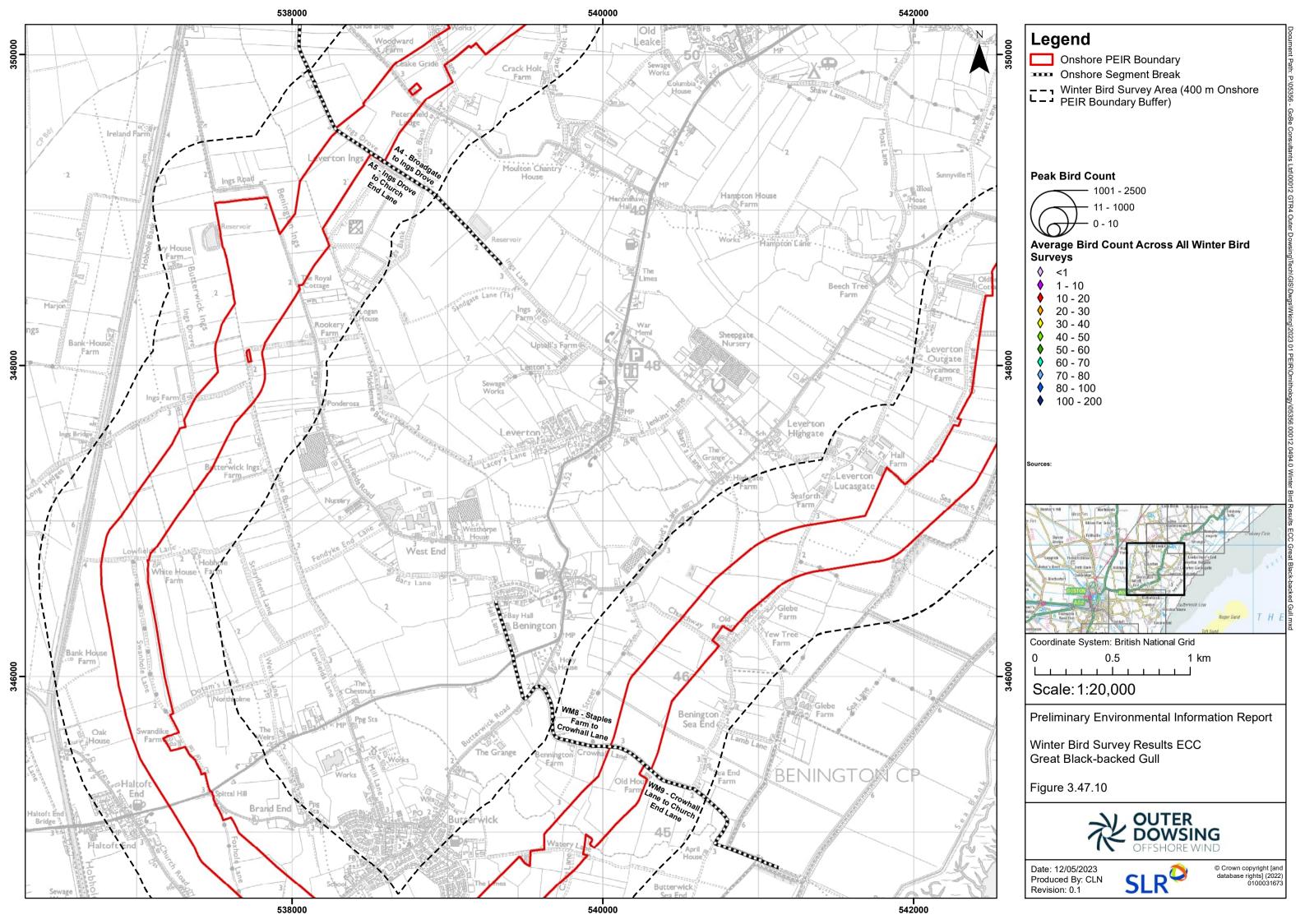


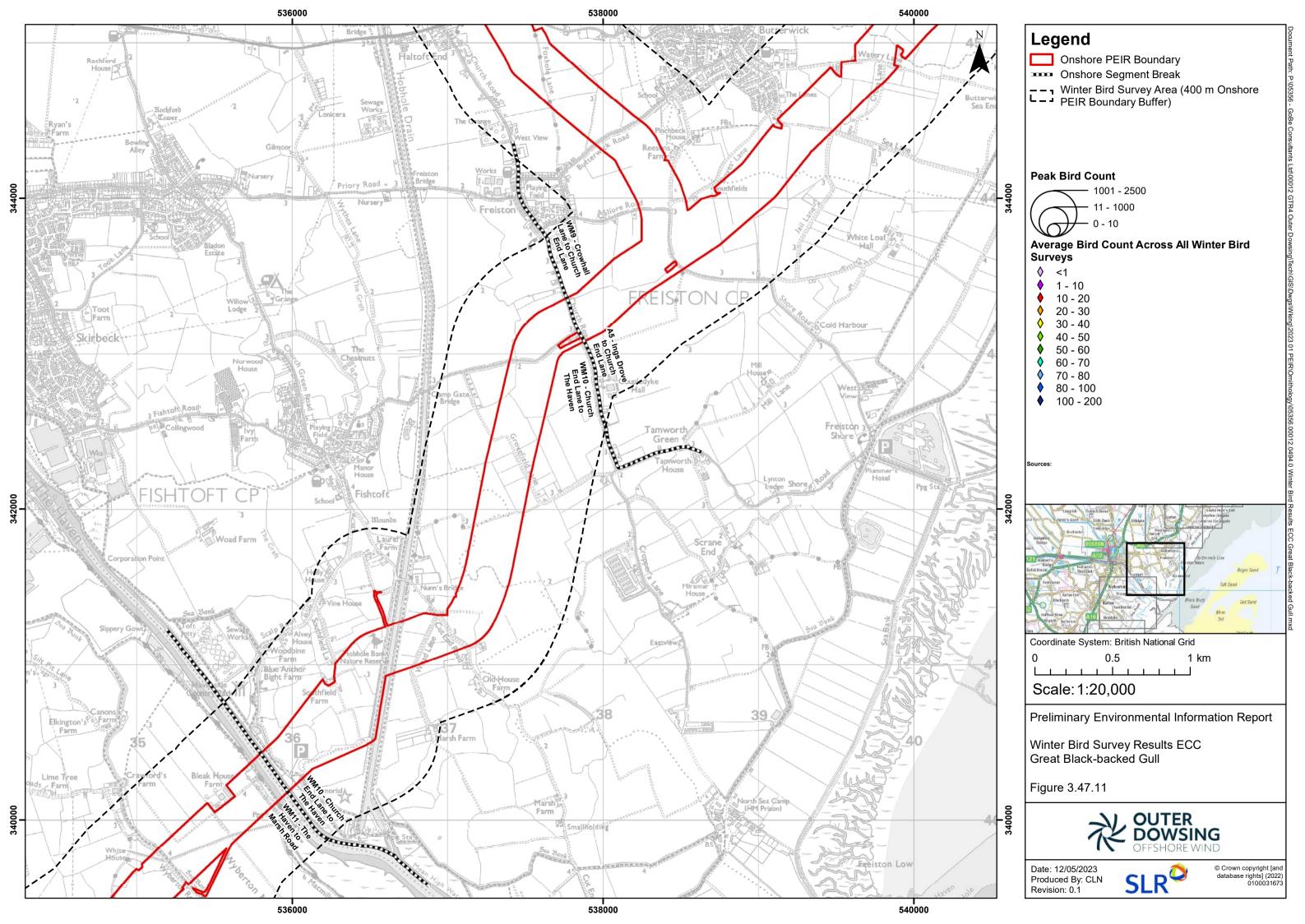


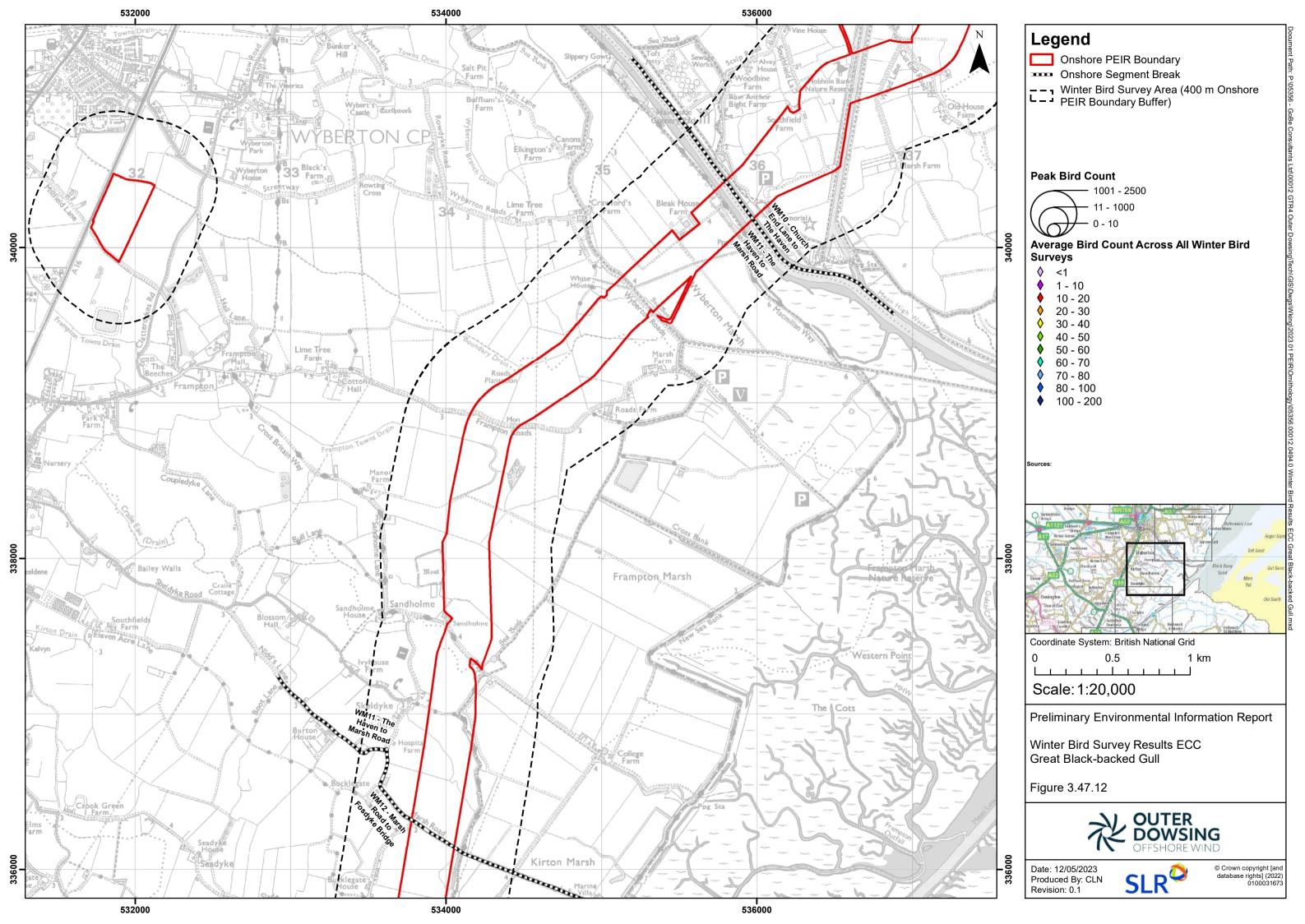


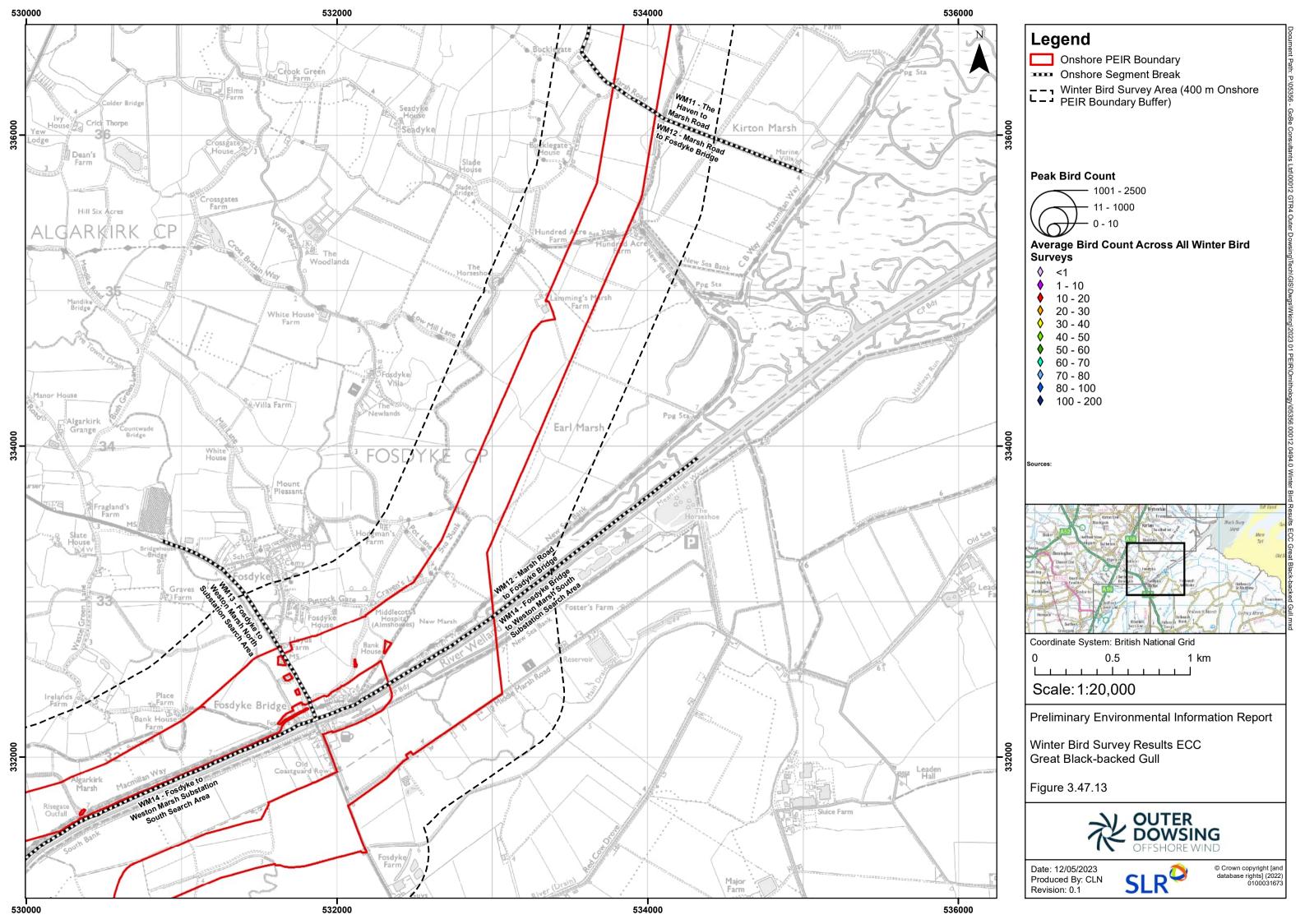


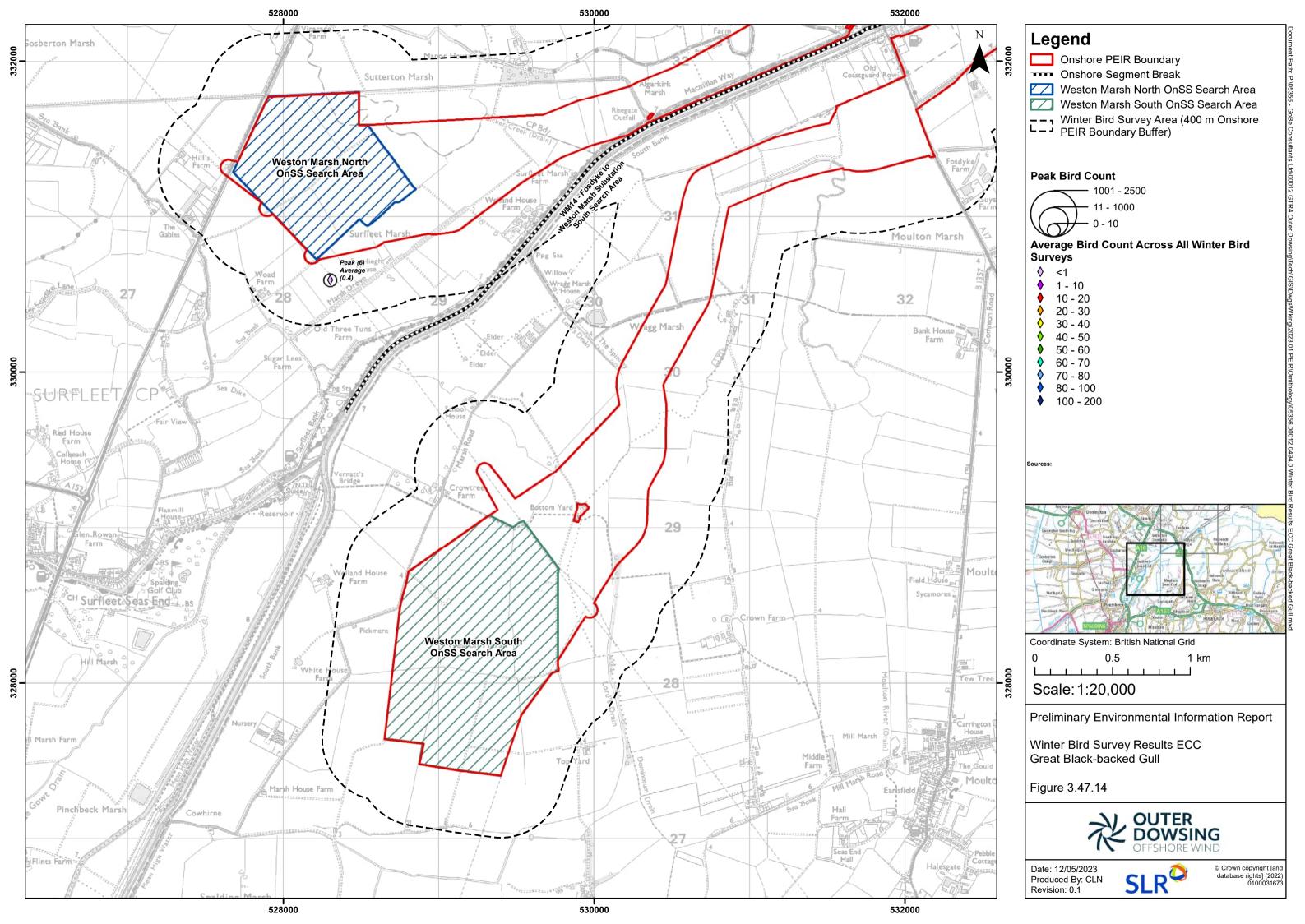


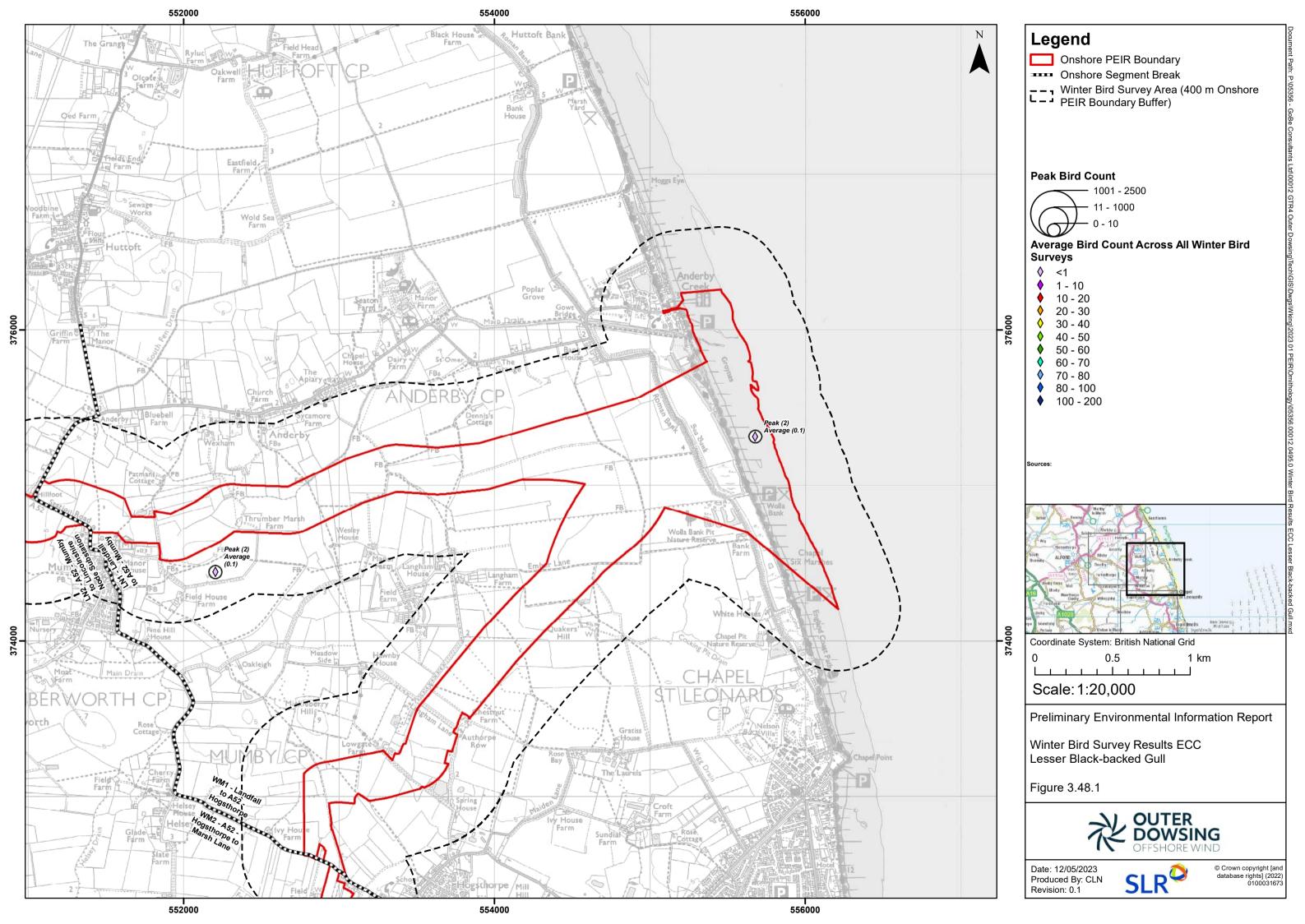


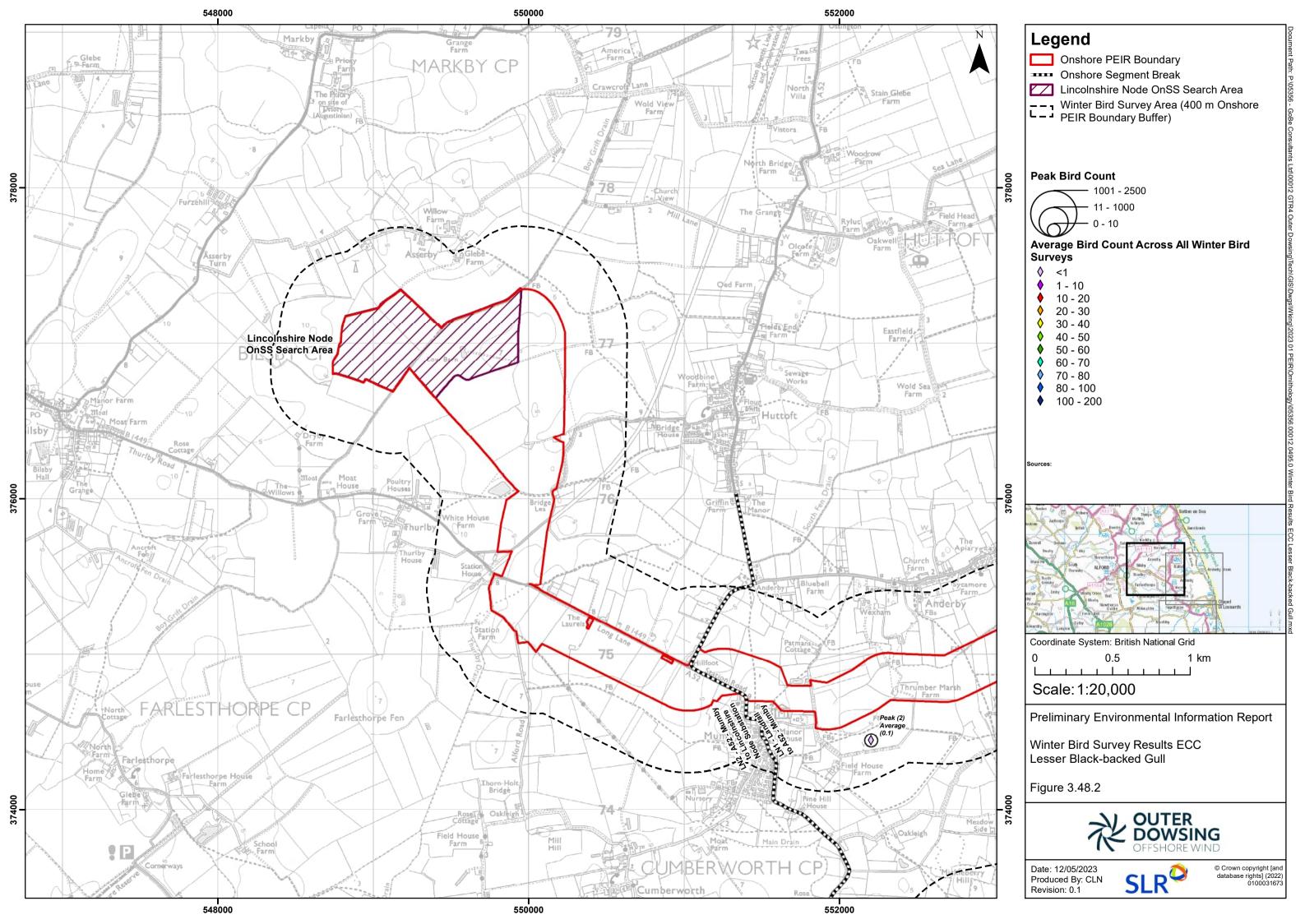


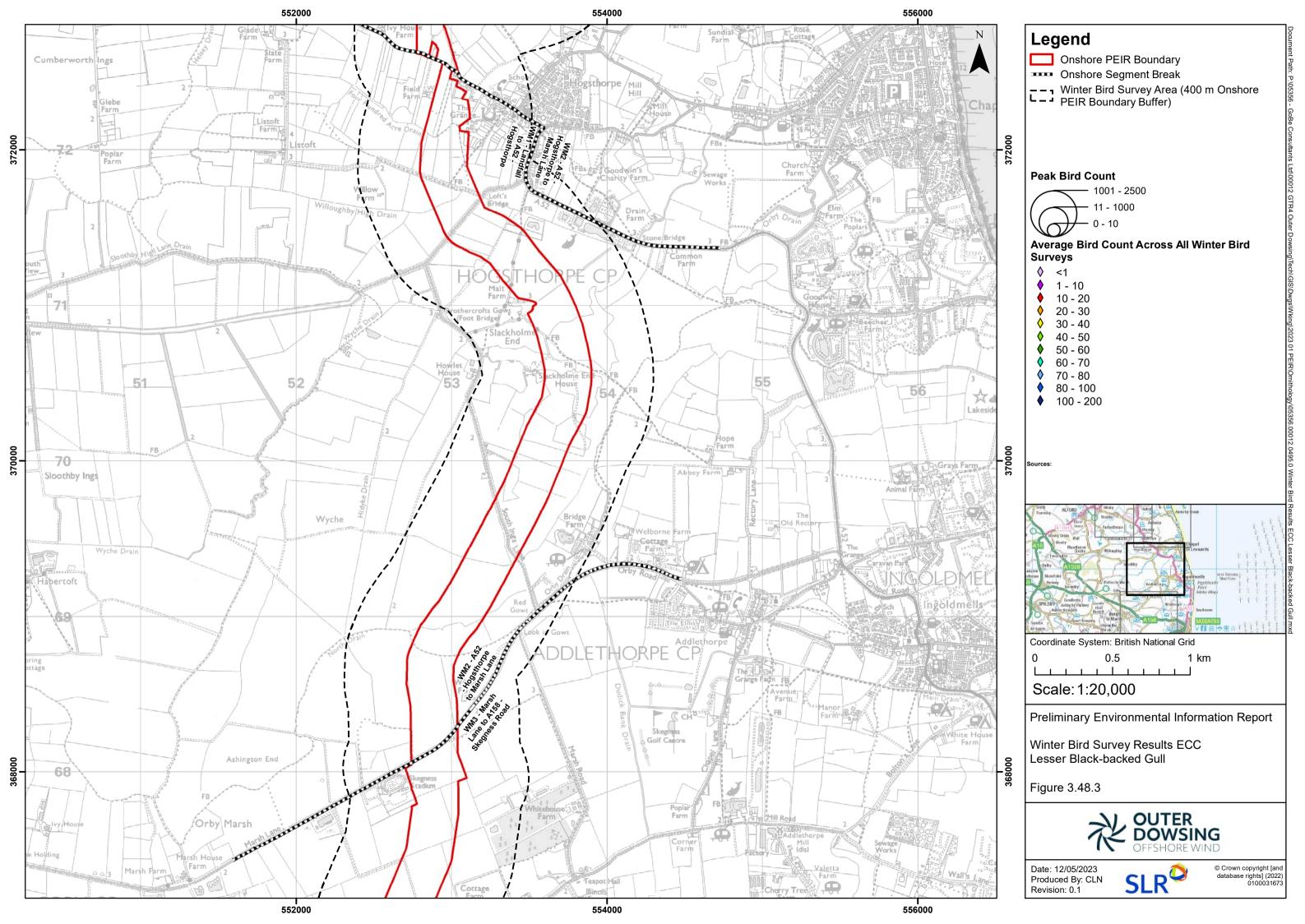


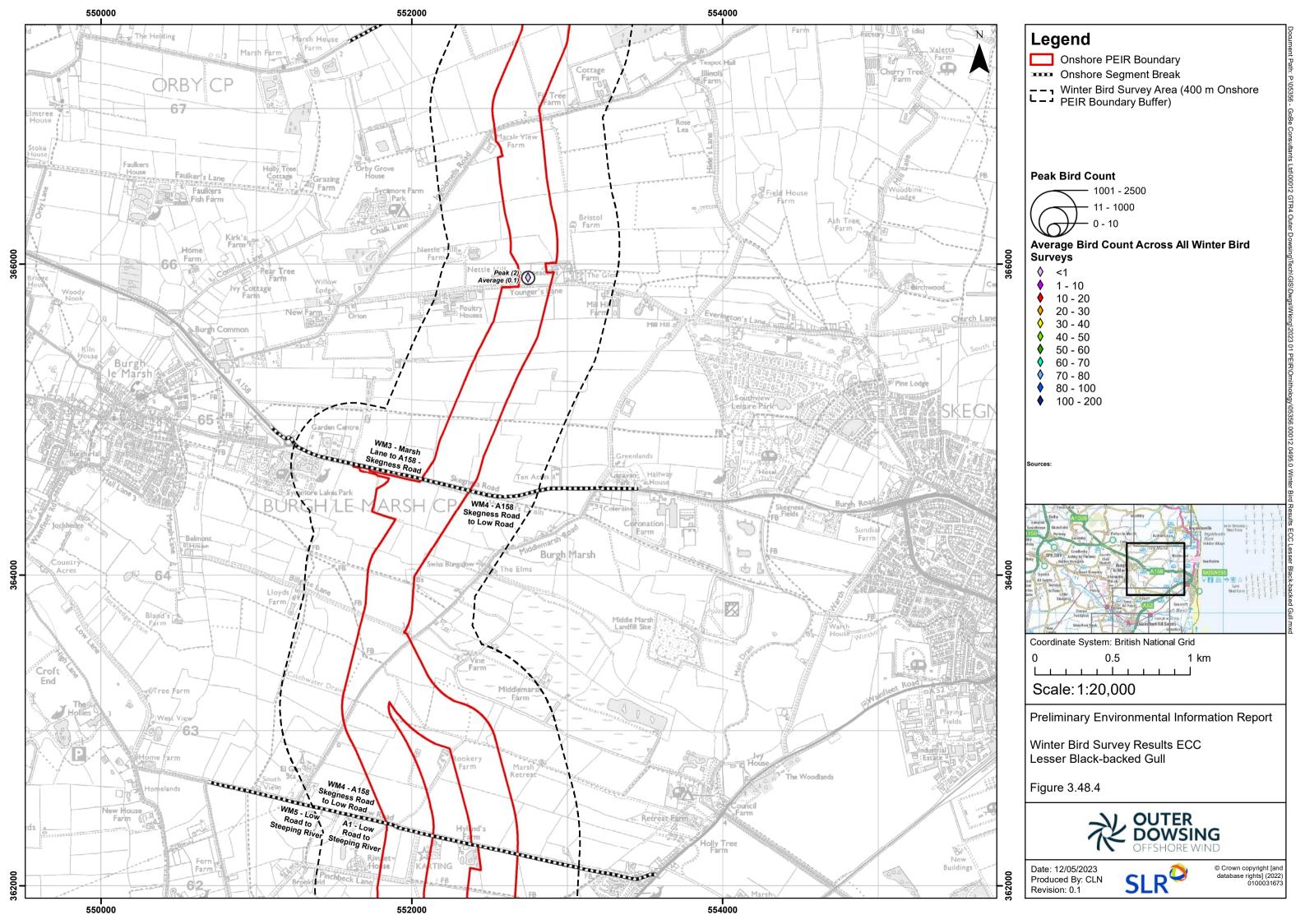


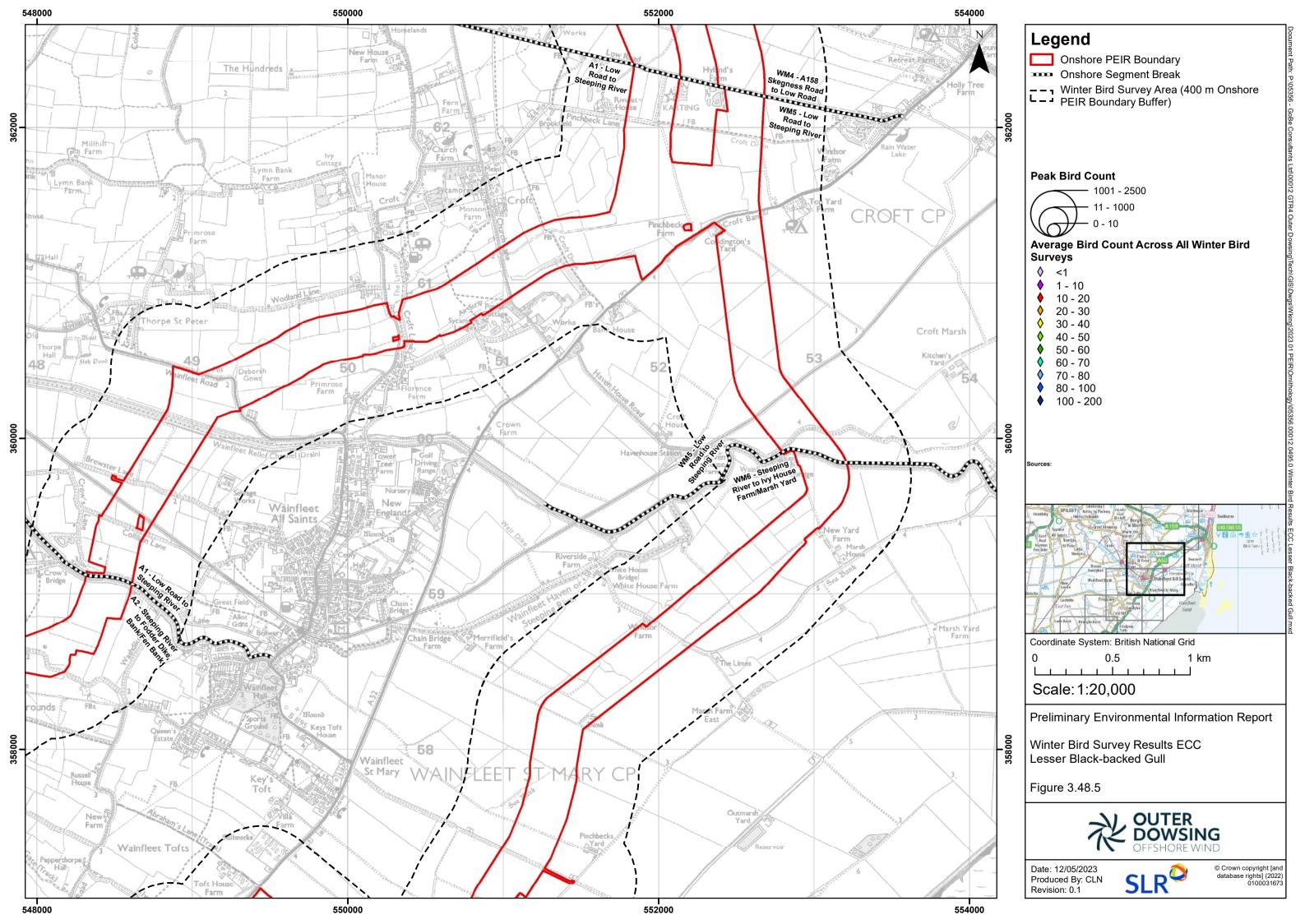


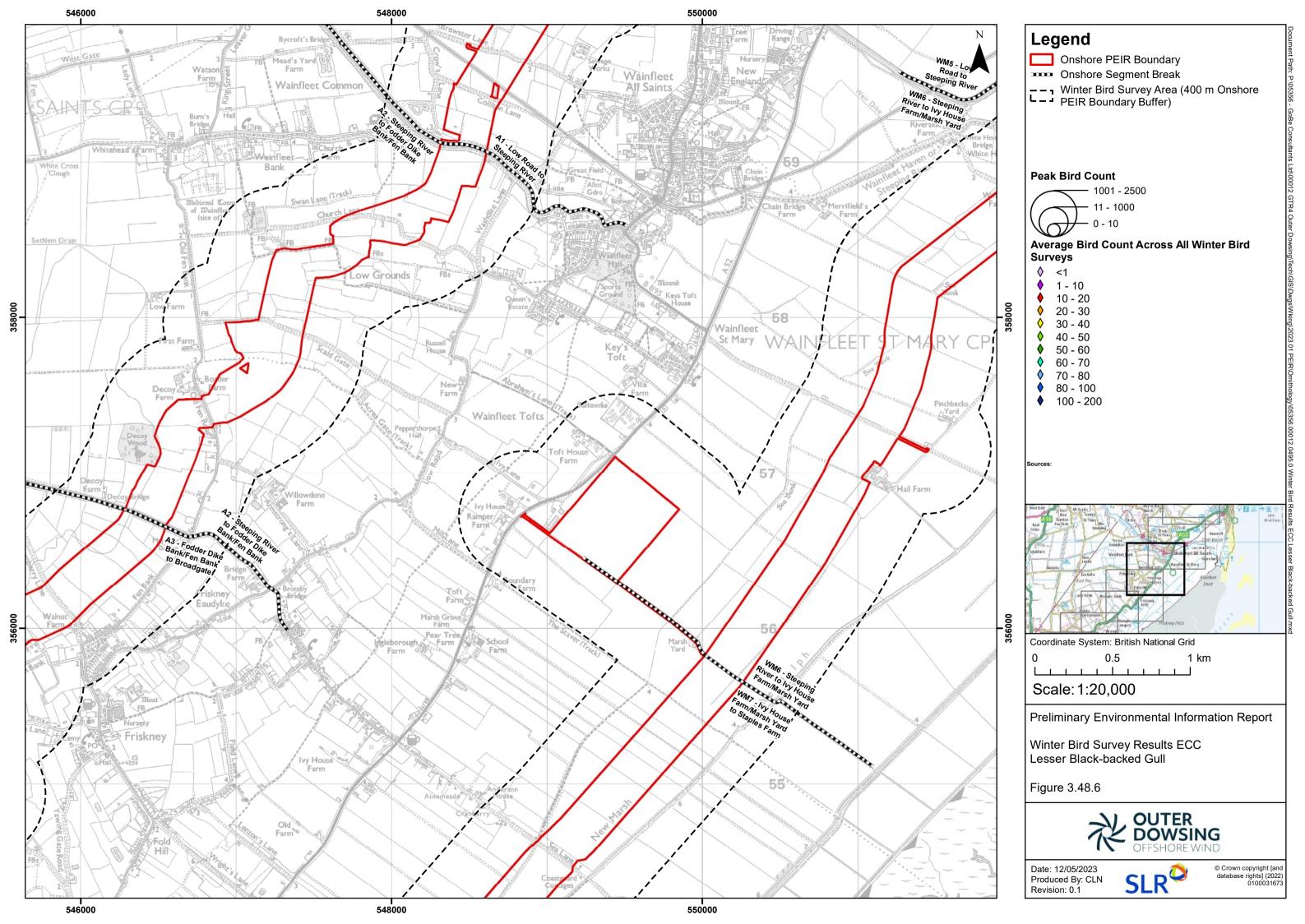


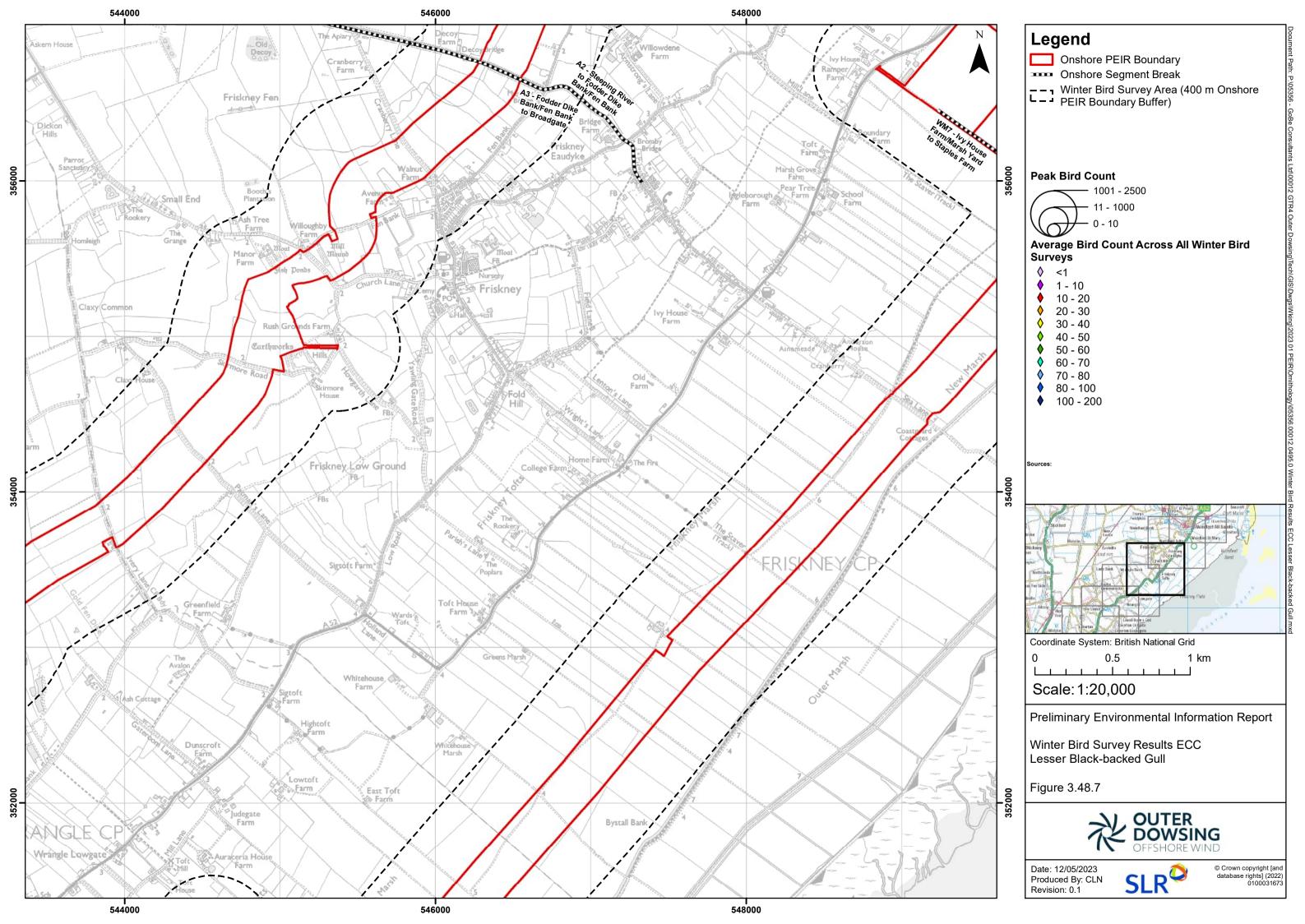


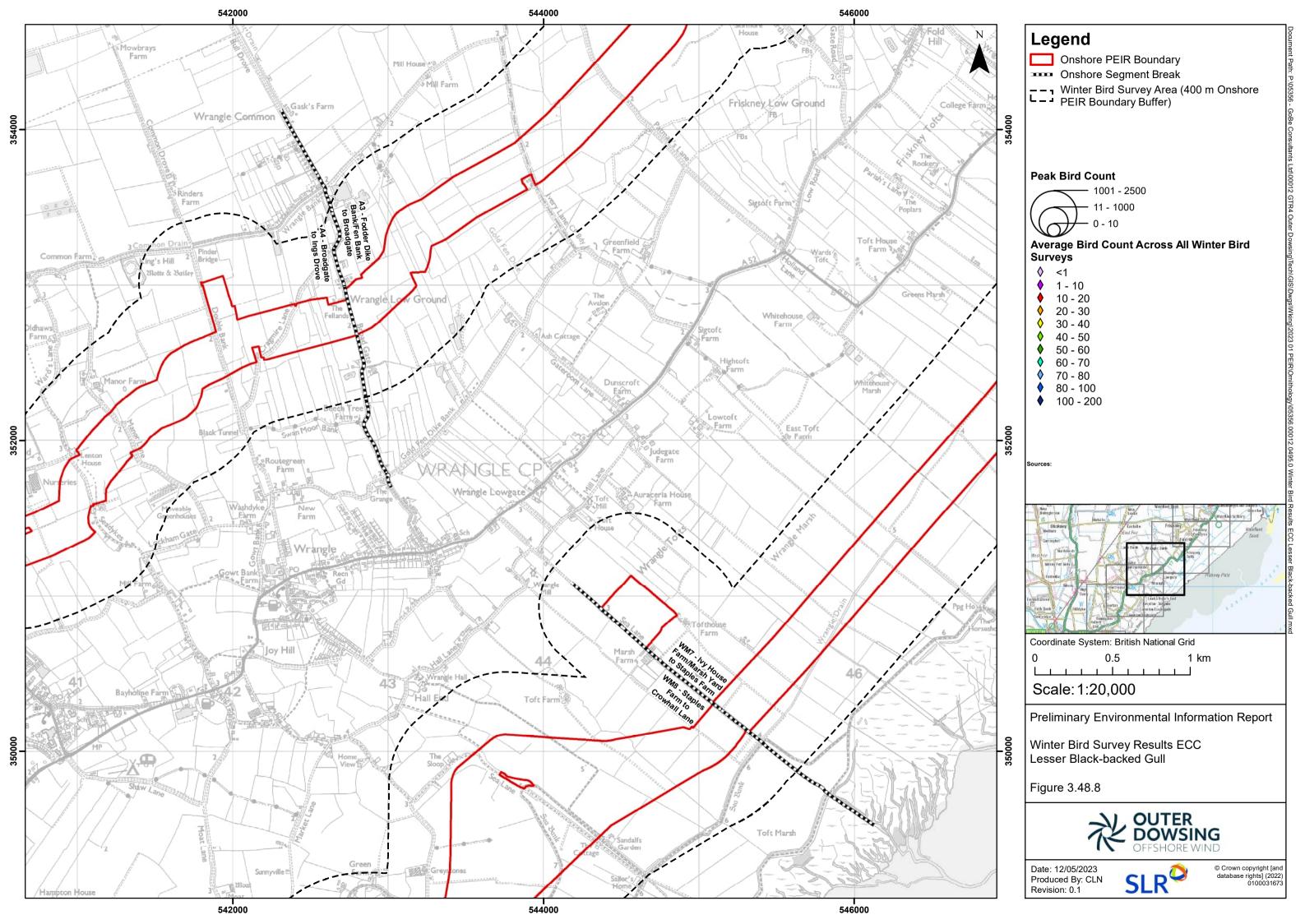


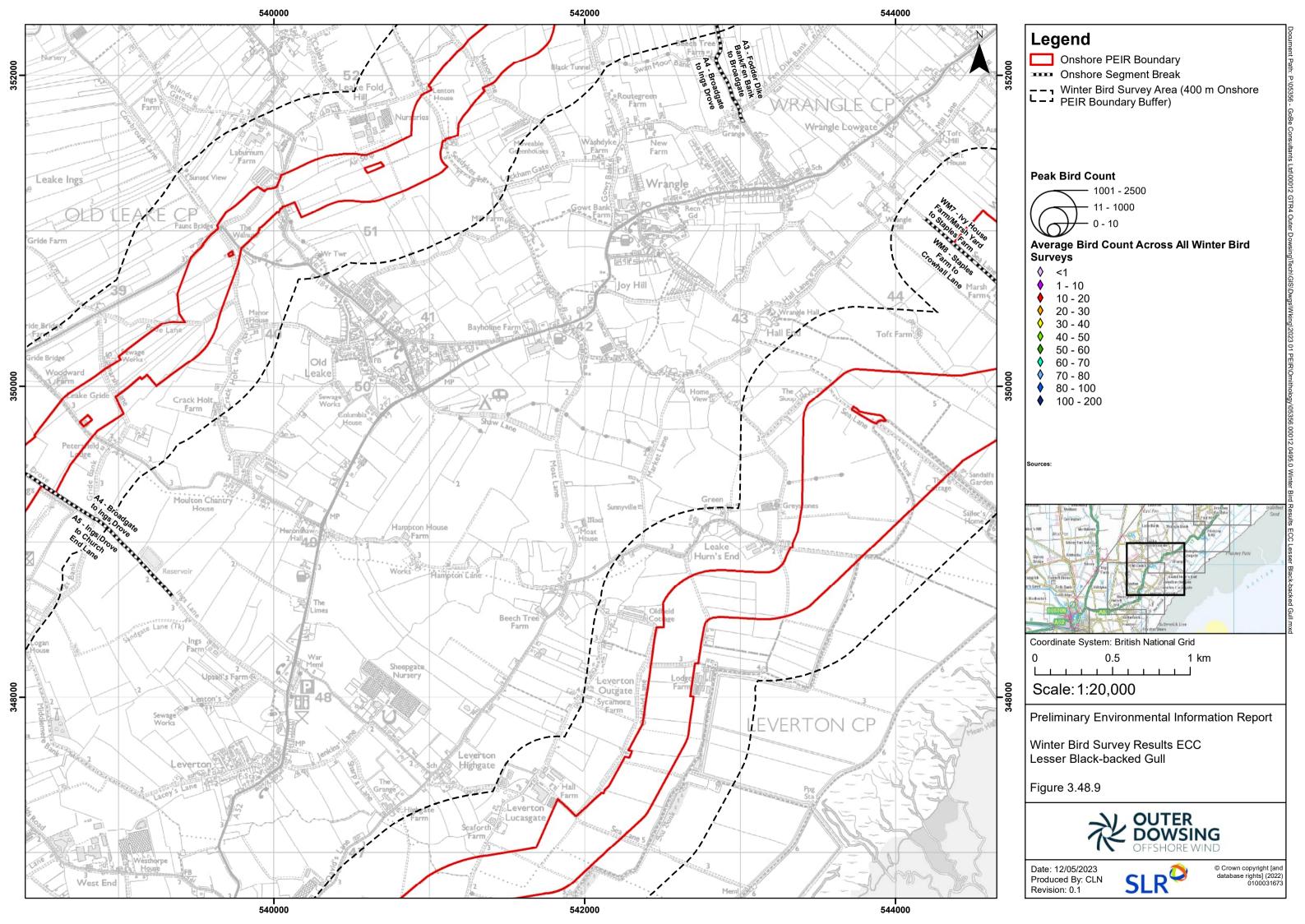


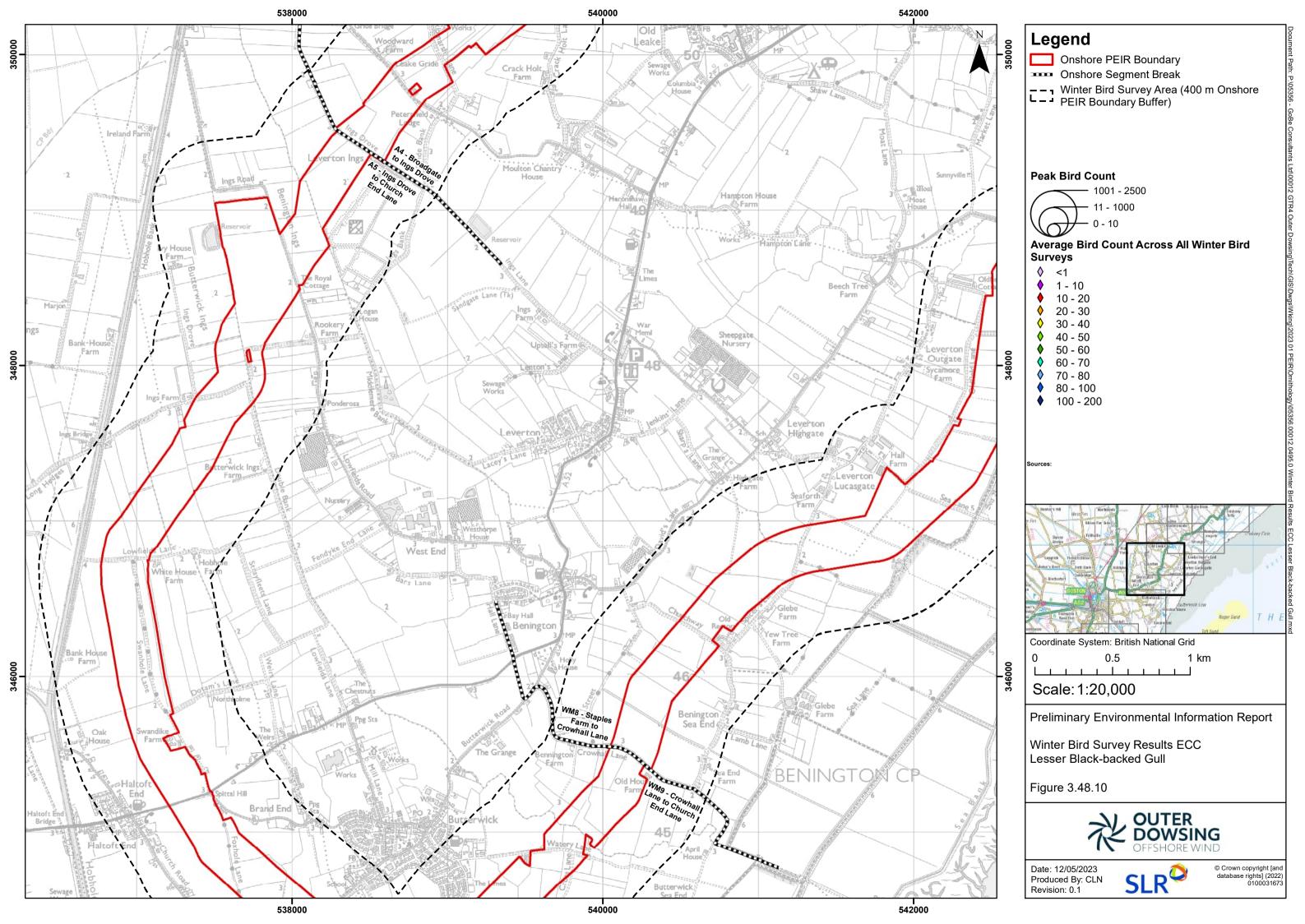


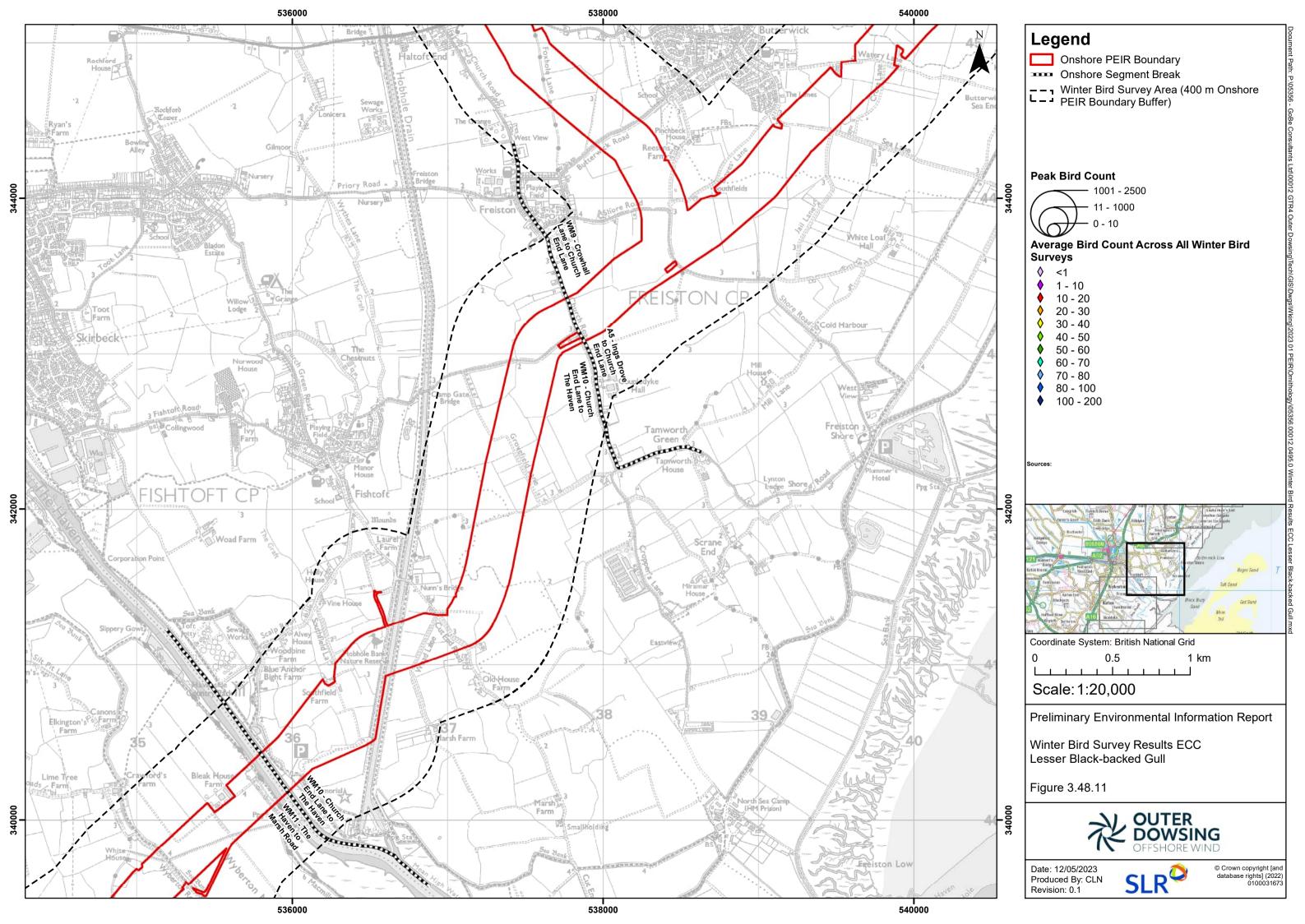


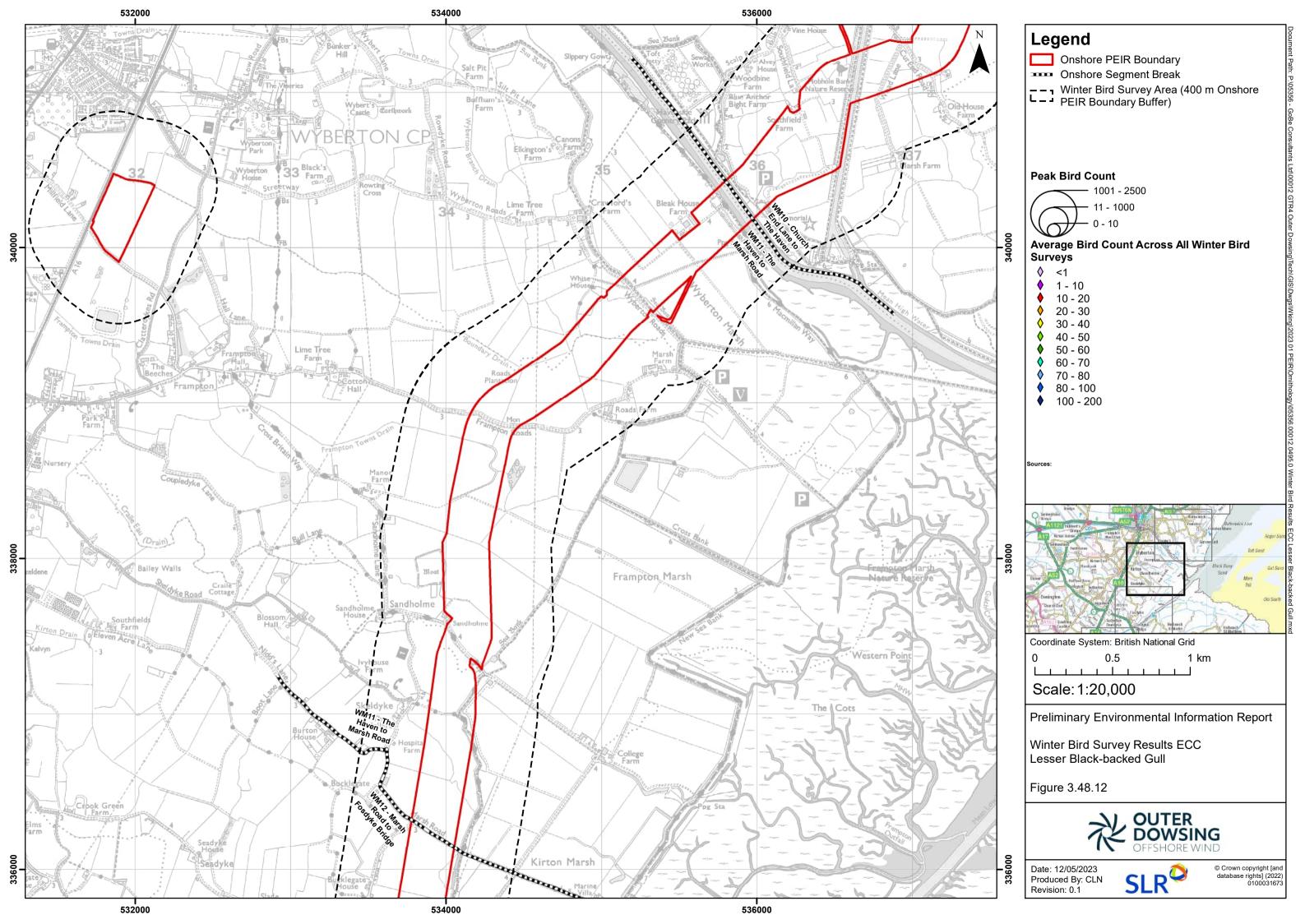


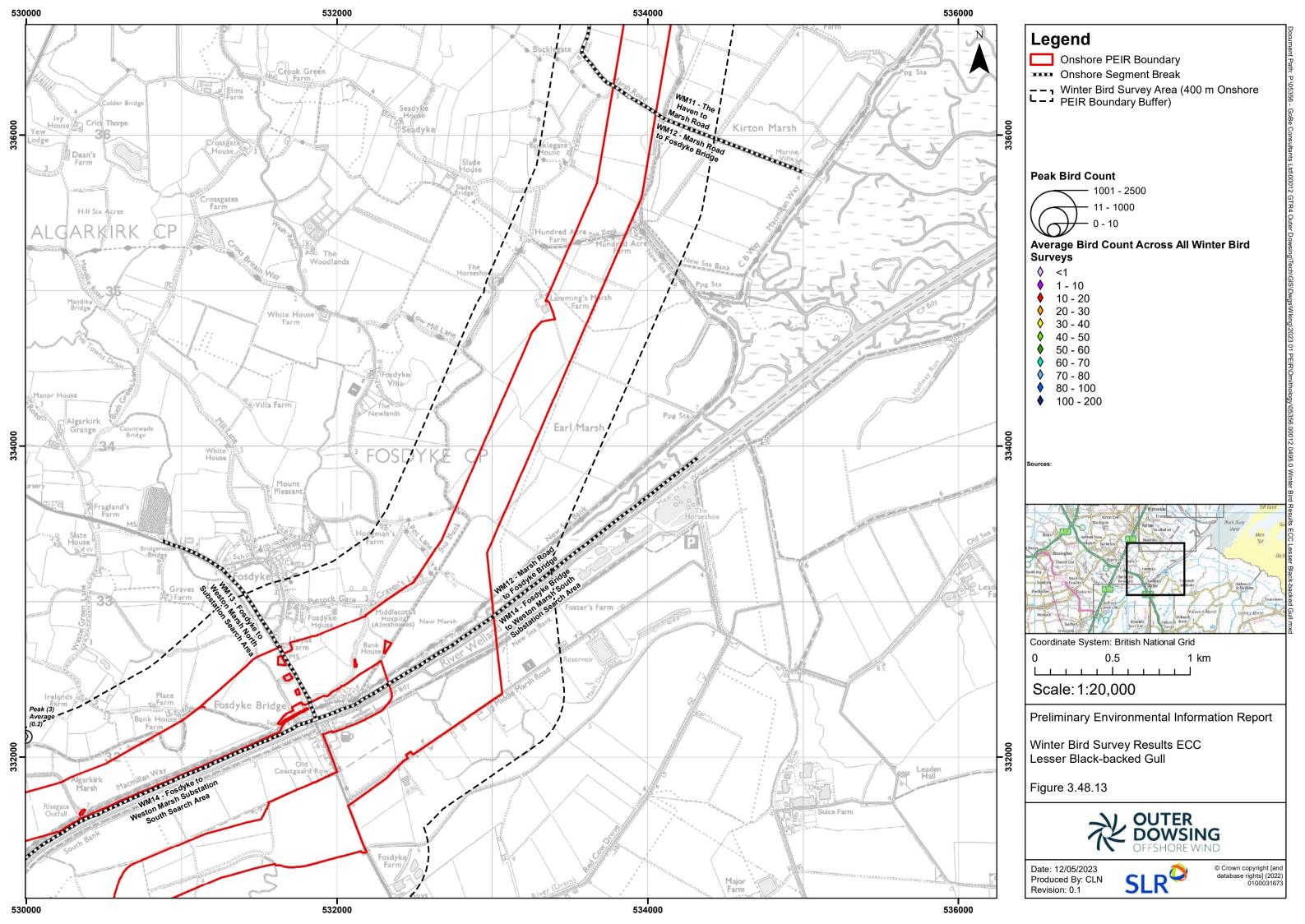


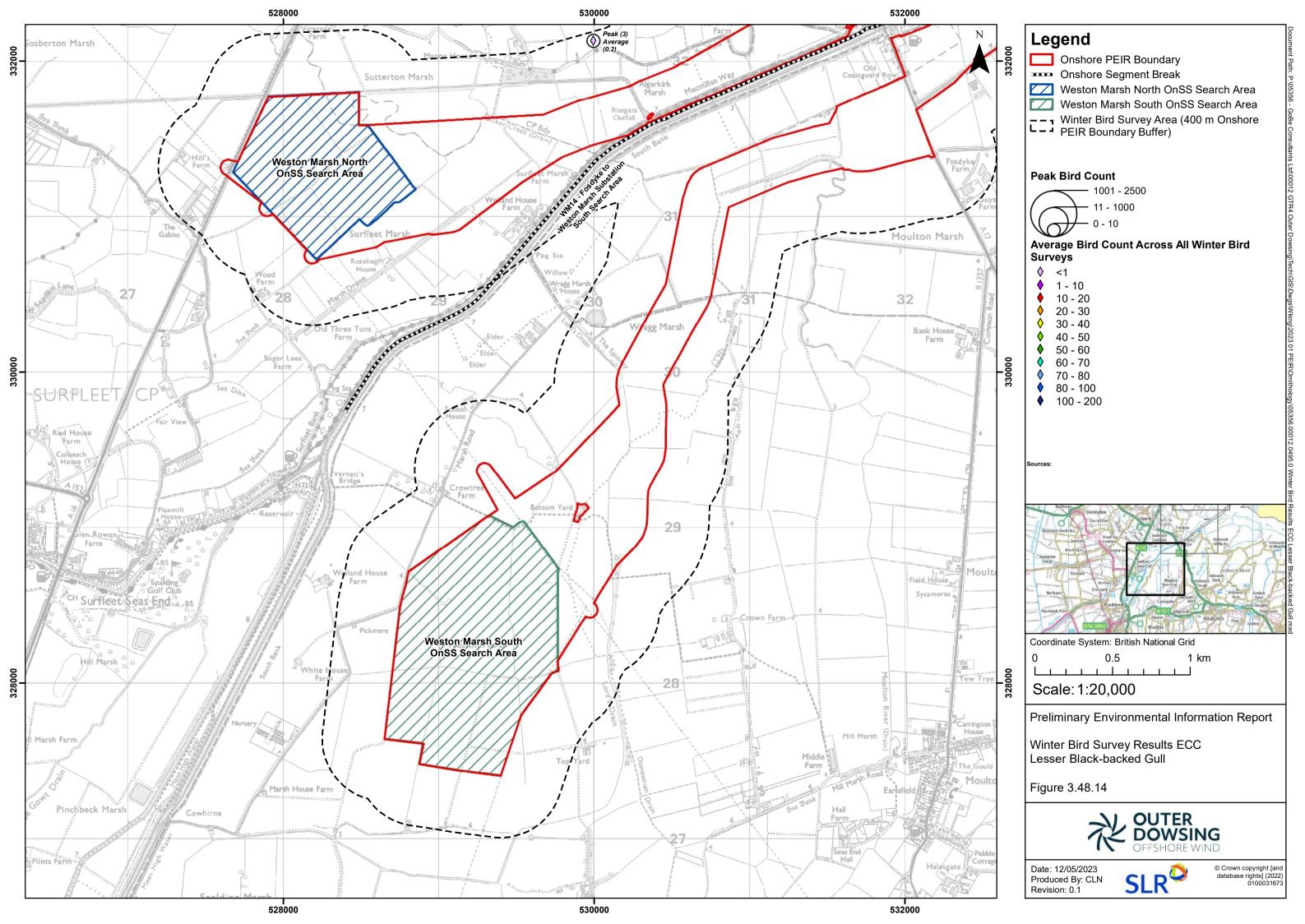


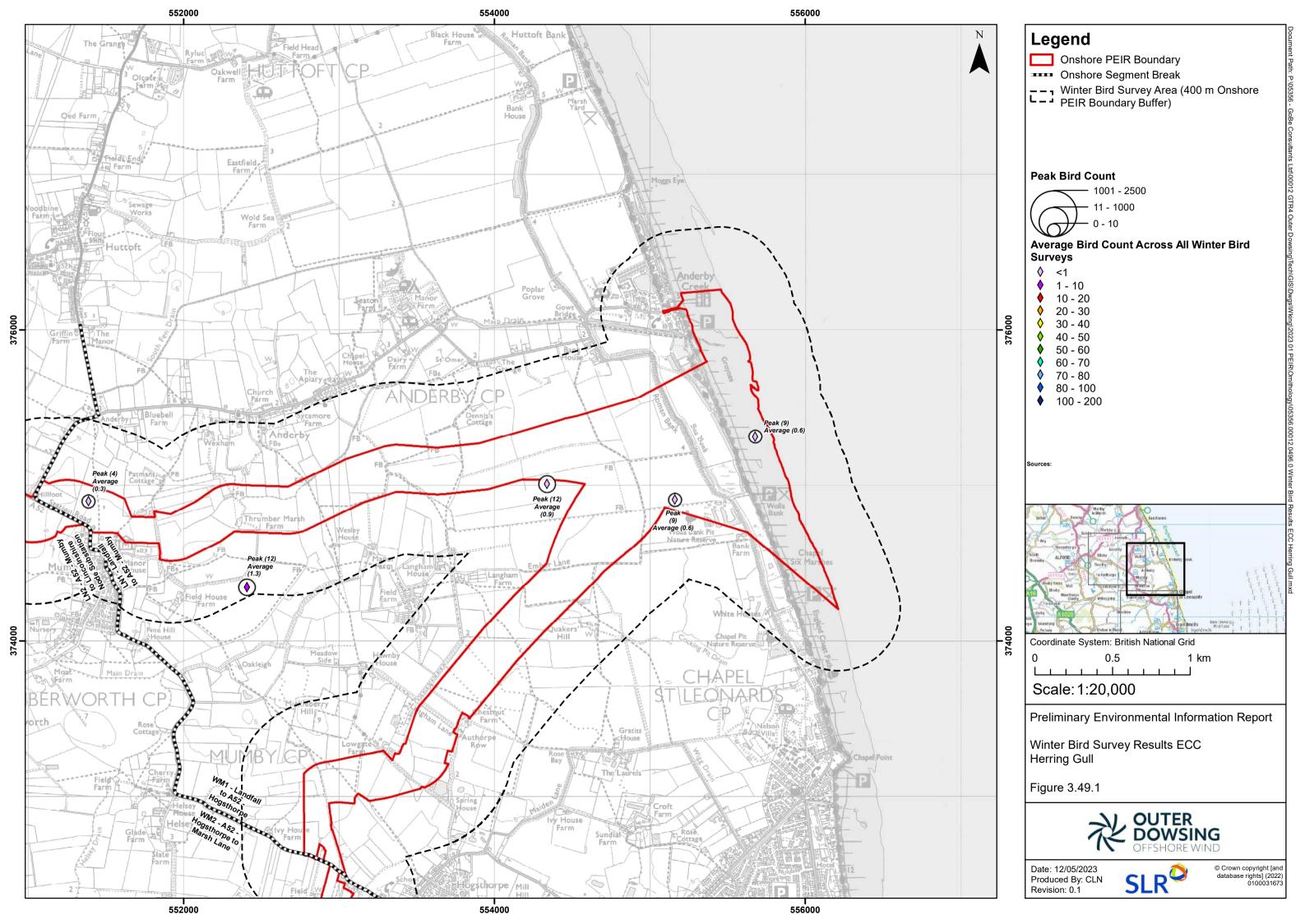


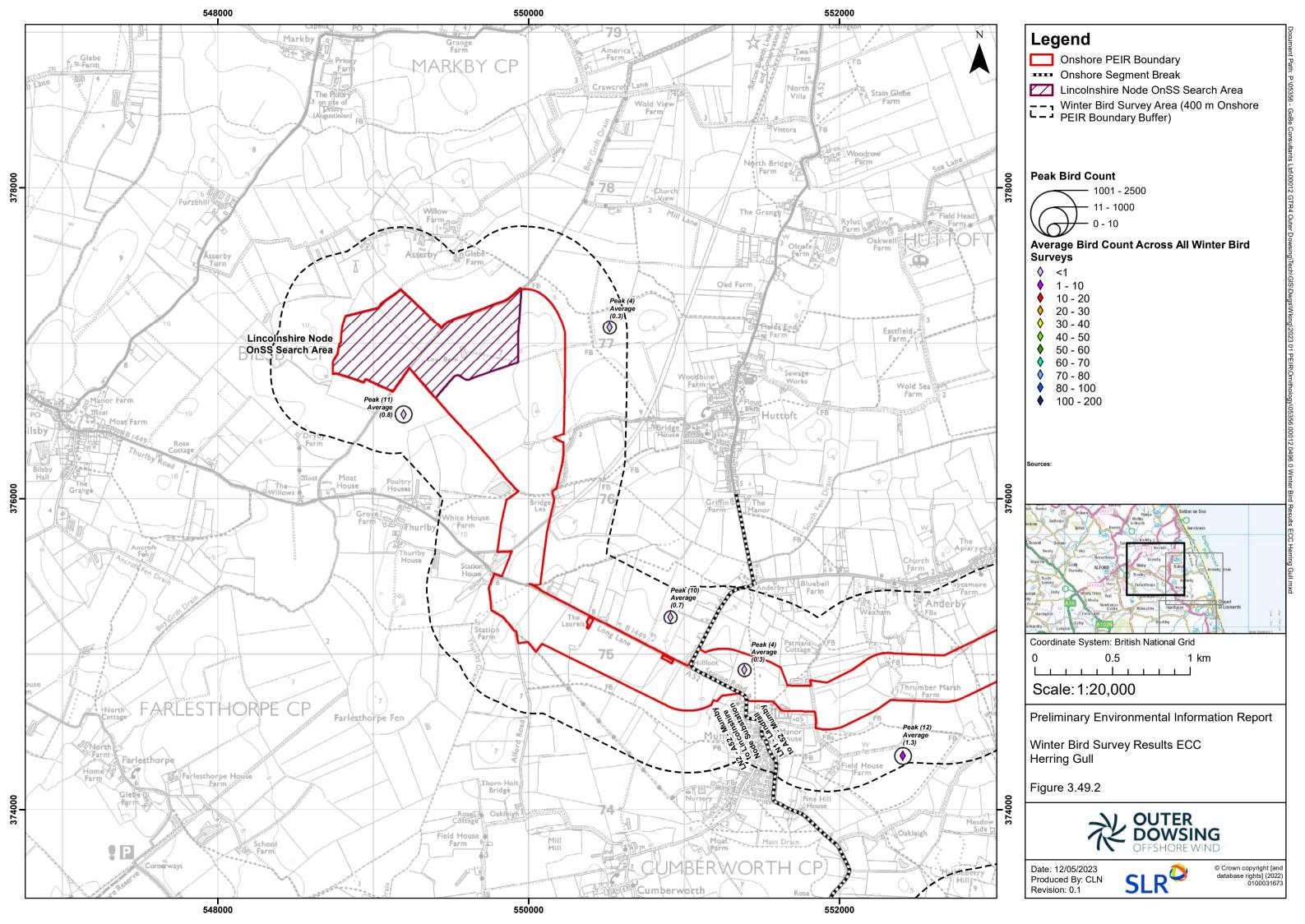


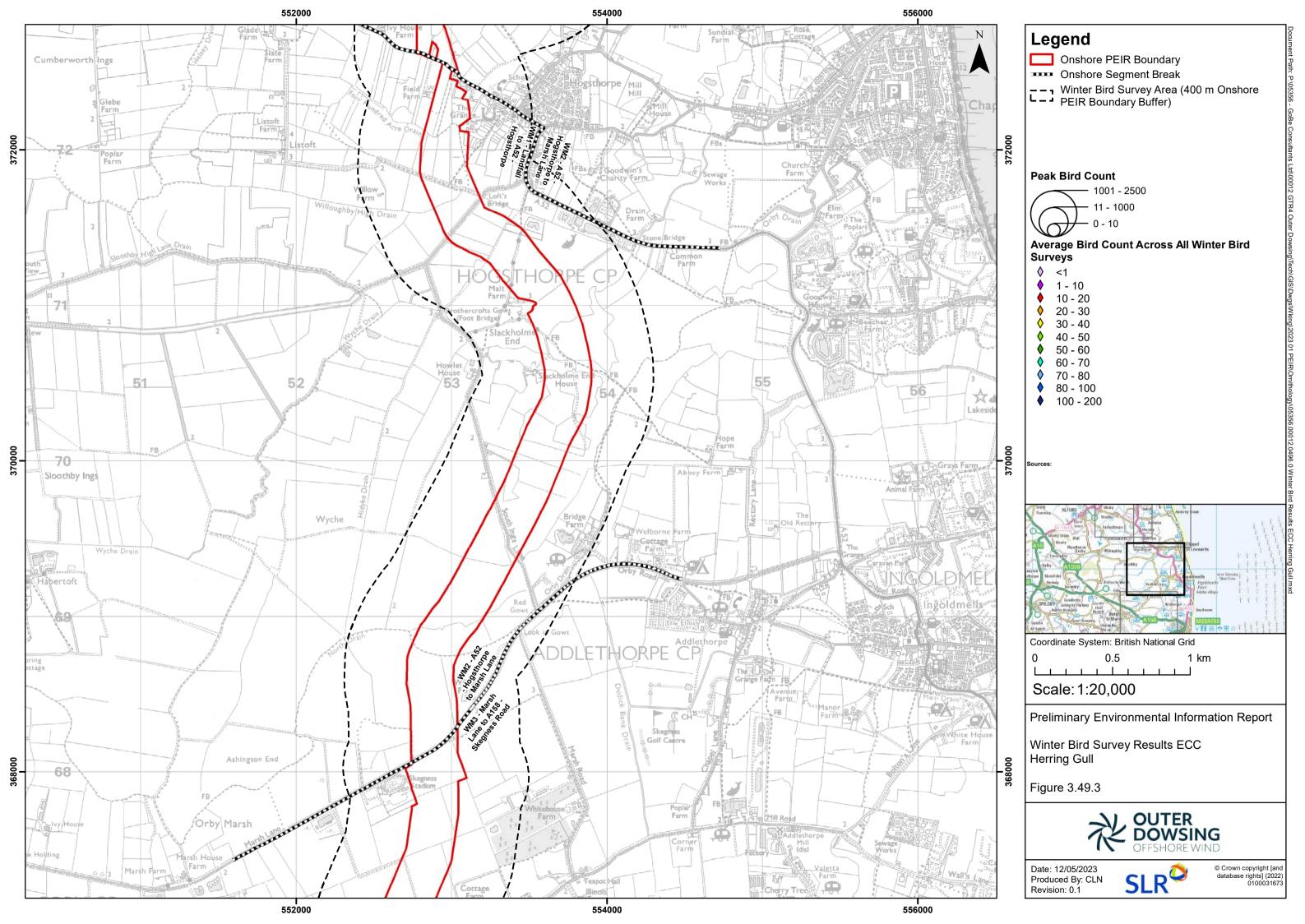


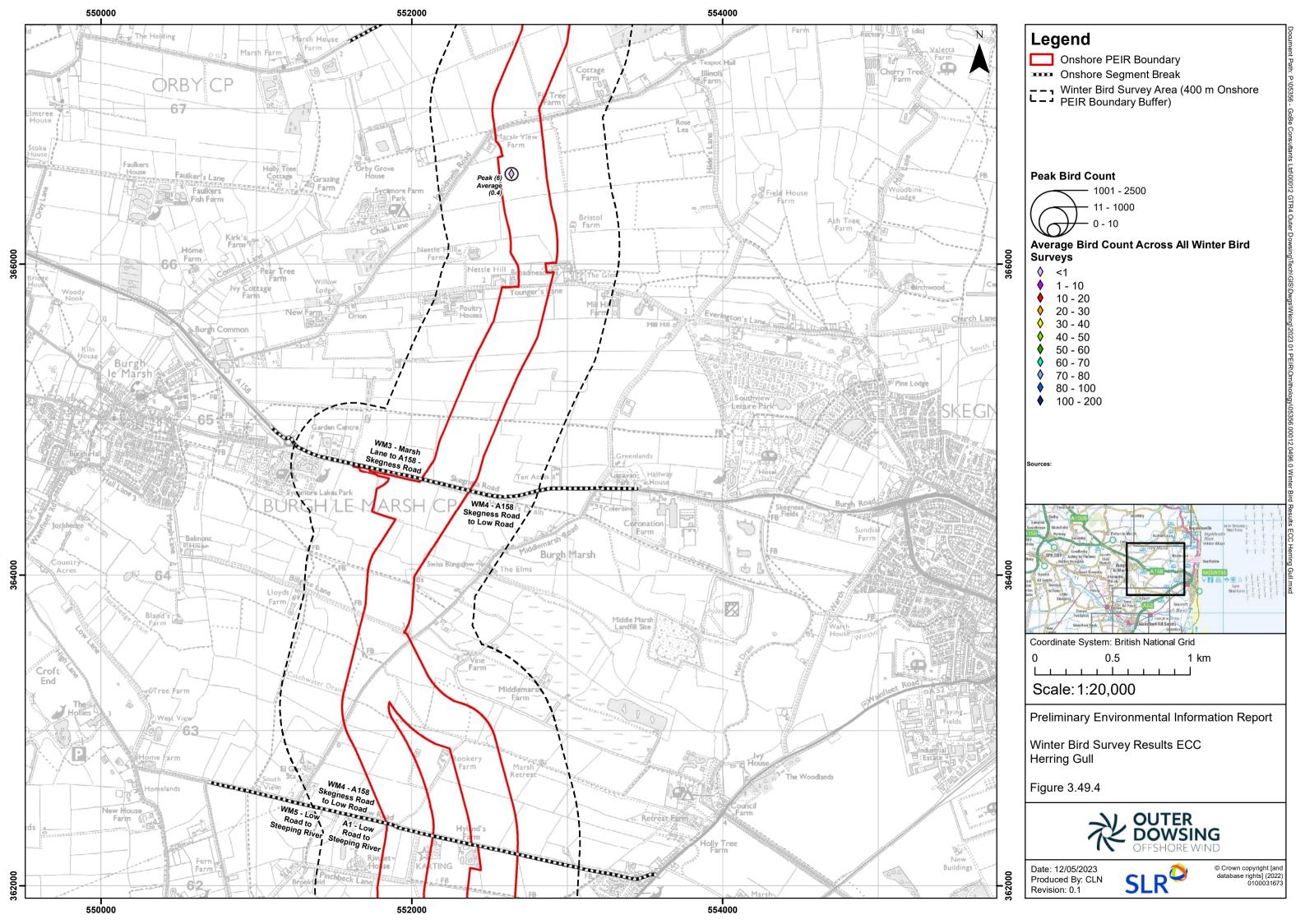


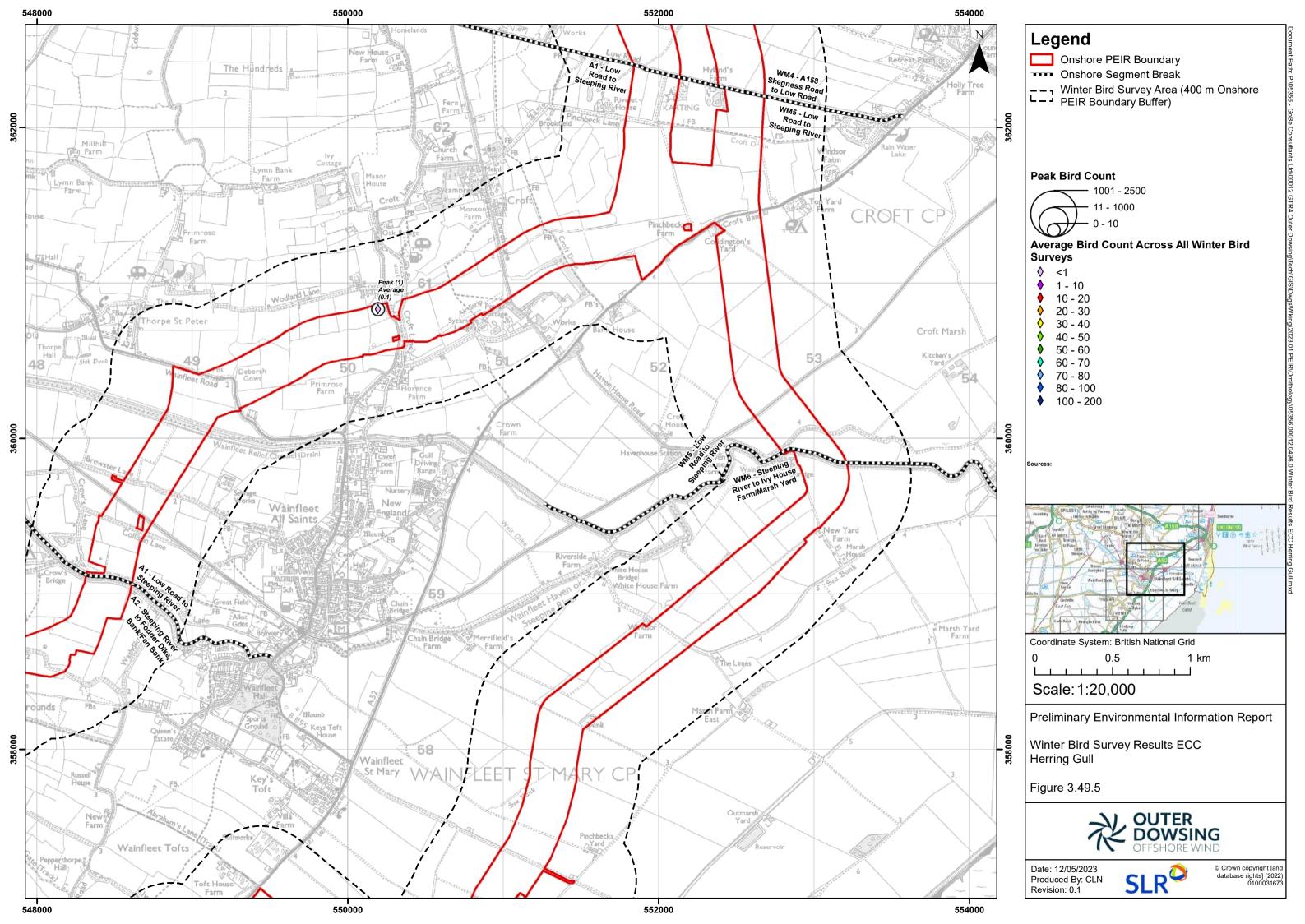


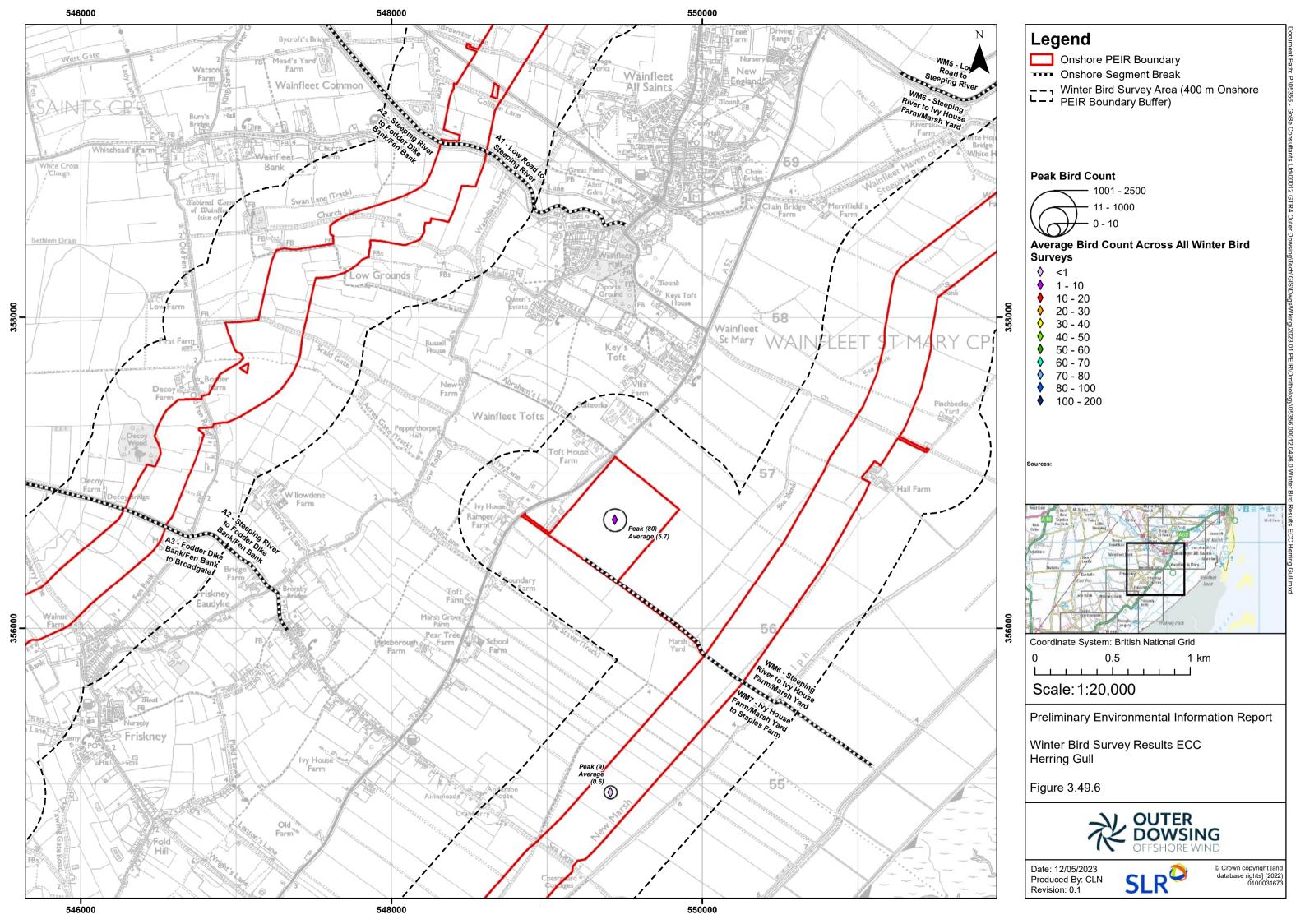


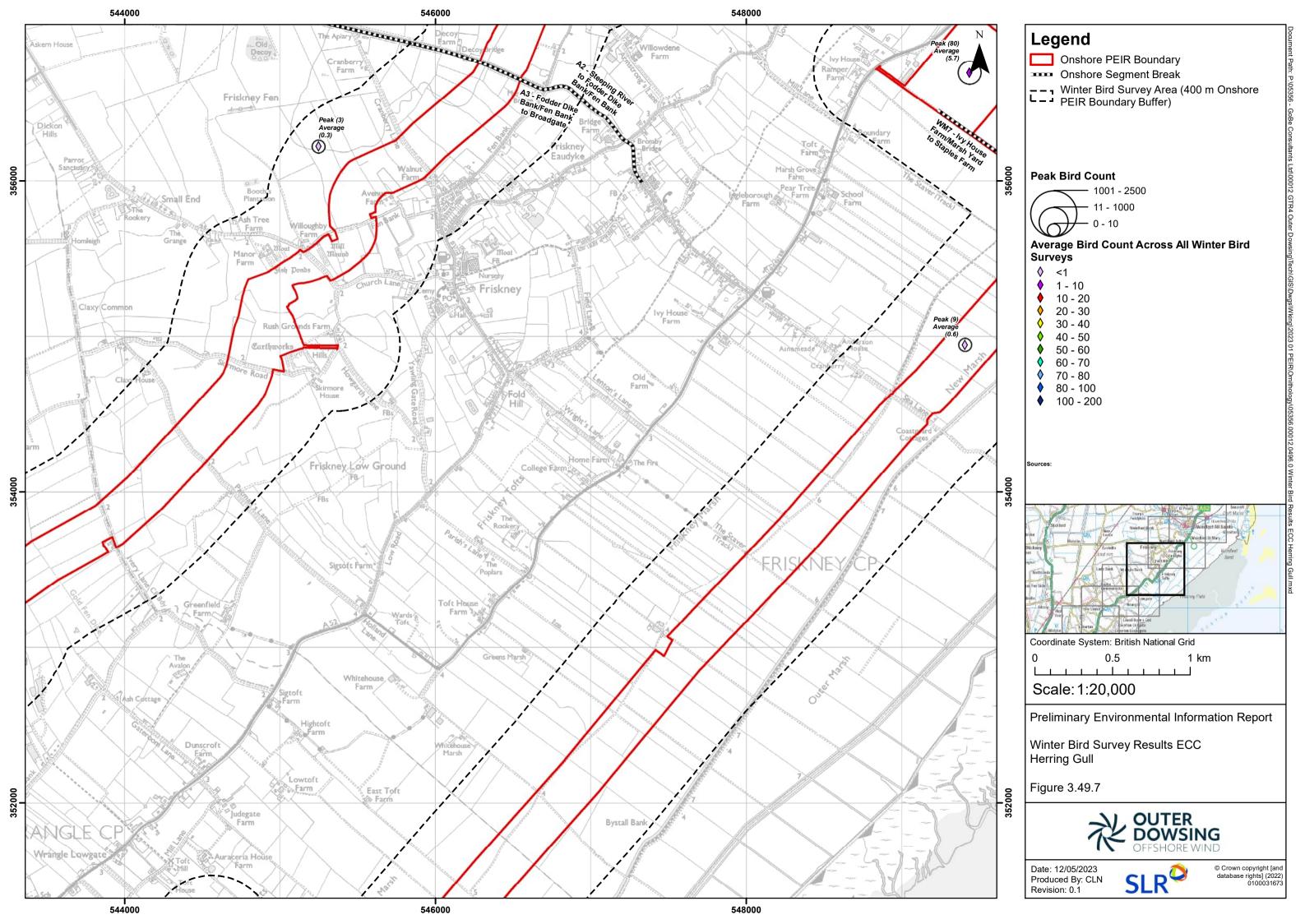


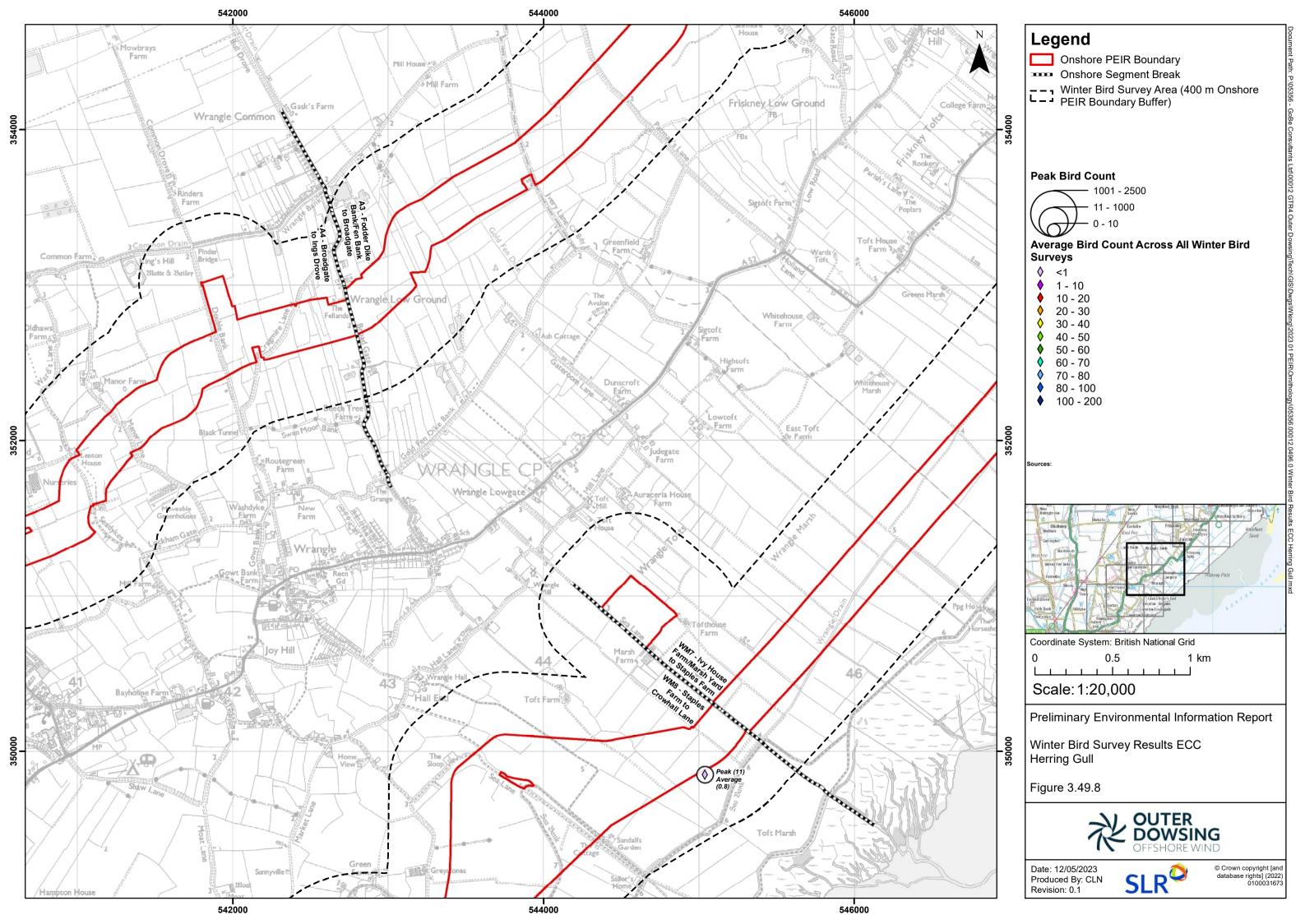


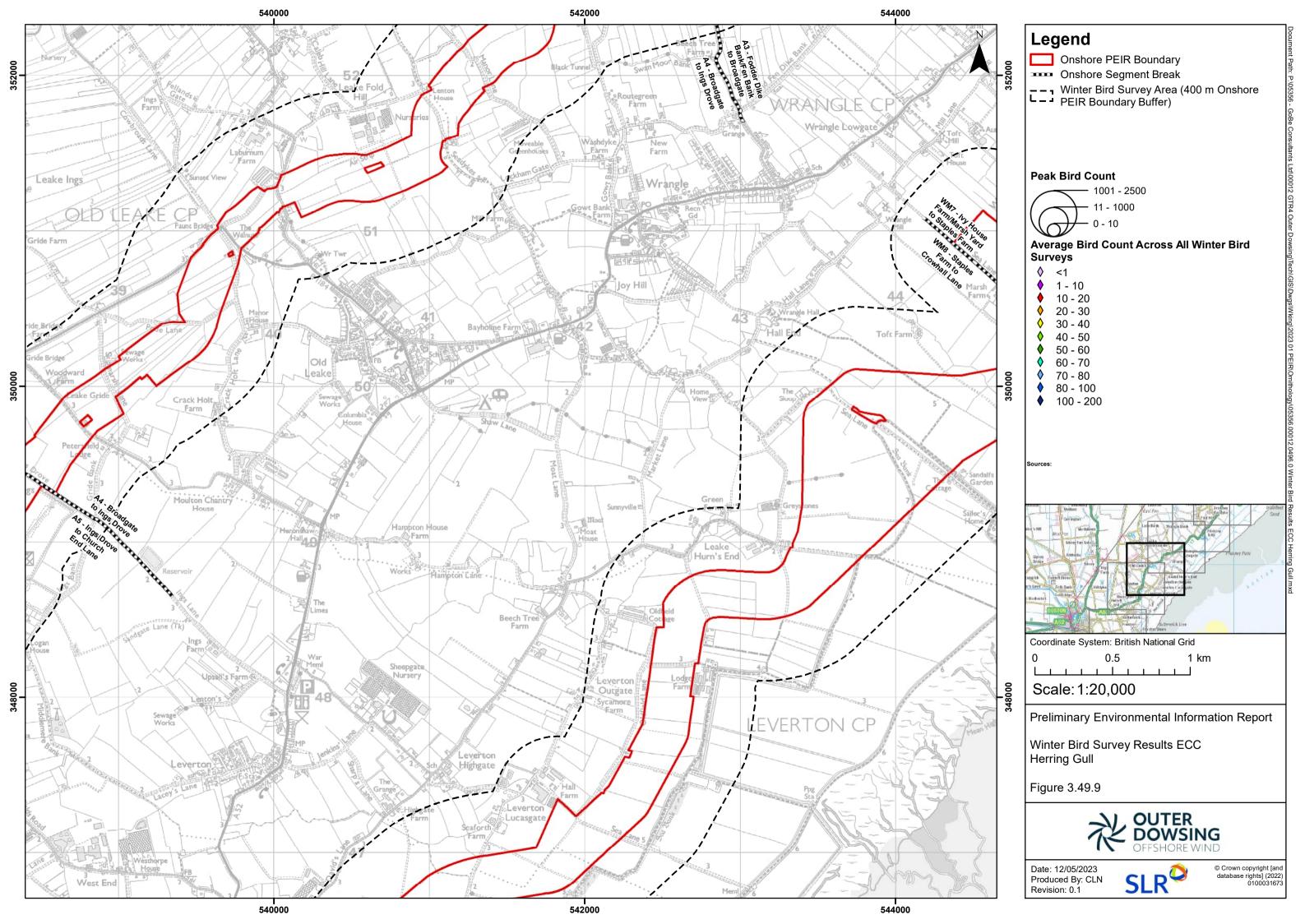


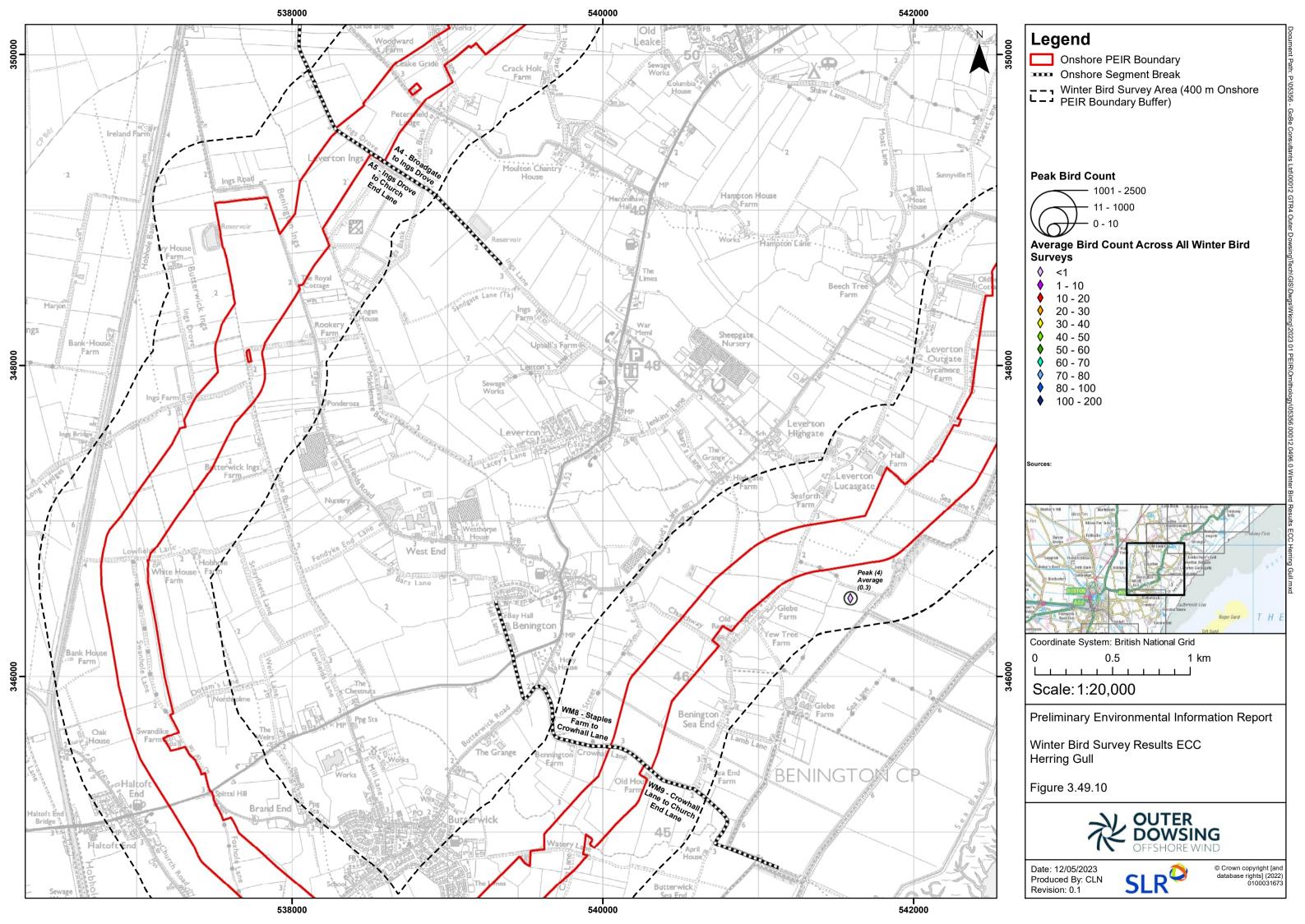


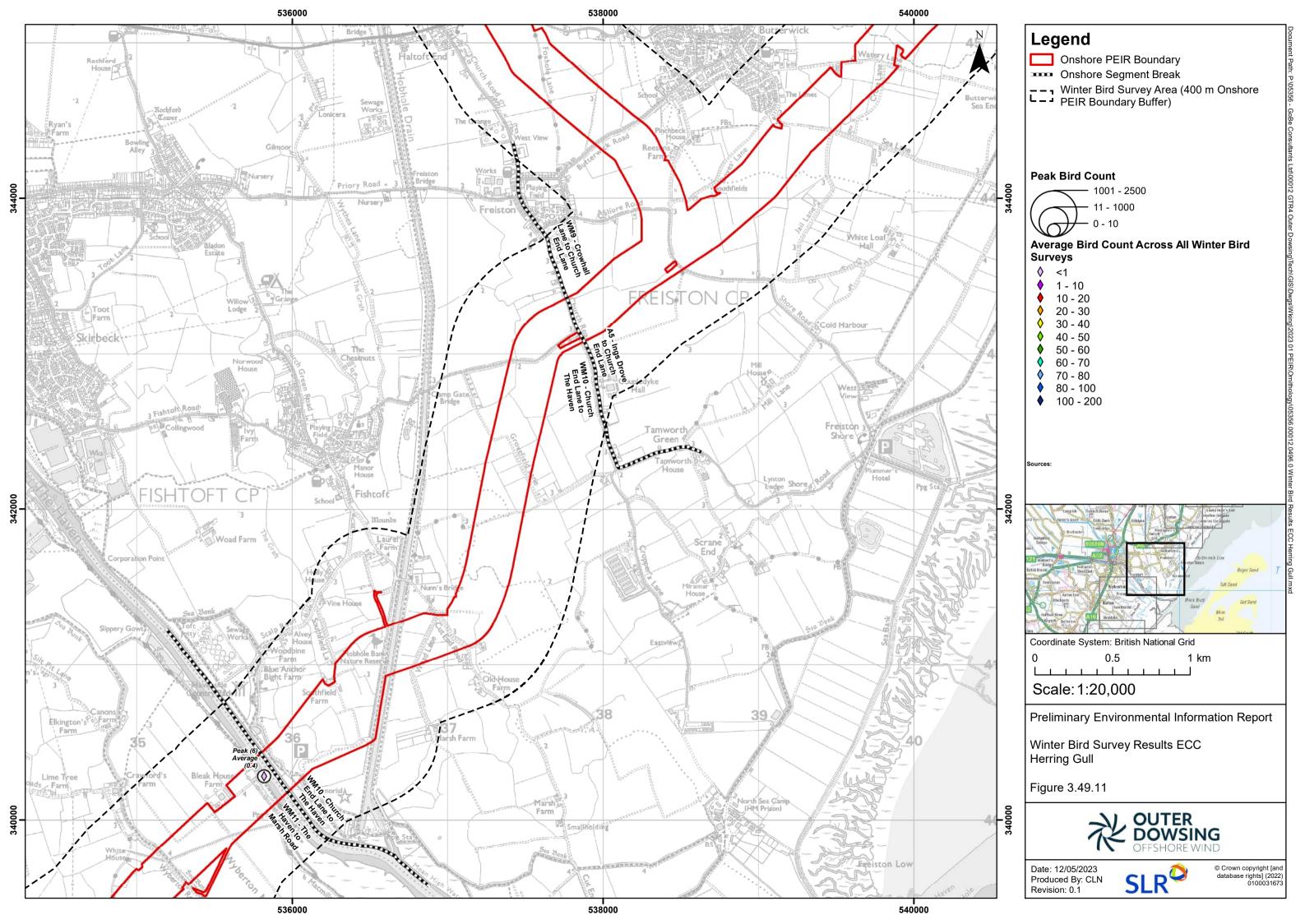


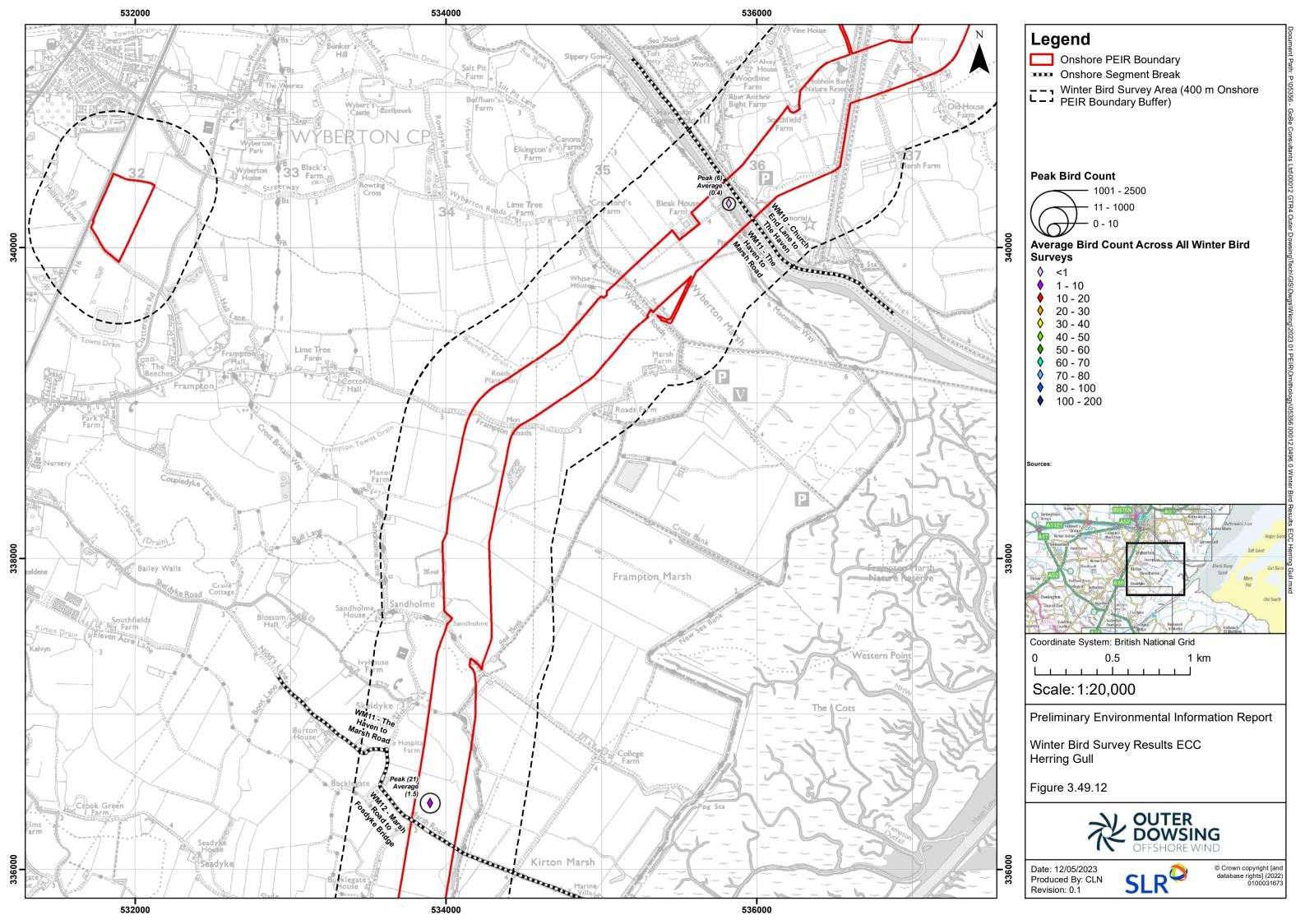


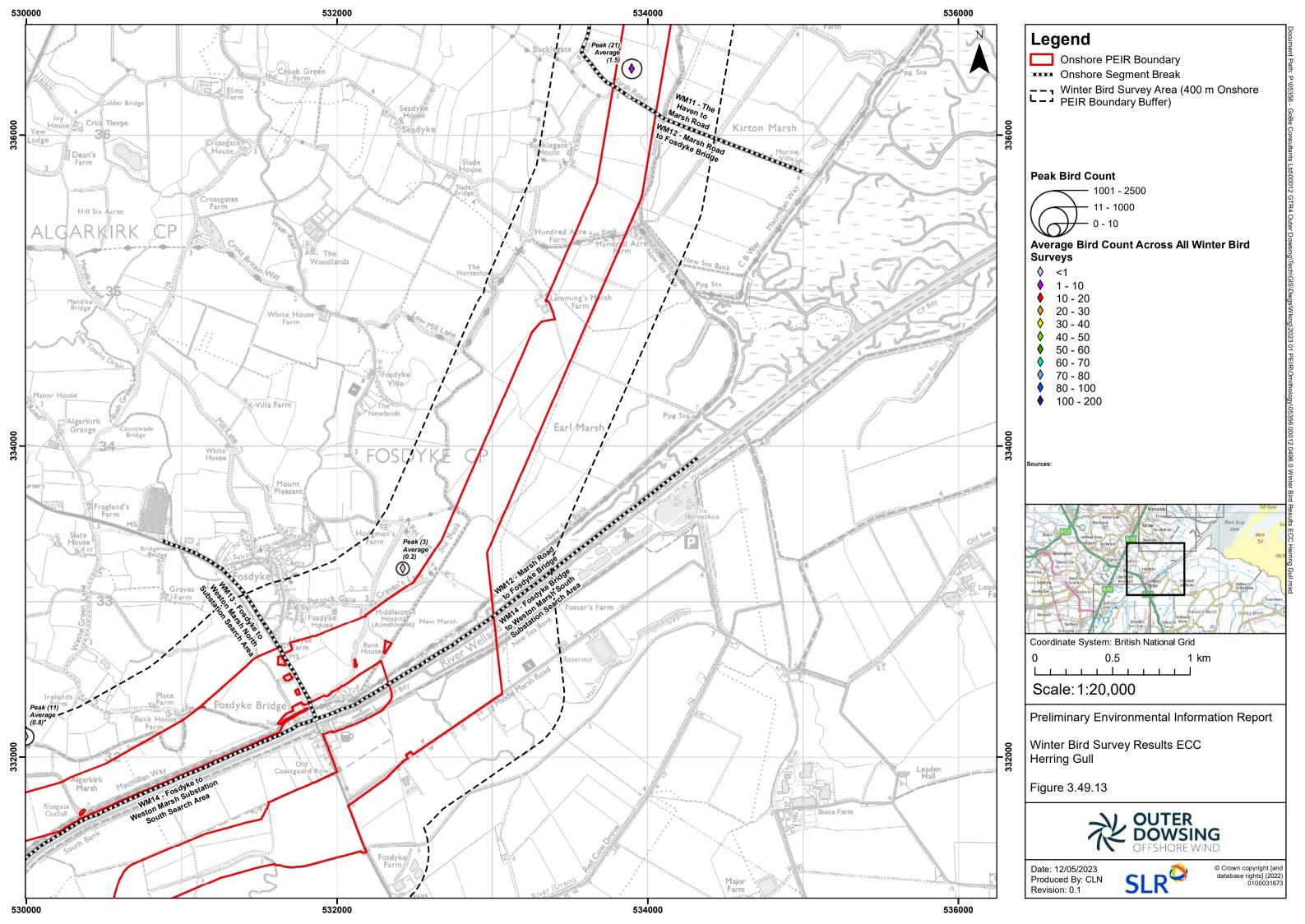


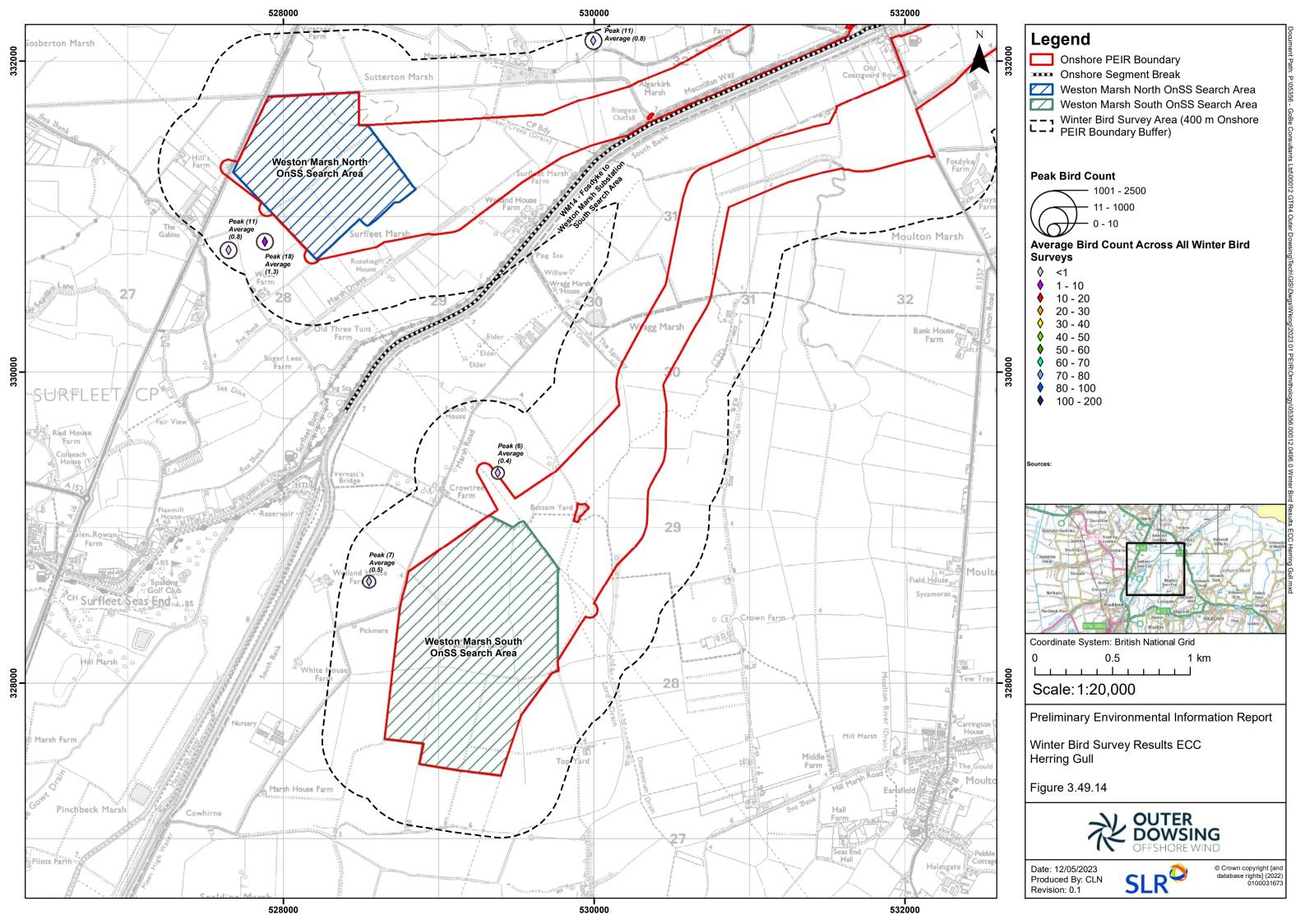


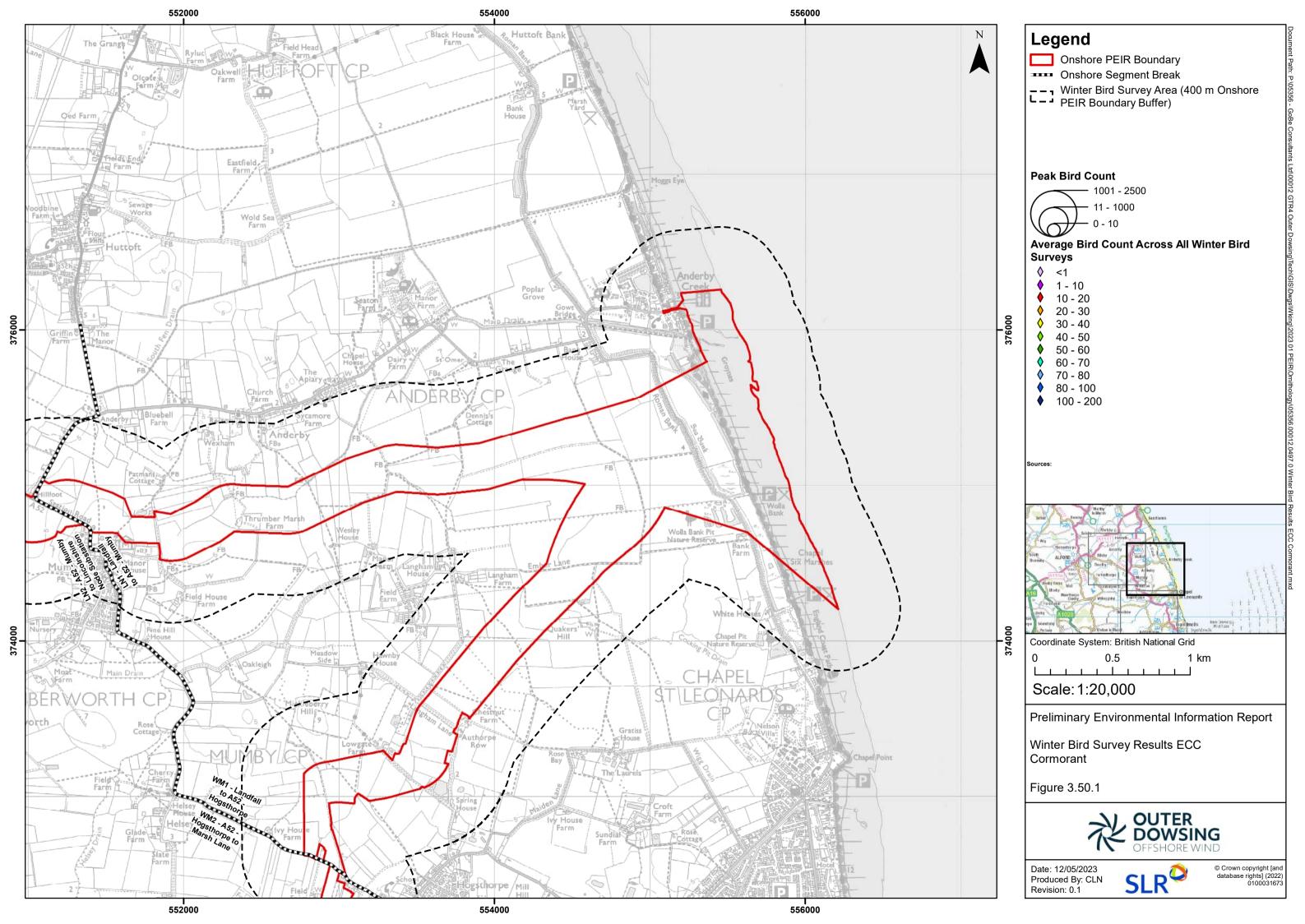


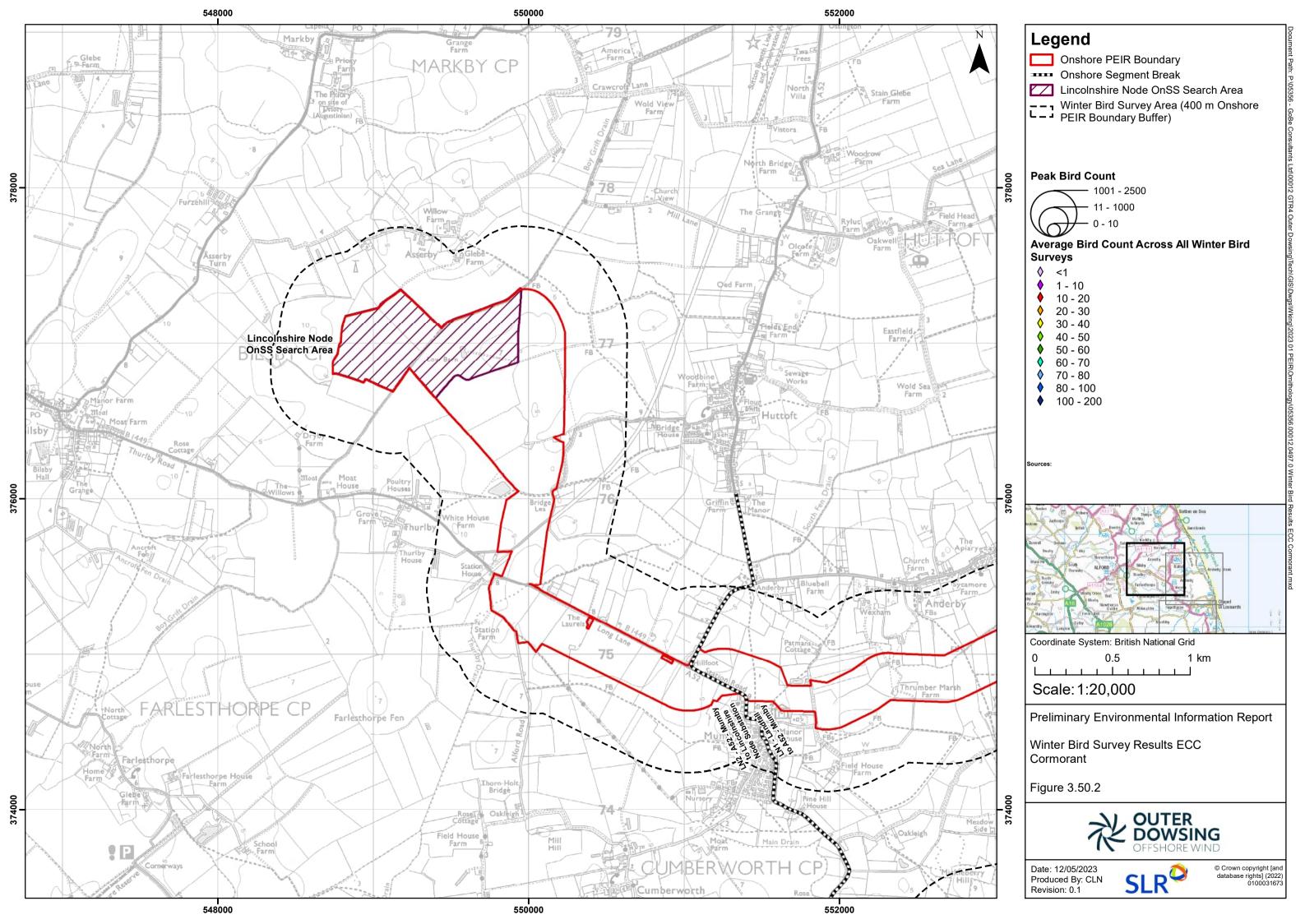


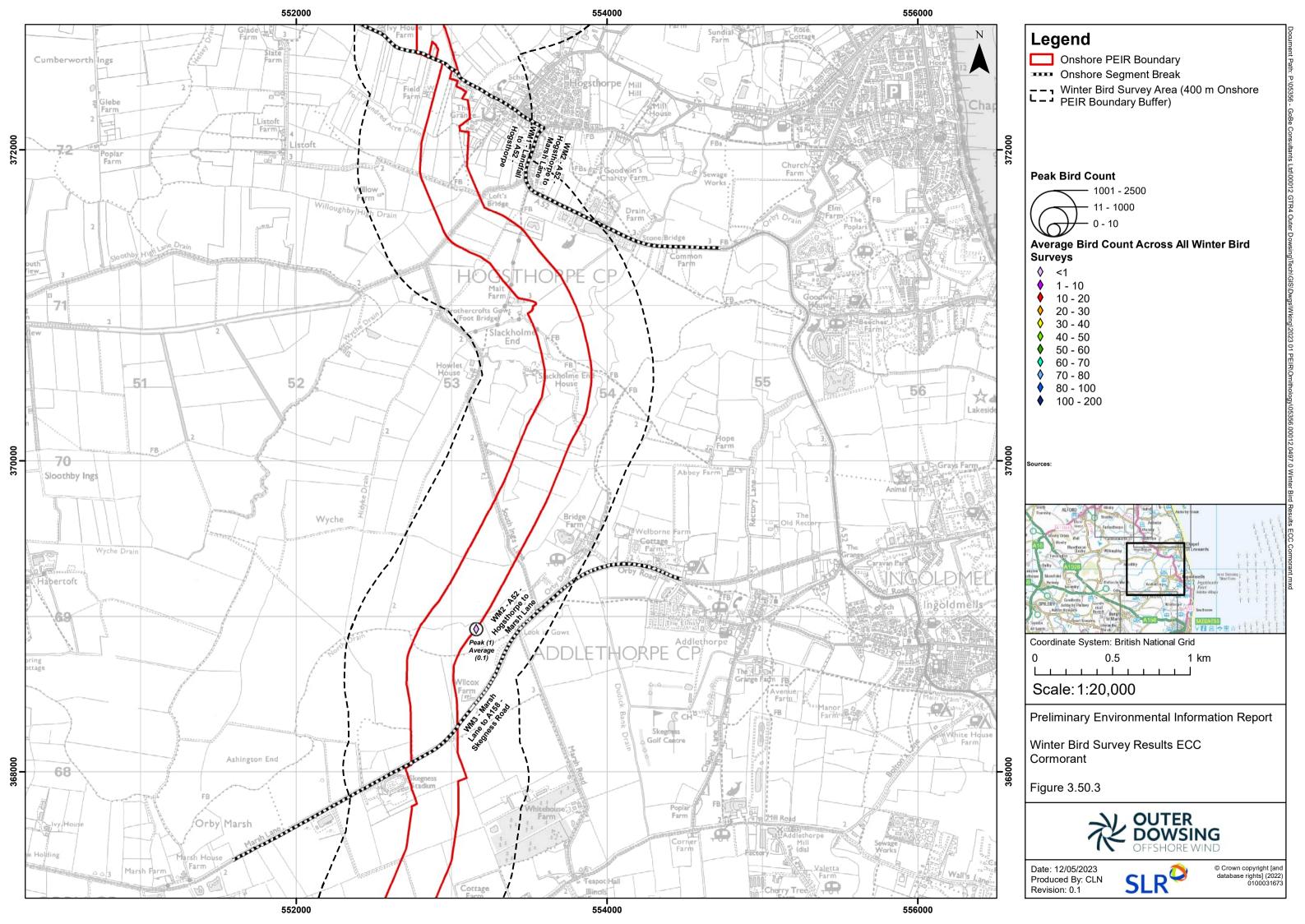


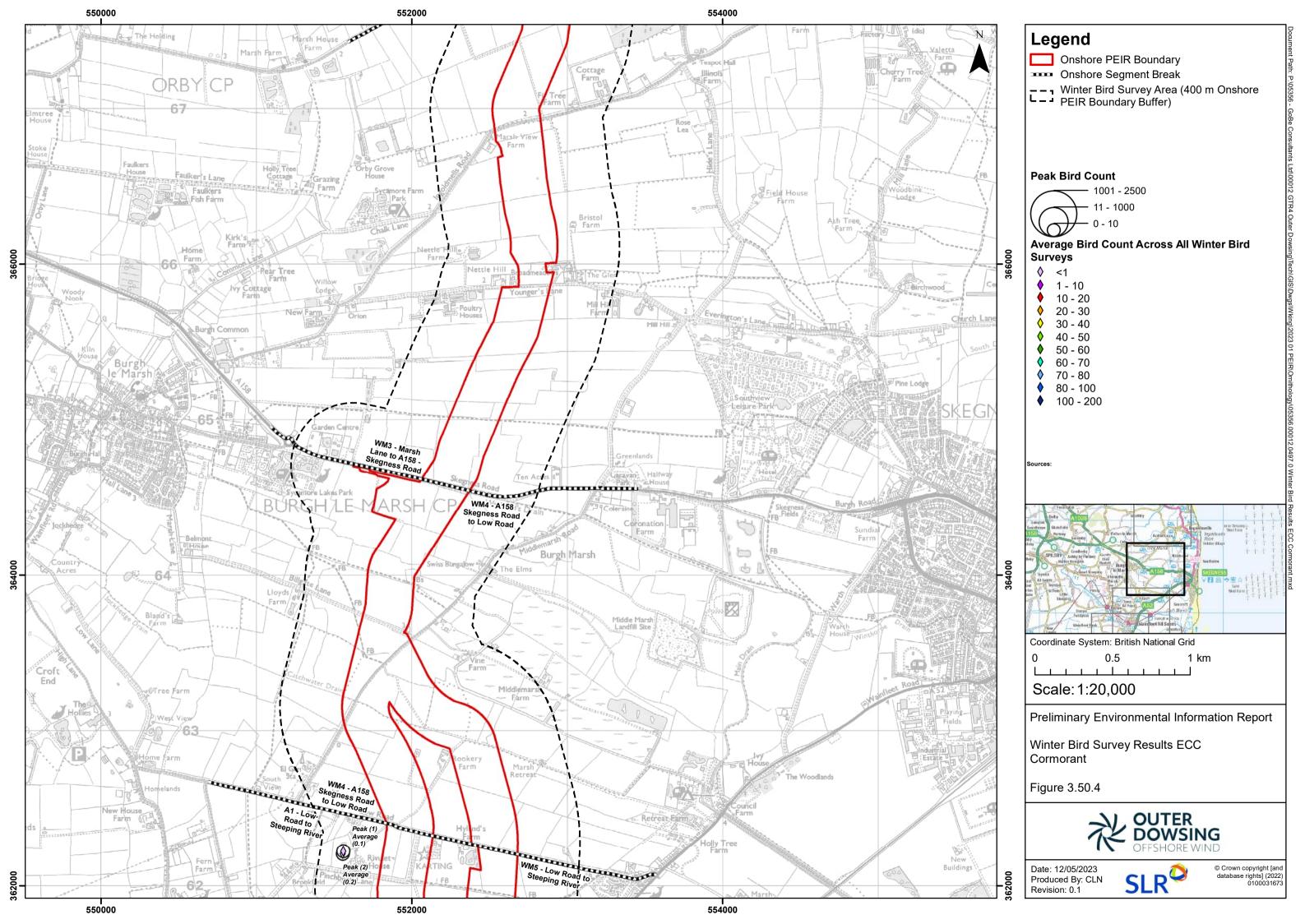


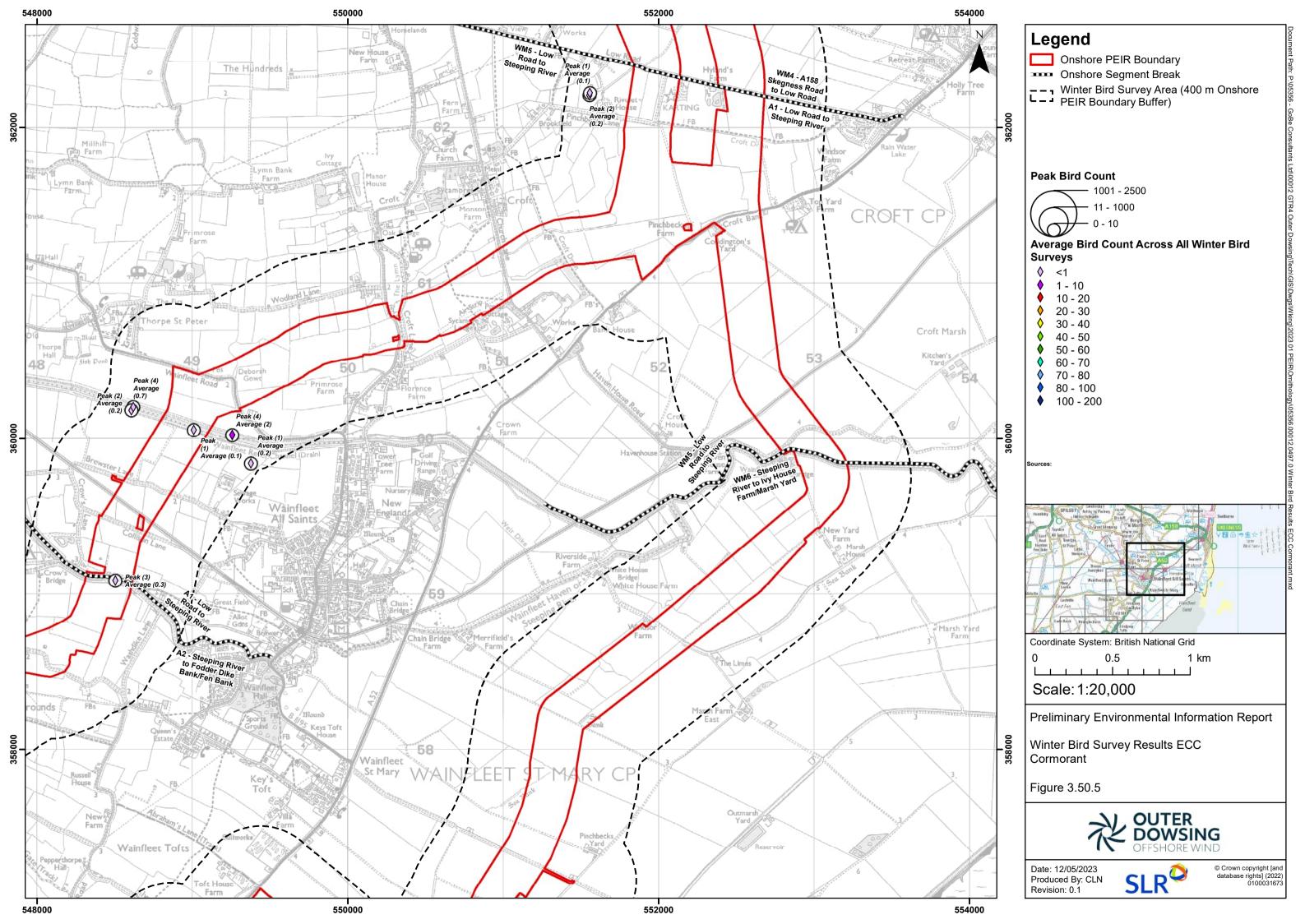


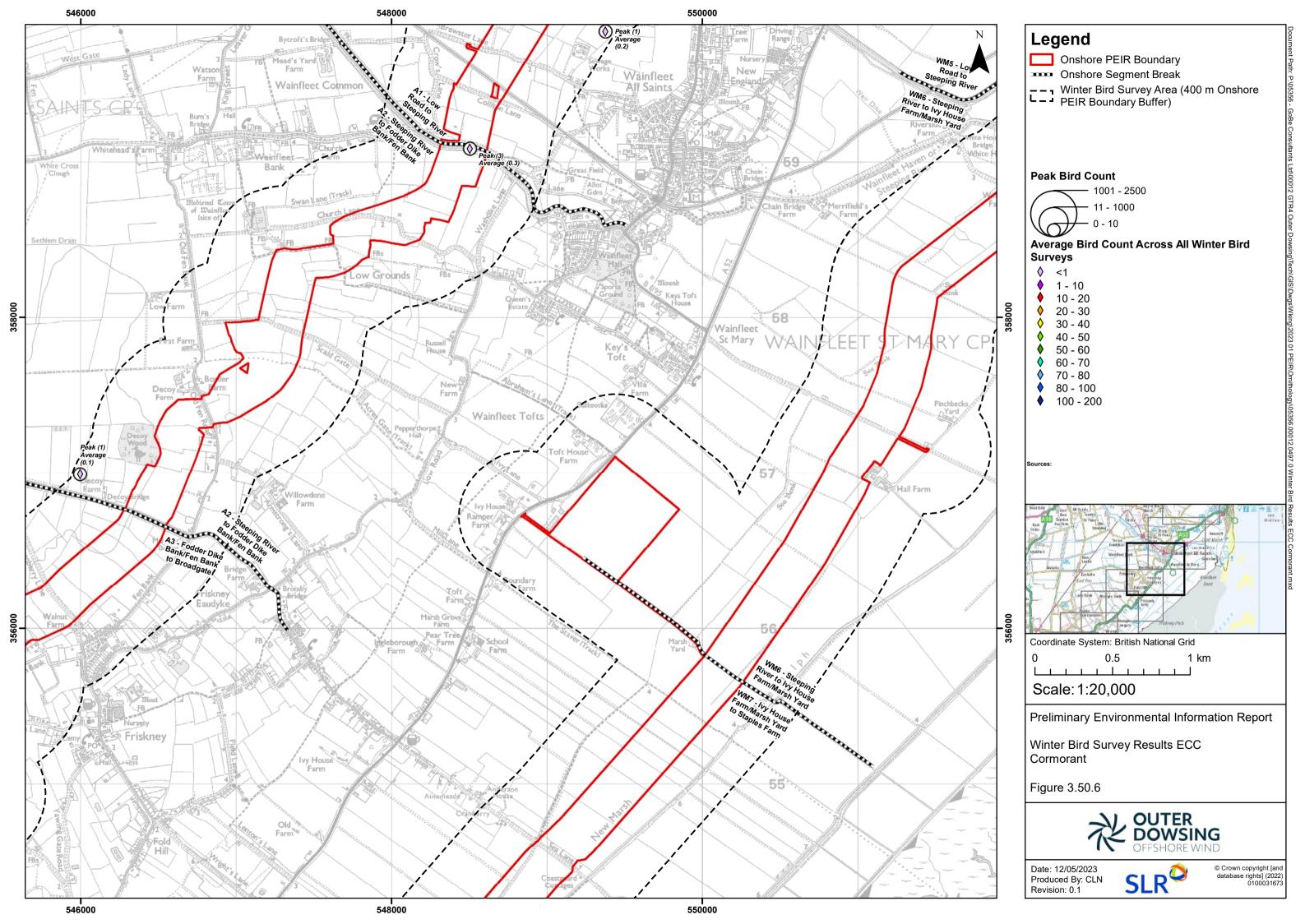


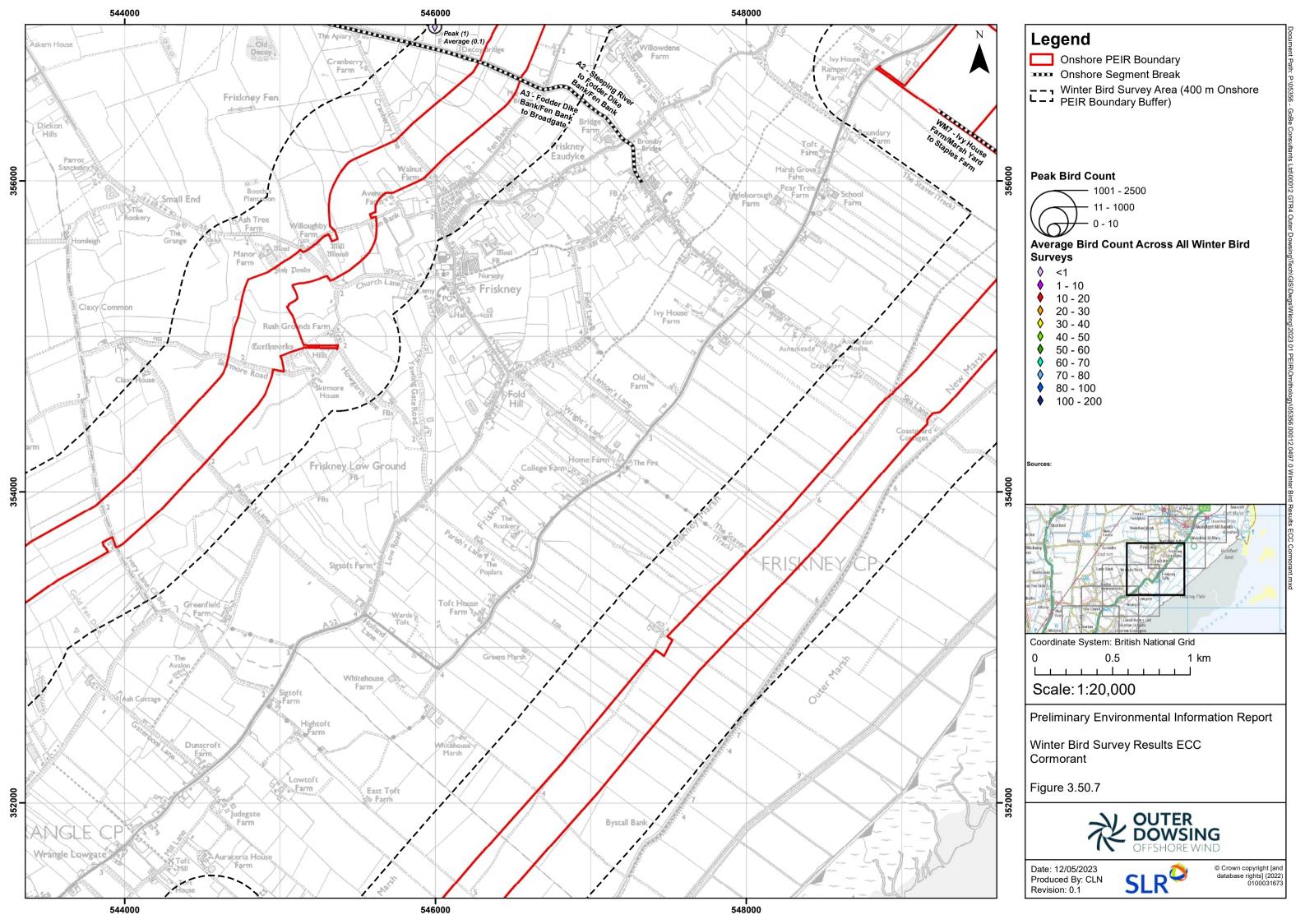


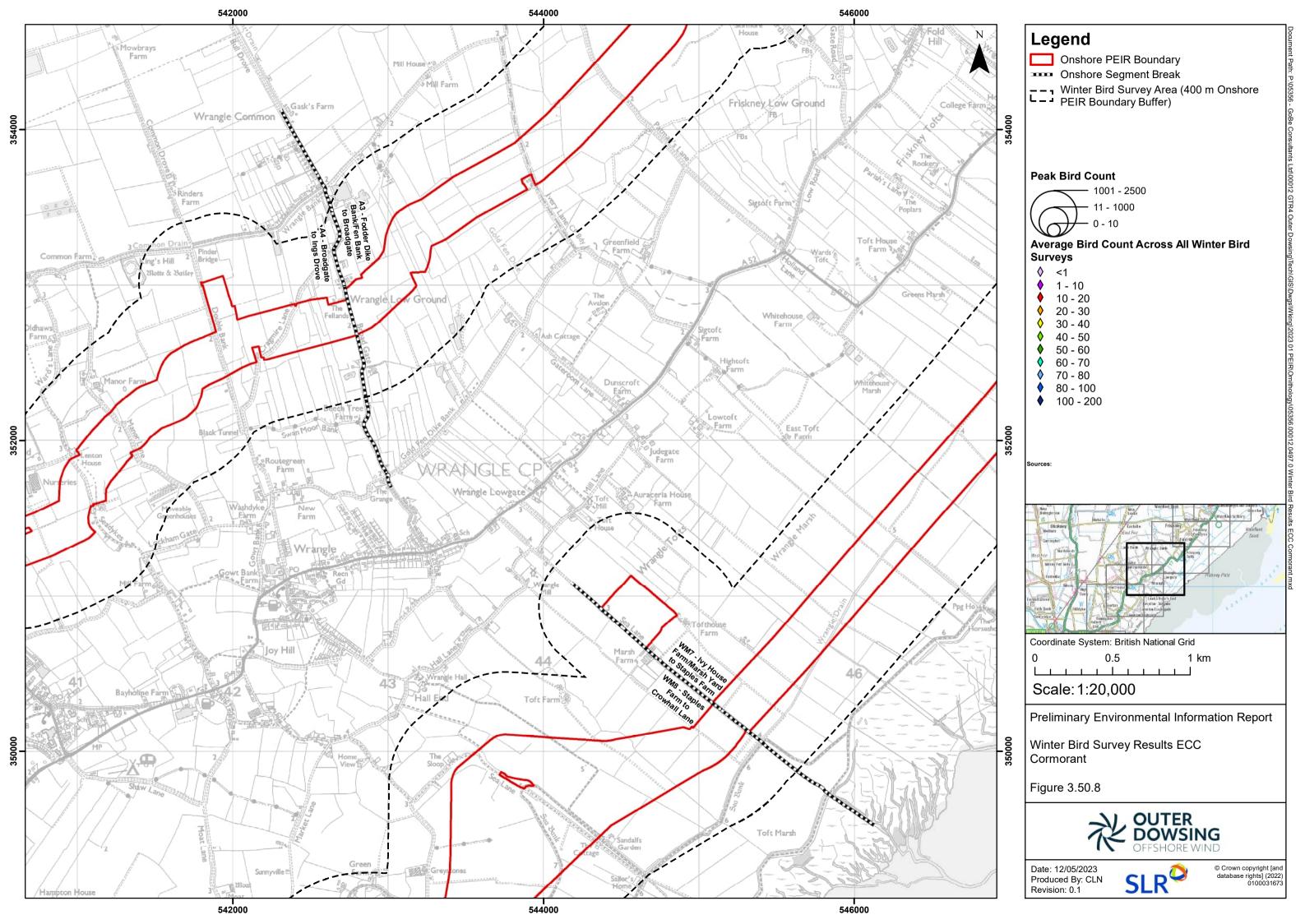


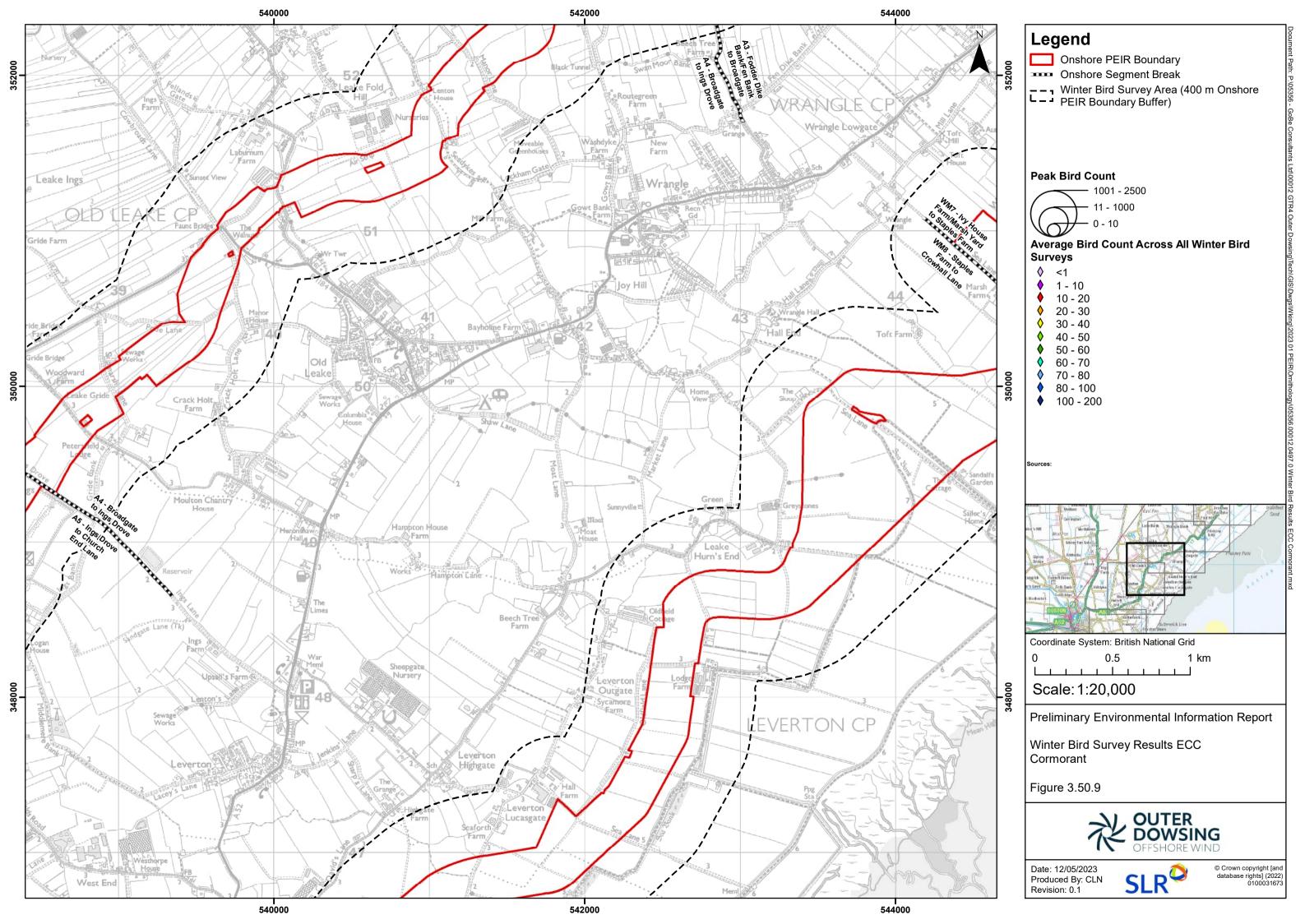


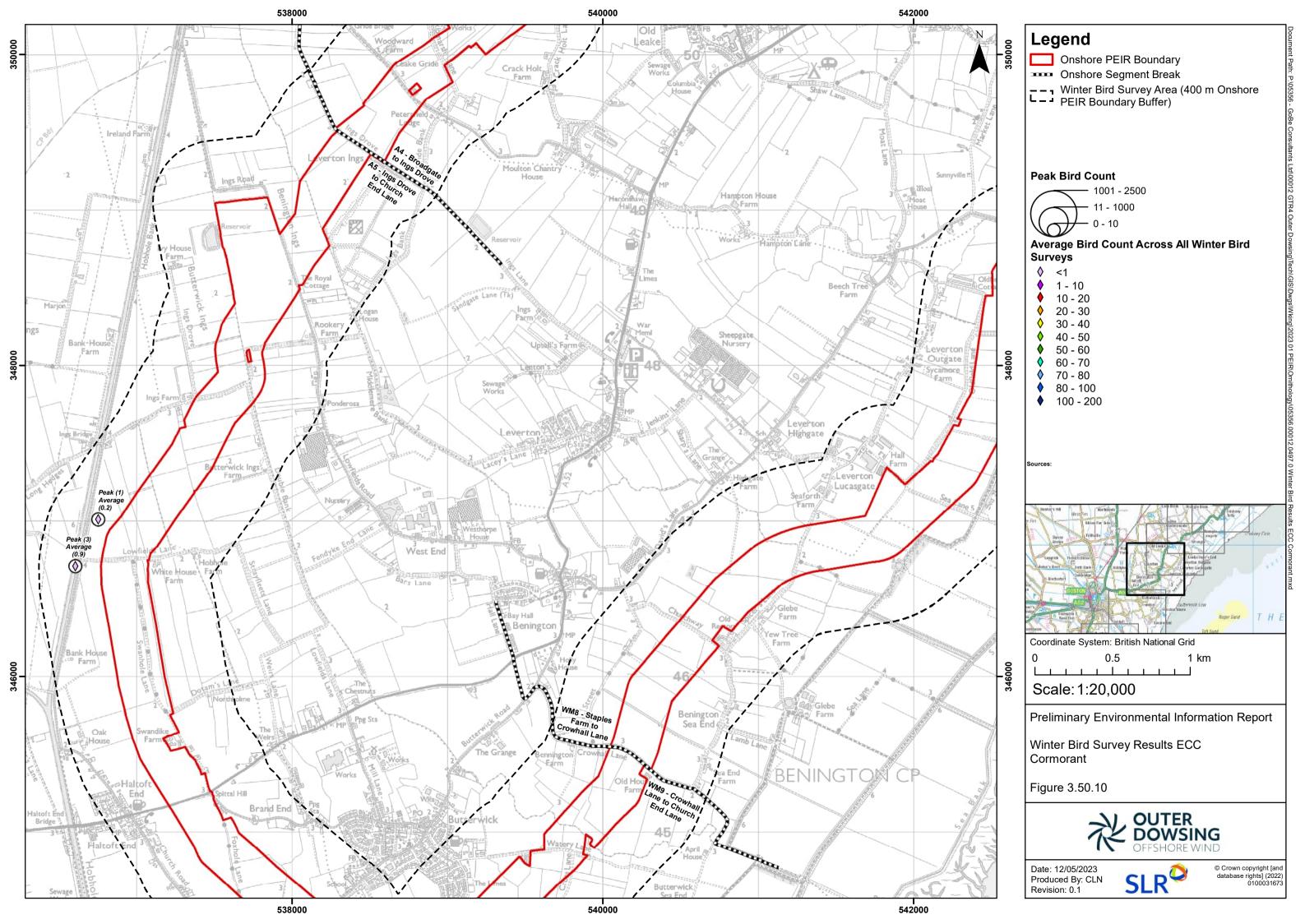


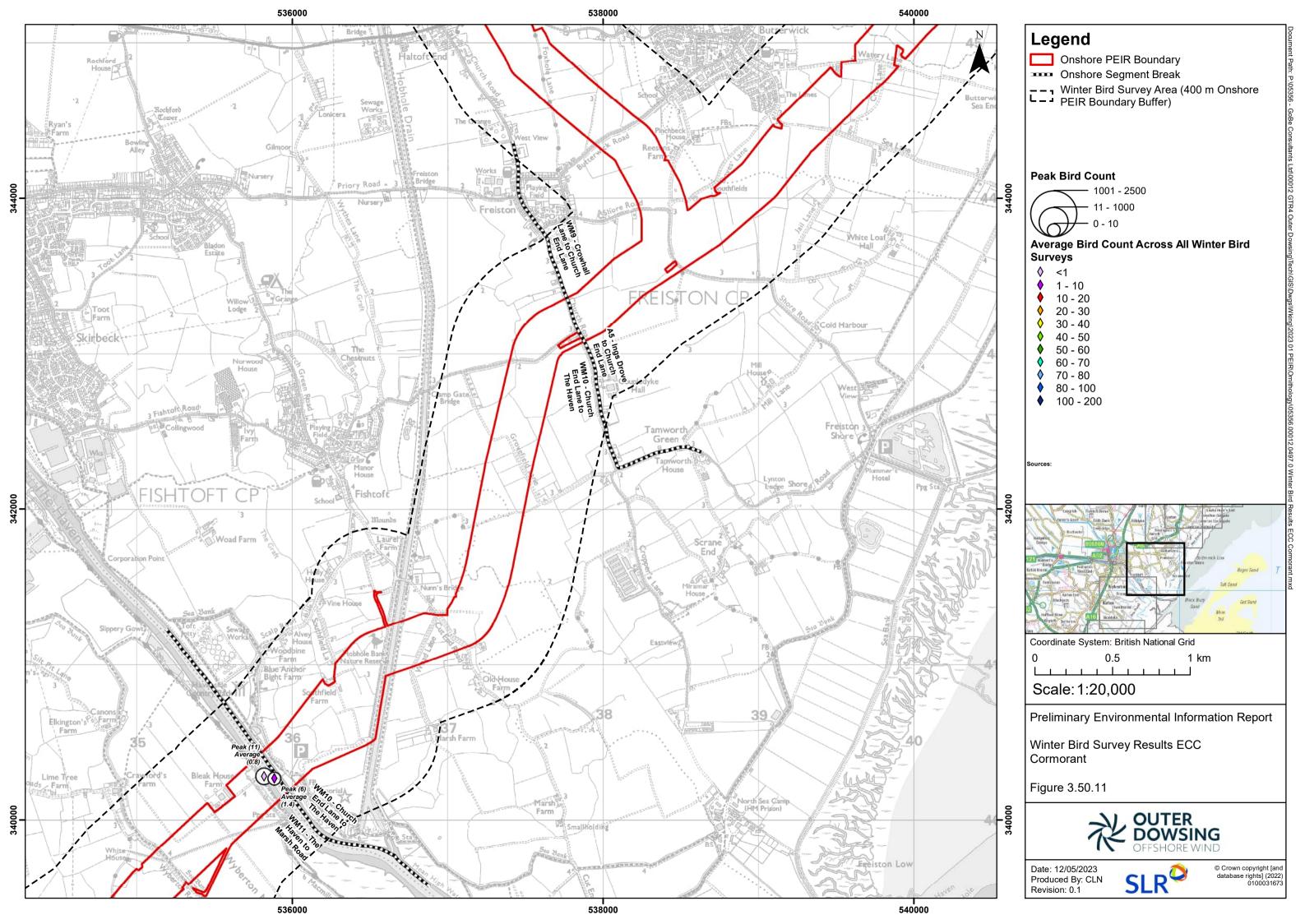


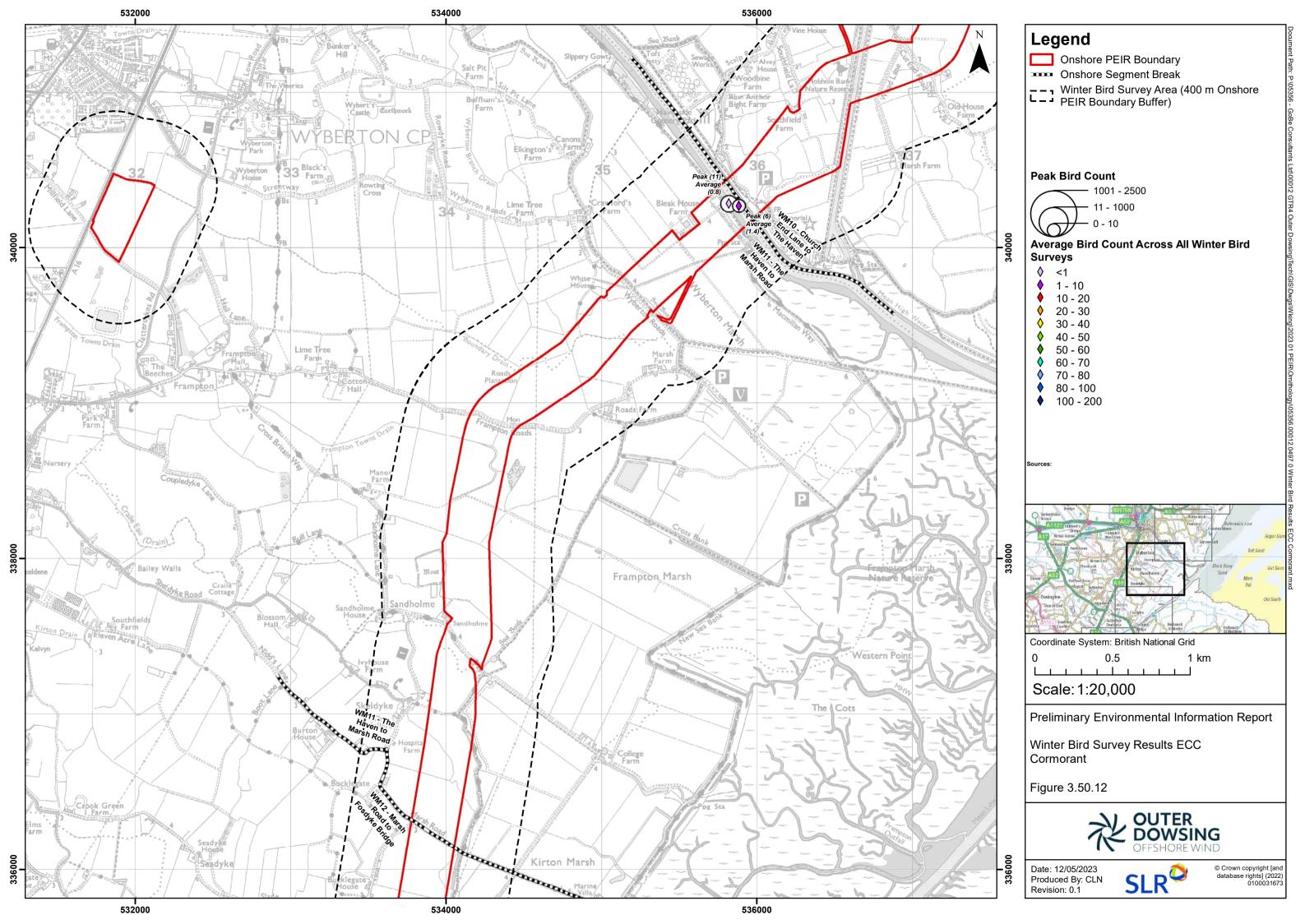


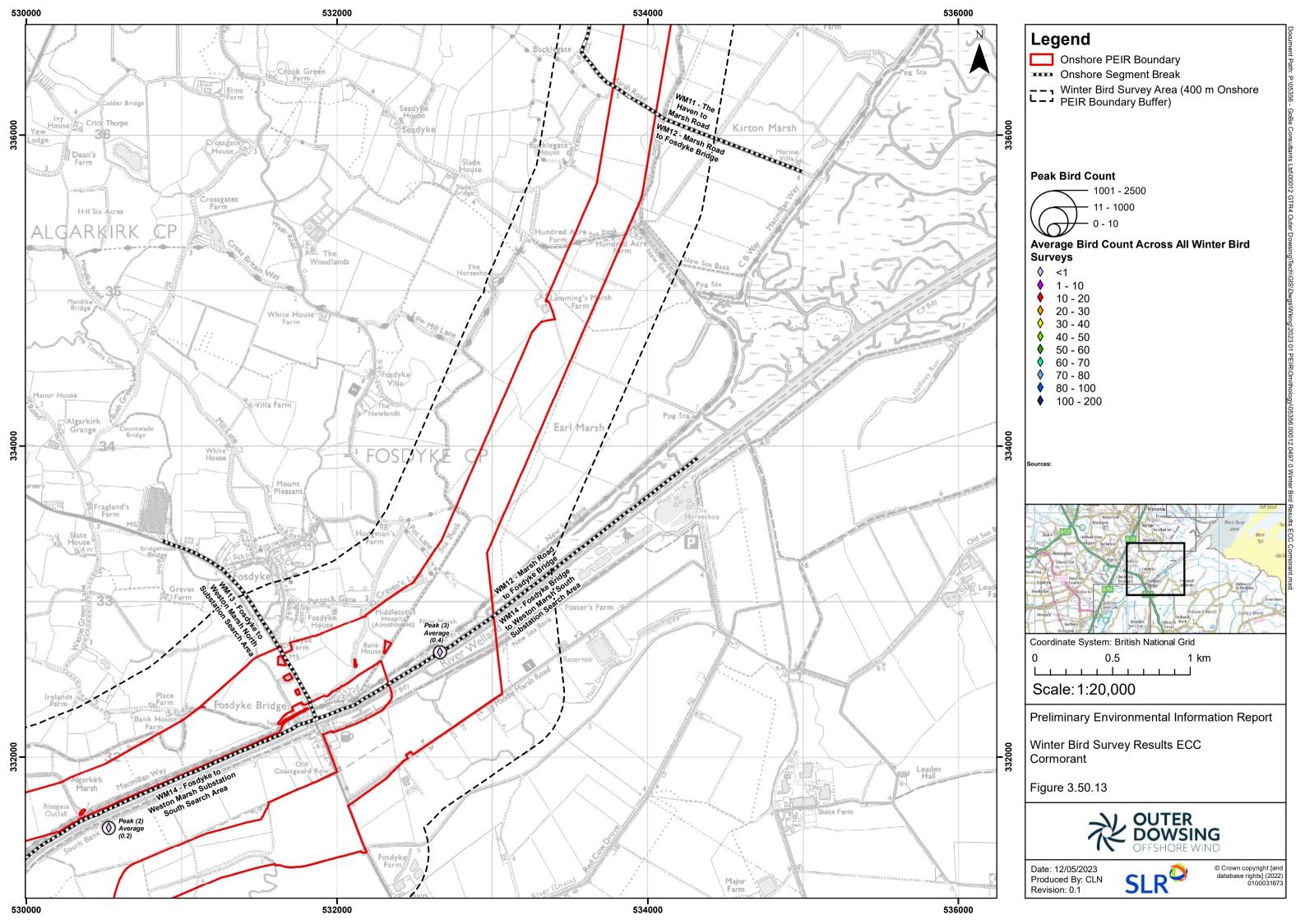


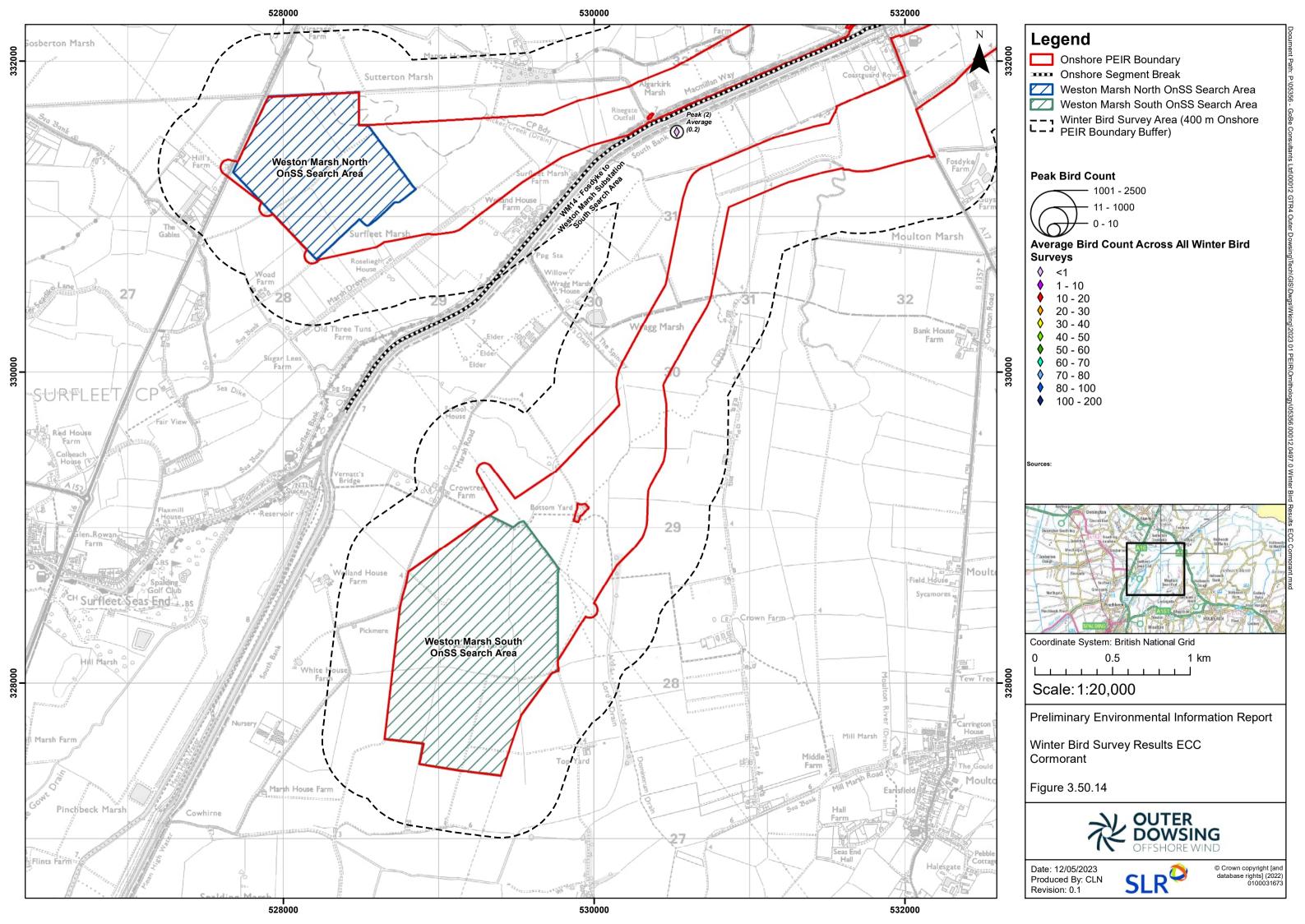


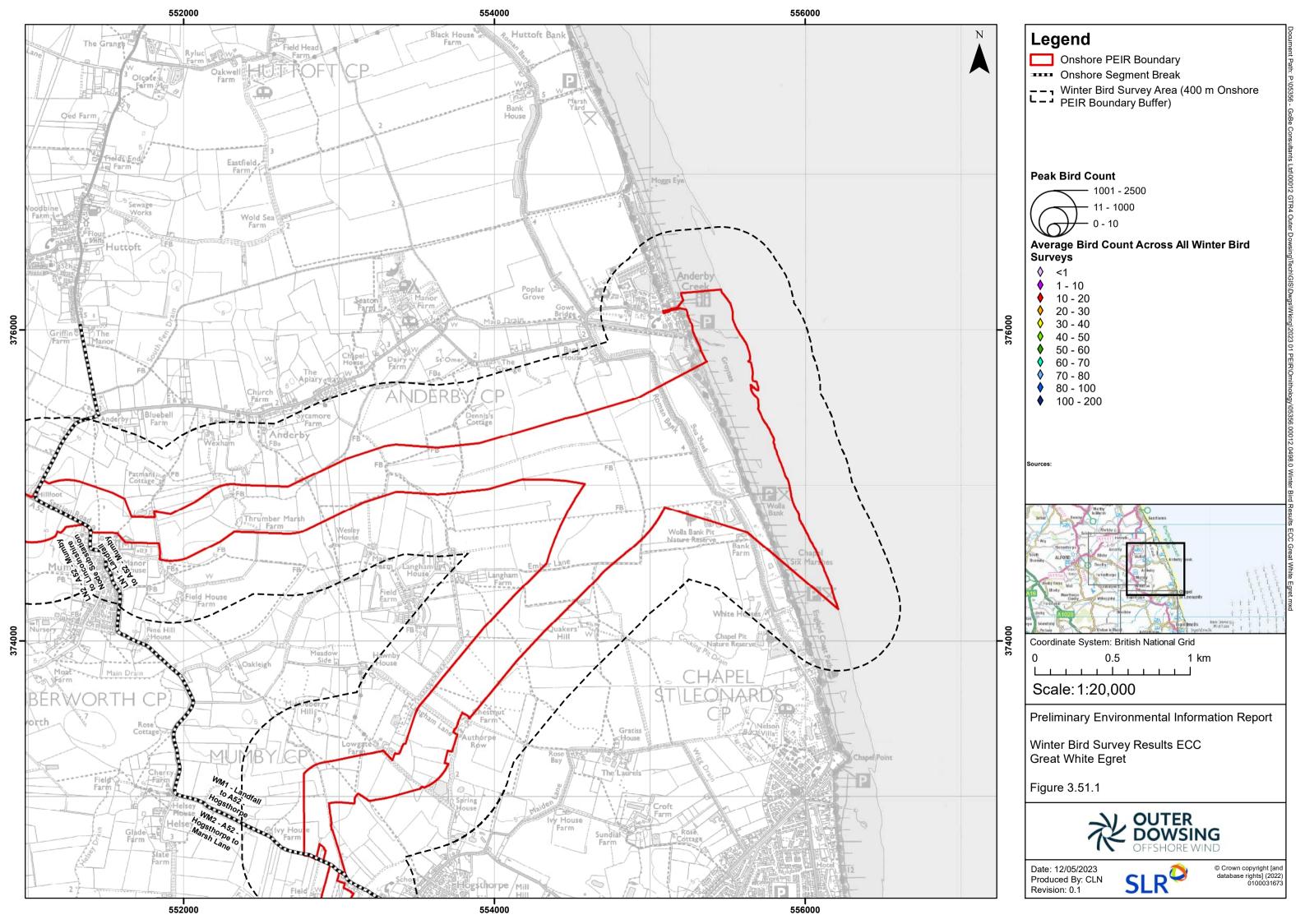


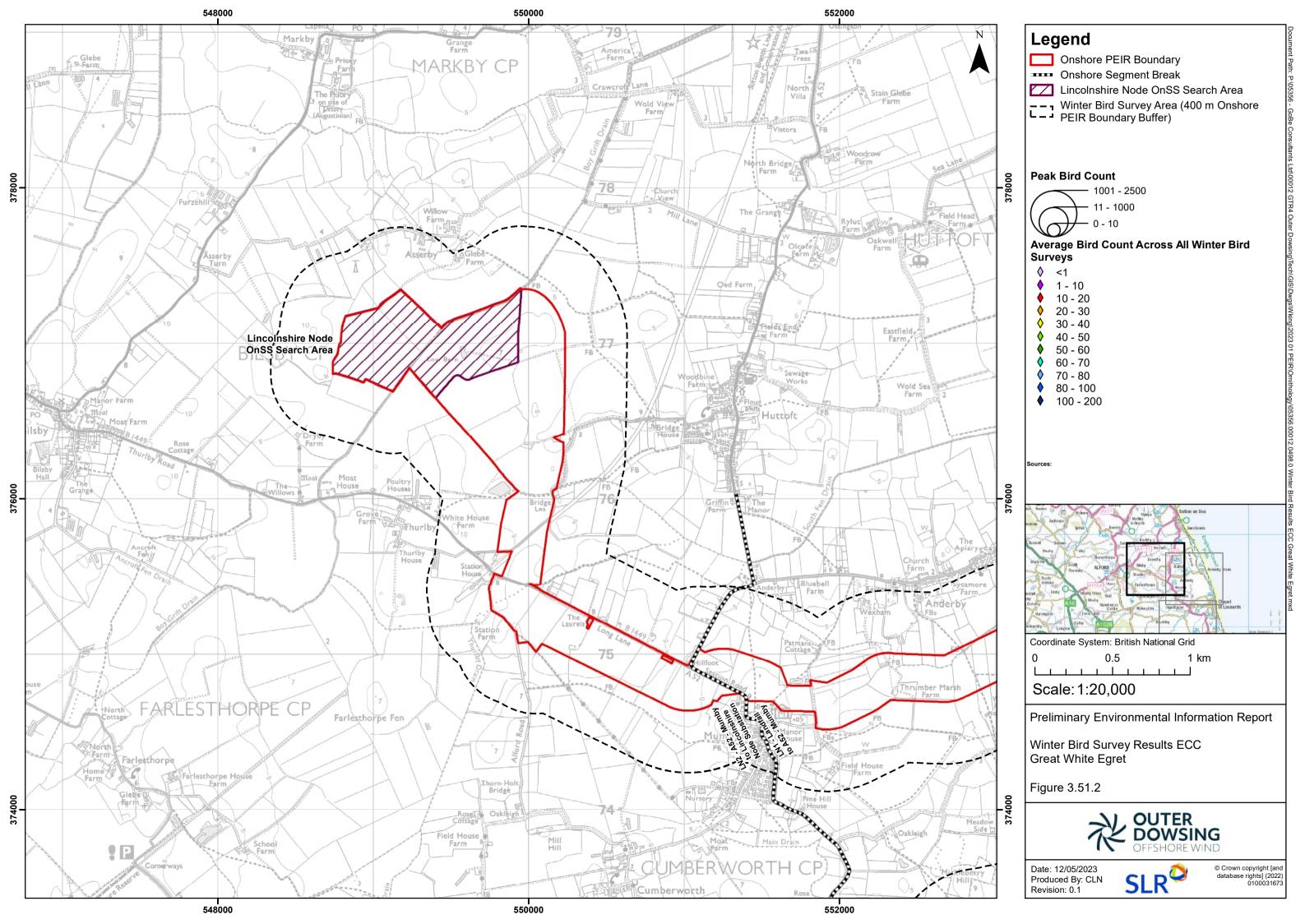


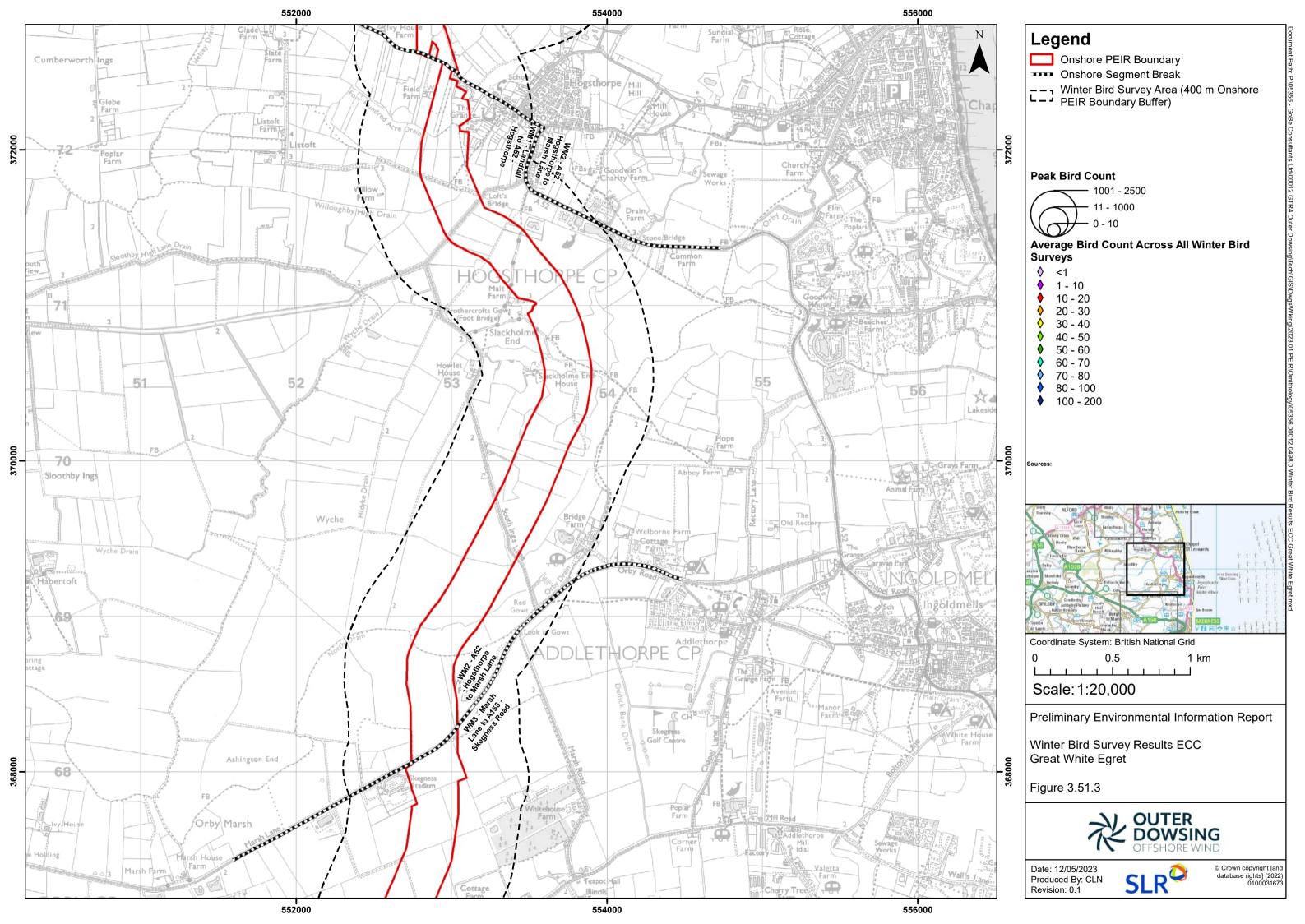


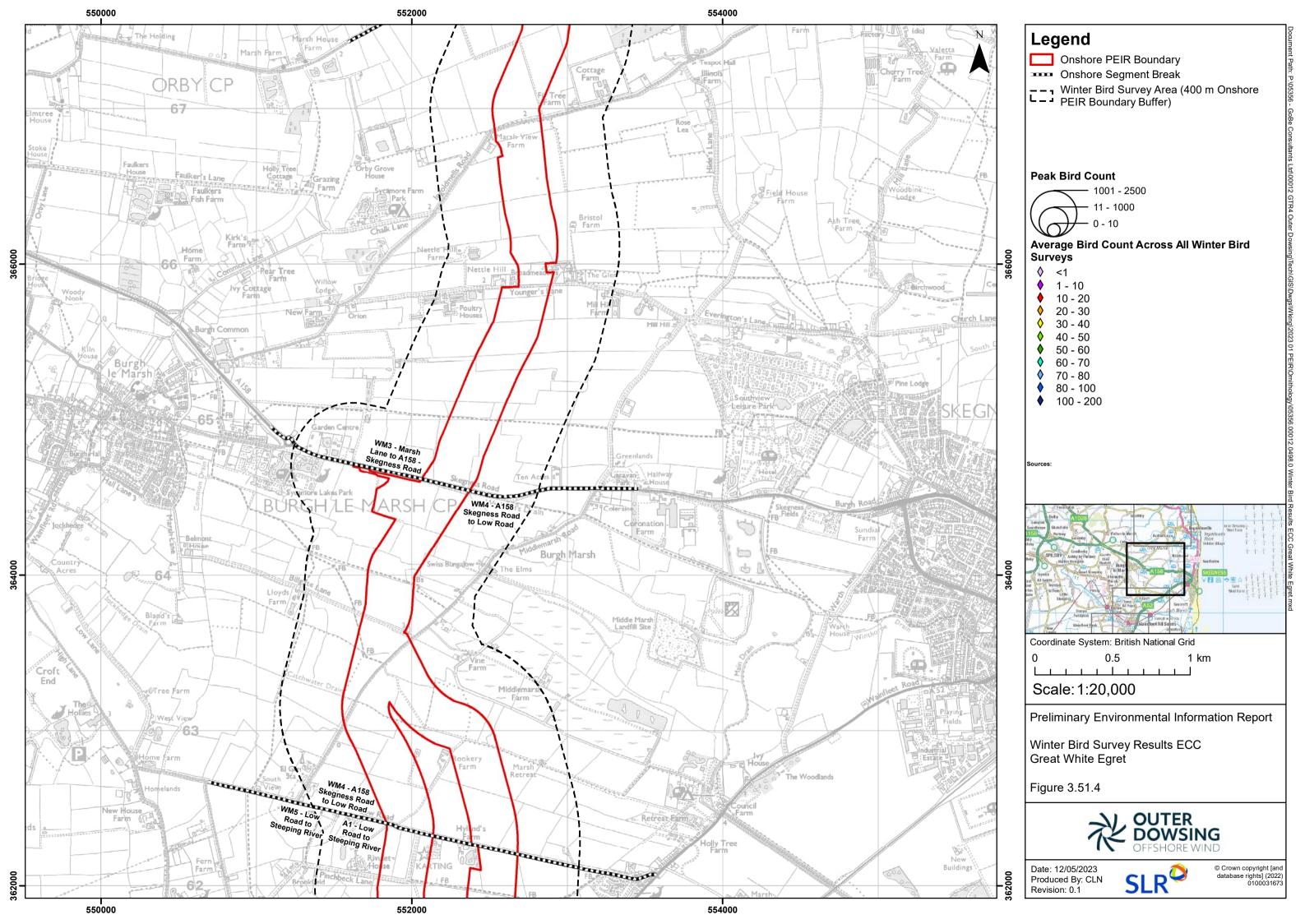


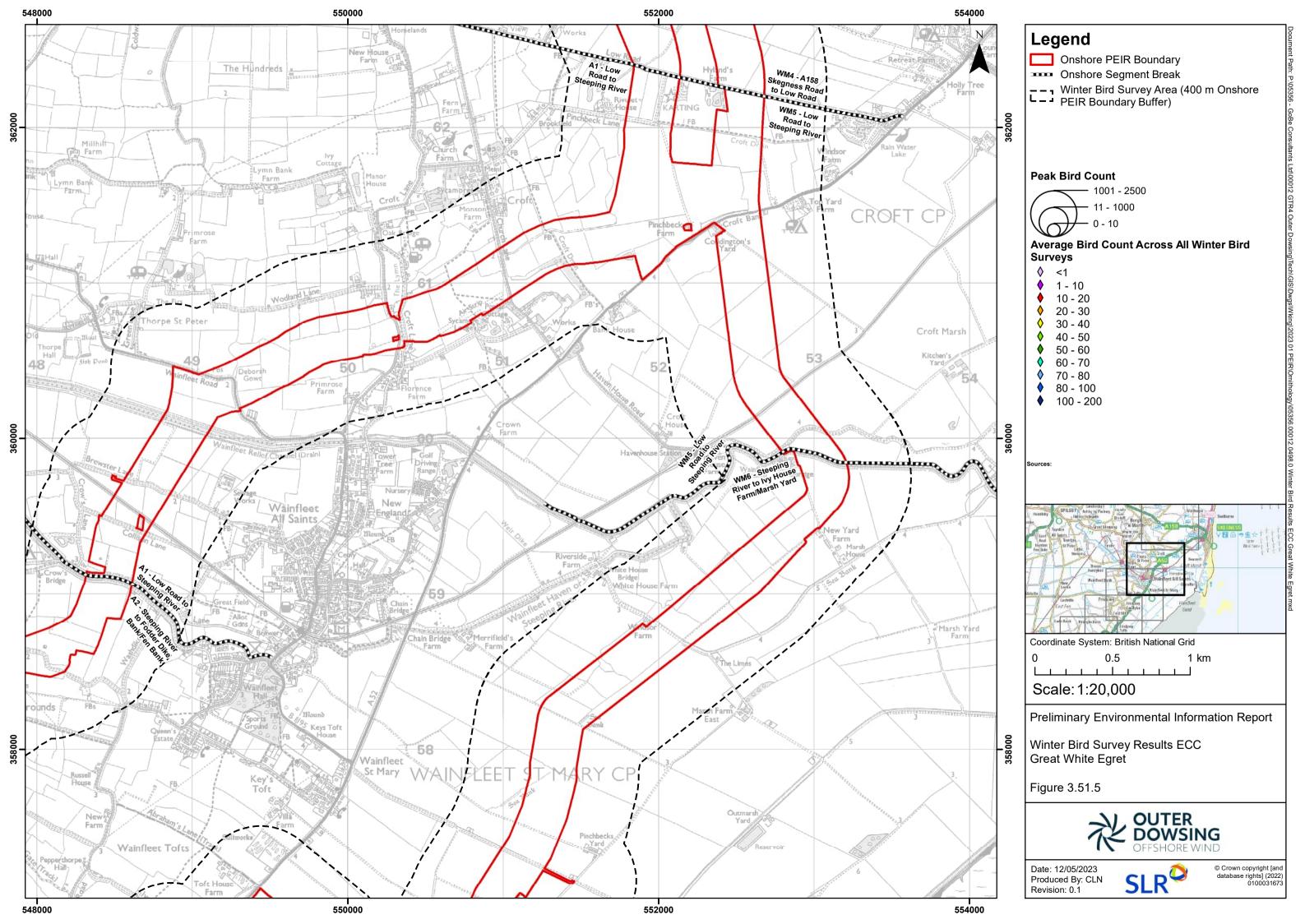


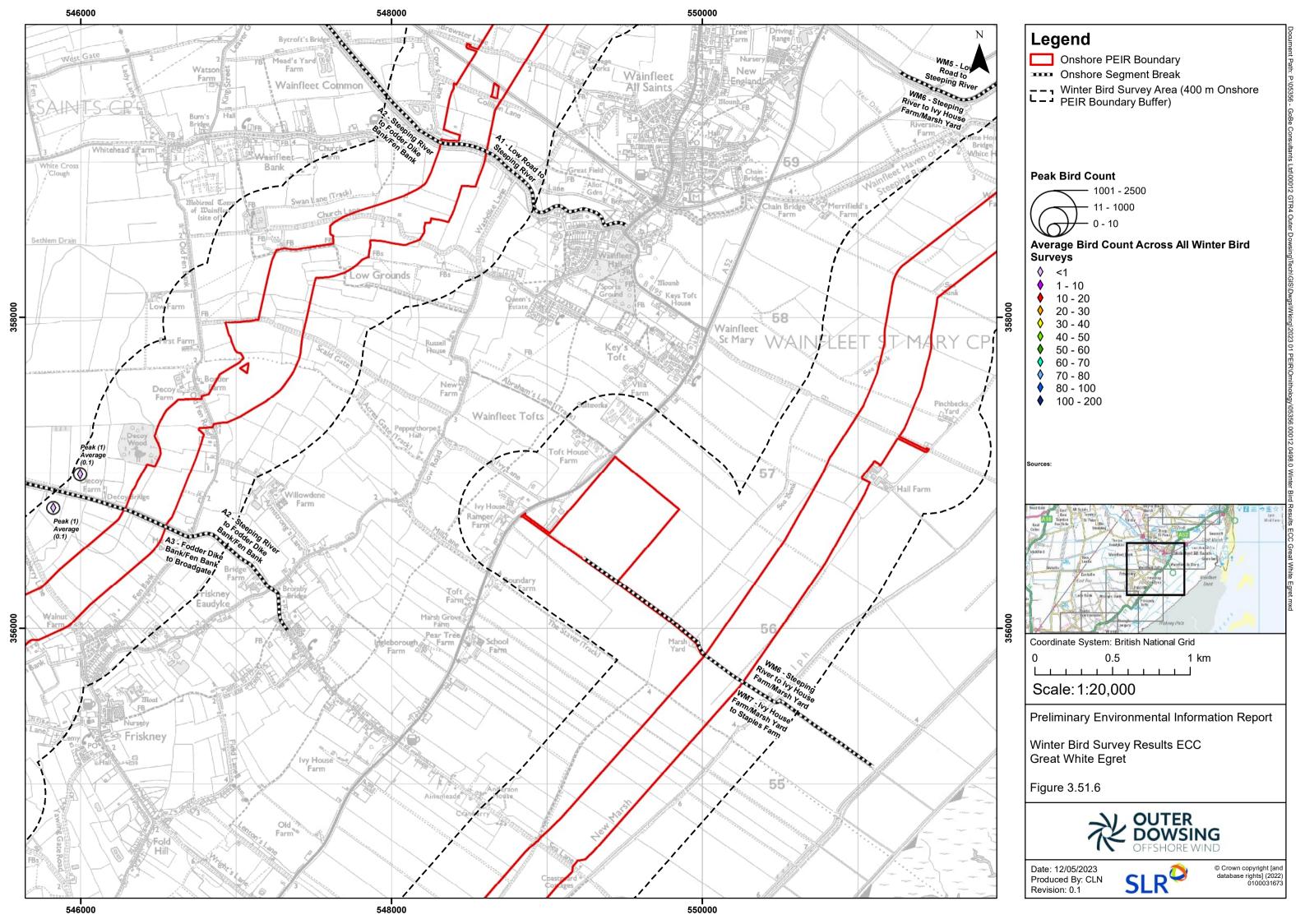


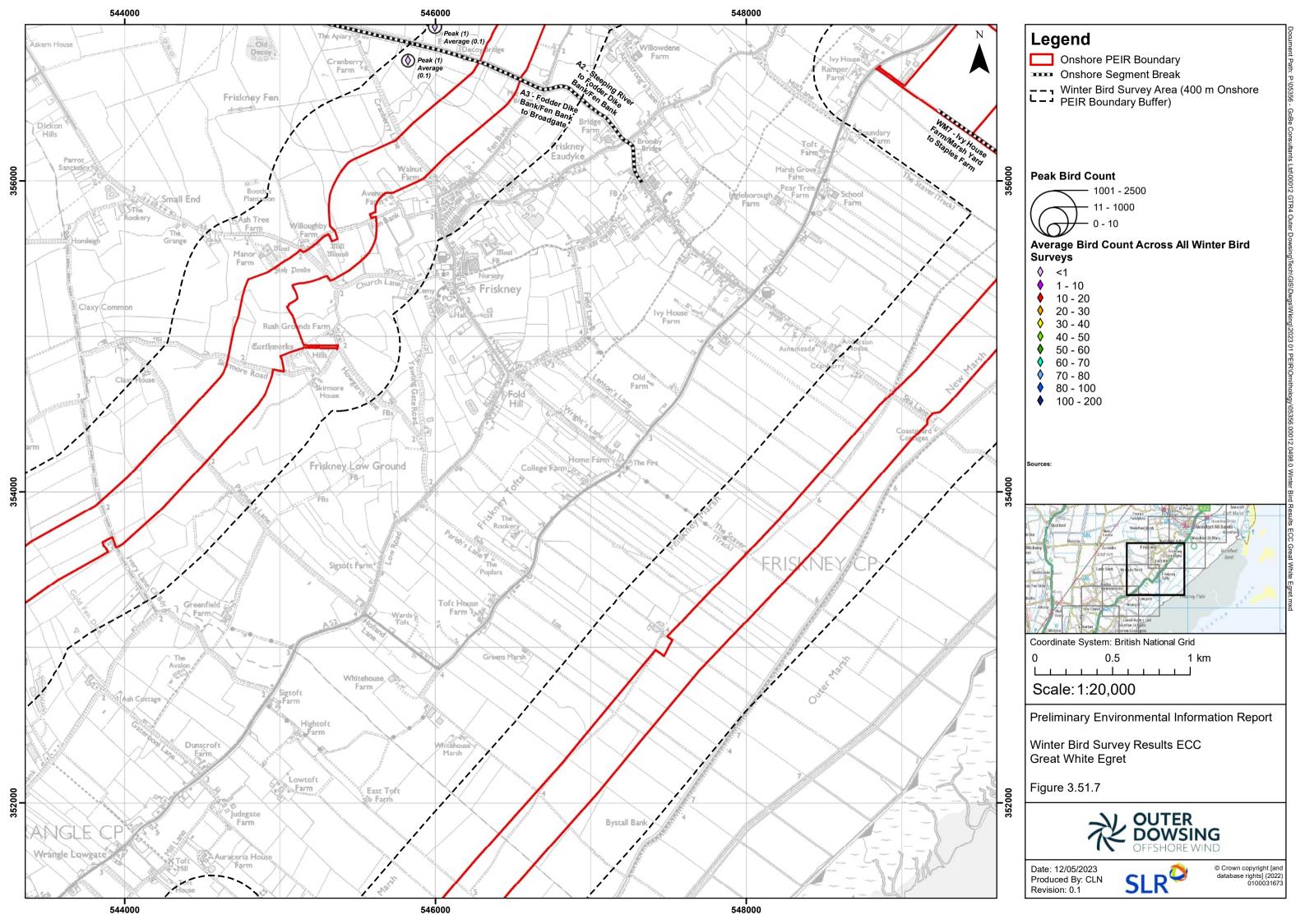


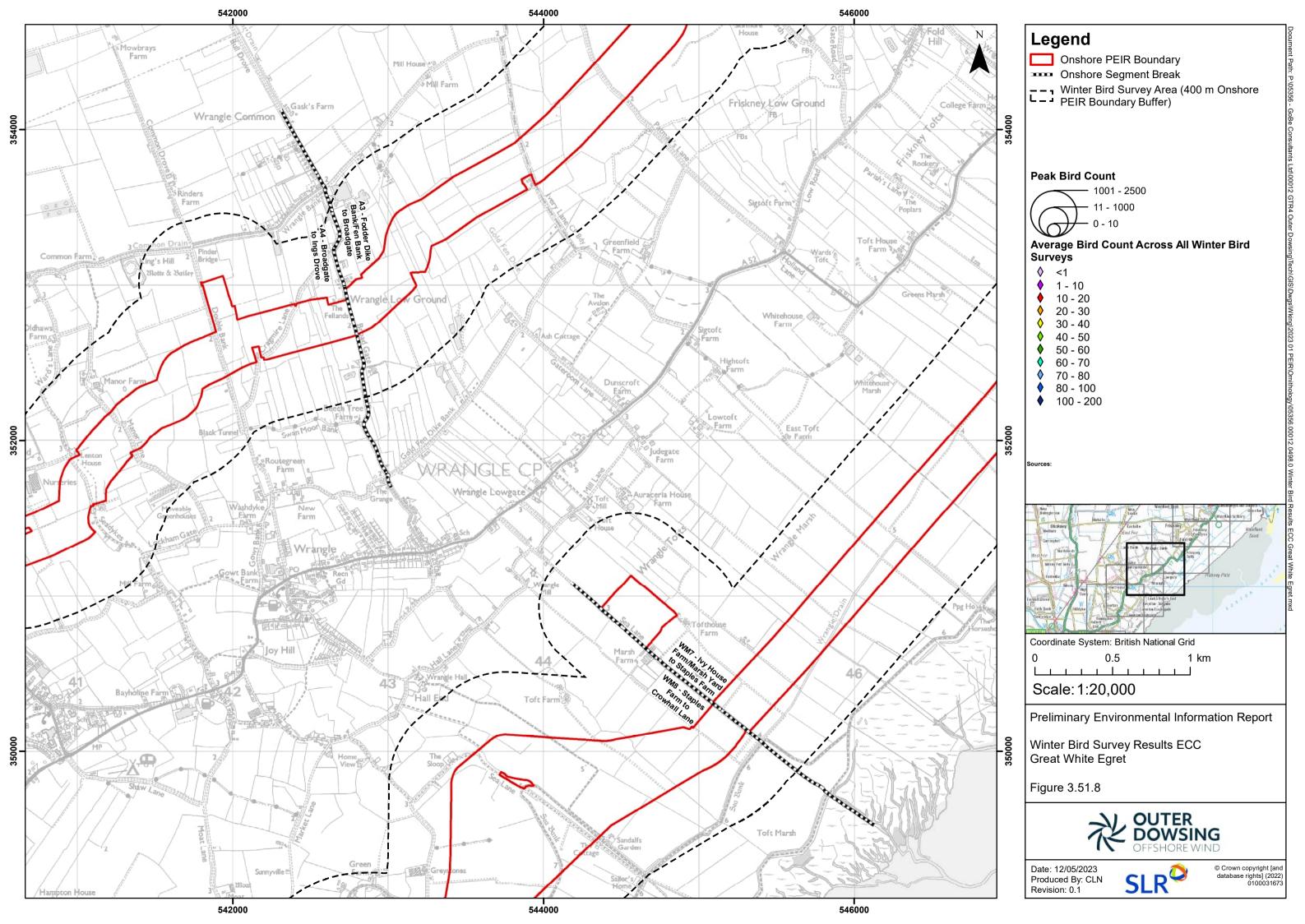


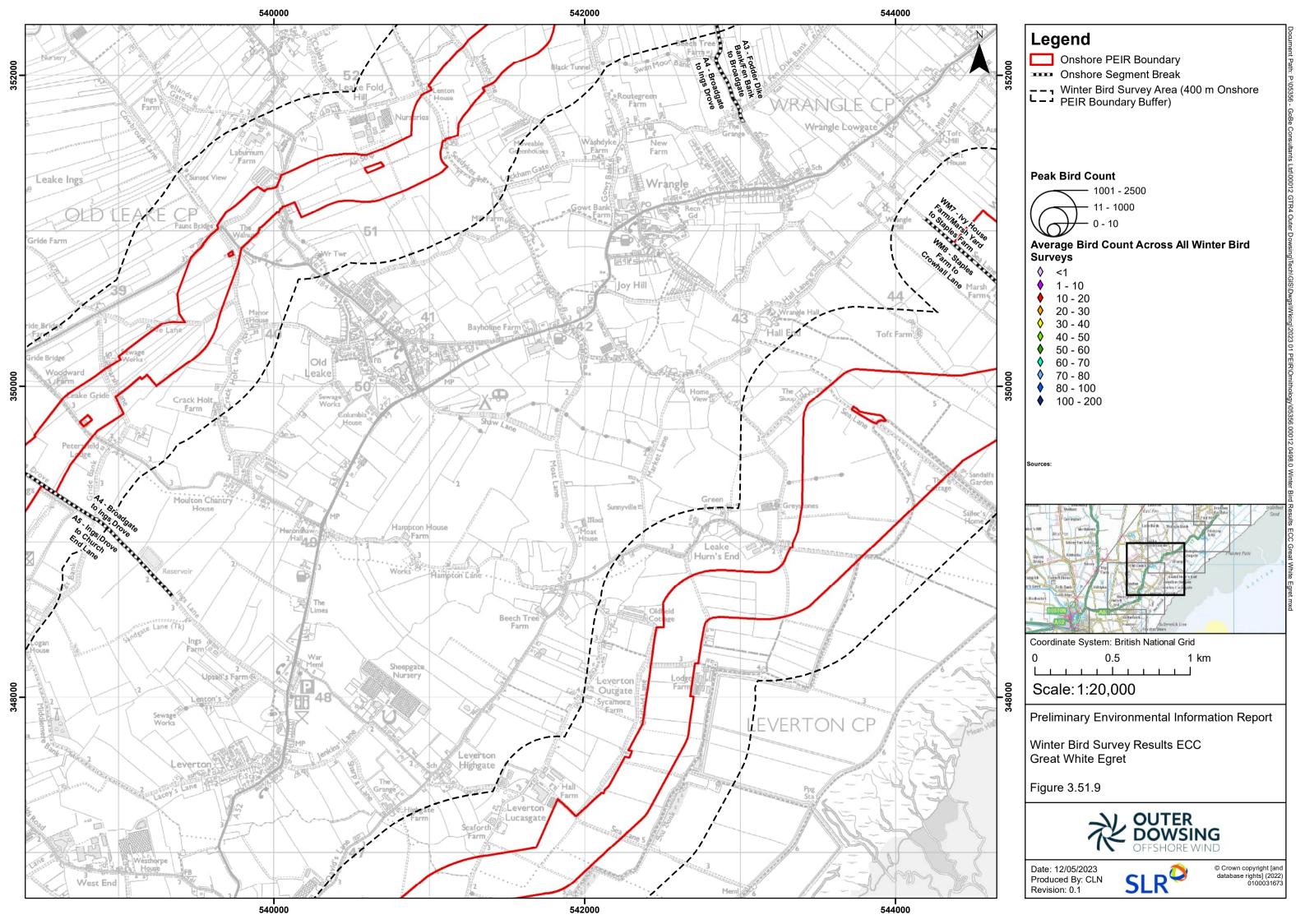


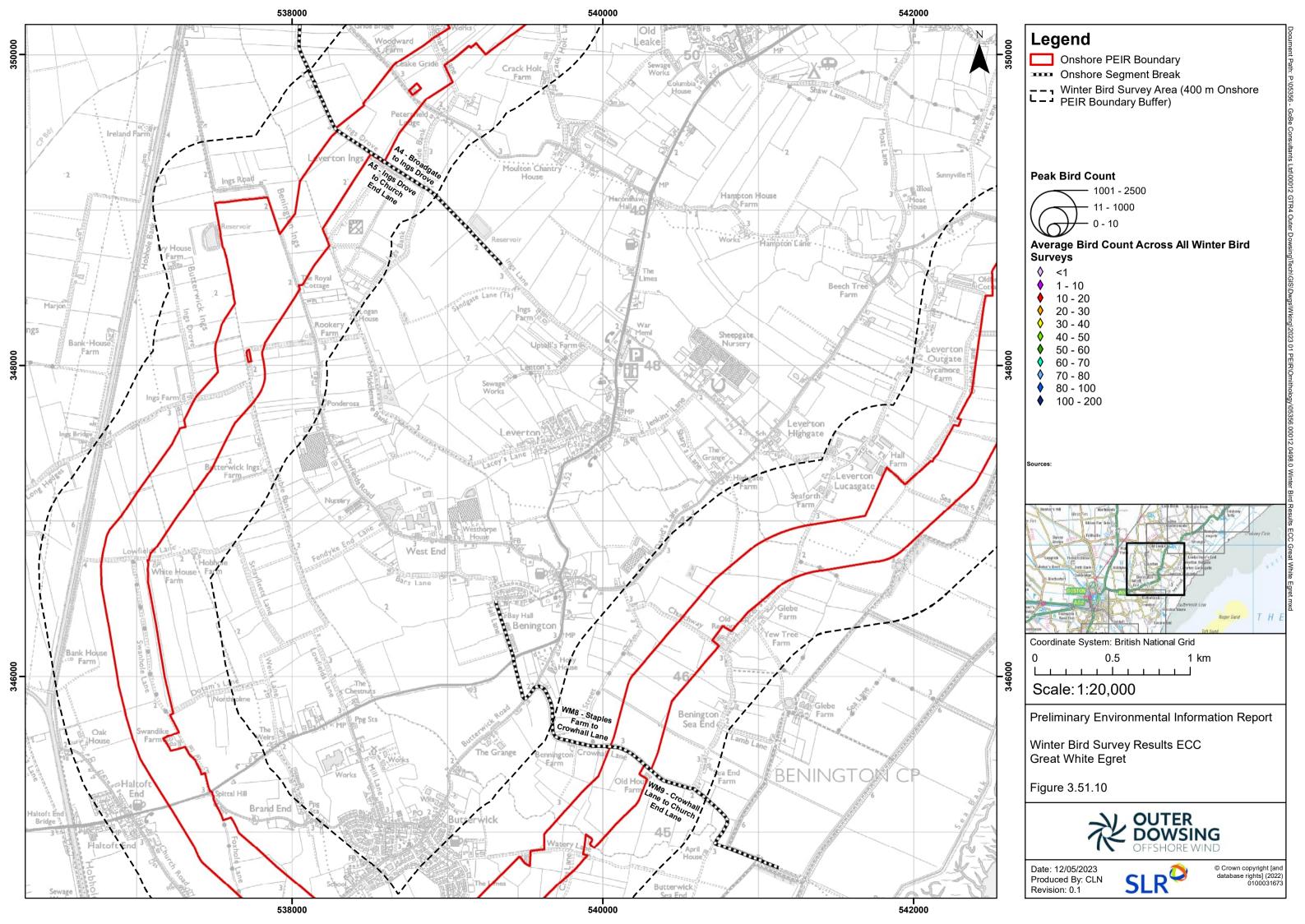


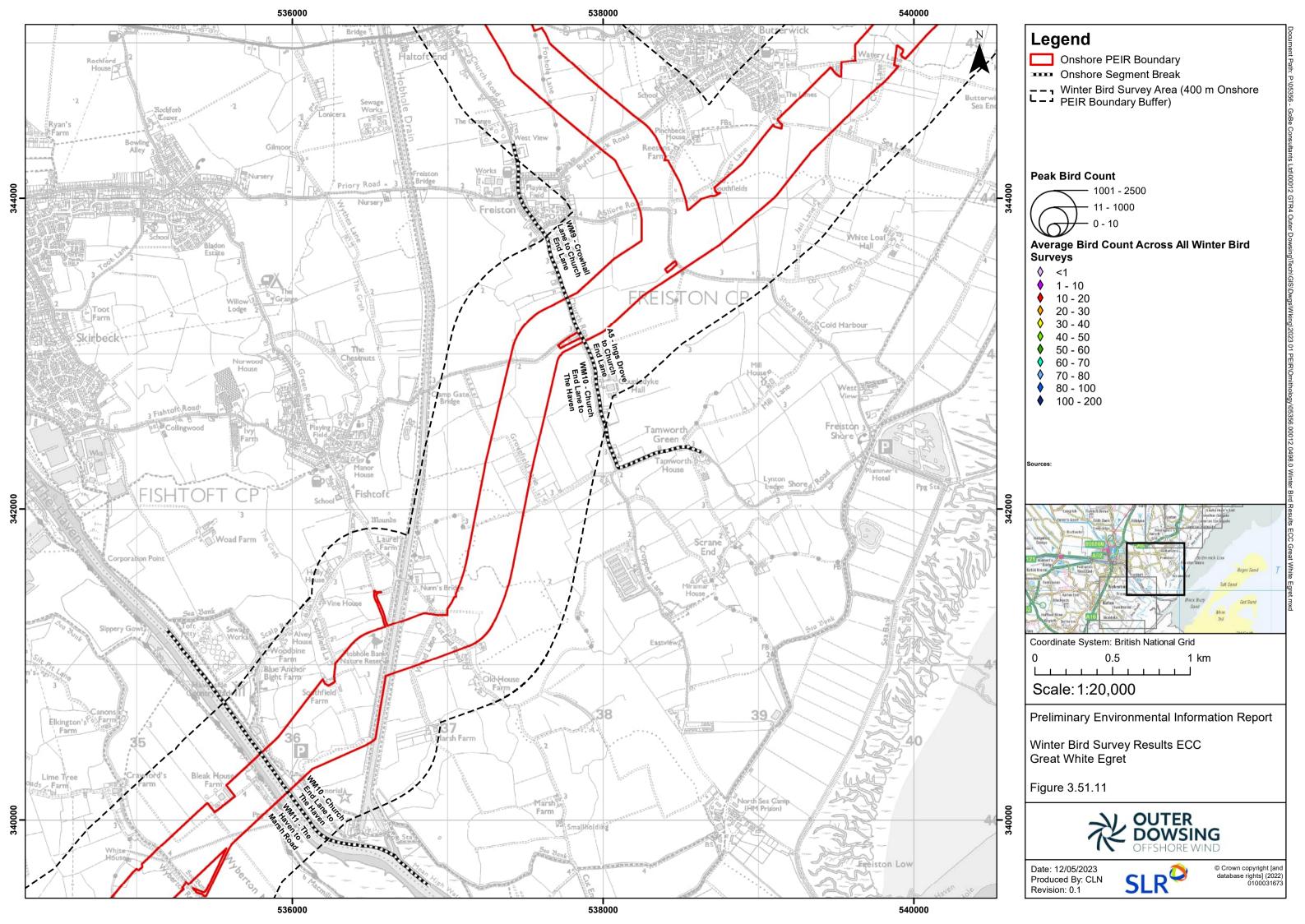


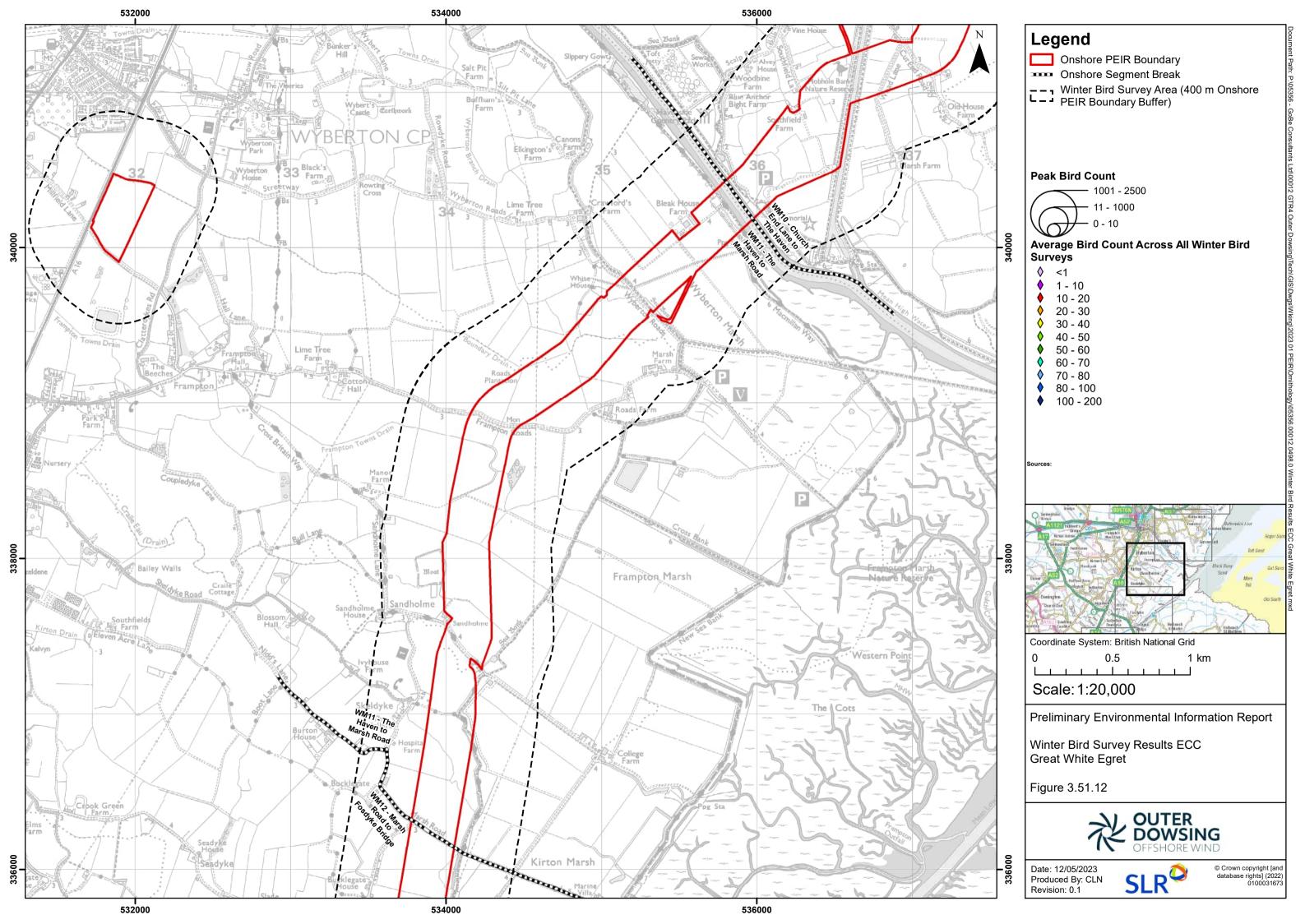


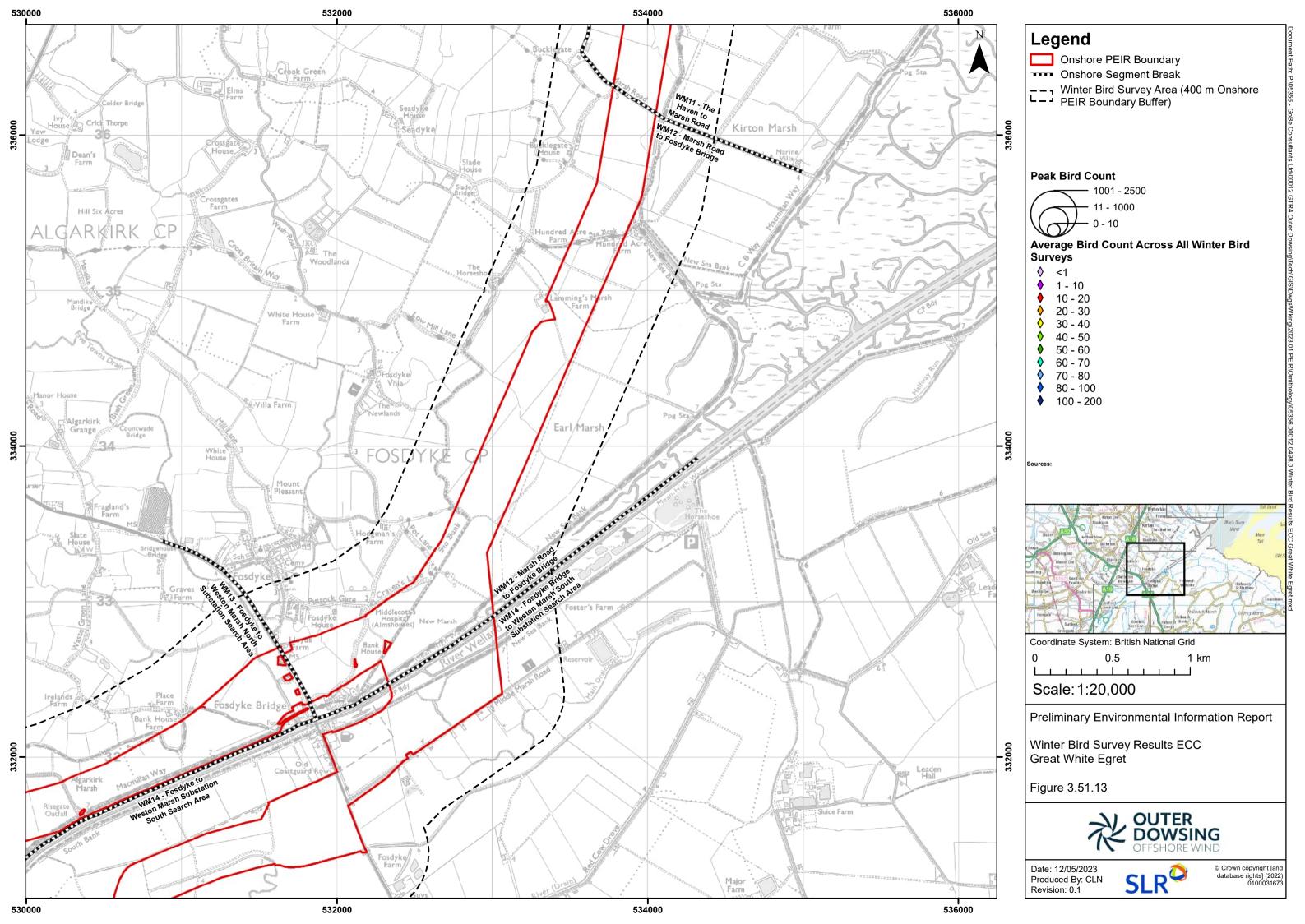


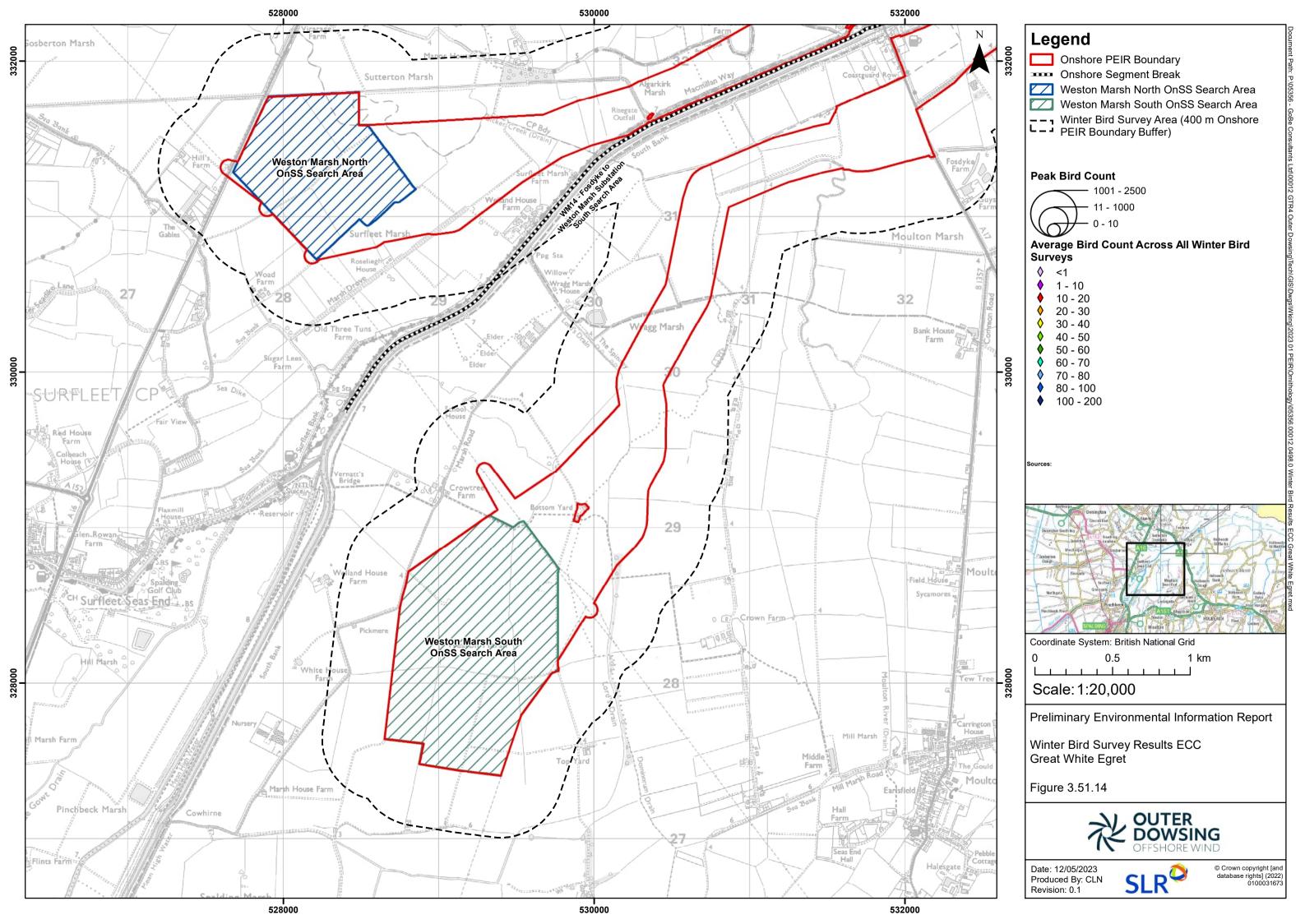


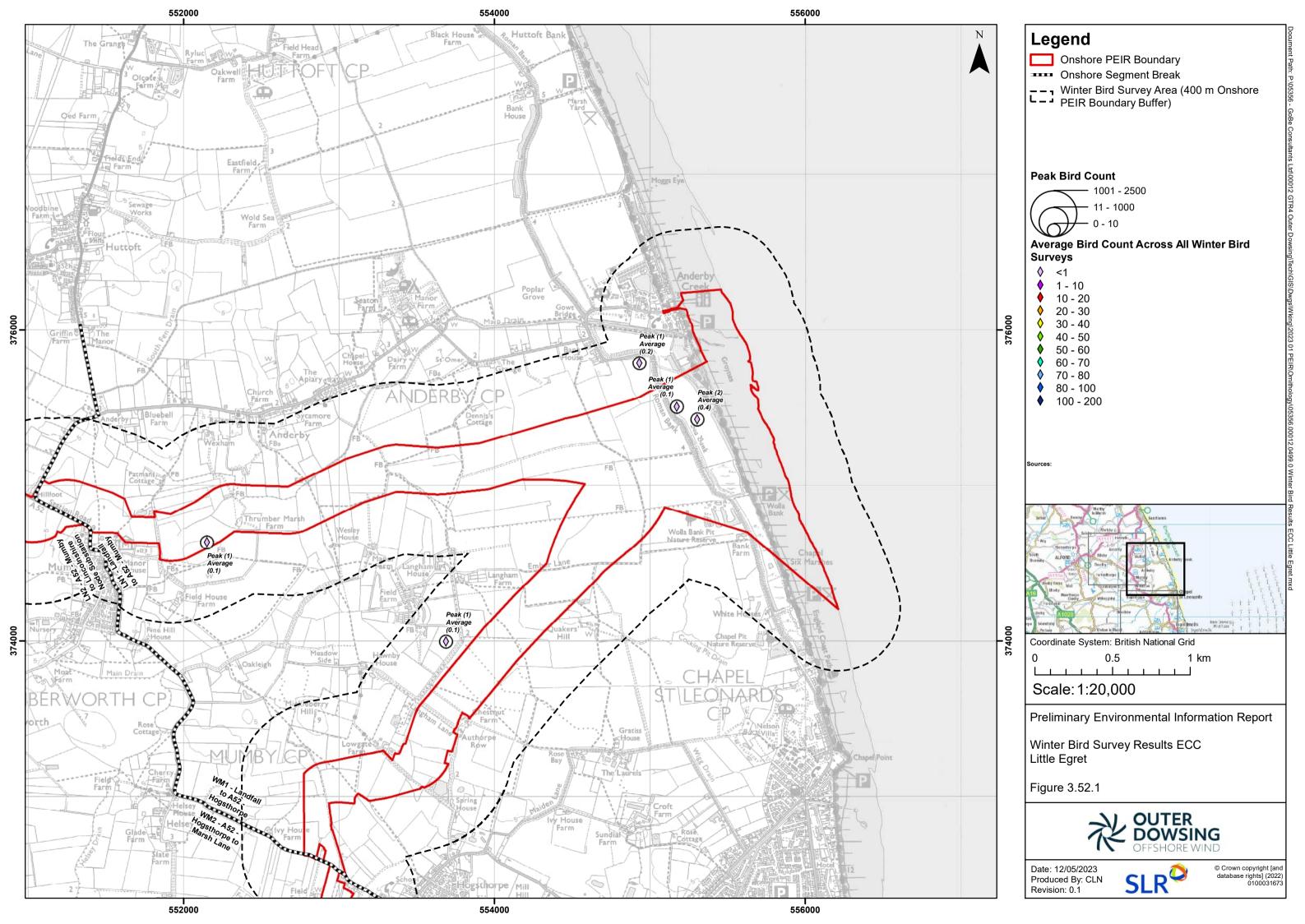


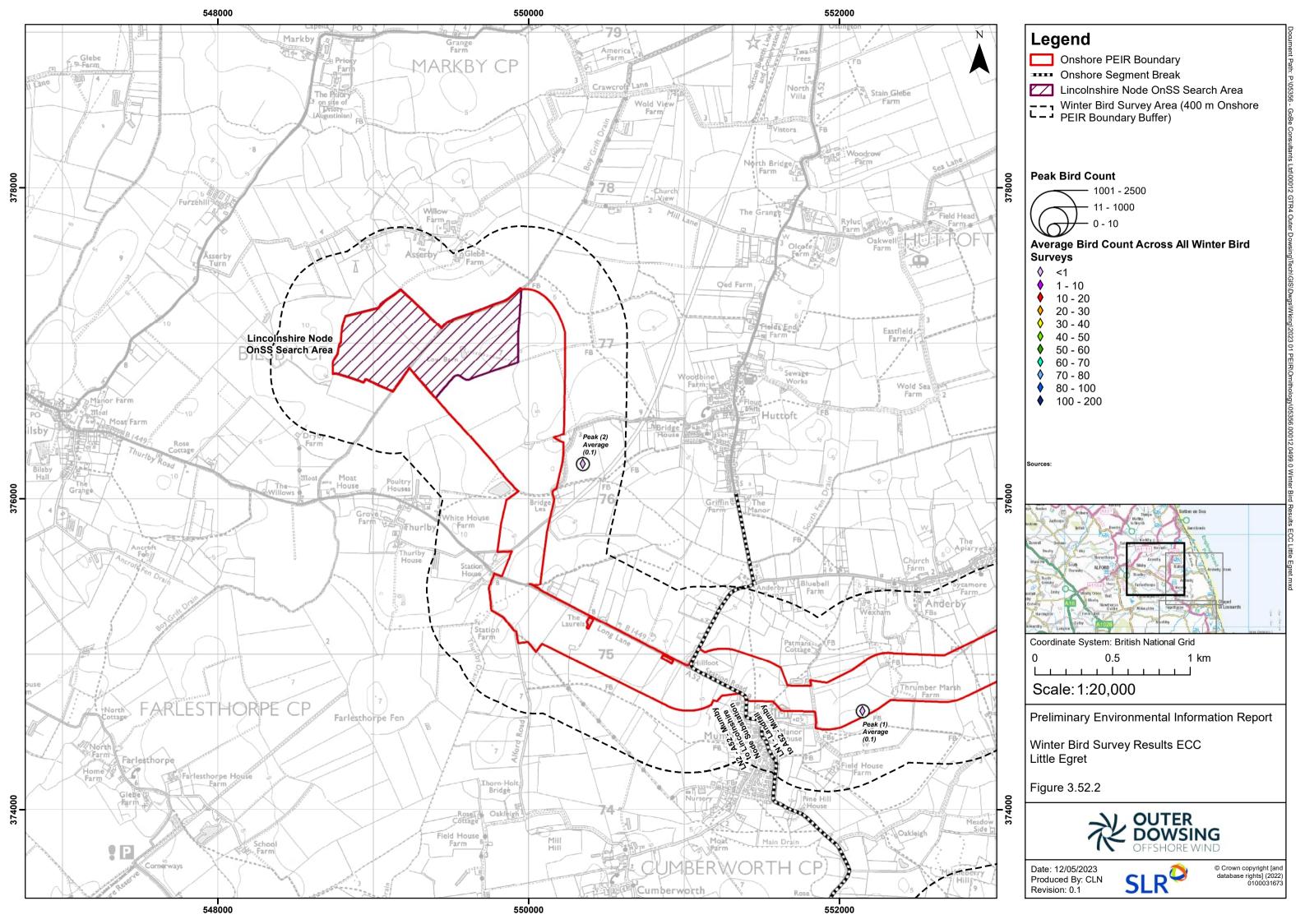


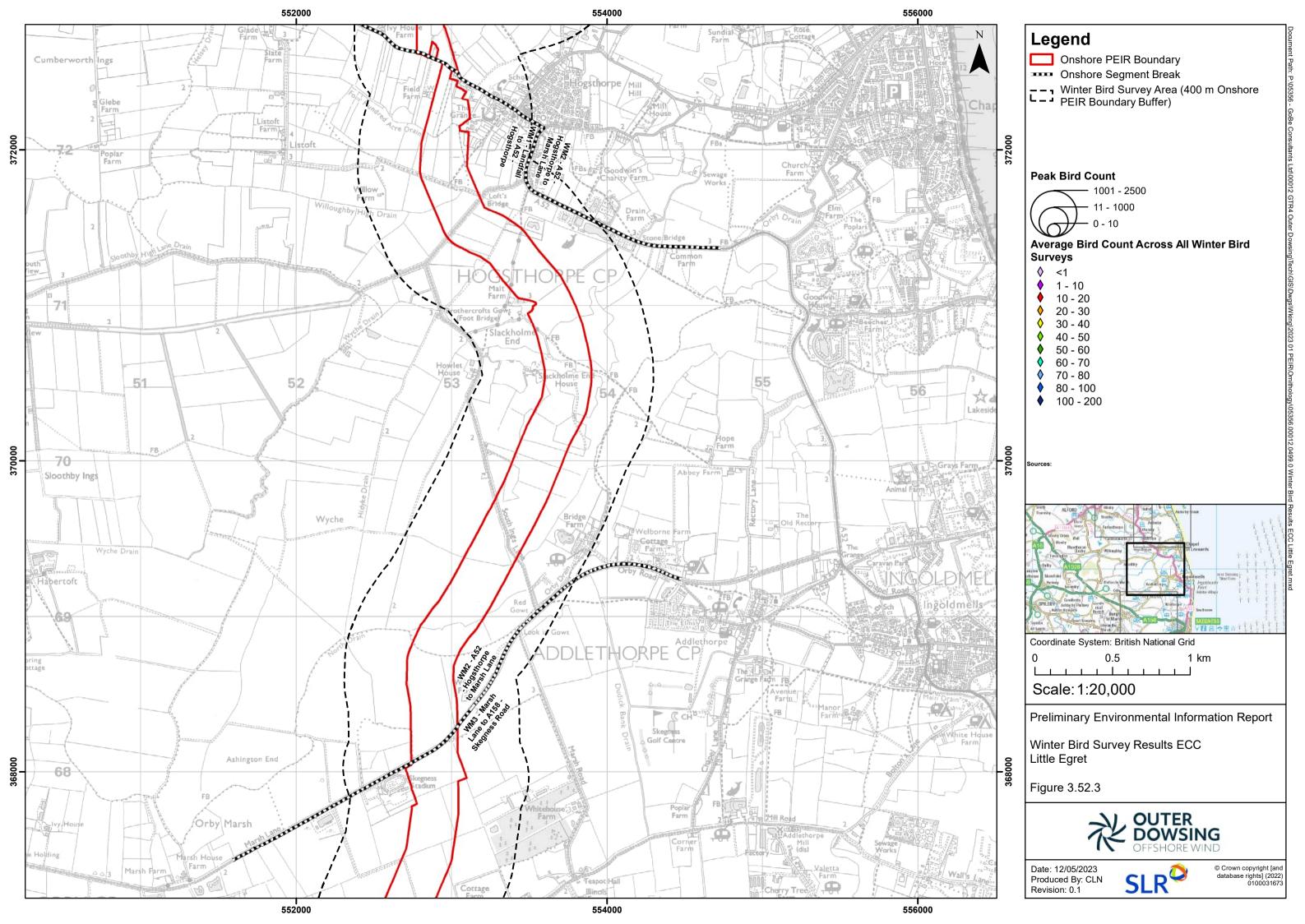


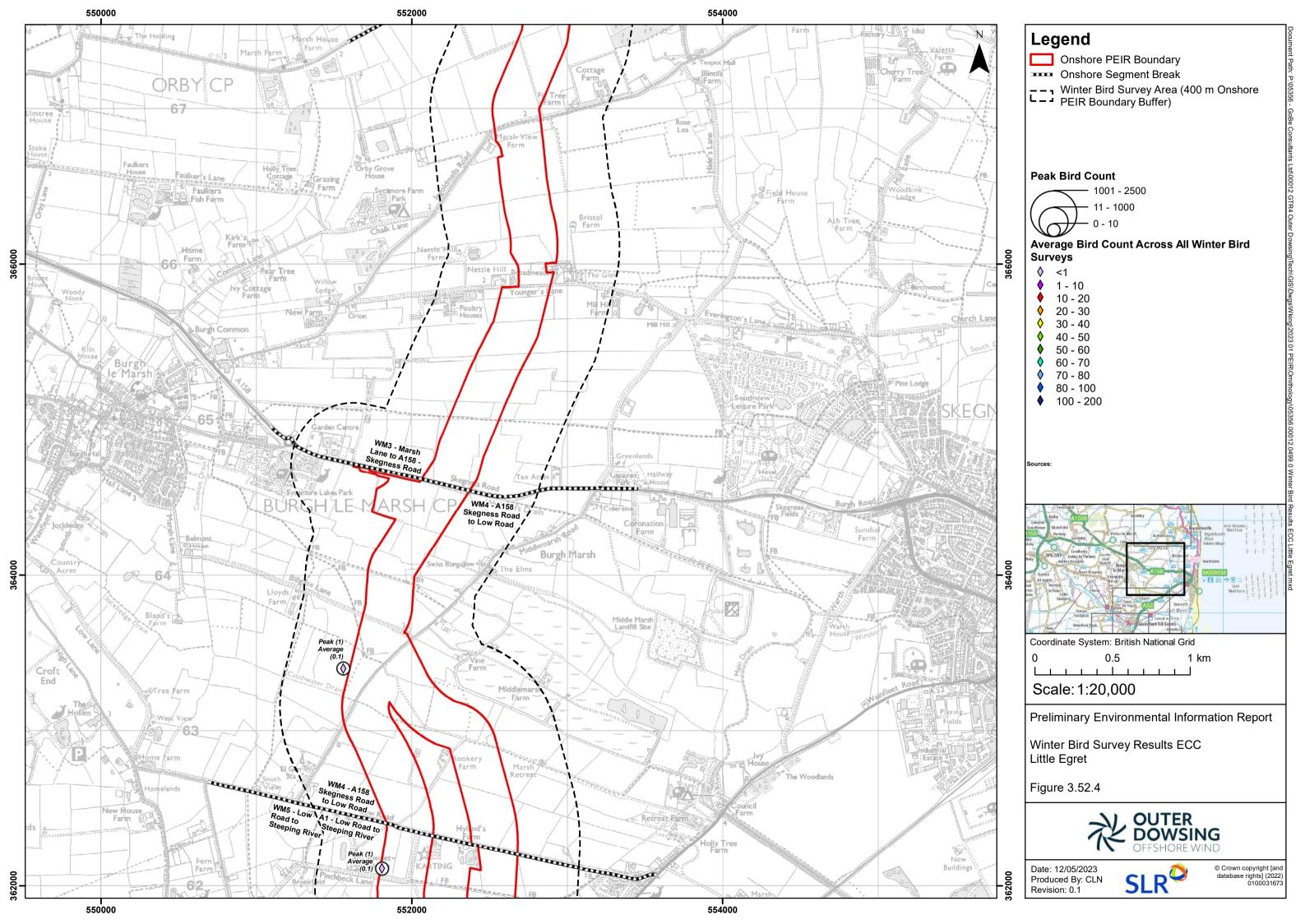


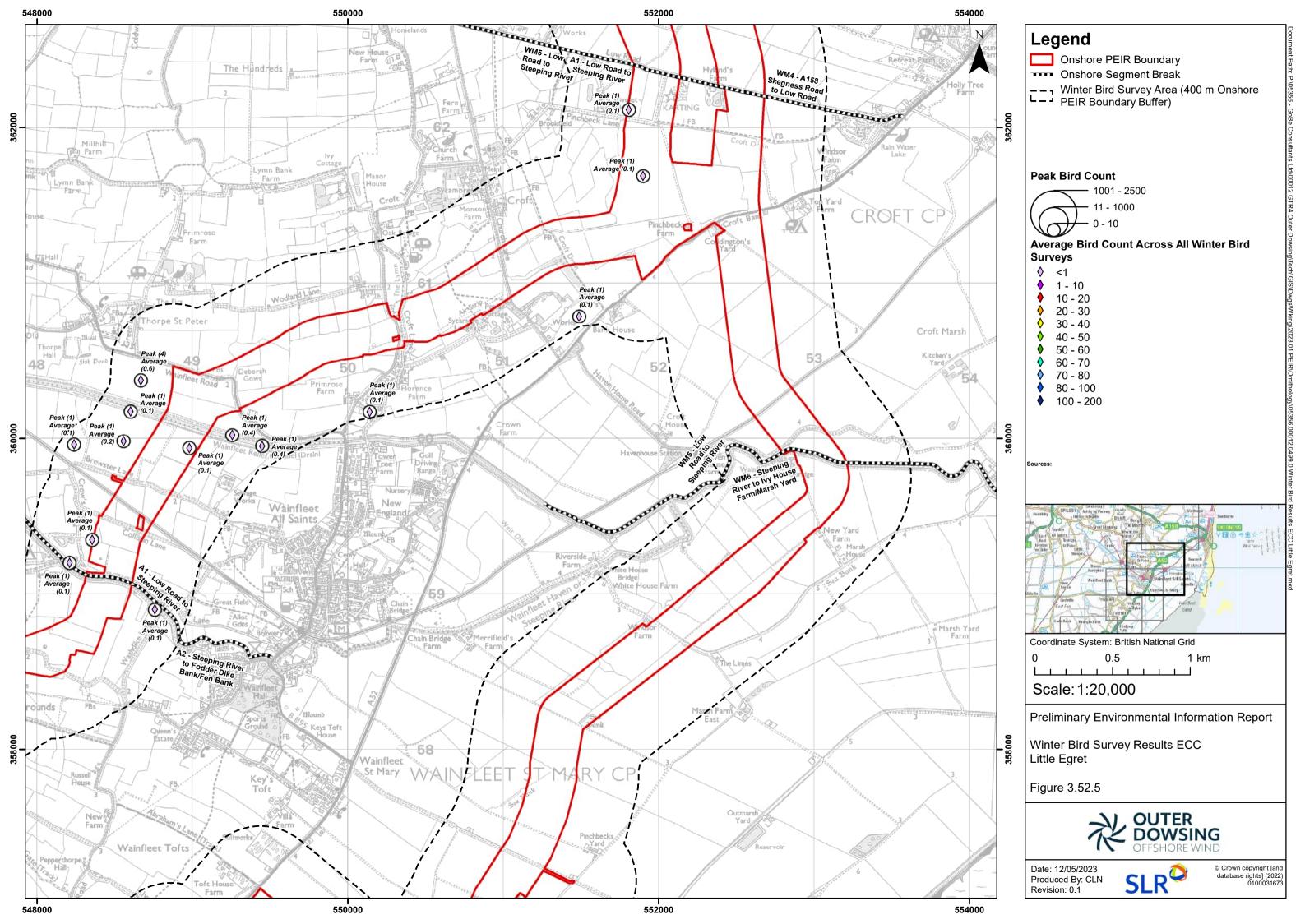


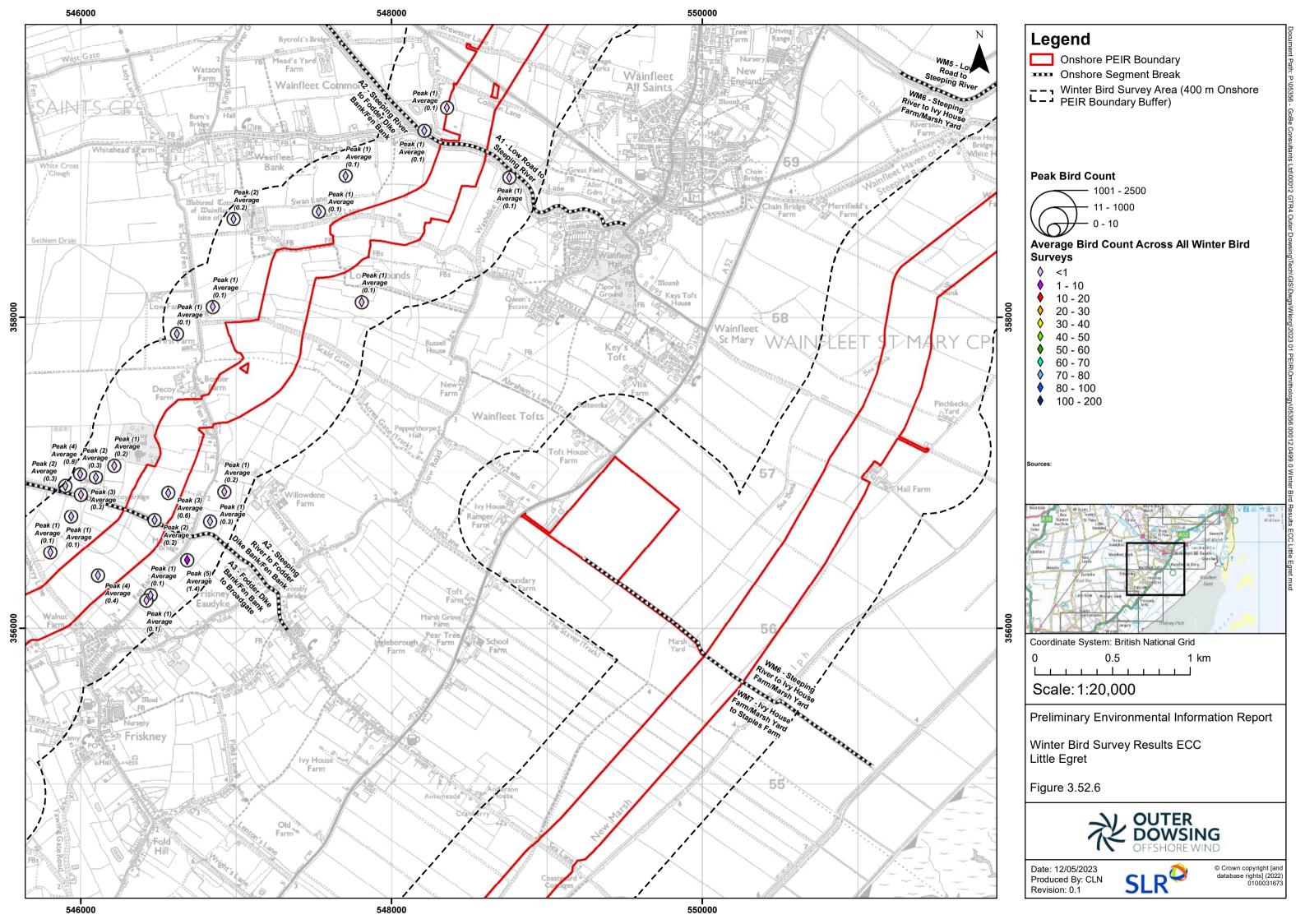


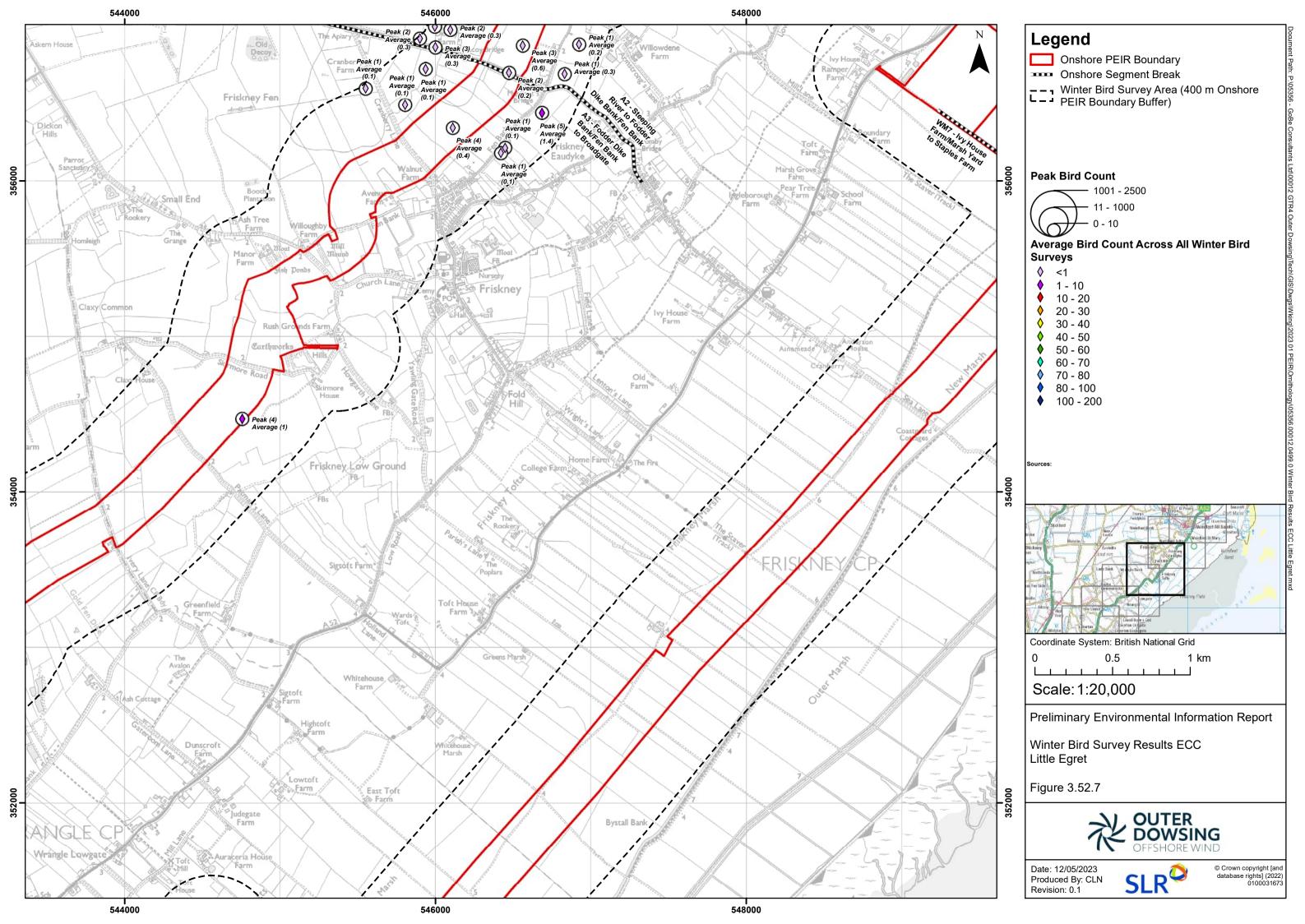


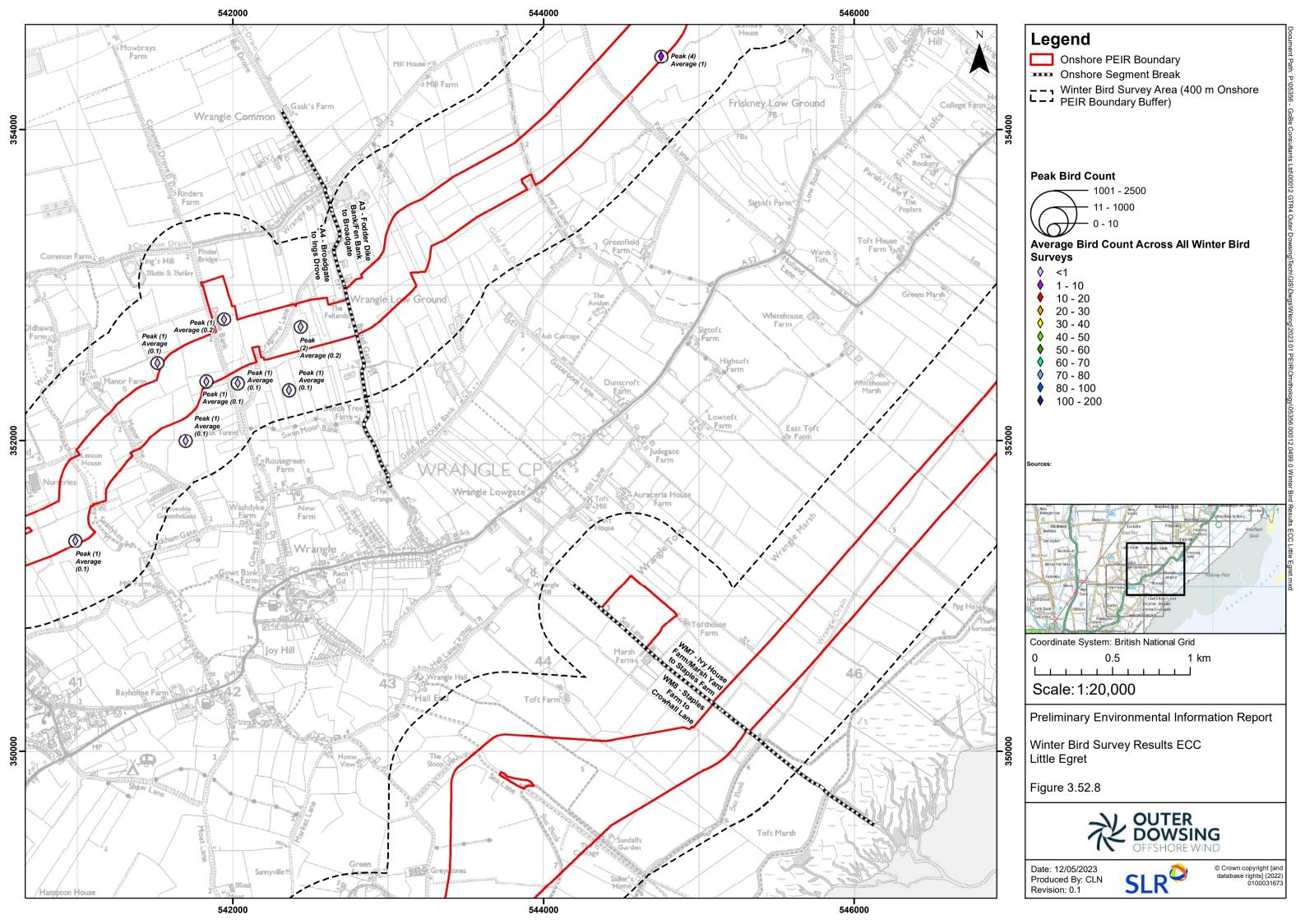


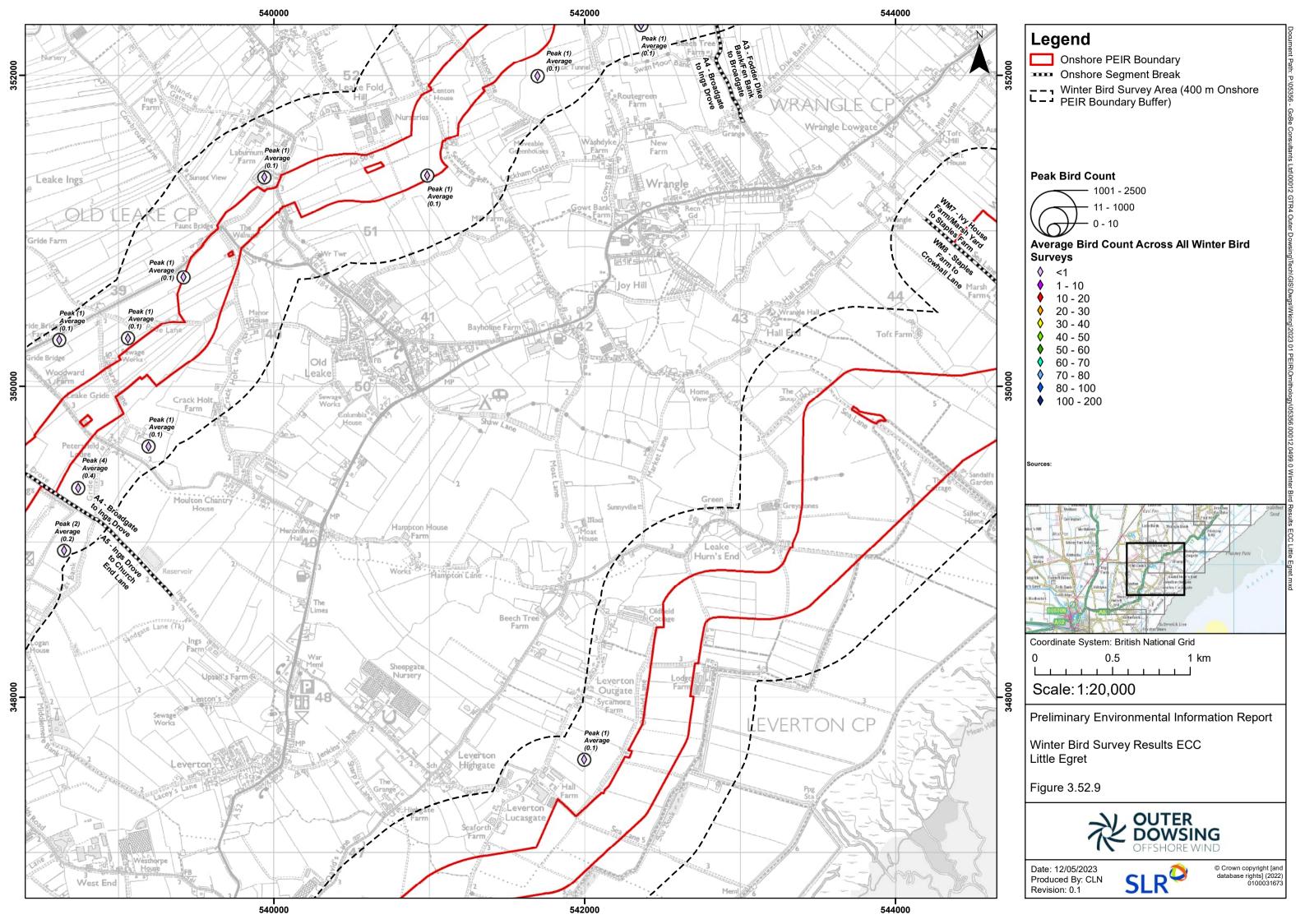


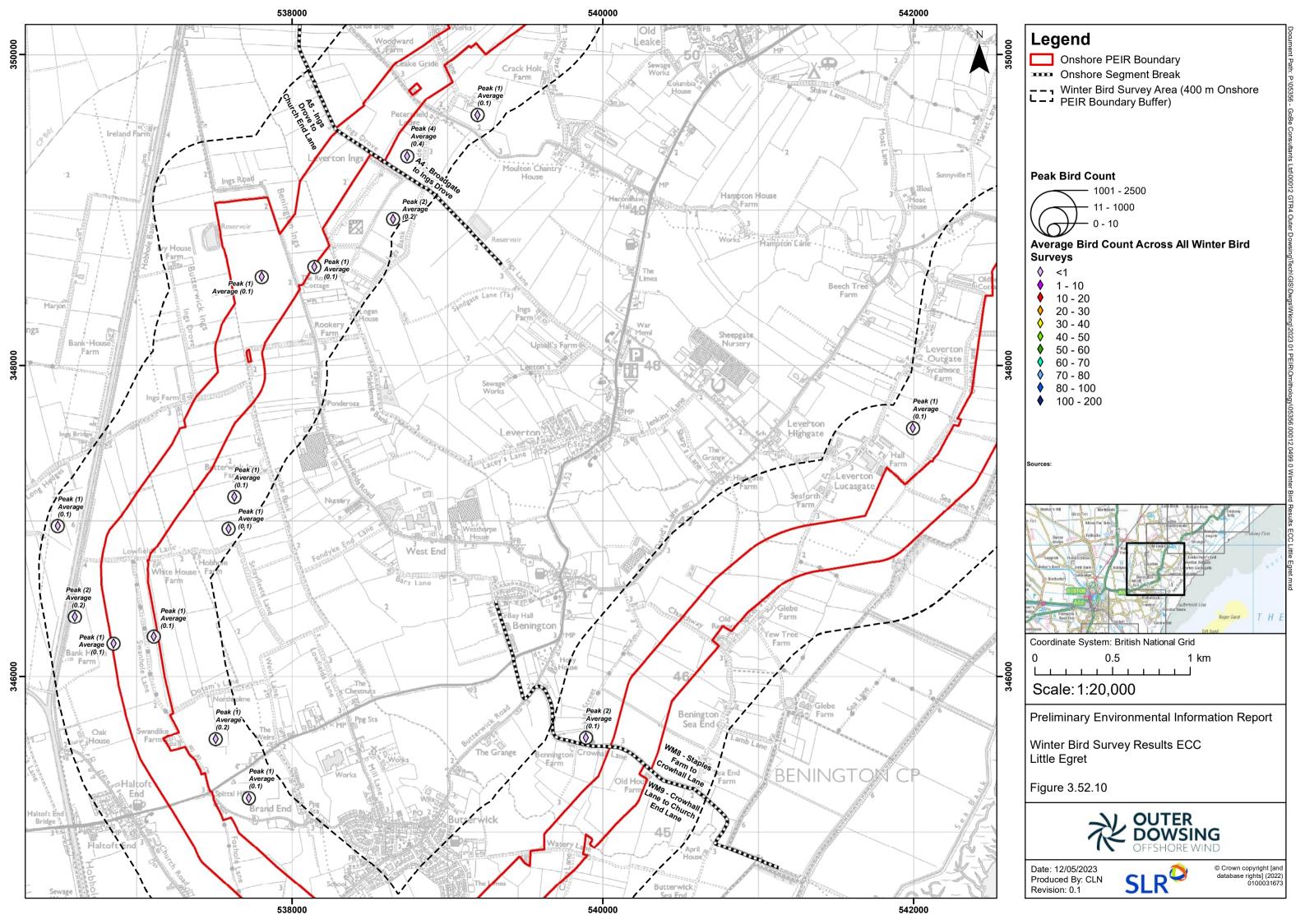


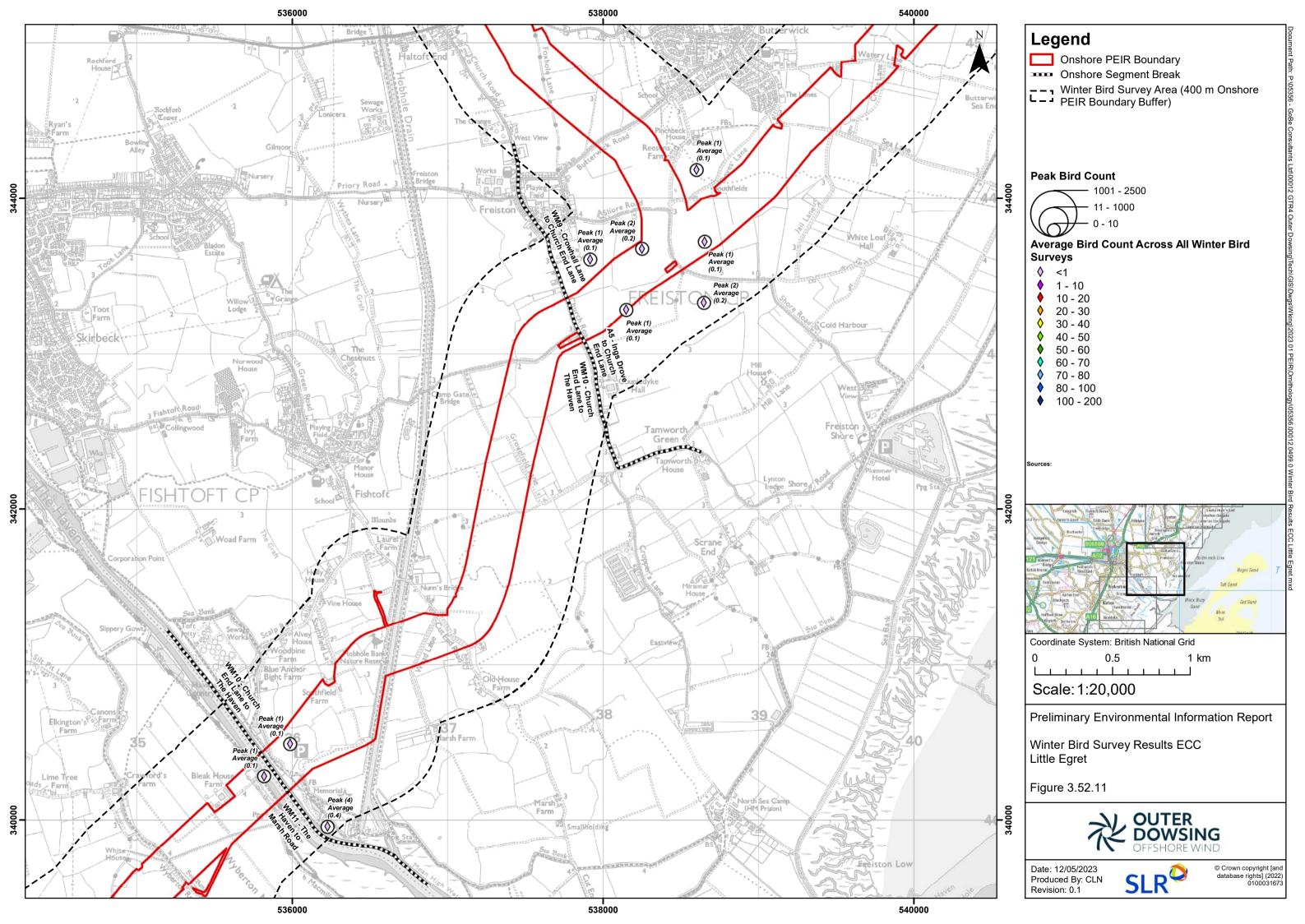


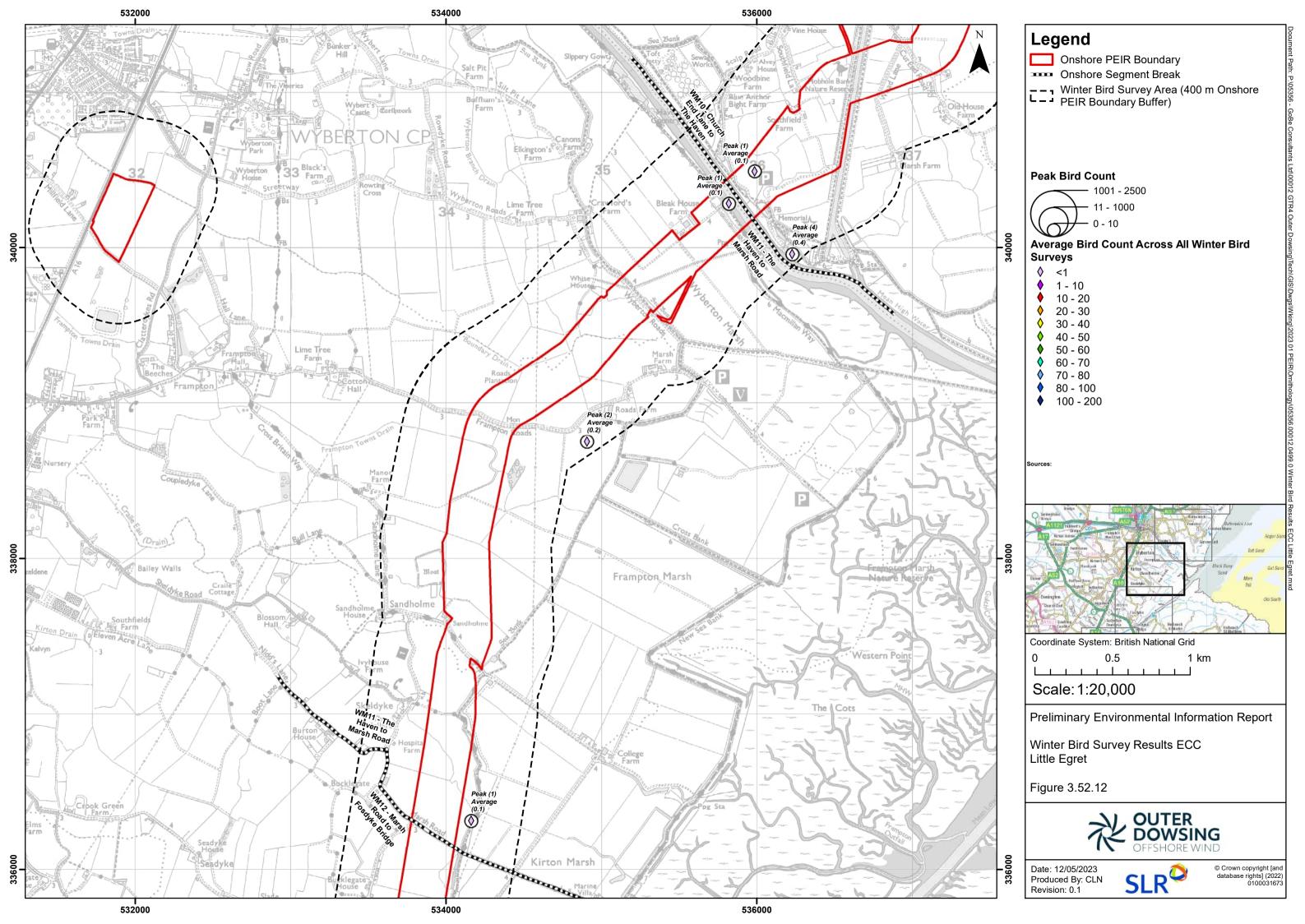


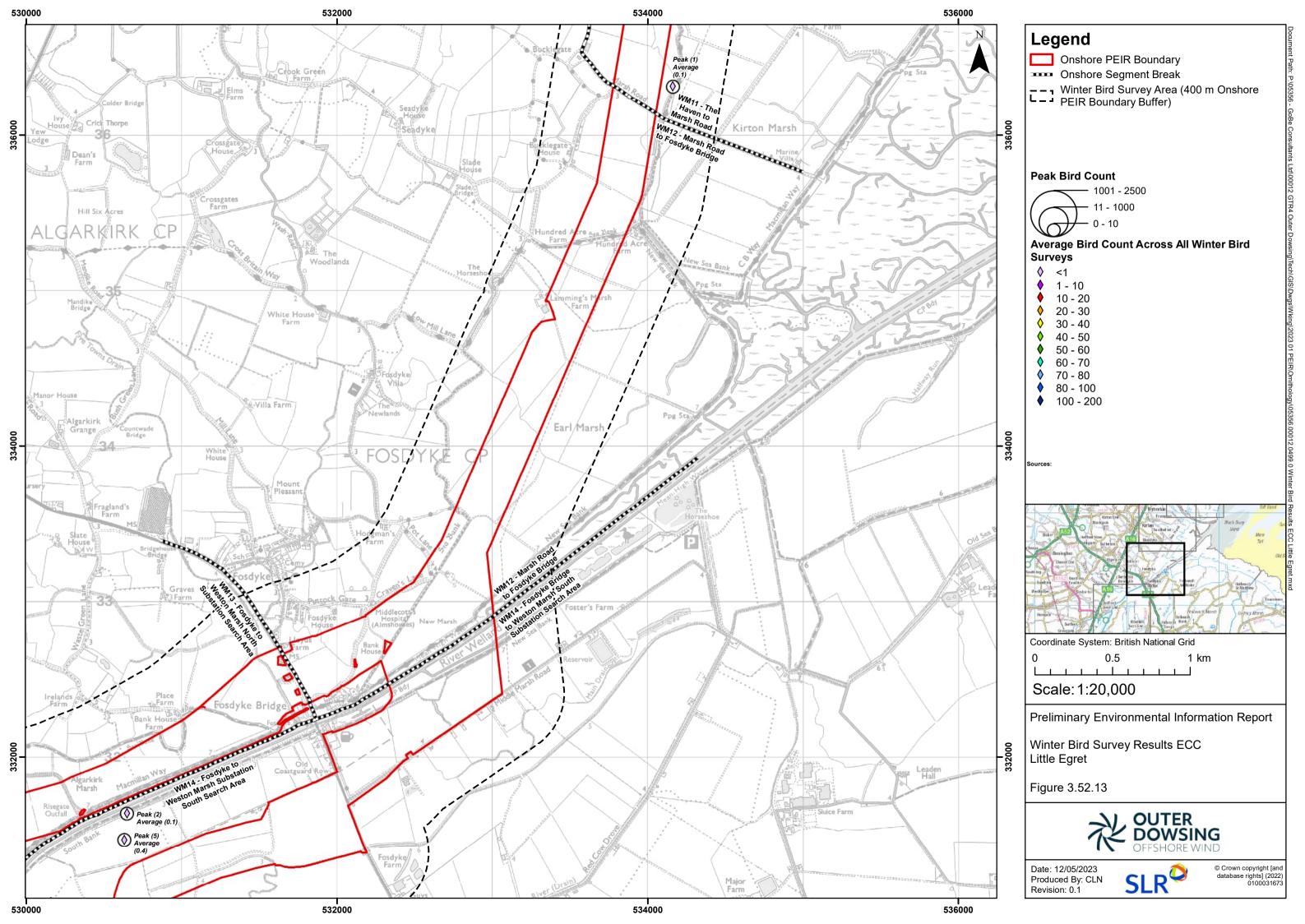


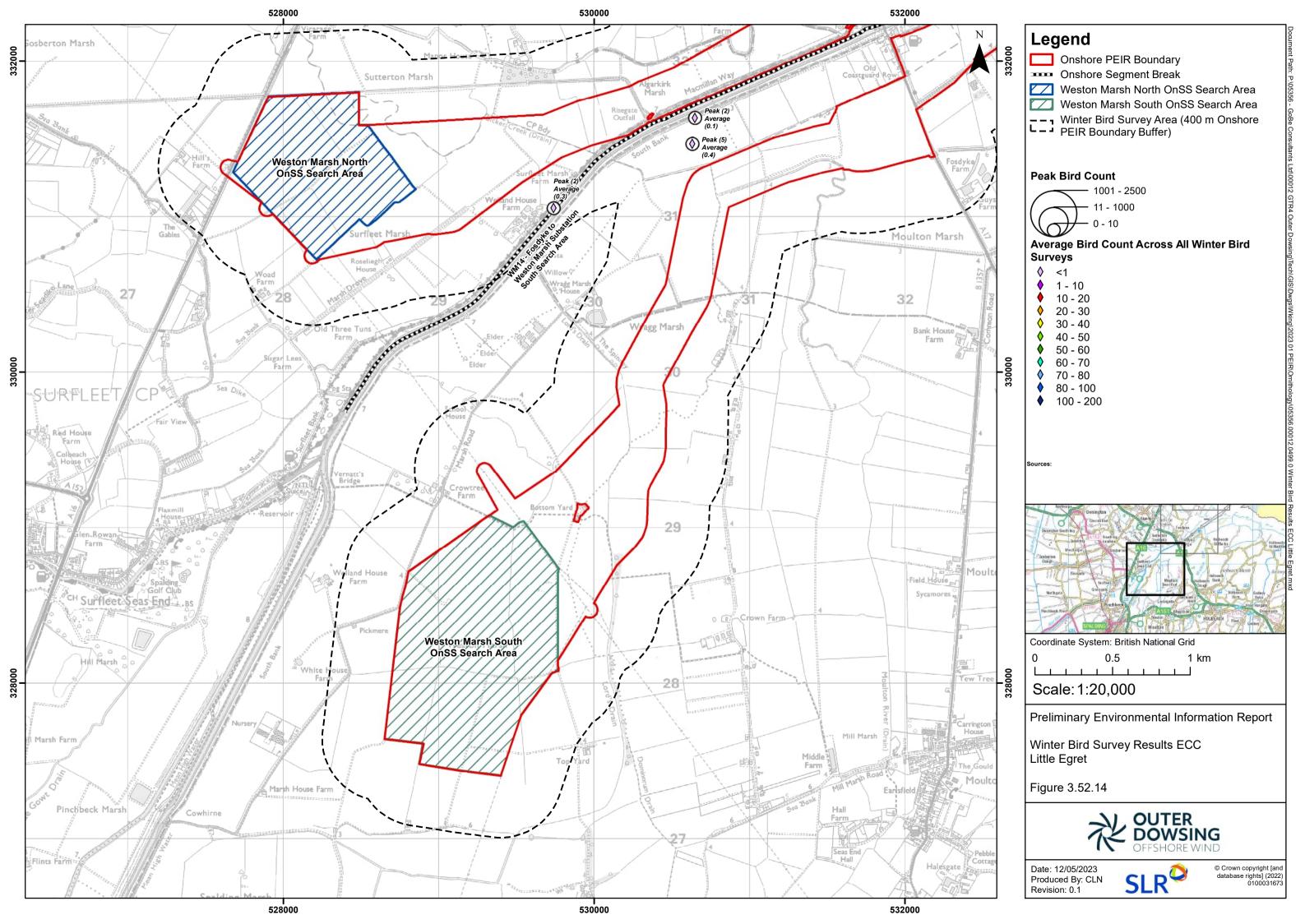












3.2.3 Flock Behaviour

The behaviours displayed by each individual species are described in the species accounts section in Table 3.4.

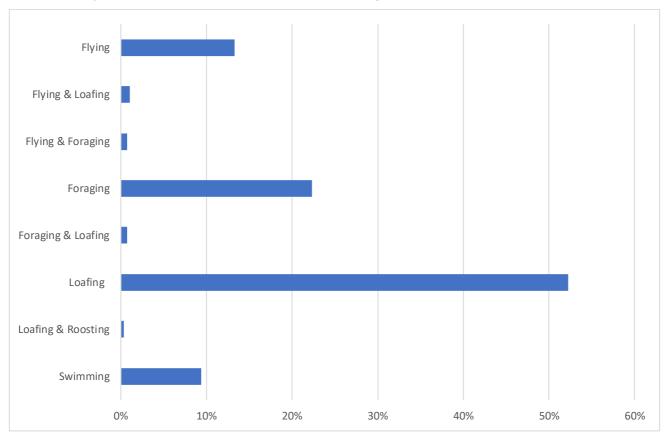
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June 2023

Wolla Bank Landfall Location

The most frequent behaviour observed among all waterbird's species combined throughout the survey season at Wolla Bank Landfall Location was loafing (52.3%), followed by foraging (22.3%) and flying (13.2%), refer to Chart 3.1.

Chart 3.1: Proportion of different behaviour observed among all waterbirds at Wolla Bank Landfall



Onshore ECC Walkover Survey Locations

The most frequent behaviour observed among all waterbird's species combined throughout the survey seasons on the onshore ECC Walkover Survey locations was foraging (40.1%), followed by loafing (36%) and flying (12%), refer to Chart 3.2.

Flying Foraging Loafing Other Roosting Swimming 0% 5% 10% 15% 20% 25% 30% 35% 40% 45%

Chart 3.2: Proportion of different behaviour observed among all waterbirds on Onshore ECC Walkover Surveys

SLR Ref No: 410.05356.00013

June 2023

3.2.4 Disturbance Events and Responses

Potential disturbance stimuli were recorded on a total of 853 occasions over all surveys at both the Wolla Bank Landfall Location and along the onshore ECC. Walkers were the most frequently recorded disturbance stimulus, followed by dogs.

Landfall **Disturbance type Onshore ECC Total** 0 22 22 Aircraft **Anglers** 5 12 **17 Bait Diggers** 2 0 2 274 Dogs 162 112 Horses 6 0 6 **Vehicles** 84 84 Walkers 285 448 163 **Total** 460 393

Table 3.4: Type of stimulus recorded at all locations

3.2.5 Species Accounts

Summary accounts of the conservation status, behaviours, and numbers and distribution of each recorded waterbird species are given in Table 3.5. Analyses of most frequently displayed behaviour types are based on the number of flocks or individuals observed exhibiting that behaviour.

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Table 3.5: Protected and priority species accounts across all locations

Species Accounts				
Species	Conservation status	Qualifying species (non- breeding) within nearby statutory designated site	Account ¹	
Dark-bellied brent goose	Amber	The Wash SPA ² (non- breeding) The Wash Ramsar (non- breeding) Gibraltar Point Ramsar (non-breeding)	Landfall: Dark-bellied brent geese were observed at the landfall location on two occasions with a peak count of seven individuals (24/10/22). All records were of flying brent geese. Lincolnshire Node: Two observations were recorded with a peak count of seven individuals flying over the survey area. Weston Marsh Onshore ECC South of the A52: 19 observations were recorded with a peak flock count of 1,100 individuals. The most common behaviour observed was foraging. Weston Marsh Onshore ECC North of the A52: No observations.	
Greylag goose	Amber	None	Landfall: A total of 32 greylag geese were observed at the landfall location on a single occasion (29/09/22) in flight over the survey area. Lincolnshire Node: 15 observations were recorded with a peak flock count of 167 individuals. The most common behaviour was loafing. Weston Marsh Onshore ECC South of the A52: 22 observations were recorded with a peak flock count of 167 individuals. The most common behaviour observed was loafing.	

¹ Note that Weston Marsh ECC South of the A52 and Lincolnshire Node both contain segment LN1/WM1 and data for that segment is therefore presented for each ECC option.

² Special Protection Areas (SPA) are protected areas for birds in the UK, classified under the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) (JNCC).

Species Accounts				
			Weston Marsh Onshore ECC North of the A52: 11 observations were recorded with a peak flock count of 61 individuals. The most common behaviour observed was foraging.	
Pink-footed goose	Amber	The Wash SPA (non- breeding) The Wash Ramsar (non- breeding) North Norfolk SPA (non- breeding) North Norfolk Ramsar (non-breeding)	Landfall: Pink-footed geese were observed at the landfall on three occasions with a peak count of two individuals (24/10/22). All records were of flying pink-footed geese. Lincolnshire Node: Six observations were recorded with a peak flock count of 17 individuals. The most common behaviour was flying. Weston Marsh Onshore ECC South of the A52: 20 observations were recorded with a peak flock count of 610 individuals. The most common behaviour observed was foraging. Weston Marsh Onshore ECC North of the A52: 18 observations were recorded with a peak flock count of 17 individuals. The most common behaviour observed was loafing.	
Mute swan	Amber	None	Lincolnshire Node: 17 observations were recorded with a peak flock count of seven individuals. The most common behaviour was foraging. Weston Marsh Onshore ECC South of the A52: 25 observations were recorded with a peak flock count of seven individuals. The most common behaviour observed was foraging. Weston Marsh Onshore ECC North of the A52: 43 observations were recorded with a peak flock count of six individuals. The most common behaviour observed was preening.	
Whooper swan	Annex 1 Schedule 1	None	Landfall: No observations.	

	Species Accounts			
	Amber		Lincolnshire Node: Three observations were recorded with a peak count of six individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: 11 observations were recorded with a peak flock count of 15 individuals. The most common behaviour observed was foraging.	
			Weston Marsh Onshore ECC North of the A52: 21 observations were recorded with a peak flock count of 17 individuals. The most common behaviour observed was flying.	
Shelduck	Amber	The Wash SPA (non- breeding)	Landfall: A single Shelduck was observed at the landfall (14/11/22), observed to be loafing.	
			Lincolnshire Node: Six observations were recorded with a peak flock count of 15 individuals. The most common behaviour was loafing.	
			Weston Marsh Onshore ECC South of the A52: Eight observations were recorded with a peak flock count of 15 individuals. The most common behaviour observed was loafing.	
			Weston Marsh Onshore ECC North of the A52: A single observation of two individuals.	
Shoveler	Amber	None	Landfall: No observations.	
			Lincolnshire Node: Four observations were recorded with a peak count of 21 individuals. The most common behaviour was swimming.	
			Weston Marsh Onshore ECC South of the A52: Five observations were recorded with a peak count of 21 individuals. The most common behaviour observed was swimming.	
			Weston Marsh Onshore ECC North of the A52: No observations.	

	Species Accounts				
Gadwall	Amber	The Wash SPA (non-	Landfall: No observations.		
		breeding)	Lincolnshire Node: Eight observations were recorded with a peak flock count of 87 individuals. The most common behaviour was swimming.		
			Weston Marsh Onshore ECC South of the A52: Eight observations were recorded with a peak flock count of 87 individuals. The most common behaviour observed was Swimming.		
			Weston Marsh Onshore ECC North of the A52: Seven observations were recorded with a peak count of two individuals. The most common behaviour observed was loafing.		
Wigeon	Amber	The Wash SPA (non- breeding)	Landfall: A total of 533 wigeon were observed at the landfall location on two occasions with a peak count of 500 individuals (13/02/23). The wigeon were observed to be loafing on both occasions.		
			Lincolnshire Node: 12 observations were recorded with a peak flock count of 460 individuals. The most common behaviour was foraging.		
			Weston Marsh Onshore ECC South of the A52: 25 observations were recorded with a peak flock count of 500 individuals. The most common behaviour observed was foraging.		
			Weston Marsh Onshore ECC North of the A52: Three observations were recorded with a peak count of 12 individuals.		
Mallard	Amber	None	Landfall: A total of three mallard were observed at the landfall location on one occasion (14/11/22) observed to be foraging and loafing.		
			Lincolnshire Node: 21 observations were recorded with a peak flock count of 43 individuals. The most common behaviour was foraging.		



			Species Accounts
			Weston Marsh Onshore ECC South of the A52: 65 observations were recorded with a peak flock count of 58 individuals. The most common behaviour observed was swimming.
			Weston Marsh Onshore ECC North of the A52: 188 observations were recorded with a peak flock count of 100 individuals. The most common behaviour observed was loafing.
Pintail	Schedule 1 Amber	The Wash SPA (non- breeding)	Landfall: A total of two pintail were observed at the landfall location on one occasion (14/11/22) observed to be loafing.
	7.1.1.2 e.		Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: No observations.
			Weston Marsh Onshore ECC North of the A52: No observations.
Teal	Amber	None	Landfall: A total of three teal flocks were observed at the landfall location on one occasion with a peak count of 12 individuals (24/10/22). The teal were observed to be foraging.
			Lincolnshire Node: 11 observations were recorded with a peak flock count of 130 individuals. The most common behaviour was foraging.
			Weston Marsh Onshore ECC South of the A52: 26 observations were recorded with a peak flock count of 130 individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: 35 observations were recorded with a peak flock count of 25 individuals. No behaviour was recorded for this species.
Pochard	Red	None	Landfall: No observations.
			Lincolnshire Node: No observations.



	Species Accounts			
			Weston Marsh Onshore ECC South of the A52: One observation was recorded with a peak flock count of nine individuals. The most common behaviour observed was swimming. Weston Marsh Onshore ECC North of the A52: No observations.	
Tufted duck	None	None	Landfall: No observations. Lincolnshire Node: No observations. Weston Marsh Onshore ECC South of the A52: One observation was recorded of 21 individuals, all swimming. Weston Marsh Onshore ECC North of the A52: No observations.	
Eider	Amber	The Wash Ramsar (non- breeding)	Landfall: A single eider was observed at the landfall location (14/11/22), which was recorded loafing. Lincolnshire Node: No observations. Weston Marsh Onshore ECC South of the A52: No observations. Weston Marsh Onshore ECC North of the A52: No observations.	
Common scoter	Schedule 1 NERC41 Red	The Wash SPA (non- breeding)	Landfall: Common scoter were observed at the landfall location on 12 occasions with a peak count of 40 individuals (14/11/22). They were observed to be swimming (49.7%), foraging (36.8%) and loafing (13.5%). Lincolnshire Node: Ten observations were recorded (offshore) with a peak count of 40 individuals. The most common behaviour observed was foraging. Weston Marsh Onshore ECC South of the A52: The only records were from segment LN1/WM1 (technically outside the segment and offshore) and therefore the results are as described for Lincolnshire Node. Weston Marsh Onshore ECC North of the A52: No observations.	



	Species Accounts			
Goosander	None	None	Landfall: No observations.	
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: One observation was recorded two individuals, both swimming.	
			Weston Marsh Onshore ECC North of the A52: Three observations were recorded with a peak count of three individuals and specific behaviour was not noted.	
Water rail	None	None	Landfall: No observations.	
			Lincolnshire Node: One observation was recorded of one individual, heard but not seen.	
			Weston Marsh Onshore ECC South of the A52: The single record was from LN1/WM1 and therefore is as described for Lincolnshire Node.	
			Weston Marsh Onshore ECC North of the A52: No observations.	
Moorhen	Amber	None	Landfall: No observations.	
			Lincolnshire Node: Three observations were recorded with a peak count of three individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: 22 observations were recorded with a peak count of eight individuals. The most common behaviour observed was swimming.	
			Weston Marsh Onshore ECC North of the A52: 62 observations were recorded with a peak count of 20 individuals. The most common behaviour observed was foraging.	
Coot	None	None	Landfall: No observations.	

			Species Accounts
			Lincolnshire Node: One observation was recorded of two individuals, both swimming.
			Weston Marsh Onshore ECC South of the A52: Five observations were recorded with a peak count of three individuals. The most common behaviour observed was swimming.
			Weston Marsh Onshore ECC North of the A52: No observations.
Little grebe	None	None	Landfall: No observations.
			Lincolnshire Node: One observation was recorded of three individuals, all swimming.
			Weston Marsh Onshore ECC South of the A52: Two observations were recorded with a peak count of three individuals. The most common behaviour observed was swimming.
			Weston Marsh Onshore ECC North of the A52: Nine observations were recorded with a peak count of two individuals. The most common behaviour observed was foraging.
Oystercatcher	Amber	The Wash SPA (non- breeding)	Landfall: Oystercatchers were observed on 15 occasions with a peak count of four individuals (29/11/22). The oystercatchers were observed to be foraging (89.3%), foraging and flying (7.1%) and loafing (3.6%).
			Lincolnshire Node: 17 observations were recorded with a peak flock count of 5 individuals. The most common behaviour was foraging.
			Weston Marsh Onshore ECC South of the A52: 35 observations were recorded with a peak flock count of 23 individuals. The most common behaviour observed was foraging.

Species Accounts			
			Weston Marsh Onshore ECC North of the A52: Two observations were recorded with a peak count of two individuals. The most common behaviour observed was foraging.
Avocet	Annex 1 Schedule 1 Amber	Humber Estuary SPA (breeding)	Landfall: No observations. Lincolnshire Node: One observation was recorded of five individuals. All birds were observed to be loafing. Weston Marsh Onshore ECC South of the A52: The only observation was from LN1/WM1 and therefore the results are as described for Lincolnshire Node. Weston Marsh Onshore ECC North of the A52: No observations.
Lapwing	NERC41 Red	The Wash Ramsar (non- breeding)	Lincolnshire Node: 20 observations were recorded with a peak flock count of 258 individuals. The most common behaviour was loafing. Weston Marsh Onshore ECC South of the A52: 72 observations were recorded with a peak flock count of 400 individuals. The most common behaviour observed was loafing. Weston Marsh Onshore ECC North of the A52: 190 observations were recorded with a peak flock count of 2,500 individuals. The most common behaviour observed was foraging.
Golden plover	Annex 1	The Wash Ramsar (non- breeding)	Landfall: Golden plovers were observed at the landfall location on four occasions with a peak count 34 individuals (14/11/22). The golden plovers were observed to be flying and loafing (65.7%) and loafing (34.3%). Lincolnshire Node: Nine observations were recorded with a peak flock count of 110 individuals. The most common behaviour was loafing.



			Species Accounts
			Weston Marsh Onshore ECC South of the A52: 25 observations were recorded with a peak flock count of 110 individuals. The most common behaviour observed was loafing.
			Weston Marsh Onshore ECC North of the A52: 72 observations were recorded with a peak flock count of 950 individuals. The most common behaviour observed was loafing.
Grey plover	Amber	The Wash SPA (non- breeding)	Landfall: Grey plover were observed at the landfall location on three occasions with a single bird being recorded each time. The grey plover were observed to be foraging on two occasions and loafing on one occasion.
			Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: Six observations were recorded with a peak count of seven individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: No observations.
Ringed plover	Red	The Wash Ramsar (non-	Landfall: No observations.
		breeding)	Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: Five observations were recorded with a peak count of four individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: One observation was recorded of two individuals. The most common behaviour observed was foraging.
Curlew	NERC41 Red	The Wash SPA (non- breeding)	Landfall: Curlew were observed at the landfall location on 17 occasions with a peak count of 18 individuals (13/02/23). The curlews were observed to be foraging (52.4%) and flying (47.6%).



			Species Accounts
			Lincolnshire Node: 30 observations were recorded with a peak flock count of 44 individuals. The most common behaviour was foraging.
			Weston Marsh Onshore ECC South of the A52: 95 observations were recorded with a peak flock count of 54 individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: 194 observations were recorded with a peak flock count of 77 individuals. The most common behaviour observed was foraging.
Black-tailed	Schedule 1	The Wash SPA (non-	Landfall: No observations.
godwit	NERC41	breeding)	Lincolnshire Node: No observations.
	Red		Weston Marsh Onshore ECC South of the A52: Two observations were recorded with a peak count of 16 individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: No observations.
Turnstone	Amber The Wash SPA breeding)	The Wash SPA (non-	Landfall: No observations.
		breeding)	Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: One observation was recorded of two individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: No observations.
Ruff	Annex 1	Humber Estuary SPA (non-	Landfall: No observations.
	Schedule 1	breeding)	Lincolnshire Node: No observations.
	Red		Weston Marsh Onshore ECC South of the A52: No observations.



	Species Accounts			
			Weston Marsh Onshore ECC North of the A52: One observation was recorded of two individuals, in flight.	
Sanderling	Amber	The Wash SPA (non- breeding)	Landfall: Sanderling were observed at the landfall location on 29 occasions with a peak count of 19 individuals (05/12/22). The Sanderling were observed to be foraging (79.7%), flying (18%) and foraging and flying (2.3%).	
			Lincolnshire Node: 28 observations were recorded with a peak flock count of 13 individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: As described for Lincolnshire Node (as LN1/WM1 only).	
			Weston Marsh Onshore ECC North of the A52: No observations.	
Dunlin	Annex 1 Red	The Wash SPA (non- breeding)	Landfall: Dunlin were observed at the landfall location on five occasions with a peak count of 17 individuals (14/11/22). The dunlin were all observed to be foraging.	
			Lincolnshire Node: Nine observations were recorded with a peak flock count of 31 individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: Ten observations were recorded with a peak flock count of 46 individuals. The most common behaviour observed was foraging.	
			Weston Marsh Onshore ECC North of the A52: No observations.	
Woodcock	Red	None	Landfall: No observations.	
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: Three observations were recorded with a peak count of one individual, all in flight.	



	Species Accounts			
Jack snipe	None	None	Landfall: No observations.	
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: One observation was recorded of a single individual and specific behaviour was not noted.	
Snipe	Amber	None	Landfall: No observations.	
			Lincolnshire Node: Three observations were recorded with a peak count of three individuals. The most common behaviour was loafing.	
			Weston Marsh Onshore ECC South of the A52: 18 observations were recorded with a peak flock count of three individuals. The most common behaviour observed was foraging.	
			Weston Marsh Onshore ECC North of the A52: 72 observations were recorded with a peak flock count of five individuals. The most common behaviour observed was foraging.	
Green sandpiper	Schedule 1	None	Landfall: No observations.	
	Amber		Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: 15 observations were recorded with a peak count of three individuals. The most common behaviour observed was flying.	
Redshank	Amber	The Wash SPA (non- breeding)	Landfall: A total of two redshanks were observed at the landfall location on one occasion (24/01/23), both foraging.	



	Species Accounts			
			Lincolnshire Node: Six observations were recorded with a peak flock count of nine individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: 28 observations were recorded with a peak flock count of 35 individuals. The most common behaviour observed was foraging.	
			Weston Marsh Onshore ECC North of the A52: 24 observations were recorded with a peak flock count of nine individuals (specific behaviour not noted).	
Black-headed gull	Amber	The Wash Ramsar (non- breeding)	Landfall: Black-headed gulls were observed at the landfall location on 46 occasions with a peak count of 30 individuals (27/03/23). The black-headed gulls were observed to be loafing (64.5%), foraging (26.8%), flying (3.6%), swimming (3.6%) and roosting (1.5%).	
			Lincolnshire Node: 54 observations were recorded with a peak flock count of 112 individuals. The most common behaviour was loafing.	
			Weston Marsh Onshore ECC South of the A52: 98 observations were recorded with a peak flock count of 137 individuals. The most common behaviour observed was loafing.	
			Weston Marsh Onshore ECC North of the A52: 29 observations were recorded with a peak flock count of 51 individuals. The most common behaviour observed was foraging.	
Common gull	Amber	None	Landfall: Common gulls were observed at the landfall location on 63 occasions with a peak count of 59 individuals (13/02/23). The common gulls were observed to be loafing (92.8%), swimming (6.4%) and flying (0.8%).	
			Lincolnshire Node: 82 observations were recorded with a peak flock count of 350 individuals. The most common behaviour was loafing.	

	Species Accounts				
			Weston Marsh Onshore ECC South of the A52: 134 observations were recorded with a peak flock count of 500 individuals. The most common behaviour observed was loafing.		
			Weston Marsh Onshore ECC North of the A52: 22 observations were recorded with a peak flock count of 197 individuals. The most common behaviour observed was foraging.		
Great black- backed gull	Amber	None	Landfall: Great black-backed gulls were observed at the landfall location on six occasions with a peak count of four individuals (10/01/23). The great blackbacked gulls were observed to be loafing with four individuals in flight.		
			Lincolnshire Node: Six observations were recorded with a peak count of four individuals. The most common behaviour was loafing.		
			Weston Marsh Onshore ECC South of the A52: 8 observations were recorded with a peak count of 6 individuals. The most common behaviour observed was loafing.		
			Weston Marsh Onshore ECC North of the A52: No observations.		
Herring gull	NERC41 Red	None	Landfall: Herring gulls were observed at the landfall location on 28 occasions with a peak count of 16 individuals (01/02/23). The herring gulls were observed to be loafing (81.1%), flying (11.6%), foraging (4.2%) and swimming (3.2%).		
			Lincolnshire Node: 34 observations were recorded with a peak flock count of 16 individuals. The most common behaviour was loafing.		
			Weston Marsh Onshore ECC South of the A52: 44 observations were recorded with a peak flock count of 80 individuals. The most common behaviour observed was loafing.		
			Weston Marsh Onshore ECC North of the A52: Two observations were recorded with a peak count of three individuals. The most common behaviour observed was foraging.		



	Species Accounts				
Lesser black- backed gull	Amber	None	Landfall: Lesser black-backed gulls were observed at the landfall location on 11 occasions with a peak count of two individuals. The lesser black-backed gulls were observed to be loafing (64.7%), flying (29.4%) and swimming (5.9%).		
			Lincolnshire Node: Ten observations were recorded with a peak count of two individuals. The most common behaviour was loafing.		
			Weston Marsh Onshore ECC South of the A52: 14 observations were recorded with a peak count of four individuals. The most common behaviour observed was loafing.		
			Weston Marsh Onshore ECC North of the A52: No observations.		
Red-throated diver	Annex 1 Schedule 1 Amber	None	Landfall: Red-throated divers were observed at the landfall location on 11 occasions with single individuals recorded on various dates. The red-throated divers were observed to be loafing (63.6%) and swimming (36.4%). Lincolnshire Node: No observations. Weston Marsh Onshore ECC South of the A52: No observations. Weston Marsh Onshore ECC North of the A52: No observations.		
Great northern diver	Annex 1 Schedule 1 Amber	None	Landfall: Great northern divers were observed at the landfall location on seven occasions with single individuals recorded on various dates. The great northern divers were observed to be loafing (42.9%), flying (28.6%) and swimming (28.6%). Lincolnshire Node: No observations. Weston Marsh Onshore ECC South of the A52: No observations. Weston Marsh Onshore ECC North of the A52: No observations.		
Cormorant	None	None	Landfall: Cormorant were observed at the landfall location on 12 occasions with a peak count of three individuals (01/02/23). The cormorants were observed to be foraging (50%), flying (22.7%), loafing (13.6%) and swimming (13.6%).		



Species Accounts				
			Lincolnshire Node: 11 observations were recorded with a peak count of three individuals. The most common behaviour was foraging.	
			Weston Marsh Onshore ECC South of the A52: 25 observations were recorded with a peak flock count of 11 individuals. The most common behaviour observed was swimming.	
			Weston Marsh Onshore ECC North of the A52: 18 observations were recorded with a peak flock count of four individuals. The most common behaviour observed was flying.	
Grey heron	None	None	Landfall: No observations.	
			Lincolnshire Node: Four observations were recorded with a peak count of one individual. The most common behaviour was loafing and foraging.	
			Weston Marsh Onshore ECC South of the A52: Ten observations were recorded with a peak count of one individual. The most common behaviour observed was foraging.	
			Weston Marsh Onshore ECC North of the A52: 34 observations were recorded with a peak flock count of three individuals. The most common behaviour observed was foraging.	
Great white	Amber	None	Landfall: No observations.	
egret			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: Two observations were recorded with a peak count of one individual. The most common behaviour observed was foraging.	
Little egret	Annex 1	None	Landfall: No observations.	

			Species Accounts
			Lincolnshire Node: 11 observations were recorded with a peak count of two individuals. The most common behaviour was foraging.
			Weston Marsh Onshore ECC South of the A52: 33 observations were recorded with a peak flock count of five individuals. The most common behaviour observed was foraging.
			Weston Marsh Onshore ECC North of the A52: 92 observations were recorded with a peak flock count of five individuals. The most common behaviour observed was foraging.
Non-waterbird r	records of Anne	x 1, Schedule 1, NERC4	1, BOCC Red/Amber species
Stock dove	Amber	None	Landfall: No observations.
			Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: Four observations were recorded with a peak flock count of 37 individuals (specific behaviour not noted ³)
			Weston Marsh Onshore ECC North of the A52: 15 observations were recorded with a peak flock count of 138 individuals (specific behaviour not noted).
Sparrowhawk	Amber	None	Landfall: No observations.
			Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: Two observations were recorded with a peak count of one individual (specific behaviour not noted).
			Weston Marsh Onshore ECC North of the A52: 11 observations were recorded with a peak count of one individual (specific behaviour not noted).

³ Specific behaviour was noted for non-waterbird species incidentally or where behaviour was notable, as the survey was focussed on recording target waterbird species.

			Species Accounts
Marsh harrier	Annex 1	Humber Estuary SPA (breeding)	Landfall: No observations.
	Schedule 1 Amber		Lincolnshire Node: Nine observations were recorded with a peak count of 110 individuals. The most common behaviour was loafing.
	Ambei		Weston Marsh Onshore ECC South of the A52: Eight observations were recorded with a peak count of two individuals. The most common behaviour observed was flying.
			Weston Marsh Onshore ECC North of the A52: One observation was recorded of one individual (specific behaviour not noted).
Hen harrier	Annex 1	Humber Estuary SPA (non-	Landfall: No observations.
	Schedule 1	breeding)	Lincolnshire Node: No observations.
	NERC41		Weston Marsh Onshore ECC South of the A52: No observations.
	Red		Weston Marsh Onshore ECC North of the A52: One observation was recorded of two individuals (specific behaviour not noted).
Red kite	Annex 1	None	Landfall: No observations.
	Schedule 1		Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: One observation was recorded of two individuals. The observation as of a pair in flight.
			Weston Marsh Onshore ECC North of the A52: Six observations were recorded with a peak count of three individuals. The most common behaviour observed was flying.
Barn owl	Schedule 1	None	Landfall: No observations.
			Lincolnshire Node: One observation was recorded of one individual. The solitary bird was observed flying.



Species Accounts				
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: 12 observations were recorded with a peak count of 3 individuals. The most common behaviour observed was flying.	
Kingfisher	Annex 1	None	Landfall: No observations.	
	Schedule 1		Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: 11 observations were recorded with a peak count of one individual. The most common behaviour observed was flying.	
Kestrel	Amber	None	Landfall: No observations.	
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: Four observations were recorded with a peak count of one individual (specific behaviour not noted).	
			Weston Marsh Onshore ECC North of the A52: 101 observations were recorded with a peak count of 10 individuals (specific behaviour not noted).	
Peregrine	Annex 1	None	Landfall: No observations.	
	Schedule 1		Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: Two observations were recorded with a peak count of one individual. The behaviours observed were flying and loafing.	

			Species Accounts
			Weston Marsh Onshore ECC North of the A52: Four observations were recorded with a peak count of one individual. The most common behaviours observed were foraging and flying.
Skylark	NERC41	None	Landfall: No observations.
	Red		Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: Six observations were recorded with a peak flock count of 280 individuals. The most common behaviour observed was flying.
			Weston Marsh Onshore ECC North of the A52: 105 observations were recorded with a peak flock count of 85 individuals. The most common behaviour observed was flying.
Cetti's warbler	Schedule 1	None	Landfall: No observations.
			Lincolnshire Node: Five observations were recorded with a peak count of six individuals. The most common behaviour was flying.
			Weston Marsh Onshore ECC South of the A52: No observations.
			Weston Marsh Onshore ECC North of the A52: No observations.
Tree sparrow	NERC41	None	Landfall: No observations.
	Red		Lincolnshire Node: No observations.
			Weston Marsh Onshore ECC South of the A52: No observations.
			Weston Marsh Onshore ECC North of the A52: Nine observations were recorded with a peak flock count of 16 individuals. The most common behaviour observed was foraging.
Grey wagtail	Amber	None	Landfall: No observations.



Species Accounts				
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: No observations.	
			Weston Marsh Onshore ECC North of the A52: One observation was recorded with a peak count of two individuals. The most common behaviour observed was foraging.	
Linnet	Red	None	Landfall: No observations.	
			Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: One observation was recorded of 50 individuals. No behaviour was recorded for this species.	
			Weston Marsh Onshore ECC North of the A52: Ten observations were recorded with a peak flock count of 48 individuals. The most common behaviour observed was foraging.	
Yellowhammer	NERC41	None	Landfall: No observations.	
	Red		Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: One observation was recorded seven individuals (specific behaviour not noted).	
			Weston Marsh Onshore ECC North of the A52: 37 observations were recorded with a peak flock count of 65 individuals (specific behaviour not noted).	
Reed bunting	NERC41	None	Landfall: No observations.	
	Amber		Lincolnshire Node: No observations.	
			Weston Marsh Onshore ECC South of the A52: One observation was recorded with a peak count of two individuals (specific behaviour not noted).	



Species Accounts			
			Weston Marsh Onshore ECC North of the A52: Three observations were recorded with a peak count of 25 individuals (specific behaviour not noted).



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4.0 References

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