

# ENVIRONMENTAL STATEMENT – VOLUME 3 – APPENDIX 8.3

# **Wintering Bird Survey Report**

# **Drax Bioenergy with Carbon Capture and Storage**

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations, 2009 – Regulation 5(2)(a)

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# **EXECUTIVE SUMMARY**

Drax Power Limited intends to install post combustion carbon capture technology at the biomass power generating units at the Drax Power Station in Selby, North Yorkshire in order to remove approximately 95% of the carbon dioxide from the flue gas, resulting in overall negative emissions of greenhouse gases. WSP UK Ltd. was commissioned by Drax Power Limited to conduct Wintering Bird Surveys of an area surrounding Drax Power Station.

At the time the surveys were completed, the Proposed Scheme included provision to upgrade the existing Drax Jetty, to enable the delivery of Abnormal Indivisible Loads via the River Ouse. Surveys therefore included coverage of this area. The Drax Jetty and the route that would have been used to access it, have since been removed from the Proposed Scheme. All survey data collected is nevertheless included in this report.

Wintering birds including Western marsh harrier *Circus aeruginosus*, redwing *Turdus iliacus*, peregrine *Falco peregrinus*, kingfisher *Alcedo atthis* and fieldfare *Turdus pilaris* were found to be present locally during the desk study undertaken as part of the PEA (March 2021). Due to the proximity of statutory designated sites with suitable habitat for supporting overwintering birds including The Humber Estuary and the Lower Derwent Valley, targeted wintering bird surveys were subsequently commissioned by Drax Power Limited.

Twelve wintering bird survey visits were undertaken on the following dates: 27 October 2020, 28 October 2020, 25 November 2020, 26 November 2020, 10 December 2020, 7 January 2021, 25 January 2021, 12 February 2021, 23 February 2021, 3 March 2021 and 17 March 2021. The surveys comprised walking a transect route and listening and watching for birds. All bird species heard or seen were recorded.

A total of 67 bird species were recorded in or commuting through the Site during the wintering bird survey. Of these species, 13 were considered winter visitors to the Site, whilst the rest were resident. A total of 37 of the species recorded are legally protected or species of conservation concern.

The birds considered as winter visitors were seen both feeding within the Site and commuting overhead through the Site. These included brambling *Fringillidae montifringilla*, common gull *Larus canus*, fieldfare, great black backed gull *Larus marinus*, herring gull *Larus argentatus*, marsh harrier, pink footed goose *Anser brachyrhynchus*, redwing, whooper swan *Cygnus cygnus*, cormorant *Phalacrocorax carbo*, little egret *Egretta garzetta*, golden plover *Pluvialis apricaria* and wigeon *Anas penelope*. These birds were recorded in arable fields, hedgerows, scrub and woodland habitats. The Site therefore supports wintering bird species.

# 1. INTRODUCTION

### 1.1. PROJECT BACKGROUND

- 1.1.1. WSP UK Ltd. (hereafter referred to as 'WSP') was commissioned by Drax Power Limited to conduct Wintering Bird Surveys (WBS) of an area surrounding Drax Power Station, located near Drax, Selby (centred on National Grid Reference SE 66477 26590; site location is shown on **Figure 1**).
- 1.1.2. Drax Power Limited intends to install post combustion carbon capture technology at up to two of the existing 600 MWe biomass power generating units at the Drax Power Station in Selby, North Yorkshire (hereafter referred to as the 'Proposed Scheme'). This will remove approximately 95% of the carbon dioxide from the flue gas, resulting in overall negative emissions of greenhouse gases.
- 1.1.3. A full description of the Proposed Scheme is provided in Chapter 2 (Site and Project Description) of Volume 1 of the ES (document reference 6.1.2). The Order Limits of the Proposed Scheme are shown on Figure 1.

### 1.2. ECOLOGICAL BACKGROUND

- 1.2.1. In April 2021, WSP conducted a Preliminary Ecological Appraisal (PEA) to gather information on ecological features of the Proposed Scheme and up to 30m of the surrounding environment, with an additional area to the east along Carr Lane Redhouse Lane. This also included a desk study which was carried out in March 2021 (WSP, 2021b).
- 1.2.2. Wintering birds such as marsh harrier *Circus aeruginosus*, Redwing *Turdus iliacus*, Peregrine *Falco peregrinus*, Kingfisher *Alcedo atthis* and Fieldfare *Turdus pilaris* were found to be present locally during the desk study undertaken as part of the PEA. The Humber Estuary (located approximately 6.4 km from the Proposed Scheme) is designated as a Special Protection Area (SPA), Special Area of Conservation (SAC) and a Ramsar site, which supports important numbers of waterbirds (especially geese, ducks and waders) during the migration periods and in winter. The Lower Derwent Valley SPA and Ramsar (approximately 4.7 km from the Site) is also designated on the basis of the breeding and wintering bird community that uses the site.
- 1.2.3. Due to the close proximity of these statutory designated sites to the Site and the presence of suitable habitat for supporting overwintering birds on Site, targeted wintering bird surveys were commissioned by Drax Power Limited.
- 1.2.4. The purpose of these surveys was to establish the level of wintering bird activity in the vicinity of the Proposed Scheme, in order to inform subsequent assessments of the impact of the Proposed Scheme on wintering birds, including those associated with the nearby designated sites.

1.2.5. At the time the surveys were completed, the Proposed Scheme included provision to upgrade the existing Drax Jetty, to enable the delivery of Abnormal Indivisible Loads via the River Ouse. Surveys therefore included coverage of this area. The Drax Jetty and the route that would have been used to access it, have since been removed from the Proposed Scheme. All survey data collected is nevertheless included in this report.

### 1.3. LEGISLATION AND PLANNING POLICY CONTEXT

- 1.3.1. The Habitat Regulations 2017 Part 1 Regulation 10 (2) & (3) (HMSO, 2017) state that local authorities 'must take such steps in the exercise of their functions as they consider appropriate to contribute to...the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the UK including by means of the upkeep, management and creation of such habitat...'. The legislation continues to state that economic and recreation requirements must be taken into consideration in considering which measures are appropriate.
- 1.3.2. Under the Wildlife and Countryside Act (WCA) 1981 (as amended) (HMSO, 1981) all wild birds are protected from killing and injury, and their nests and eggs protected from taking, damage and destruction whilst in use. Additional protection is extended to species listed under Schedule 1 of the Act, meaning it is also an offence to disturb these species at or near the nest, or whilst they have dependent young.
- 1.3.3. Various bird species are also identified as Species of Principal Importance (SPI) via the provisions of Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (HMSO, 2006). Under Section 40 of the NERC Act 2006 public bodies (including local planning authorities) have a duty to have regard to the conservation of SPI when carrying out their functions, including determining planning applications.
- 1.3.4. The United Kingdom Biodiversity Action Plan (UKBAP) (JNCC, 1994) is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The priority species generally correlate with those listed in accordance with Section 41 of the NERC Act. The national BAP is supplemented by Local Biodiversity Action Plans (LBAP) which identify habitats and species of particular value or concern at the local level. The UKBAP has now been replaced by the UK Post-2010 Biodiversity Framework (JNCC, 2012), however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant.
- 1.3.5. The Birds of Conservation Concern 5 (Stanbury et al., 2021) comprises a 'red list' of species of high conservation concern and an 'amber' list of species of moderate conservation concern. Red or amber listing does not confer additional protection under legislation or planning policy; however, it provides a basis for informing evaluation of a Site and for targeting conservation effort and is a widely used resource for interpreting bird populations.

1.3.6. At the national level the National Planning Policy Framework (2012) (NPPF, 2012) forms the basis for planning development decisions with respect to conserving and enhancing the natural environment, including birds; the ODPM circular 06/05 (ODPM, 2005) also provides supplementary guidance, including confirmation that:

*"the presence of a protected species is a material consideration when a planning authority is considering a development proposal."* 

1.3.7. The NPPF sets out, amongst other points, how at an overview level the "planning system should contribute to and enhance the natural and local environment by:

Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."

1.3.8. The NPPF also sets out how planning policies should "*minimise impacts on biodiversity by the:* 

"[promotion of] the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations..."

1.3.9. At a local level the Selby District Local Plan (SDLP, 2005) states that:

"Development and other land use changes which may harm badgers and other species protected by Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981, as amended, or the EC Habitats and Species Directive will not be permitted."

1.3.10. The Selby District Core Strategy Local Plan (TSDCSLP, 2013) adds to this by:

"Ensuring developments retain, protect and enhance features of biological and geological interest and provide appropriate management of these features and that unavoidable impacts are appropriately mitigated and compensated for, on or off-site."

# 2. METHODS

### 2.1. WINTERING BIRD SURVEY

- 2.1.1. The wintering bird survey visits were completed within the Site between November 2020 and March 2021. The surveys were conducted using transect methodology.
- 2.1.2. The Site location with the survey transect route is shown in **Figure 1**.
- 2.1.3. The wintering bird surveys were focused on identifying the presence of winter visitors, such as those found in the nearby statutory designated sites. All surveys were completed in the early morning, commencing approximately 15 minutes after sunrise. Two visits were scheduled each month, to enable gathering of survey data under different tidal conditions. Gathering survey data under different tidal conditions can be important, as wintering bird surveys associated with coastal sites may use areas of land inland (such as those near the Proposed Scheme) differently depending on the point in the tidal cycle. In each month, surveys were scheduled so that one survey was completed around high tide, with the other survey completed around low tide.
- 2.1.4. A winter visitor is any species of bird that spends the winter months (typically taken as November to February inclusive) in the UK. During the summer months the species will leave the UK to return to their breeding grounds. A resident bird species is present in the UK throughout the year. All birds heard or seen (flying or stationary) were recorded, even if they were not considered to be winter visitors.

#### TRANSECT METHODOLOGY

- 2.1.5. The transect methodology used was based upon the British Trust for Ornithology (BTO) Wintering Farmland Bird Survey methodology (Gillings, 2008) with reference to Bibby et al.'s Bird Census Techniques (Bibby et al., 2000).
- 2.1.6. During each survey visit, a transect (see **Figure 2**) around the Site and surrounding areas was walked slowly, scanning and listening for birds. In accordance with good practice guidance (Bibby et al, 2000), the start points, and direction of the route walked were varied on each survey visit; this serves to minimise bias, as birds may be active at different times of day in different areas. The locations of birds seen and heard were mapped using standard BTO two letter codes and activity symbols.

### 2.2. SURVEY INFORMATION

- 2.2.1. The wintering bird survey visits were led by a competent surveyor with experience of ecological survey, including wintering bird surveys.
- 2.2.2. Dates of survey and weather conditions are given in Table 2.1 below.

Survey Visit	Date	Mean Temperature (°C)	Cloud Cover (0-8 Oktas)	Wind Speed (Beaufort scale)	Rain	Visibility
1	27/10/2020	9	8	3	Moderate	Excellent
2	28/10/2020	10	6	3	None	Excellent
3	25/11/2020	7	7	1	Light rain	Good
4	26/11/2020	7	7	1	None	Good
5	10/12/2020	3	7	1	None	Good
6	18/12/2020	12	7	2	Light rain	Poor – Survey cancelled
7	07/01/2021	0	1	1	None	Excellent
8	25/01/2021	3	5	4	None	Good
9	12/02/2021	0	2	2	None	Good
10	23/02/2021	9	7	4	None	Good
11	03/03/2021	2	7	1	None	Good
12	17/03/2021	5	7	1	None	Good

#### Table 2.1 - Wintering Bird Survey Weather Conditions

### 2.3. LIMITATIONS

- 2.3.1. Whilst every effort has been made to detect all species present some bird species are more difficult to detect due to their shy or secretive nature and therefore may have gone undetected during the surveys. As a constraint applicable to all bird surveys this is not considered to place significant constraints upon interpretation of the results for this Site.
- 2.3.2. Due to the locations requiring survey, small sections of the survey required driving to access the areas. This is shown in **Figure 2** where there are gaps in the transect route. The areas that were driven are not considered suitable habitat and so this was not a significant limitation to the surveys.
- 2.3.3. The second December 2020 survey due to be carried out on the 18 December was not able to go ahead due to adverse weather conditions and could not be rescheduled. In total 11 transect surveys were carried out between October 2020 and March 2021.

# 3. RESULTS

- 3.1.1. Results of the 11 transect surveys are shown in **Figure 2 (a-k)**. These include all bird species (both winter visitors and residents) recorded, including behavioural data.
- 3.1.2. A total of 67 bird species were recorded on Site during the wintering bird surveys. Of these, 13 were considered winter visitors to the Site, whilst the rest were resident. A total of 37 of the species recorded are legally protected or species of conservation concern. Any bird which was unidentified during a survey has been represented accordingly within **Figure 2 (a-k)**.
- 3.1.3. The legally protected birds and species of conservation concern are shown in Table
  2 below. A full list of birds recorded on Site, including those with no special legal
  protection or conservation concern, are listed in Appendix B.
- 3.1.4. It should be noted that categories are not exclusive, and a species can be listed in more than one conservation category (for example, listed as both a Species of Principal Importance (SPI) in accordance with the Natural Environment and Rural Communities (NERC) Act 2006 (NERC, 2006) and as either a red or amber list Bird of Conservation Concern (Eaton et al., 2015).
- 3.1.5. The 13 winter visitor species found on Site were brambling *Fringillidae montifringilla*, common gull *Larus canus*, fieldfare, great black backed gull *Larus marinus*, herring gull *Larus argentatus*, marsh harrier, pink footed goose *Anser brachyrhynchus*, redwing, whooper swan *Cygnus cygnus*, cormorant *Phalacrocorax carbo*, little egret *Egretta garzetta*, golden plover *Pluvialis apricaria* and wigeon *Anas penelope*. Of these species, common gull, fieldfare, herring gull, marsh harrier, pink footed goose, redwing, whooper swan and wigeon are listed as Birds of Conservation Concern (Stanbury et al., 2021), with brambling, fieldfare, marsh harrier, redwing and whooper swan being listed under Schedule 1 of the WCA (HMSO, 1981) and marsh harrier and whooper swan listed on the Selby LBAP (LBAP, 2004).
- 3.1.6. The wintering birds were seen both feeding with the Site and flying through. These birds were recorded in arable fields, hedgerows, scrub and woodland habitats. The Site therefore supports wintering bird species.
- 3.1.7. Other sightings of interest included a large flock of lapwing *Vanellus vanellus* which were identified in the winter wheat in the field to the south of Redhouse Lane, close to the location of the Drax jetty and approximately 1.5km east of the Proposed Scheme. These were present throughout the early part of the season but vacated later. There were also single sightings of a peregrine falcon and a barn owl *Tyto alba* over the fields north of Carr Lane, east of New Road.
- 3.1.8. Of the resident species, two are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); eleven are identified as Species of Principal Importance (SPI) under the Natural Environment and Rural Communities (NERC) Act 2006; nine are identified as Birds of Conservation Concern (BoCC) red list species; and thirteen

are identified as BoCC amber list species. Additionally, 15 species are listed as priority species on the Selby Local Biodiversity Action Plan.

3.1.9. A number of these species are also listed as qualifying features of proximal designated sites namely Lower Derwent Valley Special Protection Area (SPA) and Ramsar and the Humber Estuary SPA and Ramsar. These species include: golden plover, lapwing, marsh harrier, oystercatcher, pink-footed goose, redshank and wigeon. The respective designated sites for which they are qualifying features of are listed in Table 3.1 below

# Table 3.1 - Legally Protected Birds and Birds of Conservation Concern Recorded on Site

	Species		NERC Act BoCC 2006			Local BAP and Relevant Designated Sites					Wintering Status – on Site	
				2006				Humber Estuary		/ Lower Derwent Valley		
Common Name	Latin Name	Peak count	unt Schedule 1	Section 41	Red list	Amber list	Selby LBAP	SPA	Ramsar	SPA	Ramsar	
Barn owl	Tyto alba	1	$\checkmark$									Resident
Black headed gull	Chroicocephalus ridibundus	160				√						Resident
Brambling	Fringillidae montifringilla	1	$\checkmark$									Winter visitor
Bullfinch	Pyrrhula pyrrhula	5		$\checkmark$		$\checkmark$	$\checkmark$					Resident
Common gull	Larus canus	3				$\checkmark$						Winter visitor
Dunnock	Prunella modularis	2				$\checkmark$						Resident
Fieldfare	Turdus pilaris	80	$\checkmark$		$\checkmark$							Winter visitor
Golden Plover	Pluvialis apricaria	55						$\checkmark$		$\checkmark$	$\checkmark$	Winter visitor
Great black backed gull	Larus marinus	1										Winter visitor
Grey partridge	Perdix perdix	8			$\checkmark$		$\checkmark$					Resident
Grey wagtail	Motacilla cinerea	1				$\checkmark$						Resident
Greylag goose	Anser anser	23				$\checkmark$						Resident
Herring gull	Larus argentatus	4			$\checkmark$							Winter visitor
House sparrow	Passer domesticus	8			$\checkmark$		$\checkmark$					Resident
Kestrel	Falco tinnunculus	2				$\checkmark$	$\checkmark$					Resident
Lapwing	Vanellus vanellus	270			$\checkmark$		$\checkmark$					Resident
Linnet	Linaria cannabina	30			$\checkmark$		$\checkmark$					Resident
Mallard	Anas platyrhynchos	30				$\checkmark$						
Marsh harrier	Circus aeruginosus	1	$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			Winter visitor

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Species			WCA 1981 NERC Act 2006					Local BAP and Relevant Designated Sites				Wintering Status on Site
				2000				Humber Estuary		Lower Derwent Valley		
Common Name	Latin Name	Peak count	Schedule 1	Section 41	Red list	Amber list	Selby LBAP	SPA	Ramsar	SPA	Ramsar	-
Marsh tit	Poecile palustris	1		$\checkmark$	$\checkmark$							Resident
Meadow pipit	Anthus pratensis	8				$\checkmark$	$\checkmark$					Resident
Mistle thrush	Turdus viscivorus	20										Resident
Mute swan	Cygnus olor	2										Resident
Oystercatcher	Haematopus ostralegus	1				$\checkmark$						Resident
Peregrine falcon	Falco peregrinus	1	$\checkmark$				$\checkmark$					Resident
Pink footed goose	Anser brachyrhynchus	78				V		$\checkmark$				Winter visitor
Redshank	Tringa totanus	40				$\checkmark$		$\checkmark$	$\checkmark$			Resident
Redwing	Turdus iliacus	60	$\checkmark$			$\checkmark$						Winter visitor
Reed bunting	Emberiza schoeniclus	10				$\checkmark$	$\checkmark$					Resident
Reed warbler	Acrocephalus scirpaceus	1										Resident
Skylark	Alauda arvensis	4					$\checkmark$					Resident
Song thrush	Turdus philomelos	1				$\checkmark$						Resident
Starling	Sturnus vulgaris	200					$\checkmark$					Resident
Stock dove	Columba oenas	7				$\checkmark$						Resident
Whooper swan	Cygnus cygnus	12	$\checkmark$			$\checkmark$	$\checkmark$					Winter visitor
Wigeon	Anas penelope	140				$\checkmark$		$\checkmark$		$\checkmark$		Winter visitor
Yellowhammer	Emberiza citrinella	8					$\checkmark$					Resident

### 3.2. DISCUSSION

#### WINTERING BIRDS OF NOTE

#### **Brambling**

- 3.2.1. Brambling were recorded during a transect survey on the 28 October. One bird was sighted to the north of the transect. See **Figure 2(b)** for location of brambling sighting.
- 3.2.2. No further records of brambling were made during transect surveys during the 2020/2021 winter season.
- 3.2.3. Brambling is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

#### **Cormorant**

3.2.4. Cormorants were recorded during nine of the transect surveys. The largest count of cormorant was three seen together in October, December and February.

#### Fieldfare

- 3.2.5. The largest count of fieldfare was seen on 7 Jan during a transect survey, where 80 birds were seen congregated in a field to the north-west of the site. See **Figure 2(g)** for location.
- 3.2.6. Fieldfare were seen several times throughout the winter during transect surveys.
- 3.2.7. Fieldfare is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is included on the BoCC red list.

#### **Golden plover**

3.2.8. Golden plover are regular visitors to the Humber Estuary. During the 2020/2021 wintering bird surveys, golden plover were recorded on the 12<sup>th</sup> February. Fifty-five birds were seen to the south-east of the survey area. See **Figure 2(i)** for location.

#### Marsh Harrier

- 3.2.9. Individual marsh harriers were sighted on 27 October 26 November, and 7 January. See **Figures 2(a), 2(d) and 2(g)** for location.
- 3.2.10. Marsh harriers is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). They are also on the BoCC amber list and on the list of Selby LBAP species.

#### Pink Footed Goose

- 3.2.11. Seventy-eight pink footed geese were sighted on 17 March flying to the east of the River Ouse during a transect survey. See **Figure 2(I)** for location.
- 3.2.12. No further records of pink footed geese were made during transect surveys during the 2020/2021 winter season.

#### Redwing

- 3.2.13. Redwing was regularly recorded throughout the winter season most commonly in arable fields in the north west of the transect. The largest count of redwing was sighted on 7 Jan (Figure 2(g)), where 60 birds were seen congregating in the northwest of the survey area.
- 3.2.14. Redwing is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is also included on the amber list of birds of conservation concern.

#### Whooper Swan

- 3.2.15. Whooper swan was recorded during a transect survey on the 26<sup>th</sup> November. Twelve birds were sighted. See **Figure 2(d)** for location.
- 3.2.16. No further records of whooper swan were made during transect surveys during the 2020/2021 winter season.
- 3.2.17. Whooper swan is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). They are also on the BoCC amber list and on the list of Selby LBAP species.

#### Wigeon

- 3.2.18. Wigeon were recorded throughout the season, most commonly to the south-east of the Site. However, during a transect survey on 12<sup>th</sup> February, 140 wigeon were sighted to the north of the Site. See **Figure 2(i)** for location.
- 3.2.19. Wigeon are on the BoCC amber list.

#### Wintering Gulls

- 3.2.20. Common gull, herring gull and great black backed gull were recorded between December 2020 to March 2021 during transect surveys.
- 3.2.21. The largest count of common gull was seen on 17 March (Figure 2(I)), where three common gulls were seen flying to the north during the transect survey. Common gull was also recorded on the 25 January (Figure (h)). Common gulls are on the BoCC amber list.
- 3.2.22. The largest count of herring gull was seen on 12 February (Figure 2(i)), where 4 birds were seen flying west. Herring gull was also sighted on the 17 March (Figure 2(i)). Herring gull are identified as SPI via the provisions of Section 41 of the NERC Act 2006 and they are on the BoCC red list.
- 3.2.23. Two great black backed gulls were recorded on the 10 December (Figure 2(e)). No further records of great black backed gull were made during the 2020/2021 winter season. Great black backed gulls are on the BoCC amber list.

#### **RESIDENT BIRDS OF NOTE**

#### <u>Lapwing</u>

- 3.2.24. Large flocks of lapwing were regularly recorded to the south-east of the transect. The largest flock was seen flying over on the 10 December with 270 individuals recorded. See **Figure 2(e)** for location.
- 3.2.25. Lapwings are protected under Section 41 of the NERC Act 2006, they are on the BoCC red list and on the list of Selby LBAP species.
- 3.2.26. Lapwings are resident birds to the UK but are also winter visitors from northern Europe, with large numbers overwintering in the UK.

#### **Peregrine Falcon**

- 3.2.27. One peregrine falcon was recorded during a transect survey on the 25 November **(Figure 2(c))**.
- 3.2.28. No further records of peregrine falcon were made during transect surveys during the 2020/2021 winter season.
- 3.2.29. Peregrine falcon is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and are on the list of Selby LBAP species.

#### Barn Owl

- 3.2.30. One barn owl was recorded during a transect survey on the 12 February. It was seen foraging to the north-west of the transect. See **Figure 2(i)** for location.
- 3.2.31. No further records of barn owl were made during during the 2020/2021 wintering bird surveys.
- 3.2.32. Barn owls is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and are on the list of Selby LBAP species.

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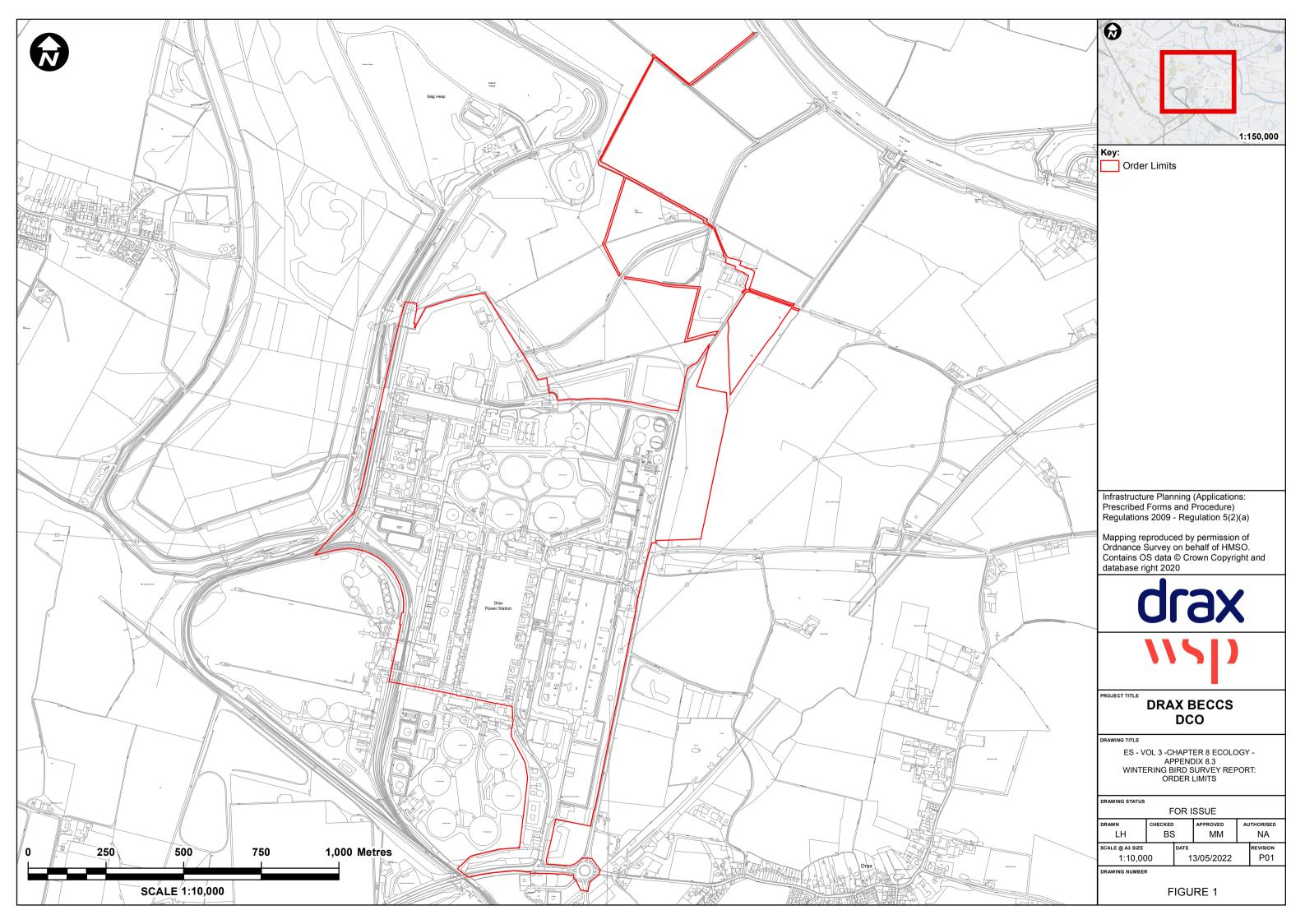
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The Selby District Core Strategy Local Plan (TSDCSLP) (2013).

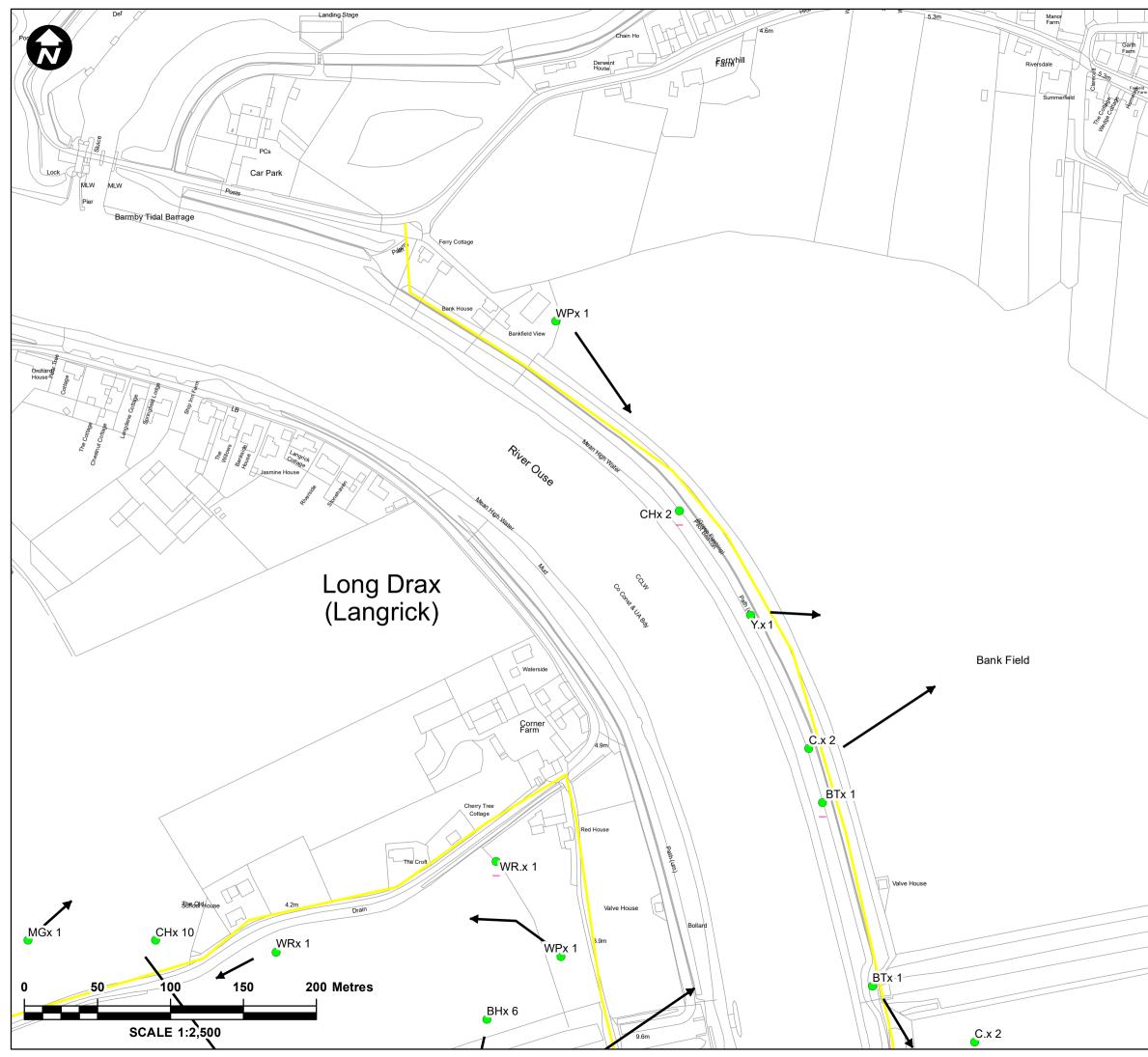
WSP (2021a). Environmental impact assessment scoping report. Drax Bioenergy with Carbon Capture and Storage. WSP UK Limited.

(WSP, 2021b). Preliminary Ecological Appraisal report. Drax Bioenergy with Carbon Capture and Storage. WSP UK Limited.

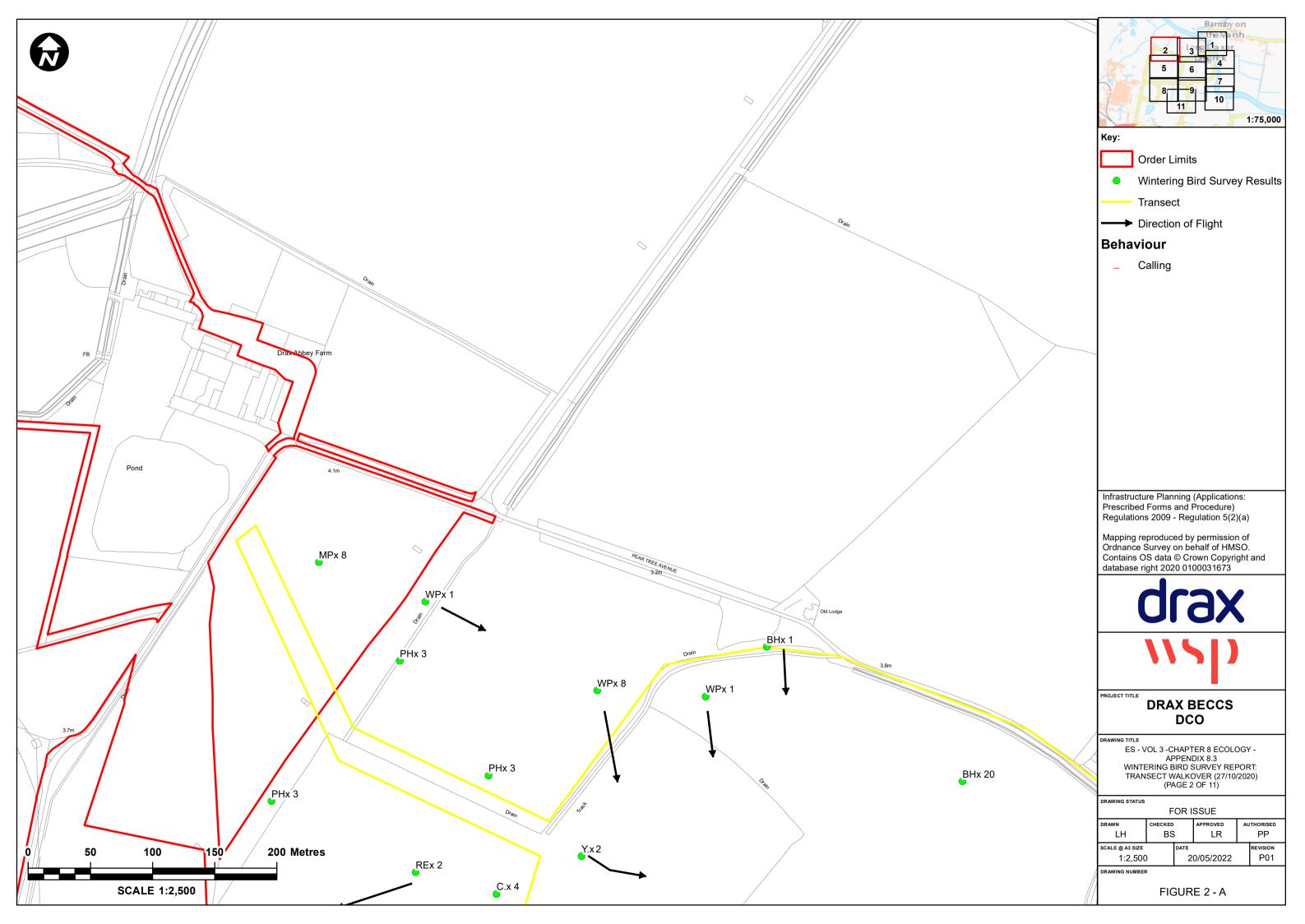
Figure 1 – Site Location with Transect Route

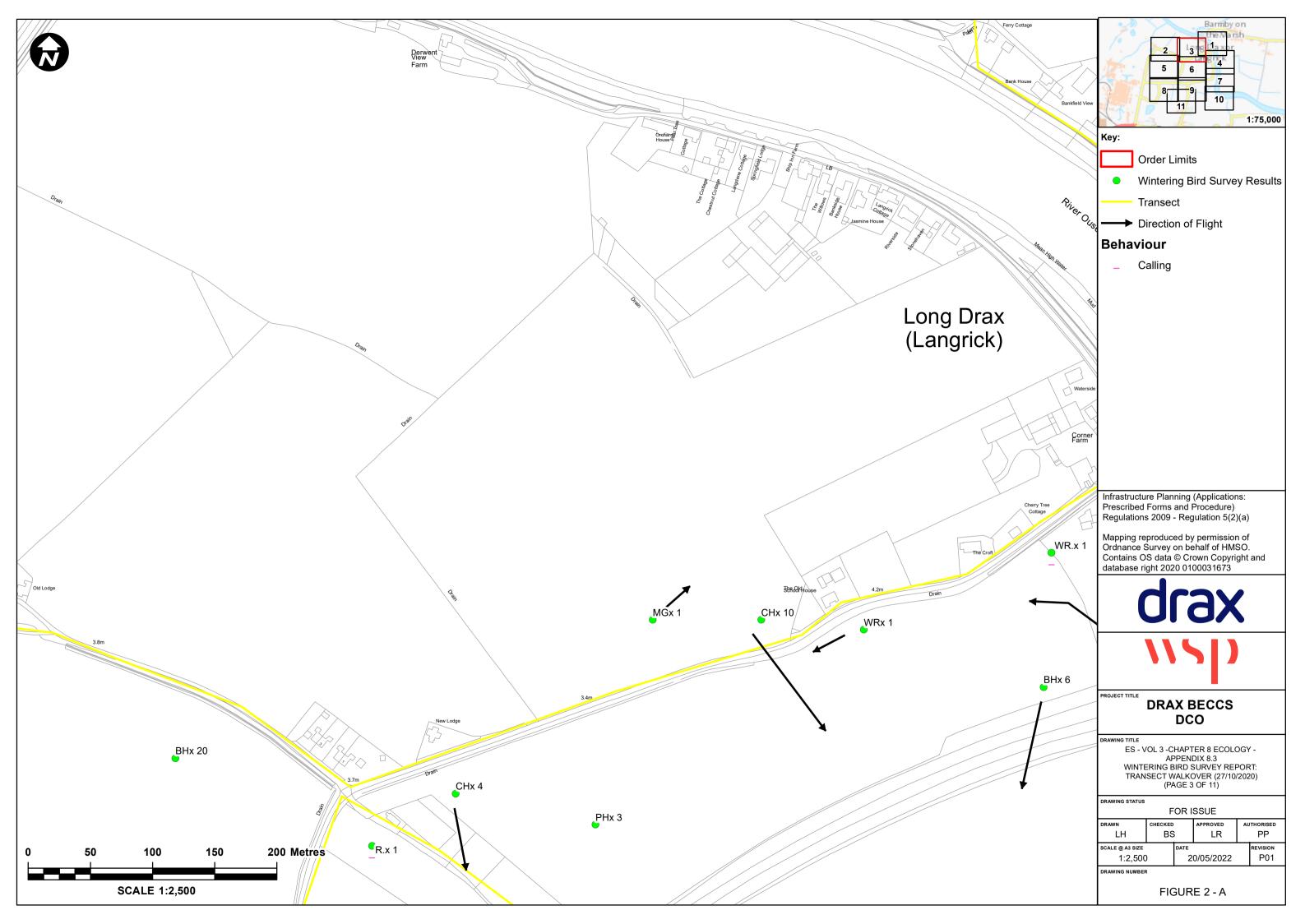


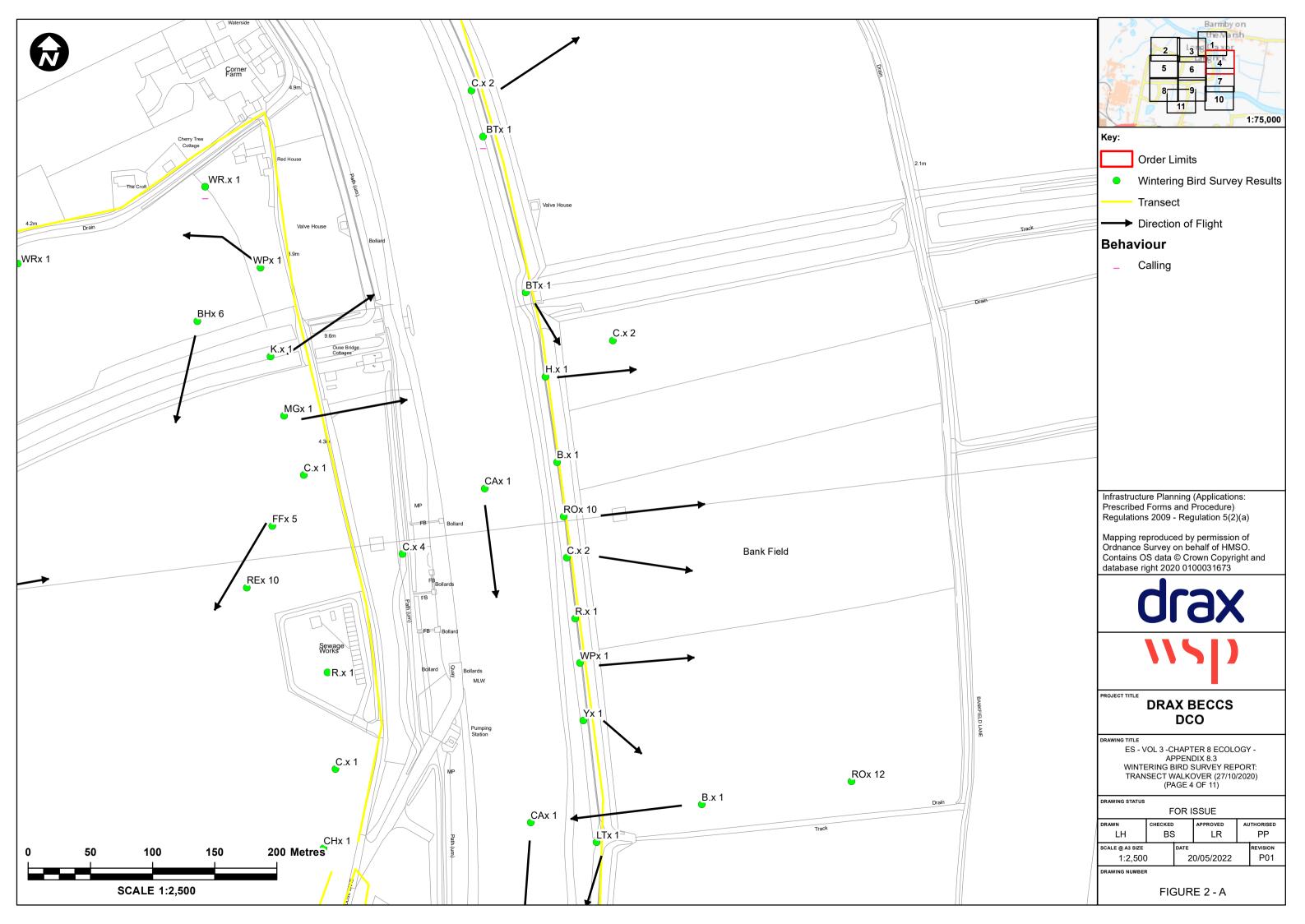
# Figure 2 - Transect Survey Results

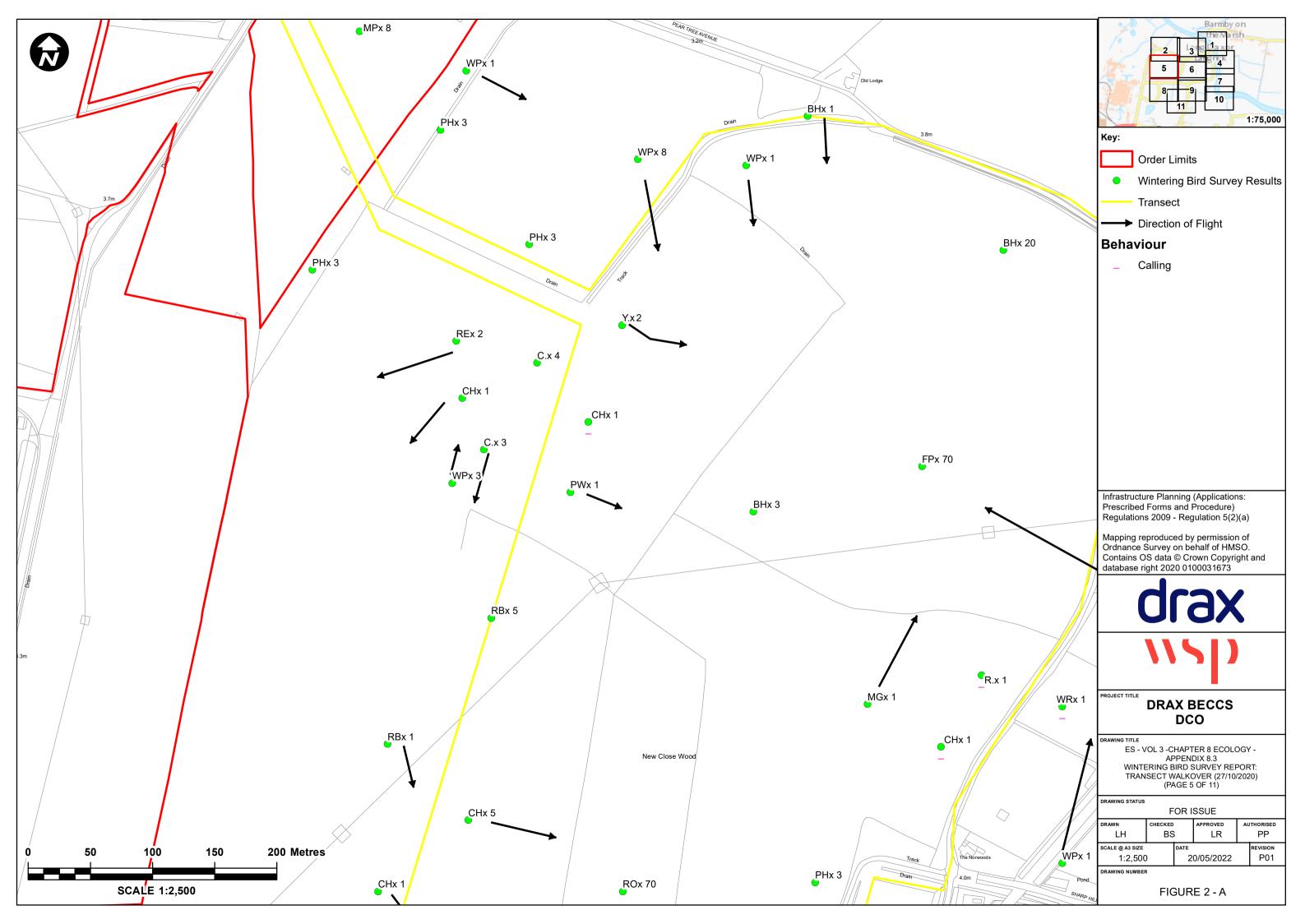


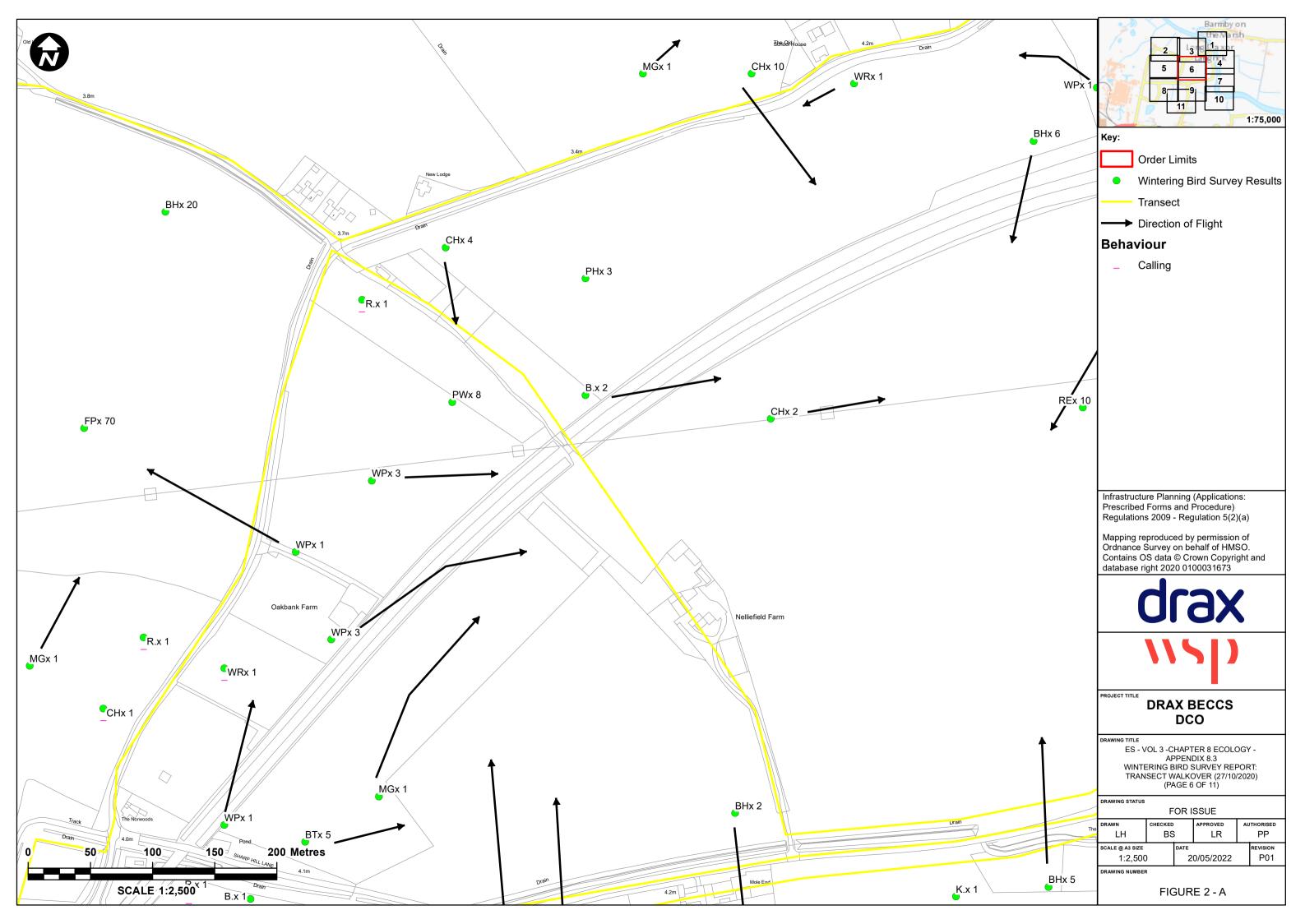
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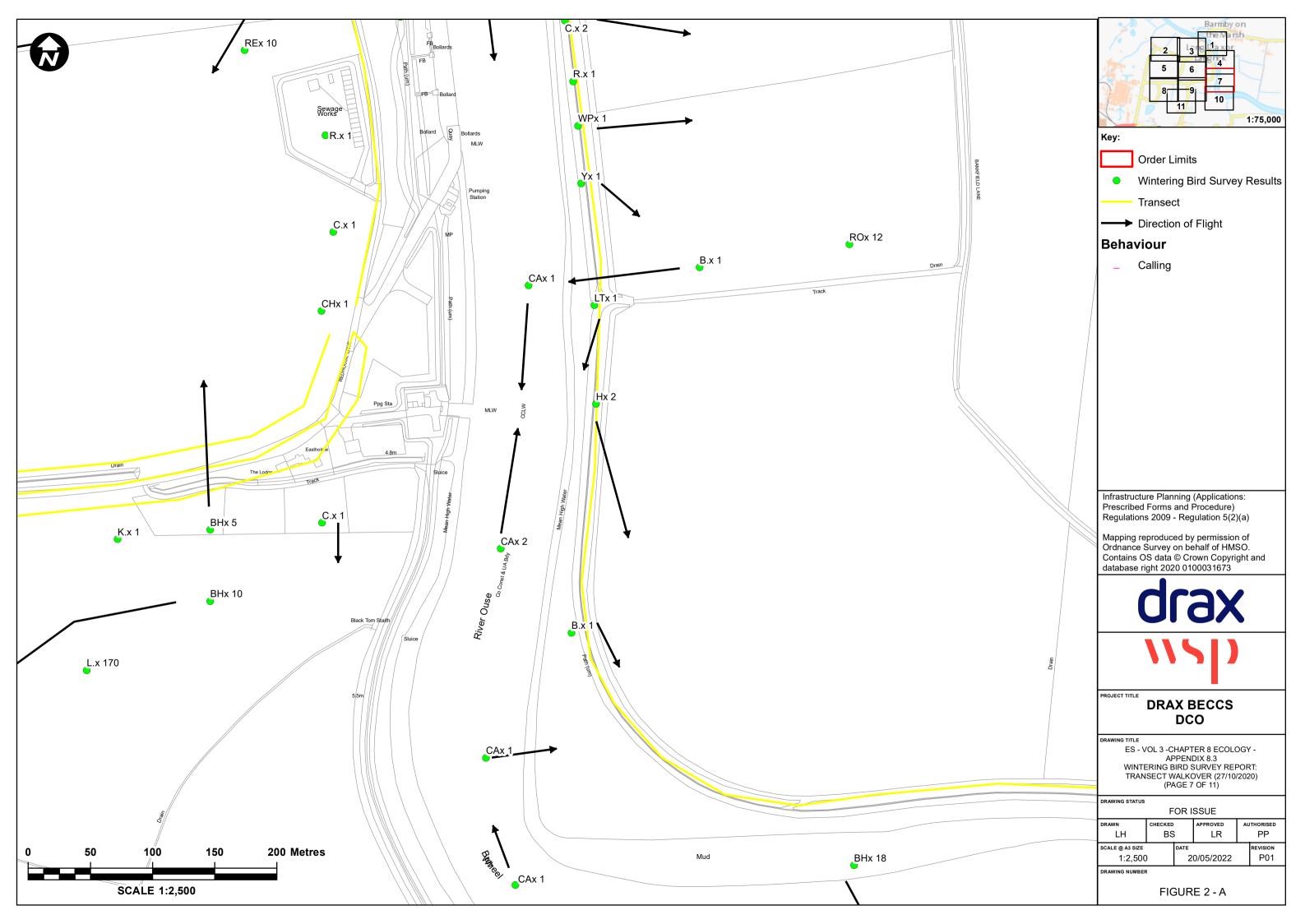


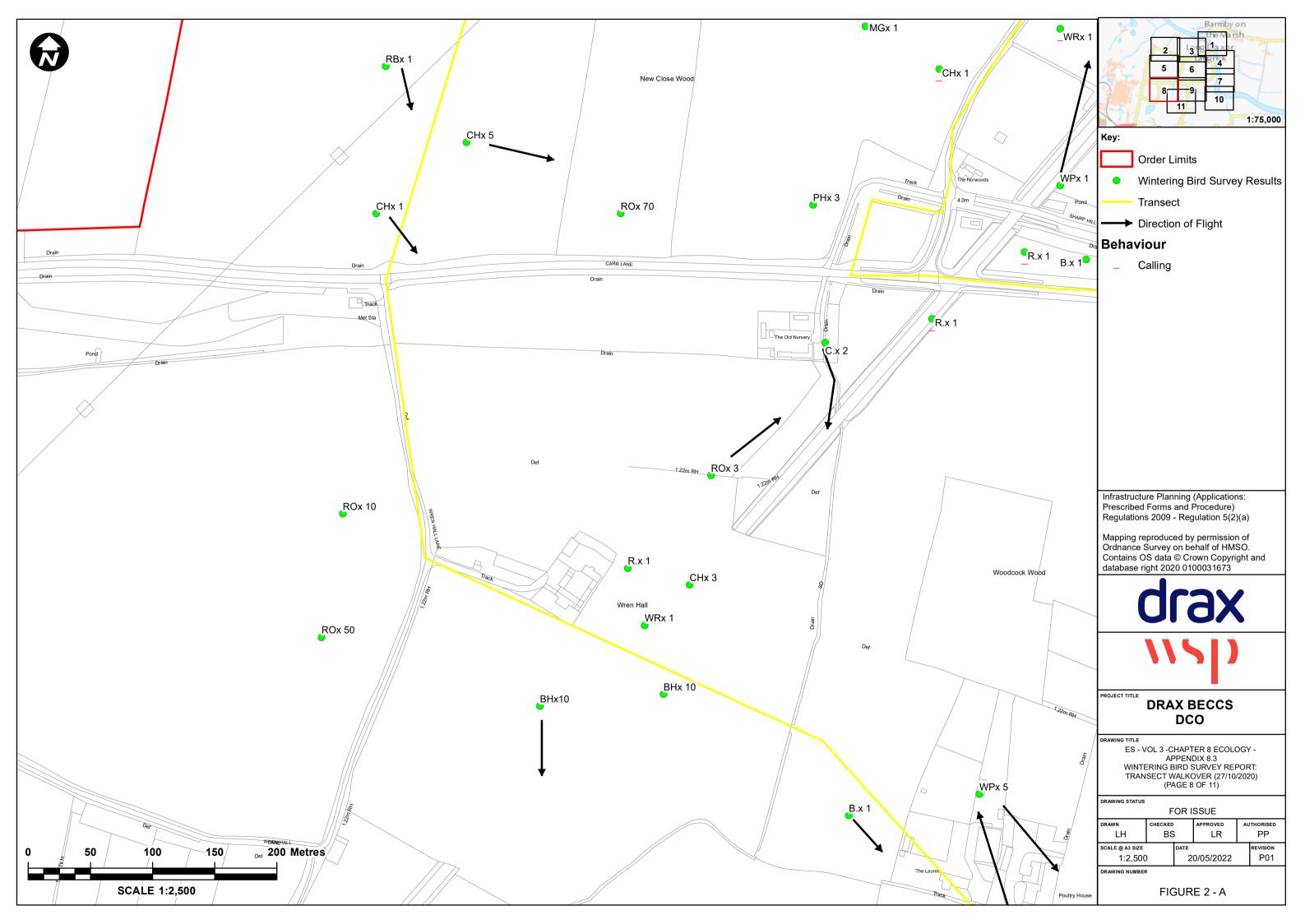


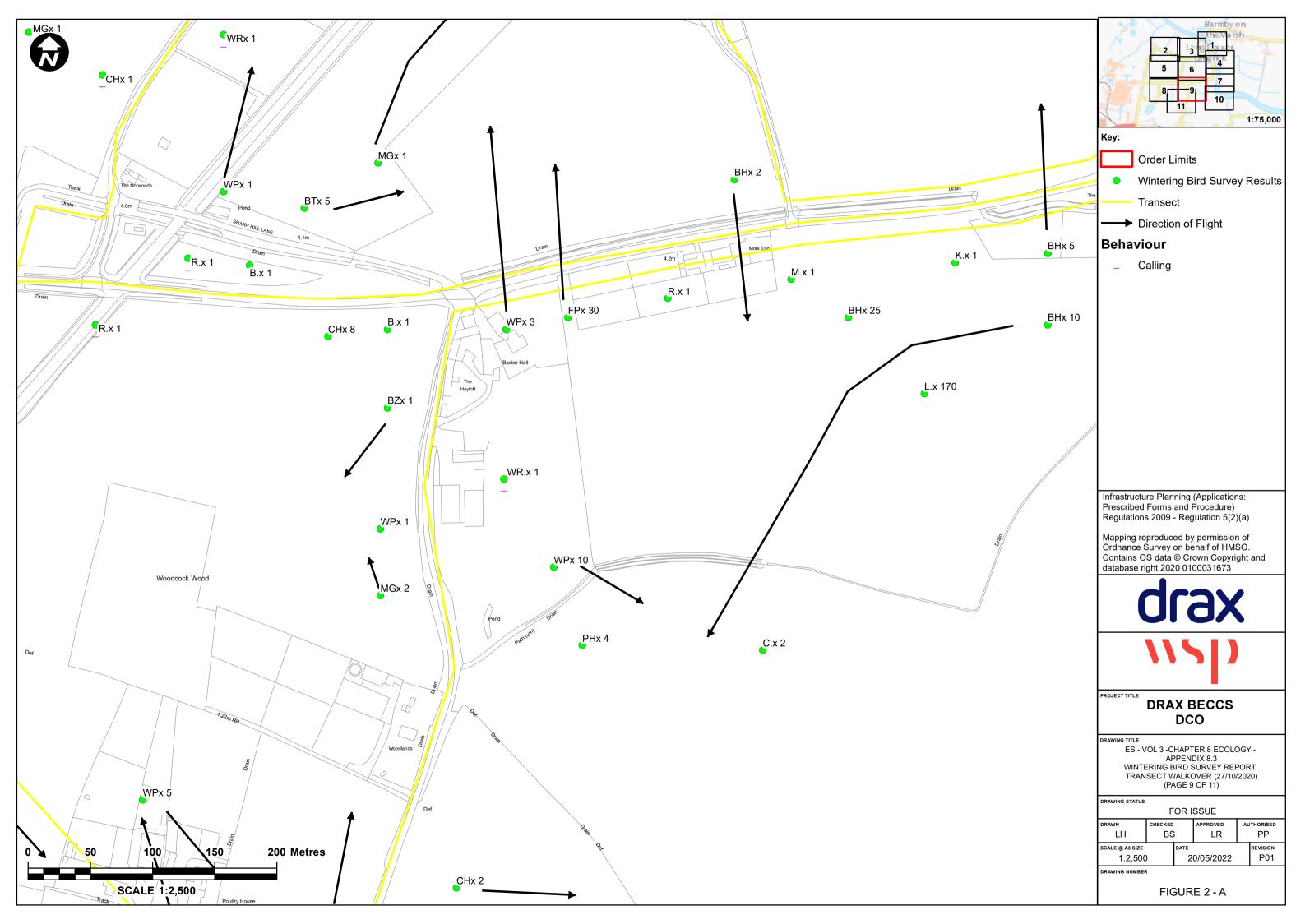


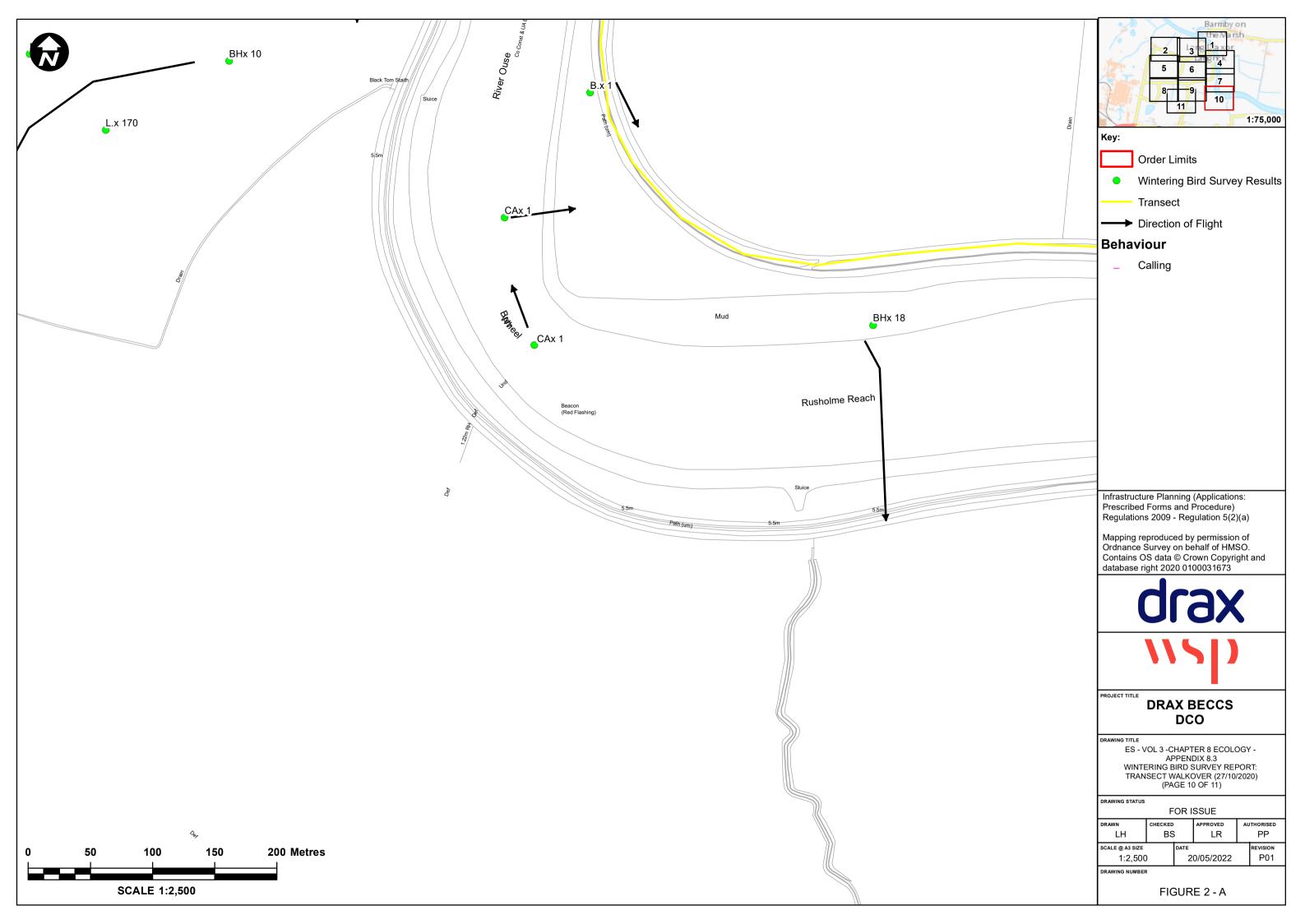


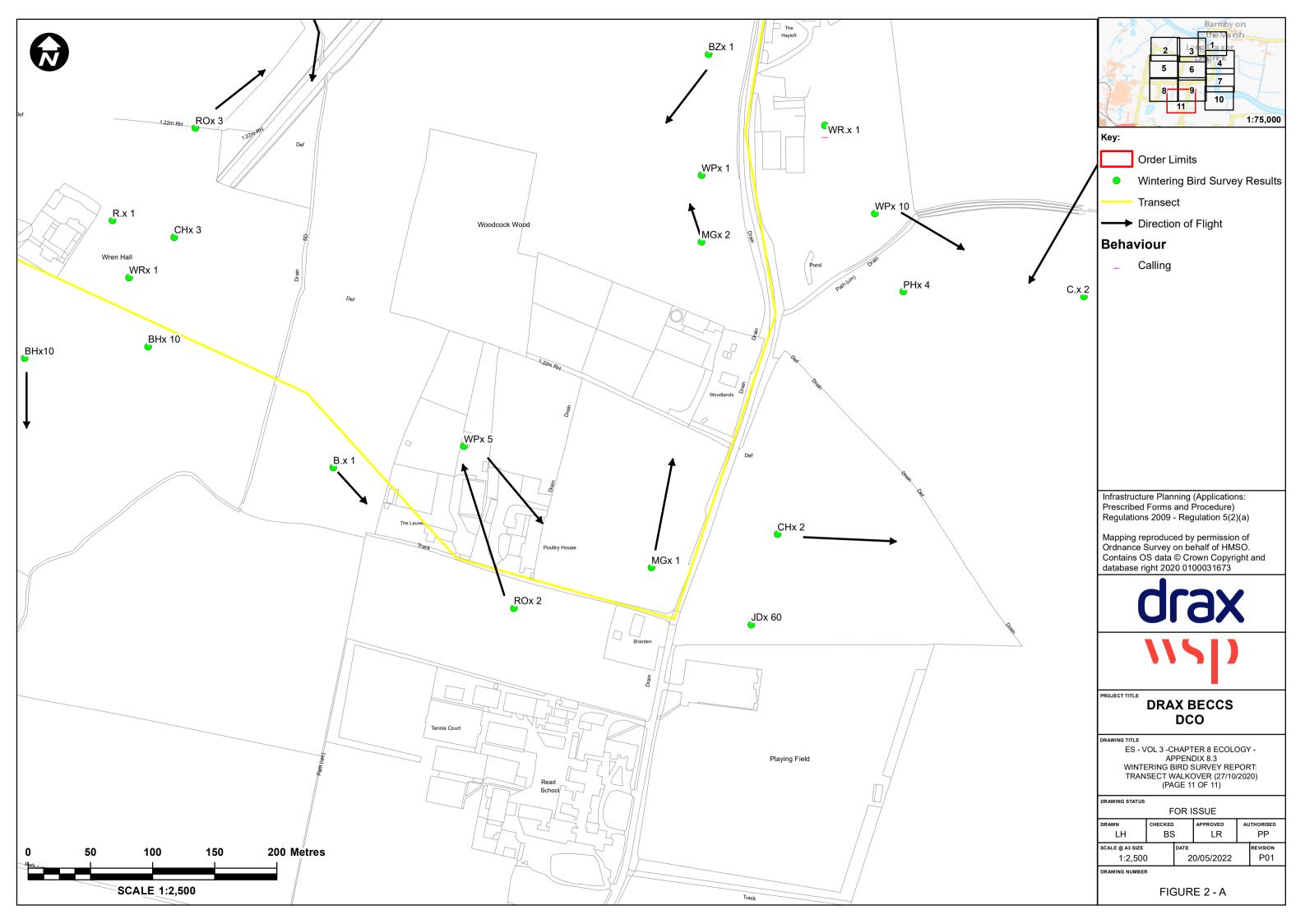


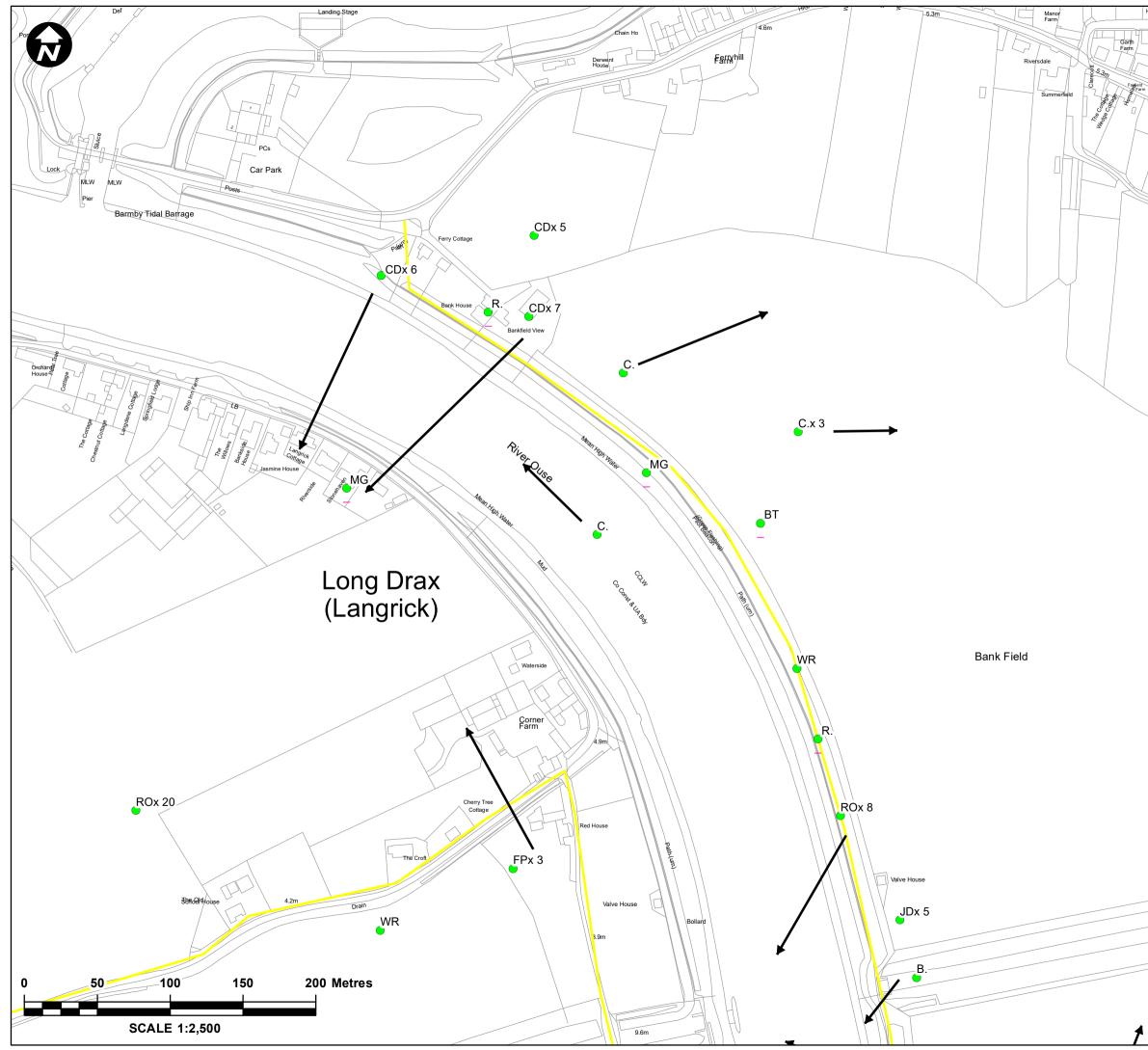




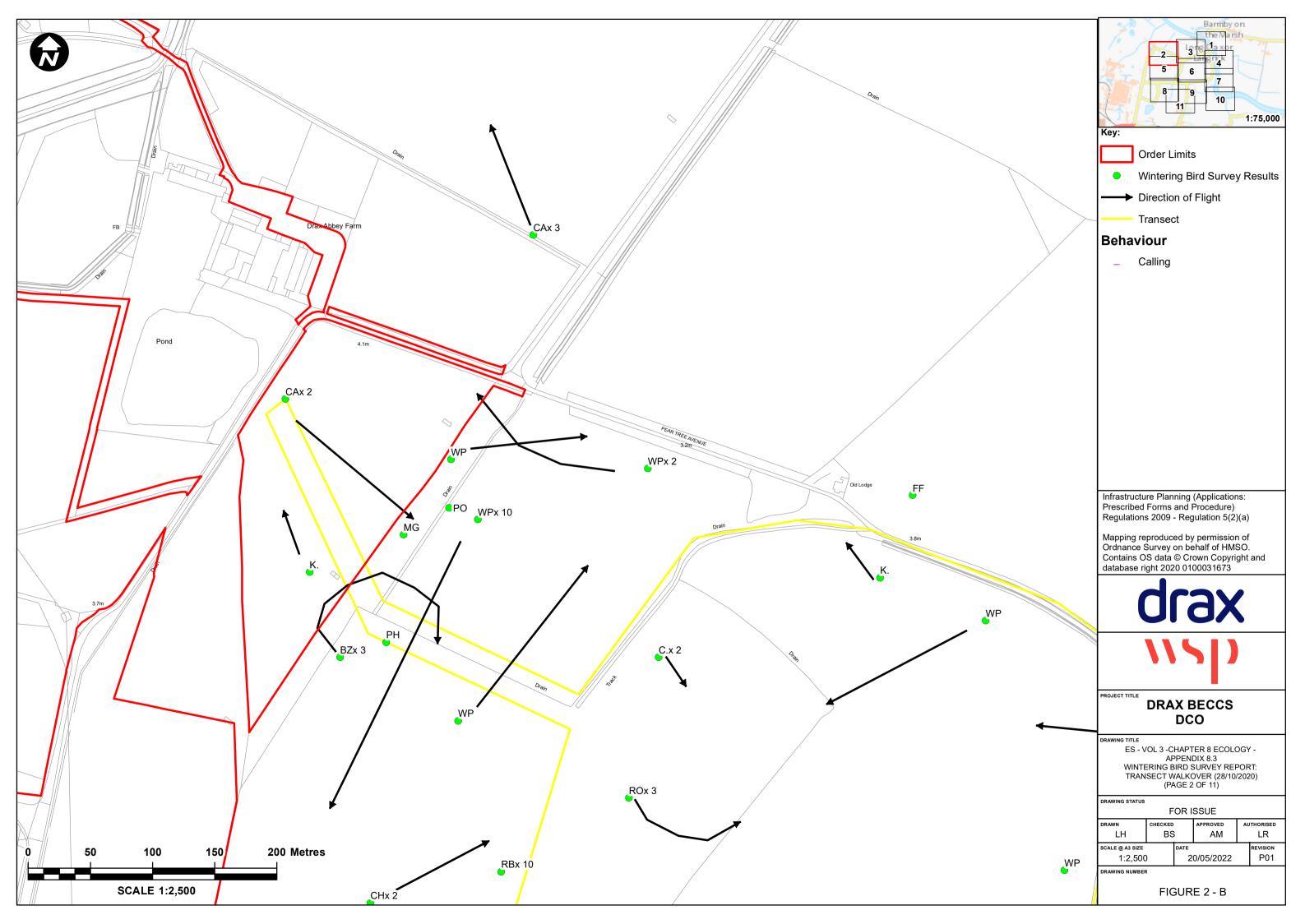


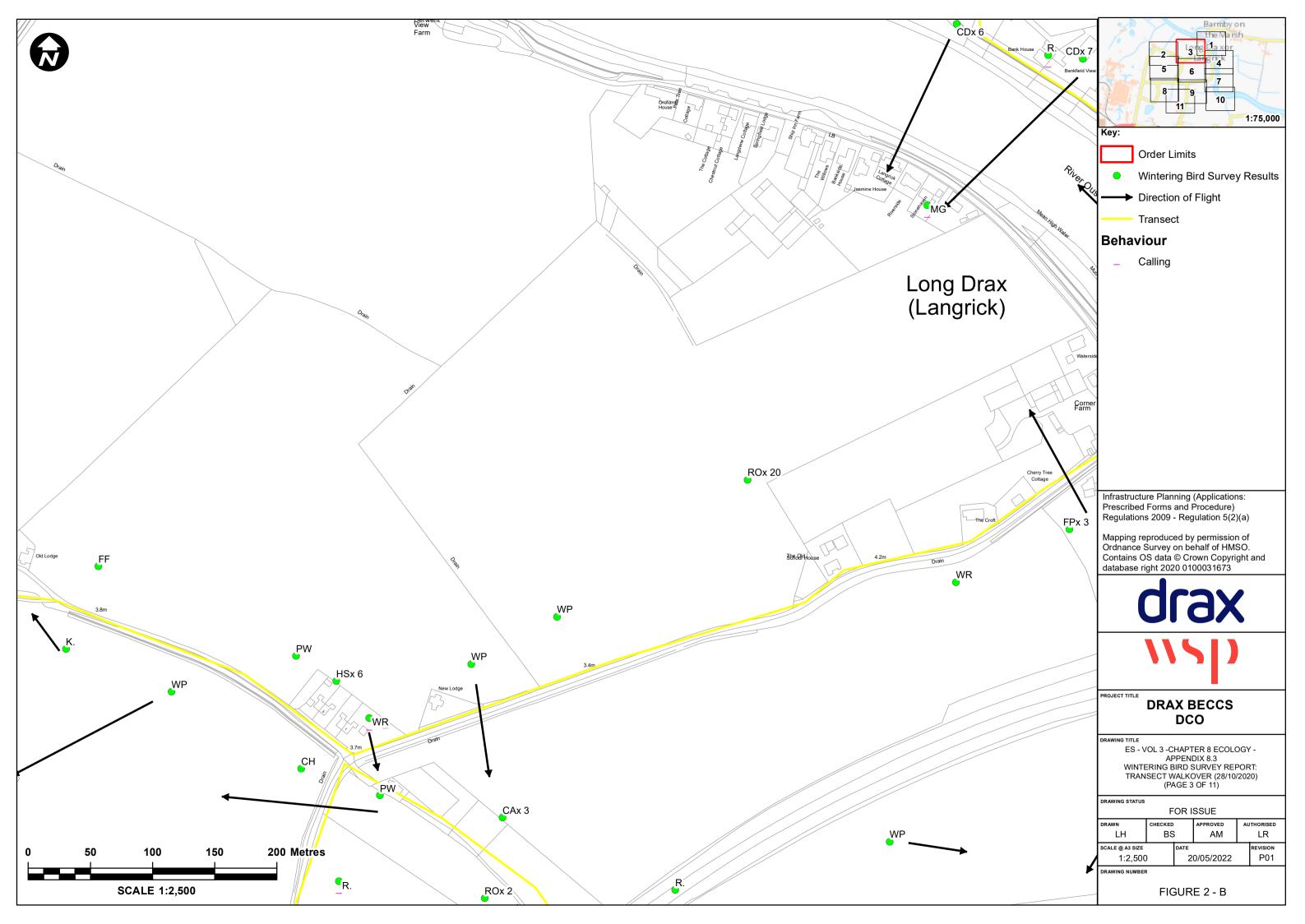


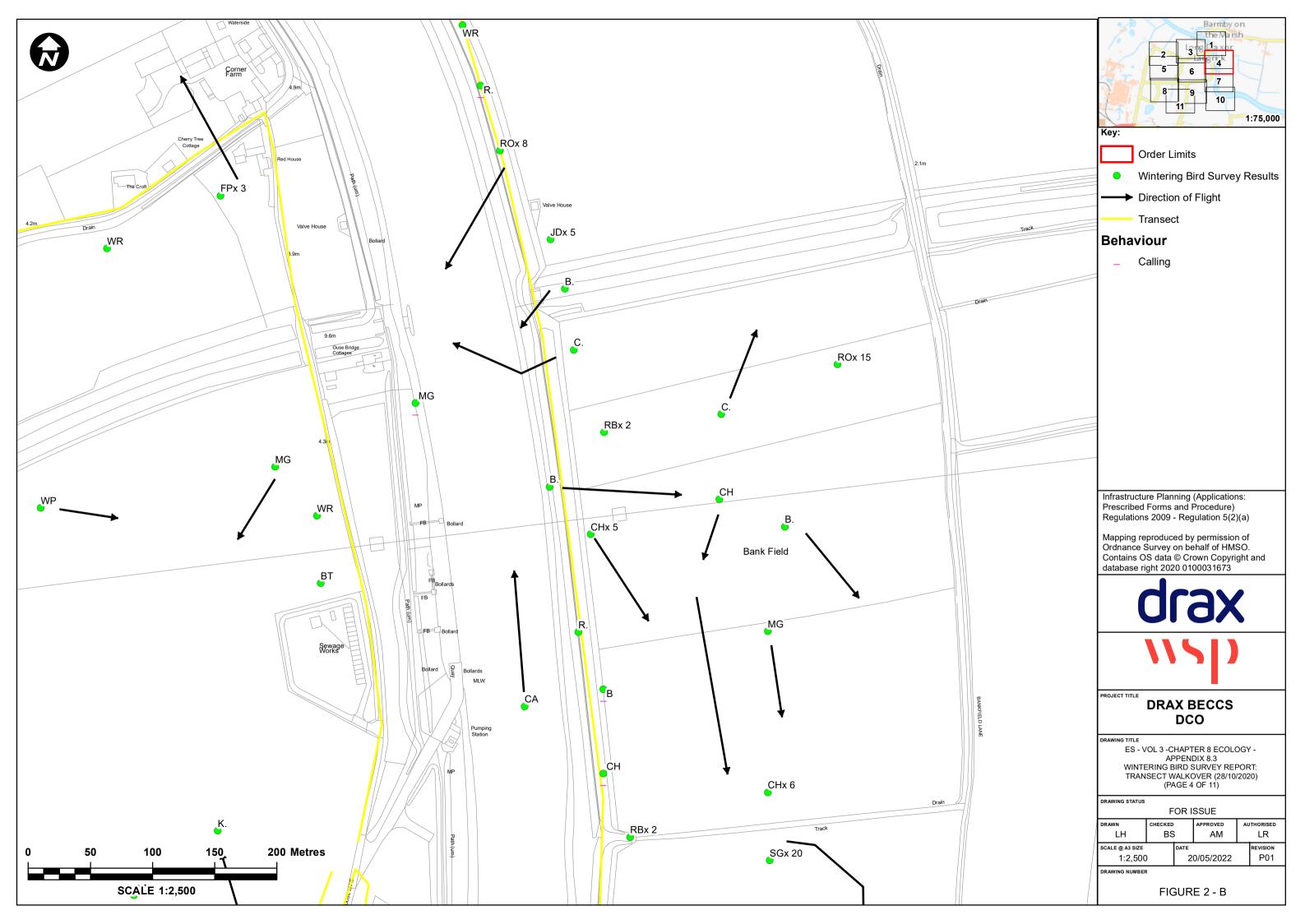


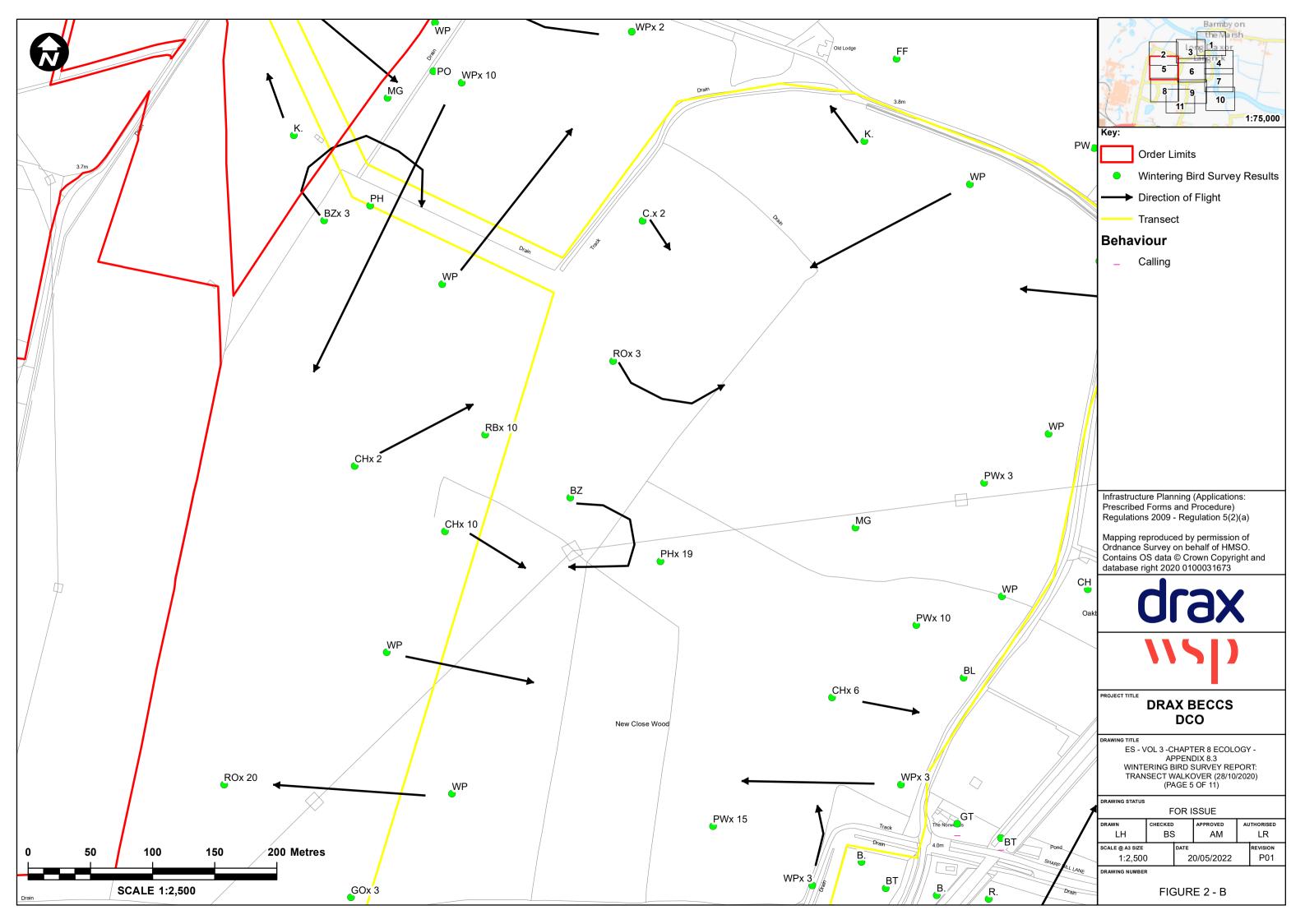


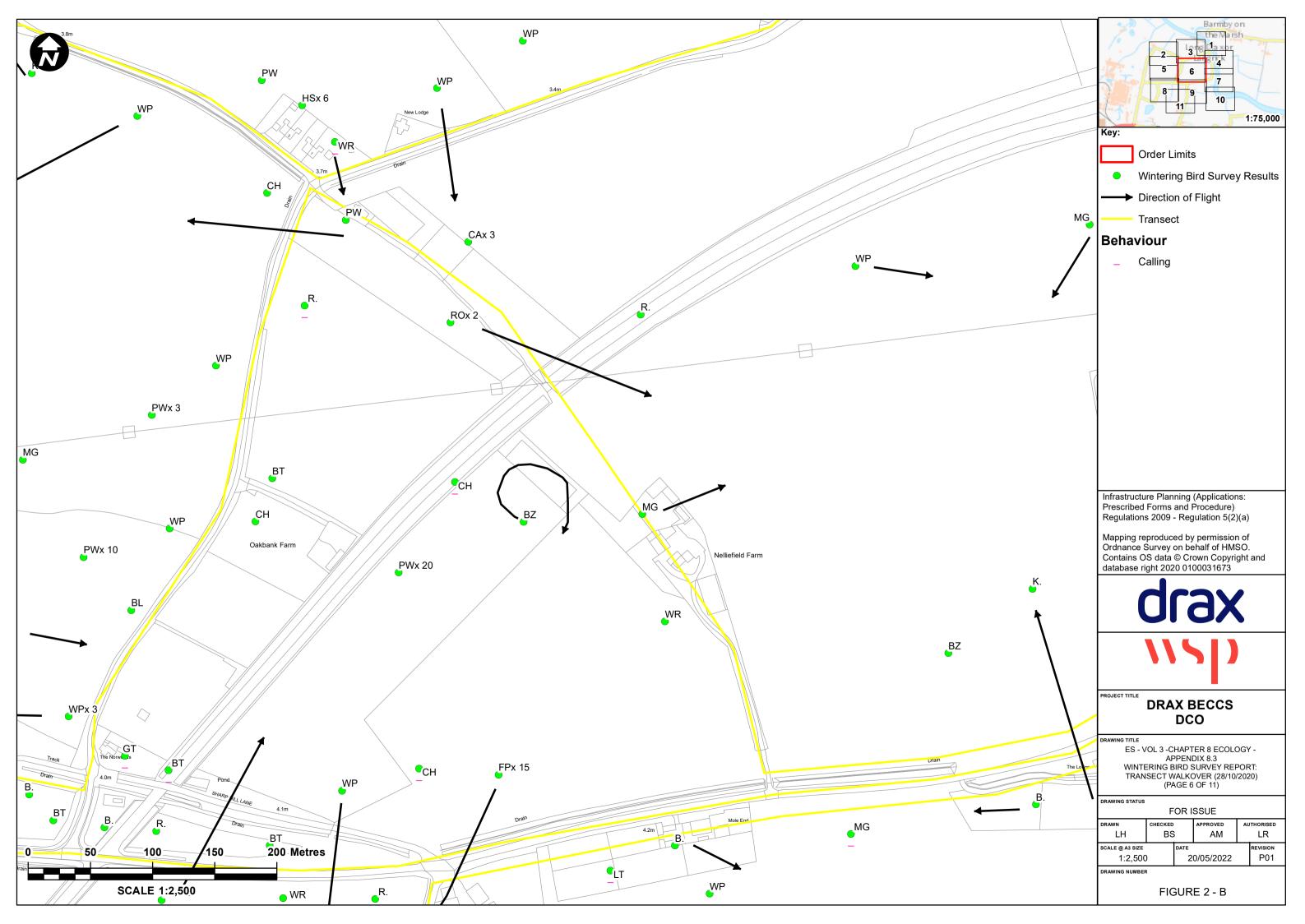
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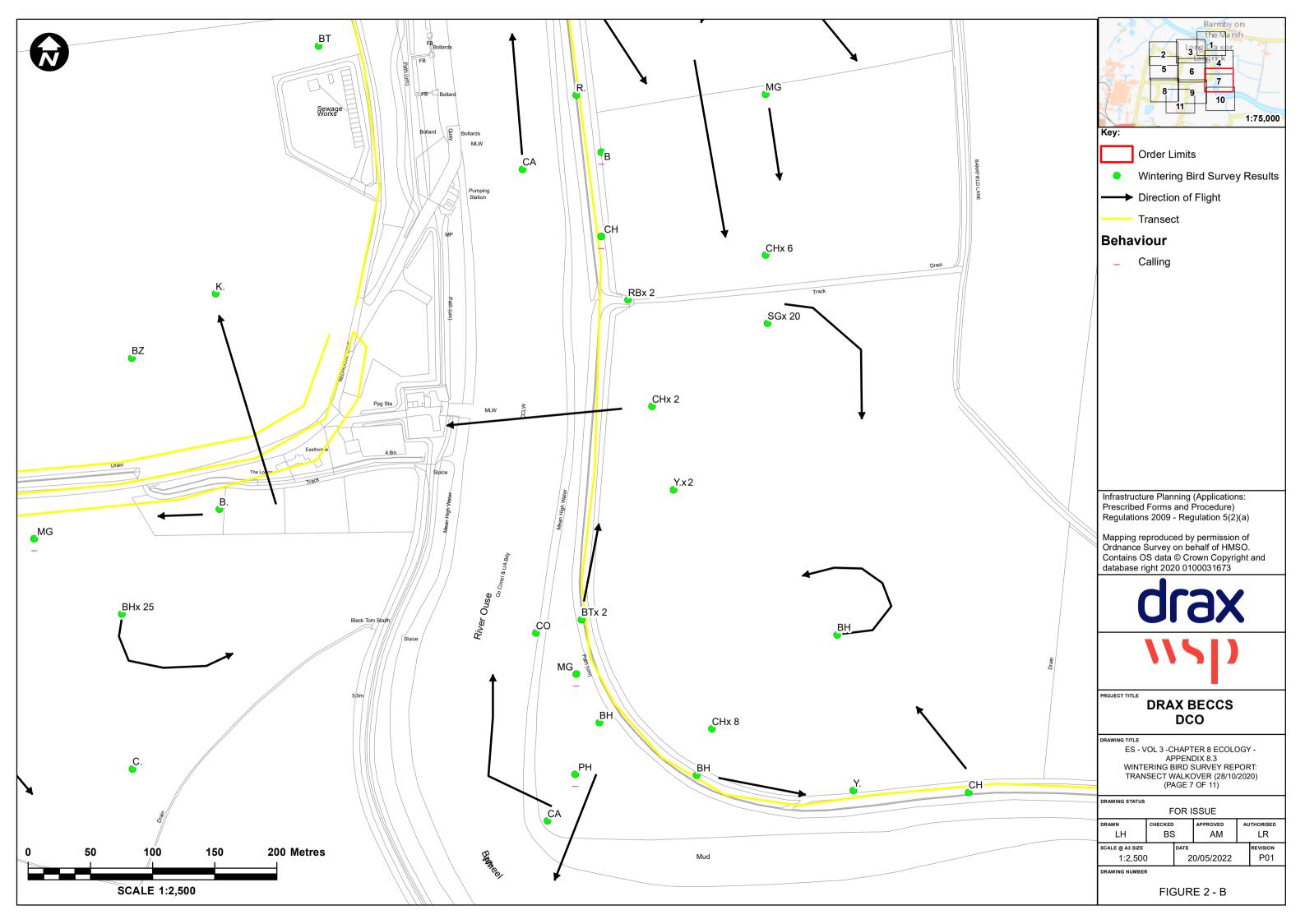


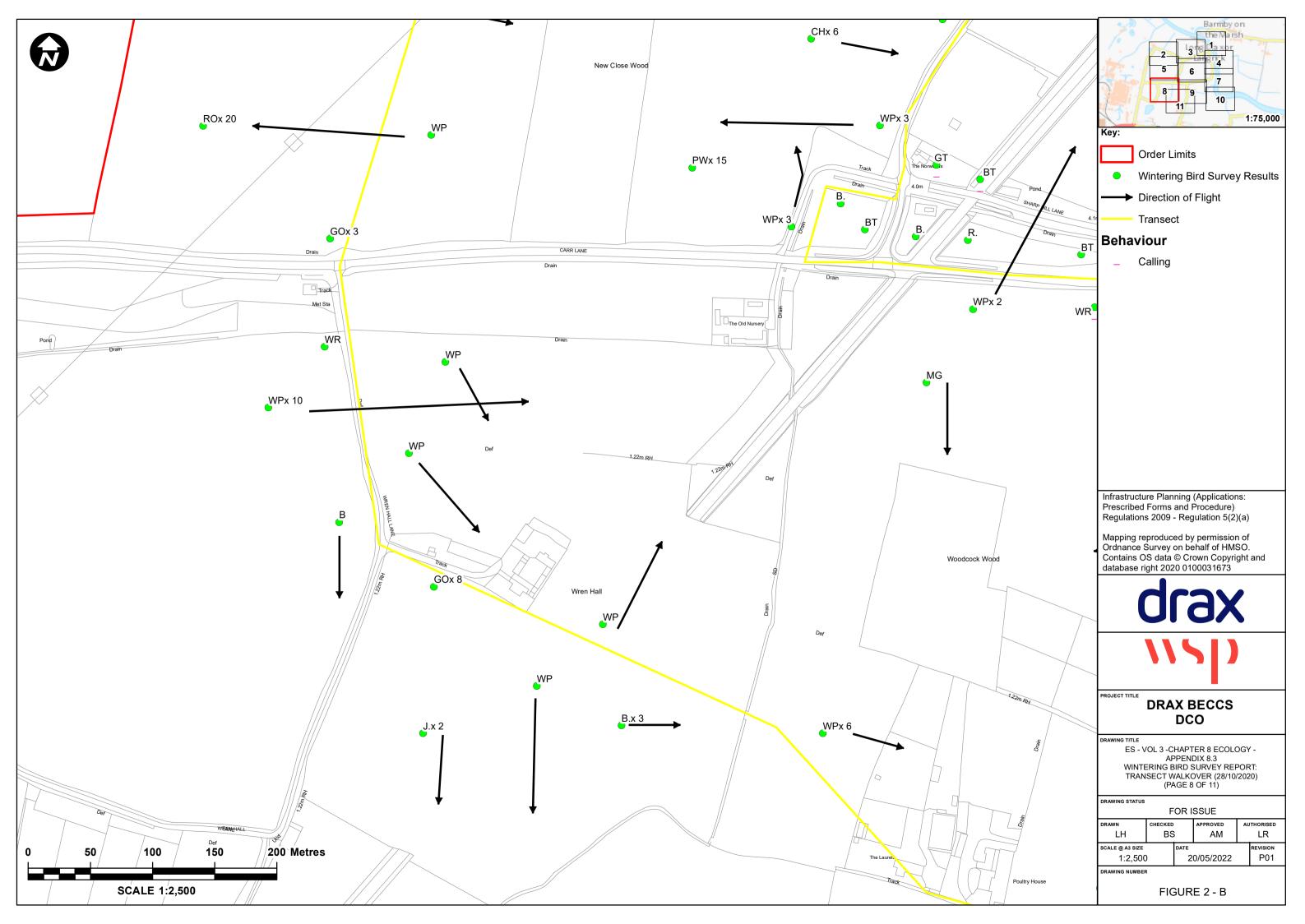


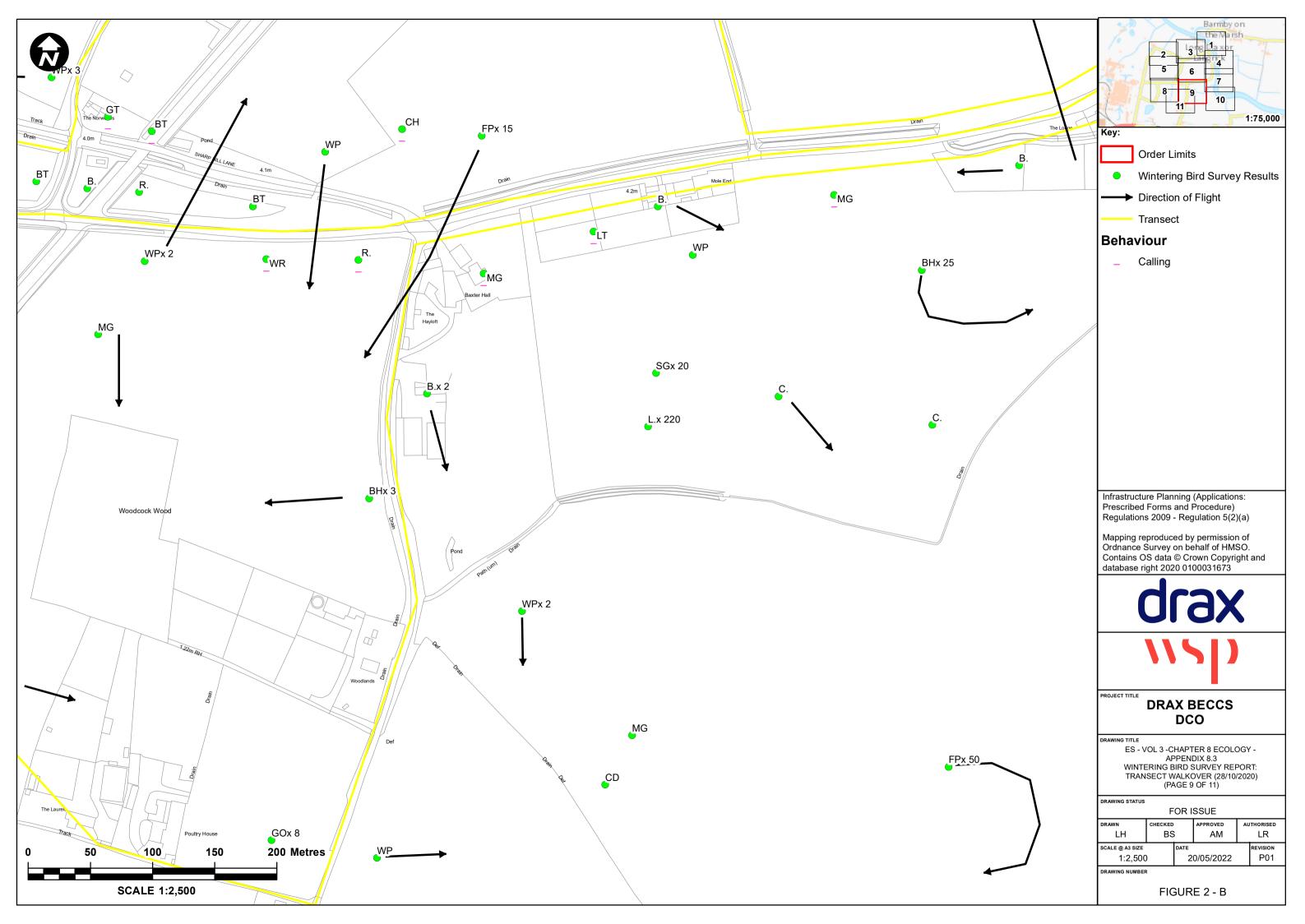


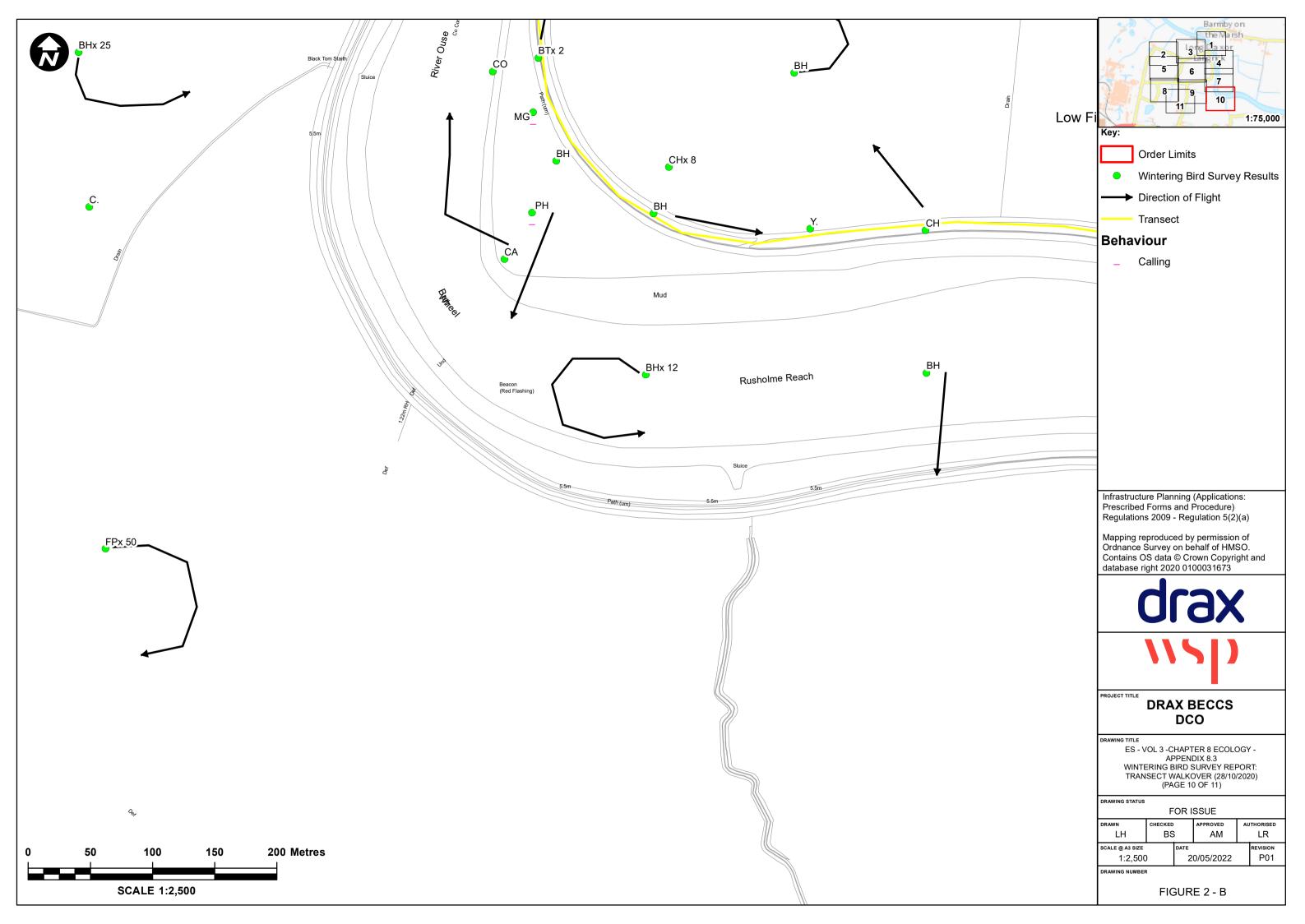


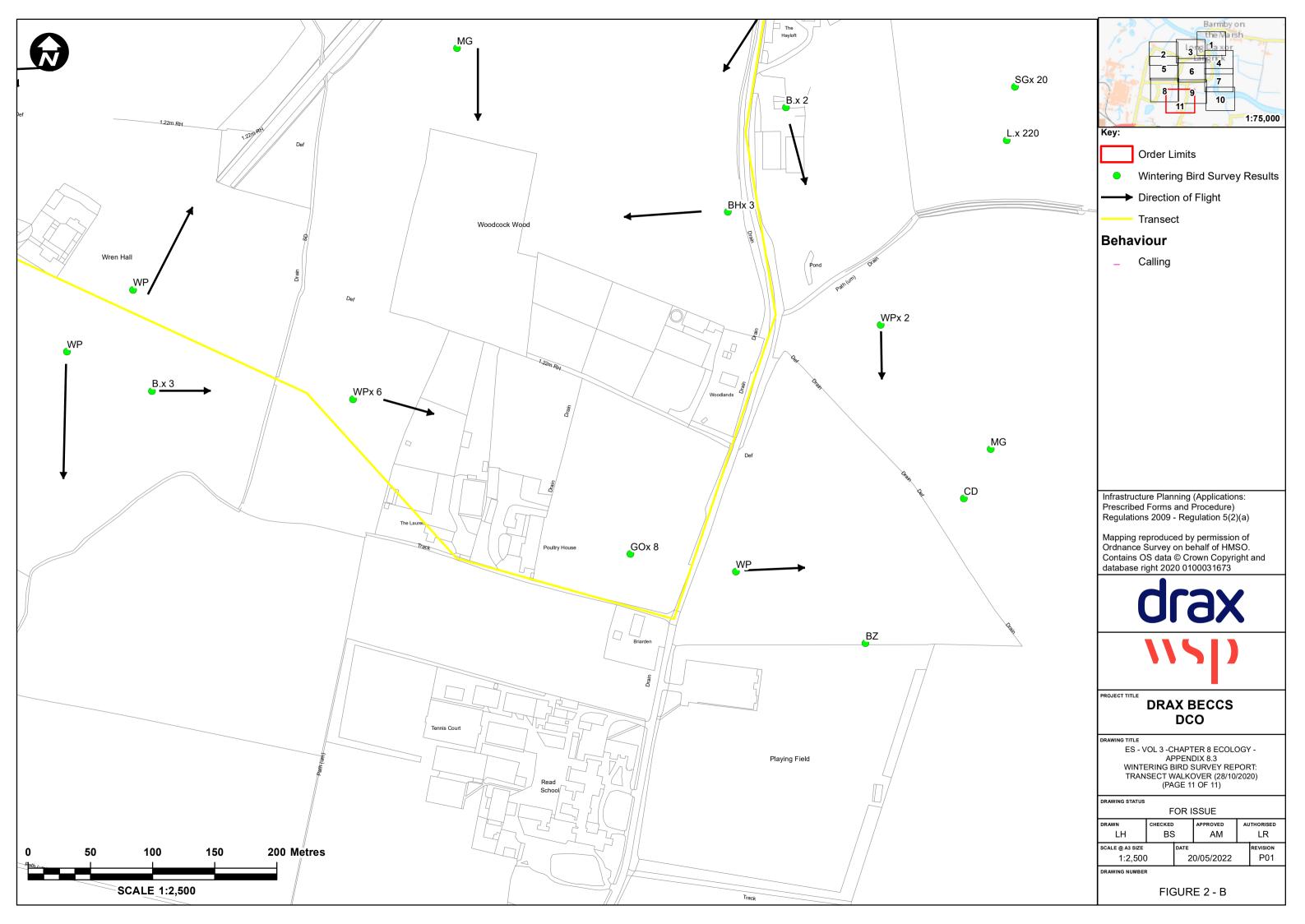


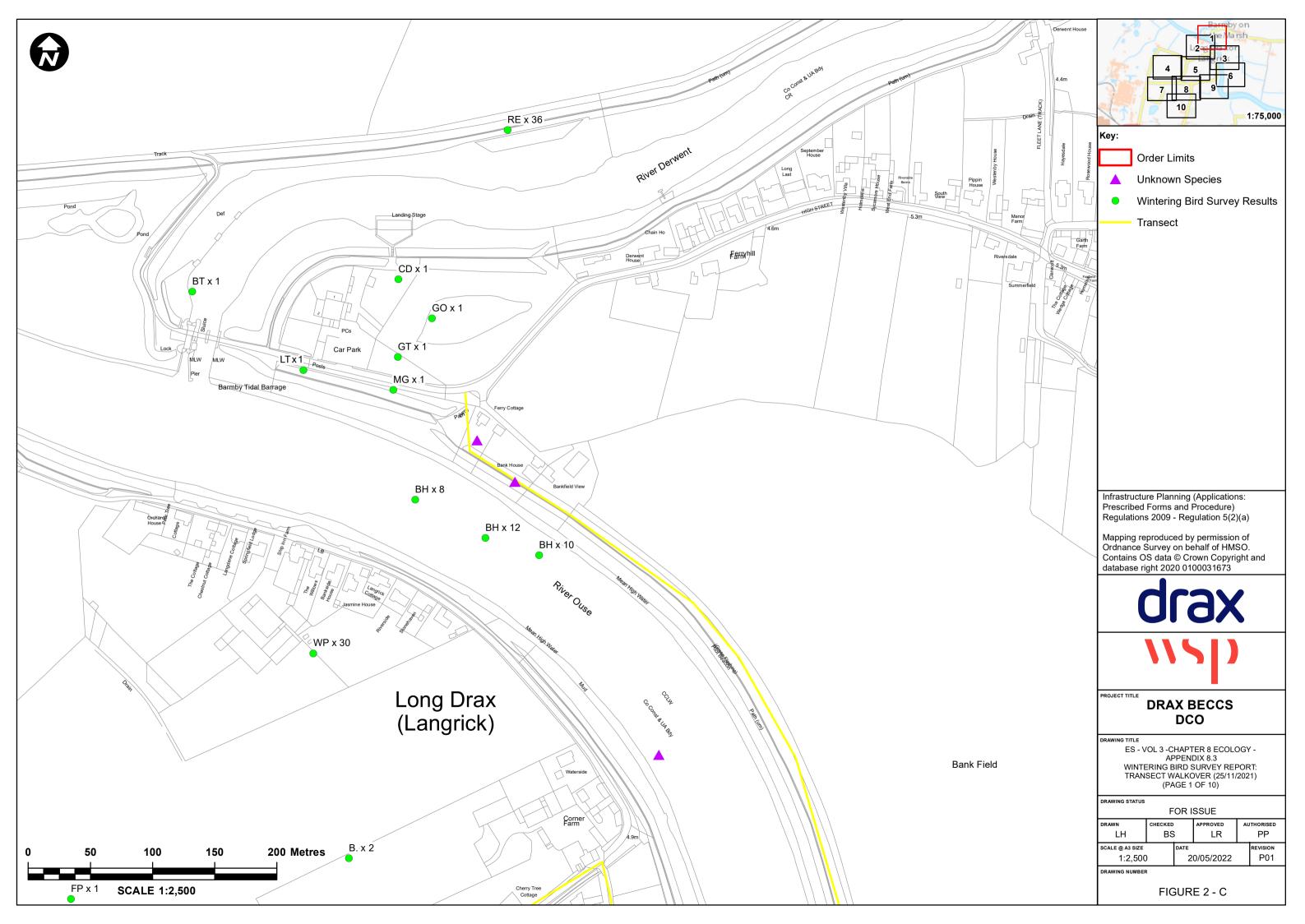


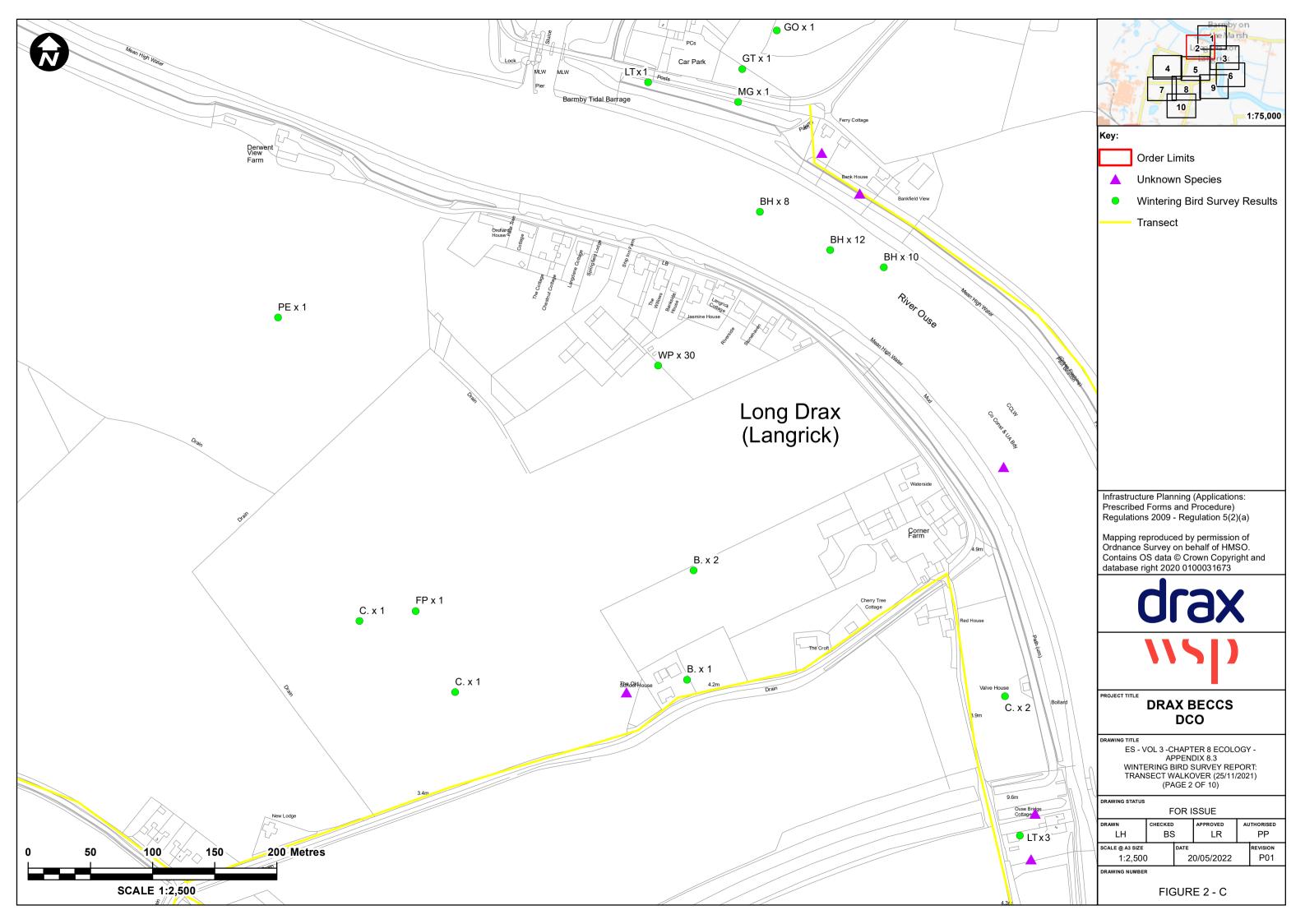


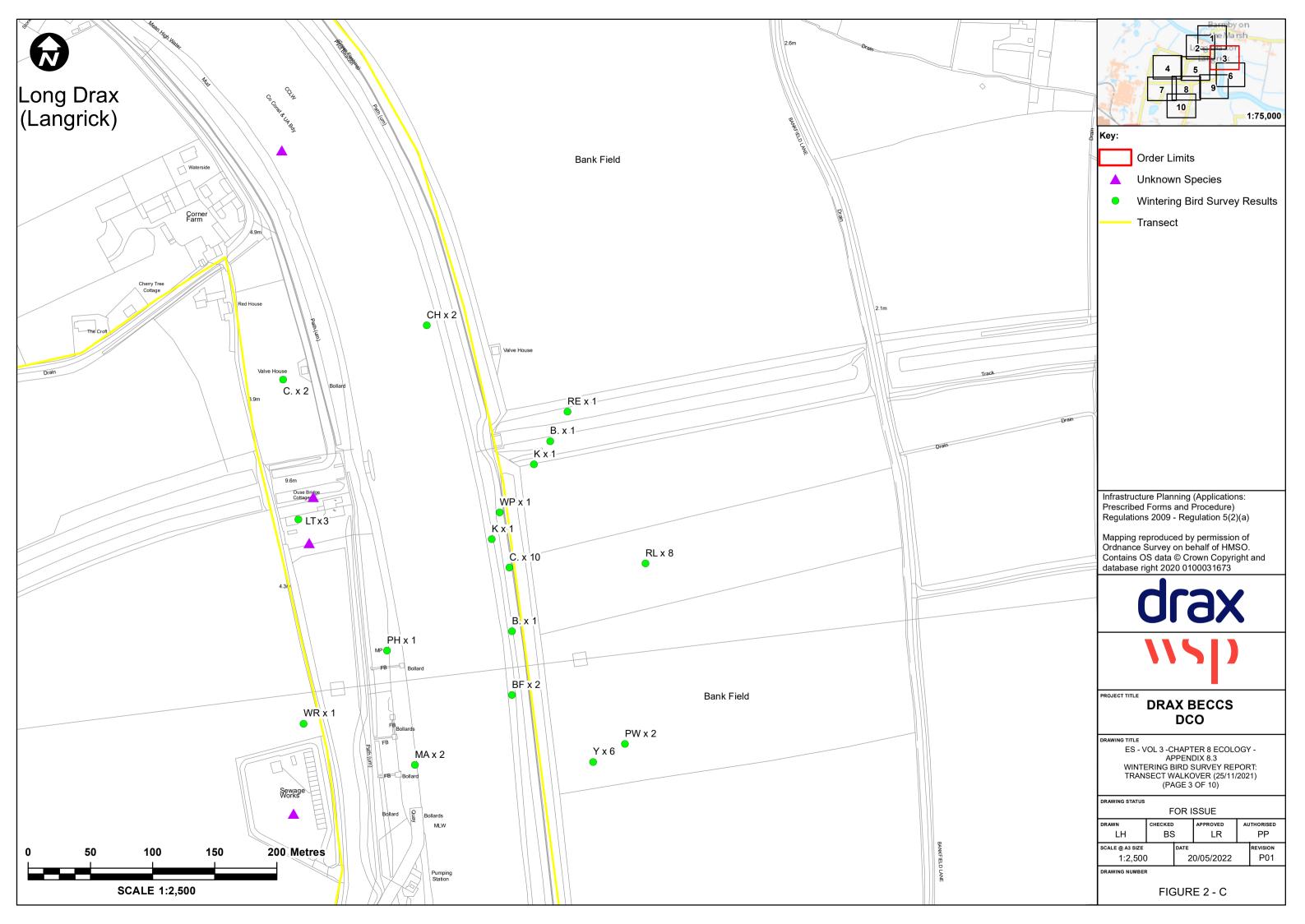


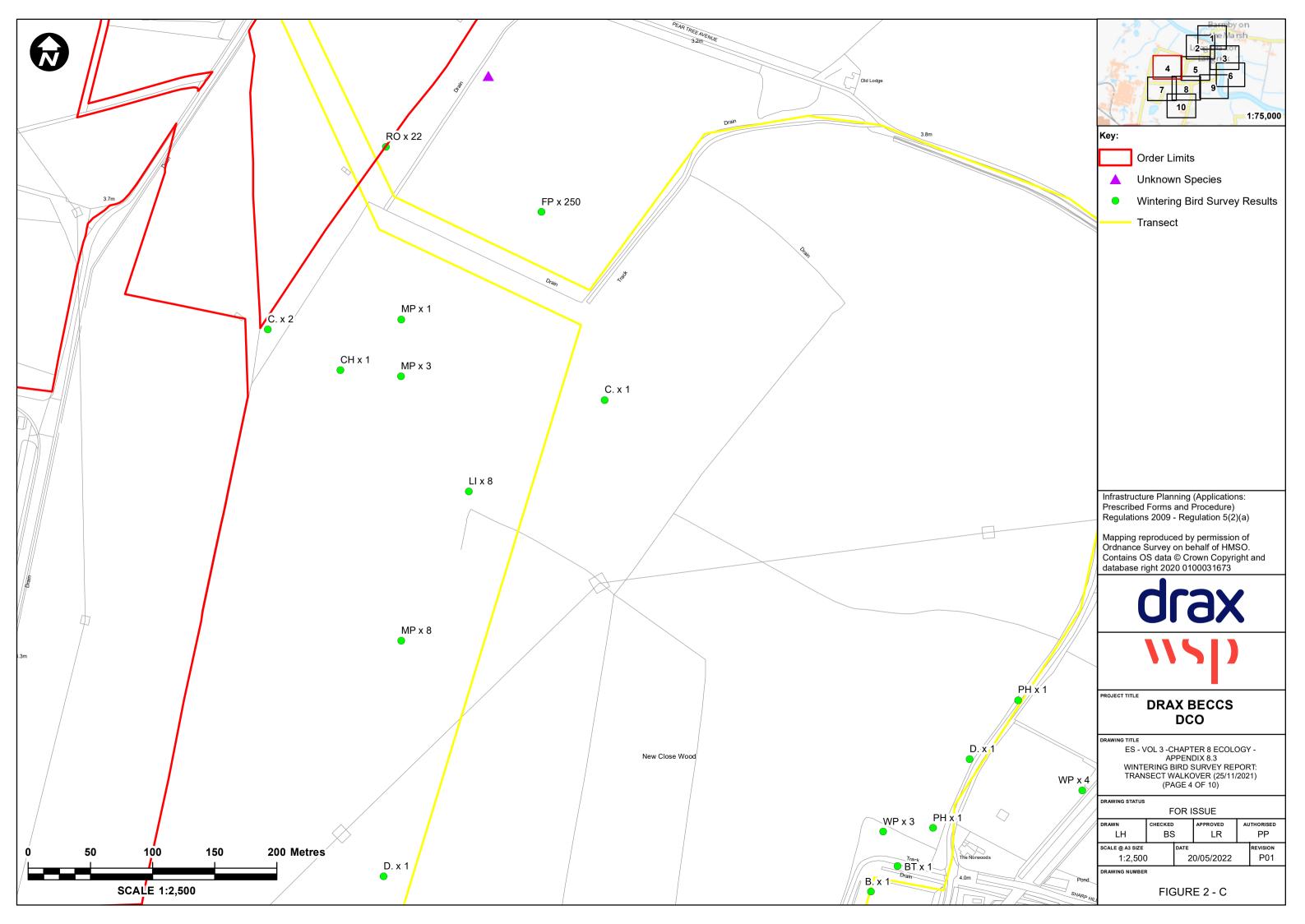


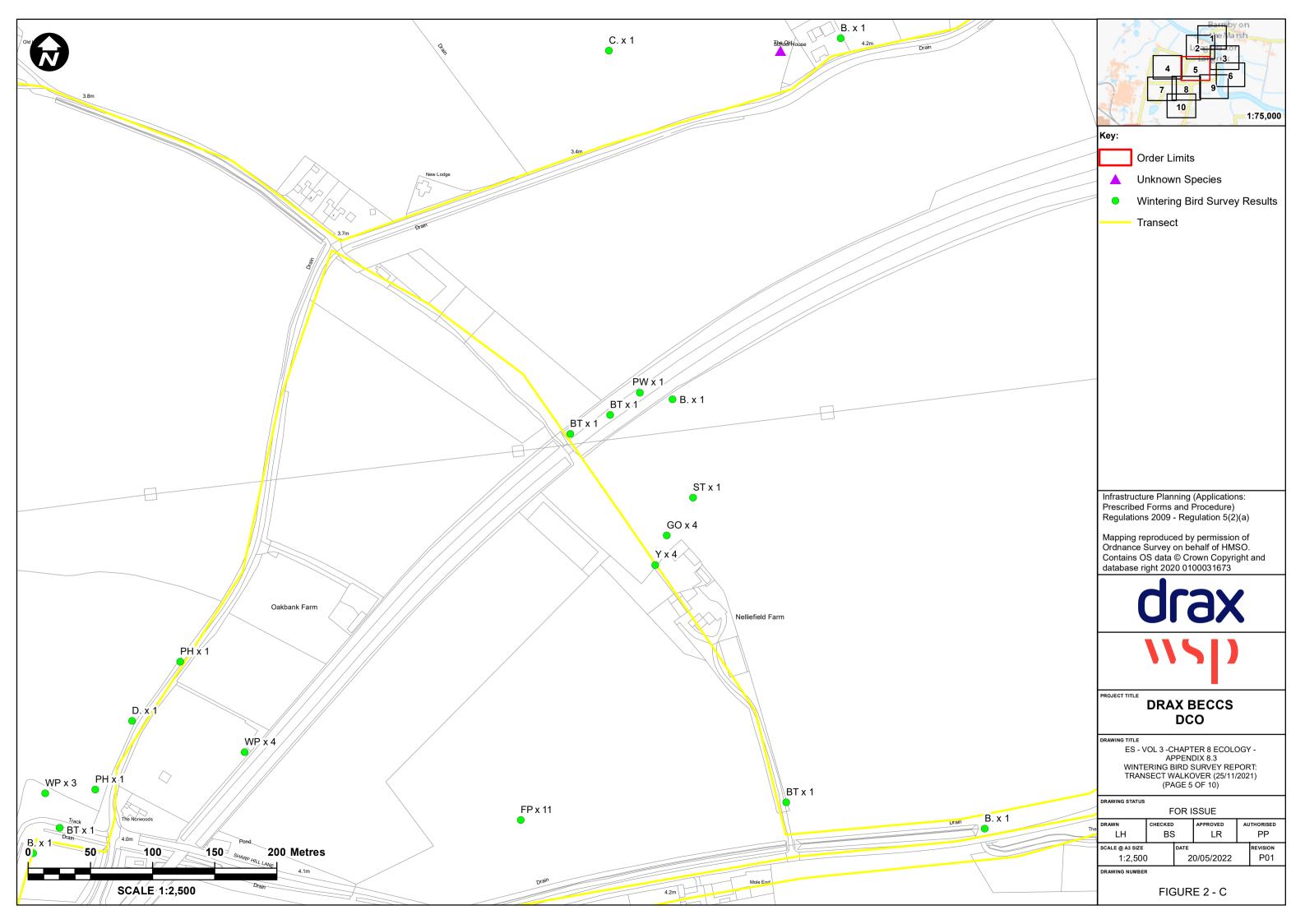


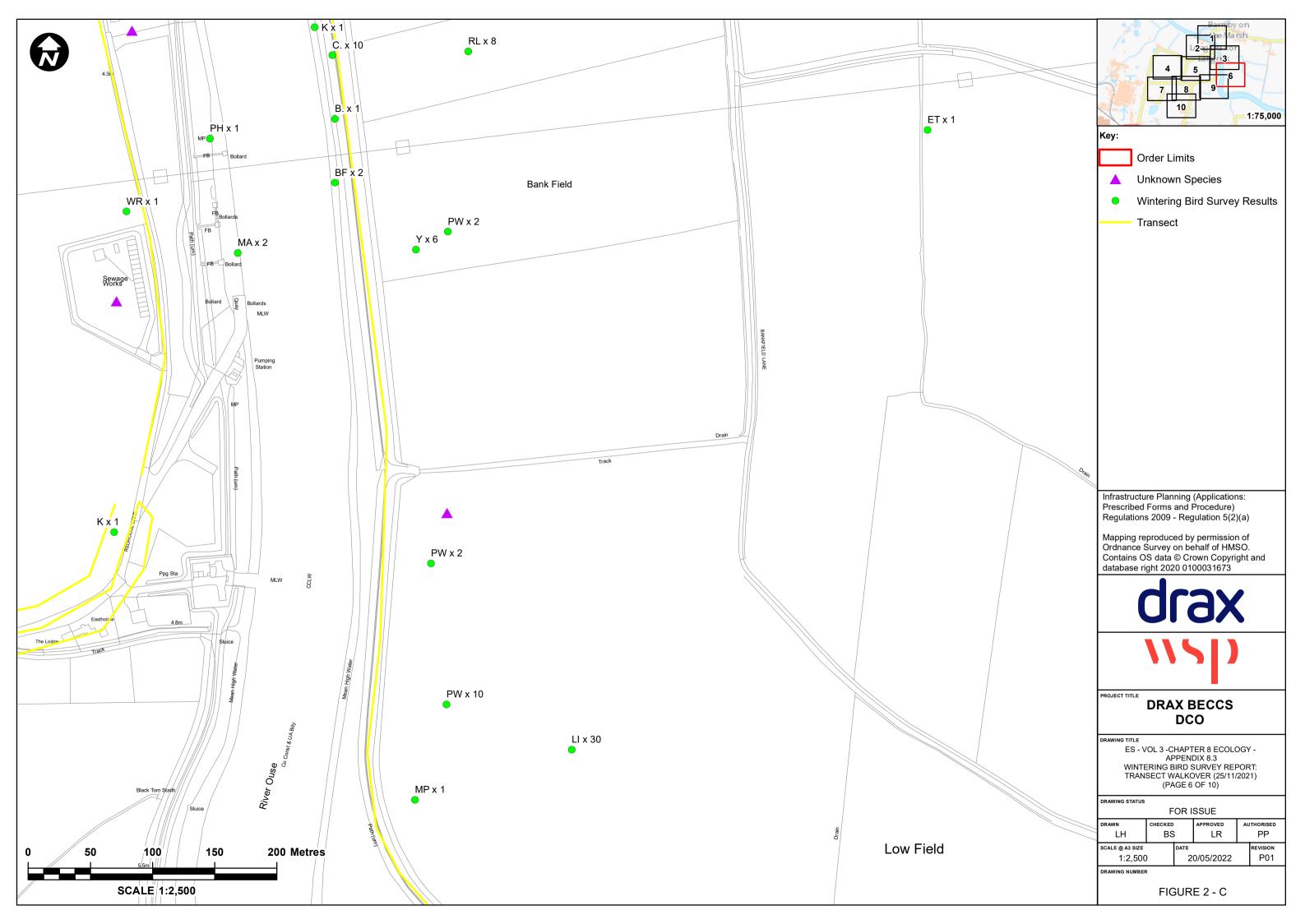


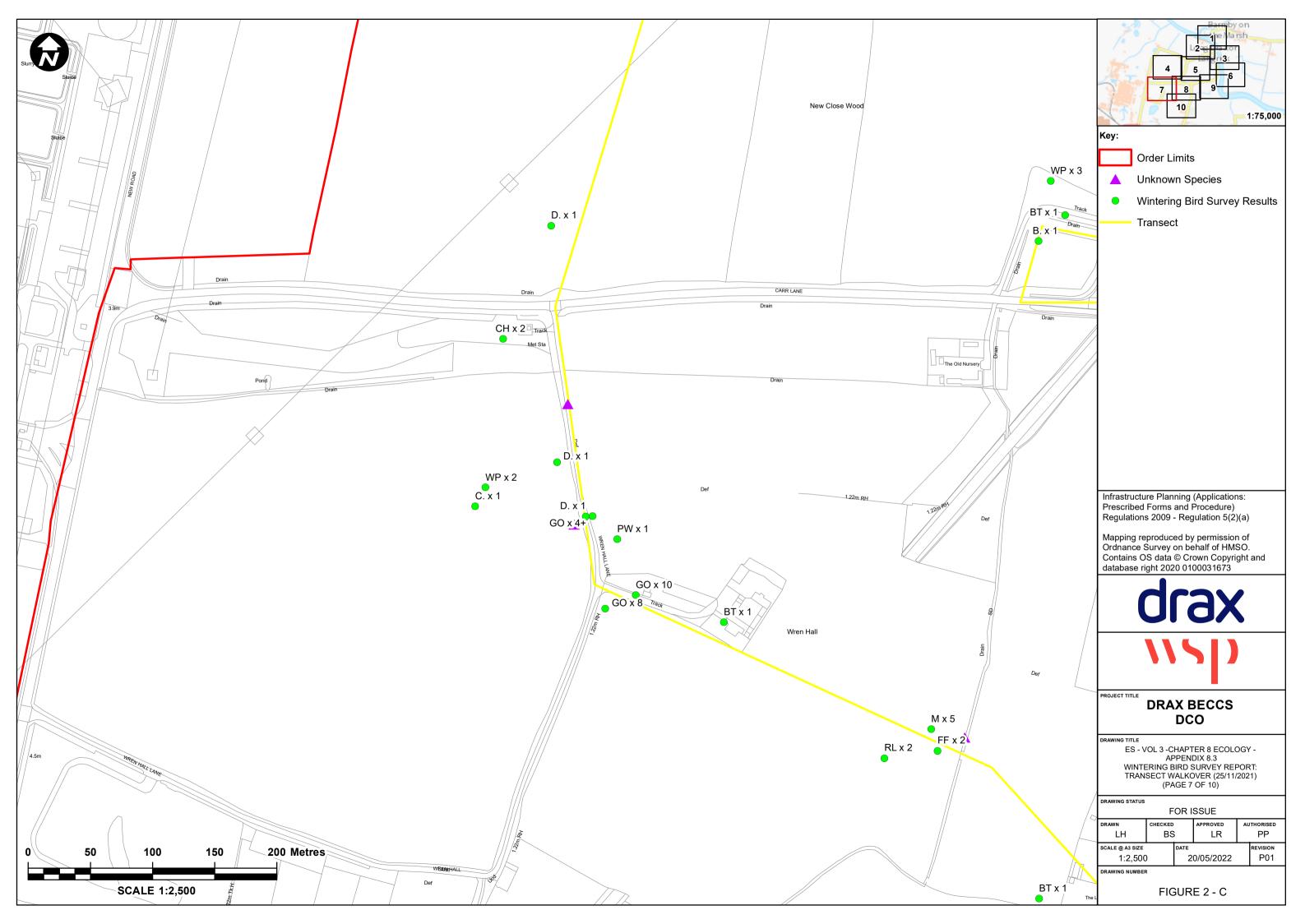


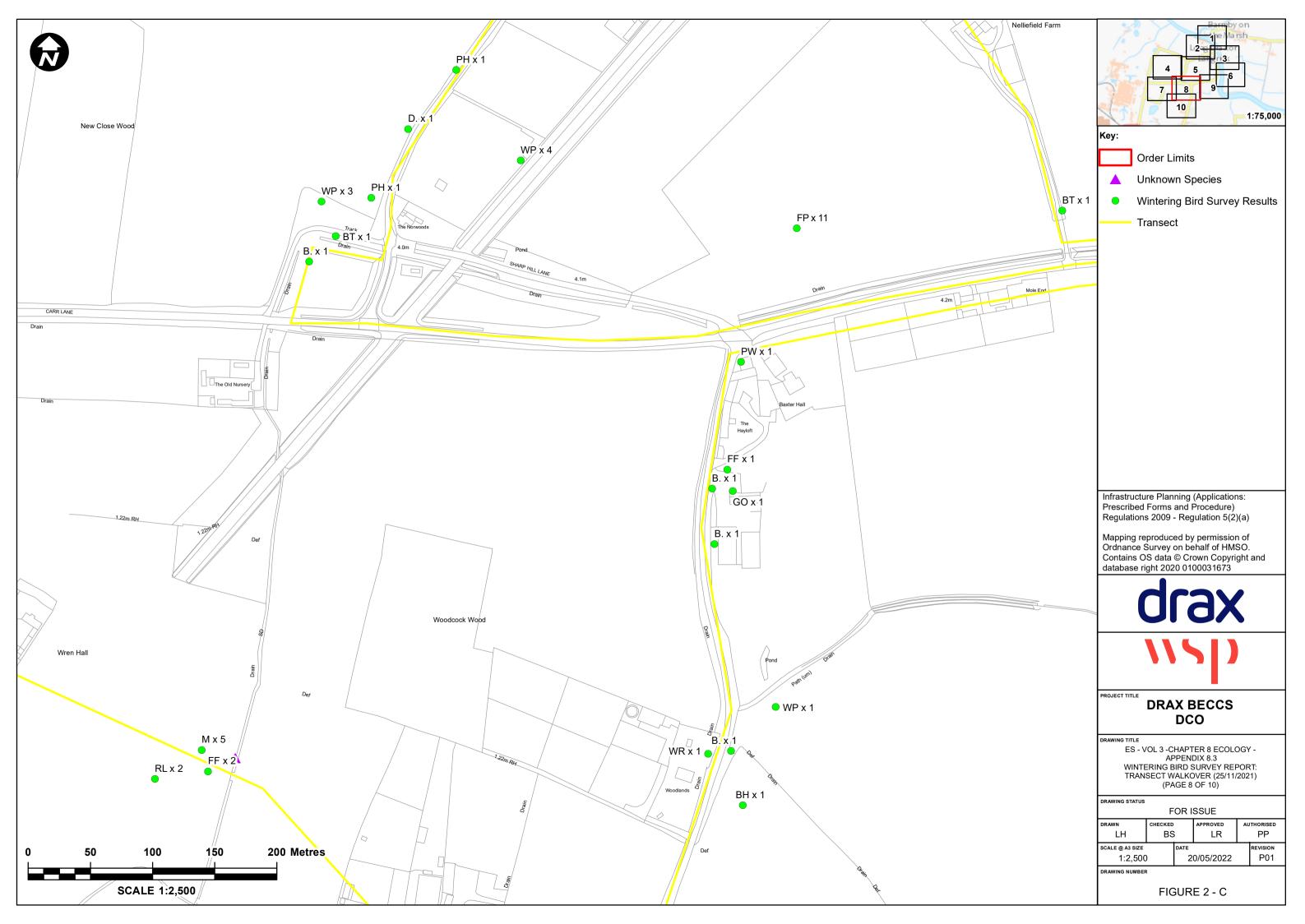


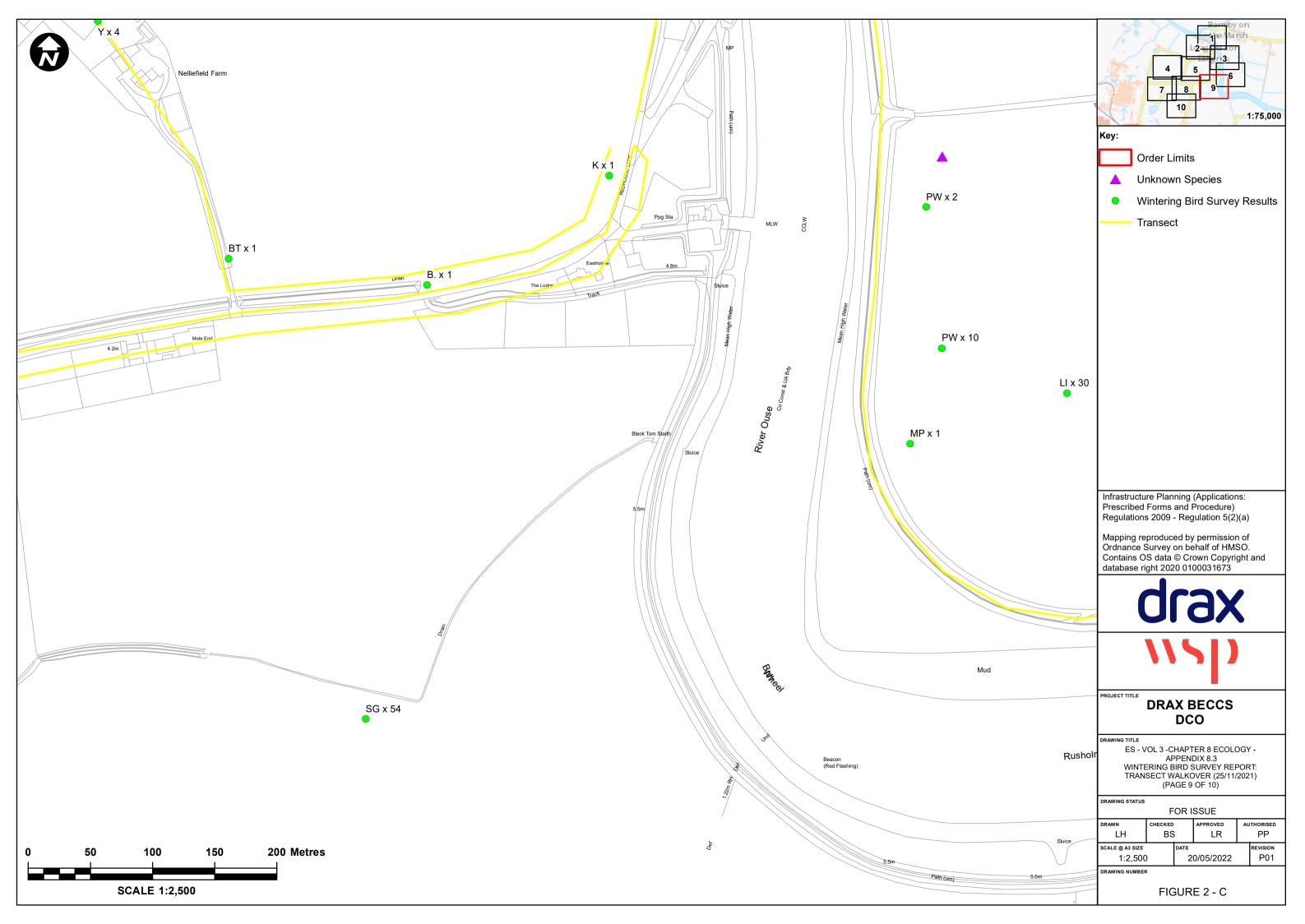


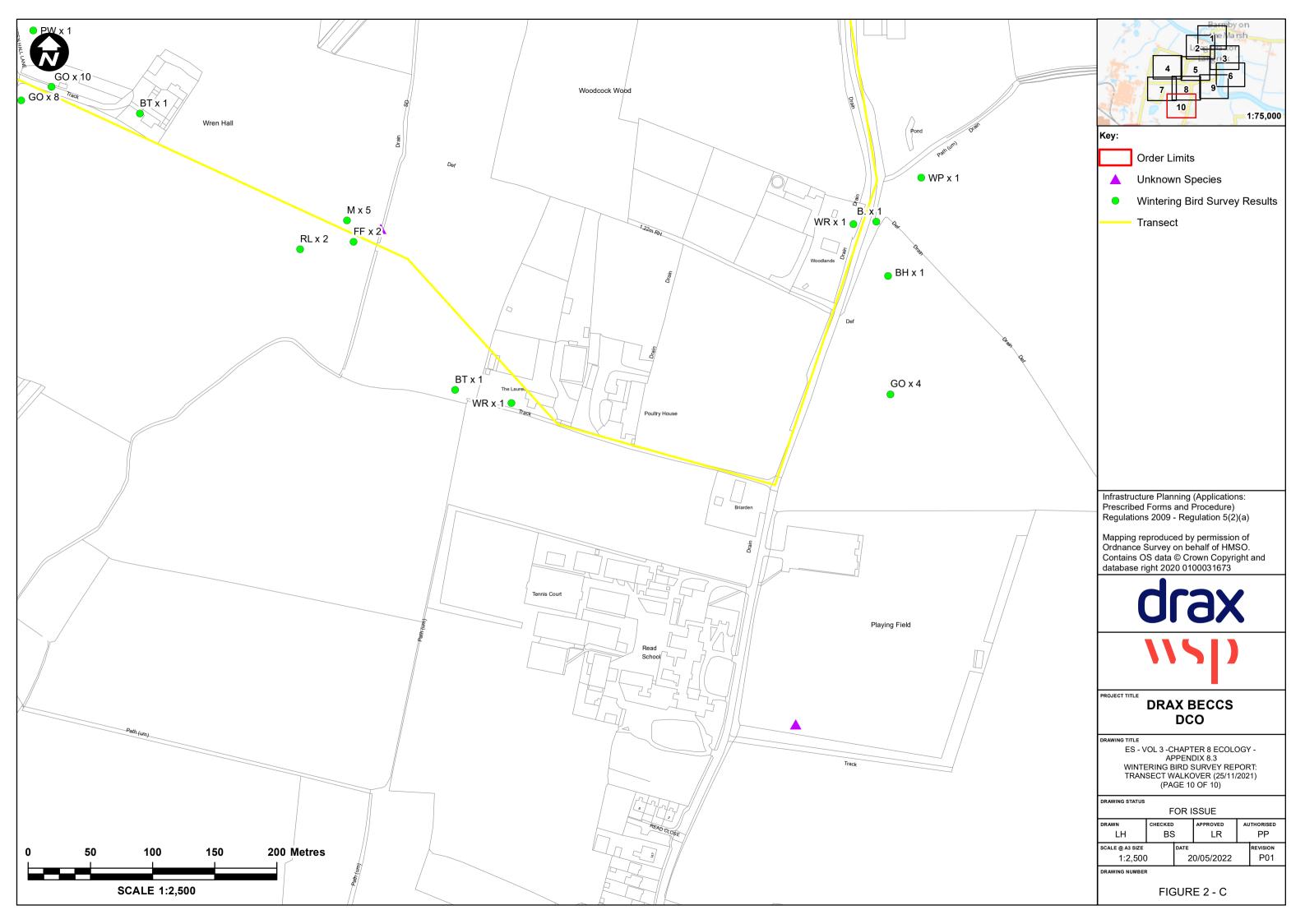


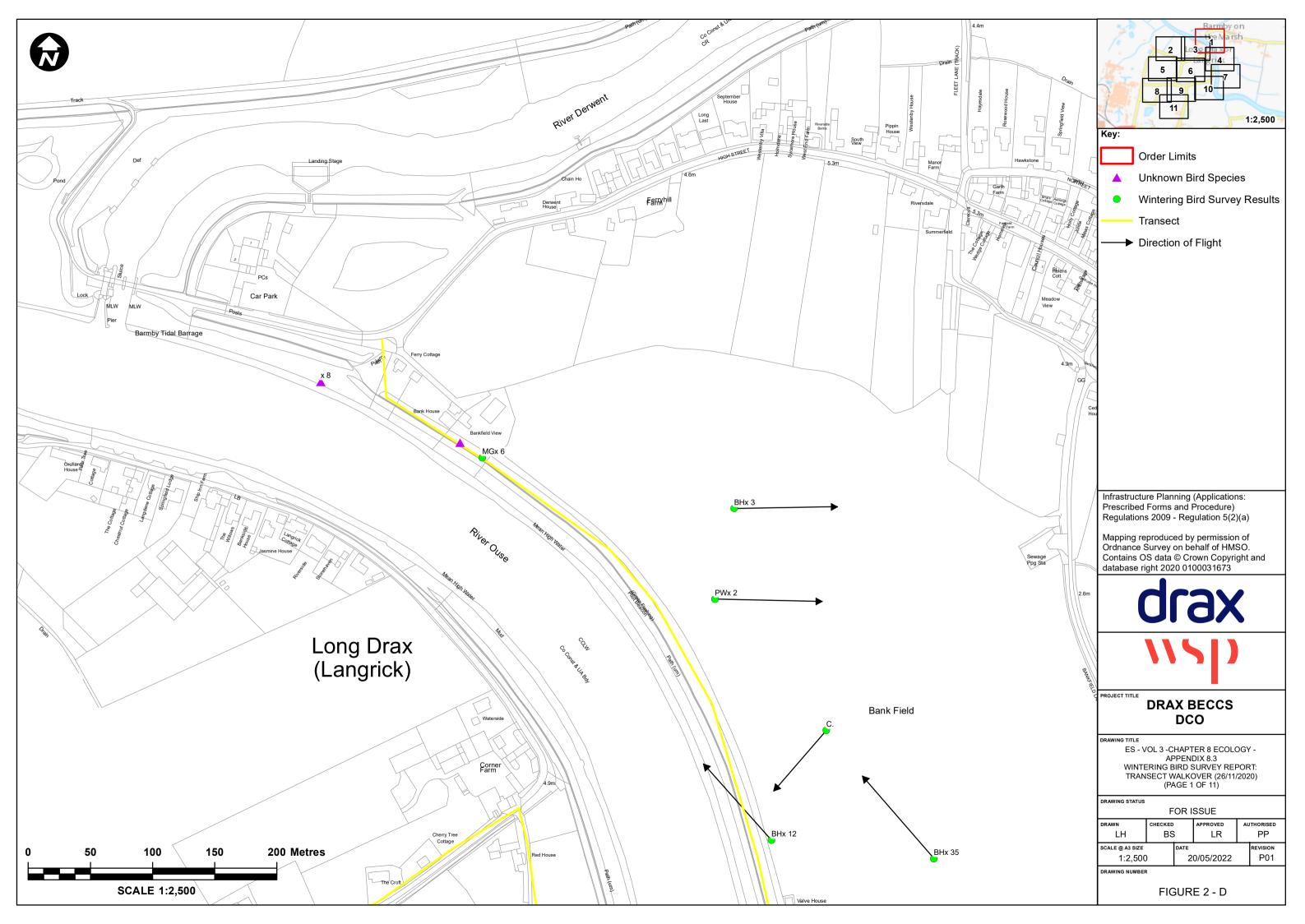


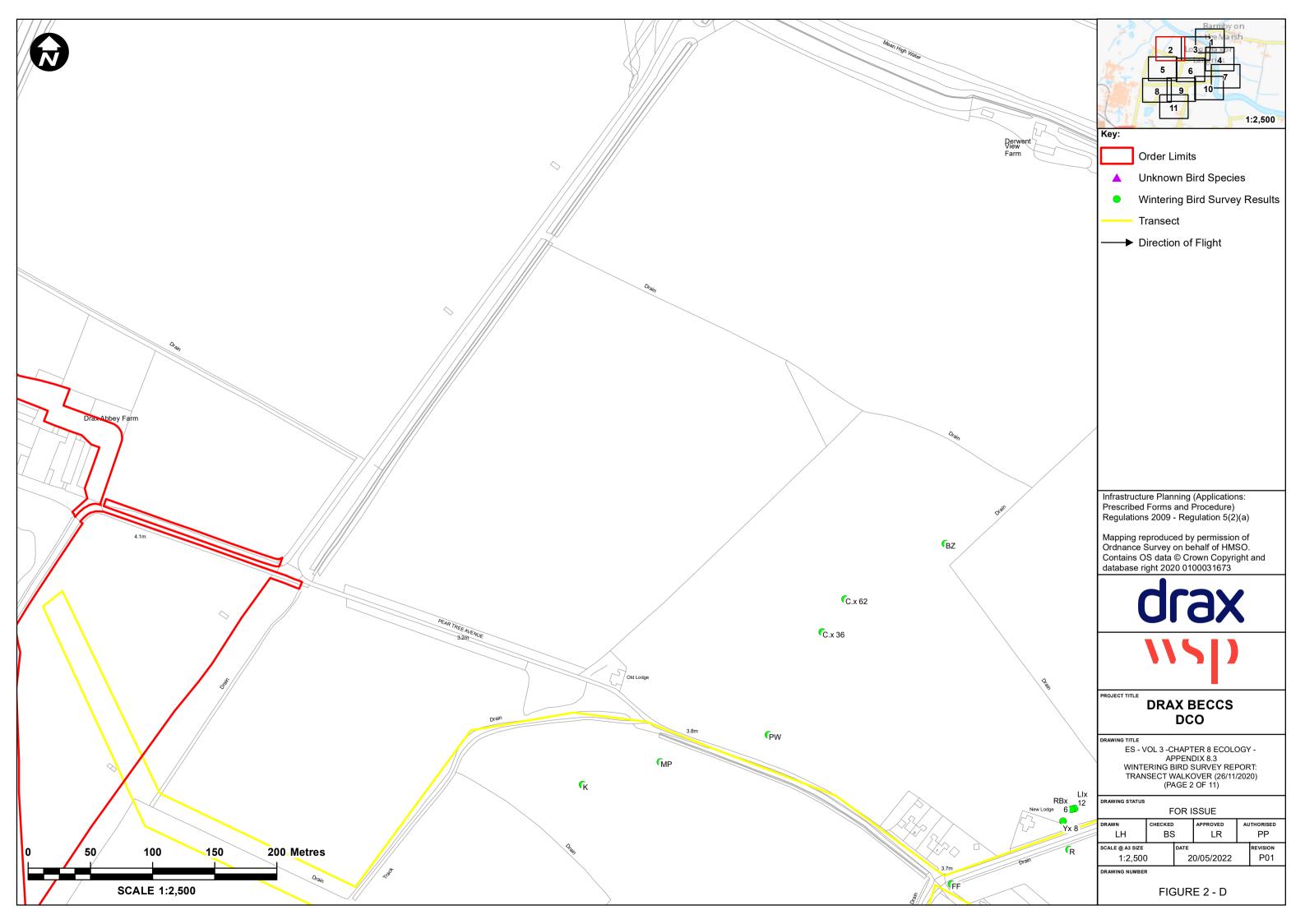


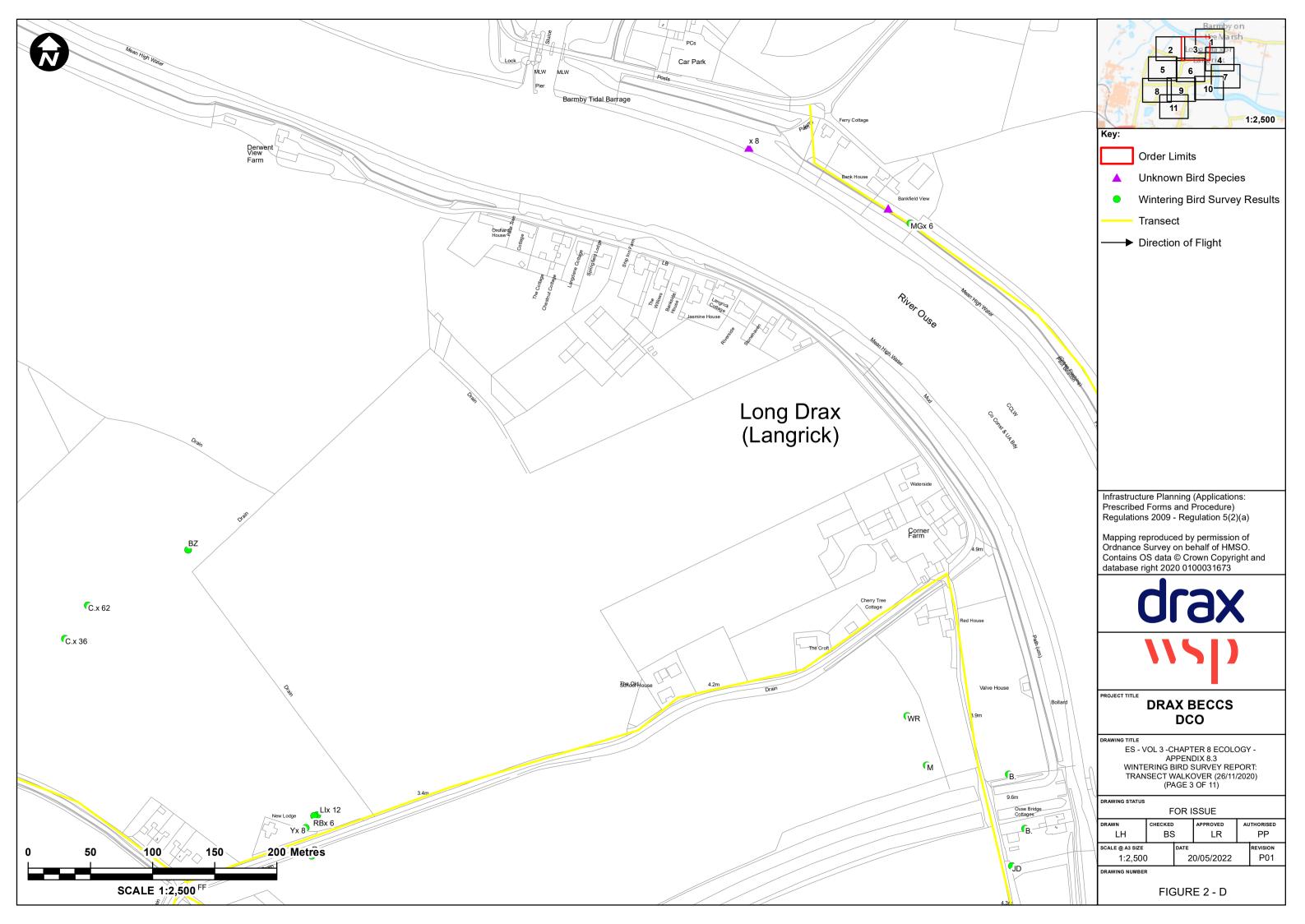


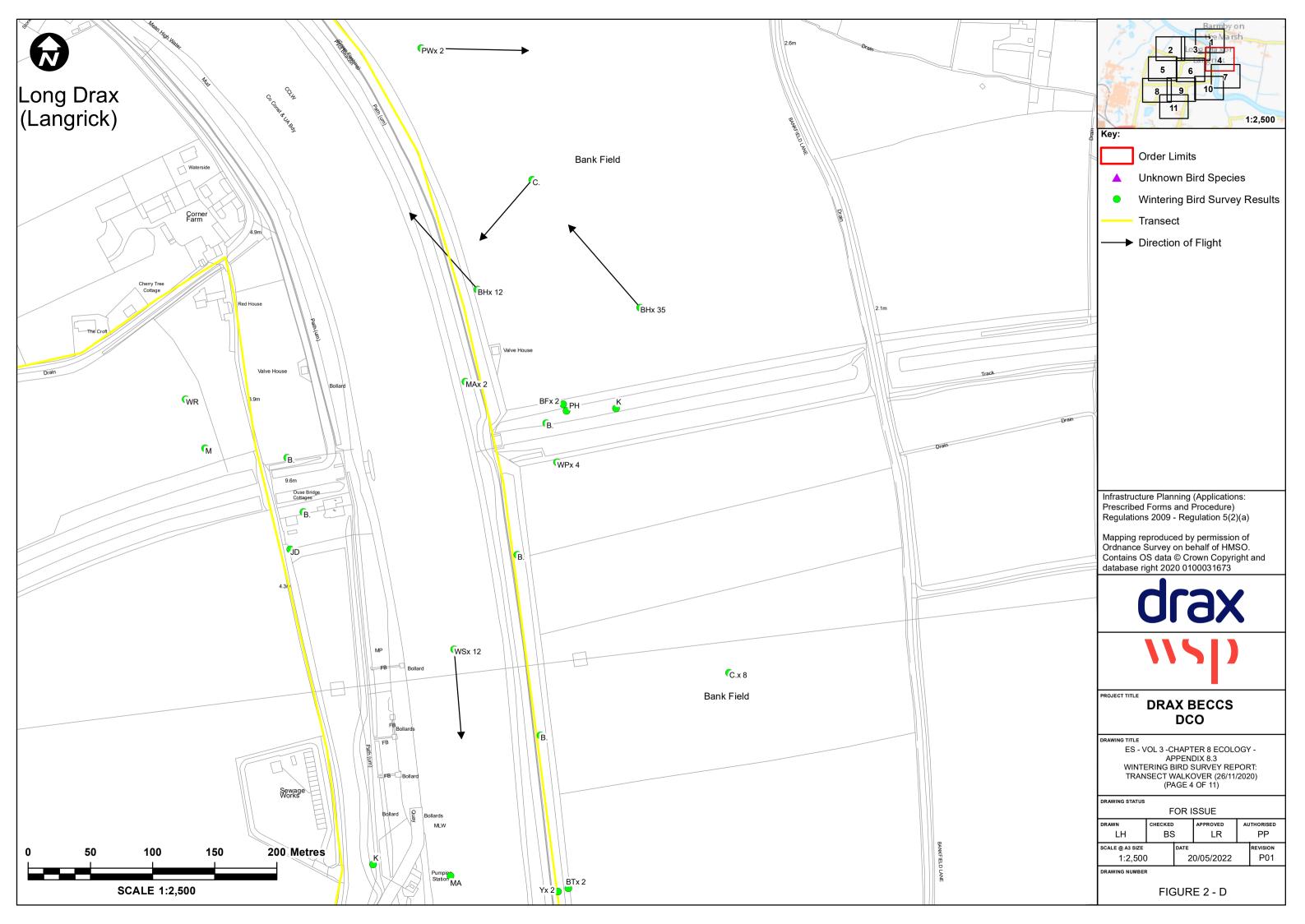


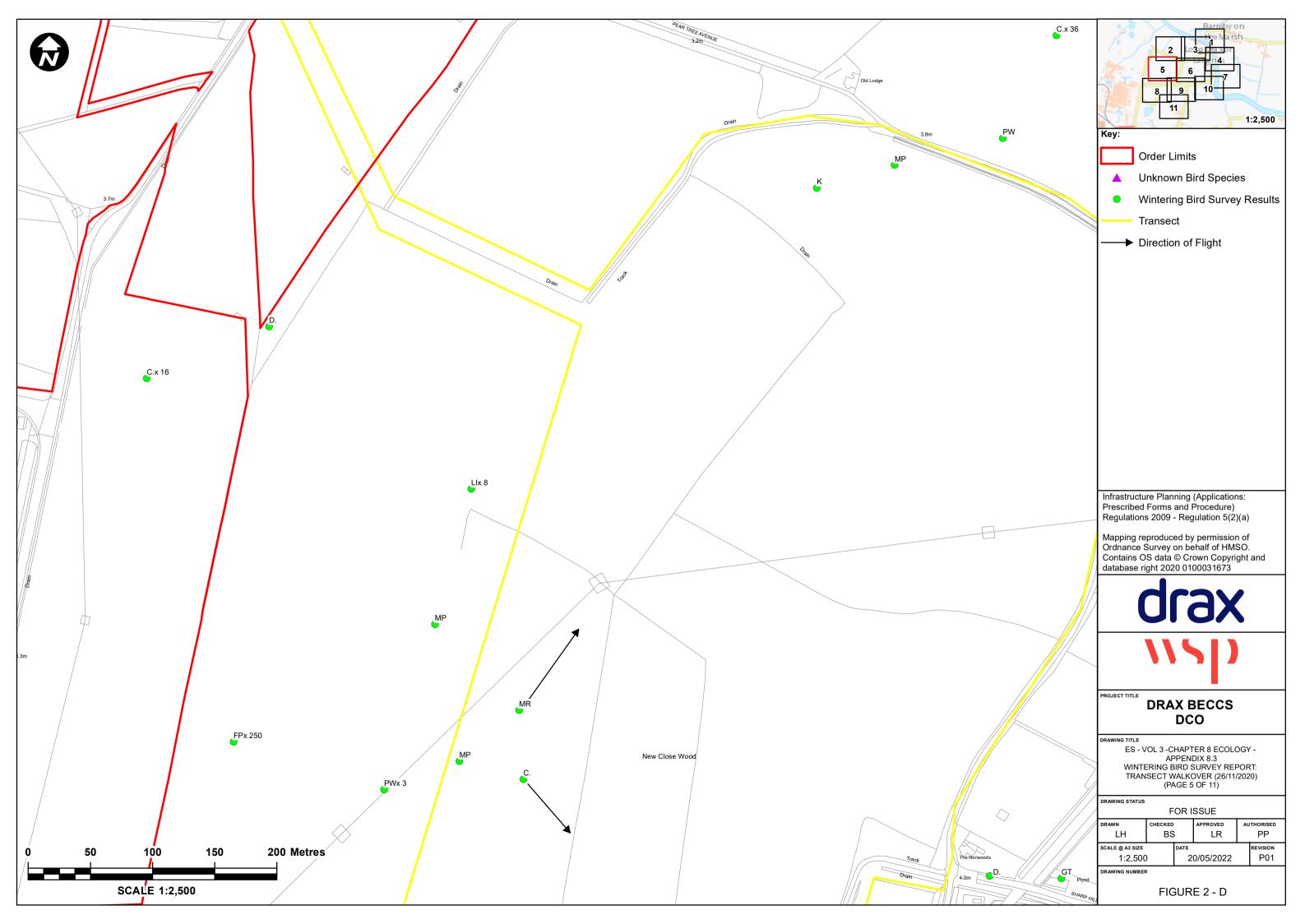


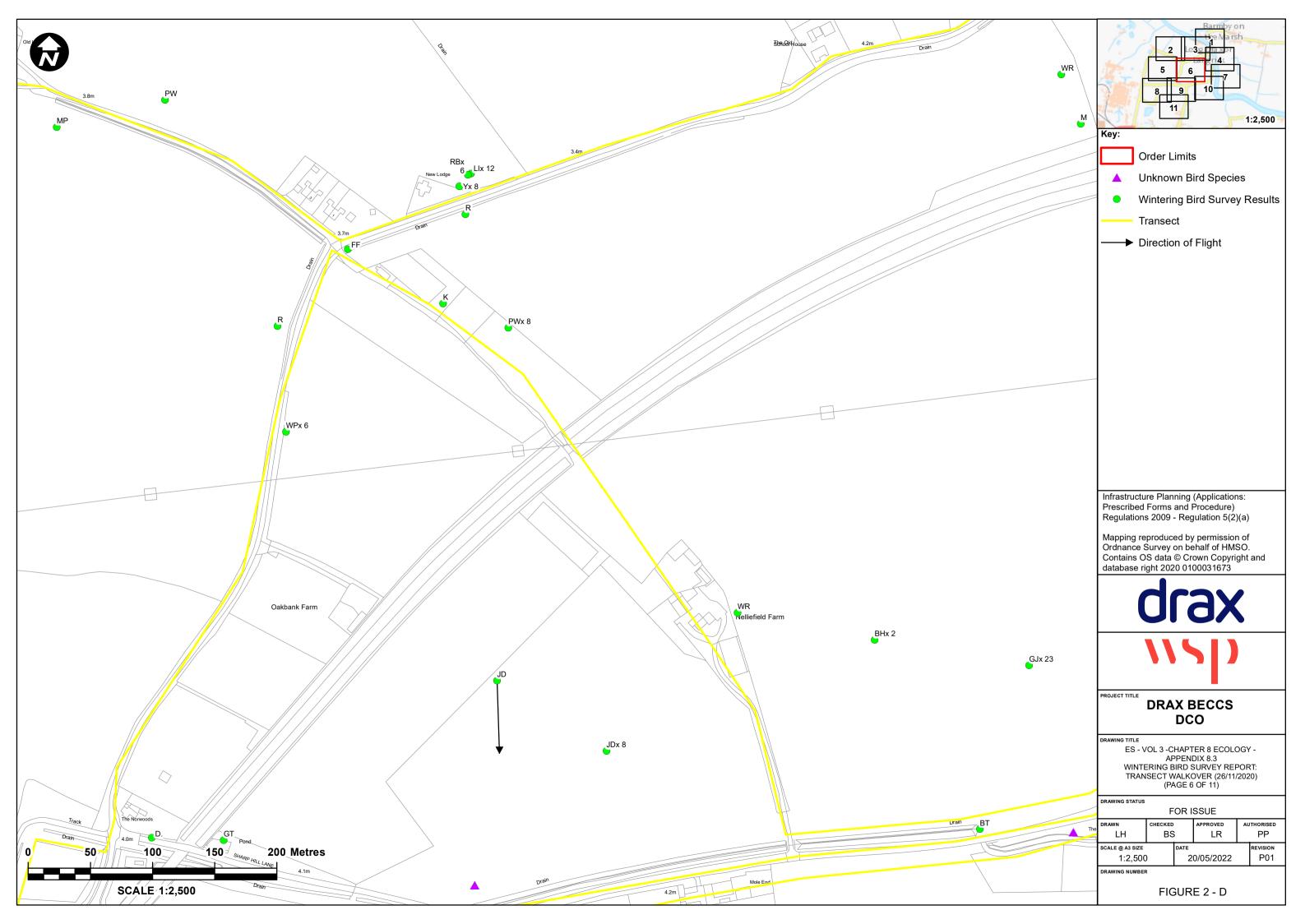


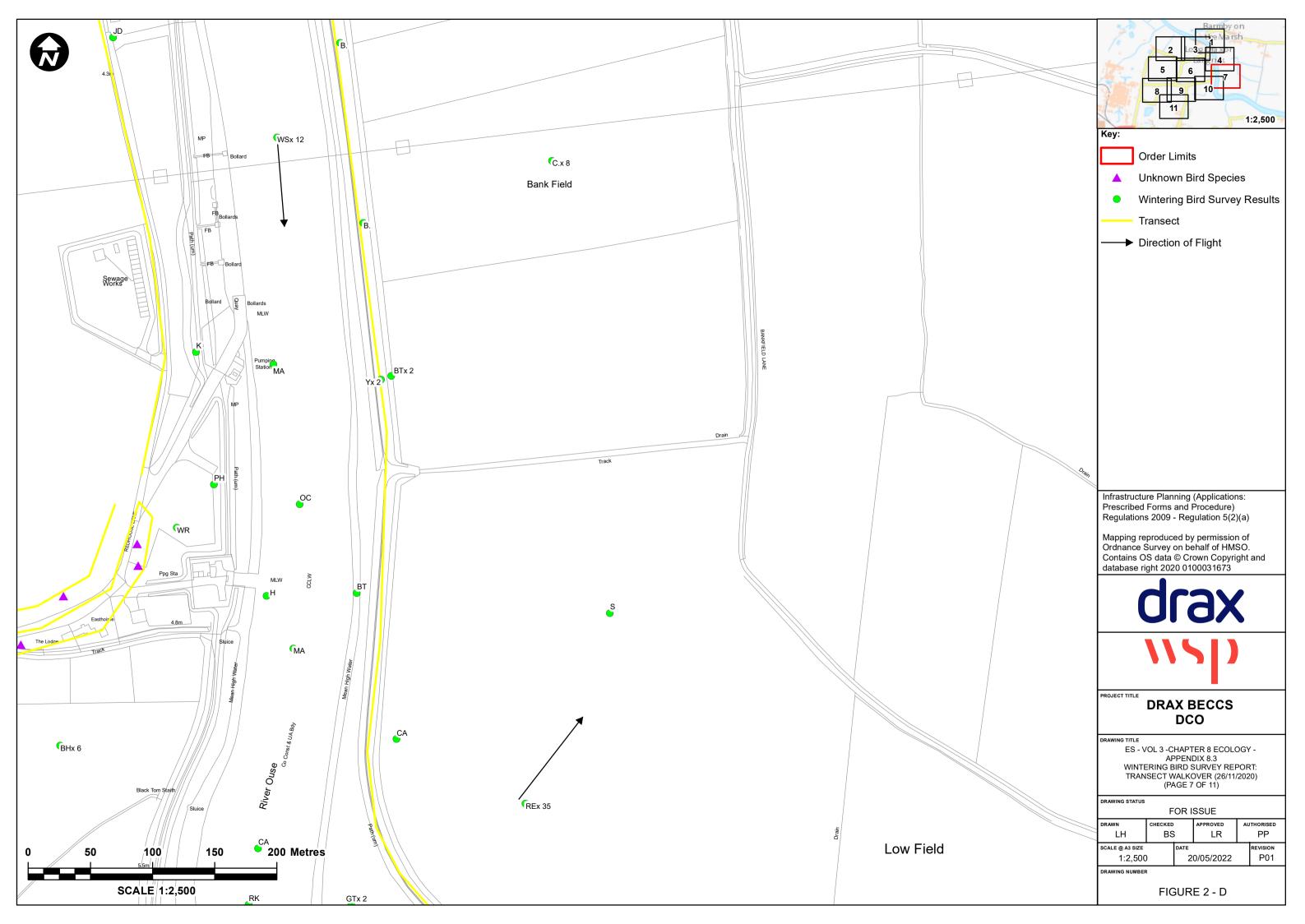


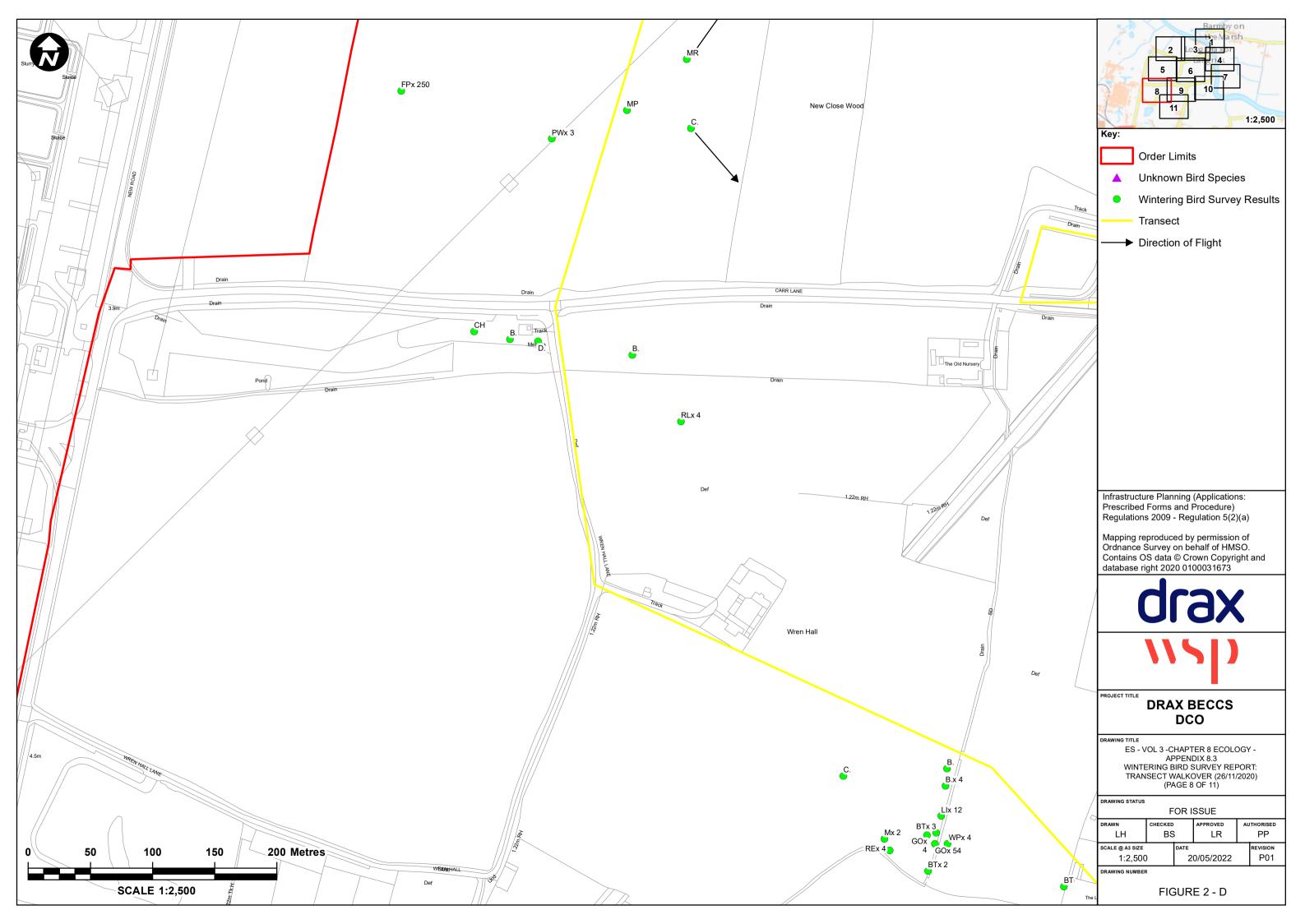


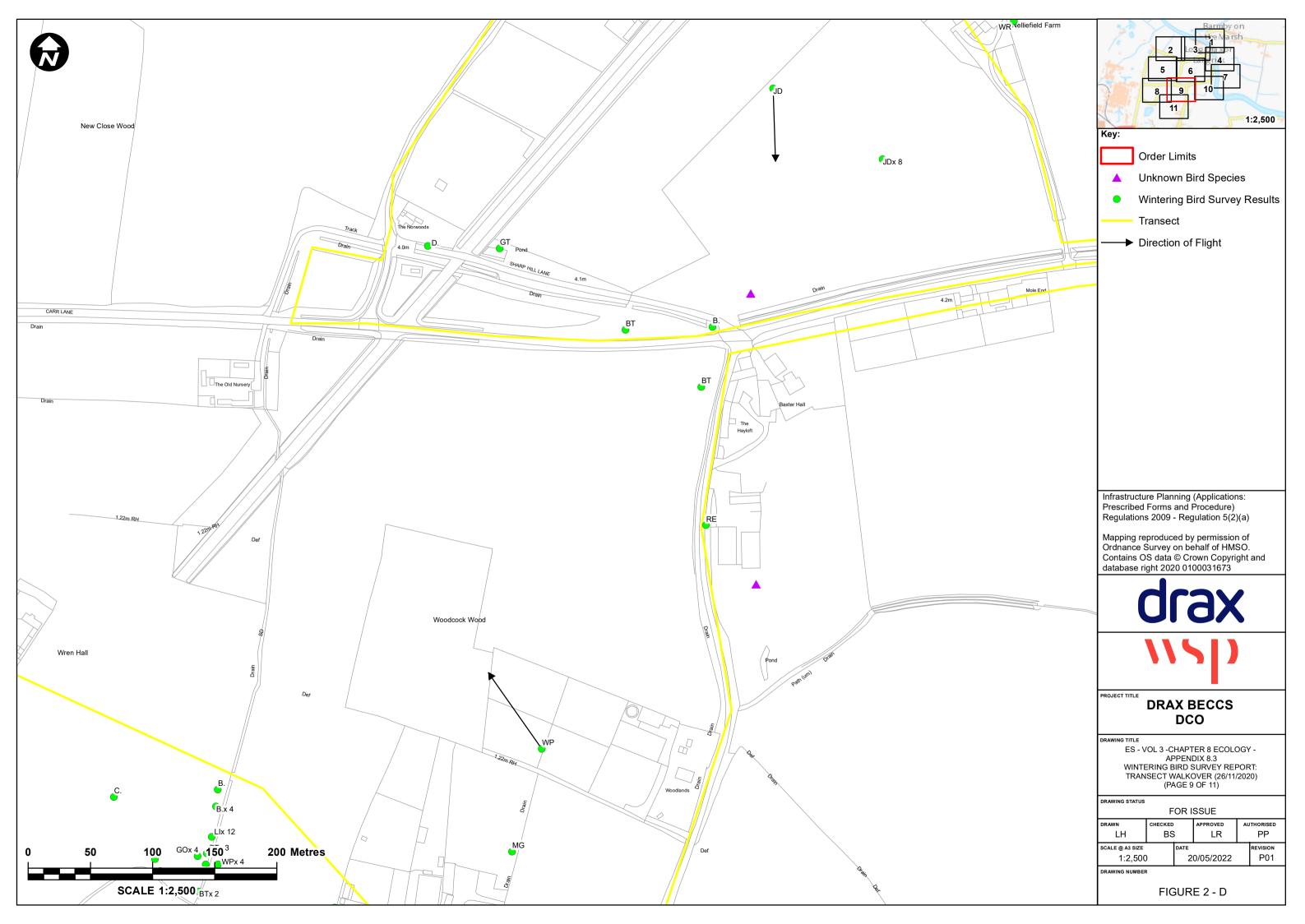


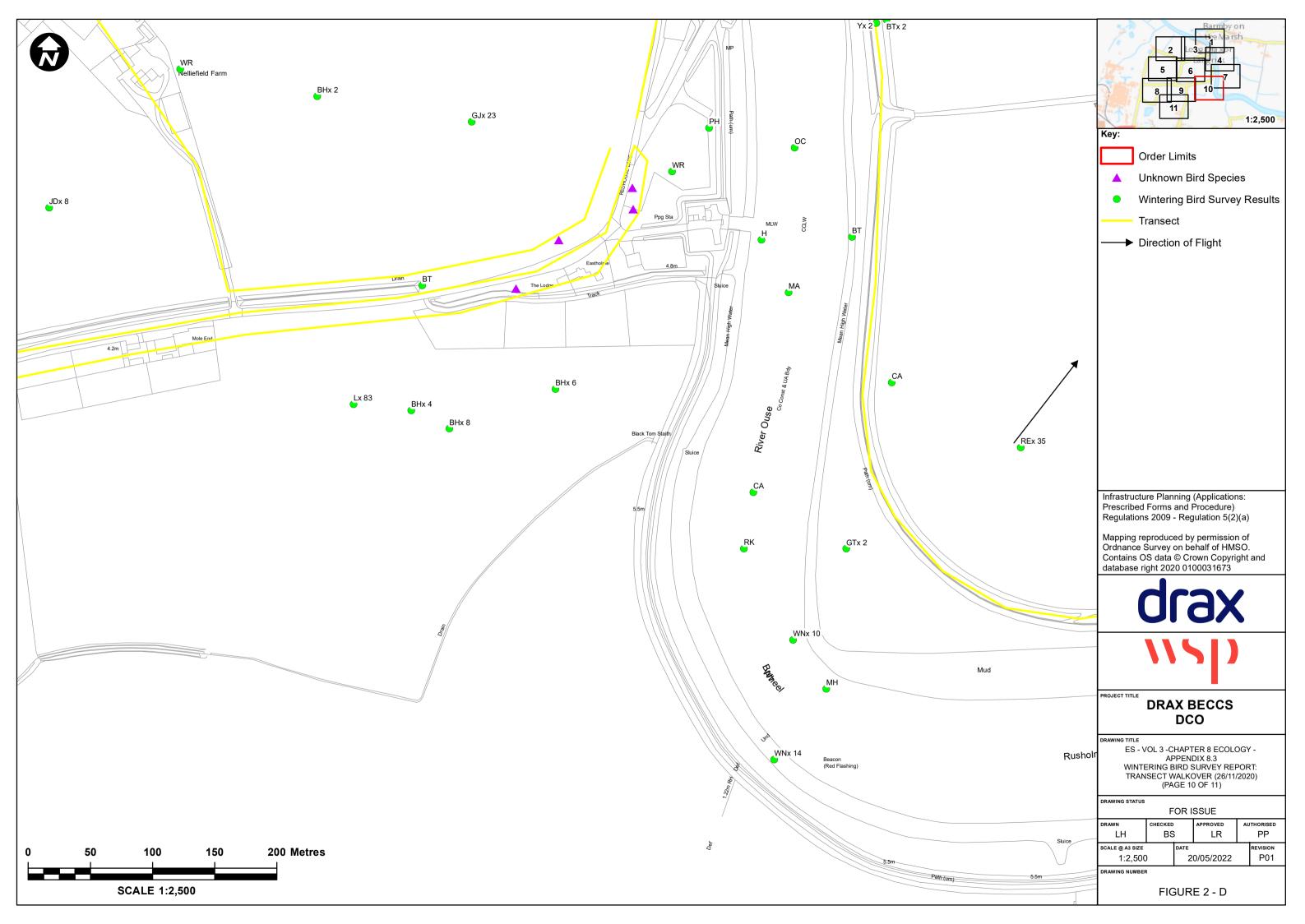


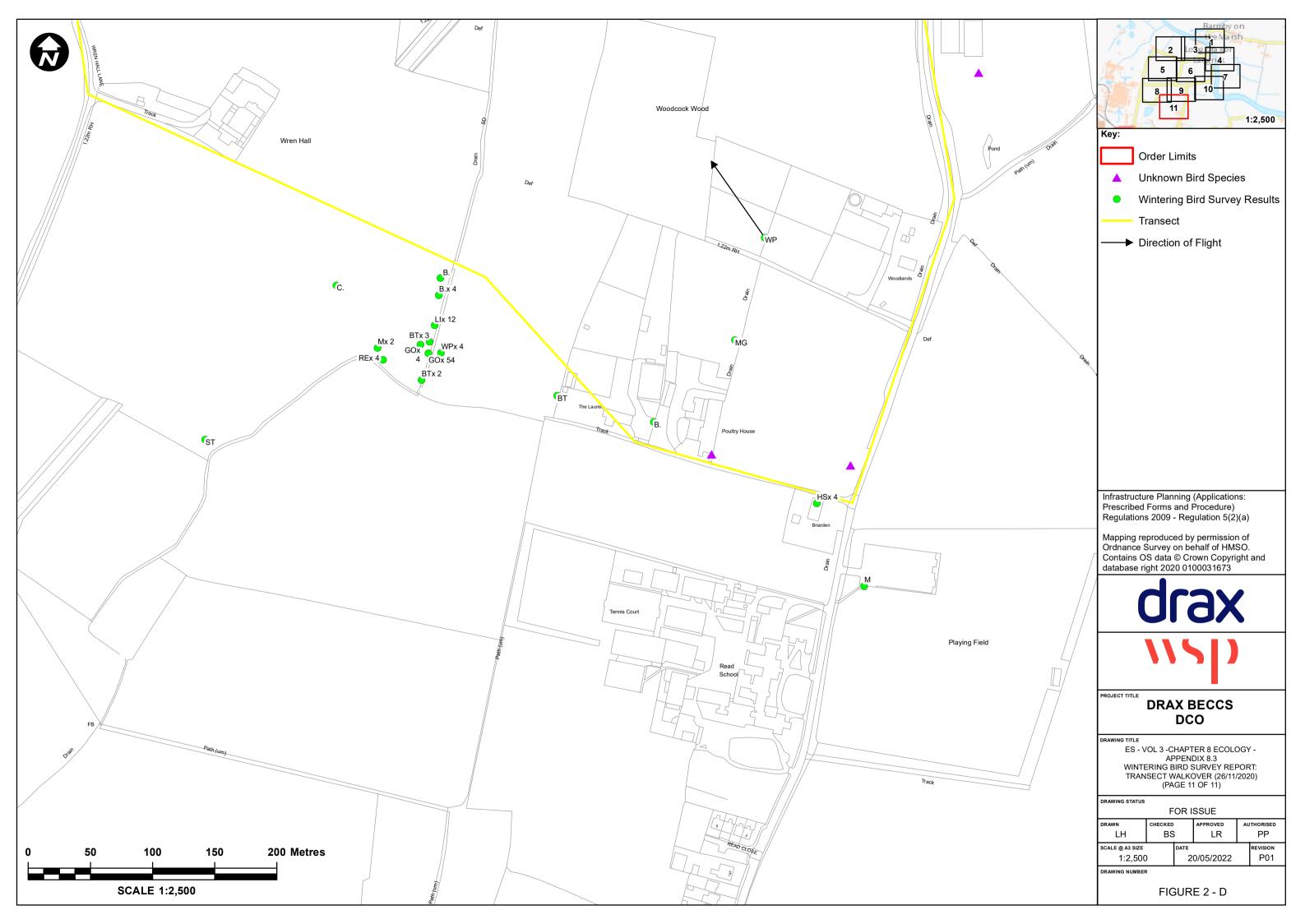


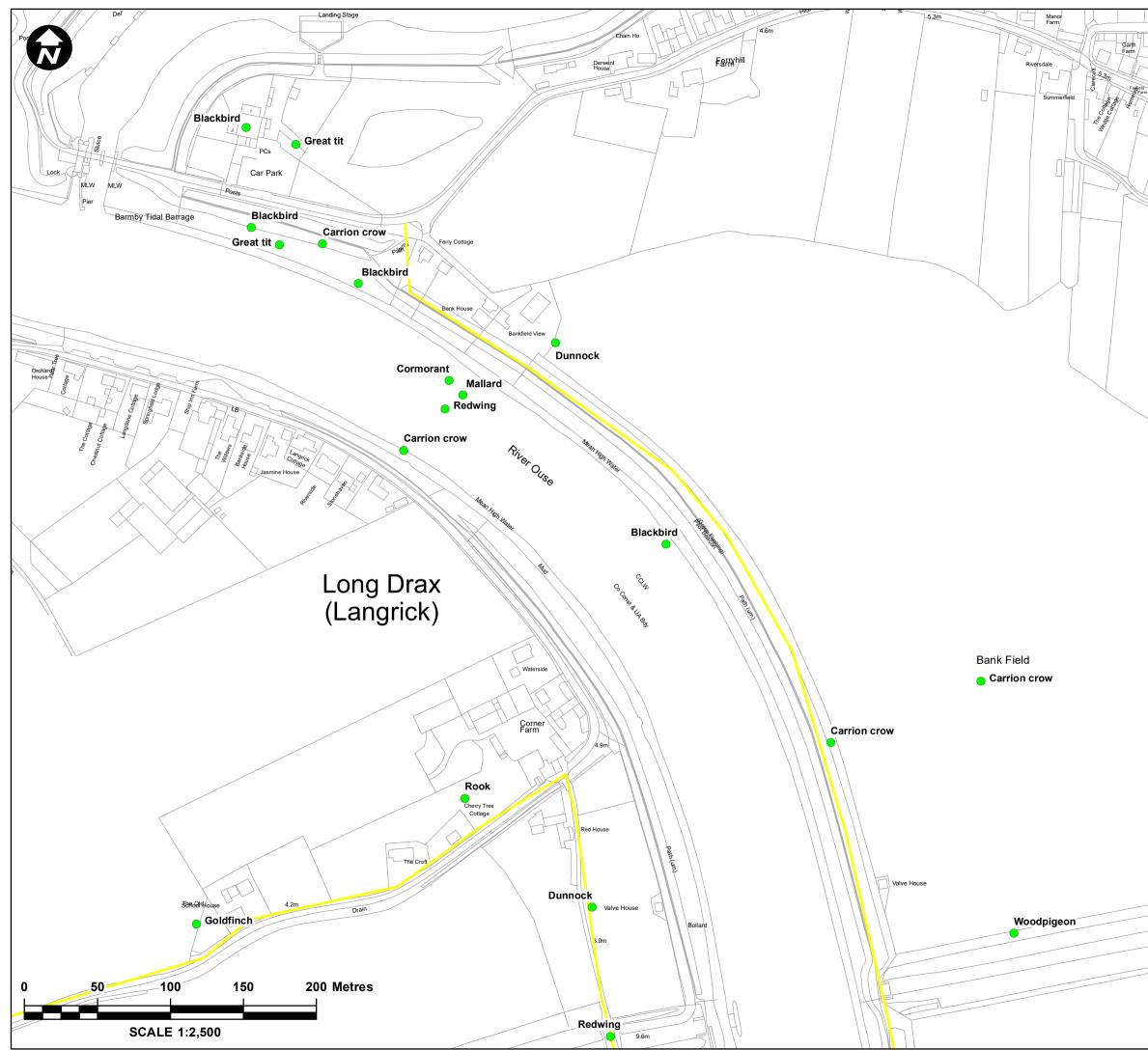




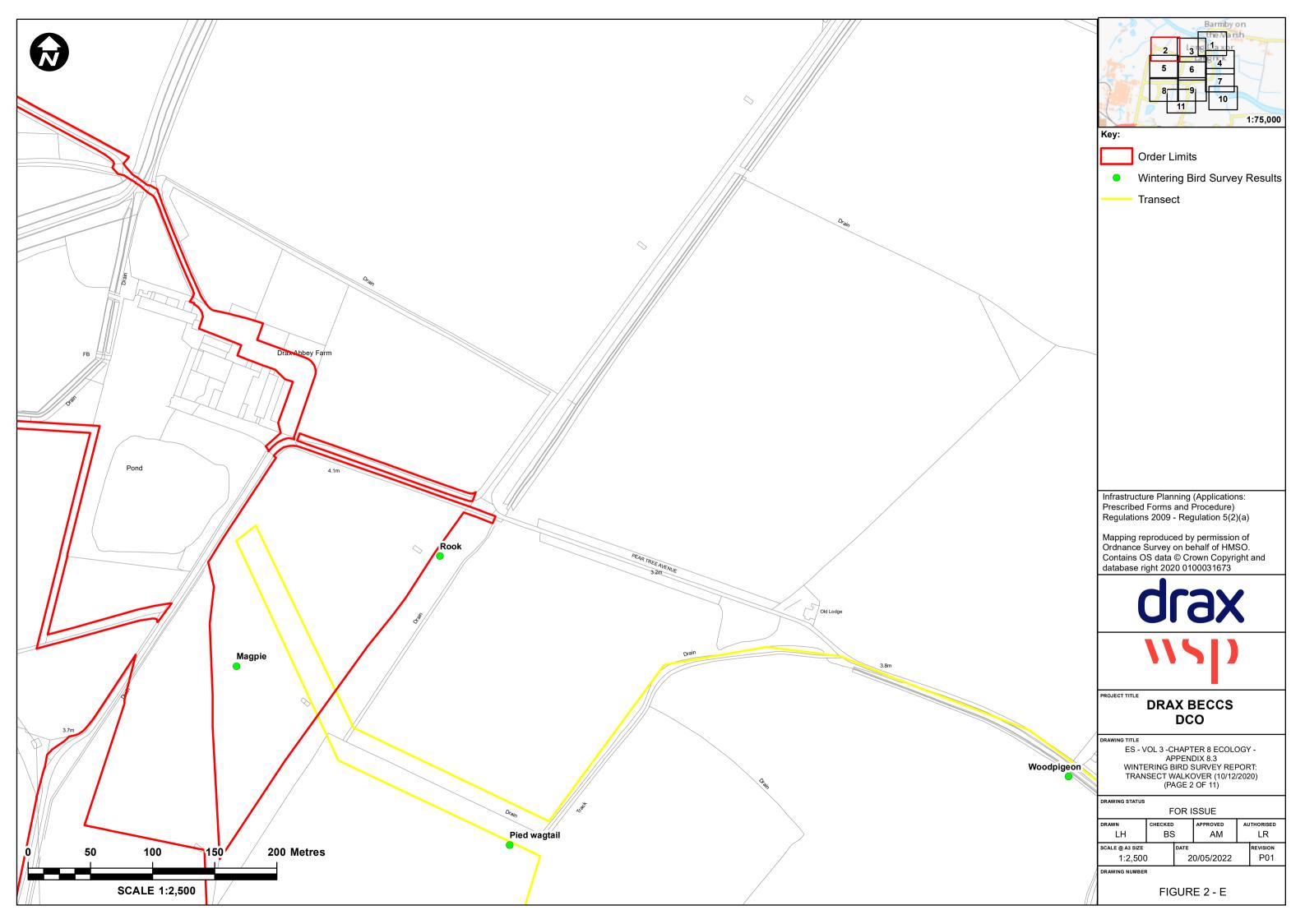


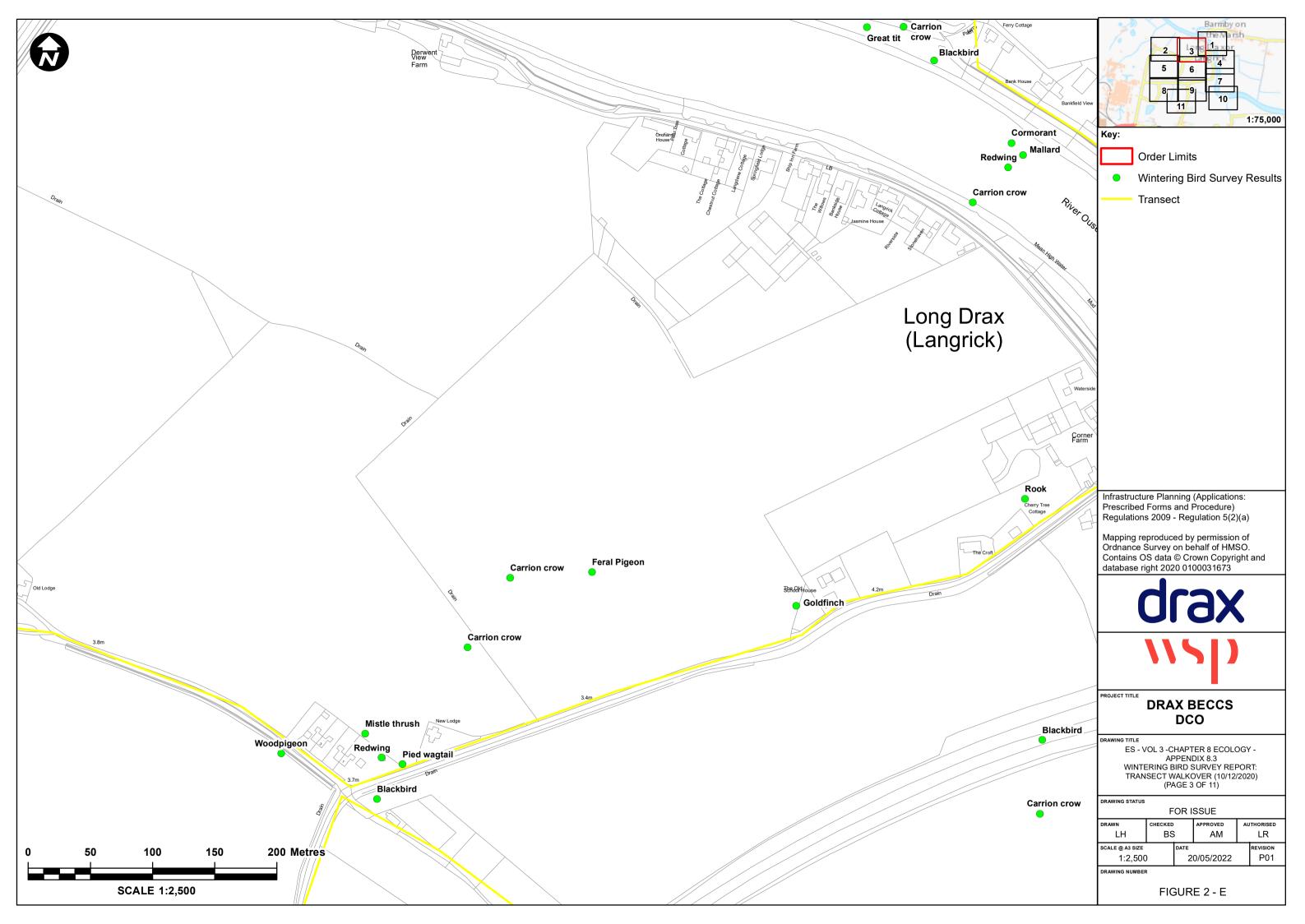


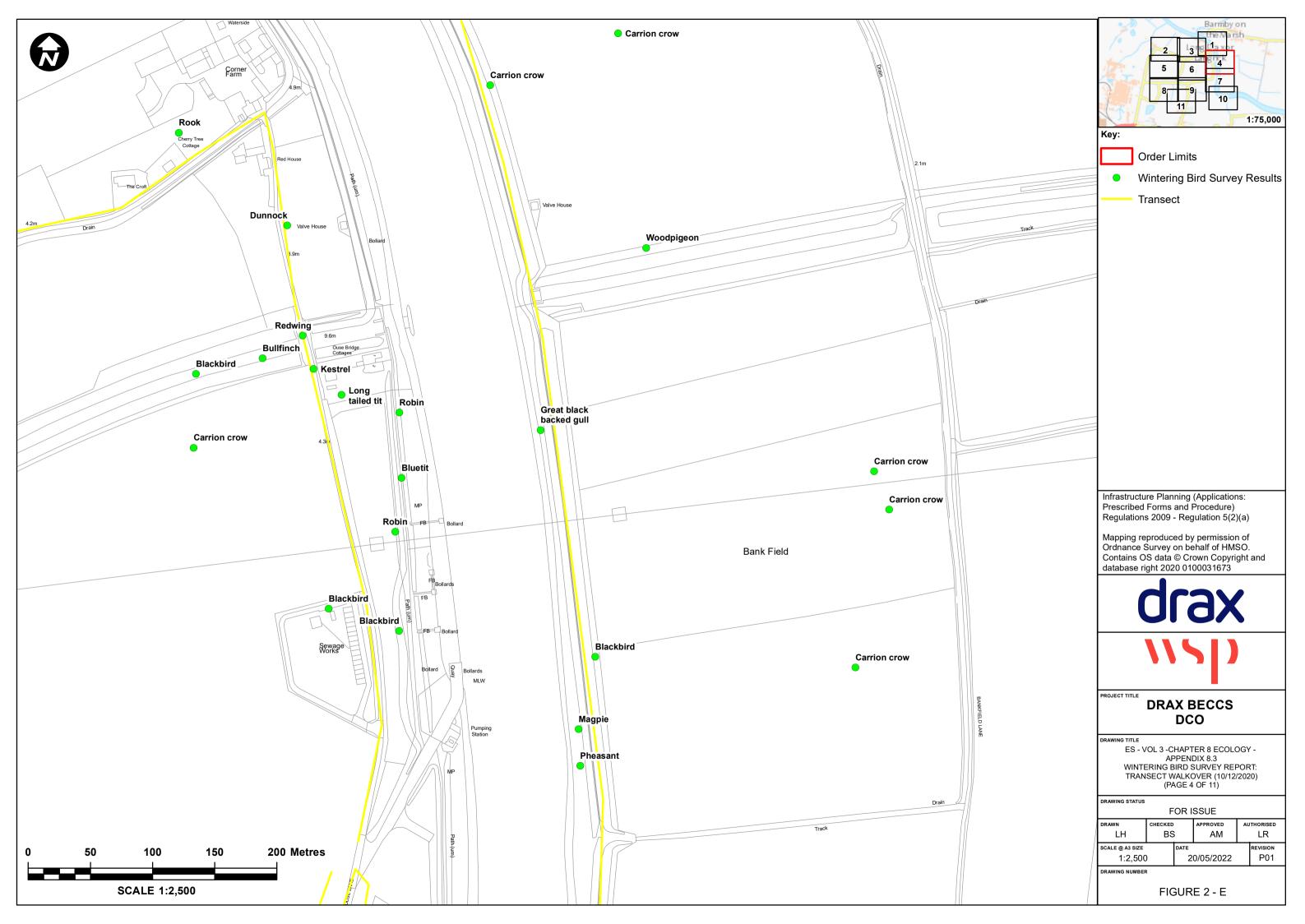


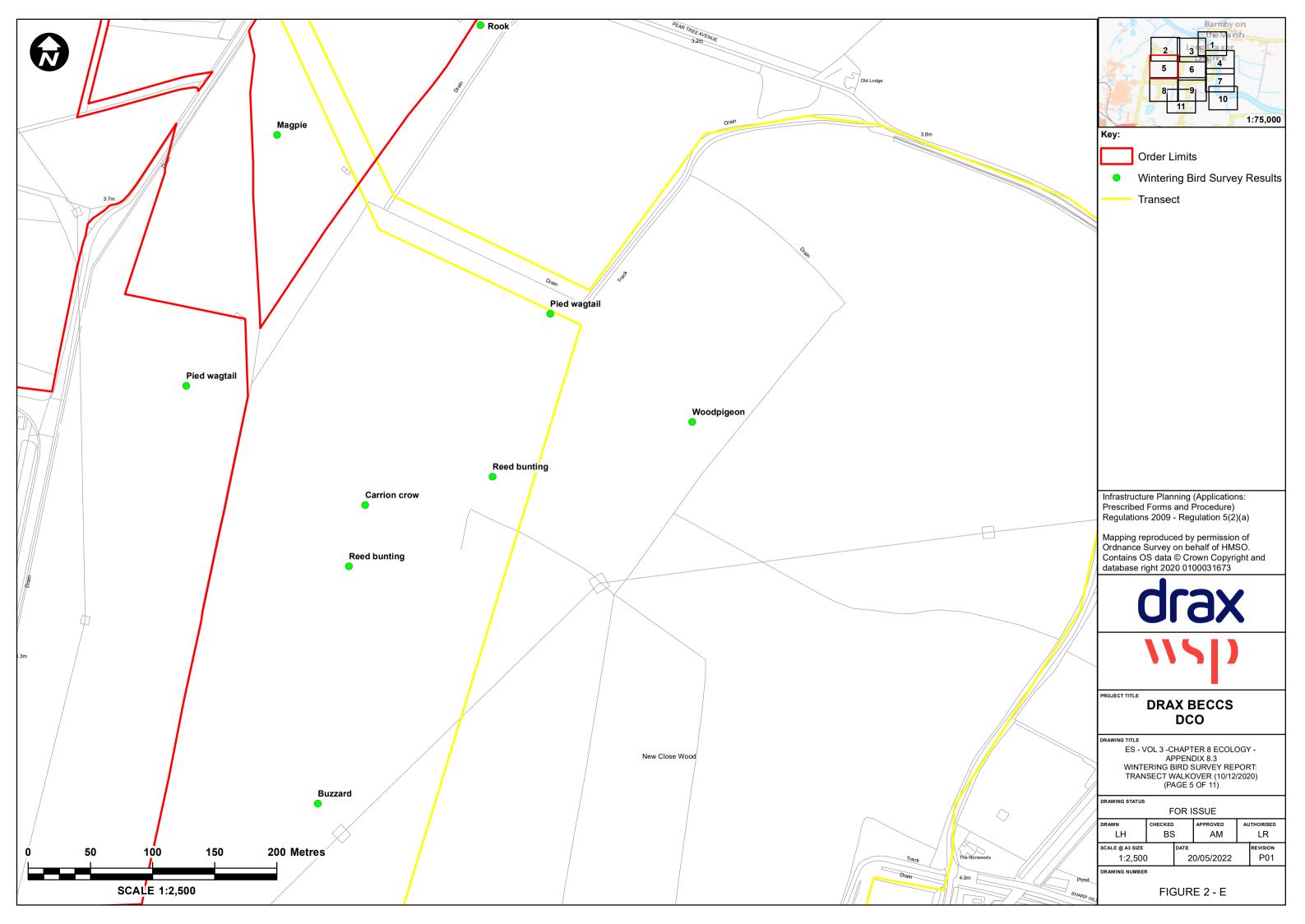


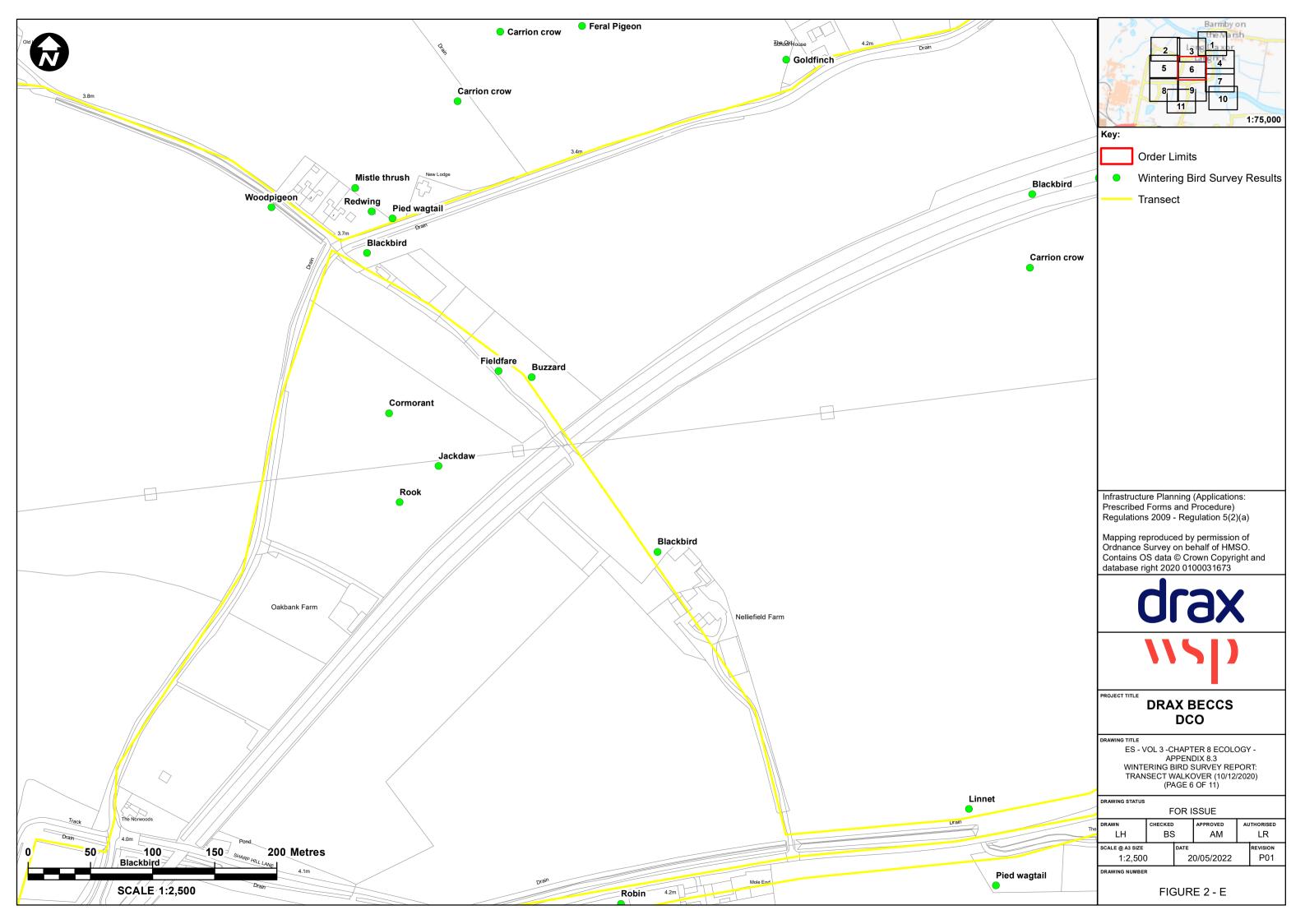
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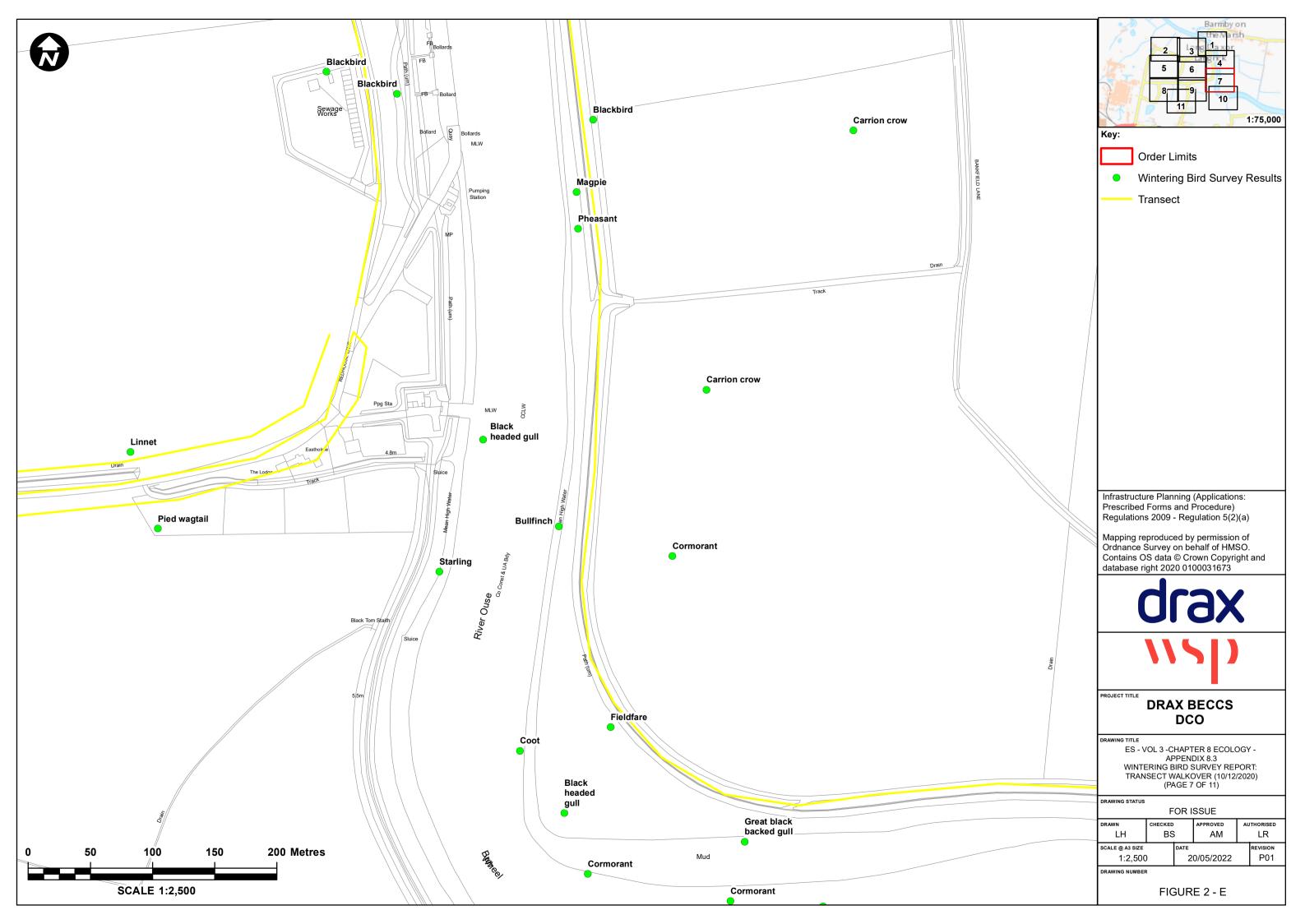


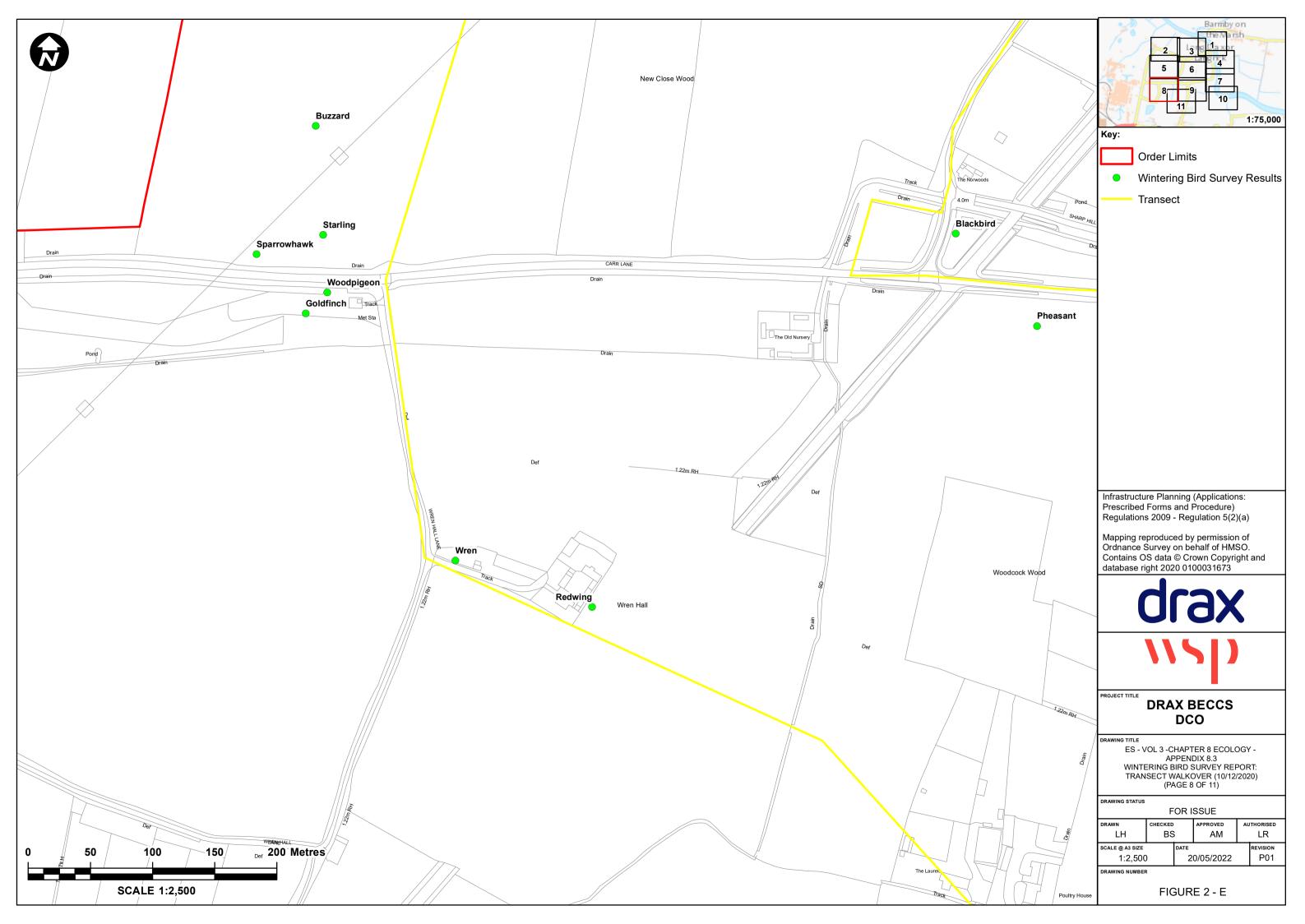


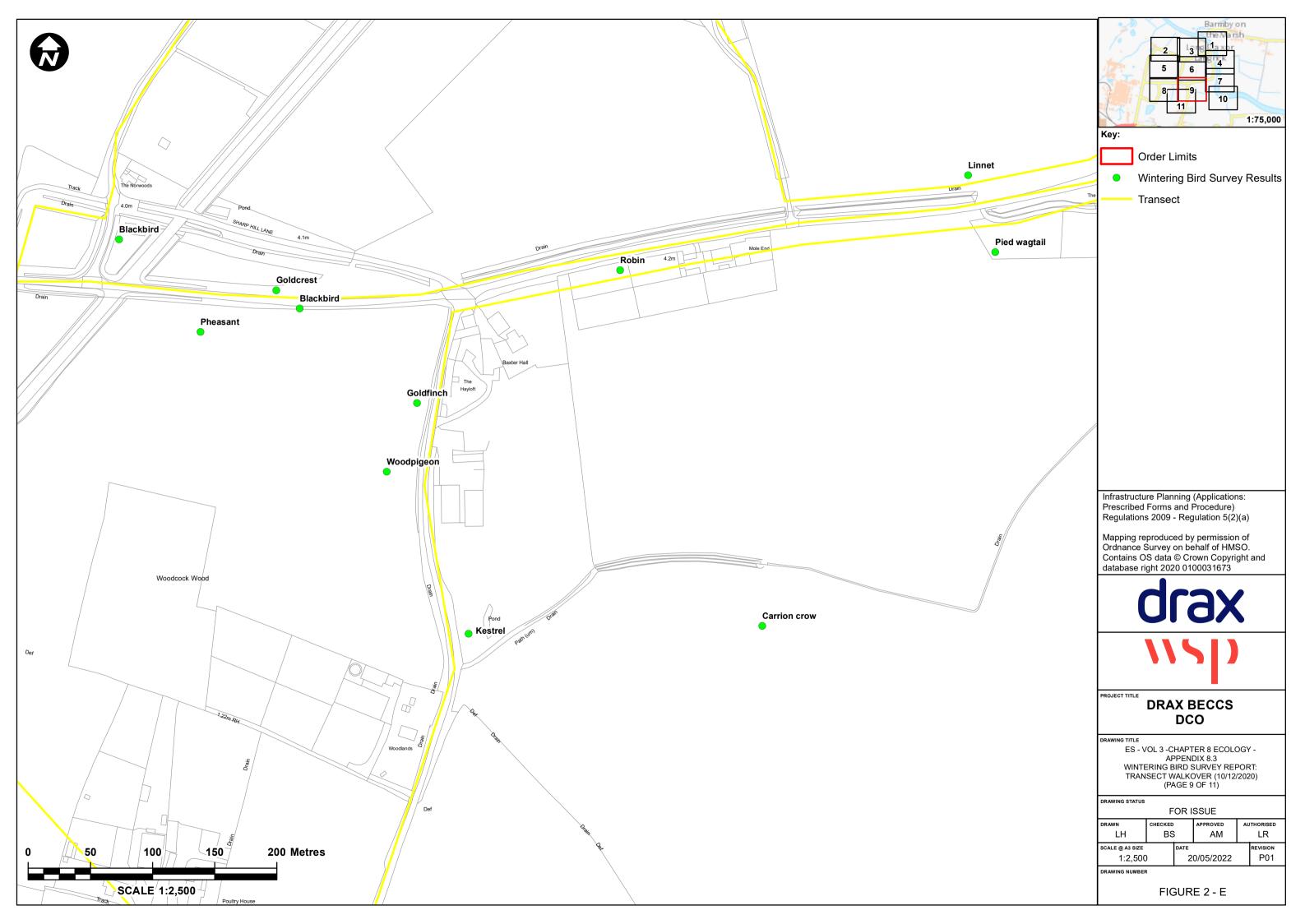


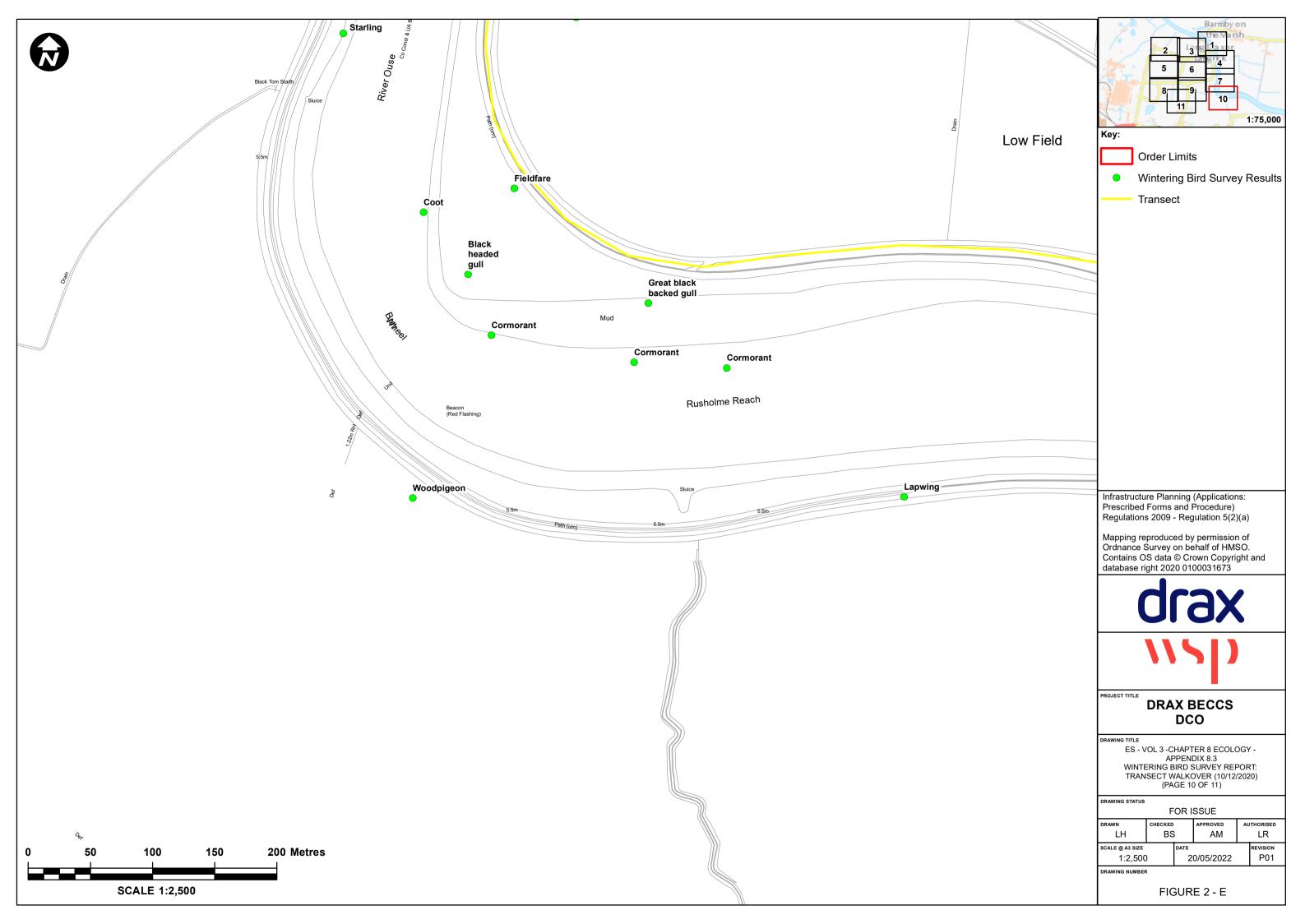


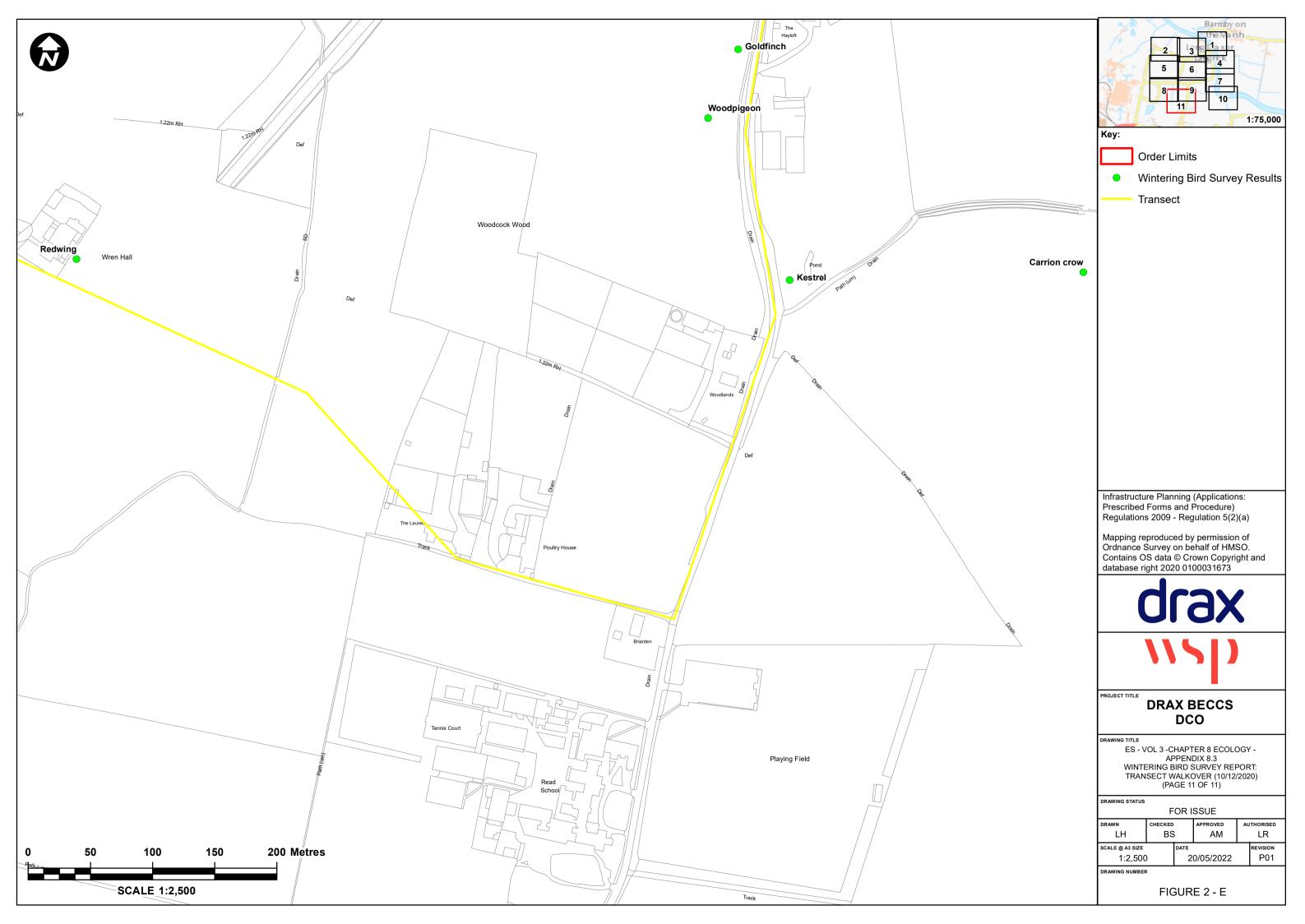


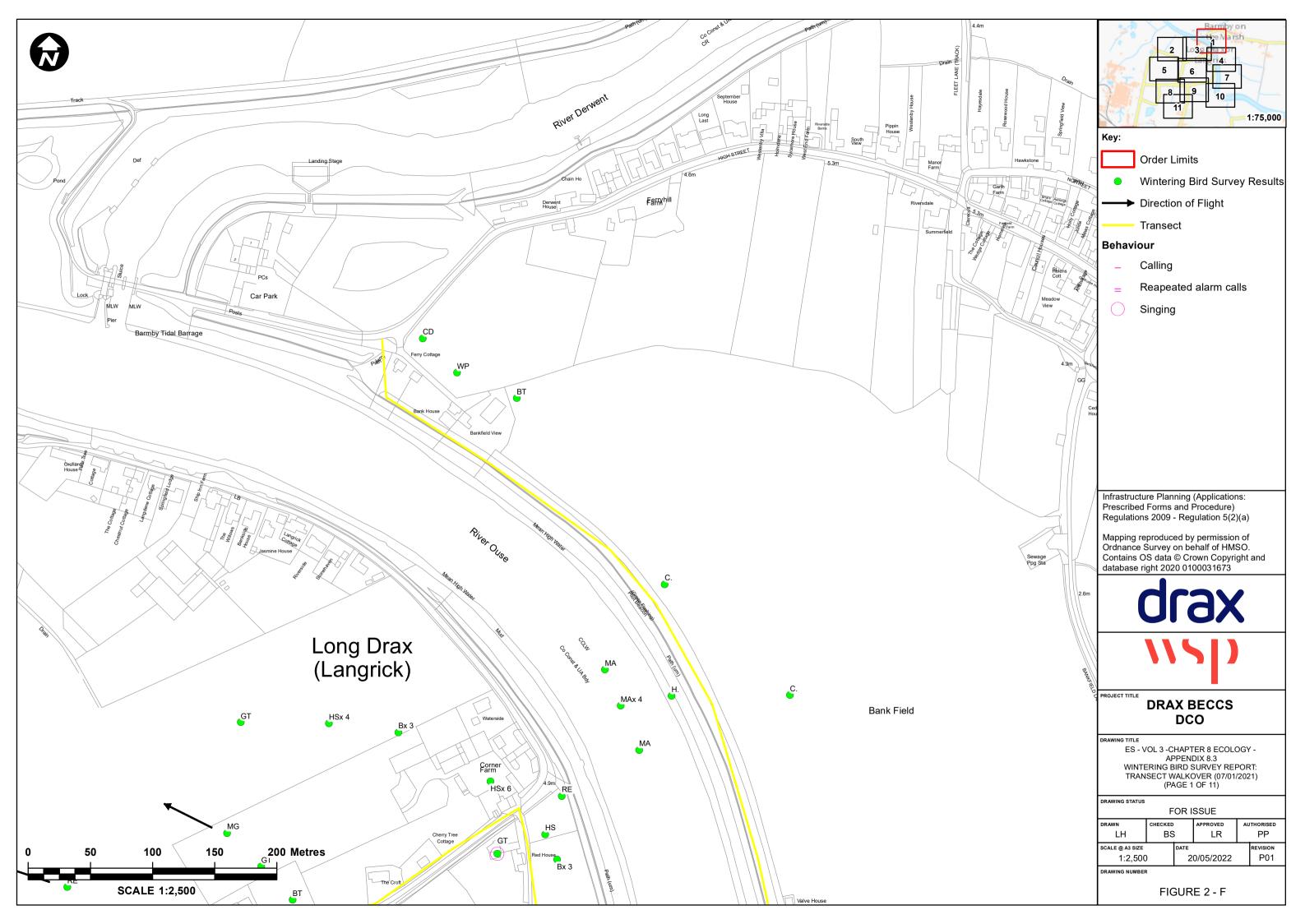


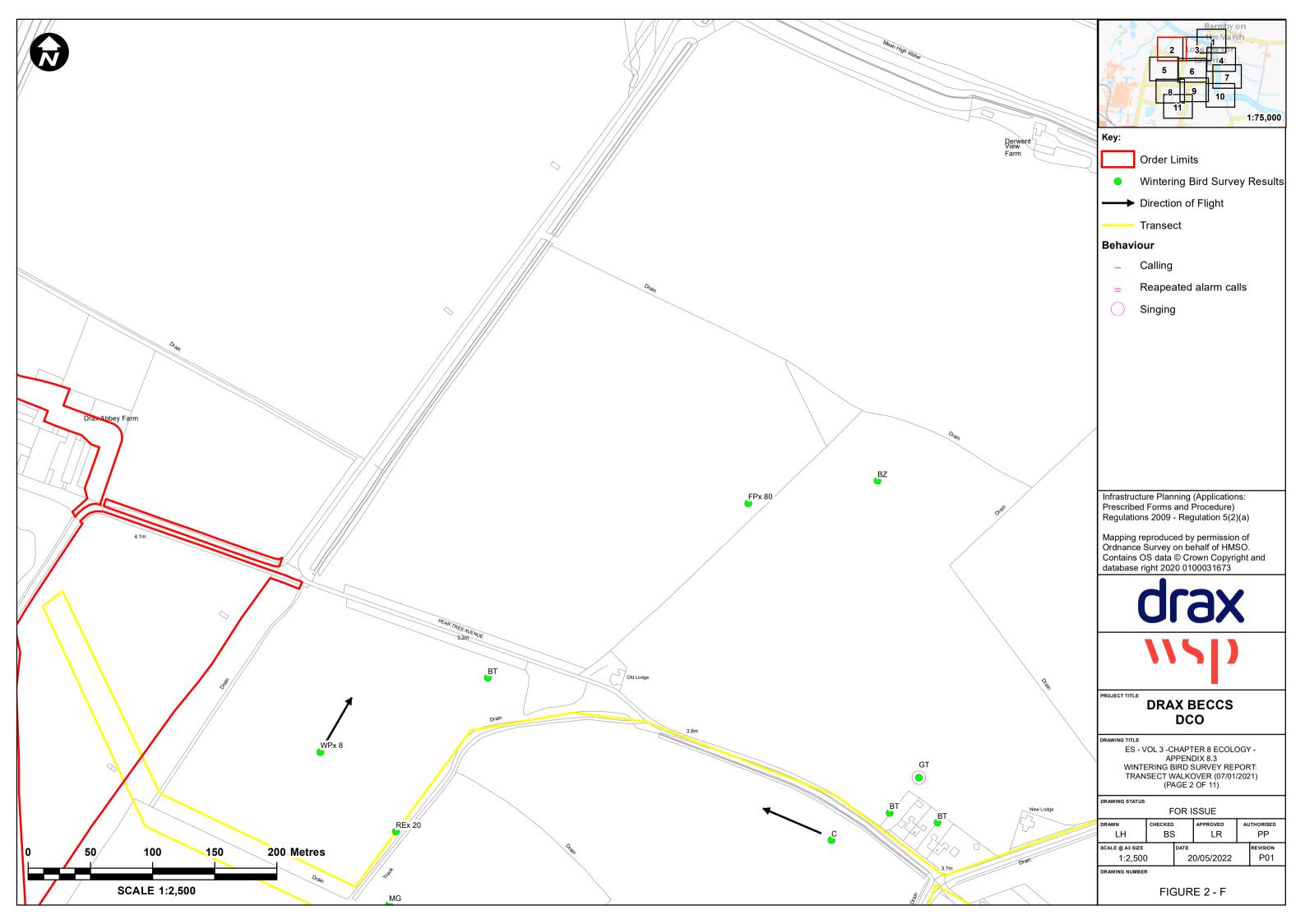


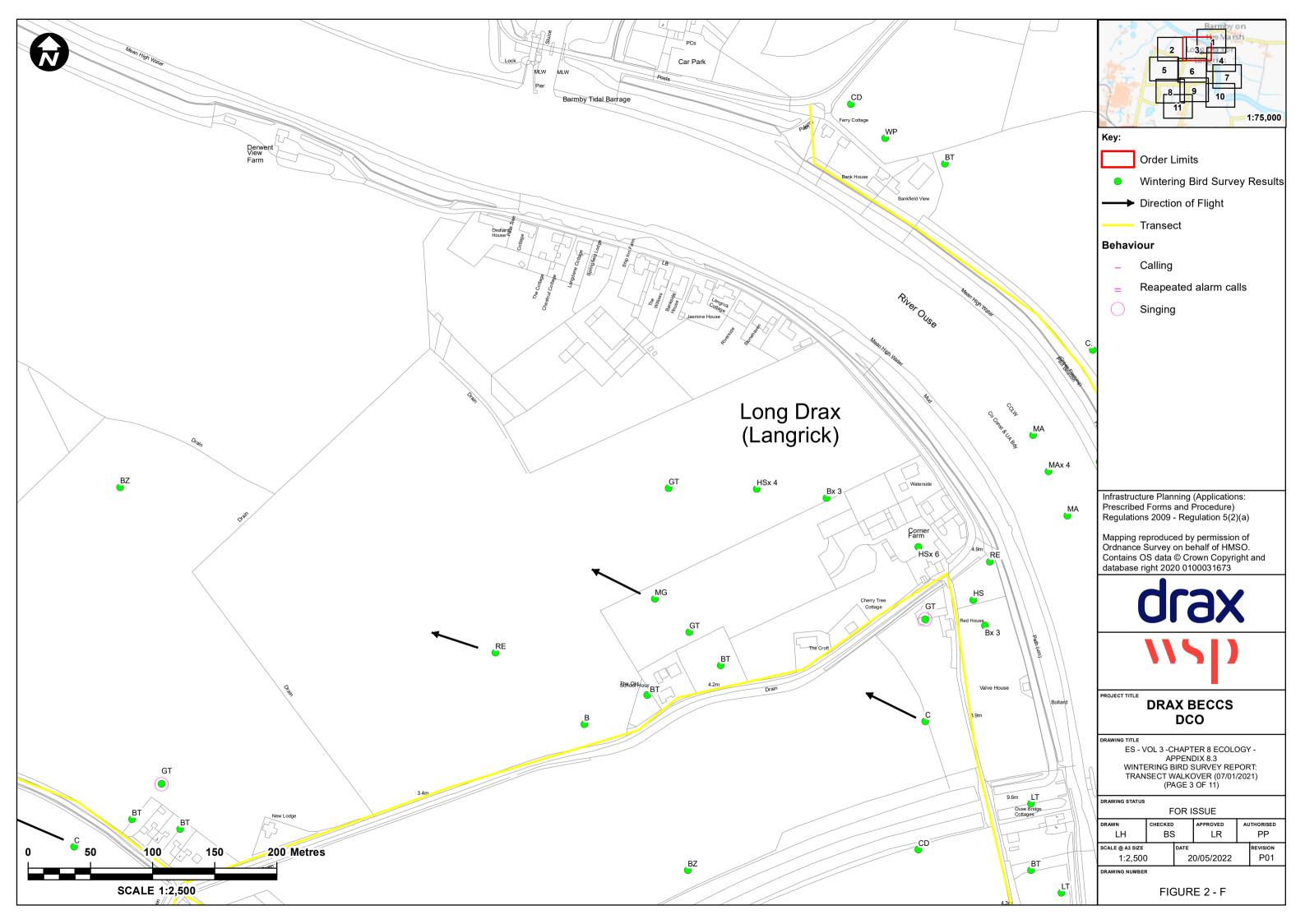


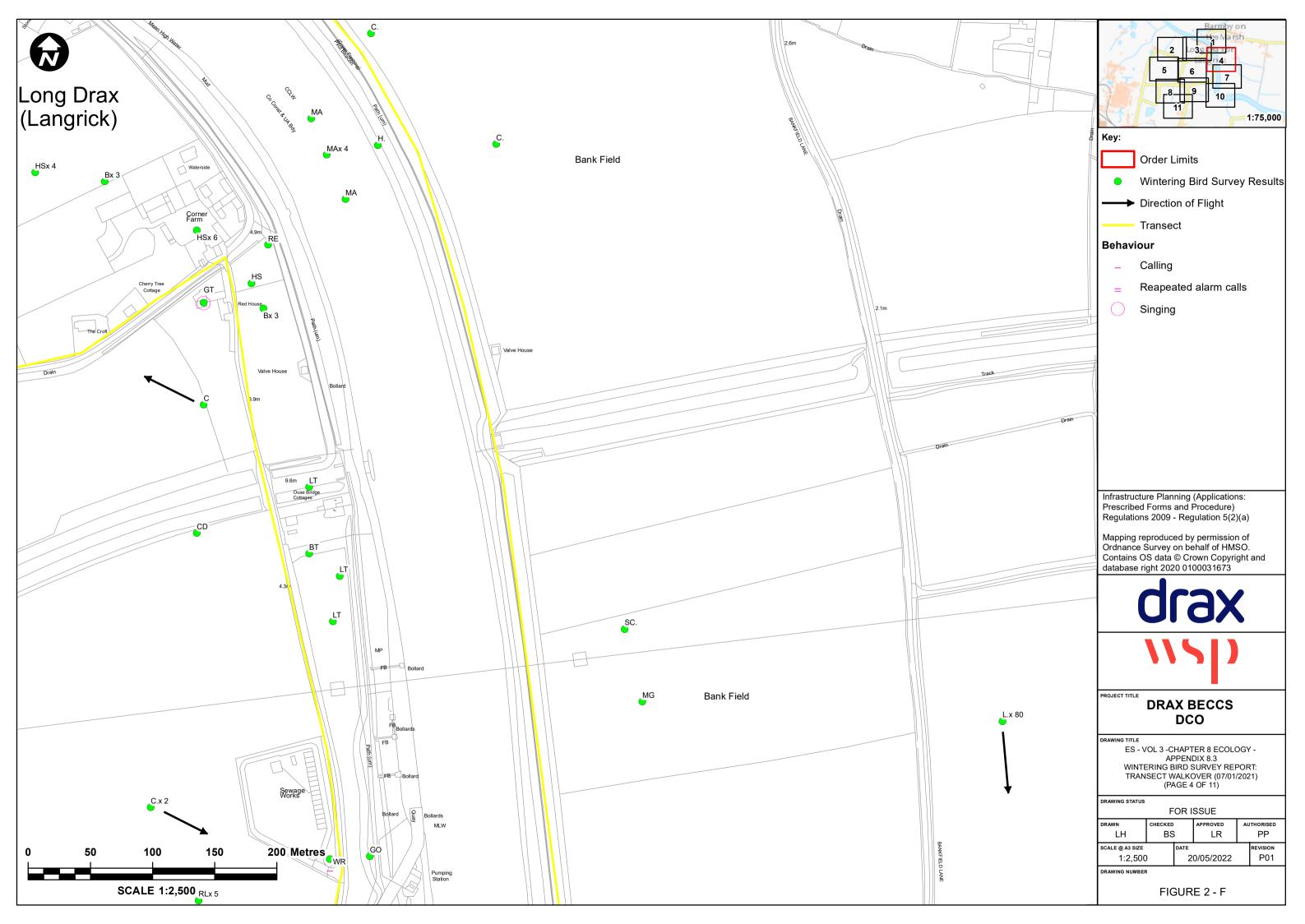


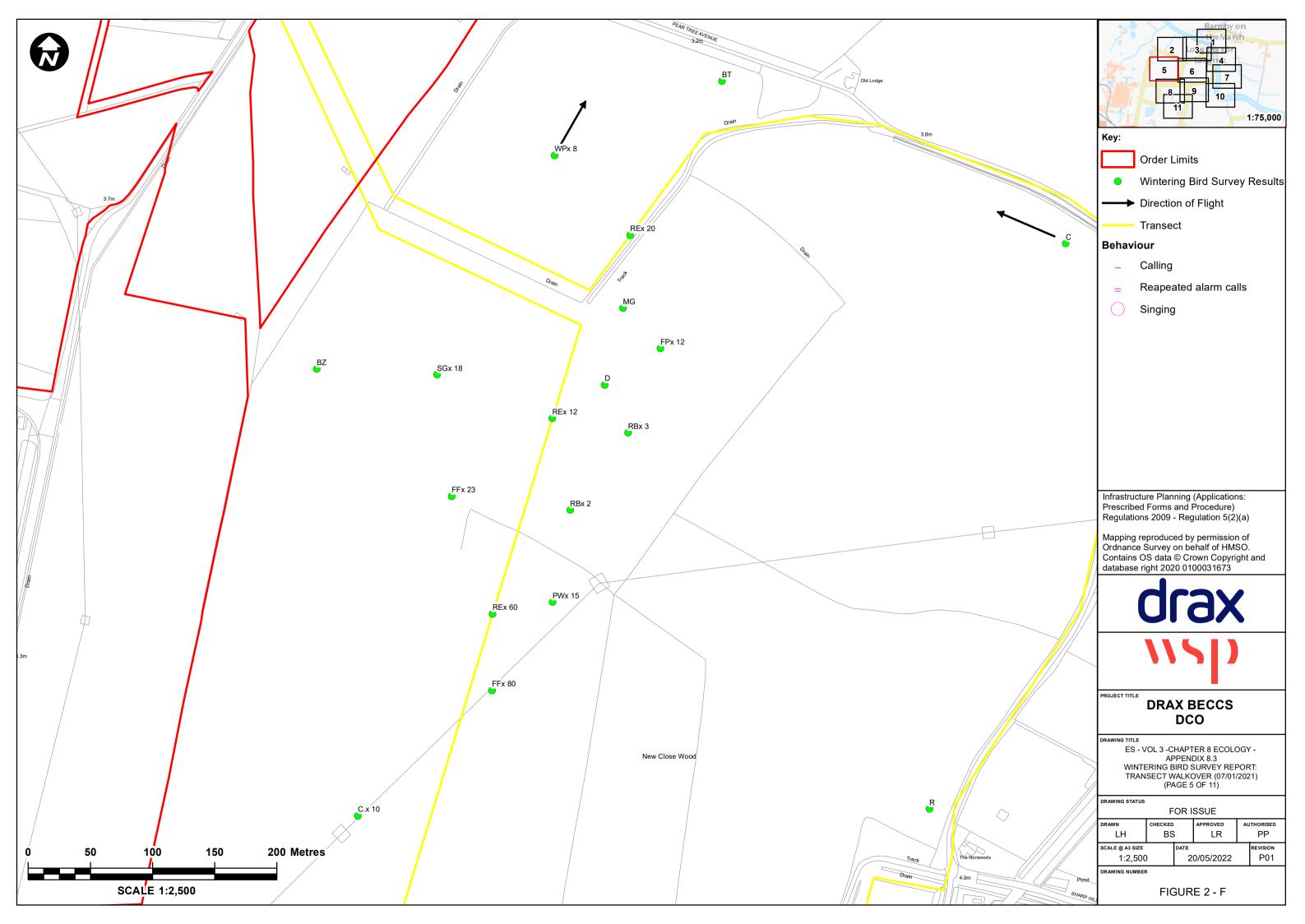


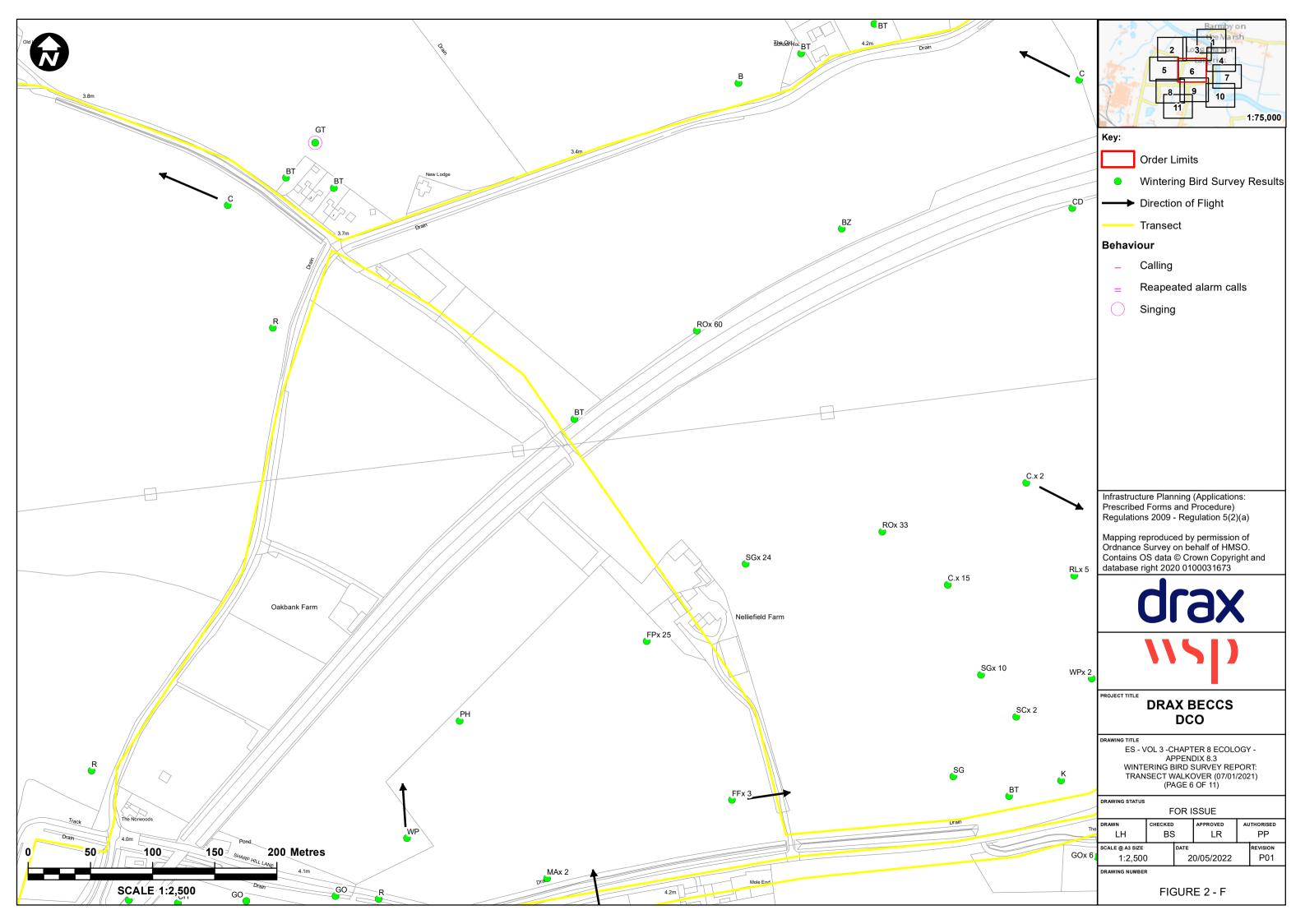




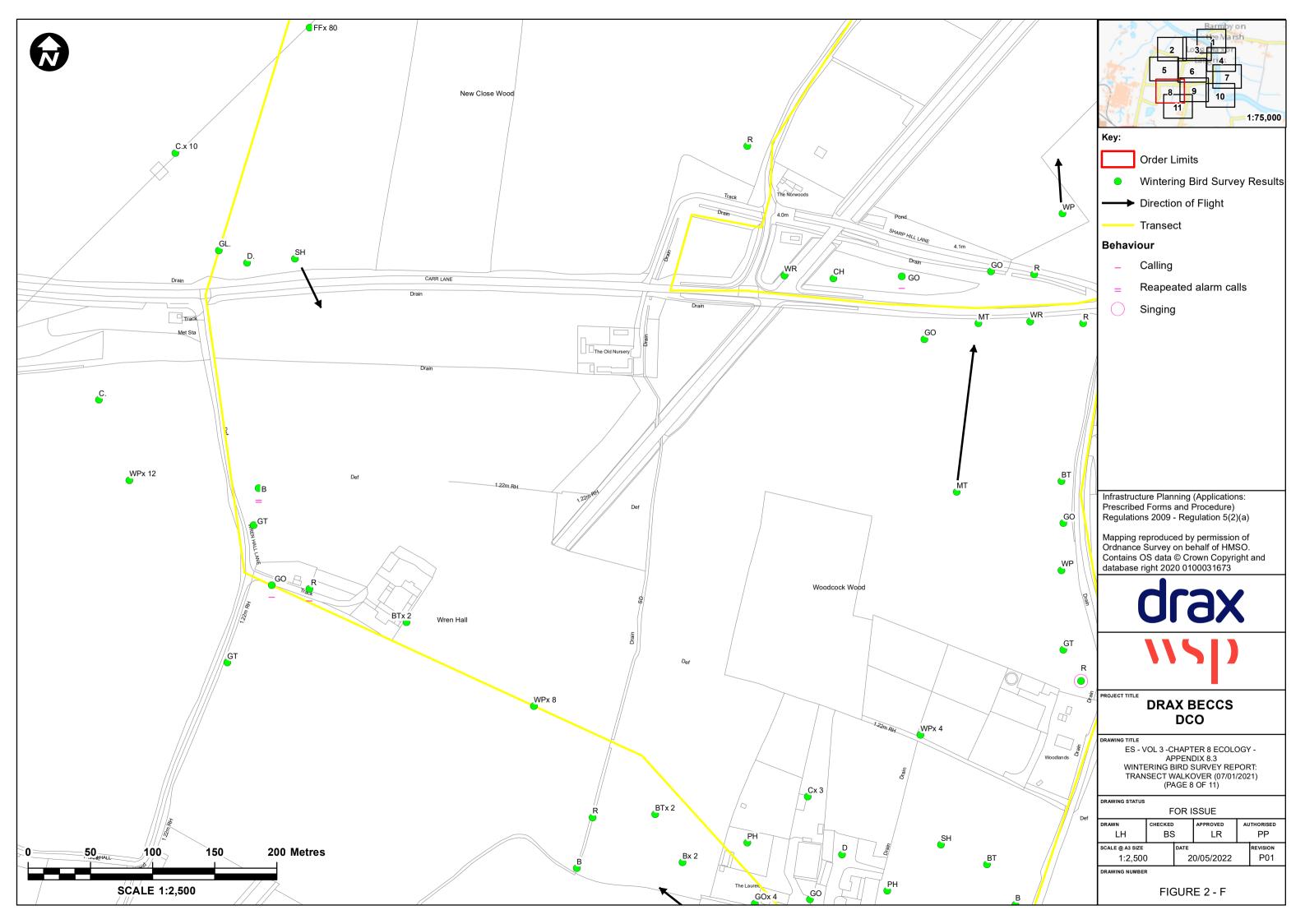


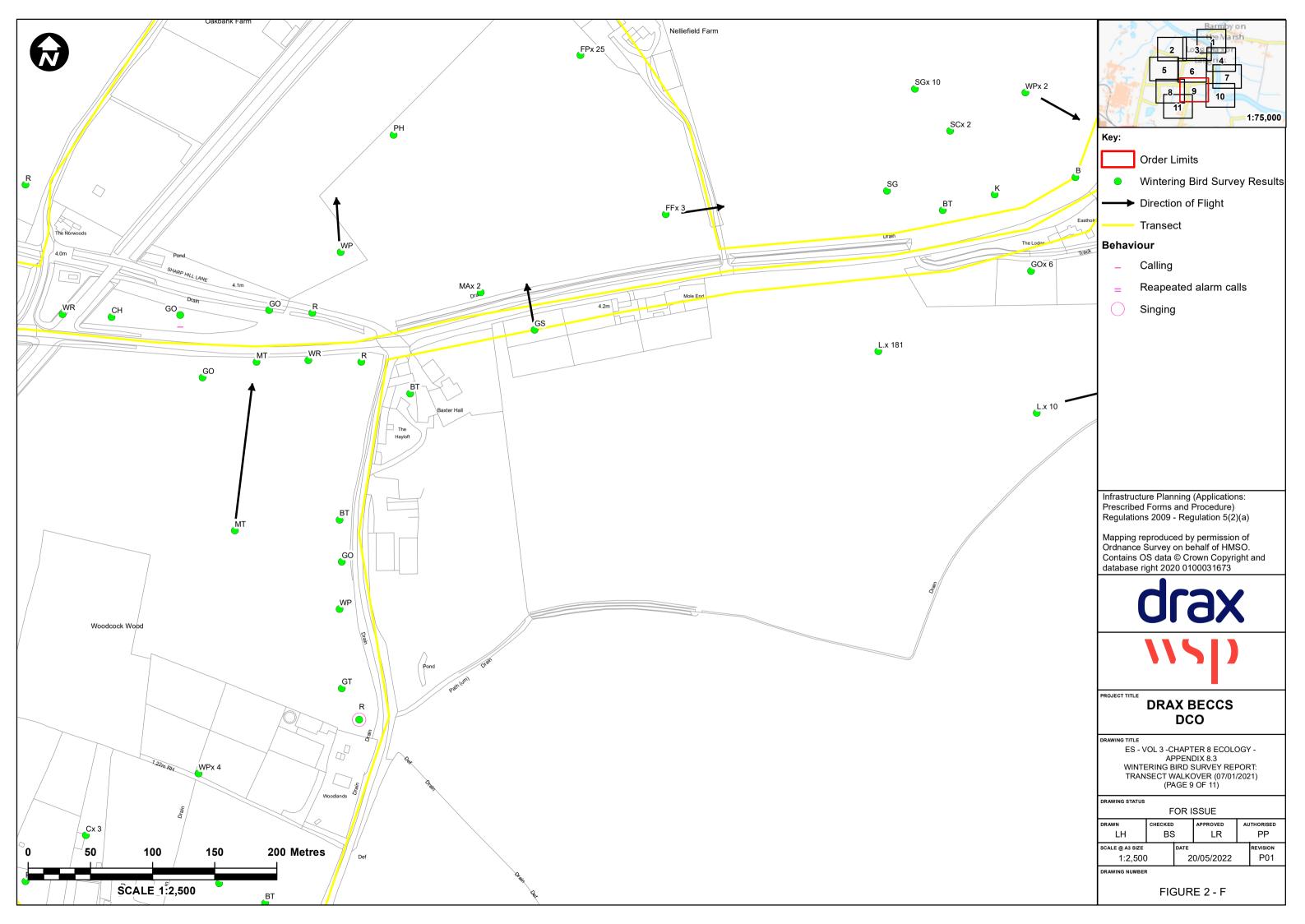


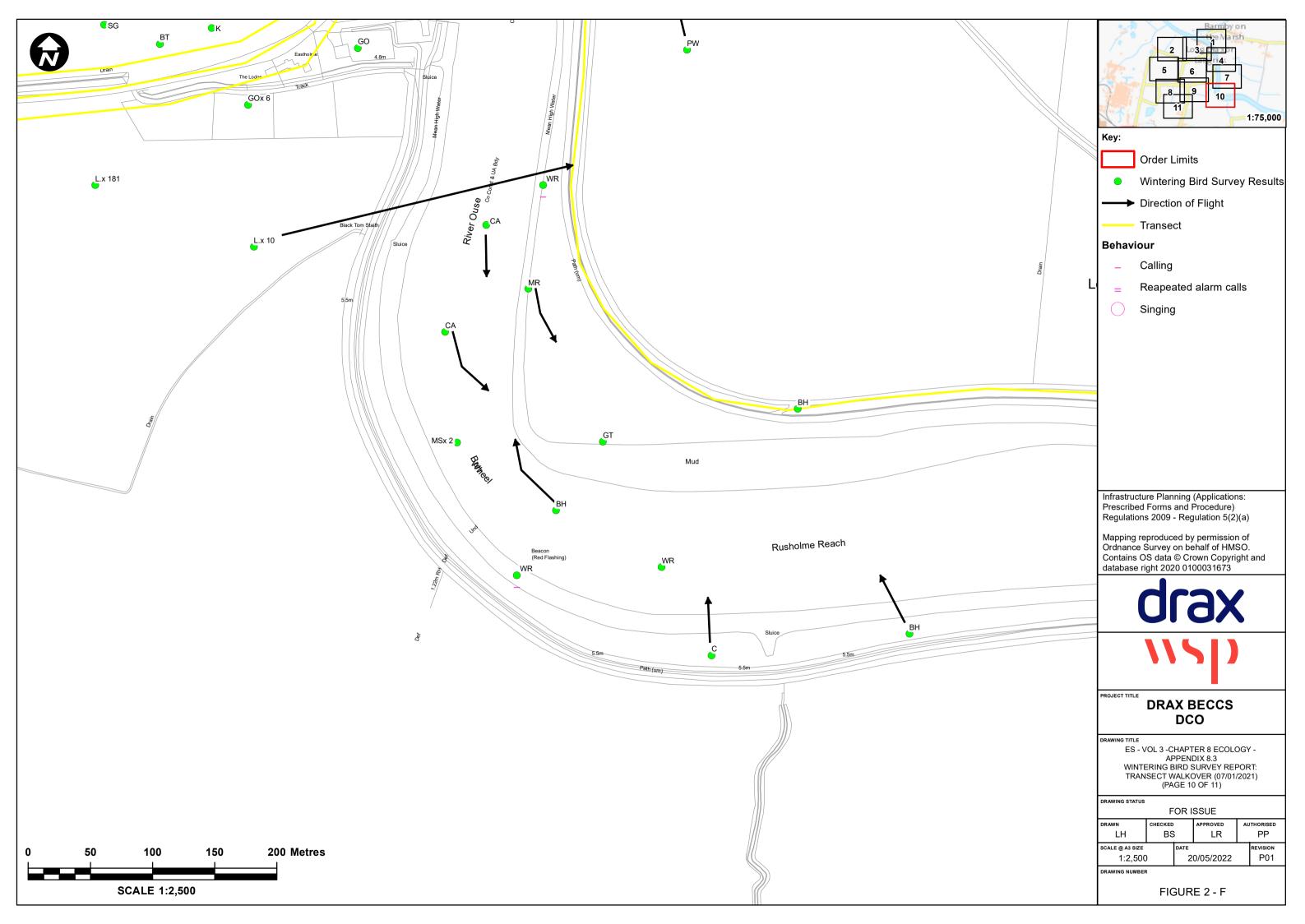


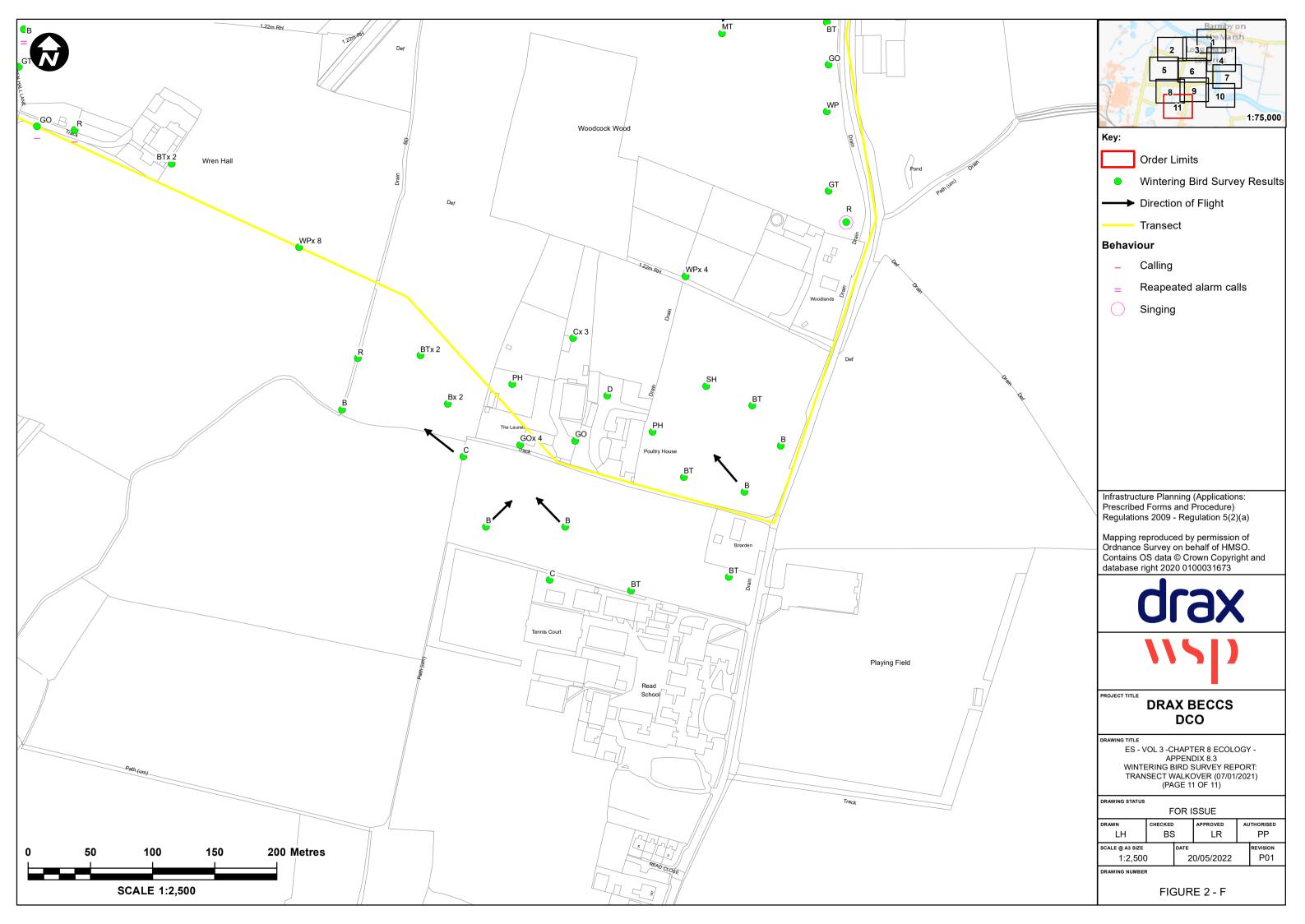


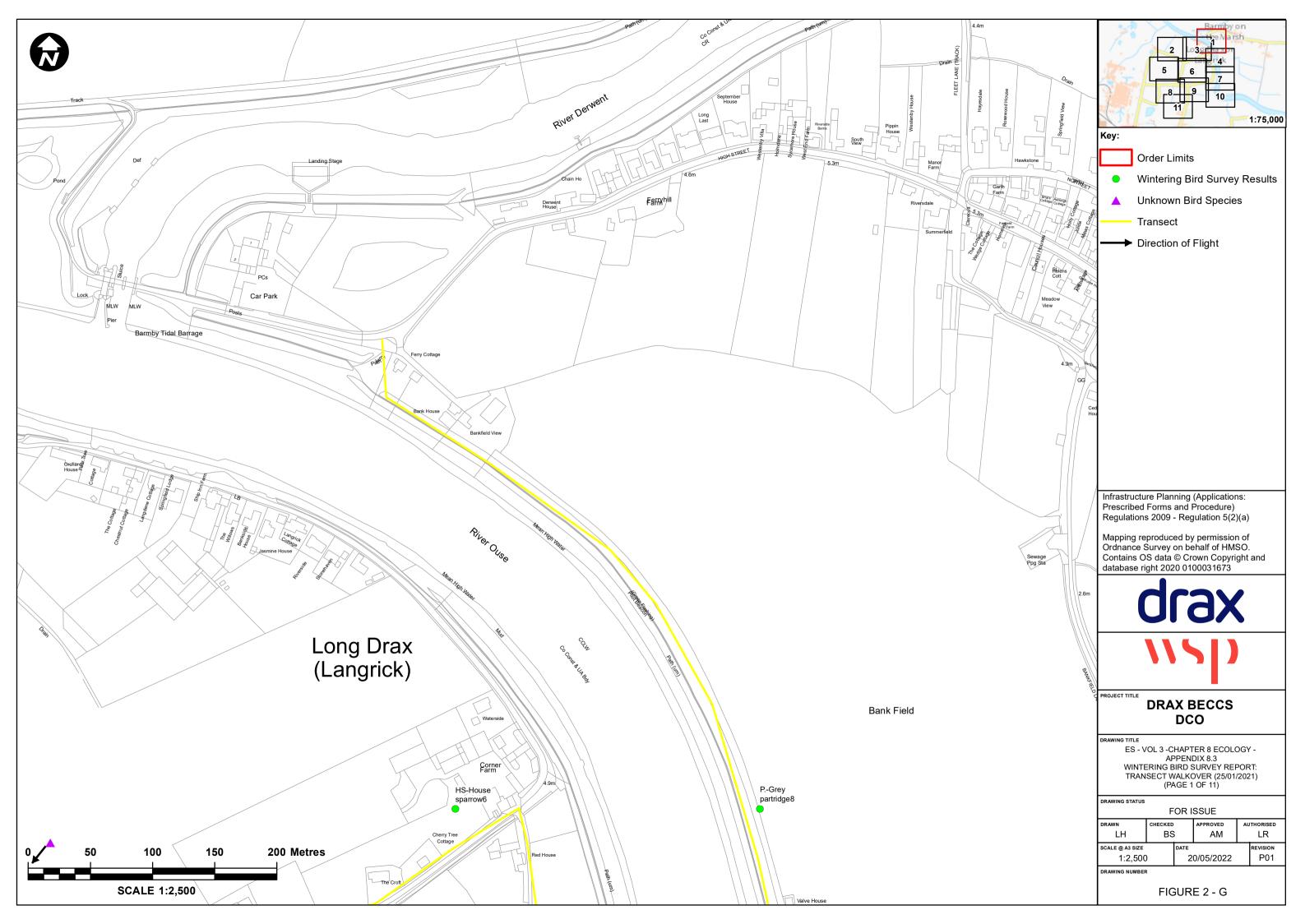


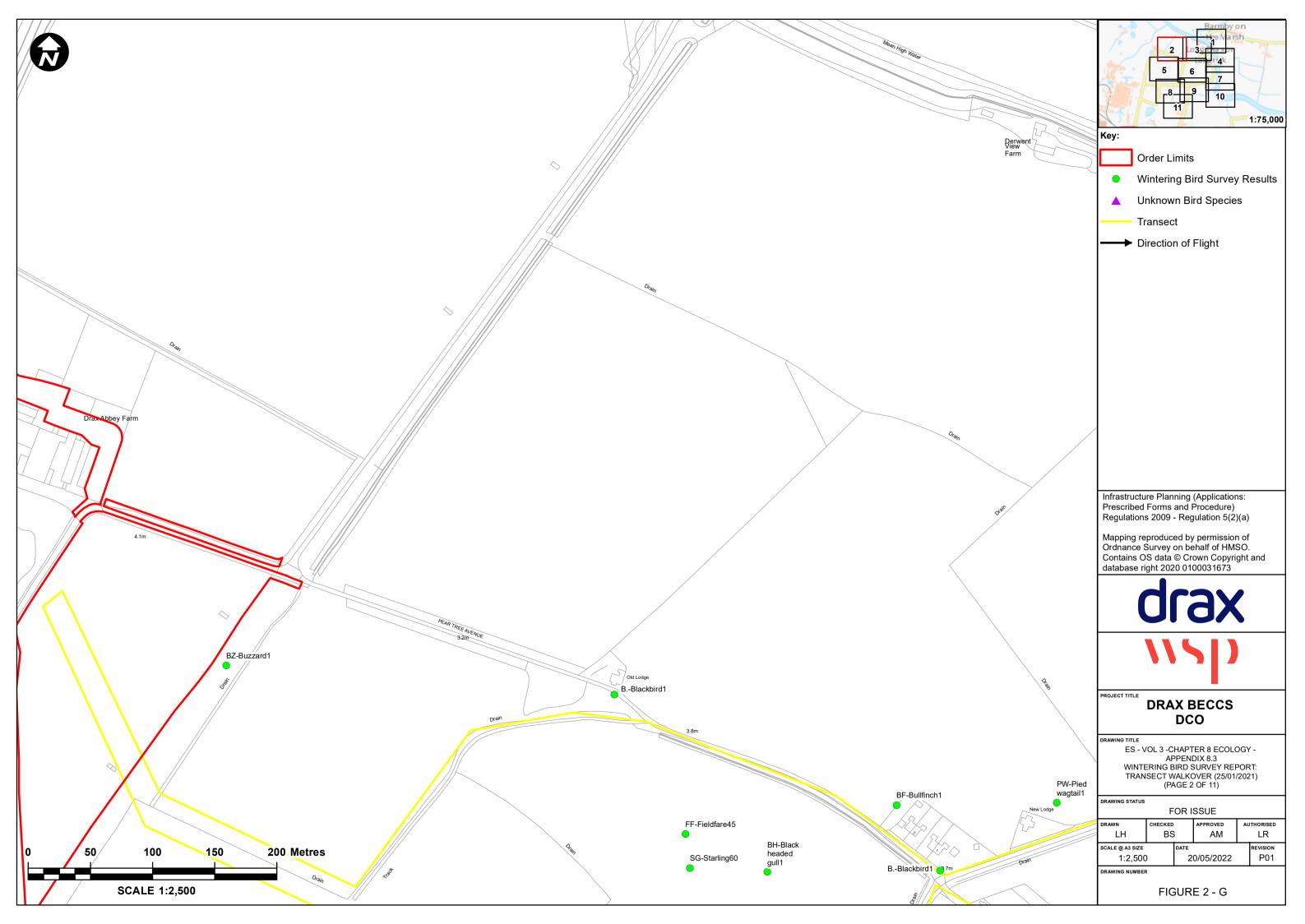


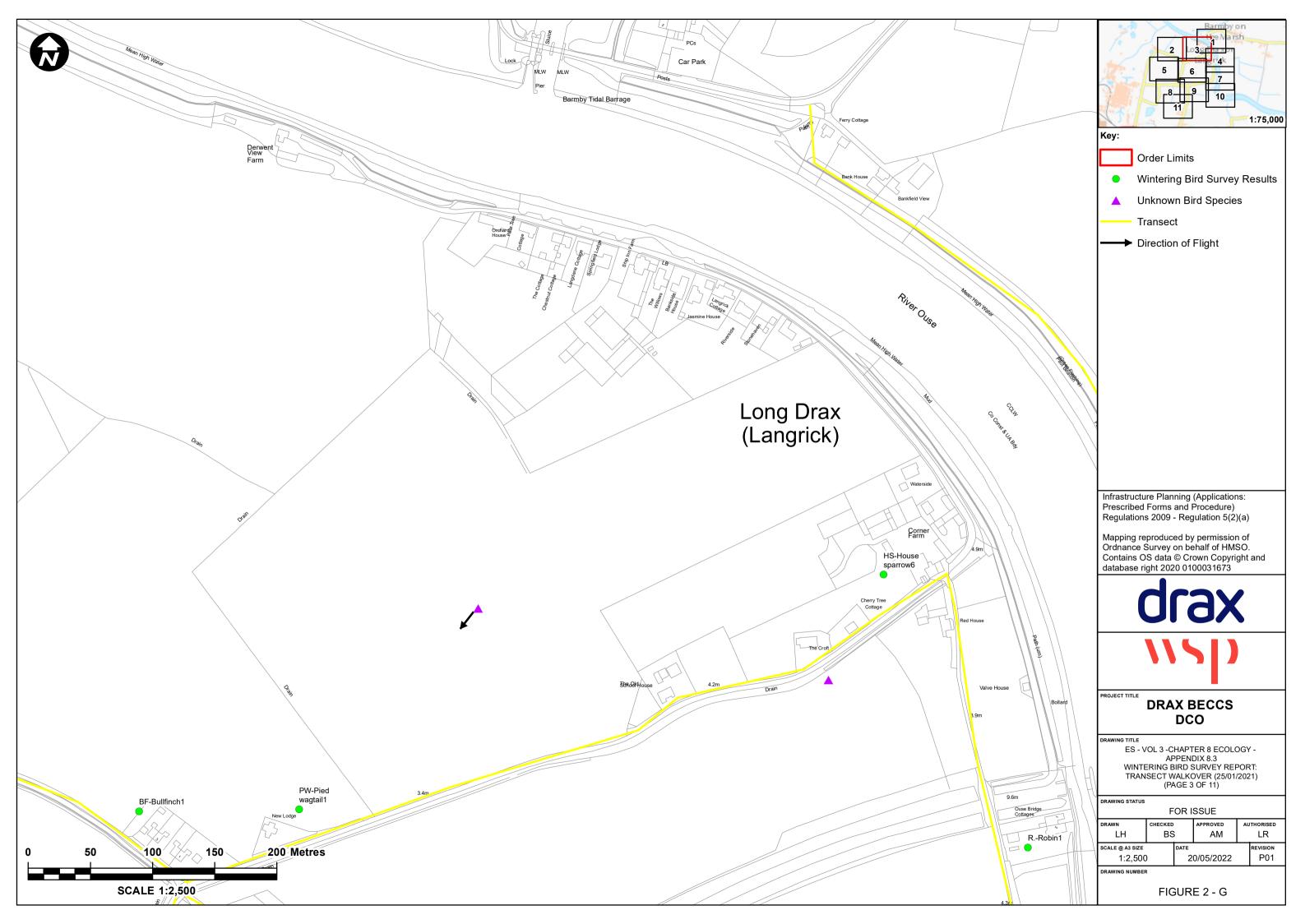


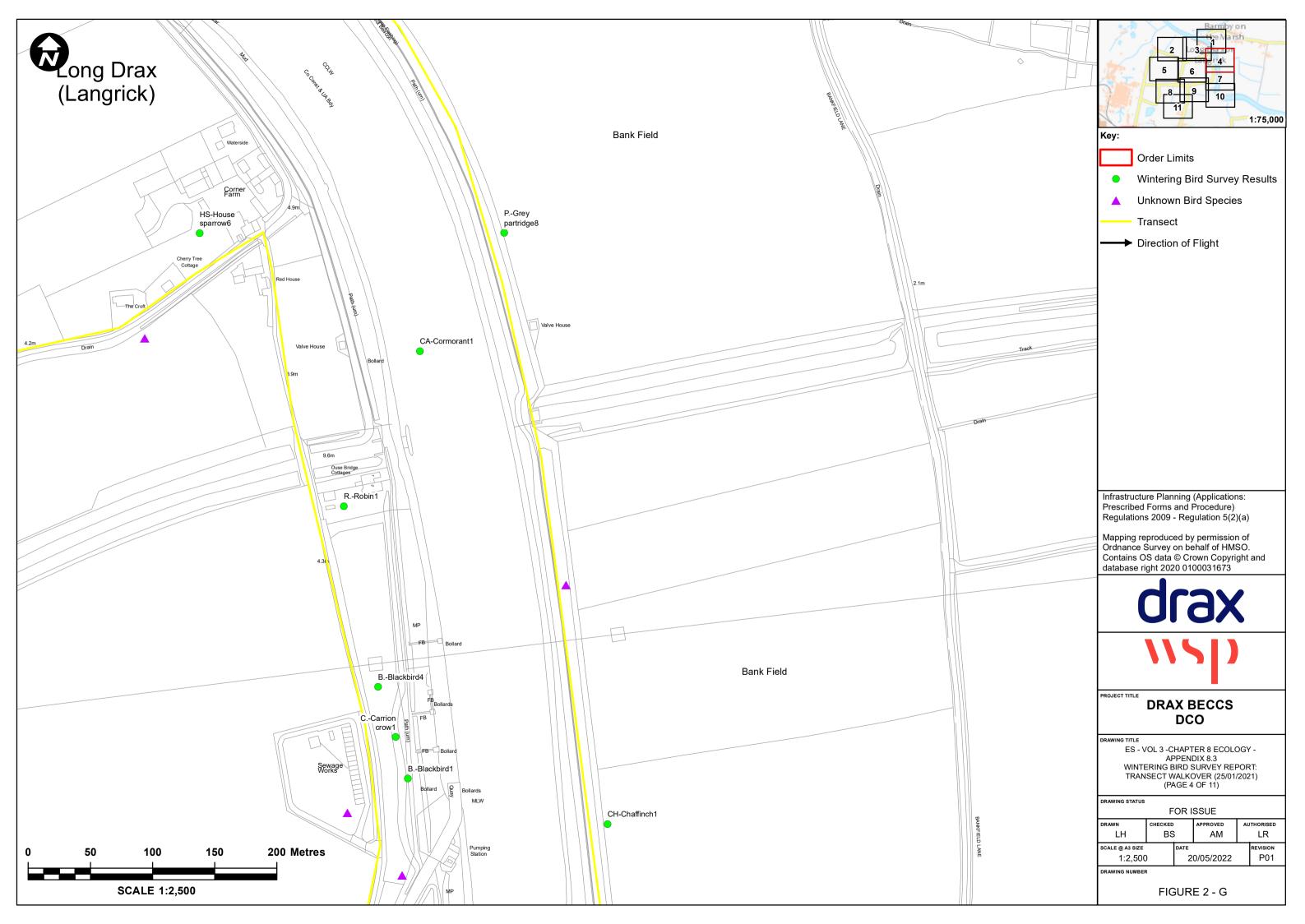


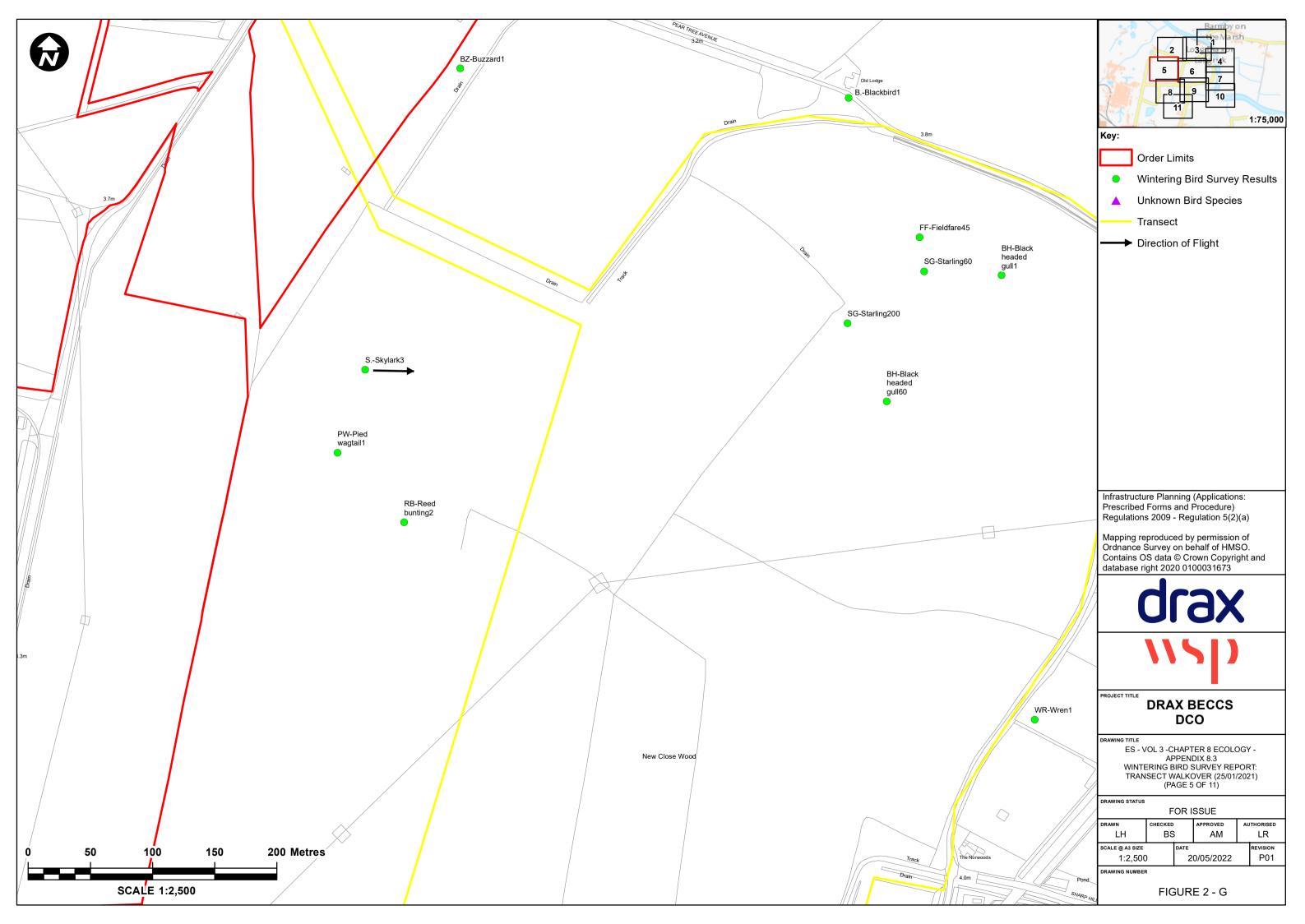


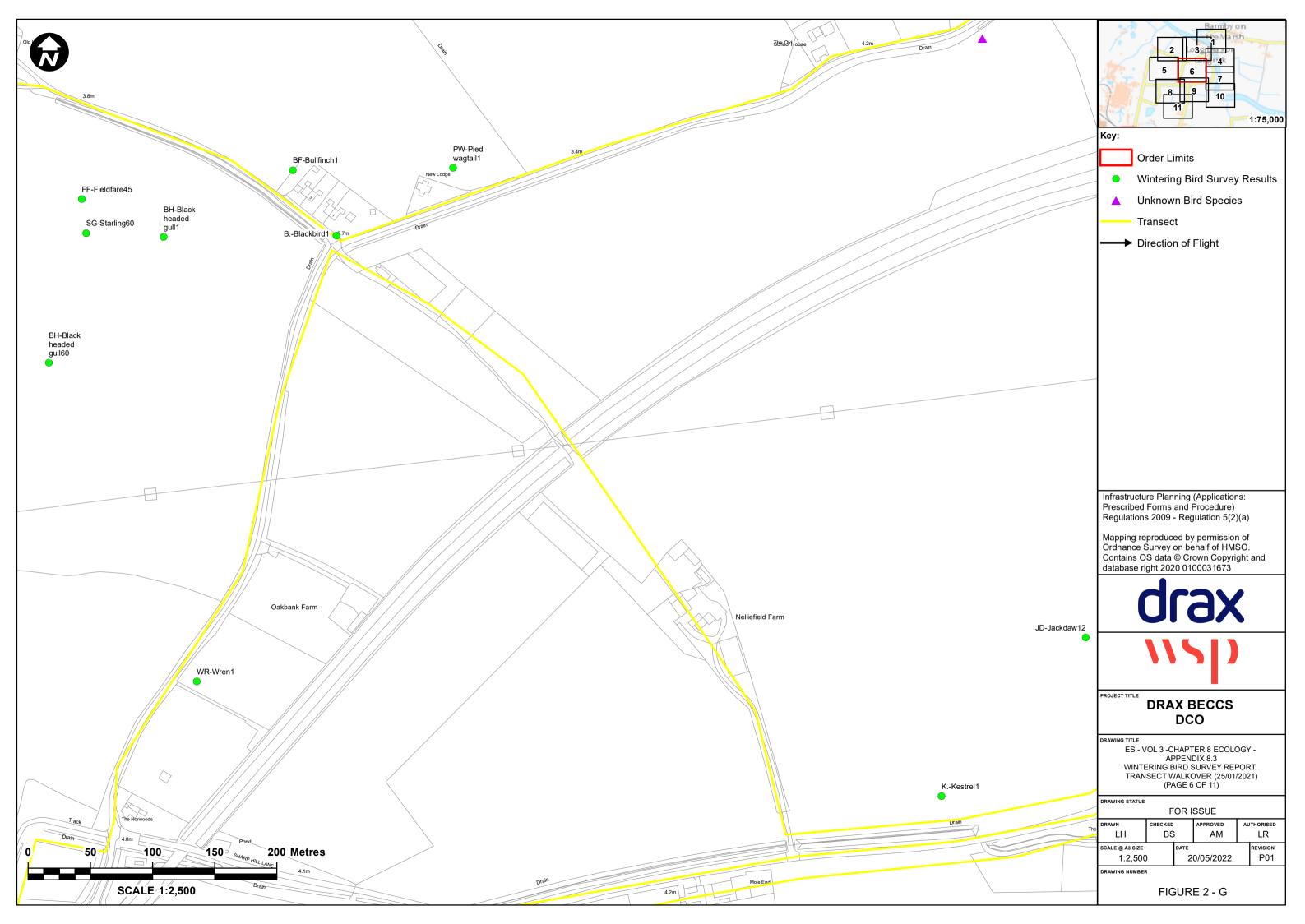


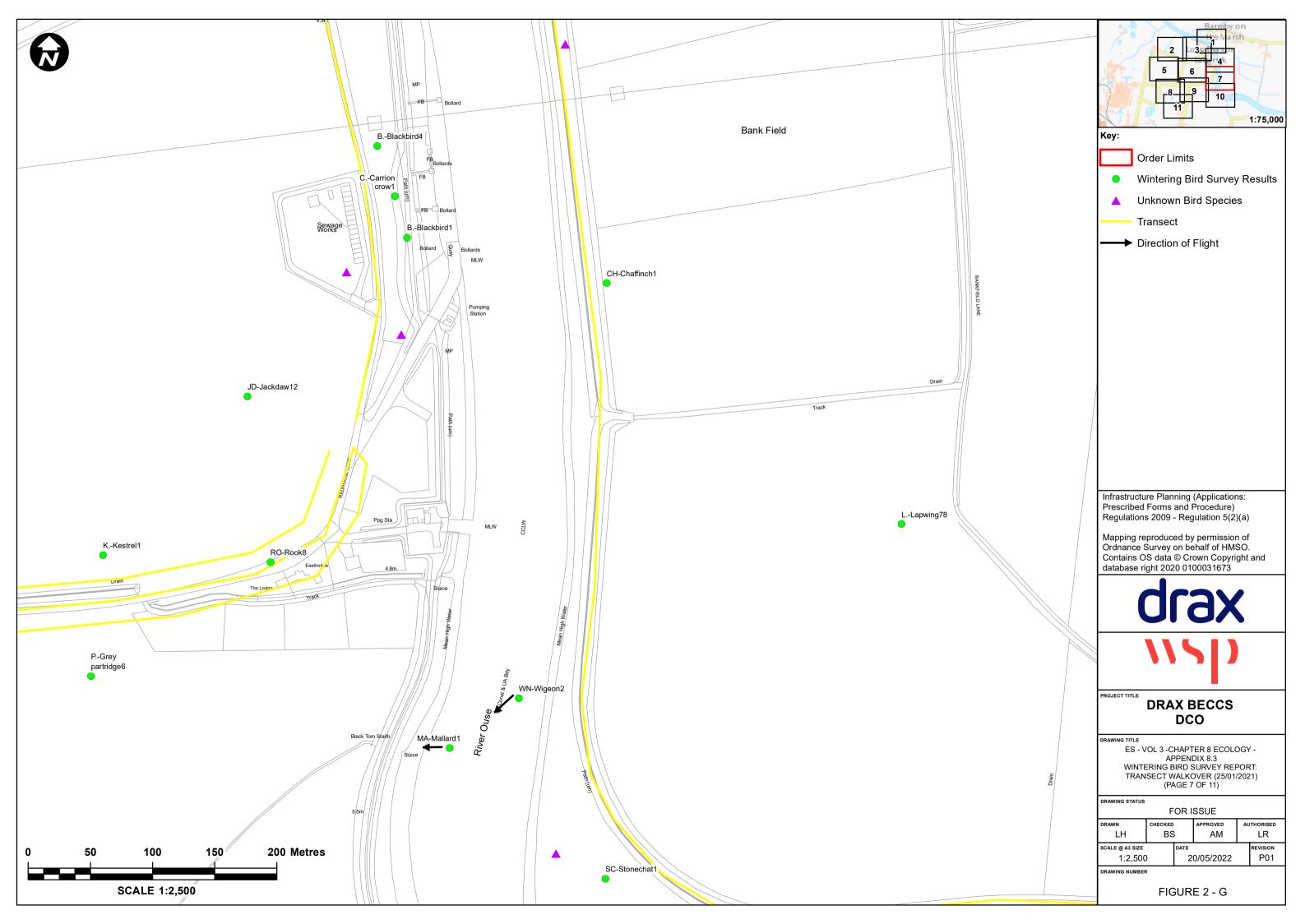


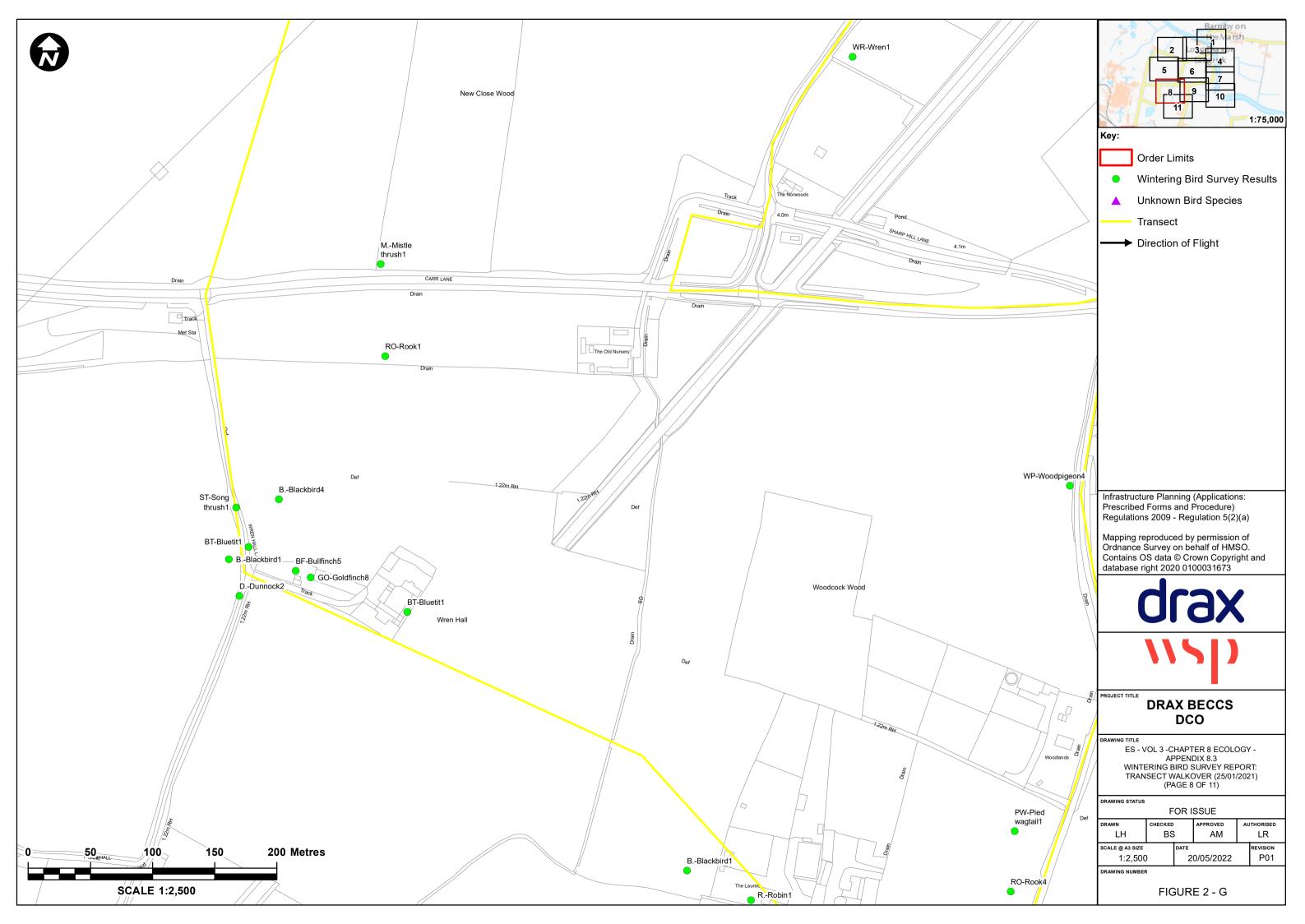


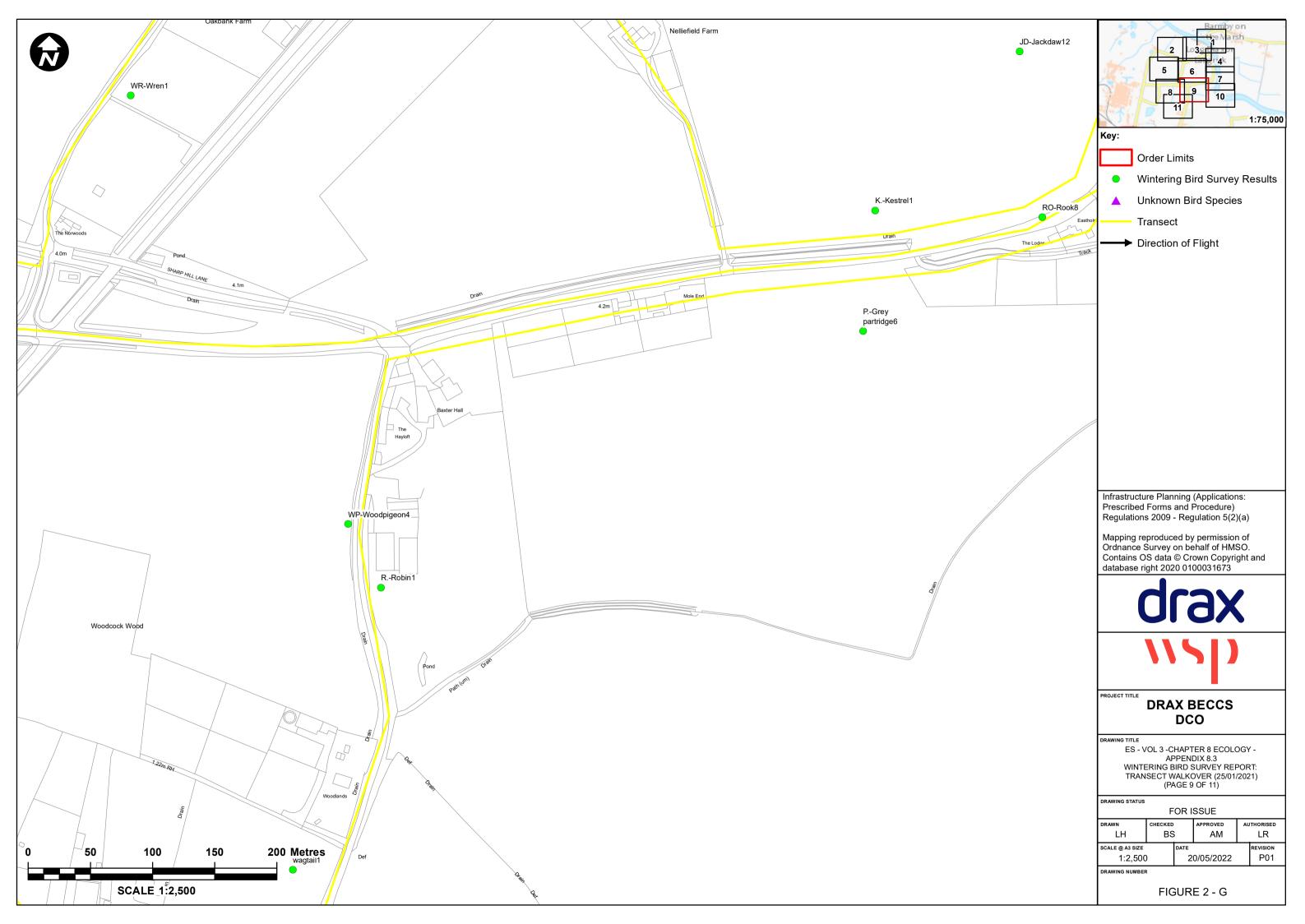


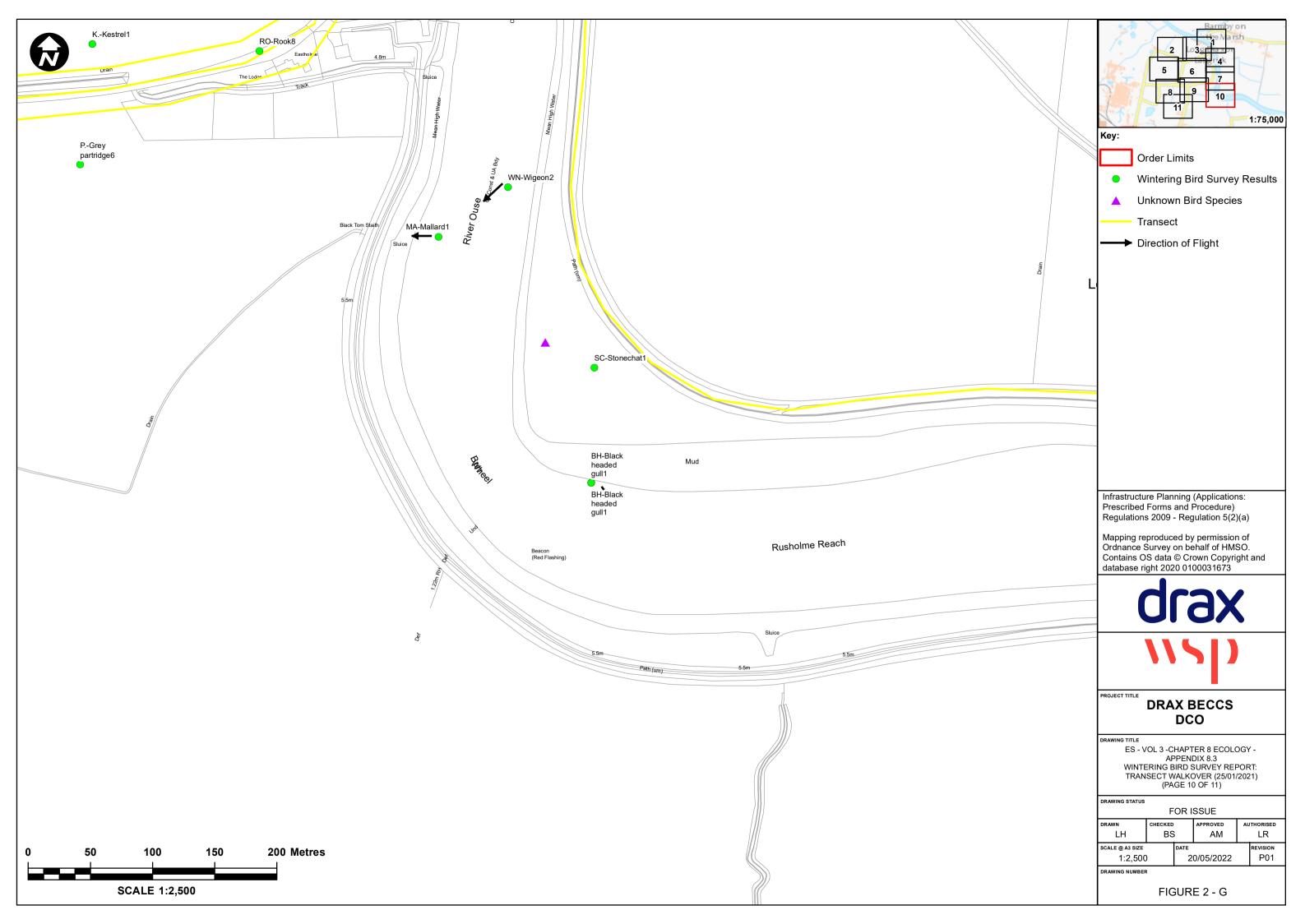


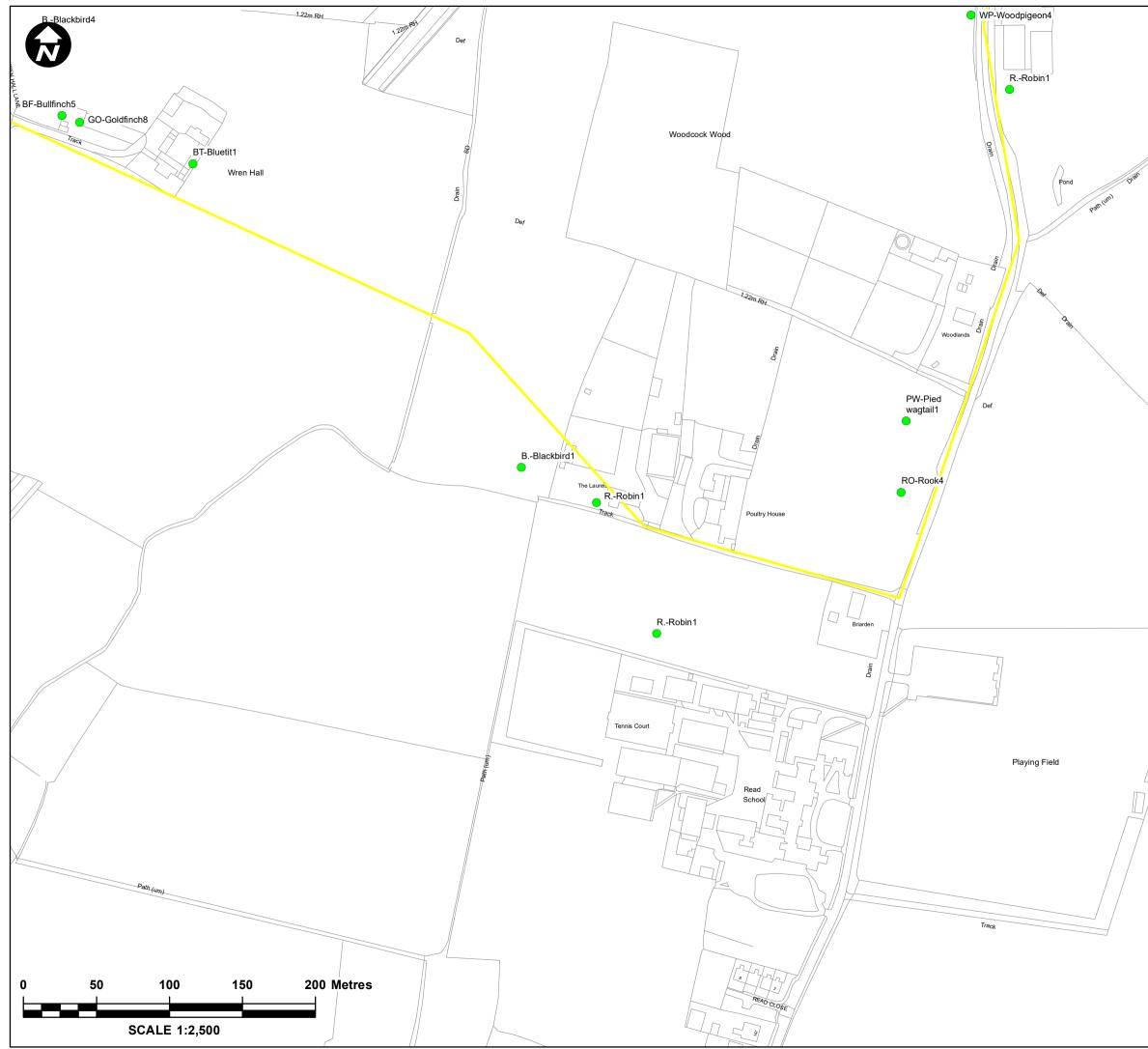




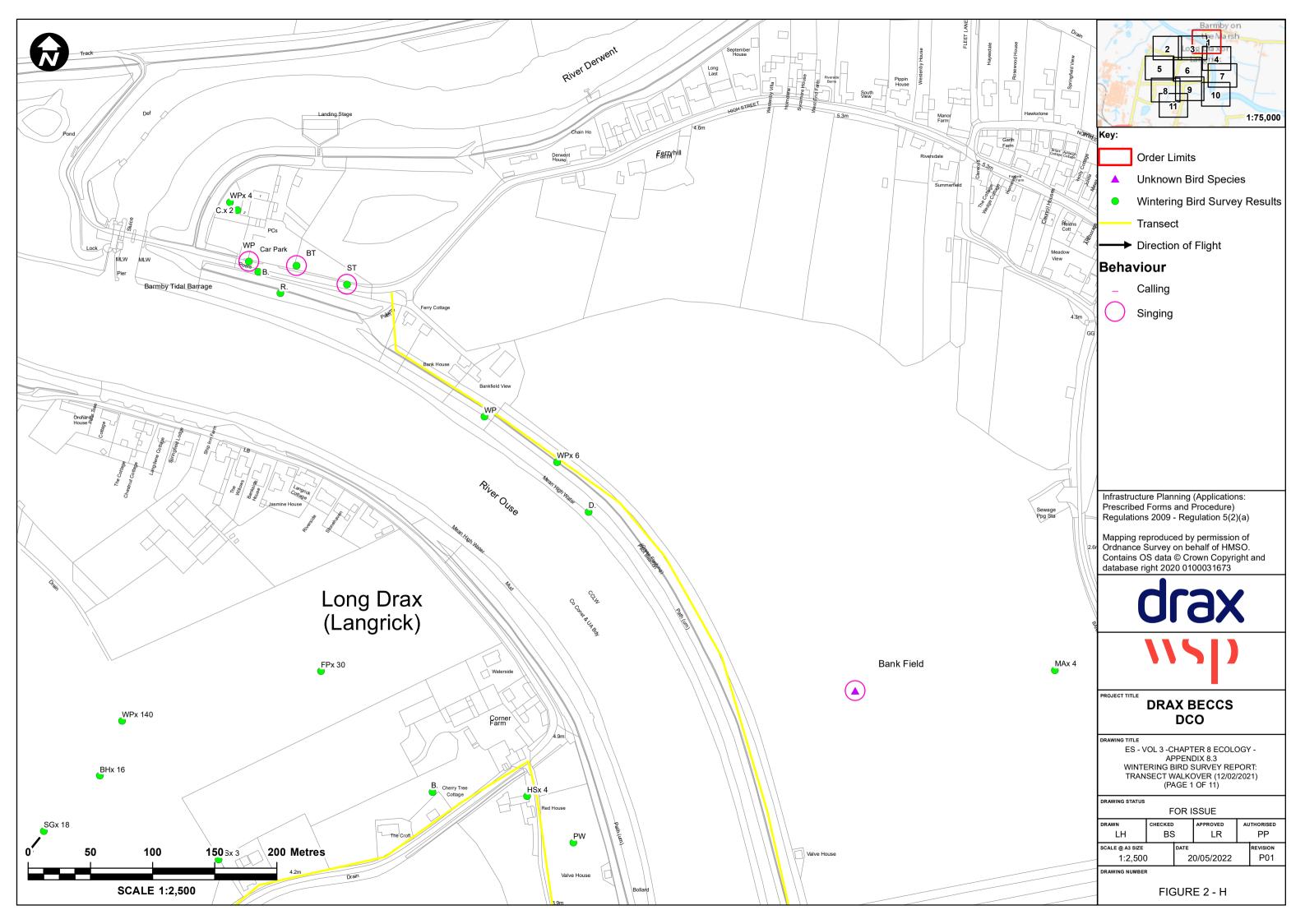


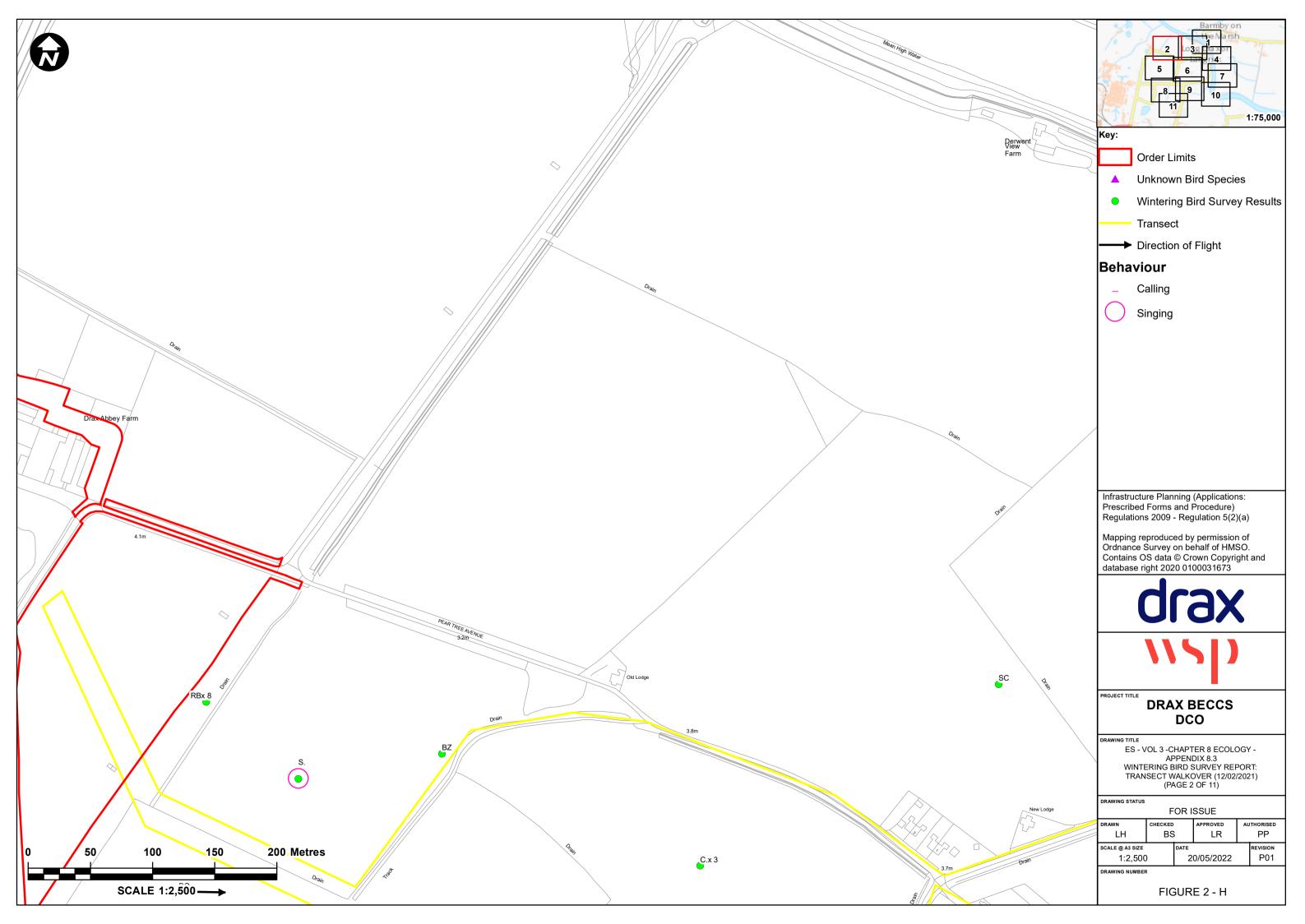


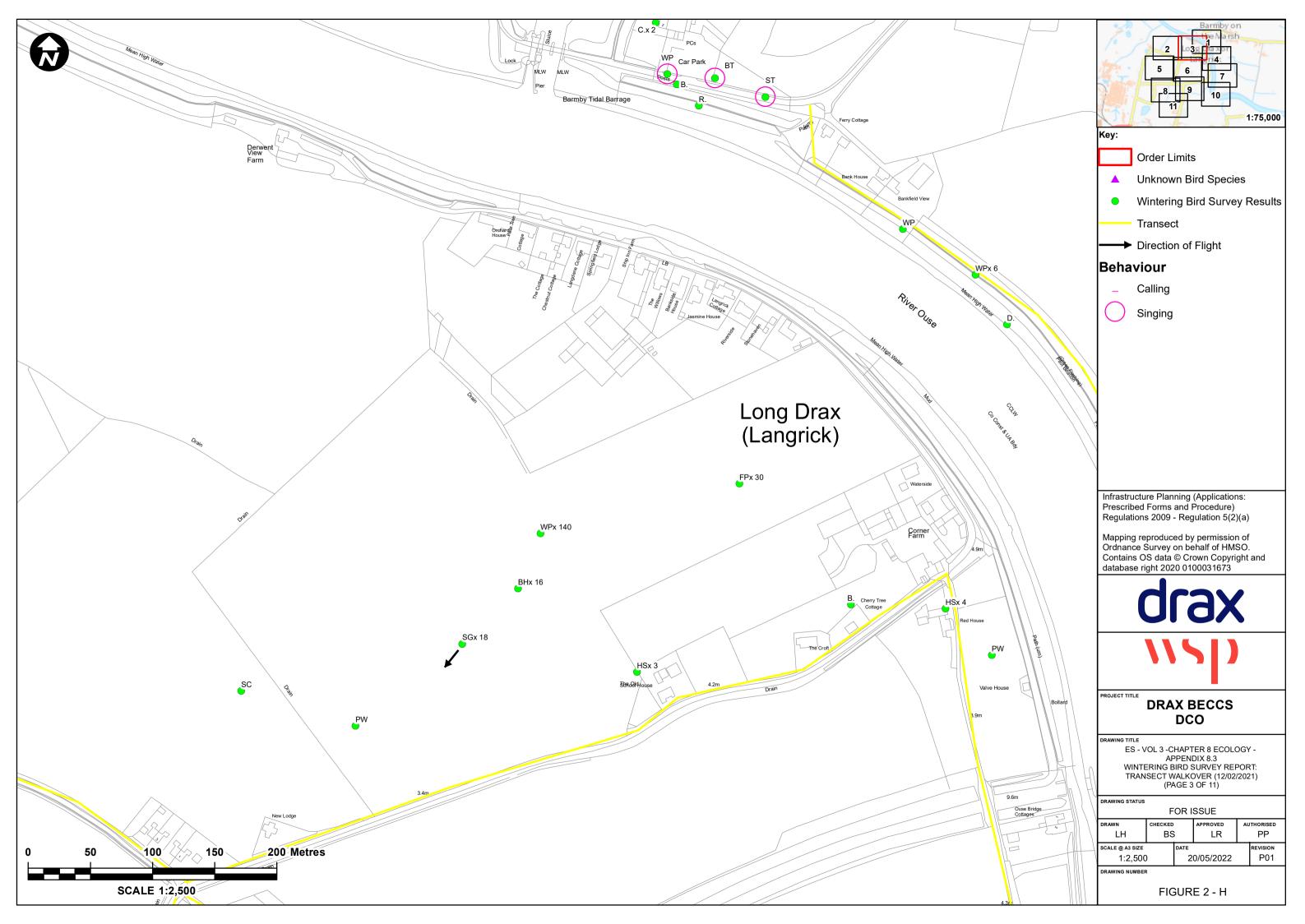


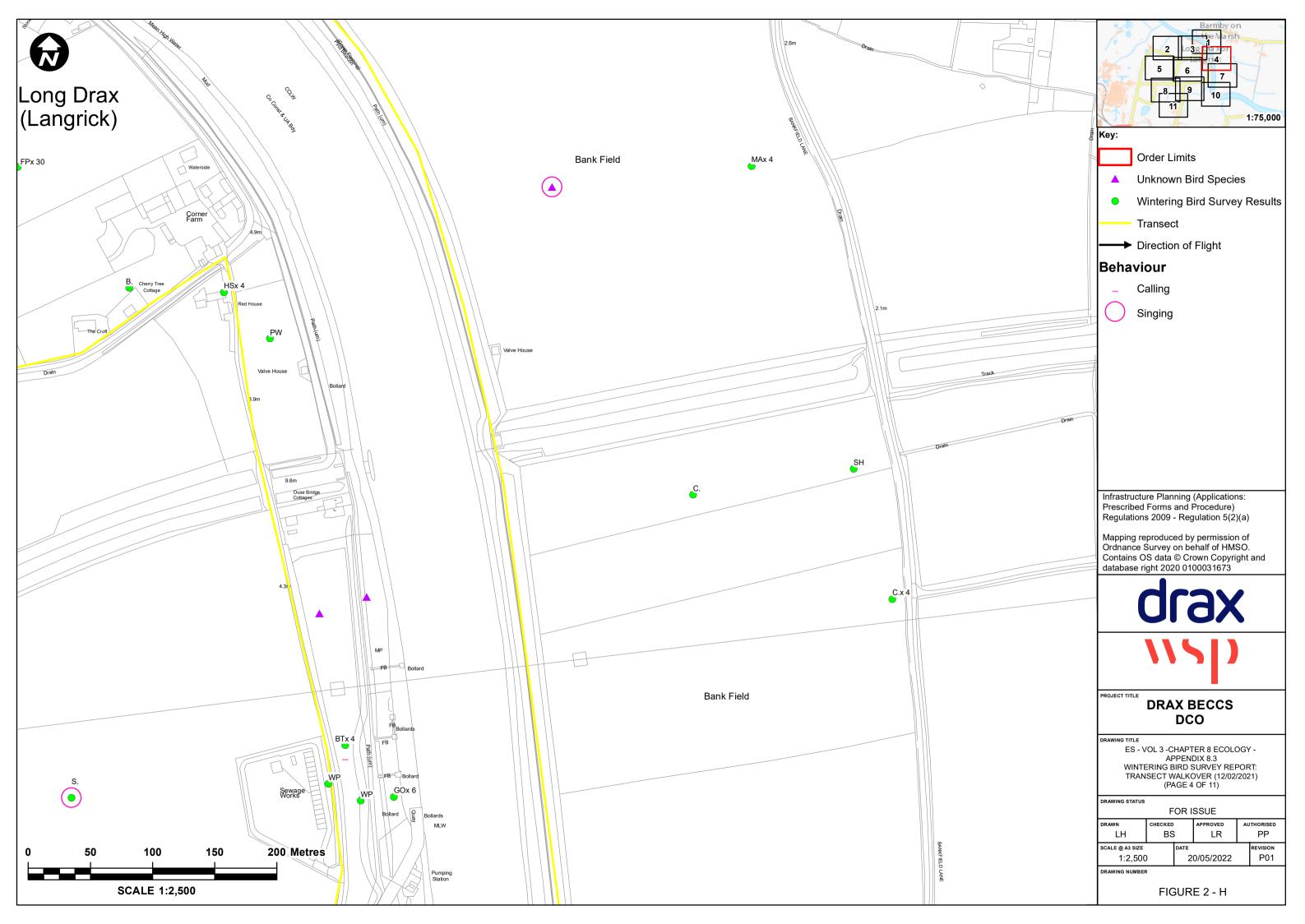


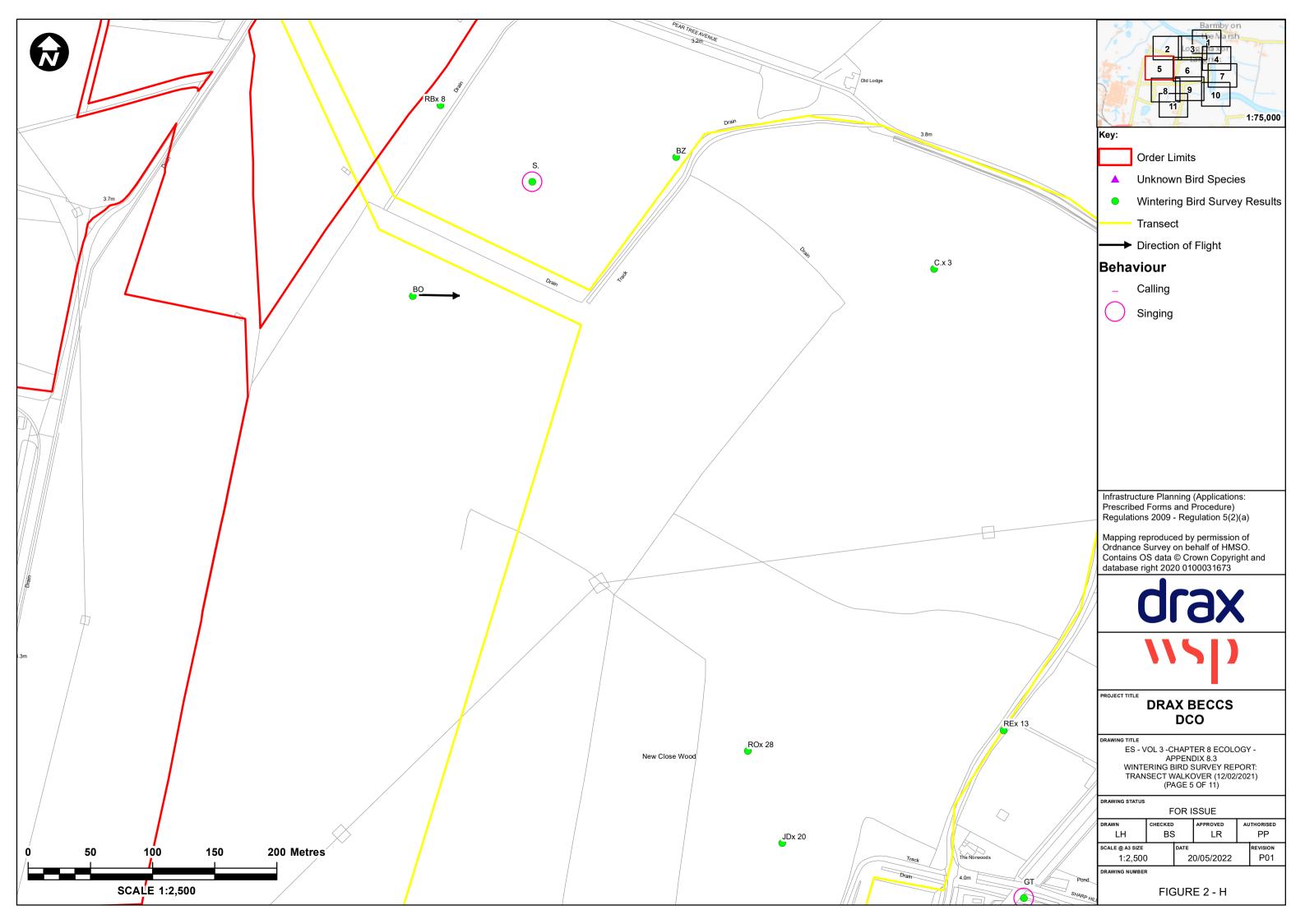
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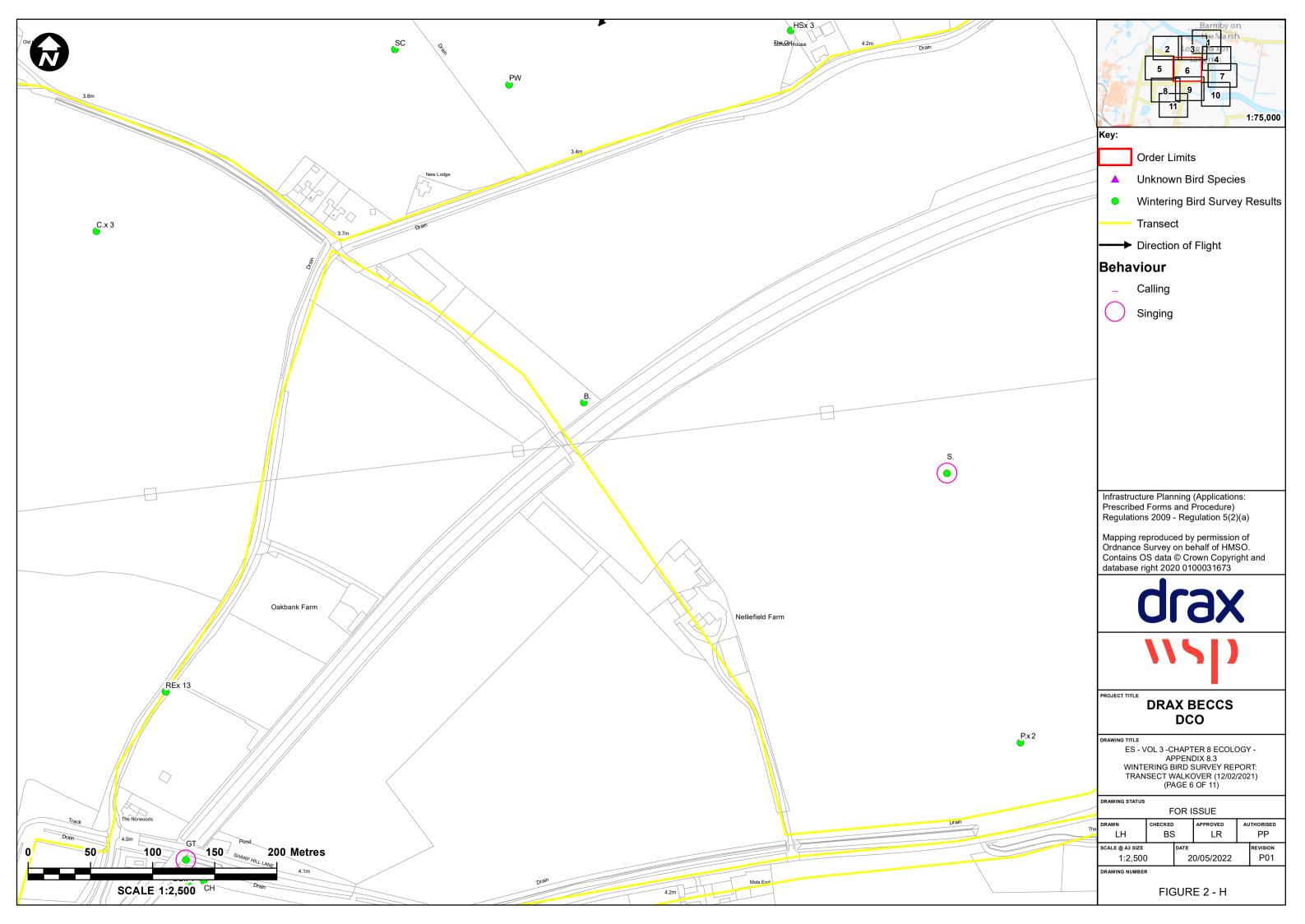


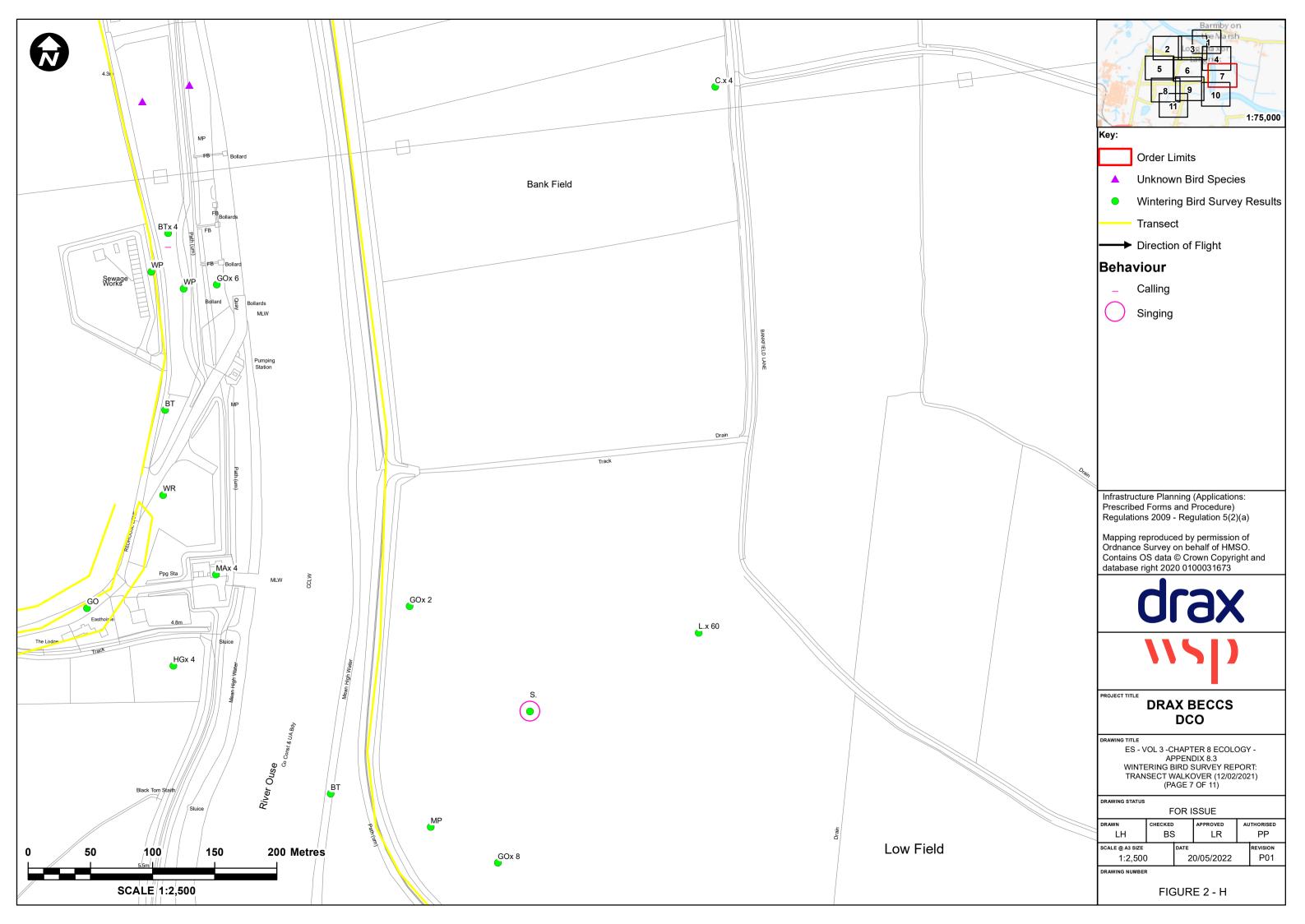


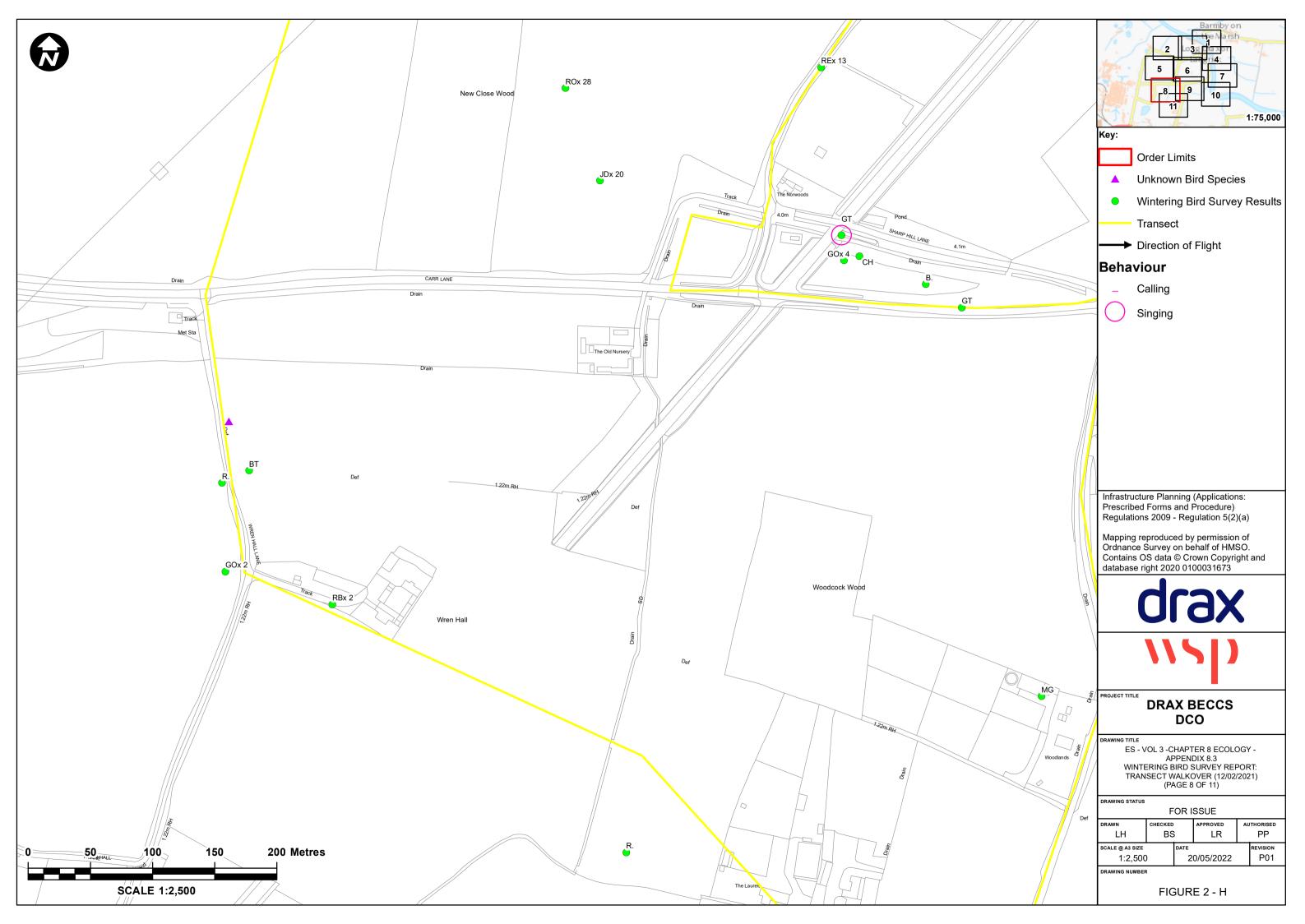


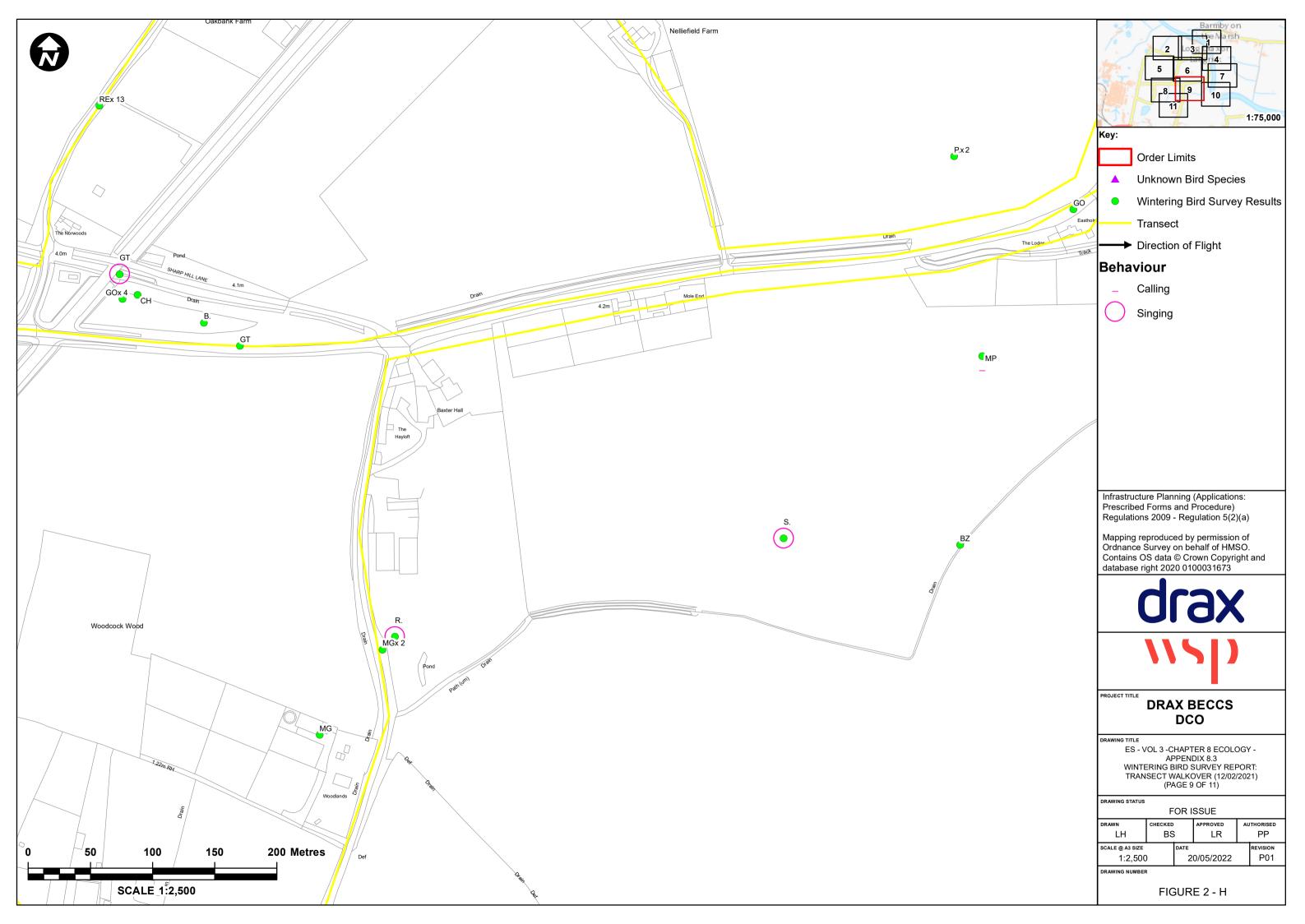


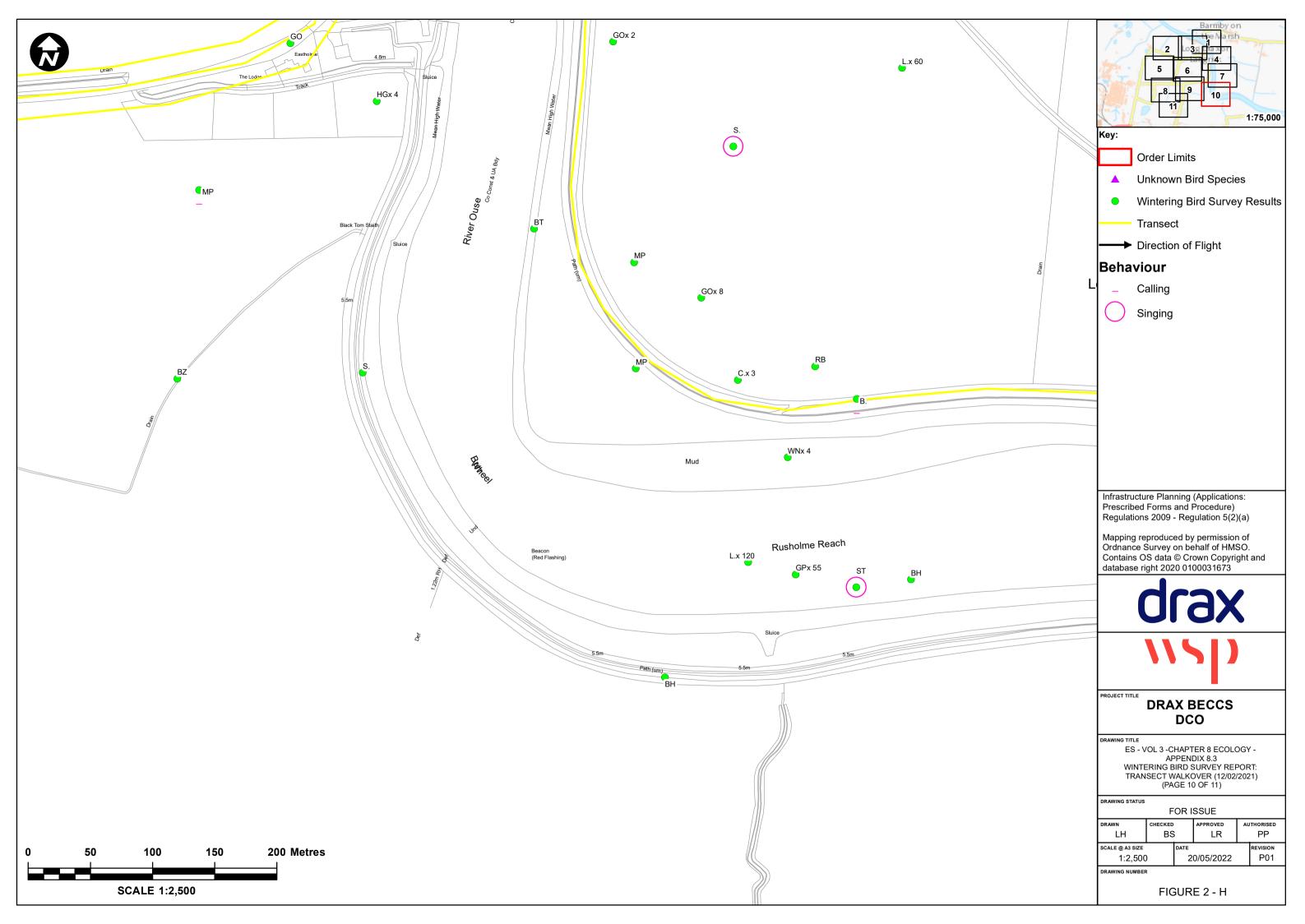


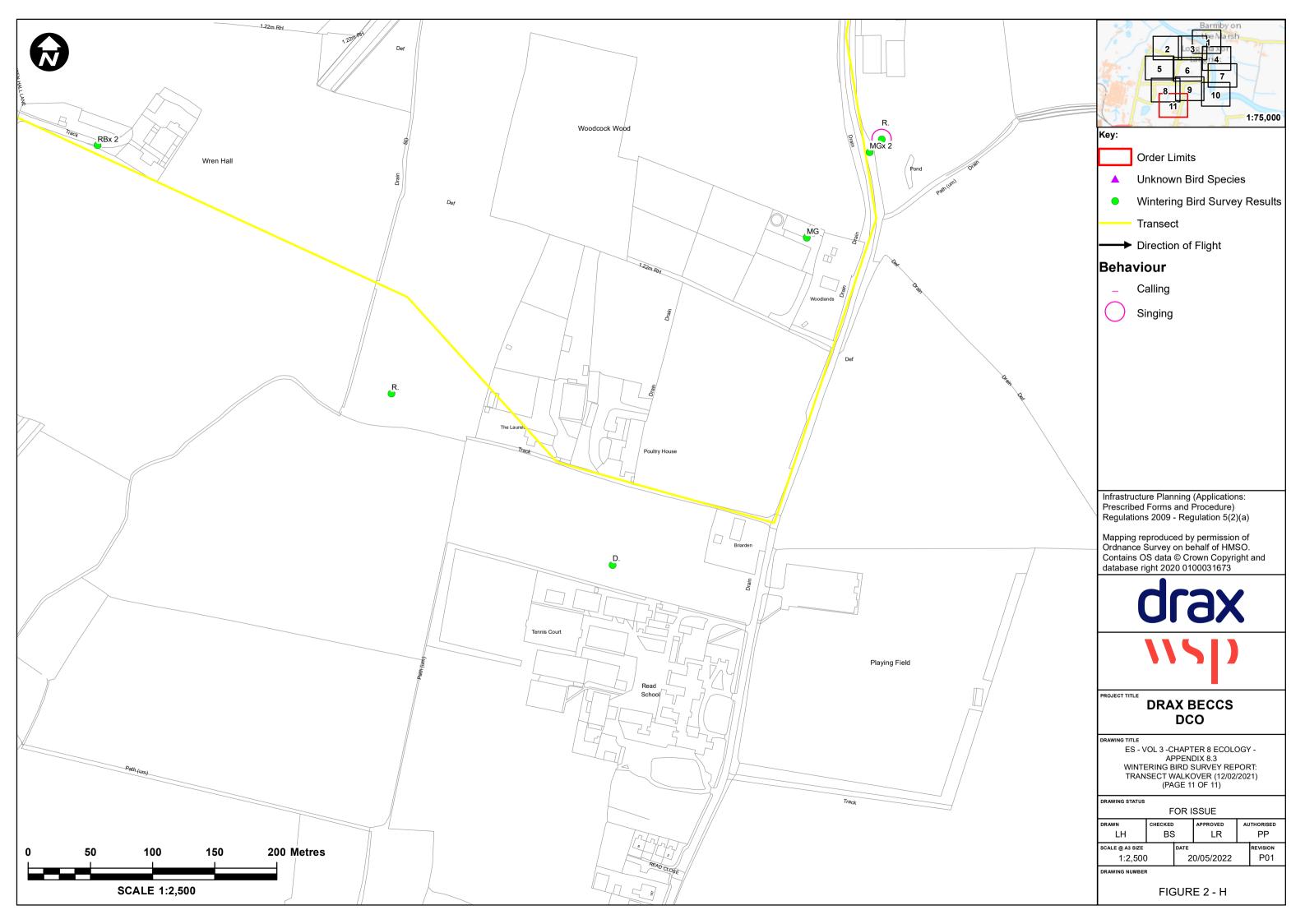


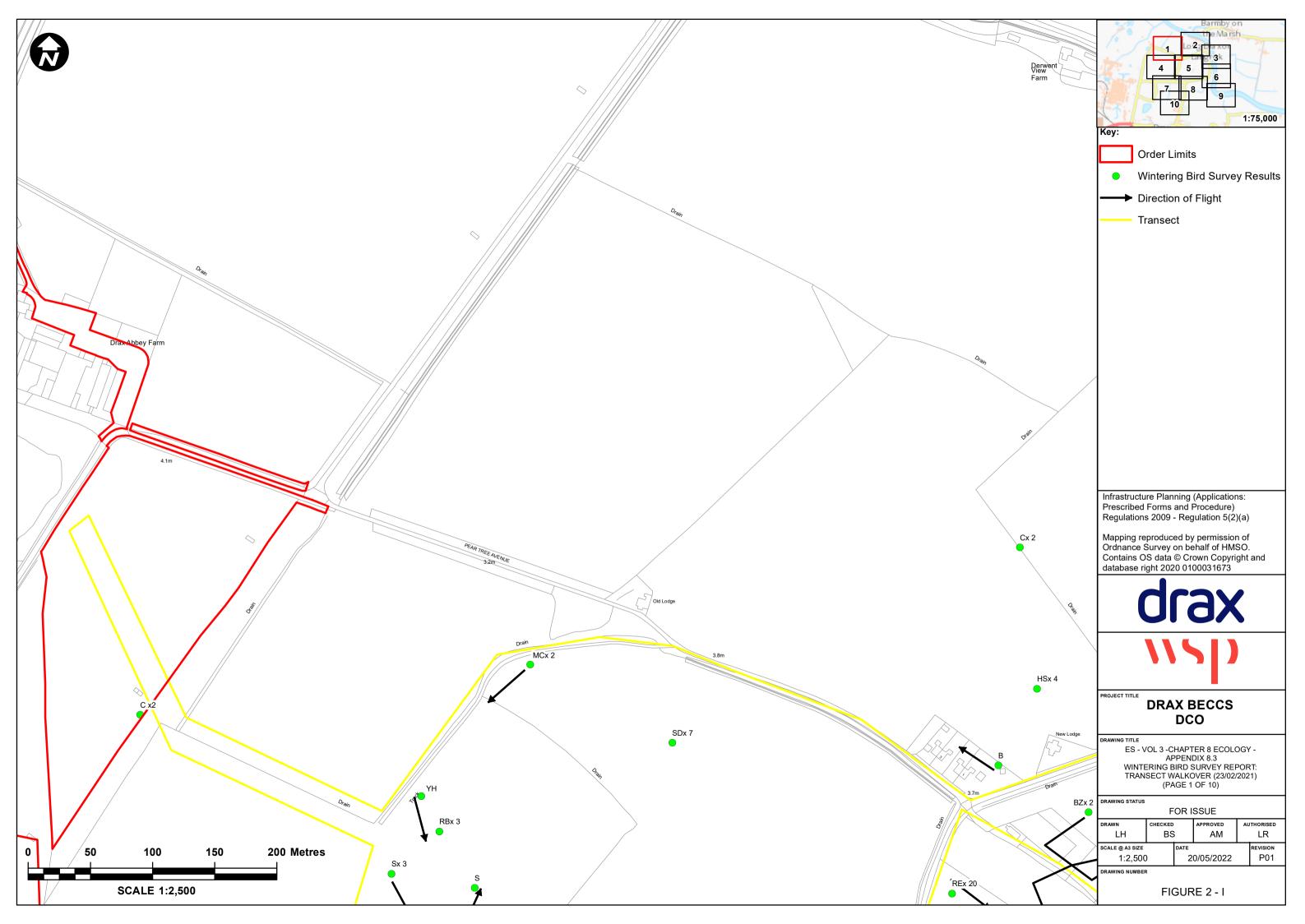


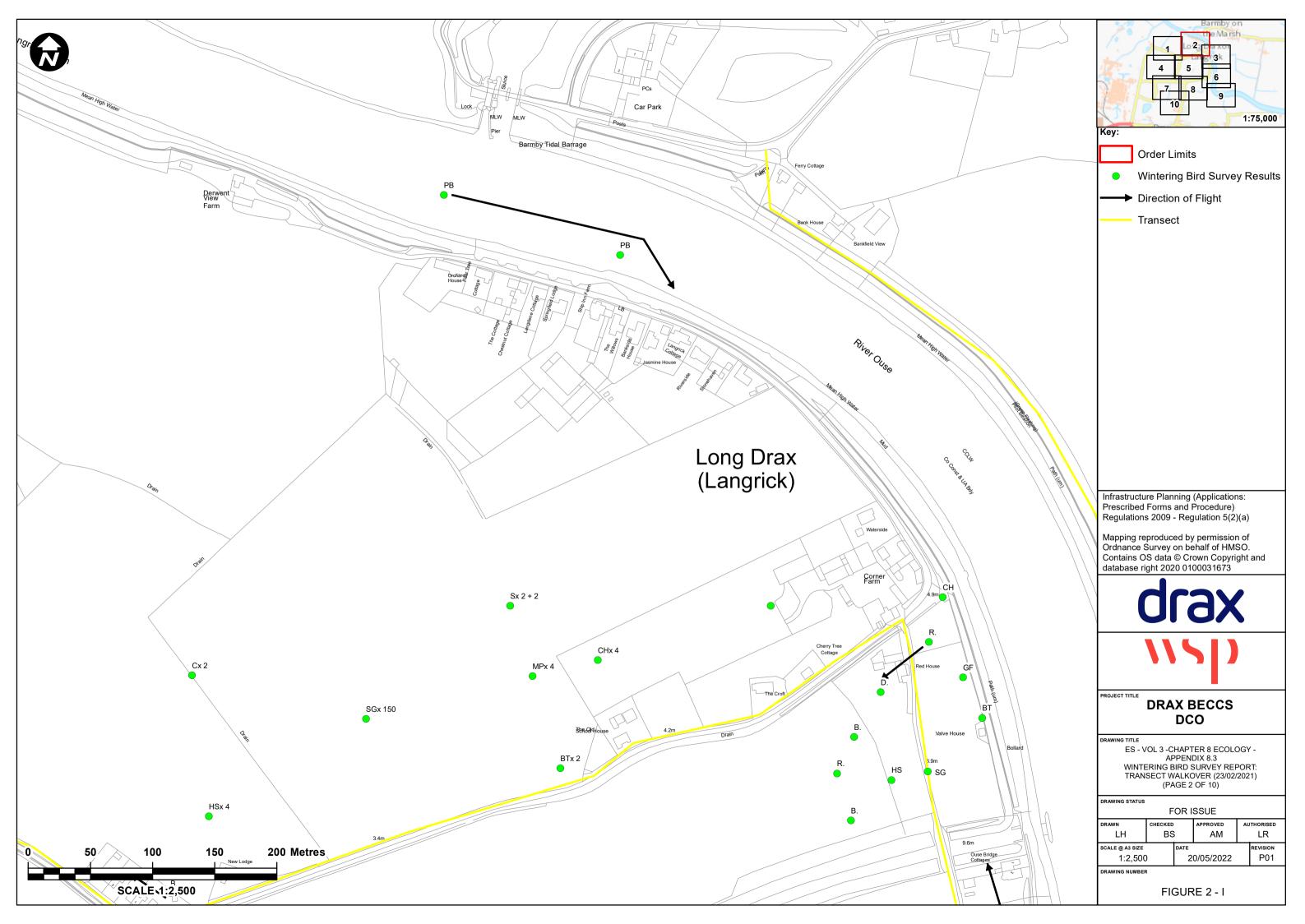


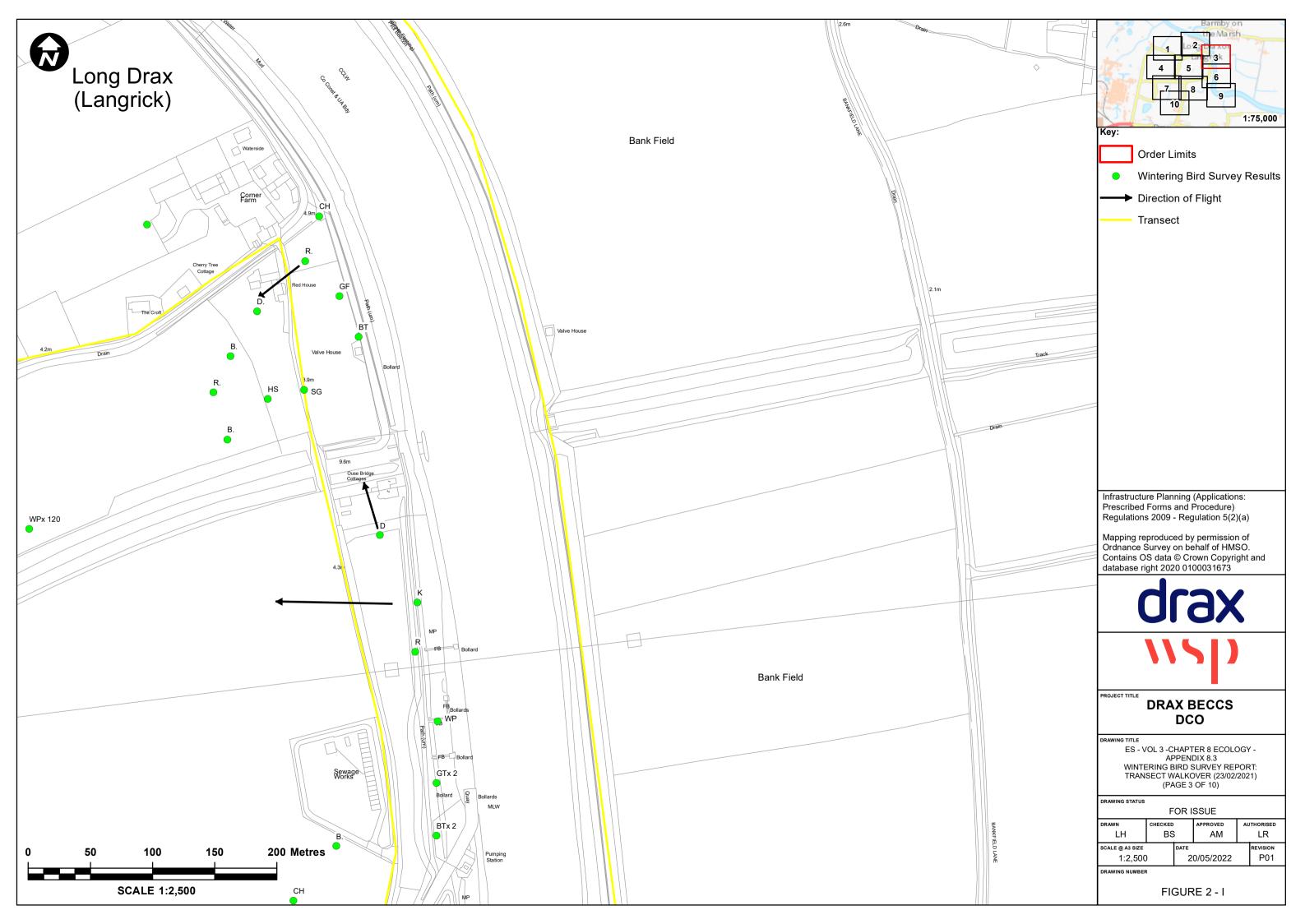


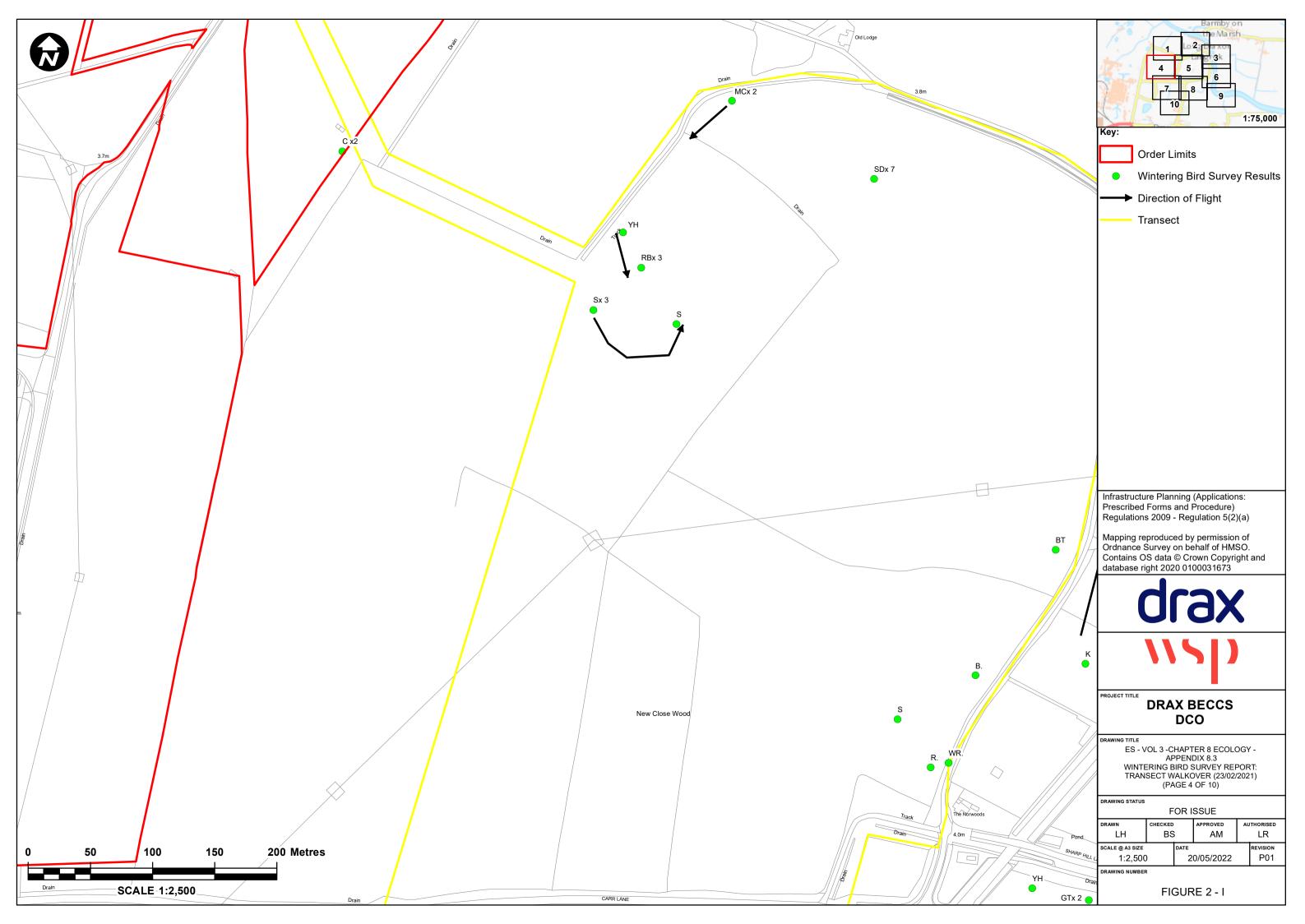


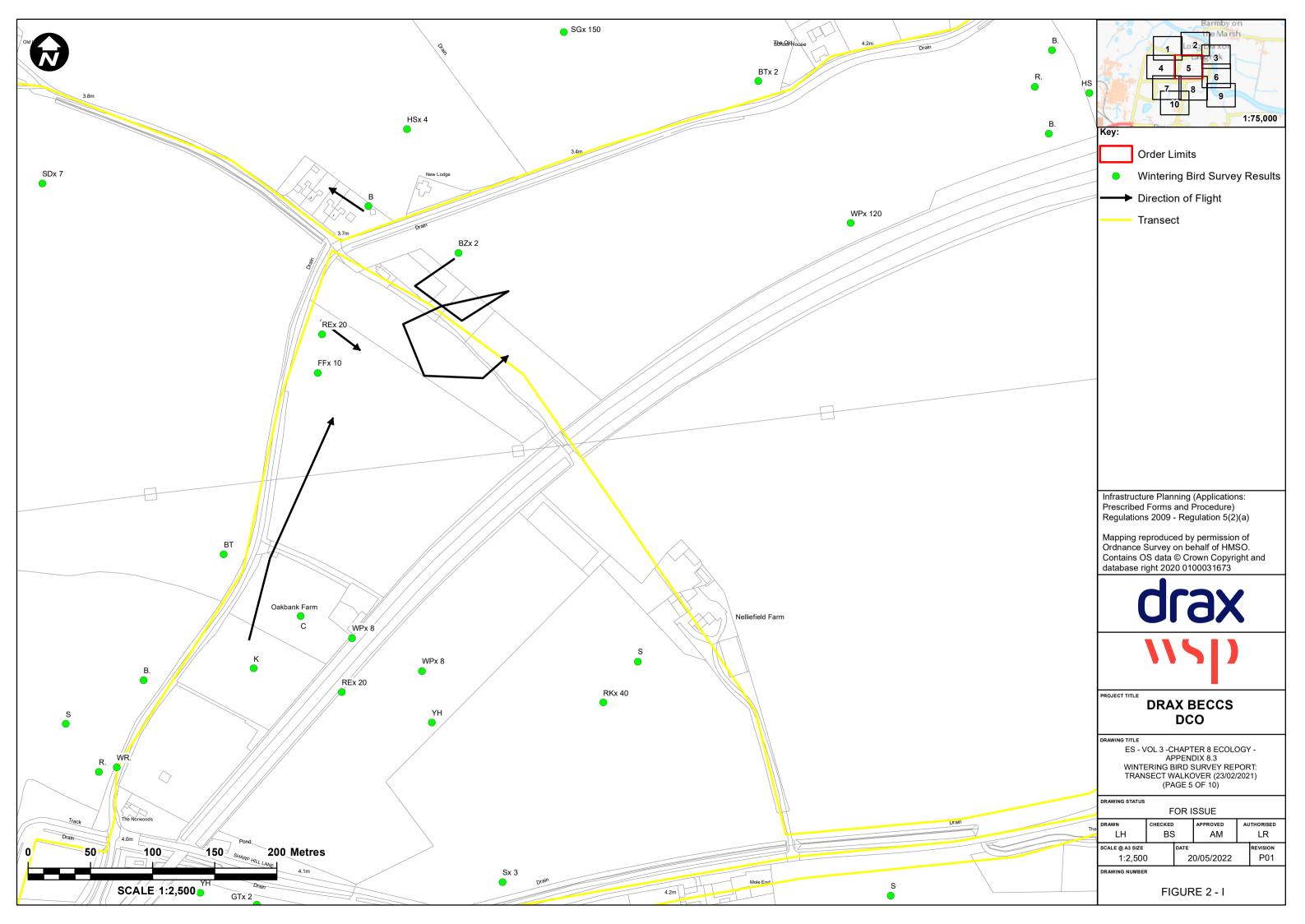


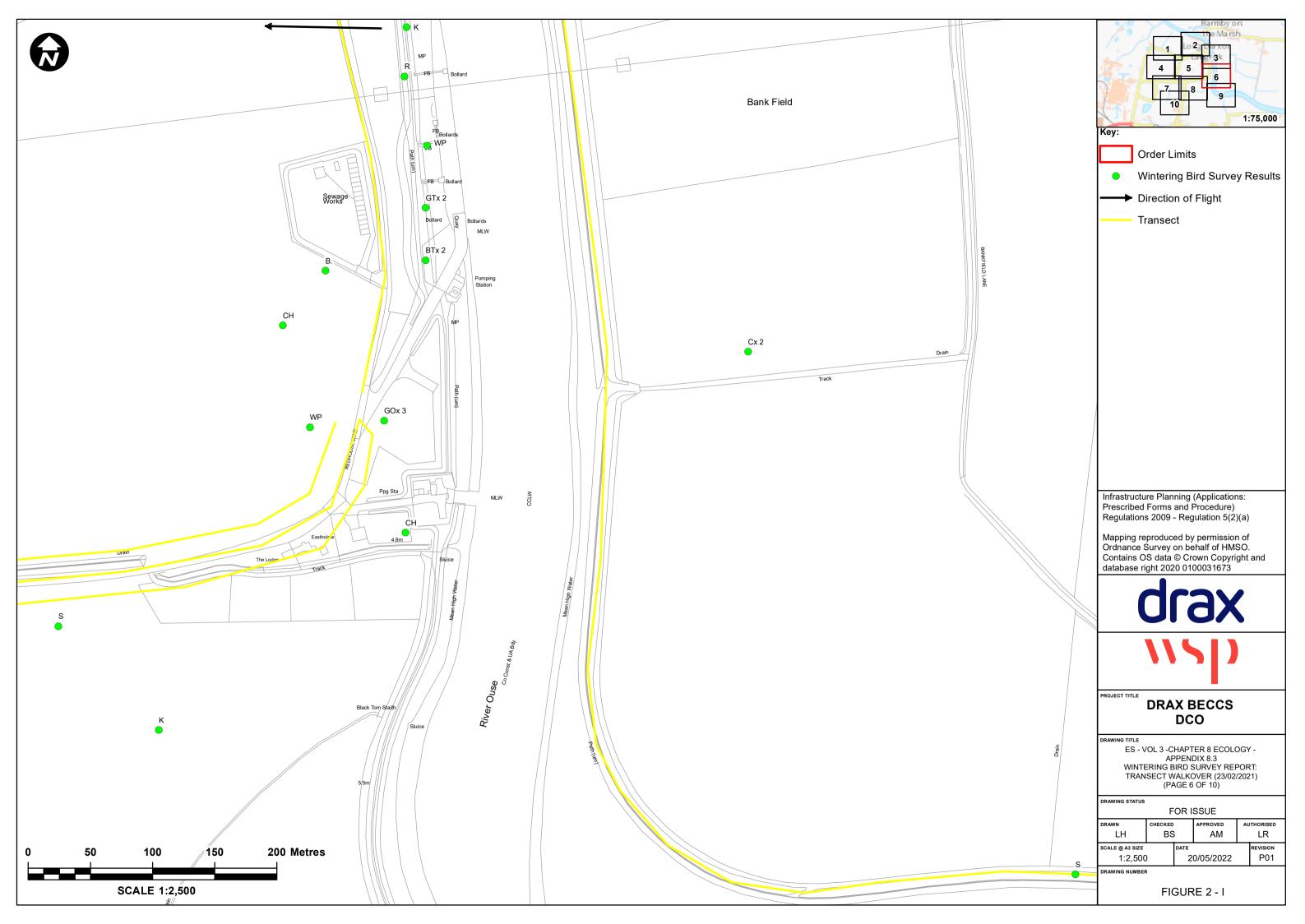


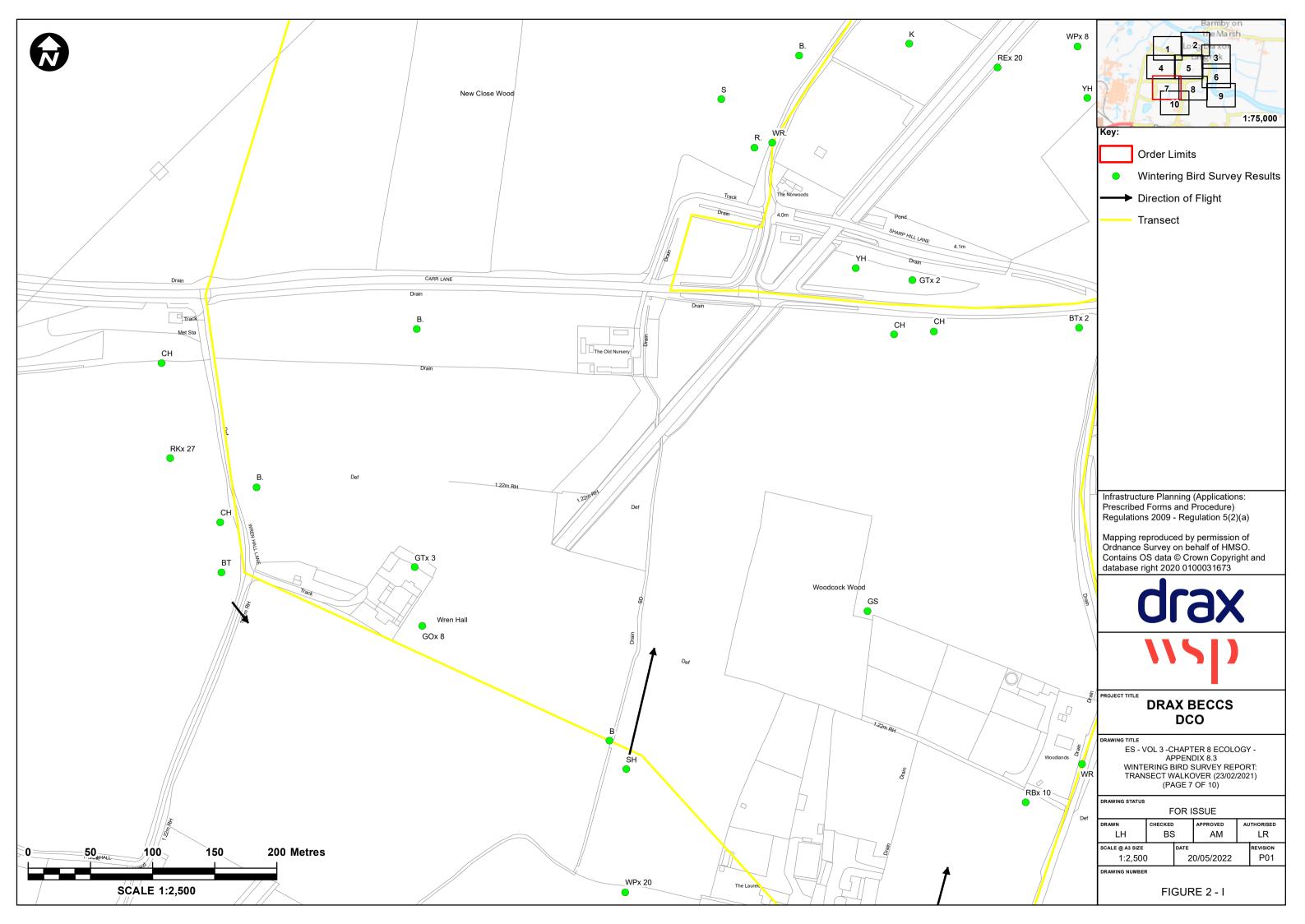


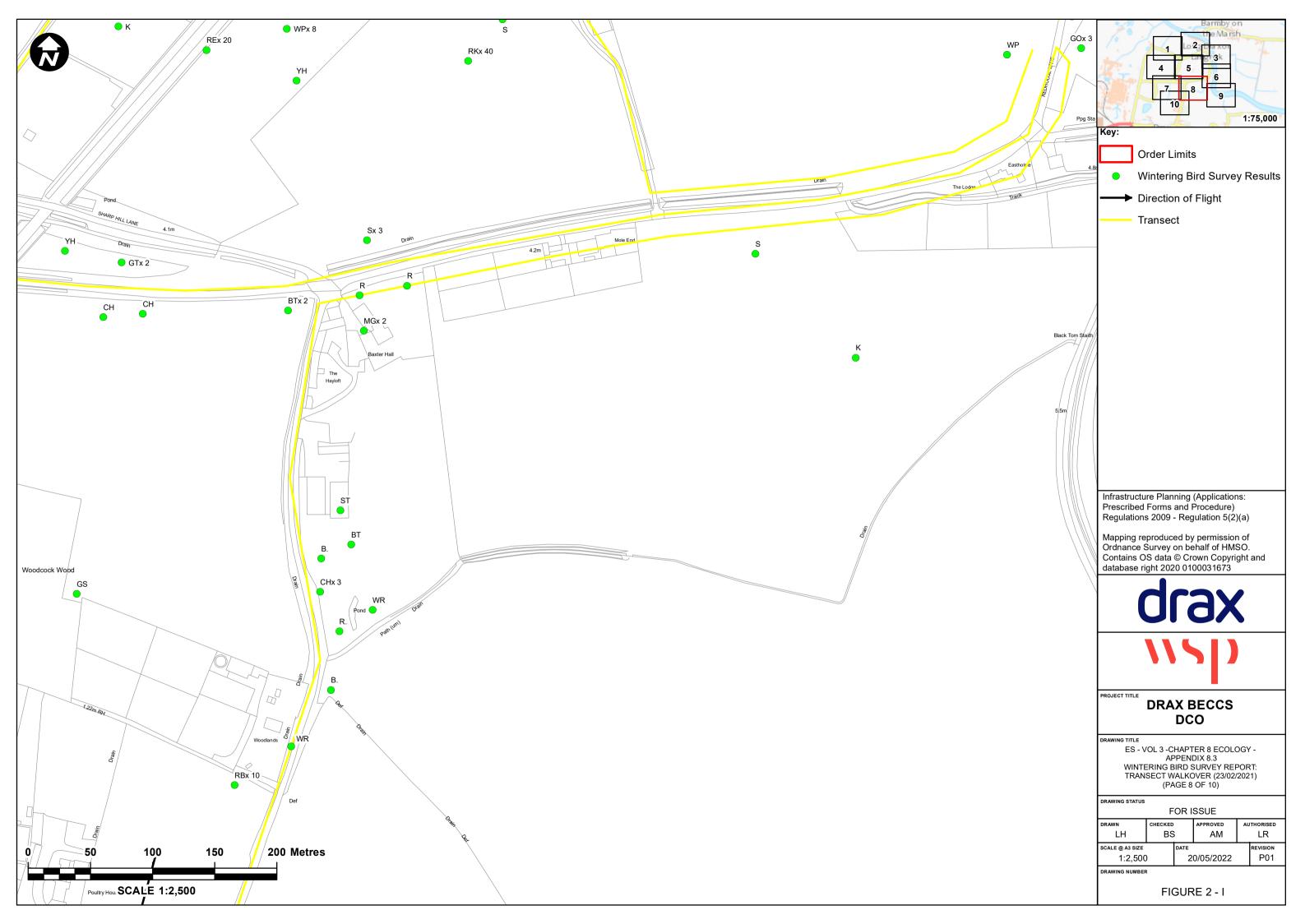


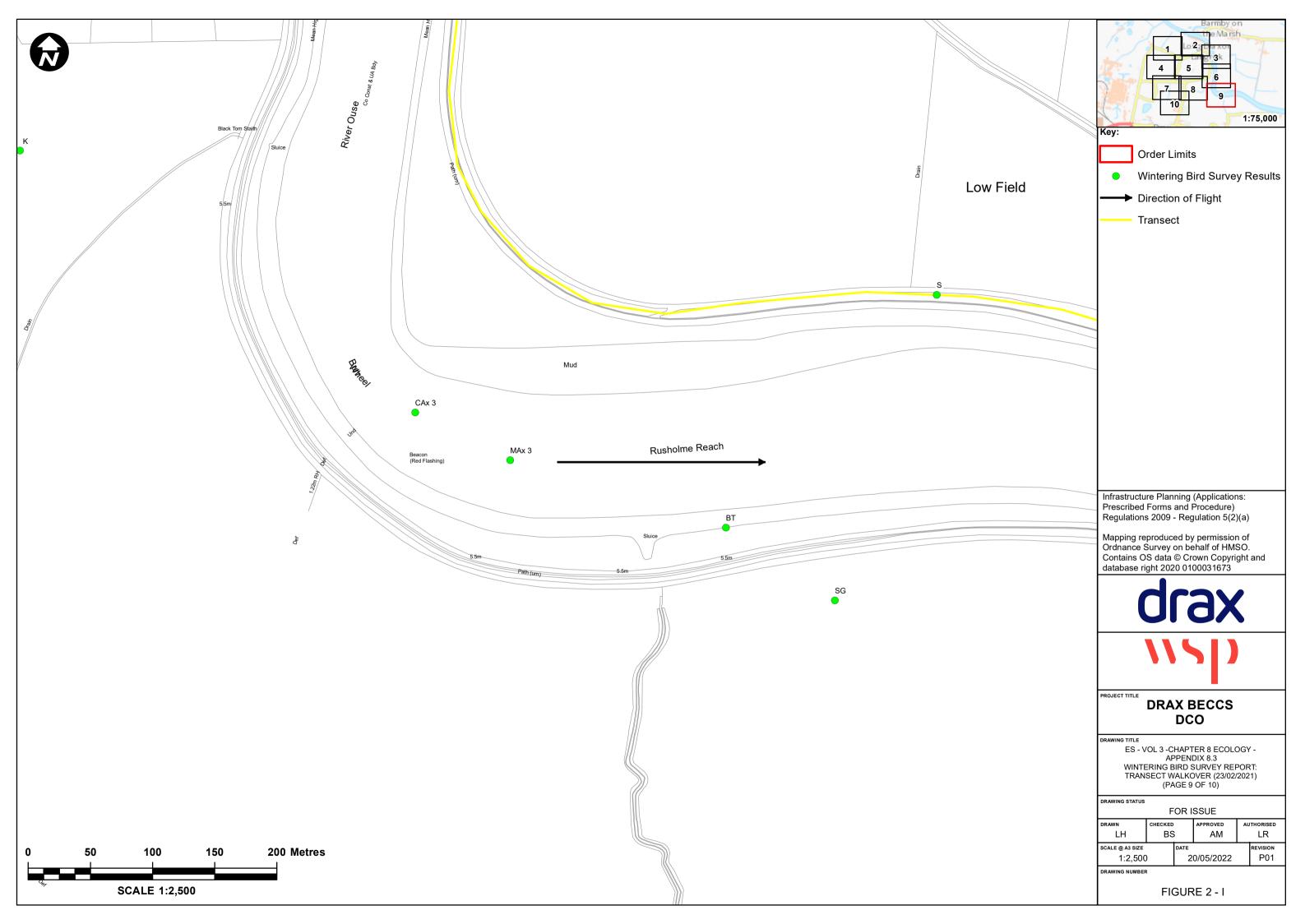


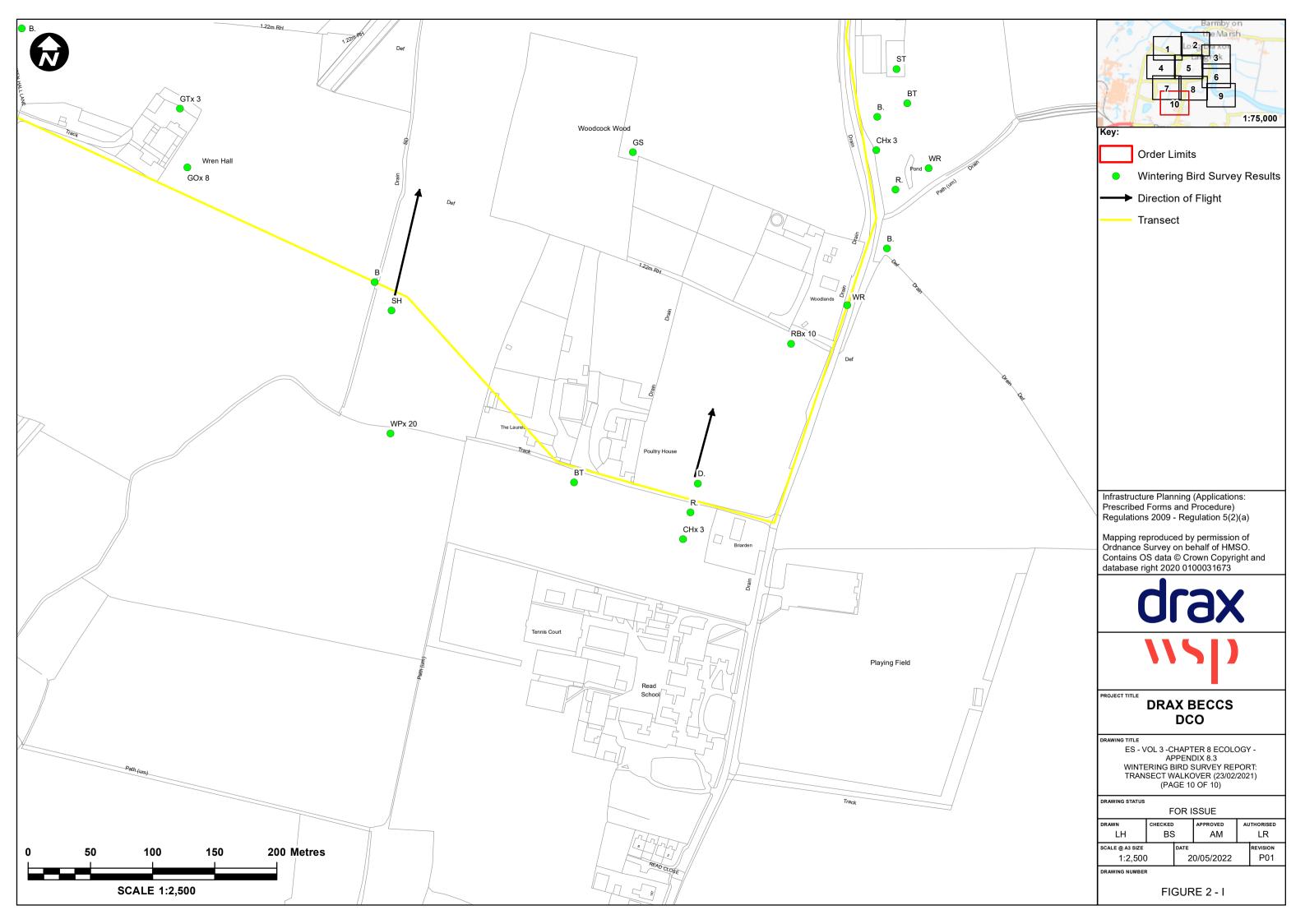


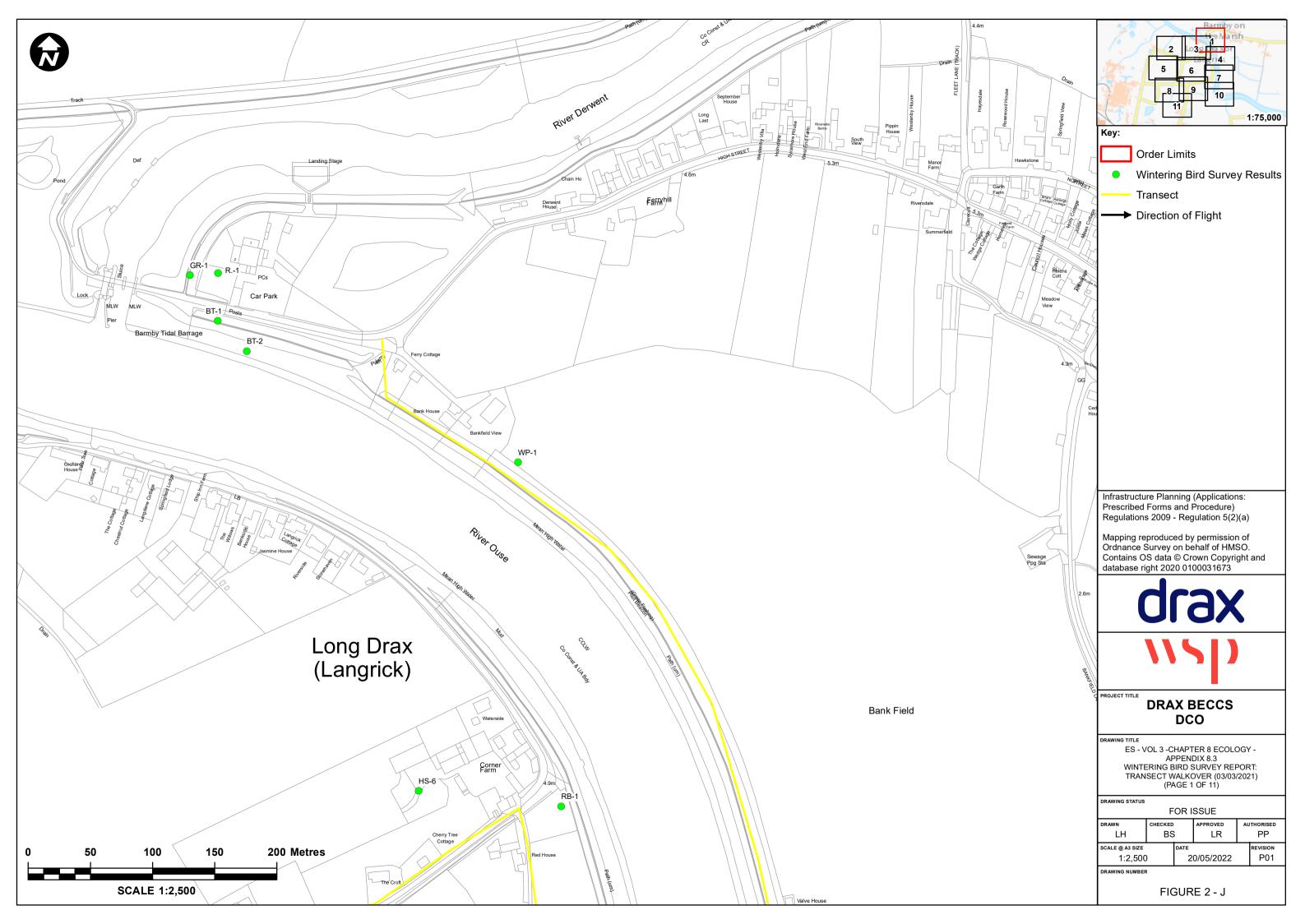


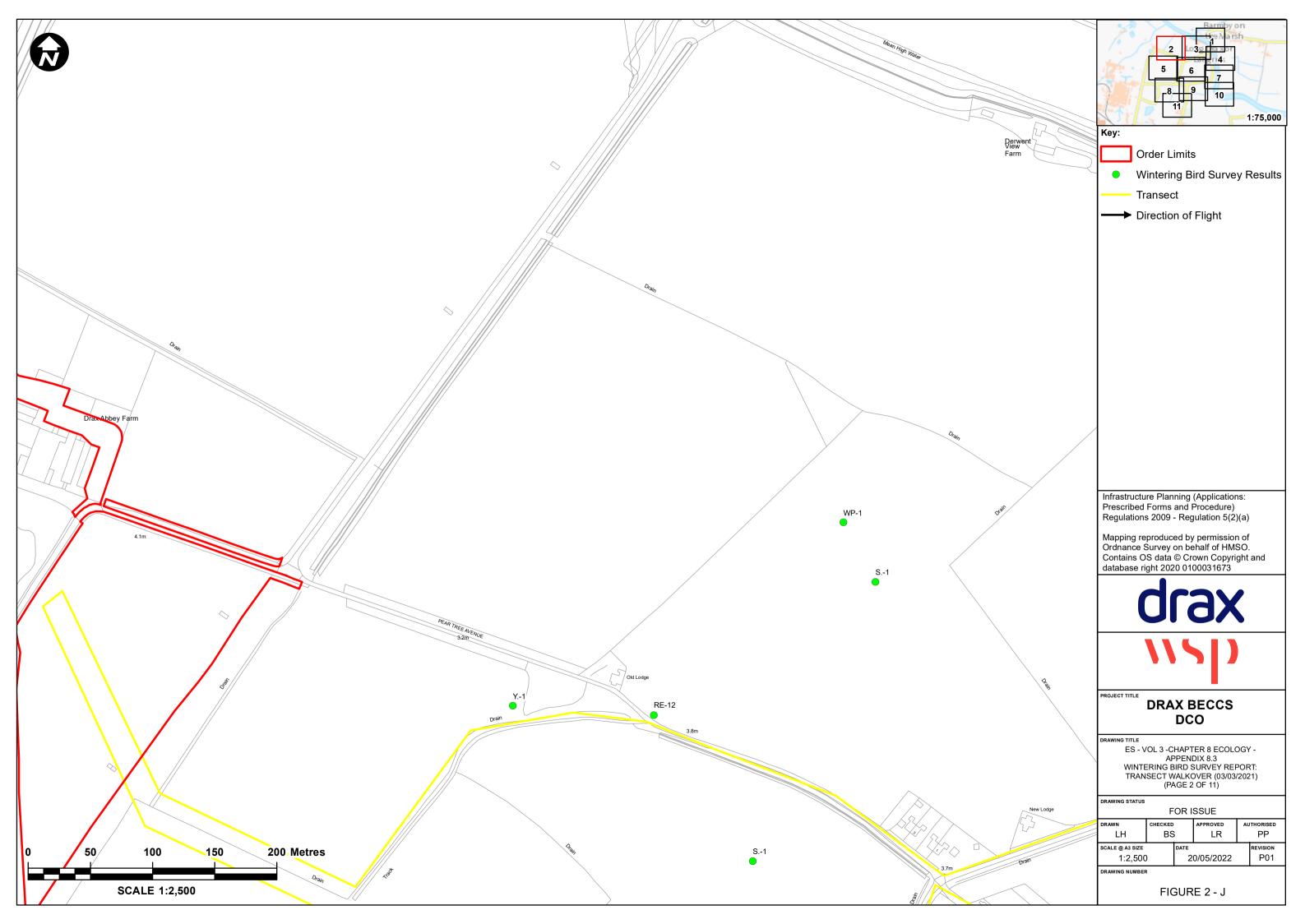


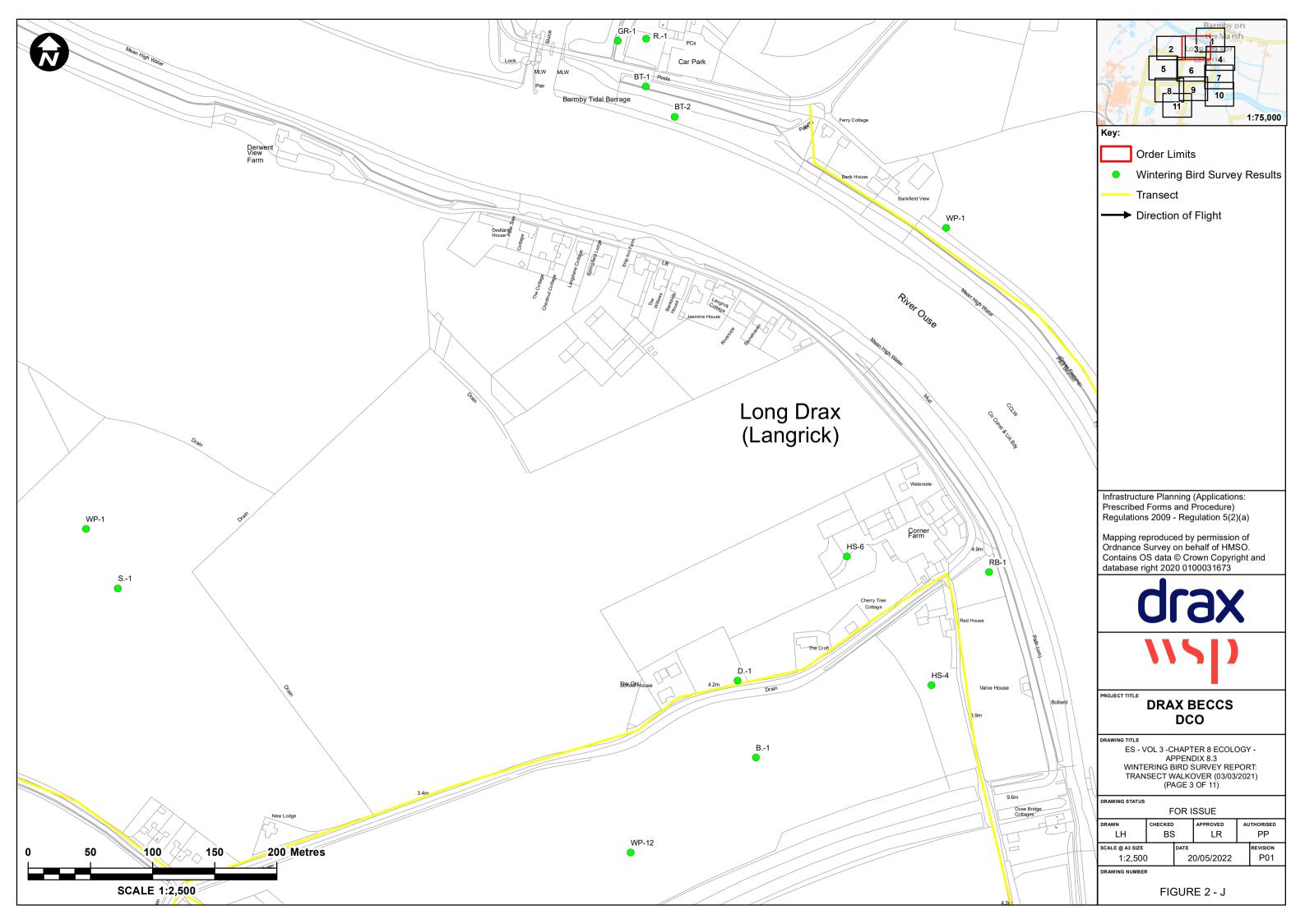


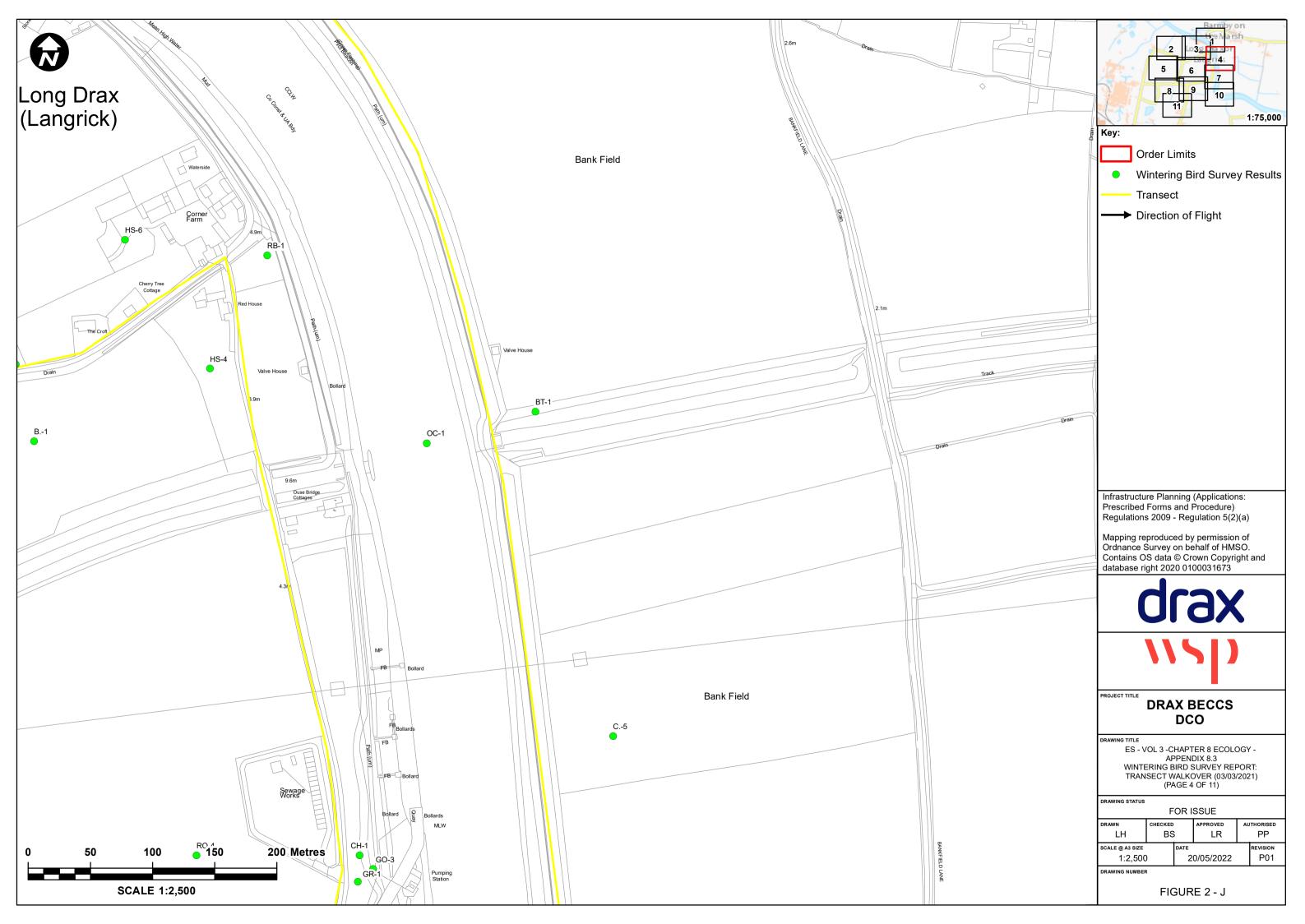


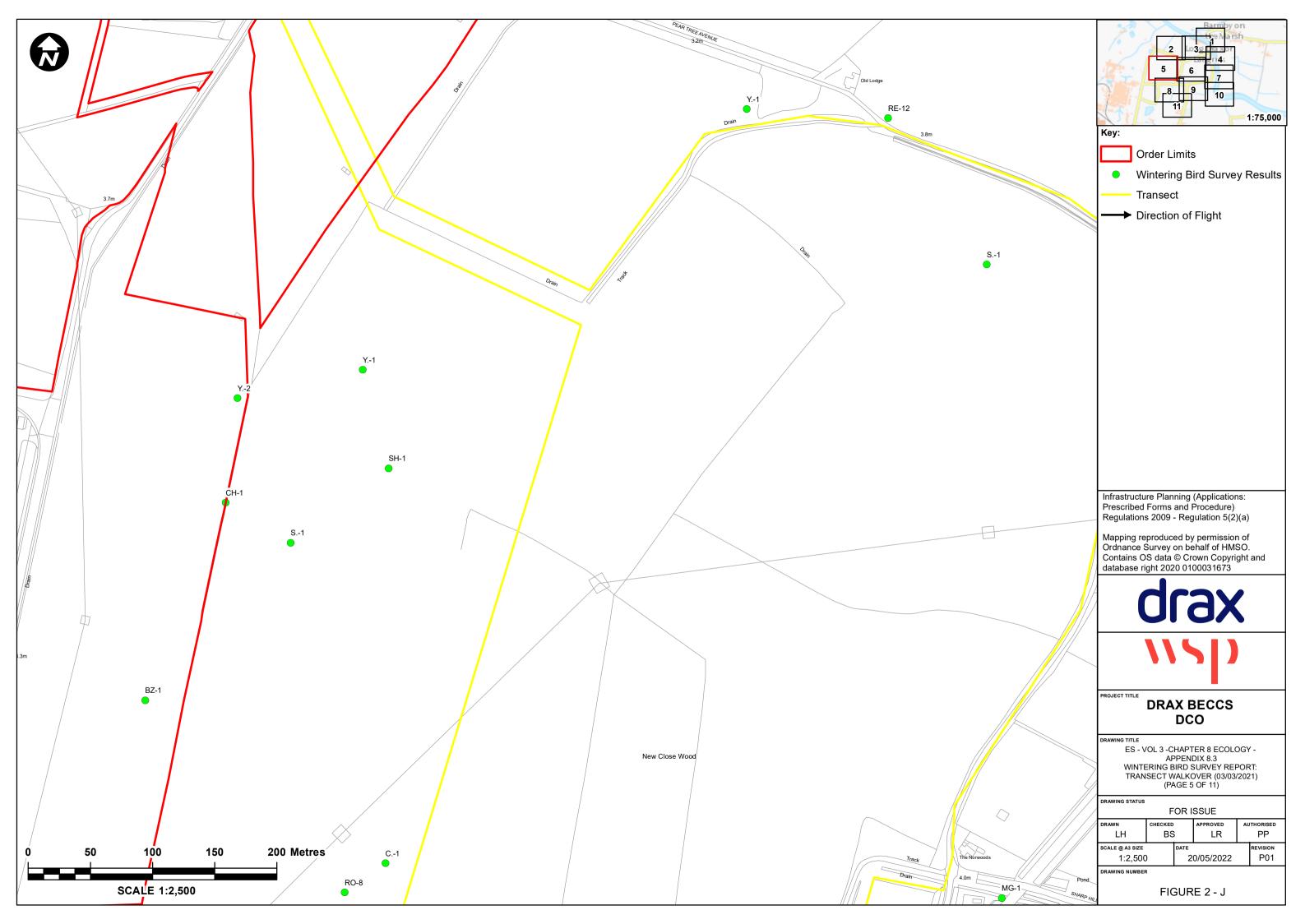


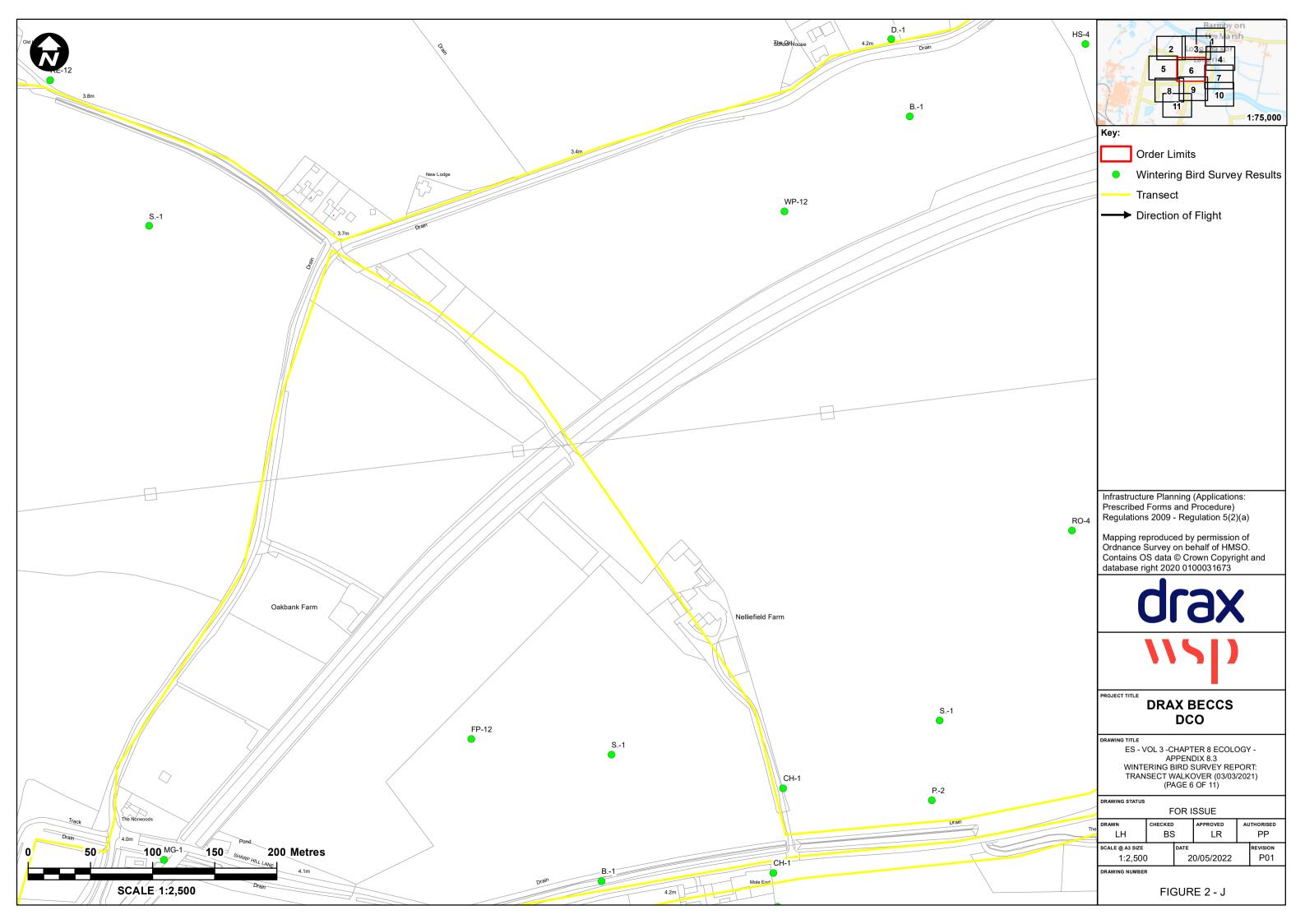


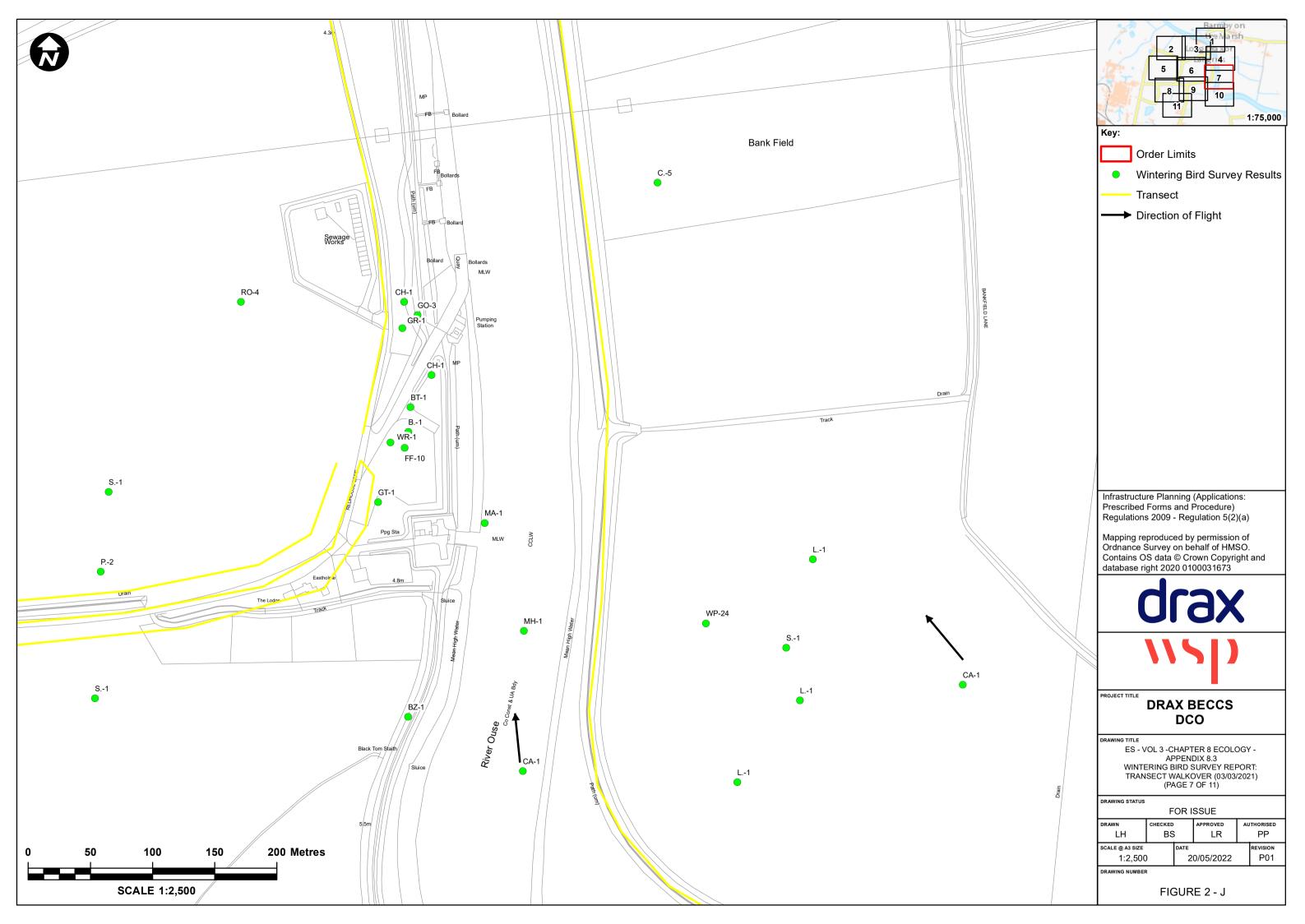


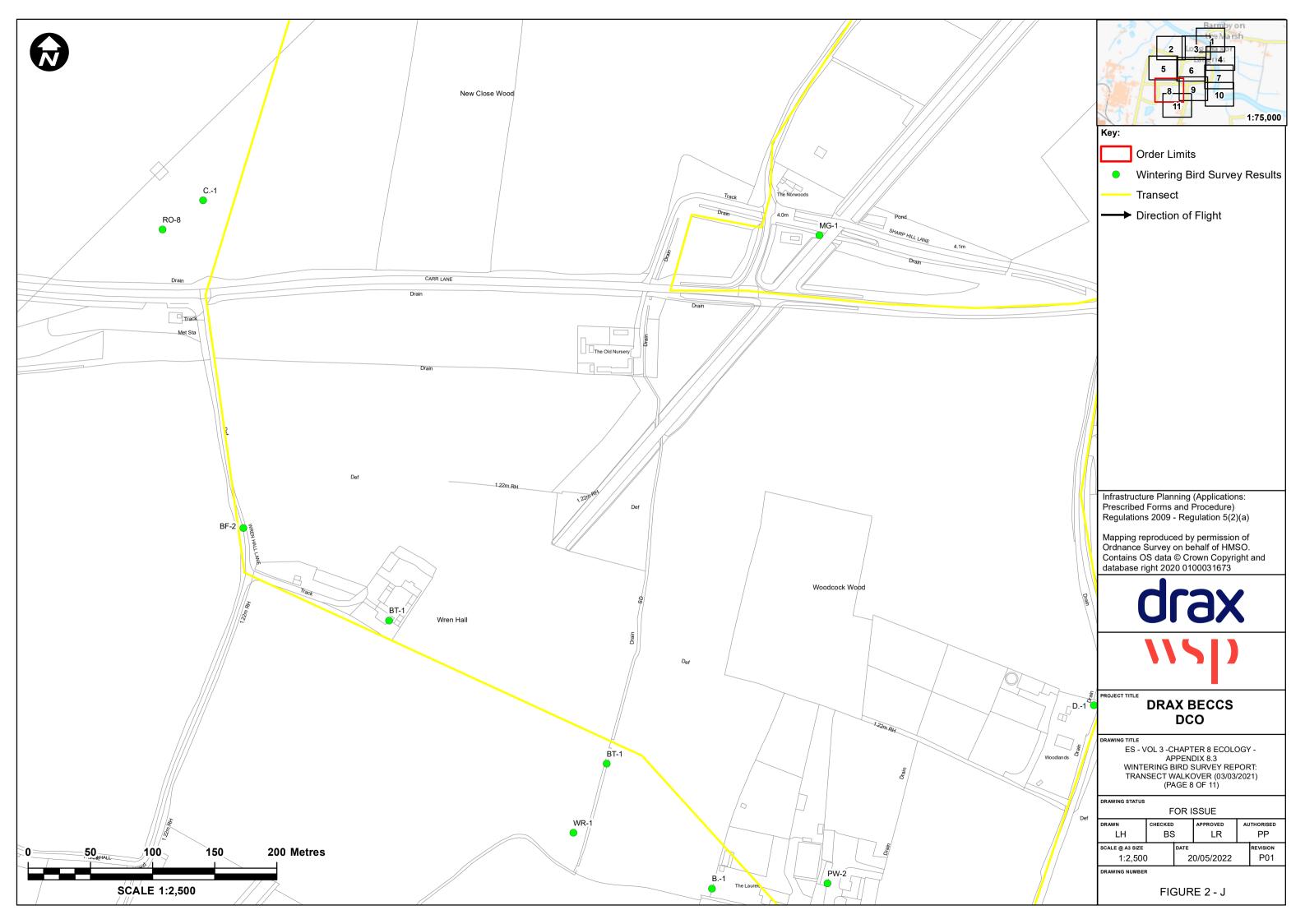


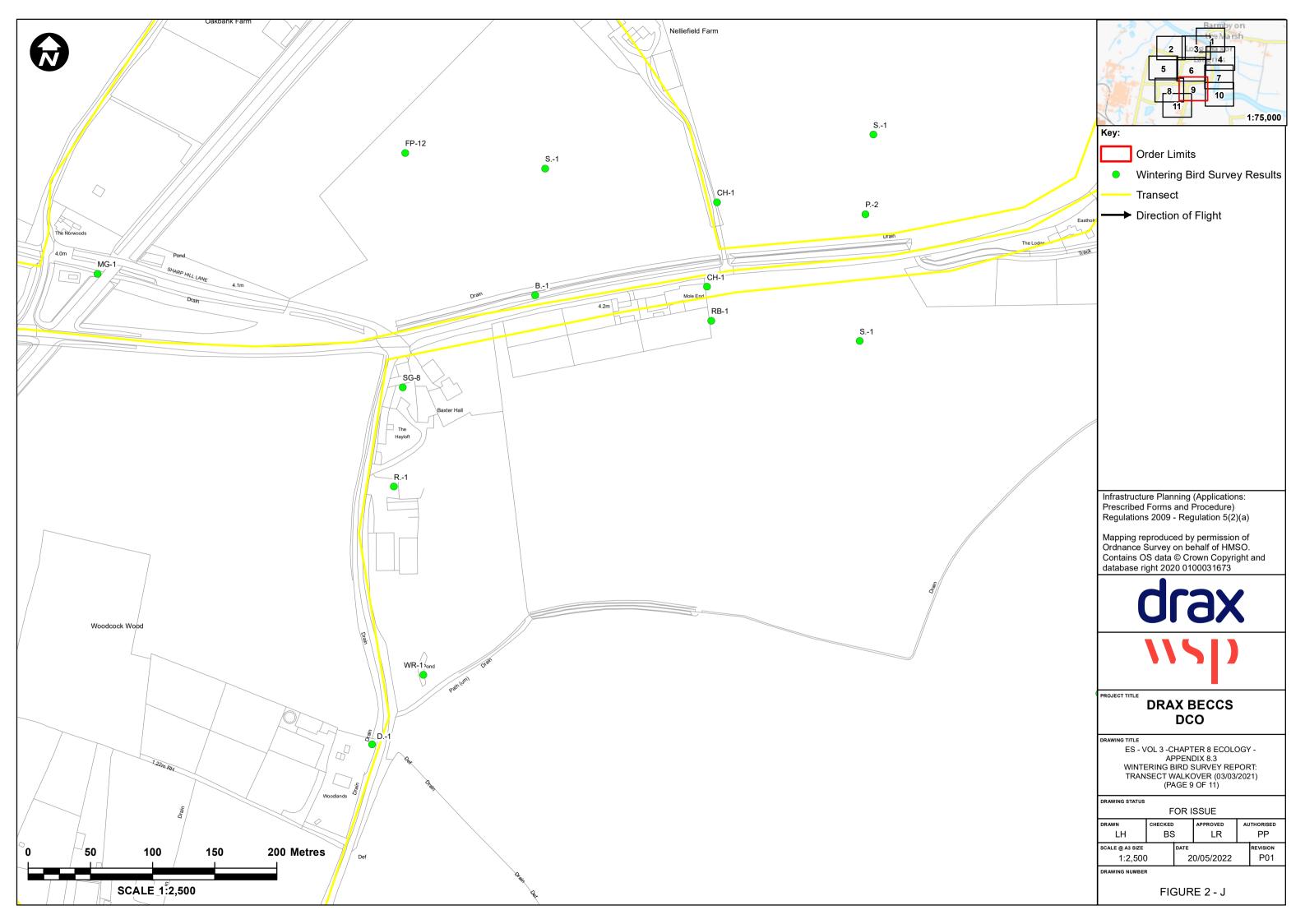


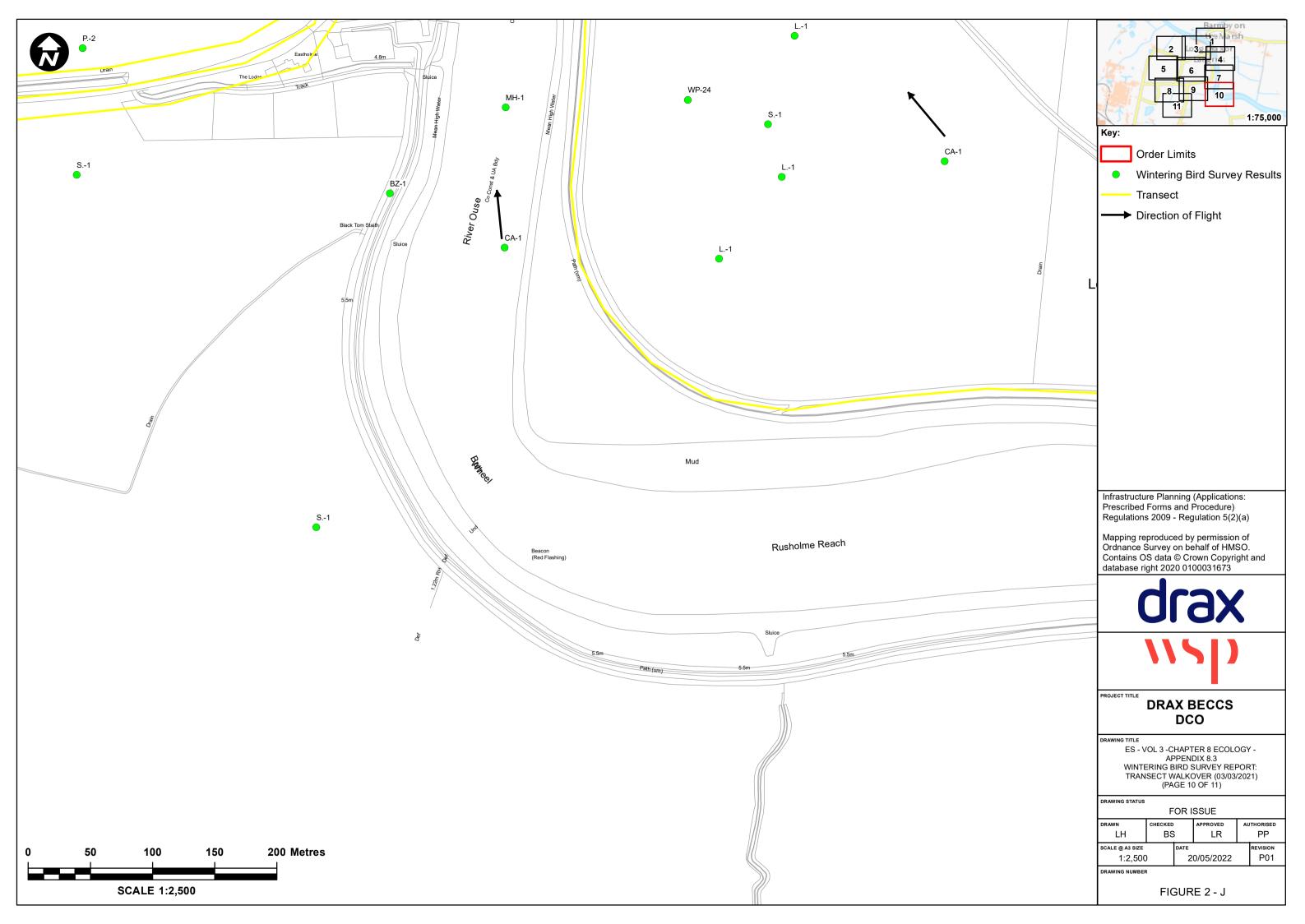


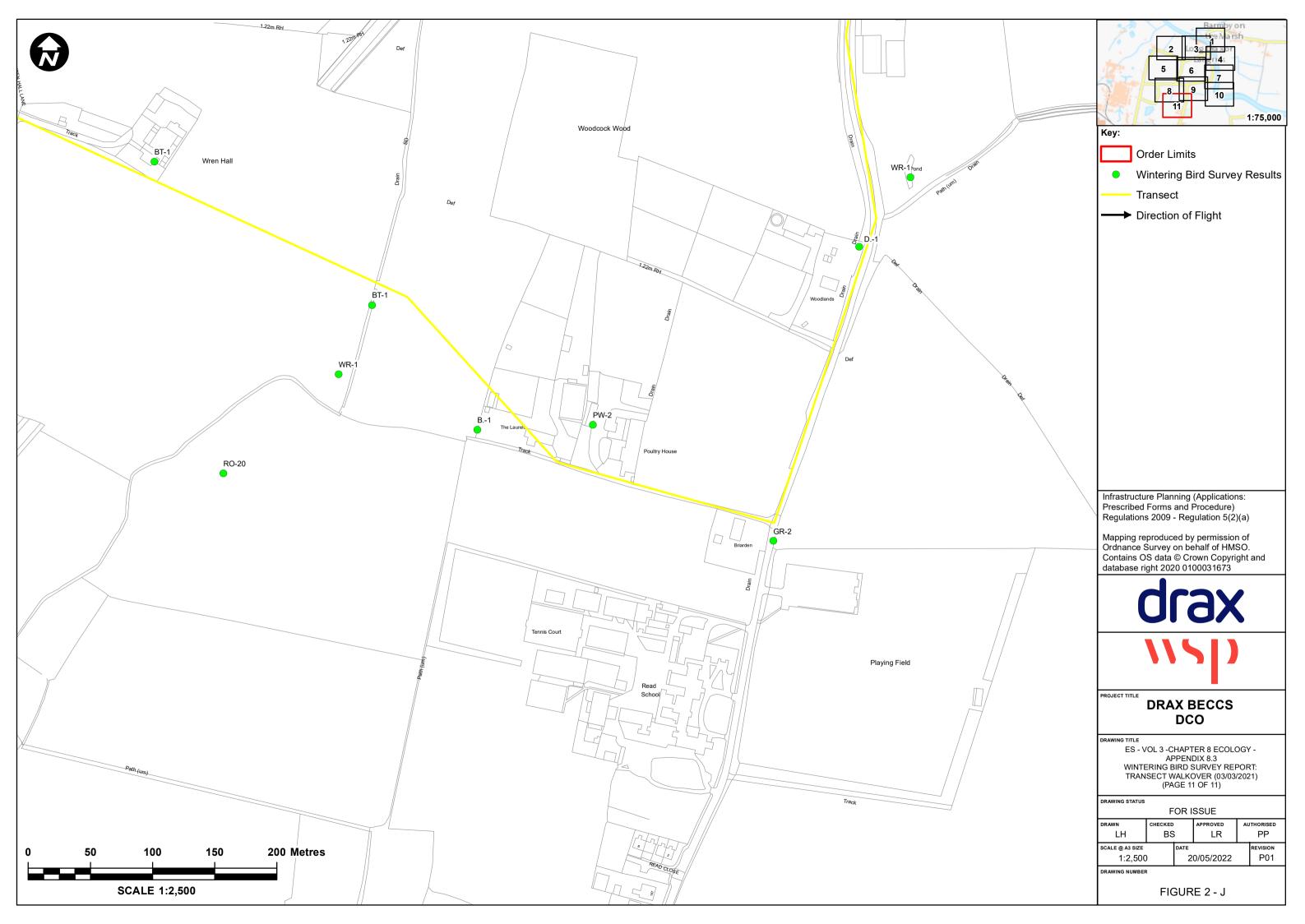


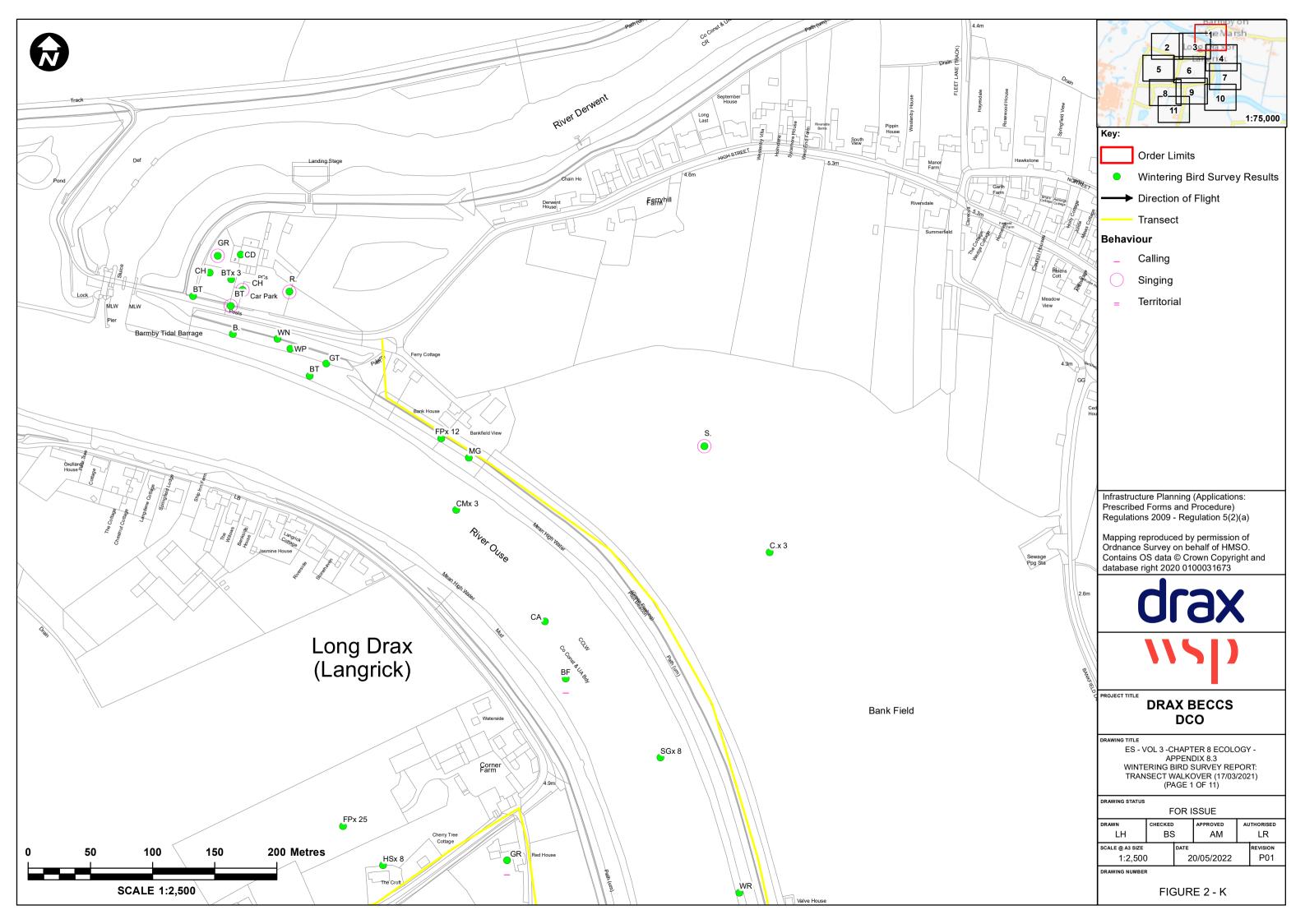


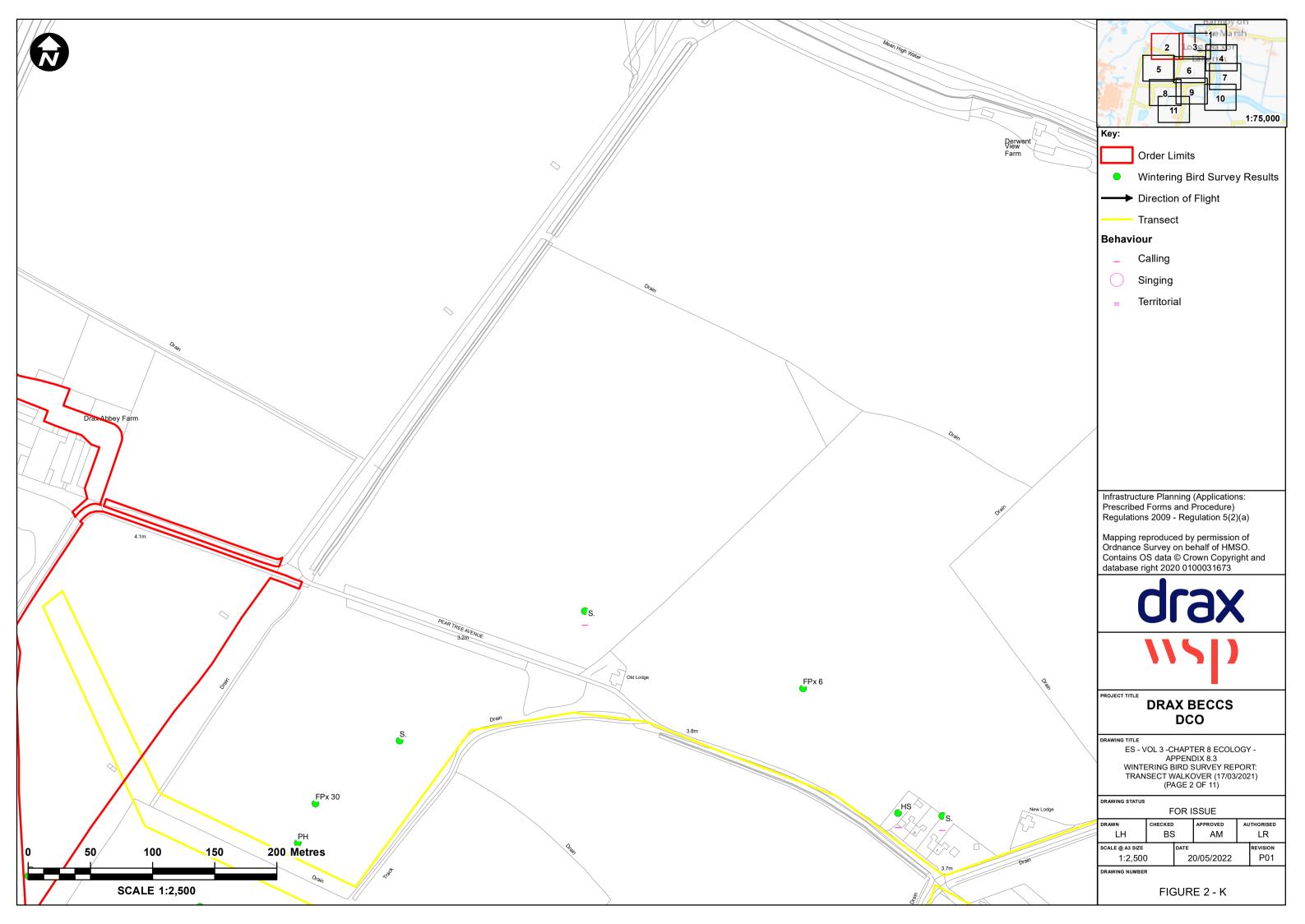


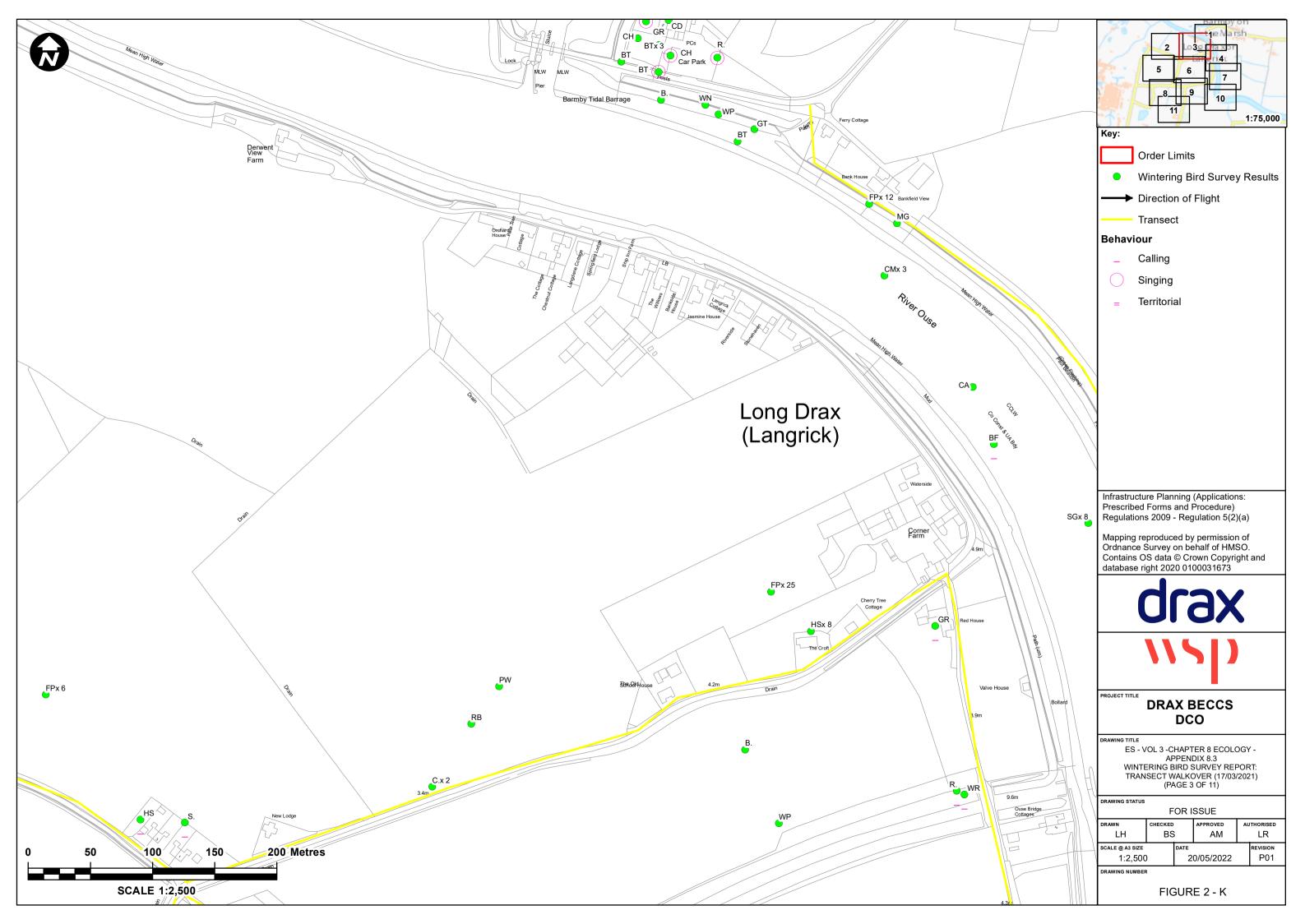


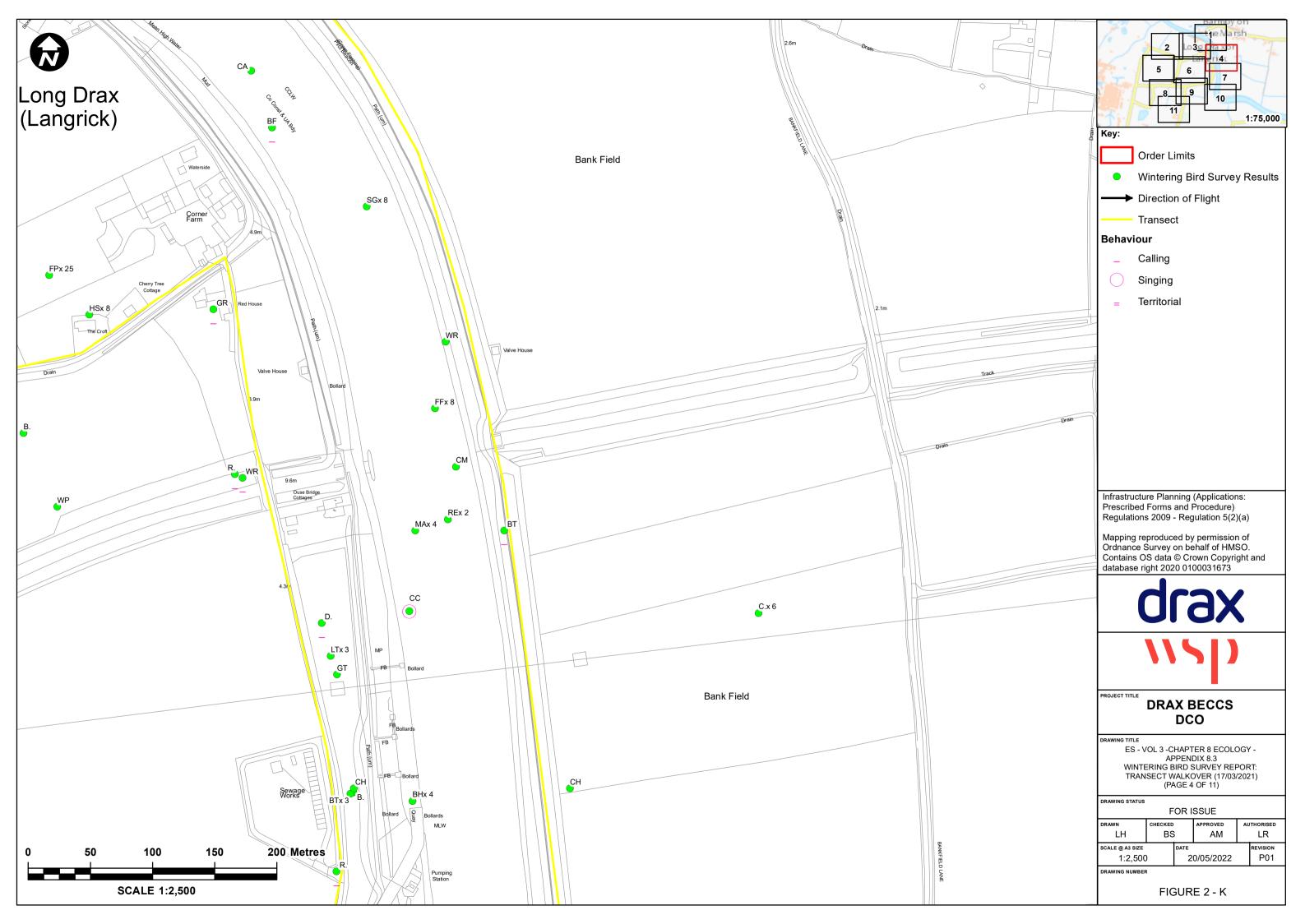


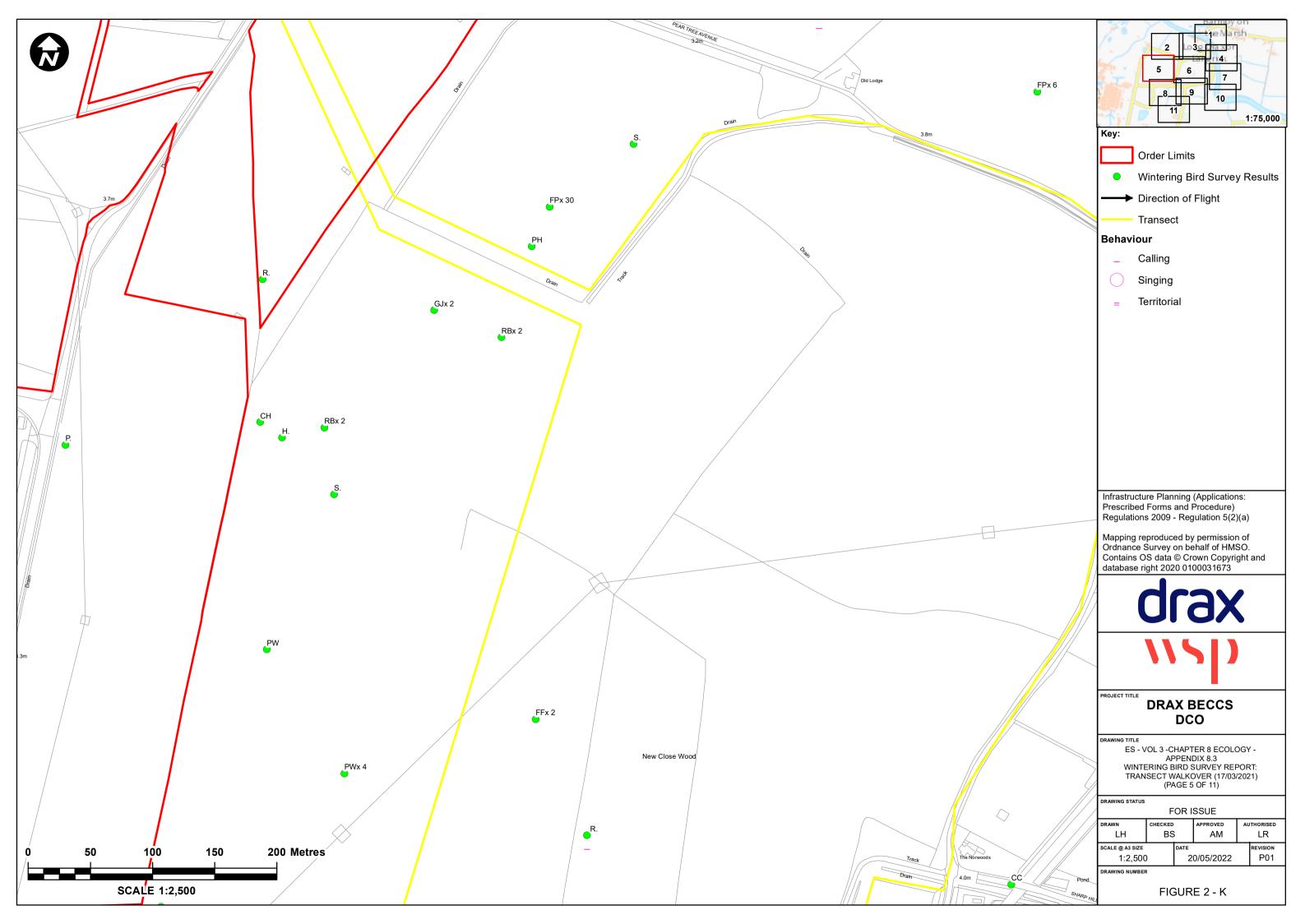


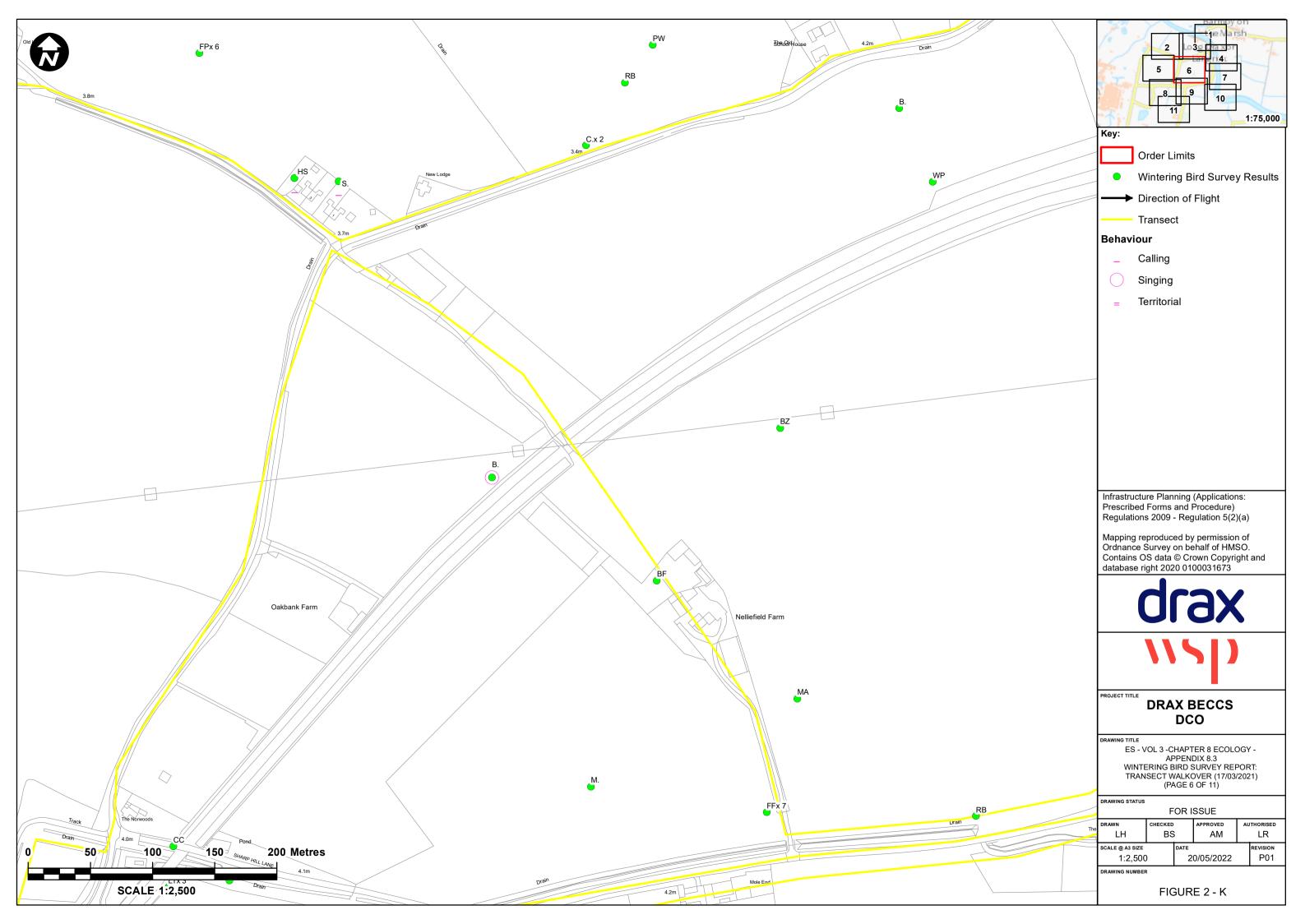


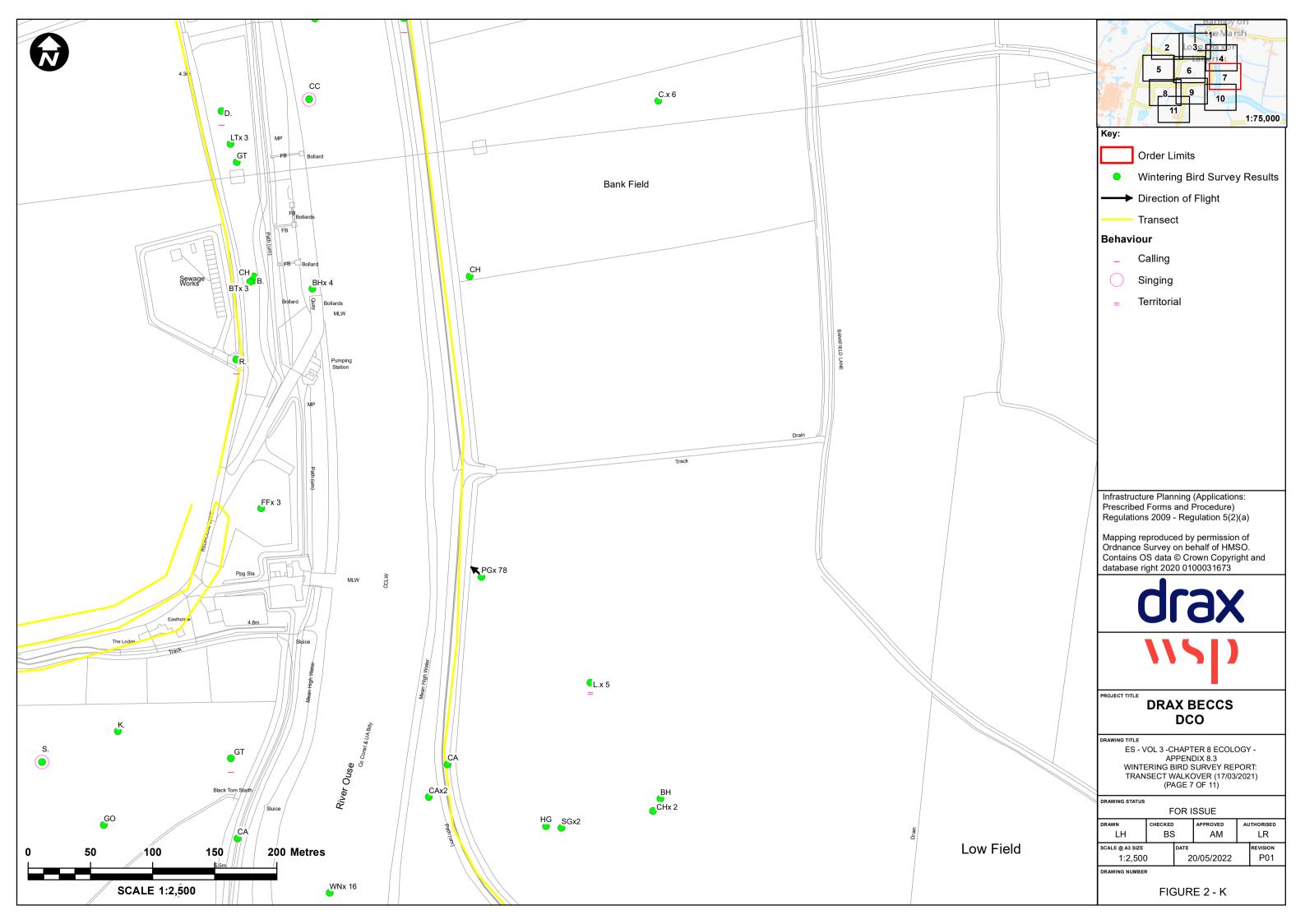


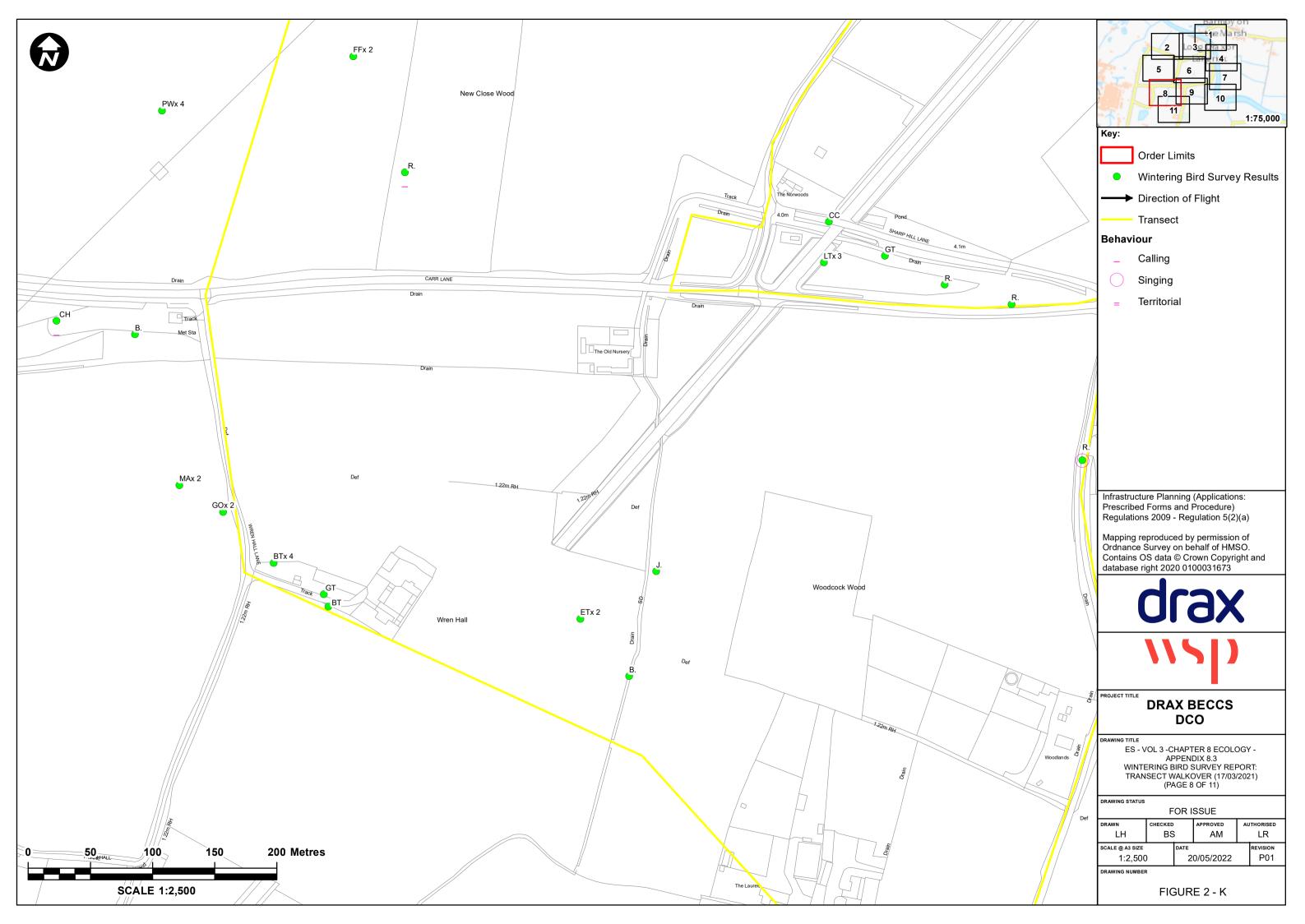


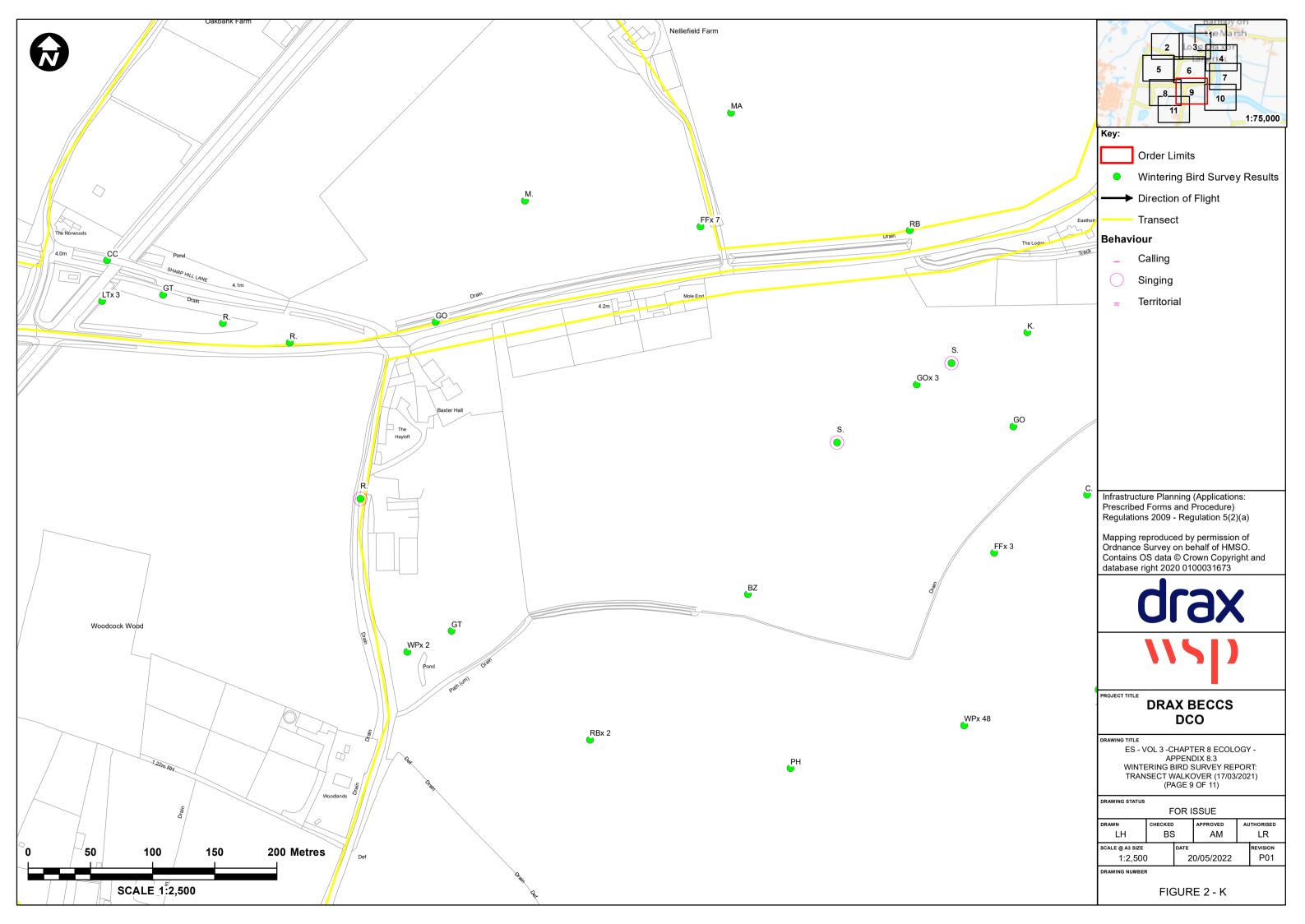


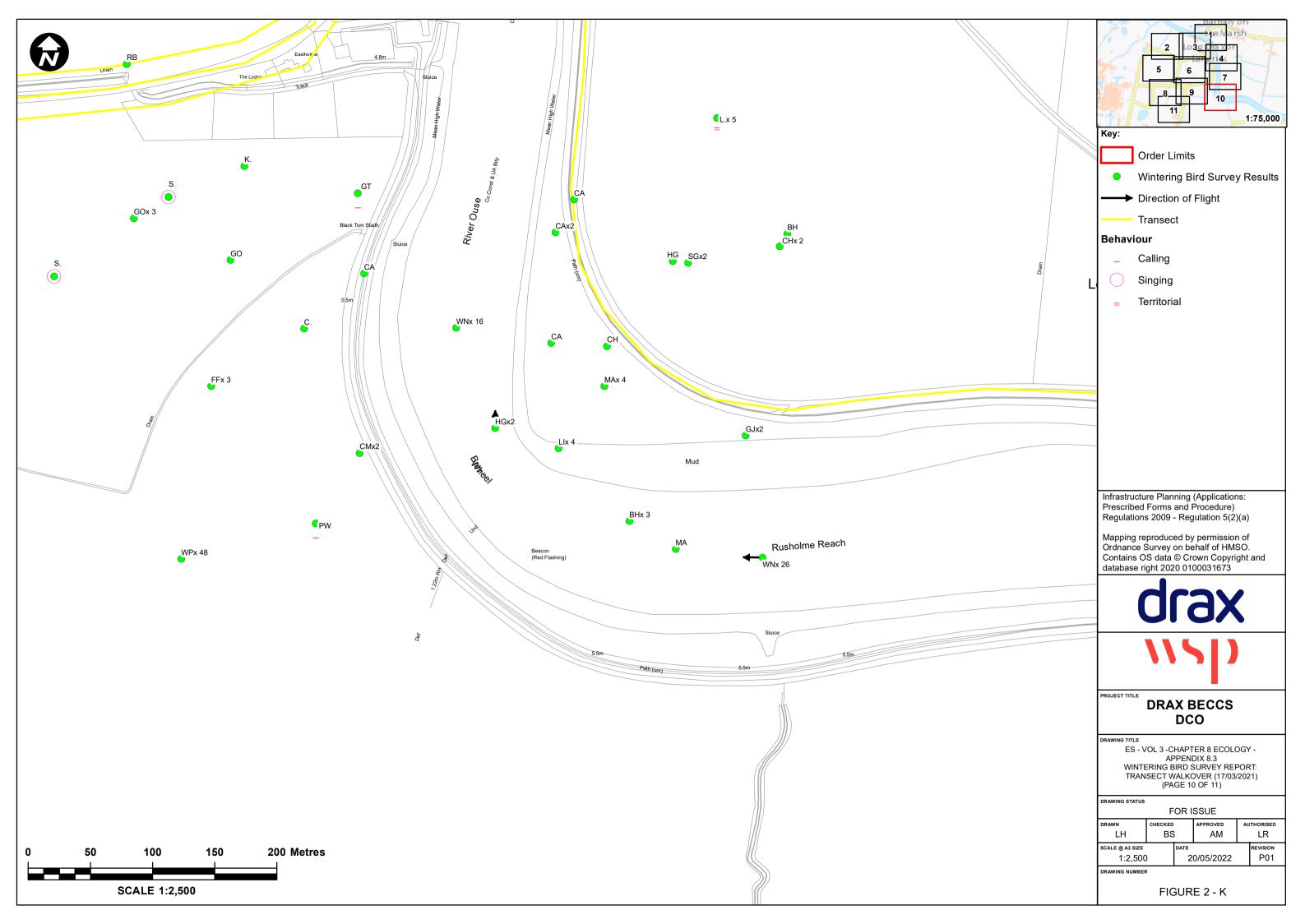


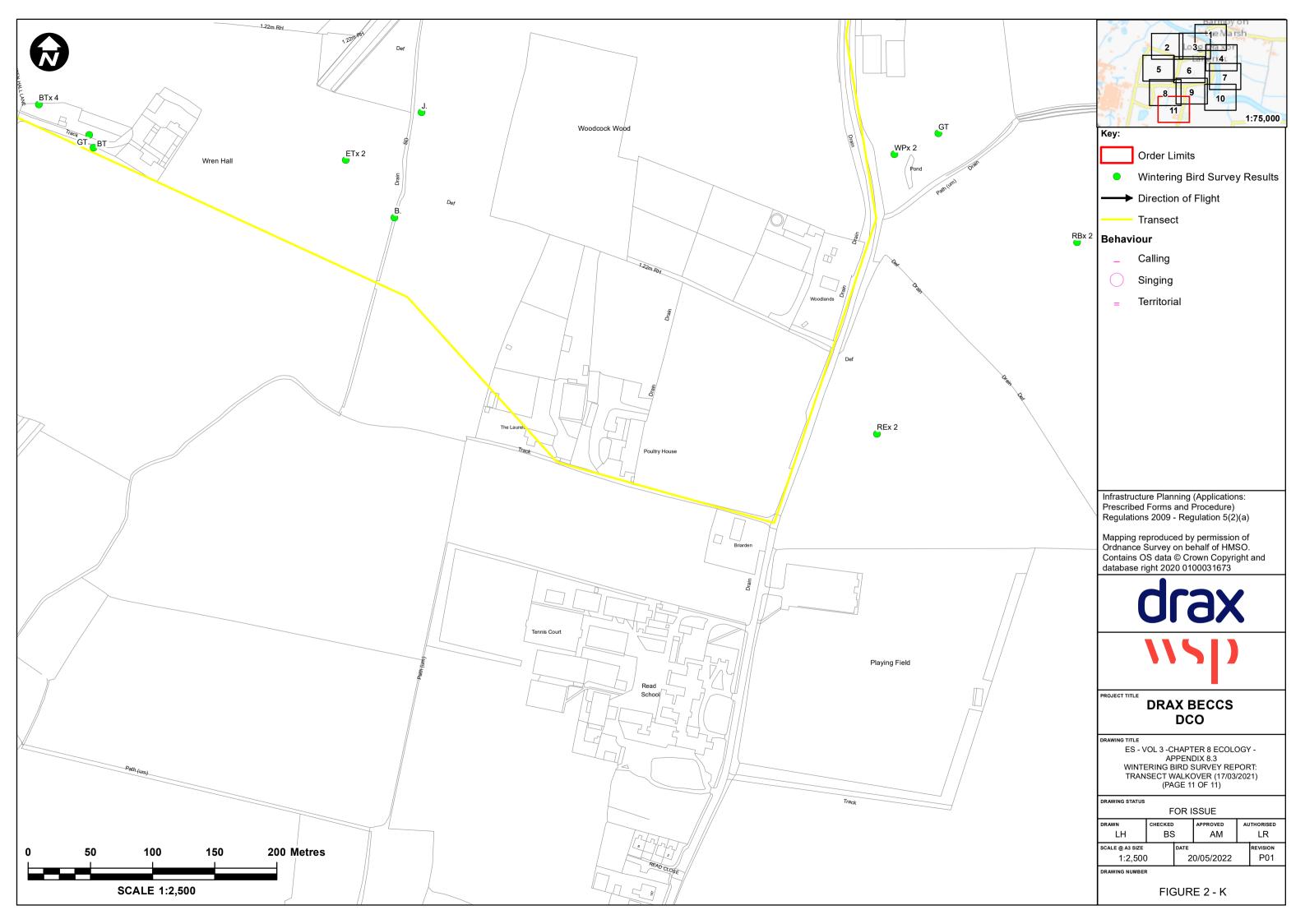












## **APPENDIX A – BTO CODES**

AC	Arctic Skua	GA	Gadwall	LE	Long-eared owl	SM	Sand martin
AE	Artic Tern	GX	Gannet	LT	Long-tailed tit	SS	Sanderling
AV	Avocet	GW	Garden warbler	MG	Magpie	TE	Sandwich tern
во	Barn Owl	GY	Garganey	MA	Mallard	VI	Savi's warbler
ВҮ	Barnacle goose	GC	Goldcrest	MN	Mandarin duck	SQ	Scarlet rosefinch
ВА	Bar tailed godwit	EA	Golden eagle	МХ	Manx shearwater	SP	Scaup
BR	Bearded tit	OL	Golden oriole	MR	Marsh harrier	CY	Scottish crossbill
BS	Bewick's swan	GF	Golden pheasant	МТ	Marsh tit	SW	Sedge warbler
BI	Bittern	GP	Golden plover	MW	Marsh warbler	NS	Serin
ВК	Black grouse	GN	Goldeneye	MP	Meadow pipit	SA	Shag
ТҮ	Black guillemot	GO	Goldfinch	MU	Mediterranean gull	SU	Shelduck
вх	Black redstart	GD	Goosander	ML	Merlin	SX	Shorelark
BJ	Black tern	GI	Goshawk	М.	Mistle thrush	SE	Short-eared owl
В.	Blackbird	GH	Grasshopper warbler	MO	Montagu's harrier	SV	Shoveler
BC	Blackcap	GB	Great black backed gull	МН	Moorhen	SK	Siskin
BH	Black headed gull	GG	Great crested grebe	MS	Mute swan	S.	Skylark
BN	Black-necked grebe	ND	Great northern diver	Ν.	Nightingale	SZ	Slavonian grebe
BW	Black tailed godwit	NX	Great skua	NJ	Nightjar	SN	Snipe
BV	Black-throated diver	GS	Great spotted woodpecker	NH	Nuthatch	SB	Snow bunting
вт	Bluetit	GT	Great tit	OP	Osprey	ST	Song thrush
BU	Bluethroat	GE	Green sandpiper	OC	Oystercatcher	SH	Sparrowhawk
BL	Brambling	G.	Green woodpecker	PX	Peafowl/Peacock	AK	Spotted crake
BG	Brent goose	GR	Greenfinch	PE	Peregrine	SF	Spotted flycatcher
BF	Bullfinch	GK	Greenshank	PH	Pheasant	DR	Spotted redshank
BZ	Buzzard	Н.	Grey heron	PF	Pied flycatcher	SG	Starling
CG	Canada goose	Ρ.	Grey partridge	PW	Pied wagtail	SD	Stock dove
СР	Capercaillie	GV	Grey plover	PG	Pink footed goose	SC	Stonechat
С.	Carrion crow	GL	Grey wagtail	PT	Pintail	TN	Stone-curlew
CW	Cetti's warbler	GJ	Greylag goose	PO	Pochard	ТМ	Storm petrel
СН	Chaffinch	GU	Guillemot	PM	Ptarmigan	SL	Swallow
СС	Chiffchaff	FW	Guineafowl (helmeted)	PU	Puffin	SI	Swift

Drax Bioenergy with Carbon Capture and Storage

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CF	Chough	HF	Hawfinch	PS	Purple sandpiper	то	Tawny owl
CL	Cirl bunting	НН	Hen harrier	Q.	Quail	т.	Teal
СТ	Coal tit	HG	Herring gull	RN	Raven	тк	Temminck's stint
CD	Collared dove	НҮ	Hobby	RA	Razorbill	ТР	Tree pipit
СМ	Common gull	HZ	Honey buzzard	RG	Red grouse	TS	Tree sparrow
CS	Common sandpiper	НС	Hooded crow	кт	Red kite	тс	Treecreeper
СХ	Common scoter	HP	Ноорое	ED	Red backed shrike	ΤU	Tufted duck
CN	Common tern	нм	House martin	RM	Red-breasted merganser	тт	Turnstone
со	Coot	HS	House sparrow	RQ	Red-crested pochard	TD	Turtle dove
CA	Cormorant	JD	Jackdaw	FV	Red-footed falcon	тw	Twite
СВ	Corn bunting	J.	Jay	RL	Red-legged partridge	WA	Water rail
CE	Corncrake	к.	Kestrel	NK	Red-necked phalarope	W.	Wheatear
CI	Crested tit	KF	Kingfisher	LR	Redpoll (lesser)	WM	Whimbrel
CR	Crossbill (common)	кі	Kittiwake	RK	Redshank	WC	Whinchat
СК	Cuckoo	KN	Knot	RT	Redstart	WG	White-fronted goose
CU	Curlew	LM	Lady Amhurst's pheasant	RH	Red-throated diver	WH	Whitethroat
DW	Dartford warbler	LA	Lapland bunting	RE	Redwing	ws	Whooper swan
DI	Dipper	L.	Lapwing	RB	Reed bunting	WN	Widgeon
DO	Dotterel	TL	Leach's petrel	RW	Reed warbler	WТ	Willow tit
DN	Dunlin	LB	Lesser black-backed gull	RZ	Ring ouzel	ww	Willow warbler
D.	Dunnock	LS	Lesser spotted woodpecker	RP	Ringed plover	OD	Wood sandpiper
EG	Egyption goose	LW	Lesser whitethroat	RI	Ring-necked parakeet	WO	Wood warbler
Ε.	Eider	LI	Linnet	R.	Robin	WK	Woodcock
FP	Feral Pigeon	ET	Little egret	DV	Rock dove (not feral)	WL	Woodlark
ZL	Feral/hybrid goose	LG	Little grebe	RC	Rock pipit	WP	Woodpigeon
ZF	Feral/hybrid mallard type	LU	Little gull	RO	Rook	WR	Wren
FF	Fieldfare	LO	Little owl	RS	Roseate tern	WY	Wryneck
FC	Firecrest	LP	Little ringed plover	RY	Ruddy duck	YW	Yellow wagtail
F.	Fulmar	AF	Little tern	RU	Ruff	Υ.	Yellowhammer

## **APPENDIX B – ALL BIRD SPECIES RECORDED ON SITE**

Species		WCA 1981	NERC Act 2006	BoCC		
Common Name	Latin Name	Schedule 1	Section 41	Red list	Amber list	Selby LBAP
Barn owl	Tyto alba	$\checkmark$				$\checkmark$
Black headed gull	Chroicocephalus ridibundus				$\checkmark$	
Blackbird	Turdus merula					
Blue tit	Cyanistes caeruleus					
Brambling	Fringillidae montifringilla	$\checkmark$				
Bullfinch	Pyrrhula pyrrhula		$\checkmark$			$\checkmark$
Buzzard	Buteo buteo					
Carrion crow	Corvus corone					
Chaffinch	Fringilla coelebs					
Chiffchaff	Phylloscopus collybita					
Collared dove	Streptopelia decaocto					
Common gull	Larus canus				$\checkmark$	
Coot	Fulica atra					
Cormorant	Phalacrocorax carbo					
Dunnock	Prunella modularis		$\checkmark$		$\checkmark$	
Feral pigeon	Columba livia domestica					
Fieldfare	Turdus pilaris	$\checkmark$		$\checkmark$		
Goldcrest	Regulus regulus					
Golden plover	Pluvialis apricaria					
Goldfinch	Carduelis carduelis					
Great black backed gull	Larus marinus				$\checkmark$	

Species		WCA 1981	NERC Act 2006	BoCC		
Common Name	Latin Name	Schedule 1	Section 41	Red list	Amber list	Selby LBAP
Great tit	Parus major					
Greenfinch	Chloris chloris					
Grey heron	Ardea cinerea					
Grey partridge	Perdix perdix		$\checkmark$	$\checkmark$		$\checkmark$
Grey wagtail	Motacilla cinerea				$\checkmark$	
Greylag goose	Anser anser					
Herring gull	Larus argentatus		$\checkmark$			
House sparrow	Passer domesticus		$\checkmark$			$\checkmark$
Jackdaw	Corvus monedula					
Jay	Garrulus glandarius					
Kestrel	Falco tinnunculus				$\checkmark$	$\checkmark$
Lapwing	Vanellus vanellus		$\checkmark$			$\checkmark$
Linnet	Linaria cannabina					$\checkmark$
Little egret	Egretta garzetta					
Long-tailed tit	Aegithalos caudatus					
Magpie	Pica pica					
Mallard	Anas platyrhynchos				$\checkmark$	
Marsh harrier	Circus aeruginosus	$\checkmark$			$\checkmark$	$\checkmark$
Marsh tit	Poecile palustris		$\checkmark$			
Meadow pipit	Anthus pratensis				$\checkmark$	$\checkmark$
Mistle thrush	Turdus viscivorus					
Moorhen	Gallinula chloropus					

Species		WCA 1981	NERC Act 2006	BoCC		
Common Name	Latin Name	Schedule 1	Section 41	Red list	Amber list	Selby LBAP
Mute swan	Cygnus olor					
Oystercatcher	Haematopus ostralegus				$\checkmark$	
Peregrine falcon	Falco peregrinus	$\checkmark$				$\checkmark$
Pheasant	Phasianus colchicus					
Pied wagtail	Motacilla alba					
Pink footed goose	Anser brachyrhynchus					
Redshank	Tringa totanus				$\checkmark$	
Red-legged partridge	Alectoris rufa					
Redwing	Turdus iliacus	$\checkmark$			$\checkmark$	
Reed bunting	Emberiza schoeniclus		$\checkmark$			$\checkmark$
Reed warbler	Acrocephalus scirpaceus					$\checkmark$
Robin	Erithacus rubecula					
Rook	Corvus frugilegus					
Skylark	Alauda arvensis		$\checkmark$	$\checkmark$		$\checkmark$
Song thrush	Turdus philomelos		$\checkmark$		$\checkmark$	$\checkmark$
Sparrowhawk	Accipiter nisus					
Starling	Sturnus vulgaris		$\checkmark$	$\checkmark$		$\checkmark$
Stock dove	Columba oenas				$\checkmark$	
Stonechat	Saxicola rubicola					
Whooper swan	Cygnus cygnus	$\checkmark$			$\checkmark$	$\checkmark$
Wigeon	Anas penelope				$\checkmark$	
Woodpigeon	Columba palumbus					

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Species		WCA 1981	NERC Act 2006	Во	CC	
Common Name	Latin Name	Schedule 1	Section 41	Red list	Amber list	Selby LBAP
Wren	Troglodytes troglodytes					
Yellowhammer	Emberiza citrinella		$\checkmark$	$\checkmark$		$\checkmark$