Jacobs

Greater Dublin Drainage Project Addendum

Environmental Impact Assessment Report Addendum: Volume 3A Part B of 6

Appendix A10.3 - Written Responses to Biodiversity (Marine Ornithology) Queries at the 2019 Oral Hearing

Uisce Éireann

October 2023

An Bord Pleanála Oral Hearing

Irish Water Greater Dublin Drainage

Response to Questions raised by the Inspector

1. Response to Issues Raised on Breeding and Wintering Birds In Relation to Clonshagh Waste Water Treatment Plant:

Dr. Simon Zisman 27.03.2019

Response to Issues Raised on Breeding and Wintering Birds In Relation to Clonshagh Waste Water Treatment Plant:

Evidence on Biodiversity (Terrestrial and Aquatic):

- 1 This statement responds to the issues raised on birds around the proposed Waste Water Treatment Plant (WwTP).
- 2 The first part of the statement addresses the Inspectors comment on nesting birds (including raptors).
- The second part addresses the wintering bird surveys that were completed for the Proposed Project, including survey method, dates of surveys and a summary of the results to understand the bird usage of the site.
- 4 Lastly the habitat and current use (intensive horticulture use) of the proposed WwTP site will be discussed in the context of its suitability for brent geese and other Special Protection Area (SPA) qualifying species.

Baldoyle Bay Special Protection Area (SPA) in Relation to the WwTP

Baldoyle Bay SPA is over 5km from the Clonshagh WwTP. The WwTP (as explained below) is of no importance for Special Conservation Interest species of this or any other SPA. This includes for brent geese, and also for all other migratory waders and wildfowl. The construction and operation of the WwTP will therefore have no adverse impact on the integrity of the SPA.

Breeding Birds (Including Raptors) at the WwTP

Terrestrial Breeding Bird Surveys (Including Raptors)

- Breeding bird surveys were carried out along the terrestrial section of the route, as set out in section 11.2.3 of Chapter 11 of the Environmental Impact Assessment Report (EIAR) (Volume 3 Part A) (with underlying terrestrial bird survey data submitted to the Hearing).
- Preeding bird surveys of the proposed WwTP were carried out in June 2012, April and June 2013, and repeated again between April and June in 2015 and May and June in 2017 using an abridged version of the British Trust for Ornithology's (BTO's) Common Bird Census Technique (Bibby et al. 2000; Gilbert et al. 1998). This method captured data on breeding bird activity within the survey area surrounding the proposed WwTP during the optimal survey window (April to July).
- The survey extended 250m around each component of the Proposed Project along the route and at Clonshagh.

Results

- 9 From breeding bird surveys carried out along the proposed route and at Clonshagh WwTP, three raptor species were recorded:- kestrel, sparrowhawk and buzzard. Records were all of birds in flight, and no nests of any of these raptor species were identified in vegetation that would need to be removed for the Proposed Project.
- From the Inspector's reference to 'large bird of prey', this would have been a buzzard.
- 11 Buzzards are a common tree-nesting raptor, resident all year round in this kind of farmland habitat.

Baseline Information in the Application

Baseline results for breeding birds are presented in section 11.3.5 of Chapter 11 of the Environmental Impact Assessment Report (Volume 3 Part A), including Table 11.12 which gives the birds recorded in 2015 and 2017 at the proposed WwTP site at Clonshagh.

Assessment of Effects from Construction

- The effects of the Construction Phase of the Proposed Project on breeding terrestrial birds are covered in section 11.4.5 of Chapter 11 of the Environmental Impact Assessment Report (Volume 3 Part A).
- There is potential risk of disturbance to nesting birds during the Construction Phase. However, this would be mitigated through a combination of pre-commencement nest checks by the Ecological Clerk of Works (ECoW), followed by assessment of any risk of disturbance to nests. This assessment would consider the nature of proposed construction activity (notably noise levels, the number of personnel and plant operating, and the lines of sight from the nest to these personnel and machinery). In order for disturbance to be avoided, the ECoW would therefore ensure the appropriate buffer distance was put in place between construction and nesting, so that the birds were not prevented from nesting successfully by associated noise or activity.
- These measures are all tried and tested standard ornithological mitigation measures, used successfully in similar construction projects.
- No impacts are predicted from the Operational Phase of the Proposed Project on this or any other bird species.

Conclusion in Relation to Breeding Birds Including Particular Reference to Raptors

The presence of buzzard noted by the Inspector is in line with breeding bird survey findings. Mechanisms are included in the application documentation to mitigate any impacts through identification and enforcement of suitable buffers around nests, to prevent disturbance from construction personnel or machinery. These measures would be implemented by the ECoW, as is standard and well-established practice on similar construction projects.

Winter Birds at the WwTP

<u>Terrestrial Winter Bird Surveys (Including for Brent Geese and Other SPA Special Conservation Interest Species)</u>

- Winter bird surveys were carried out along the terrestrial section of the route, as set out in section 11.2.3 of Chapter 11 of the Environmental Impact Assessment Report (EIAR) (Volume 3 Part A) (with underlying terrestrial bird survey data submitted to the Hearing) and at the Clonshagh site.
- The survey method used was the standard Winter Walkover Survey (Bibby et al. 2000; Gilbert et al. 1998). This method captured data on winter bird activity within the survey area surrounding the proposed WwTP during the optimal survey window (September to March).
- 20 The survey extended 250m around each component of the Proposed Project.
- 21 The choice and frequency of surveys were informed by desk study and scoping. Surveys were completed by highly experienced professional bird surveyors with extensive knowledge of birds that inhabit this type of farmland landscape in Ireland.

- The survey method covered migratory waders and wildfowl (including SPA Special Conservation Interest species), as well as other bird species.
- The survey data have been tabled as part of the precis submitted to the Hearing, at the request of the Inspector following evidence presented by Dr. Simon Zisman. As can be seen from the survey data supplied, the Proposed Project route was covered over a period of days, for each survey round.
- 24 Four surveys along the Proposed Project route (including the WwTP) were completed overall:
 - The first survey was completed in 2015 on the 30th January;
 - The second survey was completed in 2017 and comprised visits over the 24th and 27th November;
 - The third survey covered the route from 20th to 23rd March and the 27th and 30th March 2017; and
 - The fourth survey was completed on the 13th and 14th November 2017.

Baseline Information in the Application

- Baseline results for winter birds are presented in section 11.3.5 of Chapter 11 of the Environmental Impact Assessment Report (Volume 3 Part A). This confirmed:-
 - "There were no agglomerations of winter birds, such as geese or other wildfowl, or species reliant on farmland. The Proposed Project study area is therefore of no more than local importance for wintering birds".
- These findings were consistent with pre-existing desk study results that confirmed the WwTP area was not known as a site of any importance for wintering birds, including any migratory waders or wildfowl (including Special Conservation Interest of SPAs).
- The sequence of three winter surveys (and corroborated by a fourth), using the industry-standard Winter Walkover Survey method, and completed by experienced professional surveyors over a spread of months through the winter period, and spanning multiple years, therefore generated highly robust baseline data on the birds using the WwTP area, from which to inform the EIAR.

Assessment of Effects on Wintering Birds (Including Waders and Wildfowl)

The effects of the Construction Phase of the Proposed Project on wintering birds is covered in section 11.4.5 of Chapter 11 of the Environmental Impact Assessment Report (Volume 3 Part A).

Construction Phase

29 In the case of the proposed WwTP site there will be the permanent loss of habitat, although the great majority of this is again, characteristically, intensively farmed fields chiefly of local importance (lower value)

Operational Phase

No operational phase impacts are predicted.

Conclusion in Relation to Wintering Birds Including Waders and Wildfowl

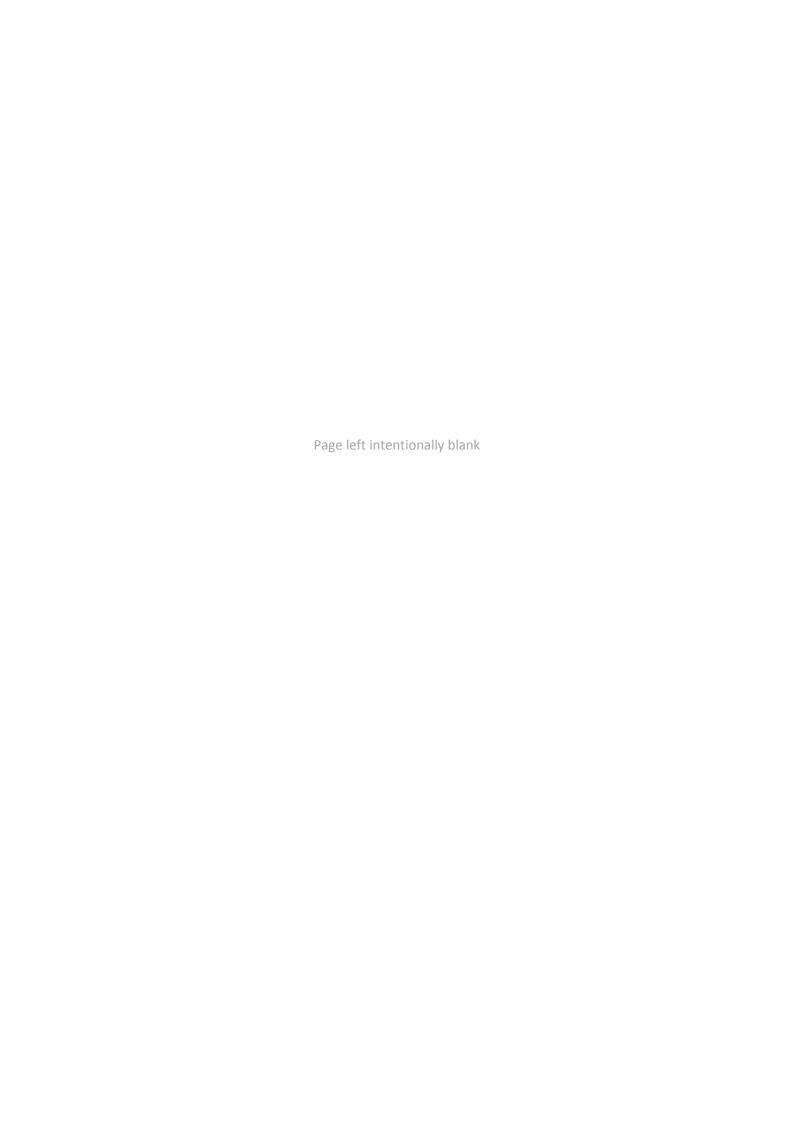
The WwTP area has been comprehensively surveyed over successive winter periods. The surveys were completed at Clonshagh using an appropriate survey method, by highly experienced professional bird surveyors, over an appropriate spread of winter months and over multiple years. The site is not used in any meaningful way by any Special Conservation Interest species from Baldoyle Bay or any SPA (including brent geese). Underpinned by the comprehensive site-specific data collected, the assessment shows there are no predicted impacts on wintering birds from either the Proposed Project's Construction or Operational Phase. This includes Special Conservation Interest species from Baldoyle Bay, Irelands Eye or other SPAs.

Description of Habitat the Proposed WwTP site For Breeding and Wintering Birds

- The limited number and diversity of breeding and winter bird species recorded at the WwTP site is entirely consistent with the habitat characteristics and farming land use at the site.
- The Phase 1 Habitat Survey results (Figure 11.5 in Chapter 11 and described in 11.3.2) show limited extent of hedgerows on site, and extensive monocultures of arable crops. The dominant habitat is therefore heterogeneous arable fields. During the crop growing season, once plants become established, the area is therefore of negligible value for breeding or wintering birds.
- As noted in Chapter 19 'Agronomy' of the EIAR, and drawing on discussions with the farmers, the WwTP lands are referred to as being used for intensive horticultural operations, producing a rotation of cabbage, cauliflower and broccoli, with spring-sewn wheat or barley grown as a break crop.
- As commonly occurs in intensive agricultural operations with high value crops, bird scarers have been deployed to protect crops from foraging birds (as noted during bird surveys completed at the proposed WwTP site). This further restricts the value of this proposed WwTP area for breeding and wintering birds.

Conclusion in Relation to Wintering Birds Including Waders and Wildfowl

36 Given the intensity of agricultural production, the site at Clonshagh is therefore of low value for breeding or wintering birds, including Special Conservation Interest species of Baldoyle Bay or other SPAs.



An Bord Pleanála Oral Hearing

Irish Water Greater Dublin Drainage

Response to Inspector's Questions

Biodiversity (Marine & Terrestrial Ornithology) - Simon Zisman

GDD Oral Hearing Response to Inspector's Questions

Biodiversity (Marine & Terrestrial Ornithology)

Bird Survey Raw Data - Terrestrial

The following Appendices provide the raw terrestrial bird data collected for the Greater Dublin Drainage Project. The data should be considered in conjunction with EIAR Chapter 11, which provides supplementary information on survey method and other background information.

A key to help interpret the data is also provided, extracted from Bibby et al¹. (2000) (see Appendix 1).

The terrestrial bird data were collected between January 2015 and November 2017, and comprise:

- Winter surveys (for late winter 2014/15, early winter 2015/2016, late winter 2016/2017 and early winter 2017/2018); and
- Summer surveys (for 2015 and 2017).

The data is provided in the following format:

- Appendix 1 Key from Bibby et al (2000);
- Appendix 2 Winter 2015 (January and February);
- Appendix 3 Winter 2015 (November);
- Appendix 4 Winter 2017 (March);
- Appendix 5 Winter 2017 (November);
- Appendix 6 Summer 2015 (April and June); and
- Appendix 7 Summer 2017 (May and June).

M-44529433-1 1

¹ Bibby, C., N. Burgess, D. Hill, and S. Mustoe (2000) Bird Census Techniques. Academic Press. Elsevier. ISBN: 9780120958313

GDD Oral Hearing Response to Inspector's Questions

APPENDIX 1 KEY FROM BIBBY ET AL (2000)

The information below is taken from Bibby et al. (2000). It gives the standard notation for activity codes for birds and it provides the standard two-letter codes that are for recording birds and their behaviour.

M-44529433-1 2

BTO SPECIES CODES

AC	Arctic Skua	GA	Godwall	LE	Long-eared Owl	MZ	Sand Martin
AE	Arctic Terr	GX	Gonnel	ιτ	Long-looked Til	\$5	Sanderling
AV	Avocet	GW	Gorden Worbler	MG	Magple	ΤĒ	Sandwich Tern
80	Born Owl	GY	Garganey	MA	Mallard	VΪ	Savi's Warble
BY	Bornocle Goose	GC	Goldanest	MN	Mandarin Duck	SQ	Scarlet Rosefinch
B.A	Bortailed Godwri	EA	Golden Eagle	MX	Manx Shearwater	SP	Scaup
BIR	Bearded Te	QI.	Golden Oriole	AAR	Marsh Harrier	CY	Scottish Crossbill
BS	Berwick's Swan	ĢF	Golden Pheasant	MT	Marsh Tit	SW	Sedge Worbler
BI	Bittern	ĢP	Golden Plover	MW	Morsh Worbler	NS	Serin
BK	Block Grouse	GN	Goldeneye	MP	Meodow Pipit	5A	Shog
TY	Black Guillemot	60	Gok#inch	MŲ	Mediterranean Gul	SU	Sheldudk
BX	Black Redstart	GD	Goosander	ML	Merlin	SX	Shorelarit
Вј	Block Tern	GI	Gashawk	M.	Mistle Thrush	SE.	Short-eared Owl
В.	Blackbird	GH	Grosshopper Worbler	MO	Monlegu's Hower	SV	Shoveler
B/C	Blockcop	GB	Great Black-bodied Gull	MH	Moorhen	SK	Siskin
ВH	Black-headed Gull	GG	Great Crested Graba	MS	Mule Swon	S.	Skylank
BN	Block-necked Grebe	ND	Gradt Northern Diver	N.	Nightingole	SZ.	Skovanian Graba
BW	Block-toiled Godwill	NX	Great Skup	NI.	Nightjor	SN	Snipe
BV	Black-throared Diver	GS.	Great Spotted Woodpacker	NH	Numach	58	Snow Bunting
BT	Blue Tit	GT	Great Tri	OP		5T	Song Thrush
BU	Bluethroot	GE	Green Sandpiper	OC	Osprey Oyslercalcher	SH	Sparrowhawk
BL	Brombling	G.	Green Woodpecker	PX	Peafowl/Psacock	AK	Sparrownawk Sparred Crake
BG	Brent Gaose	G. Gk	Greenfinch	PE	·	SF	Sported Physolohea
BF	Bullinch	GK	Greenshook	PH	Peregrine Pheasoni	DR	Spotted Redshank
		H.		PF	Pied Hyosecher	SG	Starling
ez cc	Buzzard Canada Cana	P.	Gray Haron	PW	Pied Woglad	SD	Stack Dave
CG CP	Canada Gaose		Grey Partridge		Pink-footed Goose	SC	Stonechot
C.	Capercallie Carrion Craw	GV	Grey Ptover	P.G P.T	Pintail	IN	Stone-curlew
CW.	Carrion Crow	GI GJ	Grey Wagtuil Greyler Green	PO	Pochard	TM	Storm Petrel
CH	Chaffenck	GU	Greylog Goase Guillemat	PNA	Plomigon	SL	Swollow
CC.				PU	Pu#in	SI	Swift
ĆF	Chiffchafi	FW HF	Guinealowl (Helmeléd) Hawlindh	PS		TO	
CL	Chough			Q.	Purple Sandpiper Quail	T	Towny Owl Teal
	Cirl Burting Coal Til	HH HG	Hen Homier	RIN	Rayen	ŤΚ	Temminak's Stint
CT.		HY	Herring Goll	RA	Razarbill	TP	
CD	Collared Dave Common Gull		Hebby	RG	Red Grouse	TS	Tree Pipil Tree Sparrow
GM CS	Common Sandpaper	HZ HC	Heney Buzzard Headed Crow	KT	Red Kite	TC	Treecroepor
	Common Score	HP		ED	Red-booked Shrike	TU	Tofted Duck
CX			Hoopae House Marke			П	
CN	Common Tern	HM	House Martin	R/M R/M	Red-breasted Merganser Red-crested Pochard	то	Tomstone Tonte Dove
CO	Coat	HS	House Sparrow	RQ. FV	Red-faoled Falcon	TW	
CA	Cormolant	JD	Jackdow			WA	Twile Water Roal
CB CE	Com Buriling	J. K.	Jay Kestrel	R1L NK	Realfegged Partridge Real-recked Phalarope	W.	Wheateur
	Compraise Crested Tit	KF	Kestrei Kingfisher	LR	Redpoll (Lesser)	WM.	Whimbrel
ÇI CB		KI	Kingraner Kittiwake	RIK	Redshank	WC	Whinelyar
CR CK	Crossbill (Common) Cuckoo	KIN	Kimwaka Knoi	RT.	Redstori	WG	White-fronted Goose
CU	Curlew	LM	Lady Amherst's Pheosant	RIH	Red-throated Diver	WH	Whitethroat
OW	Dartford Warble	LA	·	RE	Redwing	W5	Whooper Swen
DI			Lapkand Bunung Lapwing	RB.	Read Bunling	WN	Wigeon
DO:	Dipper Datteral	L. TL	Leach's Petrel	RW	Read Workler	WT	Willow Tot
DN	Donlin	LUB	tesser Black-backed Gull	RZ		WW	Willow Warbler
D.	Donnock	LS	Lesser Spotted Woodpecker	ŘÞ	Ring Ouzel Ringed Plove:	OD	Waod Sandpiper
EG		Į.W	Lesser Whitathroat	ŔI	Ring-necked Parakee	Wo	Wood Worbler
-	Egyptian Goose	T)	Linnet	R.	Rabin	WK	Wandoock
E. FP	Eider Forel Poposo	हा		R. DV	Rack Dave (not feral)	WL	Woodlark
	Feral Pigeon	(G	Little Egret Little Grebe	RC.	Rock Pipit	WP	Woodpigeon
ZI ZF	Feral/hybrid goose Foral Applications		Lime Gold	RQ.	Rook	WR	Wren
FF F	Feral/hybrid mallard type Fieldfare	LO LO	Little Owl	RS	Roseole Tern	WY	Wryneck
FC	_	lo.		RY	Rudaly Duck	YW	Yellow Wagtoil
F	Firecress Fulinar	AF	Little Renged Plaver	RU	Roff Roff	Υ.	Yellowhammer
-	rungr	~-	LiMle Term	n,o	hAu.	1.	- and an including

If you are not submitting your data electronically using BBS-Online, please return your Field Recording Sheets to your Regional Organiser with your other BBS forms. If you would like to submit your results on BBS-Online, please inform your RO, then visit www.bto.org/bbs.

Figure 3.3



A Wron moving between two perotes. The solid line indicates it was definitely the some bird.

(confinued)



Two Where in surget the come time, i.e. definitely different time. The dotted line indicates a simultaneous registration and saft very great value in separating territories.



Two Literatnesis occupied simultaneously and thus betraping to different pairs. This is another exemple of the value of stoted lines. Only adjacent neets need the marked in this way.



The solid line incloses that the registrations definitely



A question-marked solid line indicates that the registrations probably solide to the same site. This convention is of perhadian use when the cansas route returns to an area aready coursed—this possible to mak new practions of (probably the same) blicts recorded before, without the risk of disable recording. If birds are recorded without using the question-marked solid line, oppositionation of sentencies will result.



When there is no fee joining the registrations, this indicates that the binds are probably different, drie possible types a question-marked disted line, indisating that the registrations were almost sensinly of differentiates.)



Where adjacent nests are marked without a line, it will often be assumed that they need test and second brooks, or a replacement nest following an earlier failure.

The above conventions indicate when registrators relate to different block, and when to the seme bird. Their proper use is essential for the accusate sessement of clusters.

let all respective clandard REO codes for Betish betis should be used.

Some territories will overlap the plot boundary and several stays of dealing with these are considered below. No modify it is necessary to map records outside the plot. In the field, this may be accomplished by recording everything detected from the boundary without salking outside, the plot. The field maps therefore need to extend by about 100 m in all directions to include these observations.

4. Habitat recording

To interpret the masous behind the distribution of birds on a plot, it may be necessary to describe its segeration in some way (Chapter II). Since the bird data are mapped, it is ideal also no map the segeration to analyse habitat unifocution by birds. If the plots are each relatively unifocus and there are reveral officer illustratifier from one another, it might be sufficient to describe or measure the vegetation without mapping it.

Variations of the method

Up until now, we have concentrated on the BTO's Common Bird Census, where it is important that the method does not vary. For other surveys it may be useful towary the method in the following ways:

I. Restricting the list of species covered.

The GBC and bird community studies include all species, or at least or many as one possibly be recorded. If the purpose of the study is more restricted the first variation is to map from species. This helps in conscutrace dire and effort in the required direction. The purpose of making trutists as to gather enough data to register territories of species differing in their breeding and singing sources. If only one species is being studied, the sinite at the meetappropriate suscen and time of day would suffice.

Recognizing the boundaries between scritteries of birds of the same species is the single most important aim of territory mapping. In a study aimed at a particular species, more effort can be put into finding neighbourseinging at such other or righting. The species map could be equitated after each field with. In this way, it would be obvious if there were any areas where it was going to be difficult to resolve the number and pattern of clusters. Latra field effort could be made in these places on subsequent states.

2. Eliciting responses:

The observer can increase the chance of finding birds and obtaining simultaneous regionations by using a tape to piley matches of song of the target species and recording are response. If a upe is played in places that may be tentitury boundaries, it might help to see whether or not there is a response from both birds. Owners of soluted tentitures offerning tenthan where the neighbourn are close. A tape recorder could increase the chance of periods sufficient records for a cluster. Many magnatus only sing early in the brunching sensor, but a tape recorder can git a response while birde are neating and have largely stupped singing. Thought should be given, however, to the risk of dissurbance caused by this method.

For some clasive birds, dags can be used to increase the chance of elitining registrators. Dags are regularly used in counting game birth and for fix daing seats of ducks or suckers. It goes without anying that a minible and well trained dag and handler are needed if this method is to do more good for the cerease than harm to the birds. Pullfact:

Yellow hernmor

Fined Burting

Corn Burning

Figure 3.2	80	Stock Desc	MT	Marsh Tit
-	GS.	Great Spotted Woodpecker	WT	Willow Tit
Stancard	8	Grylari.	CT	Cost Tit
codes for	Mb.	Tree Pipit	DI	Dius Ti:
mapping	WIR	When	GT	Great Tit
birds	A.	Pobin	NH:	Nuthetch
Ditas	N.	Nightingsle	TG	Treecreeper
	30	Stonechal	MG	Magpie
		Backert	FD.	Floride
	SI	Song Thrush	C	Carrion Crow
	SW	Sedge Werbler	FN	Floren
	HW	Feed Watter	90	Starling
	LW	Lasser Whitethroat	CH	Chalfingh
	WH	Whitethroat	CR	Greenlinch
	GW	Garden Warbler	00	Coldina
	BC	Dischosp	U	Linnet
	WO	Wood Worthlor	Ln	Pecical

A selection of standard species codes developed by the British Trust for Ornithdogy for British passesing species dominantly recorded on Common Briti Communicias. The full list (British British 1994) can be used for any lind of birth recording in all habitats and conditions throughout the Wessern Palaeartis.

3. Bird recording

Chifishelf

Fied Flysatcher

Long-tailed Tit.

GC Goldcrest

The identity and activity of all birds are mapped with small and fidy striting in pentil or ball-point pent If the map gets we, some inkerne; ball-point of not work on a wer map but pendis still do. It is beloff to use a standard list of codes for bird species. Codes for some British birds are shown in Fig. 3.3. Activities are also given exactant codes (Fig. 3.3). Correspond to taken to moved at much detail as possible such as the sex and age of the bird. It is often critical in smalpsis to know whether a multiple observation was a party of juveniles. Were two different birds nearby a) the male and female of a gold, or b) of the same sex and thus presumably near a comittory boundary?

The most useful point to concentrate on softer location of individuals of the name apocies that can be seen or heard simultaneously. A key feature of analysis is the nameption that territory boundaries full between such records. For maintainly distributed species, it is difficult to analyse the results without reference to simultaneous registrations. It may not be clear if a singing bird is different from one seen earlier, a short distance away. Such ambiguous registrations must be joined by a line with a question mark to indicate that the observer is not sure whether they are the same bird or not. They are quite likely to be the same bird. If they really am different, the chance are flut both will appear simultaneously un a different veit.

Figure 3.3	CI
Standard symbols for	3
biid	
ctivities	

си, сим, сна З снум, снача	Chaffinch eight records, with ago, sox or number of birds (tappropriate, CH indiestes one pair; 2CH means two pairs together.
R fore	Juvenile Robins with parents(s) in attendence.
8	Acaling Robin.
<u>K</u>	A Bobin/repeatedly gwing altern cats or other vocansa- tions (rick song) thought to have strong territorial significance.
®	A Robin in song.
RK.	An aggressive encounterbativeen two Robins.
	An occupied near of Rebies, do not mark sneedupled roats, which are of no territorial significance by themselves.
GE BT	Bue Tes ressing in a specially provided site (e.g. nestbox
w PW on	Red Wagtelined with an adult offing.
PW mak	Red Wagtel carrying next material.
Per find	Pred Wagiell carrying food.

Movements of birds can be inclusted using the following conventions:

Asinging Dunnack perched then flying away (not seen to lend).

Acating Grashfech tying over (seen any in tight).

Amale Blackbird flying in and landing diret sees in fight).

(continued)

The standard BTO let of conventions is shown. These are designed for clear and unantifiguous recording. Symbols can be combined where necessary. Additional activities of femioral eigenfearors, such as displaying or meting, should be noted using an appropriate clear attrevisitor.

GDD Oral Hearing Response to Inspector's Questions

APPENDIX 2 WINTER 2015 (JANUARY AND FEBRUARY)

The data from the January and February 2015 winter walkover surveys were collected as species counts and are enclosed as an Excel spreadsheet that give the numbers recorded along various sections of the Proposed Project.

M-44529433-1 3

BIRDS USING SITE

SURVEY SECTION	DATE	B.	BF	BH	ВТ	BZ	CD	СН	CM	СТ	D.	DI	ET	FF	GC	GL	GO	GP	GT	GR	Н	нс	HG	HS	JD	K.	L.	LI	LT	M.	MA	MG	MP	MS	PH	PW	R.	RB	RE	RO	RP	S.	SD
The Grange - N3/M50 JCT	04/02/15	14		28	35			10	1	5		1			2	1	19		13			5	2		5	1			4	1	8	9		9			21						
N3/M50 JCT - Cappagh Rd	04/02/15	10			9	2				2	8						5		6			4		4	3	1			5	6		16	9				16	1	10	1			
0 1 0 1 140	04/02/15				13	1		1		1	4	3		57	1		2	34	7		1	6		2	4		33	4		1		9	1			1	20	3	63	22	2		4
M2 - R108	03/02/15	63	7		23	3		12		5	12		1	12	1	1	6		2	2		7		2	4			65	7	2		22	13				11	17	55			164	
R108 - M1	03/02/15	16	3		13	3		3		7	6						4	10	5	1		13		2	2							4	34			1	24			23		2	
M1 - WWTW	30/01/15	18		7	3			1								2	6		5			1	2	4	2			50	3			4	240		2	11	7	2					
WWTW	30/01/15	10	2	22	2	3		4	32		1								1			7	40		14							14	15				4	6				1	
WWTW - R107	30/01/15	21	2		12	1	2	6		1	2			10			4		3	1		2		6	8					6		9	45				16	3	32			20	
R107 - Railway	30/01/15	28				1		4		2	3						72		6			7	2		7				2	3		11				1	10		11			27	
Railway - R106	30/01/15	6									2			2			1	·															2			·	3		8		·	4	

BIRDS IN FLIGHT ONLY

SG	SH	SN	ST	TS	WP	WR	Υ.	B.	BF	ВН	ВТ	BZ	Z CH	1 CI	ИΙС	СТ Г	D. F	FG	C G	O GP	GT	GI	R H	НС	HG	HS	JD	L.	LI	LT	M.	MG	MP	MS	PW	R.	RB	RE	RN	RO	S	SG	SH	SN	ST	TS	WP	WR	Y.
2			5		22	4								2	!				3						1		2					3															6		
12		1	12		26	14						7												2	1		10					4		4						12							2		
141			6		63	5	9						2							3				1								1								20		10	1	2			2		
14	1		11		44	25																	1	5				10			5	10								20							4		
1					42	11				2				2	2				4					3	4		7					1	1							9	3						6		
	1		2		13	7	4			3				4					1					1	1		3													25							8		
10				3	111	7	5					1	1											1									10						1	31	11						70		
80		3	5		14	3				3			1						1					1	1		6					4								1		31					3		
16	1		5		40	6	1					2							2						2		11				4	5	10							2		1					32		
					10	3		1				1		14	4										14							4								2	20						2		

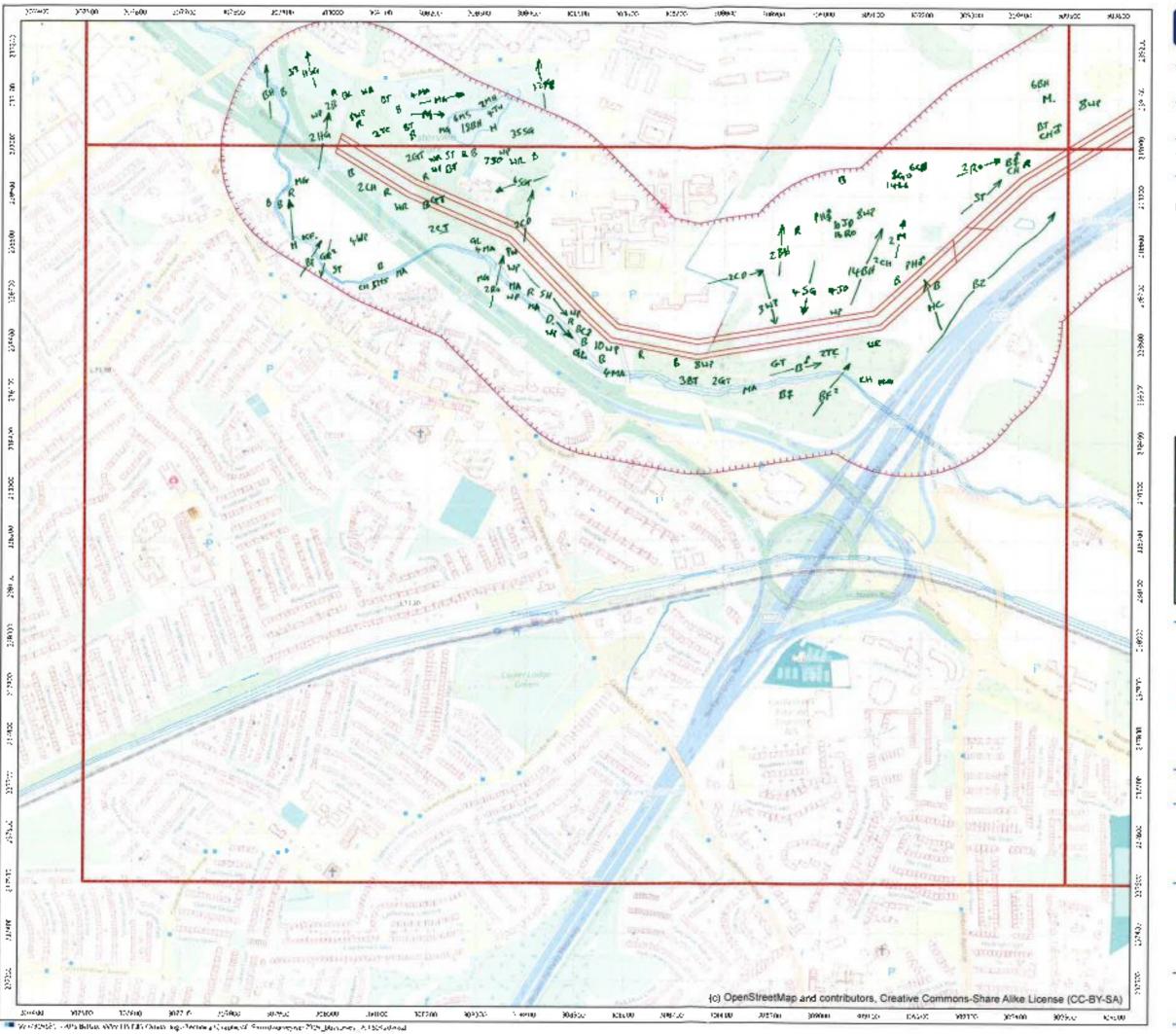
GDD Oral Hearing Response to Inspector's Questions

APPENDIX 3 WINTER 2015 (NOVEMBER)

The data from the November 2015 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

M-44529433-1 4

	F			Wind Speed	peed		Direction	Rain/Snow	*	Cloud	Cloud Height	Visibility
RPS	Š	weamer sneet	ž.		Beaulor	n Mgh					Hotops of chairs	
Sile	ঙ	005	Π	Collina Light air			z ₩	None Drizzle:Mist		in eighilha e.g. 3√6	above average	Ê
Date	91	21/2013	v	Light breeze Gentle breeze		4-7 8-12	E V	Lighl showers Heavy showers	vers 2		. 12	Good (> 3km) 2
Survey	2	Wine wo	0.	Mod. breaze Fresh broszn		13.18	n S	Heavy rain	1	Frost	<150m 0 150-500m -	
Observer	-	N. Vest		Strong breeze	_	25.31					>500m 2	
Start Time		08:30		Mod. gale Fresh gale	ayay. '- ea -	39-46	NN.	None On sile	φ - (Please be as accu	Please be as accurate as possible, with weather datable entering only one trained
Finish Time	\vdash	15:30		Strong gala Whole gale				High ground		All day 2	not a range, e.g. WS - 5, not 5-5. Use votes for extra into.	(S - 5, not 5-5.
Sheet 1/	8.[Maps attached	ched	Slariii	L 12	73+					E.g. WS · 5, gusting 6 (in notes).	ig 6 (in notes).
Weather	Wind	Wind direction	Rain	Cloud	Cloud	Visibility	Frast	Snow	Notes(e.g. temperature)	temperatu	(e)	
Hr 18:30	r^	SC	٥	3/9	2	۲۰	1	1	7.6			
Hr 29:55	ĺω	3	ಾ	3/9	۲ _ا	4	1		20%			
Hr 3ta: 39	بو	Su	0	3/9	7	7	1	l	208			
Hr 416.30	٦	25	ç	5/3	_	2	1		م ور			
Hr5125	3	ŝ	_	318	1	_	1	,	900			
Hr 6 (7:3»	4	38	7	8/8	1	13	1	į	800			
Hr 719350	4	NS.	7	8/8	_	第1	,	1	28			
Hr8												
Field Notes: Maps altached	i: tached											
For office use only. NB- Initial AND date ALL boxes.	se only. NB	paßfor] -		Databa	Database Entered		Database Validated	alidated	GISE	GIS Entered	GIS Validated	dated





Surveyor: N. Veale

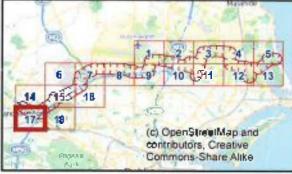
Date: 16 11 7016

Start time 8:30

End time: 15:30

•Please attach weather sheet

Notes:



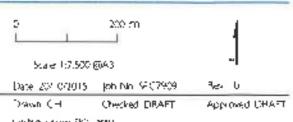
Legend

BBS/VVVO survey boundary (250 m. growing huffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 201509-7)

Greater Dublin Drainage

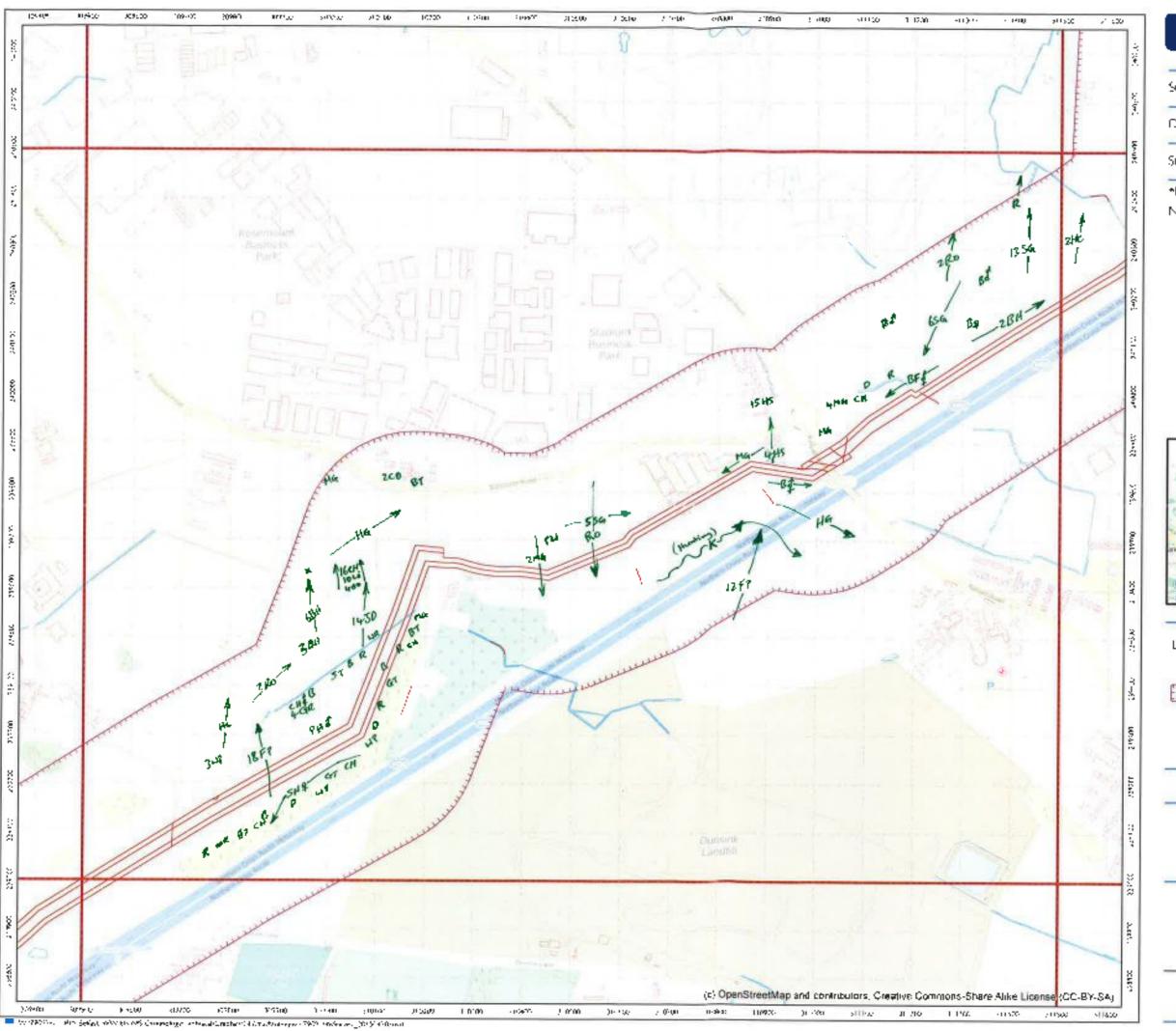
Breeding/winter bird survey

Page 17 of 18



it go beginner file), 1990. Supposessatifus commission, depresentations are Communication. These salts. Fractions of the Communication areas has 2.5 %.

90.6	3	Weather Sheet	1	Wind Speed	peed		Direction	Rain/Snow	MO.	Cloud	Cloud Height	Visibility
	1		[Ē	Beeutort	nd Mph	z	None	٥	in earthtis	Height of cloud	Poortstkm) 0
Site	5	005		ii ii		9	¥.	Orizzle/Mist		B.G. 3.8	above average height of	Maderale (1.3km) 1
Date	17	17/11/201	N	Clentie breaze		4-7 8-12	7 R	Heavy showers	wers 2		viewshed	Good (+20km) 2
Survey	ゴ	コープログラ	70,	Mod. breeze		13-18	s es	Heavy rain	1	Front	<150m 0	
Observer		Nit. Ve	Jede	Strong breeze	левие 6	25-31	3 2	•			>500m 2	
Start Time		54:80		Fresh gale		9 9 0 9 0 9 0 9 0 9 0	Š Ž	On site	o ← 1	Ground 1	Please be as accu	Please be as accurate as possible, with weather datase entering only one Leave
Finish Time		14:05		Whole gale				High direction		A (de)	not a range, e.g. WS - 5, not 5-6.	75 - 5, not 5-6.
Sheet 1/	&[]	Maps attached	ched	Hurricane	12 12	73+					E.g. WS - 5, gusling 6 (in notes).	g 6 lin notes).
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notes(e.g. lemperature)	lemperatu	(a)	
Hr 1064	7	7	٥	8/8	7	2	1	ī	206			
Hr 29:45	n	199	لې	8/8	2	2	1	ļ	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
Hr 3 (6.4)	۲^	SÉ	4	8/8	7	۲,	1	1	200			
Hr 4(1:45	3	SE	2	8/8	_	-	1	-	7.01			
N 5124≤	4	5	7	8/8		٦	1		1300			
Hr 6 (3.45)	+	2	2	8/8	J	7	1		Survey	Stronged	av 4:05	ら、上かけい
14 7 14 XS	8-9	20	Sug	Sugvag	Stap	Spel	-	·	1	Sree	sinds (non	55
Hr 8					1							
Field Notes: Naps attached	ached											
For office use only, NB- Initial <u>AND</u> date <u>ALL</u> baxes.	e only. NB-	Pegged .		Databas	Database Entered		Database Validated	alidated		GIS Entered	GIS Validated	daled



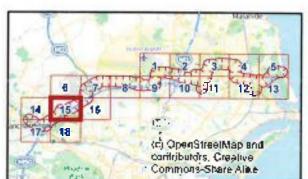
Surveyor. N. Veale

Start time: OB'45

End time: |tp/, 6.5

*Please attach weather sheet

Notes



Legand

BBS/WWO survey boundary (250 m. buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20, 50917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 15 of 18

300 m State 17,500 @43 Date 20/10/2015 | Job No. 5EC /909 | Chawn, CH Checked DRAFT Approved: DRAFT

For Poplarity Cody EPSC 1994; F. Open September Comment on Proposition Copin the Codeman Surgey Consistent by Proposition Codeman Comment Coping National States

Site	200	Wenther Sheet		Wind Speed	peeds		Direction	Rain/Snow		Cloud	Cloud Height	Visibility
Site	-		Ę.		Beaufort	nd Mph					Heinhl of closed	
	9	005		Calm Lighi ar	• -	7 5	2 Z	None Drizzle:Mst		In enghilles e-gr 3:18	above average	Poor (<1km) 0 Moderate (1:3km) 1
Date	3	11/2015	ñ	Light breeze Gentle breeze	евzе 2 breeze 3	4-7 8-12	ᄪᄧ	Light showers Heavy showers	2 60		viewshed	Good (>3km) 2
Survey	7	1) -te/ 1	O.	Mod. breeze		13-16	S 44	Heavy rain	1	Frost	<150m 0 150-500m 1	
Observer	Ž	N. Vede		Strong breeze	_	25-31	3	•				
Start Time		8.00		Mod. gale Fresh gale		99.55 89.55	<u>\$</u>	On safe	> - ₹	_	Please be as acc	Please be as accurate as possible, with weather details, entering only one houre.
Finish Time		14:15		Whole gale					7	All Gely		NS - 5, nol 5-6. ainfo
Sheet 1/	&[] h	Maps attached	ched	Humcane	ne 12	73+					E.g. WS - 5, gusting 6 (in nates).	ng 6 (in notes).
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow No	les(e.g.	Notes(e.g. temperature)	ure)	
Hr 1 8:23	+	3	0	4/8	71	-	1					
Hr 29135	÷	S	0	2/4	7	ىم	1	[
H-316.2	ذ	2	0	819	7	4	1	(
W.4 (1.00	3	3	0	818	7	را	1	{				
Hr 5 12:09	÷	3	0	8/8	7	2	1	1				
Hr 6 13.co	+	77	M	8/8	l l	-		_				
Hr 7 W-00	+	アと	Μ	8/8		-	1	Mer.	Gale for	مهرد هد	Susti Surley	Stopped at 4:15
H 8											V	
Field Notes: Maps attached	ached											
For office use only. NB- Initial AND date ALL boxes.	only. NB-	pa66o7		Databa	Dalabase Entered		Database Validated	alidated	GISE	GIS Entered	GIS Validated	idated



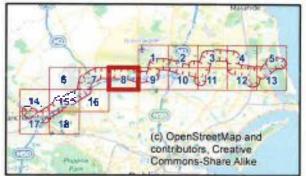
RE

Surveyor: N. Vest.

Date: Zo | N | Zot S

Start time: 81.00 | End time: 1415

*Please attach weather sheet Notes



Legend

BBS/WWO survey boundary (250 m buffer, supplied 20: 10420, plus 150 m buffer of protruding access track supplied 20: 50917)

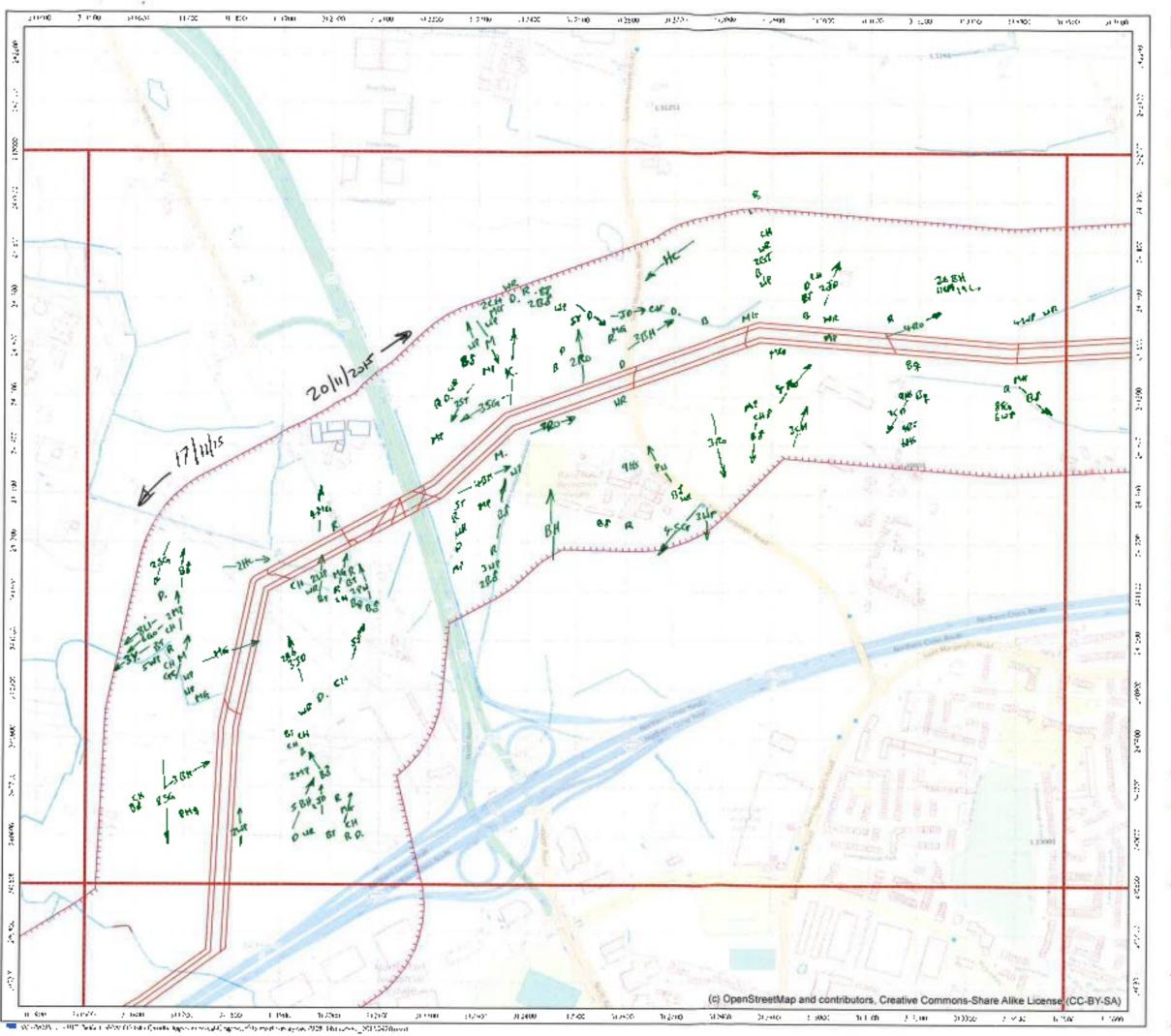
Greater Dublin Drainage

Breeding/winter bird survey

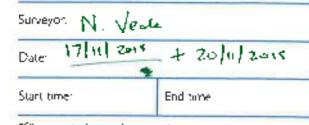
Page 8 of 18



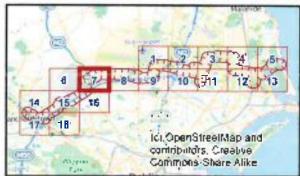
⁹ Copiditioning underlying Egyptatical from the Cydnesia Series Calestandby Promitting of the September Legister (1974).







*Please attach weather sheet Notes:



Legend

BBS/WWO survey boundary (250 m. buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917).

Greater Dublin Dramage

Breeding/winter bird survey

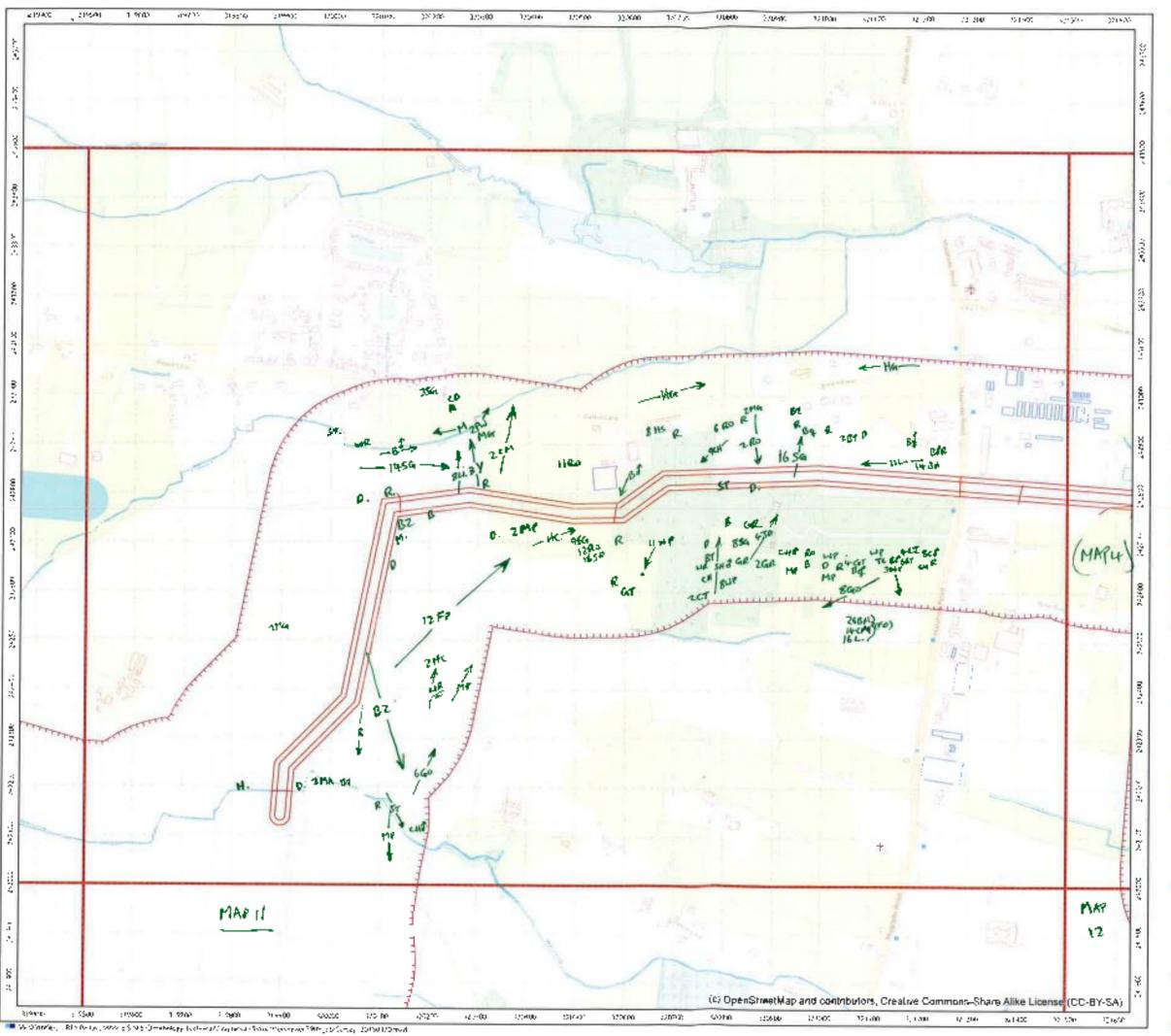
Page 7 of 18



ech Nagonul - Ad Billio 1990). P. Oper Nation (Copin acceptation Report Leating in the Coping of Survey Charles) by previous of the Commercial resources 11 to

Site Colm Calm 0 11 None None Date 24 II Z ≥ 15 Calm breeze 2 + 12 SE Lying showers 3 Survey Limite Lin Light sheeze 2 + 13-18 SE Lying showers 3 Survey Limite Lin Limite Start	sviviet showers	z ≝		628 628 626 8326 626	E E			-	Site
Control Cont	7	ago os os NN					2.00	ט	
Mod. breaze 4 13-18 S Heavy Right Reserve 4 13-18 S Heavy Right Reserve 5 19-24 SW Lying Si Strong breaze 6 25-31 W None Strong breaze 6 25-31 W None Strong gale 7 32-36 NW None Strong gale 10 55-63 Strong gale 12 73-4 High ground gale 10 55-63 Strong gale 10 55-63 W High ground gale 10 55-63 Strong gale 10 55-63 Strong gale 10 55-63 Strong gale 10 55-63 W High ground gale 10 55-63 Strong gale 10 55-63 W High ground gale 10 55-63 Strong gale 10 55-63 W High ground gale 10 55-63 W High ground gale 10 55-63 Strong gale 10 55-63 W High ground gale 10	wers 3	s S MN		# # B 24 #	Genife	214	-	61	Date
N . \\ \ell_{\chick{c.c.}} \text{CLCL} \\ \text{Not.gale} \\ \text{Strong breeze} \\ \text{6} \\ \text{S2.39} \\ \text{NW} \\ \text{Not.gale} \\ \text{S1.20} \\ \text{Strong gale} \\ \text{S1.20} \\ \text{S1.20} \\ \text{Strong gale} \\ \text{S1.20} \\	*	s š		e28	Mod. b	1.0	Jinker L	١	Survey
Strong gale 32-30 Number gale 15°; 25 Strong gale 10 55-53 Strong gale 10 Stro		÷			Strong	ı	J. Vecto	_	Observer
Maps attached 15',25 Whole gale 10 55-63 Storm 11 64-72 Storm 12 73+ Storm Storm 12 73+ Storm Storm 12 73+ Storm Storm	7				Fresh (8:20		Start Time
& [] Maps attached Hurricane special 12 73+ Wind Wind Rain Cloud Visibility Frost Snow \$peed direction cover height 2 2 \$peed direction 0 6/k 2 2 \$peed direction 0 6/k 2 2	7 SEC. 17	_		gale	Whole		15,20		Finish Tin
Wind Wind Rain Cloud Cloud Visibility Frost Snow speed direction Cloud Cloud Visibility Frost Snow Ly 3 Stul Cloud Cloud Visibility Frost Snow Ly 4 U 2/2 2 4 U 2/2 1 4 U 3/2 1 4 U 1/2 8/8 1 4 U 1/2 1 5/8 1 1 4 U 3/2 1 5/8 1 1 6 U 3/2 1	E.g. WS - 5, gushing 6 [in notes].			BL.	Hurig	ched	Maps atta		Sheet 1/
8:30 3 5 5 4 0 6/8 2 2 2	Snow Notes(e.g. temperature)	Frost	Visibility	-	Cloud	_	-	Wind	Weather
1620 4 W 2 8/8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 7°C		~	,	6/4		+	~	
4 M 2 8/8	706			-	8/2	-	3	4	Hr 2 4:20
4 M 1 8/8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	706)	-	3/8	2	3	+	H 3 tea.
4 W 1 8/8 1 1	- 8°C	1	-	_	8/8	ہا	2	7	Hr 4 11/20
4 W 2 8/8 1 1 88 1 4 4 4 4 5 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	- 8°C	-	~	-	8/8	_	3	t	Hr 5 124
4 W 2 8	>,%	}		*	8/8	_	3	7	Hr 6 iv.ne
	1	1							
Hr.8			_	-	8/8	7	3	÷	Hr 7 lette
Field Notes: Mans allached			-	-	8/8	2	3	£.	Hr 7 ⊱ta Hr 8

*





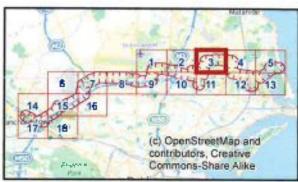
Surveyor: N. Vesta

Date: 24/11/2015

Start time: 8:20 End time: 15/20

*Please attach weather sheet

Notes.



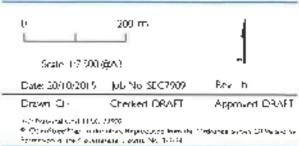
Legend

BB5/WWO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of pictoruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 3 of 18



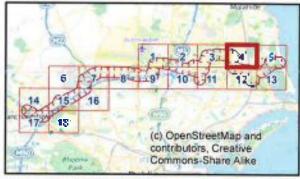




Surveyor N. Vedla 24/11/2015 Start time: \$120 End time 15:20

■Please attach weather sheet

Notes:



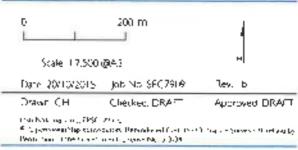
Legend

BBS/WWO survey boundary (250 m. buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

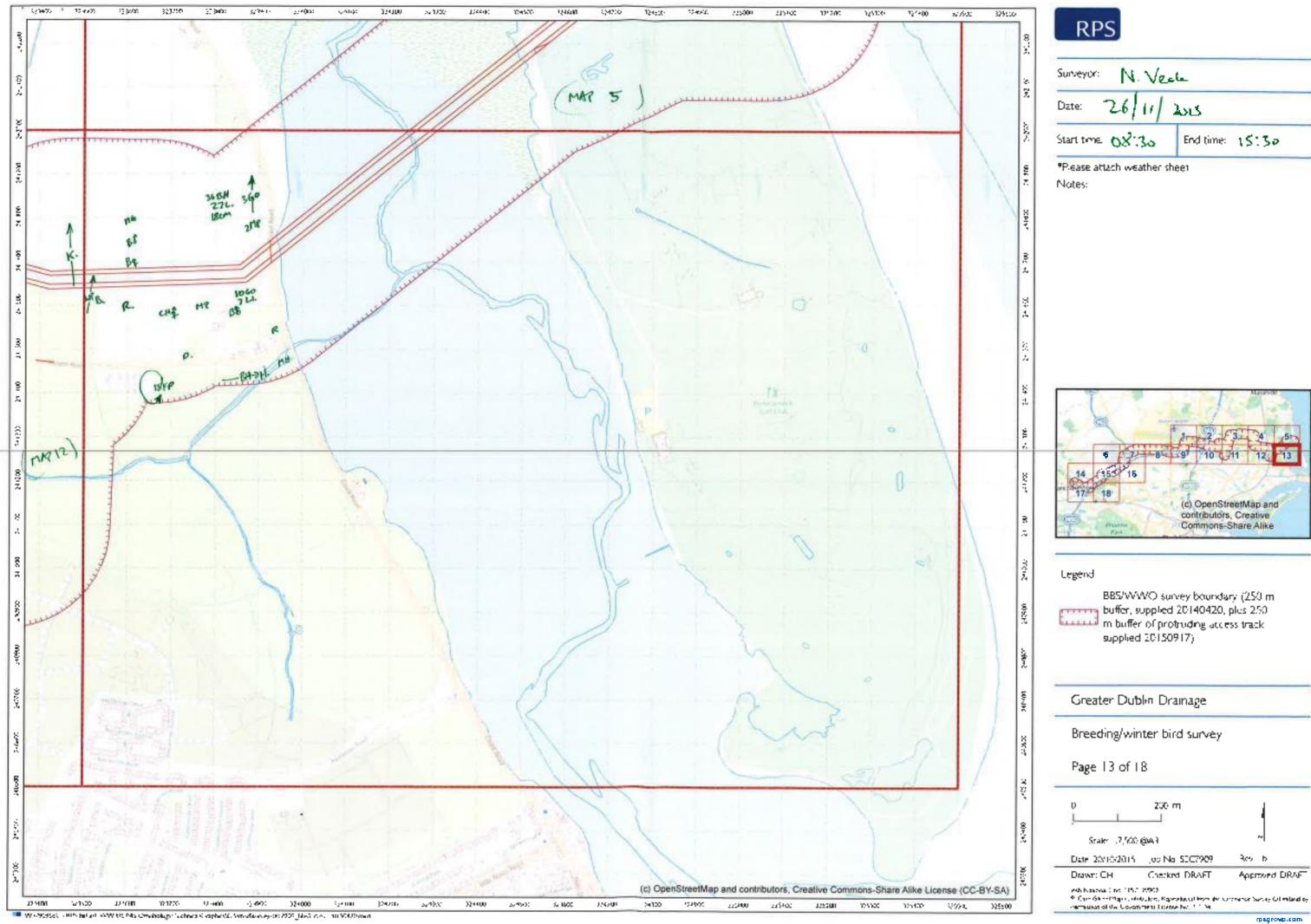
Greater Dublin Drainage

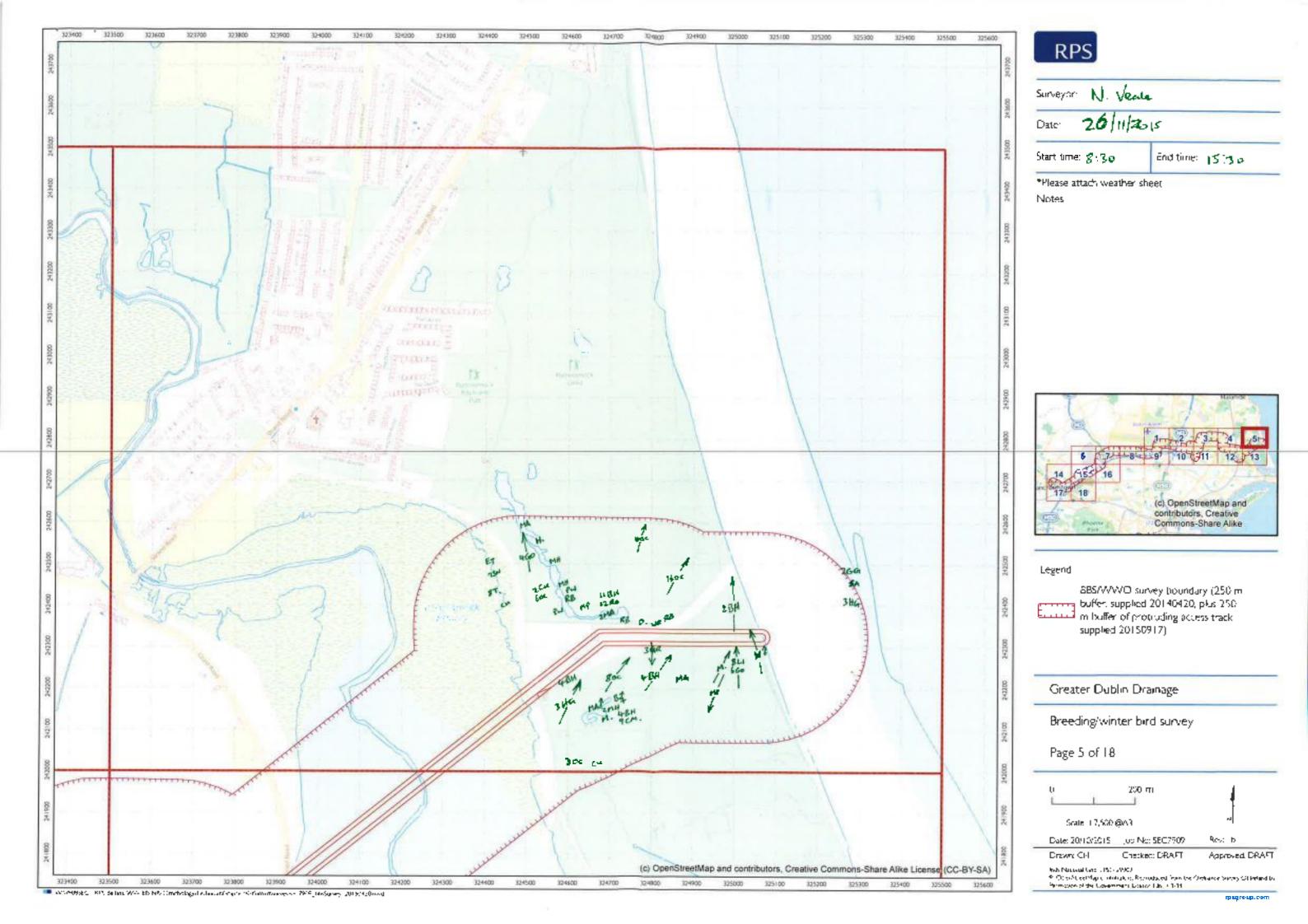
Breeding/winter bird survey

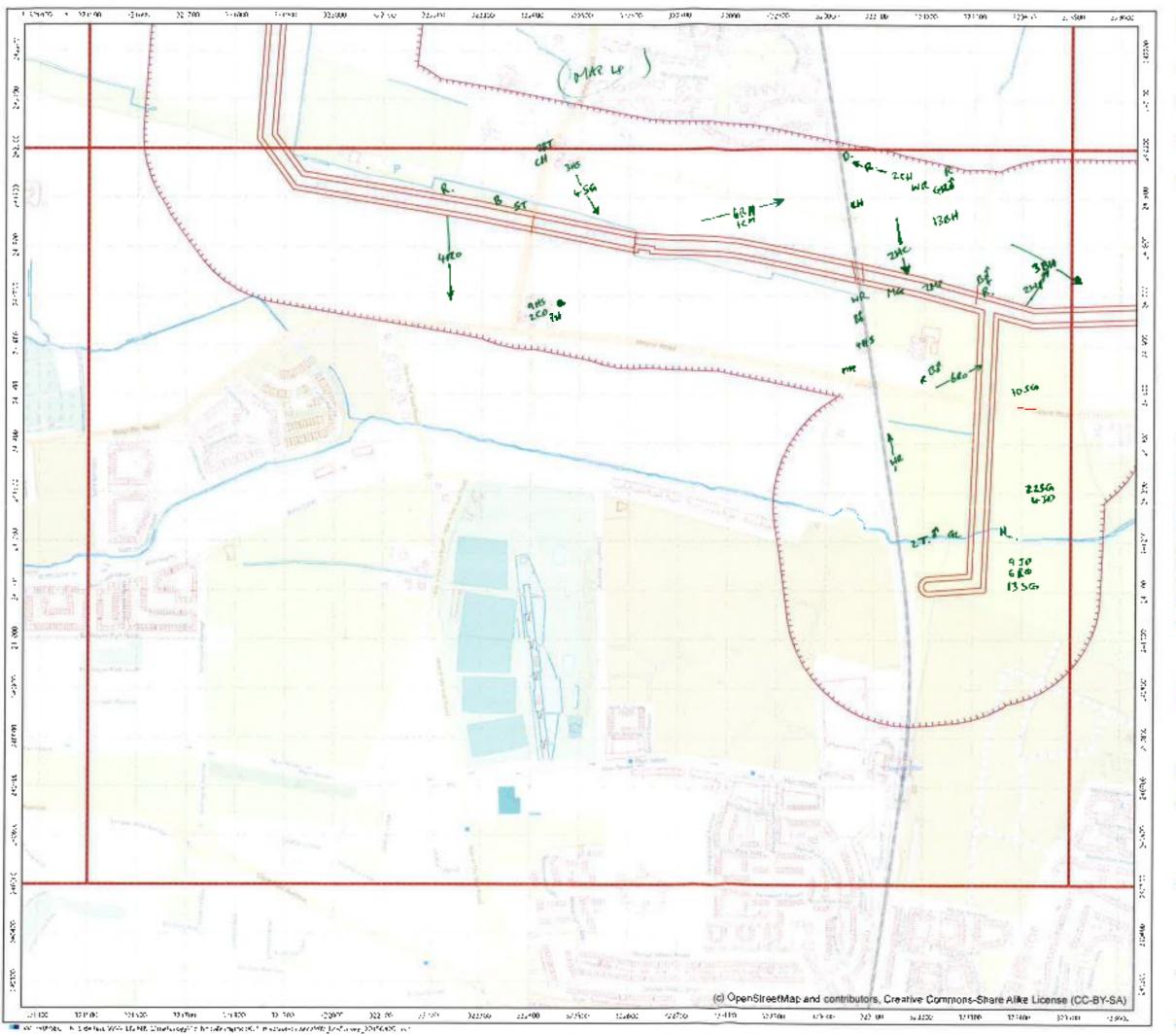
Page 4 of 18



RPS	š	Weather Sheet	- E	Wind Speed	peeds		Direction	Rain/Snow	MOI	Cloud	Cloud Height	VIslouiny	
Site		000		Calm	Seamon Seamon	rodo Service	2 4	None Diszle:Mist		In cuphths	Height of doud above average	Poor (<1km)	۰,
Date	2	26/11/22	2102	Light breeze	9829 2 98829 3	4-7 8-12	n III	Light showers	Martins 2		height of viewshed		- 01
Survey	7	With W.	o.	Mod. breeze	eeze 4	13.18	မြန်	Heavy rain					
Observer	_	V. Veale		Strong breaze	92e	25.31	ž×.	worke garden			-500m 2		
Start Time		8:30		Fresh gale		38-46	ś	On side	-	None o	_	Please be as accurate as possible, with	
Finish Time		15:30		Whole gale				High ground		All Cay		Wealther details, entering only one ague not a range, e.g. WS · 5, not 5-6.	ni
Sheet 1/	& []	Maps attached	ched	Humcane	±2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =	73+					E.g. WS - 5, gusting 6 (in notes).	g 6 (in notes).	
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notes(e.g	Notes(e.g. temperature)	rej		Т
Hr 1 % 12	2	3	-	8/9	- A	-	1	1	10%	Orable			Т
Hr 2 9/50	2	3	-	7/2	~	-	1	(10.0	0.276			Т
Hr 3 [63%	33	3	0	81/23	F	-	1	1	1350				Τ
Hr 4 1/350	7	Su	-	318	-	-	1	1	12.4	DALLE			Τ
Hr 5 (2:30	3	S	_	8/8	_	-	1	,	1200	Dazzle			Т
Hr 8 (3:35	3	Su	2	878	_	_	į	ı		CAN SHOWERS	Howards		Т
Hr 744/35	~	SH	2	8/8	_	_	j	1		Continue	Out.		Т
HB													Т
Field Notes: Maps attached	ached												Т
ı						3							
For office use only, NB- Initial AND date ALL boxes.	e only. NB-	Logged		Databas	Oatabase Enlered		Database Validated	alidated	GIS	GIS Entered	GIS Validated	dated	
						1			$\frac{1}{1}$				٦









Surveyor Nick Vesta

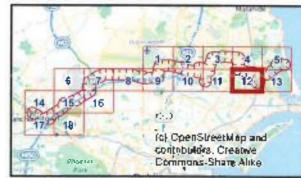
Date. 26/11/2415

Start time: 08:30

Find time: 15130

*Please attach weather sheet

Notes



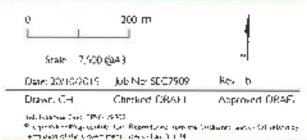
Legend

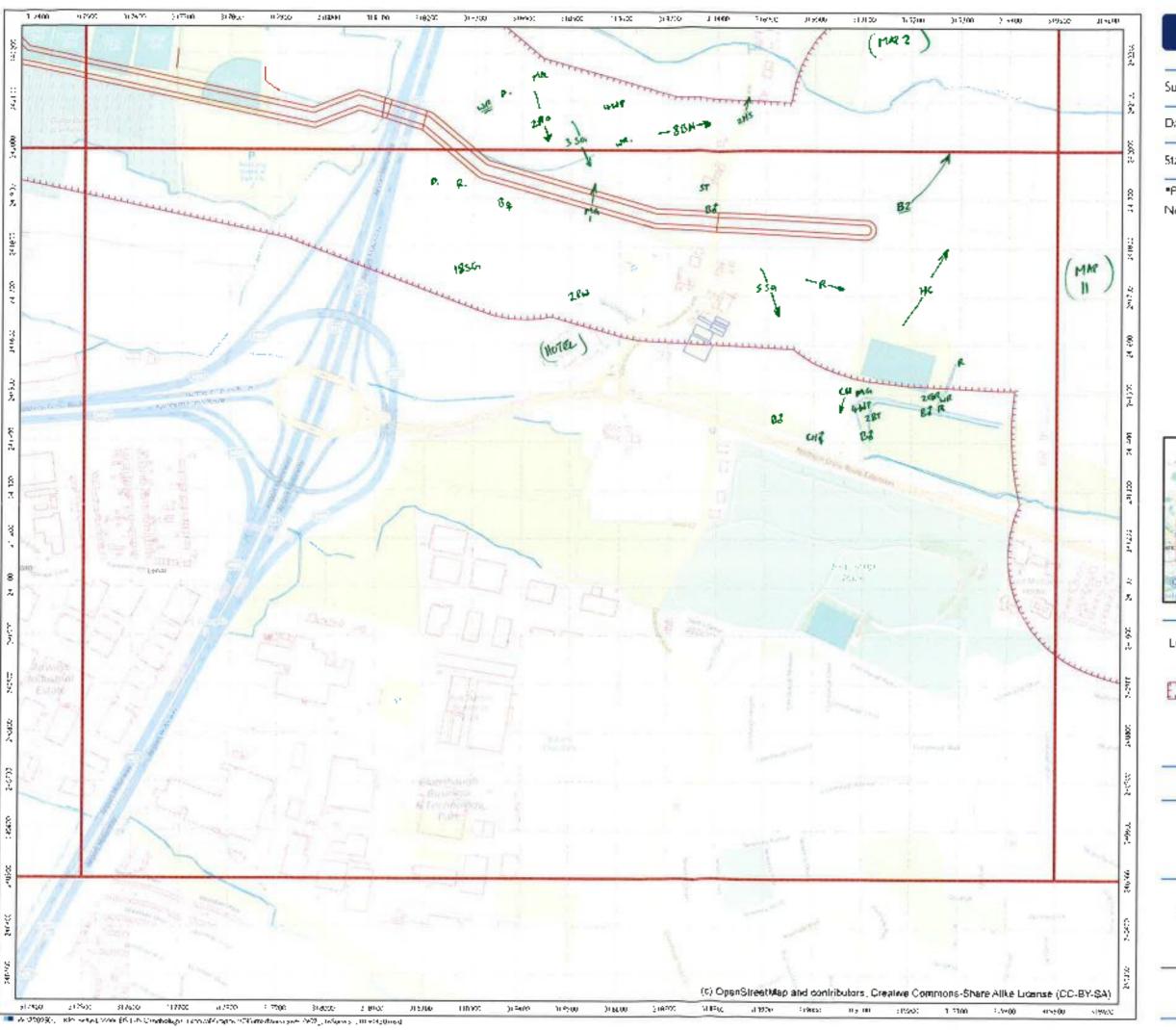
BBS/WWO survey boundary (250 m buffer, supplied 20140420, plux 250 m buffer of photruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 12 of 18







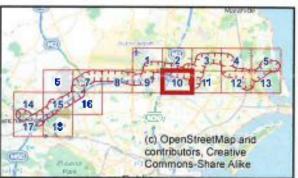
Surveyor Nick Veale

Date: 27/11/2015 #26/11/2015

Start time 8:30 End time 14:50

■Please attach weather sheet

Notes: (5-1/47)



Legend

BBS/WWO survey boundary (250 m.) buffer, supplied 20140470, blus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

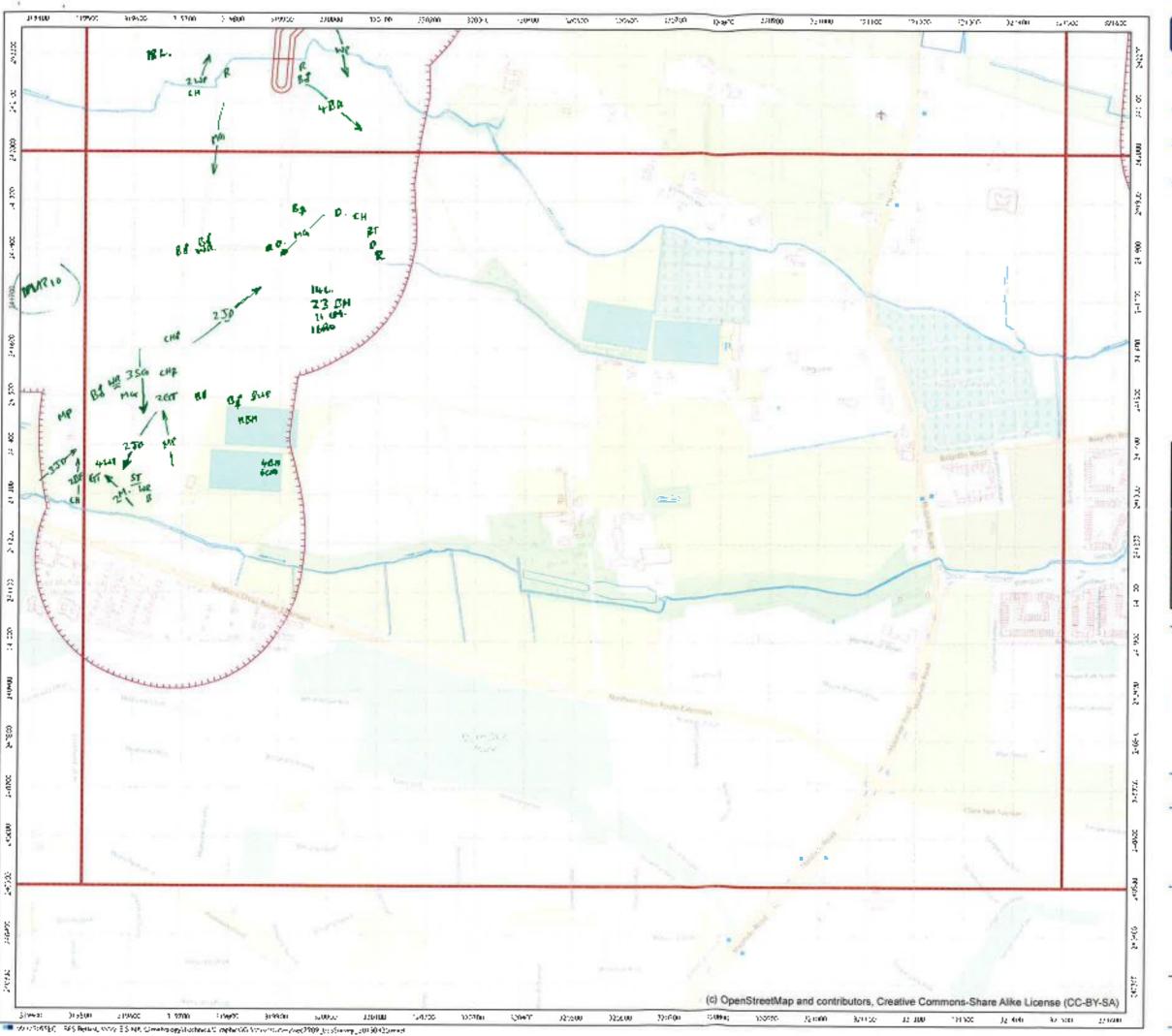
Page 10 of 18



Note: Tong (p. C. -) EPSC (1997).

P. Operform Hip constitutor, Majordae till forti the Overlaine Natury Central acting. Performed in the Constitute Central acting (Performed in the Central Central

	W	Weather Sheet		Wind Speed	peed		Direction	Hain/Show	OW.	Cloud	Cloud Height	Visibility	
Site	9.6	93		Calm Eight air	Besubut 0	1 1 7 7 1 8 7 7	⊋ ₩	None Drizzle/Mist	et o	In eightle e.g. 3/8	Height of cloud above average	Poor (<1km) 0 Moderate (1-3km) 1	
Date	2	Sur 2 14 6	W.	Light breeze Genile breeze	eeze 2 Neezo 3	8 12 13 18	고뿛성	Light showers Heavy showers Heavy rain	yn		viewshed		
Observer	3 ;	3. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		Fresh breeze Strong breeze	reeze 5 breeze 6	19.25		Lying Snow		Frost	E		
Start Time		08:30	v	Mod. gale Fresh gale	1	39-48	N	None On site	0-	None 0 Ground 1	Please be as accu	Please be as accurate as possible, with	T
Finish Time		HE.50		Strong gale				High ground		All day 2	not a range, e.g. WS - 5, not 5-6.	wealner details, anianny only one houre. not a range, e.g. WS - 5, not 5-6. Heardes ha details	
Sheet 1/	4 1	Maps attached	ched	Storm	\$ 13⊒	72+72					E.g. WS - 5, gusting 6 (in notes).	s unto. ng 6 (in notes).	
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notesfe.g.	Notes/e.g. femperature)	(e)		
Hr 18:30	47	35	0	8/9	2	2							
Hr 2 4:35	÷	35	٥	8/2	2	2							
Hr 3 le35	S	Stü	_	8/8	1 %	-							$\overline{}$
Hr 4 [035]	W	3	-	3/8	-	-			Grashy F	of an exist	V 25-2 8	Charles Differen	
Hr5[235]	サム・	N30 54	50 a 424	Hack	20 may 4	0.5							
Hr 613:36	4	3	-2	8/2	_	-			Swill	Court, at	13.45 as	Und Reson	T
Hr 714:30	W	37	2	8/8	_	,			1. 75	Strong	La	Profession	T
11.8													$\overline{}$
Field Notes: Maps attached	ched										*		
For office use only. NB- Inklat AND date ALL boxes.	only. NB- te ALL	peô6a7 .		Databas	Database Entered		Database Validated	/alidated	SIS	GIS Enlered	GIS Validated	dated	





Surveyor: N. Veel

27/11/2015

Start time. 8:30

End time: 14:56

"Please attach weather sheet

Notes

Continued from MAR 10



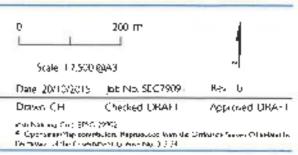
Legend

6BS/WWO survey boundary (250 m buffer, supplied 20/40420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 11 of 18



magrave.com



RP

Surveyor N. Vecle

Date: 2-7/11 2015

Start time 8:30

End time: 144,50

"Please attach weather sheet

Notes:

Transeau (vose prose

(1,2,+9)



Legend

BBS/WWO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

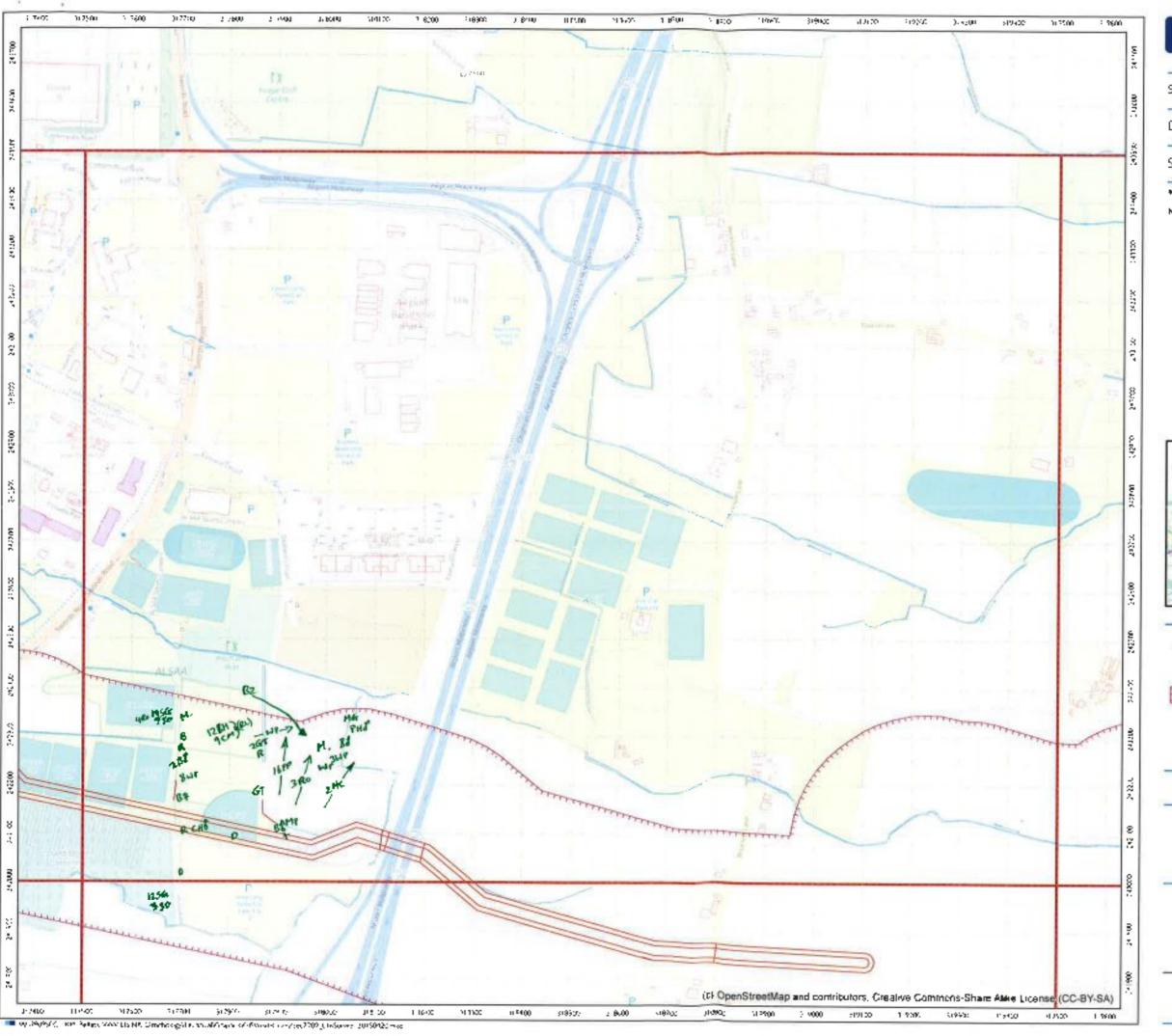
Breeding/winter bird survey

Page | of 18



Fith National Lend (PSC LAMP).

▼ Openful—employmenterwork Republic of Patricks Charles Serving Of Inflation Performance of the Community Degree (No. 3, 2, 2).



Surveyor Nick Ved

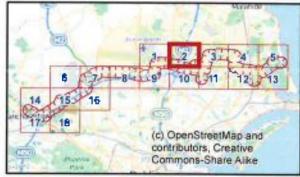
Start time: 08 30

End time 14:50

*Please attach weather sheet

Notes.

1,2,+9



Legend

BBS/WWO survey boundary (250 m. buffer, supplied 20140420, plus 250 m buffer of protrucing access track supplied 20150917)

Greater Dublin Drainage

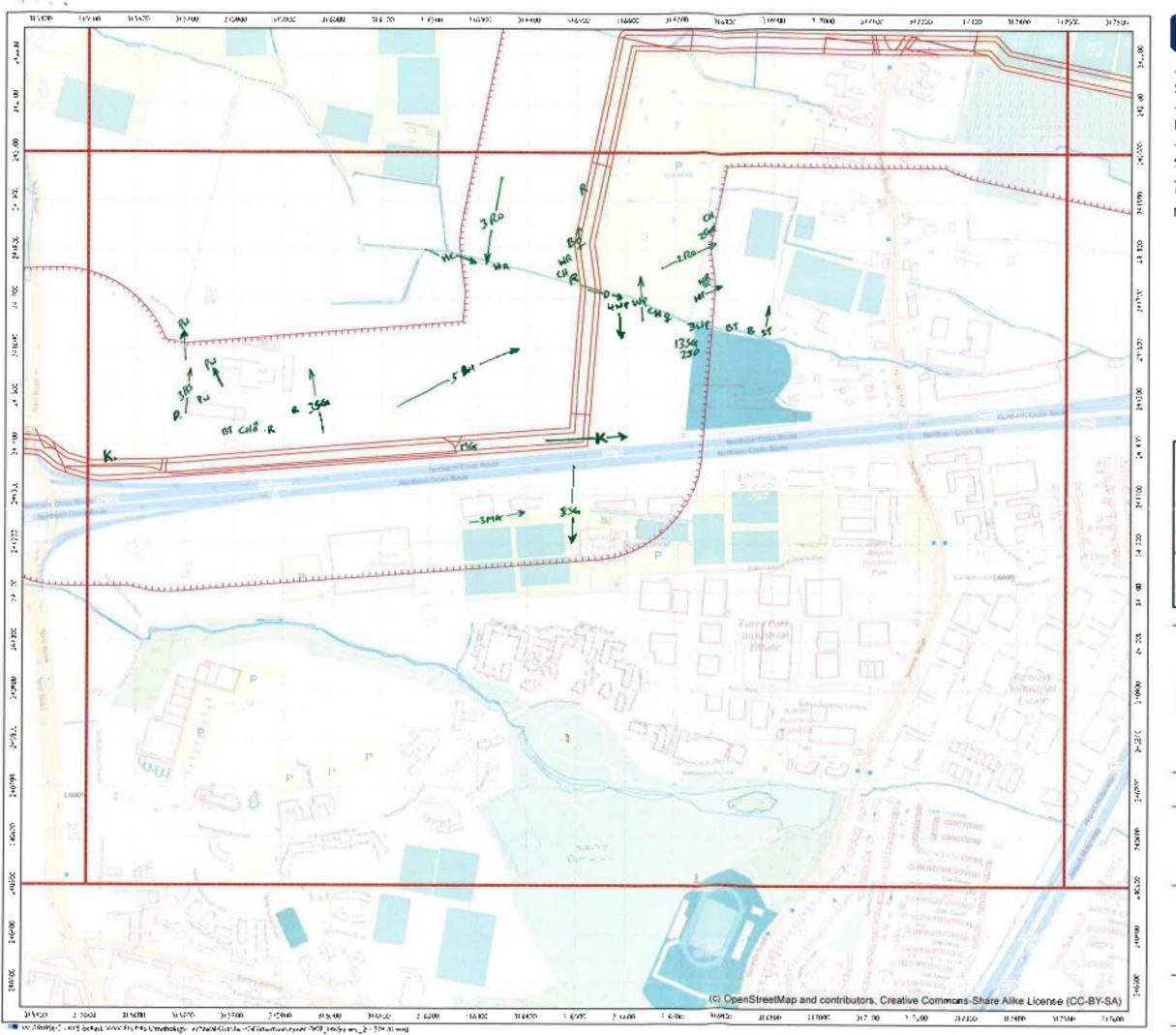
Breeding/winter bird survey

Page 2 of 18



Figh Nascous Line 115 to 1900.

5. Openids on Majoritan and As Reproduced Investors Outburgs Nascoy Of Intal Arts. formation of the Government Lineau Life 1-1-14





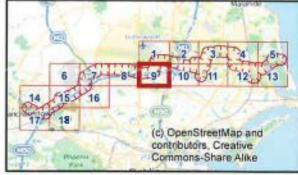
Sinveyor, Nick Veals

Date: 2.7 11 2015

Start time: O\$ 3%

End time. 14 30

*Please attach weather sheet



Legend

BBS/WWO survey boundary (250 m. buffer, supplied 20: 40420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 9 of 18



 Opening setting a solid interview Representation of the Conference Survey Citizens and In-Participant of the Constitution Liberta No. 5 years

GDD Oral Hearing Response to Inspector's Questions

APPENDIX 4 WINTER 2017 (MARCH)

The data from the March 2017 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

M-44529433-1 5

RPS.	W	eather Sh	teet	Wind	Speed Beaut	fort Moh	Direction	Rain/Si	now	Cloud	Cloud Height	Visibility
Site	6	.00		Calm Light a	0	أحا	N NE	None	0	in oightha	Height of cloud above average	Poor (< lkm) (
Date			017	Light b	-	4-7	E SE	Drizzle/k Light sho	owers 2	e.g. 3/8	height of viewshed	Moderate (1-3km) 1 Good (>3km) 2
Survey		لما معتد لم		Mod. b	reeze 4	13-18	S	Heavy ra	ain 4		<150m ()	` ' '
Observer	-			Strong	breeze 5 breeze 6	25-31	SW W	Lying S	Snow	Frost	150-500m 1 >500m 2	
Start Time	9	0715		Mod. g Fresh	pale 8	39-46	NW	None On site	a 1	None d Ground 1	Please be as accu	rate as possible, with
Finiah Tir		15:00		Strong Whole	gale 9 gale 1:			High gro	und 2	Alfobay 2	weather details, er not a range, e.g. V	tering only one tlaure
Sheet 1/	&[]	Maps atta	ched	Storm Hurrica	iner 1						Use notes for extre E.g. WS - 5, gustk	Into.
Veather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	temperatur		
11715	3	50	(2)	6/8	2	2		_	(6° C			
112815	2	SE	401	8/8	2	7		_	light	drizzla		
413975	3	SE	#1	1/8	2	2		_	light	dazele		
11410:15	3	SE	0	8/8	2	2	-	_	13.5		77	
tr 5 11.15	3	SE.	0	1/8	2	2			122			
र्ग ६ । १:५५	3	SE	0	7/8	2	2.			1+			
1171215	3	SE	Ð	1/8	2	2	-		1400			
1181415	4	SIE	0	2/8	2	2			17 0			
Field Notes: Maps allo												
or office use	only MB	Logged										

.

RPS Site Date Survey Observer Start Time Finish Tim	2 10 10 10 10	Veather Sh 500 27/03/20 31-45 C 10100 10100 10115	17 30 10	Calm Ught a Light b Gentle Mod b Frosh t	reaze 2 breeze 3 veeze 4 breeze 5 breeze 6 ale 7 jeke 8 gale 9 gale 1	21 1-3 4-7 1 6-12 13-16 19-24 25-31 32-38 39-46 47-54 0 55-63 1 84-72	Direction N NE E SE SV W NNY	None Drizzlad Light sh Heavy s Heavy n Lying s None On site High gro	Atlet 1 Overers 2 howers 3 ain 4 Snow	Cloud Cover In eighths e.g. 3/8 Frout None 0 Ground 1 All day 2	Cloud Height Height of cloud above average height of wewshed <150m 0 150-500m 1 >500m 2 Please be as accumentar details, er not a range, e.g. V Use notes for extra E.g. WS - 5, guitir	a info.
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g.	temperatur		- turning
Hr 1(8:35	2	ENE	0	4/8	2	2		_	Lengt			
Hr Silina	2	E	0	3/8	7	2		_	1000			
Hr 3123.00	2	J.	0	3/8	2	7.						
Hr 413:55	3	0	0	3/8	7	7		_	120 C			_
Hr 5 (₩ ω	-3	ENE	0	2/8	2	ž		$\overline{}$	15-6			
Hr 615:50	3	NZ	0	4/8	2	2		_	1200			
Hr 7/6	3	NE	0	4/8	2	2	_	_	1136			
Hr B				110	_				11.6			
Field Notes: Maps alla												
or office use nitial <u>AND</u> da	only. NB	Logged		Databas	e Entere	d Da	tabase Va	ilidated	GISE	intered	G/S Valid	fated

Date 23 07 72 7 7 7 8 1 1 1 3 1 1 1 3 1 1	RPS	W	eather Sho	eet	Wind :	Speed Beauti	ort Mph	Direction	Rain/Sr	NOW	Cloud		Cloud Height Height of cloud	Visibility
Date 23 07 24 7 25 7 24 7 25 7 24 7 25 25	Site	6	00			-				_			above average	Poor (<1km) 0 Mederate (1-3km) 1
Survey	Date		7 1	012	Leght br	reeze 2	4.7							Good (>3km) 2
Start Time	Survey				Mod. ter	19828 4	13-18	ş	Heavy re	M 4	Esect	_		
Start Time		_		-	Strong	braeze 6			' -	Mon	Frosi			
Finish Time 18:00 Sheet 1/ 8. [] Maps attached 9		-					29-46	NW	On site	i	Ground	0		
Sheet 1/ & Maps attached Hurncane 11 64-72 Hurncane 12 75+ Eg. WS - 5. gusting 5 in notes].				-		D			Hìgh gra	urd 2	All day	Ş	not a range, e.g. V	NS - 5, nol 5-6,
Weather Wind speed direction Wind cover height Cloud cover height Frost Snow Notes(e.g. temperature) Hr 1 15 3 E N 2 8 / 8 2 2		1.0		ched	Slorm	11	64-72				Α,			
Hr 1 II is 3 ENE 2 8/8 2 2 2 8°C Hr 2 II is 3 ENE 0 " " 2 10°C Hr 3 IS is 3 E 0 " " " 2 10°C Hr 4 No is 3 E 0 $1/8$ " 2 10°C Hr 6 II is 3 E 0 $1/8$ " 2 10°C Hr 7 II is 3 E 0 $1/8$ " 2 11°C Hr 8 3 E $0/8$ " 2 11°C		Wind	Wind		Cloud	Cloud		Frost	Snow	Notes(e.g	temper	atur	e)	
Hr 3 B 1 B 0 B 2 10°C Hr 4 B 3 E 0 B B 2 10°C Hr 6 B 7 B 8 B 0 B 8 B 2 11°C Hr 8 3 E 0 B 8 B 2 11°C Hr 8 3 E 0 B 8 B 2 11°C	Hr 1 Jus	_	ENR	2	8/8		2		_	800				
Hr 4 Nois 3 E 1 $7/8$ n 1 Hr 5 80 8 3 Nic. 0 $7/8$ n 2 10 ° C Hr 6 W 15 3 E 0 $7/8$ n 2 11 ° C Hr 7 17/15 3 E 0 $6/8$ n 2 11 ° C Hr 8 3 E 0 / 8 n 2 11 ° C Field Notes:	Hr 21216	3	ENE	0	11	to +	2		_					
Hr 58:15 3 Nic. 0 1/8 " 2 10°C Hr 6 W 15 3 E 0 1/8 " 2 11°C Hr 8 3 E 0/8 " 2 11°C Field Notes:	Hr 3/3/15	3	E	0	- 0	fr	2			1000				
Hr 6 lb' 15 3 E 0 7/8 " 2 11°C Hr 7 17/15 3 E 0 6/8 " 2 11°C Hr 8 3 E 6/8 " 2 11°C	Hr 4 N-15	7	€	1	7/8	P	1		_		11/1			
Hr 7 17/15 3 E 0 6/8 " 2 11°C Hr 8 3 E 6/8 " 2 11°C Field Notes:	Hr 56015	3	Nic	0	7/8		2	-		10 °C			,	
Hr 8 3 E 6/8 1. 2	Hr 6 M 13	3	E	0	7/8	- 71	2		_					
Field Notes:	Hr 717/15	3	E	0	0/8	11	2		_	11°C				
·	Hr 8	3	E		6/8	1,	2							
Maps allached	Field Notes	:			0, 1									
	For office us	NO	Logged			ışe Enten		alabase \			Entered		GJS Va	

Wind Speed RPS Cloud Oirsettan Rain/Snow Weather Sheet Cloud Height Visibility Cover Beaufort Might Calm Site (500 0 Height of cloud **>**1 N None D In eighths. Paar (∠tkm). Light per above sverage 1-3 NE Orizzle/Mist e.g. 38 1 Moderate (1-0km) Light breeze Date height of 4-7 Е 22/03/2017 Light showers 2 Good (53km) 2 Gentle breeze viewshed 8-12 SE Heavy showers 3 Survey Mod. breeze 0.6 13-18 S Water Heavy rain <150m 0 Fresh breeze 19-24 \$W Lying Snow Frast 150-500m Observer Strong breeze 6 VRailer 25-31 W >500m Wod. gale 32-38 NW None Start Time Ð None 06:20 Fresh pale 8 39-46 Please be as accurate as possible, with OM Sile 1 Ground Siltong gale weather details, entering only one figure, 47-54 High ground Finish Time 2 All day 14. 20 Whole gals 10 55-63 not a range, e.g. WS - 5, not 5-6. Storm Use notes for extra info. 11 64-72 Sheet 1/ 4] Maps attached Hurtigane E.g. WS - 5, gusting 6 [in notes]. 12 73+ Weather Wind Wind Rain Cloud Cloud Visibility Frost Snow Notes(e.g. temperature) speed direction cover height Hr 16'22 N 0 1 B C Ò Hr 27.25 N 3/8 ŀ O oHr 3 3" 24 NE 7 14 Ð 0 Hr 4470 Νž 2 0 10 400 65 Hr 5 (6.20 NE 2 E1 0 U 5°c Hr 64-Ze NE 2 5 °C O O. Hr 7(1)20 Ni 2 500 10 α 61 Hr 8/3:22 NE SOL 0 Field Notes: Maps attached

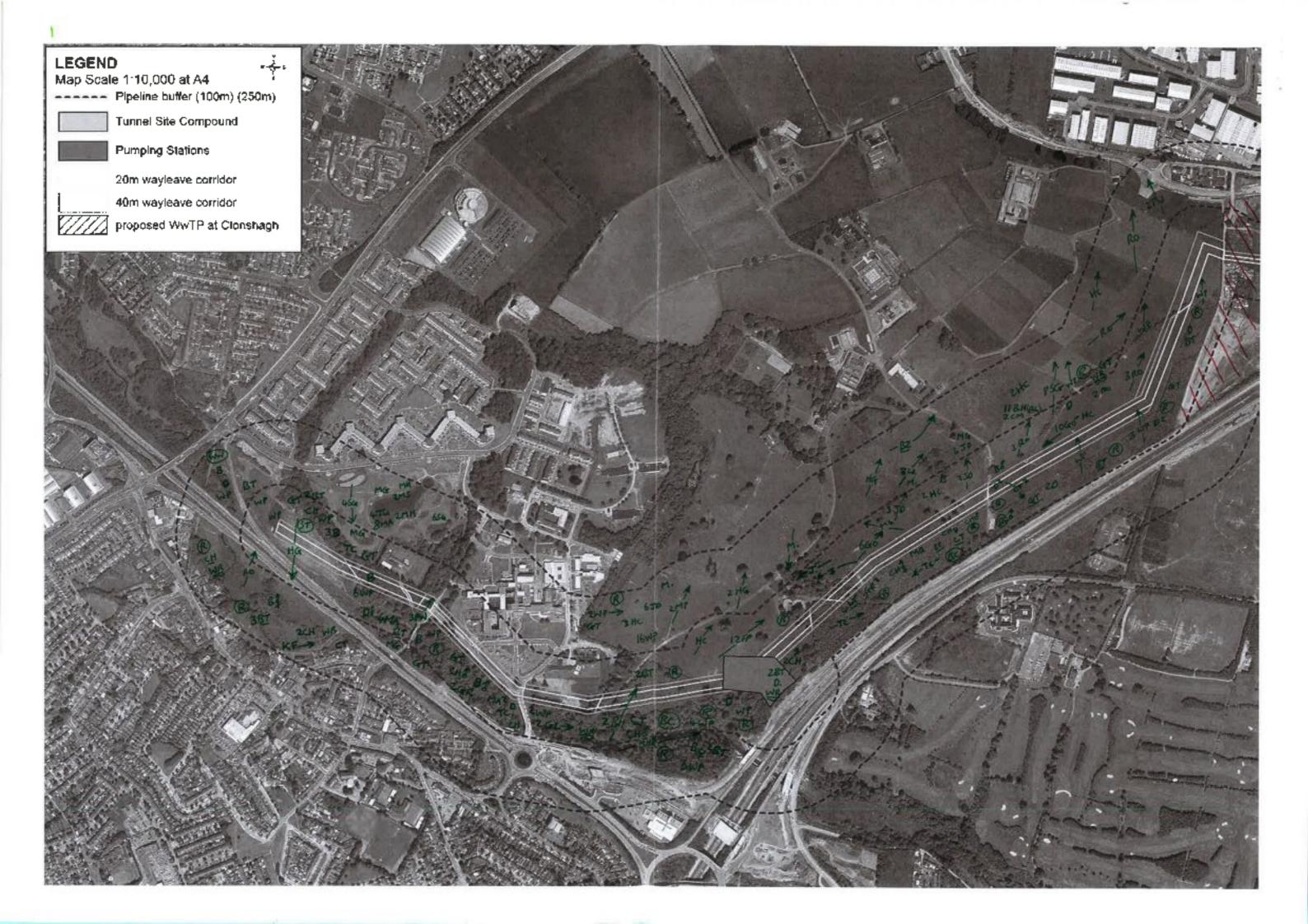
For office use only, NB- Initial <u>AND</u> date <u>ALL</u> boxes.	Logged	Database Entered	Dalabase Validated	GIS Entered	GIS Validated

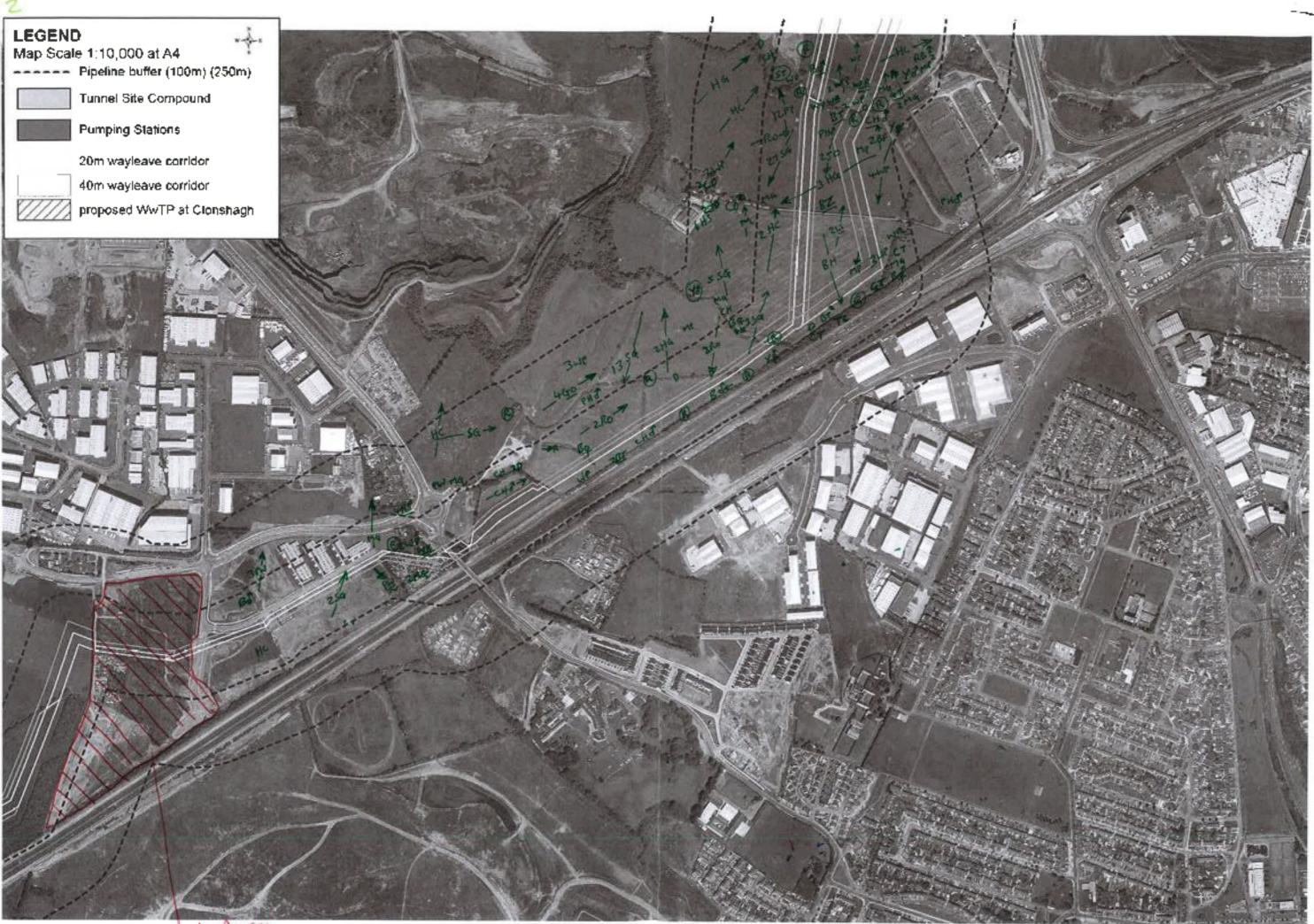
Wind Speed Cloud Direction **Hein/Snow** RPS Weather Sheet Cloud Height VilldieIV COVER Beauton Moh Height of cloud Calm Site 21 Ν None 600 0 In eighths Poor (k1km) above everage Ught air 1-3 NE Drizzle/Mist e.p. 3/8 1 Moderate (1-3km) Light breeze height of Date 103/2017 4.7 Е Light showers 2 Good (»3km) 2 wewshed Gentle breeze 8-12 SE Heavy showers 3 Mod. Meeze Survey 13-16 S Неачу гаіп <150m Fresh breeze 19-24 ŞW Lying Snow Frost 150-500m Observer Vede Strong breeze 25:31 W >500m Mod. gale 32-38 NW Nane Ō None Start Time 07:50 Fresh gale Please be as accurate as possible, with 39-4B On alte 1 Ground Strong gale g 47-54 High ground weather details, entering only one figure. 2 All day Finish Time 14:30 Whole gale 10 55-63 not a range, e.g. WS - 5, not 5-6. Slorm Use notes for entra into. 11 64-72 Sheet 1/ 3.5 Maps attached E.g. WS - 5, gusting 8 (in notes). Humicane 12 73+ Weather Wind Wind Rain Cloud Cloud Visibility Frost Snow Notes(e.g. temperature) speed direction cover height Hr 1 67 50 0 14/8 W 2 =1₂C Hr 20854 7/8 LJ. = 1°€ 2 4 1 SNOW SHOWERS Hr 309:50 U 0 7/8 4 2 O \overline{O} 000 Hr 4 (0.50) 0 6/8 35 7 2 O 0 Hr 5 11:50 7/8 4 2 200 0 SLeek O. Hr 6 1715 912 5/8 0 Z Ð 0 Hr 713:50 3 2 5/8 دعك 0 2 40C 0 0 BnH نے ک 5/8 Z 2 Field Notes: Maps attached

- T - 1

For office use only. NB- initial <u>AND</u> date <u>ALL</u> boxes.	Logged	Database Entered	Oatabase Validated	GIS Entered	GIS Validated
--	--------	------------------	--------------------	-------------	---------------

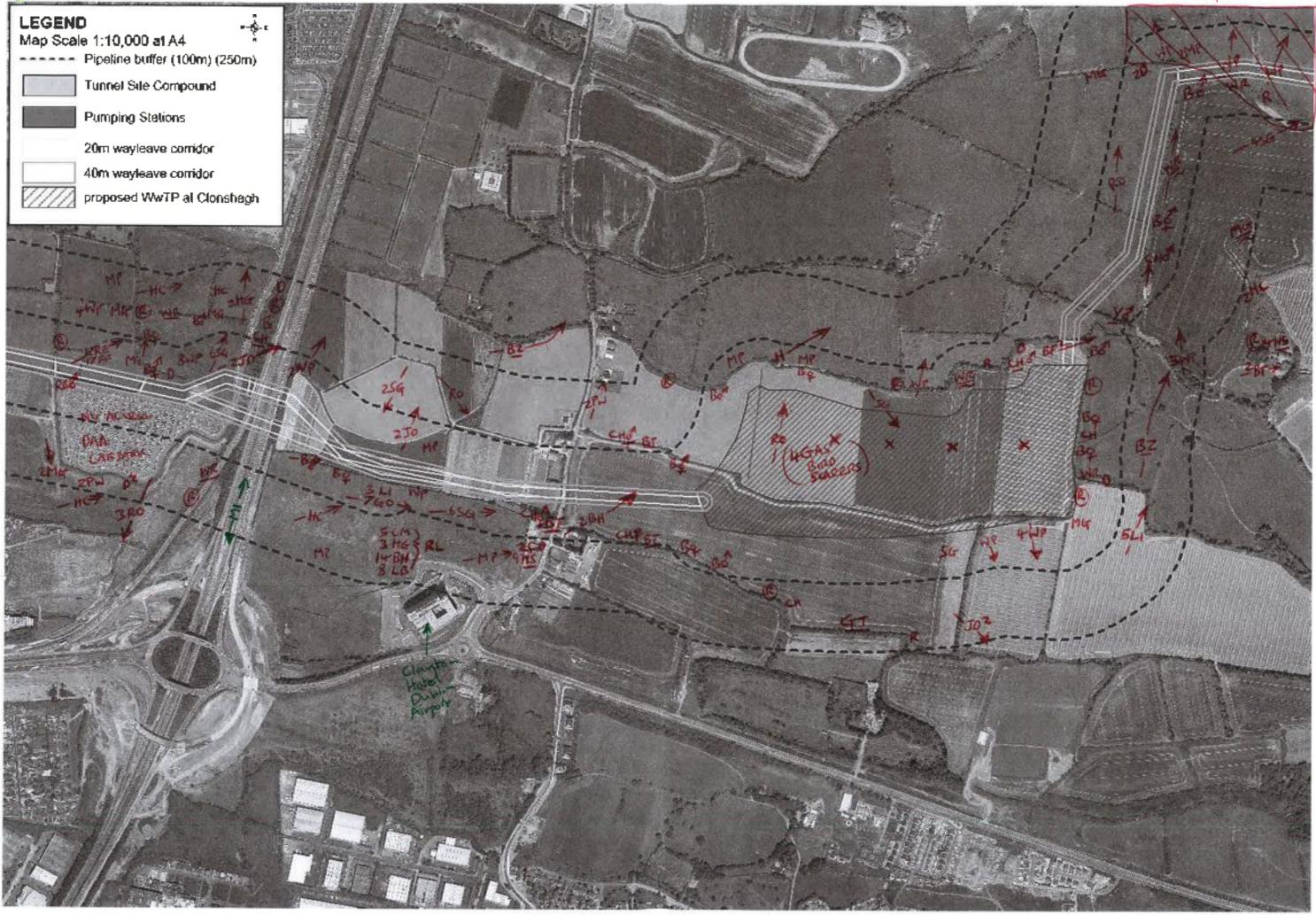
N. Veile	M.O	Calm Light a Light b Gentle Mod, b	reeze 2 breeze 3	>1 1-3 4-7	N: NE E	None Drizzle/	0	in eignths	Height of cloud	
Wide N. Vede	M.O	Gentle Mod, b	breeze 3		l E		MASA 1	69.38	above average	Poor (-c1km) Moderate (1-3km)
N. Veite		Mod, b			S€	Light sh			height of viewshed	Modelate (1-3km) Good (>3km)
		Lingelli	L •	13-18	S	Heavy	ain 4		<1 50m 0	
D. ot. D.			breeze d		\$W	Lying:	Snow	Frost	150-500m (>500m 2	
07.30		Mod. g Fresh		45.44	NW	None On site	0	None 0 Ground 1		rate as possible, with
15.30		Strong	gale 9				ound 2	All day 2	weather details, er	stering only one light
] Maps att	ached	Storm	1	1 64-72					Use notes for extra	into.
Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow	Notes(e.g.	temperatu		
W	0	7/8	- X	2		_	700			
(L)	0	8/8		2		_				
لسا	2	8/8	2	1			900			
لن	0	8/8	2	2						
W	0	8/8	2	Z	_		13° 4			
نى	0	8/8	2			_		- miles	1 11	
50	2	8/8		1			1000			
SW	2		7.	1		_	-			
	Maps att. Wind direction い い い い い い い い い い い い い い い い い い い	Maps attached Wind direction Rain direction O O O O O O O O O	Maps attached Whole Stem Hunks Wind direction Cloud cover W O 7/8 W O 8/8 W O 8/8 W O 8/8 W SJ O 8/8 SJ O SJ O	Maps attached Wind Rain Cloud Cloud Cover height Wind direction Cloud Cover height Wind Wind Wind Cover Height Wind Wind	Maps attached Wind Stem Hunkane 10 55-69 Stem Hunkane 12 734	Maps attached Wind Stem 11 64-72 Hunkame 12 734	Maps attached Wind Hain Cloud Cloud Visibility Frost Snow	Maps attached Wind Rain Gloud Cloud Visibility Frost Snow Notes(e.g. direction Wind Align Wind Align Wind Wind	S. 30 Strong gale 9 47-54 High ground 2 All day 2 Maps attached Storm 11 64-72 Hunkame 12 734 Wind direction Cloud cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost Snow Notes(e.g. temperature of the cover height Wisibility Frost To a cover To a cover height Wisibility Frost To a cover To a cover height Wisibility Frost To a cover To a cover height To a cover	Sition gate 9 47-54 Whole gate 10 55-63 Sterm 11 64-72 Hurricane 12 734 Wind direction

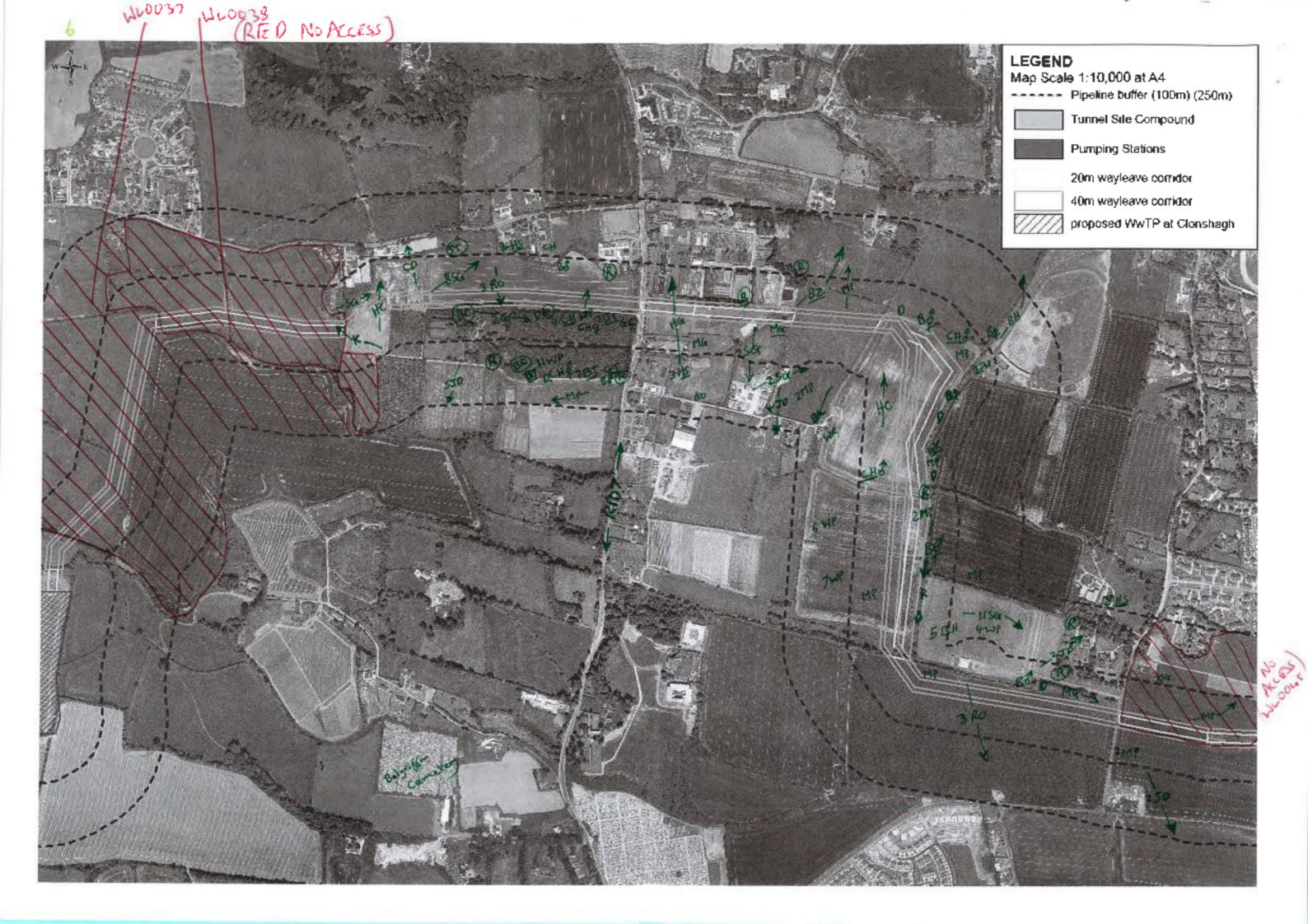


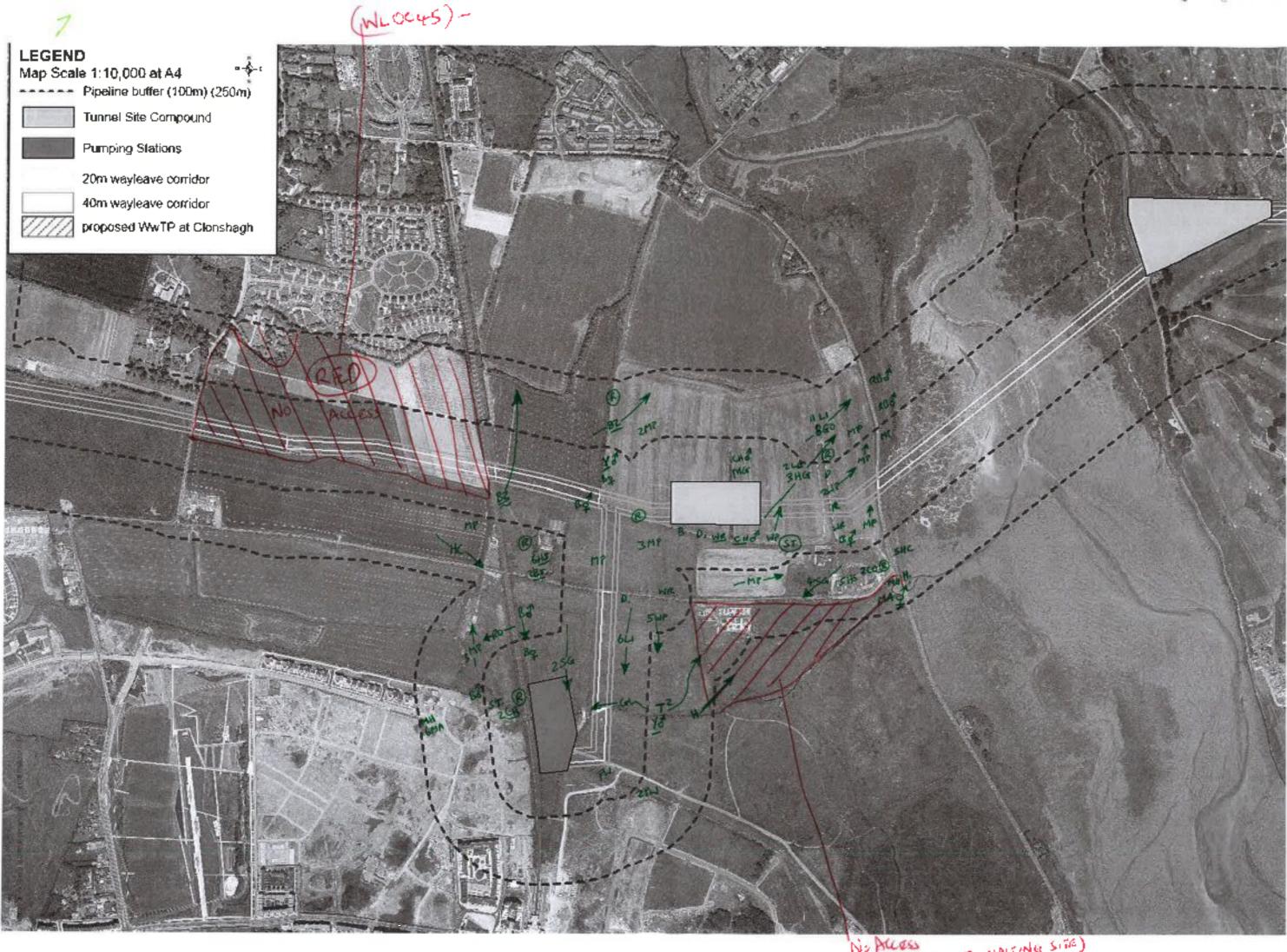


(TRAVELER SITE)









(TRAVEVER HALTING SITE)

GDD Oral Hearing Response to Inspector's Questions

APPENDIX 5 WINTER 2017 (NOVEMBER)

The data from the November 2017 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

M-44529433-1 6

RPS	w	eather Sho	eet	Wind :	Speed Beaut	ort Mph	Direction	Rain/Si		Cloud Cover	Cloud Height Height of cloud	Visibility
Site Date	8	00		Calm Light ai Light br Gentle Mod. br	reeze 2 breeze 3		N NE E SE S	None Drizzle/f Light sh Heavy s Heavy r	owers 2 howers 3	In eighths e.g. 3/8	above average height of viewshed	Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2
Survey		INO		Fresh b	oreeze 5	19-24	SW	Lying S		Frost	150-500m 1	
Observer		J. Veab		Mod. g		32-38	W NW	None	0	None 0		
Start Time	-	18:10		Fresh g Strong				On site High gro	und 2	Ground 1 All day 2	weather details, e	urate as possible, with ntering only one figure
Finish Tin	ne l	5:10		Whole		55-63					not a range, e.g. V Use notes for extr	WS - 5, not 5-6, a info.
Sheet 1/	&[]	Maps atta	ched	Storm Hurrica							E.g. WS - 5, gusti	
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	. temperati	ure)	
Hr 1	4	Seu	O	5/8	2	2	1		200			
Hr 2	4	Sw	0	4/8	2	2	0	_				
Hr 3	3	SU	0	6(8	2	2	0	_				
Hr 4	3	SW	0	613	2	2	0	_	4ºc			
Hr 5	4	Sw	2	6/8	1	2	0	_				
Hr 6	4	SW	2	5/8	2	2	0	_				
Hr 7	3	SW	2	6/8	1	2	0	_	-			
Hr 8 Field Notes	4	SW	0	5/8	2	2	0	/	900			
Maps at												
For office us Initial AND of boxes.	or office use only. NB- litial AND date ALL			Databa	ase Enter	ed D	atabase '	Validate	d GIS	Entered	GIS Val	lidated





Surveyor Nich Vede 08/11 2017

Start time:

End time:

*Please attach weather sheet

Notes:



BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 17 of 18

200 m Scale: 17,500 @A3

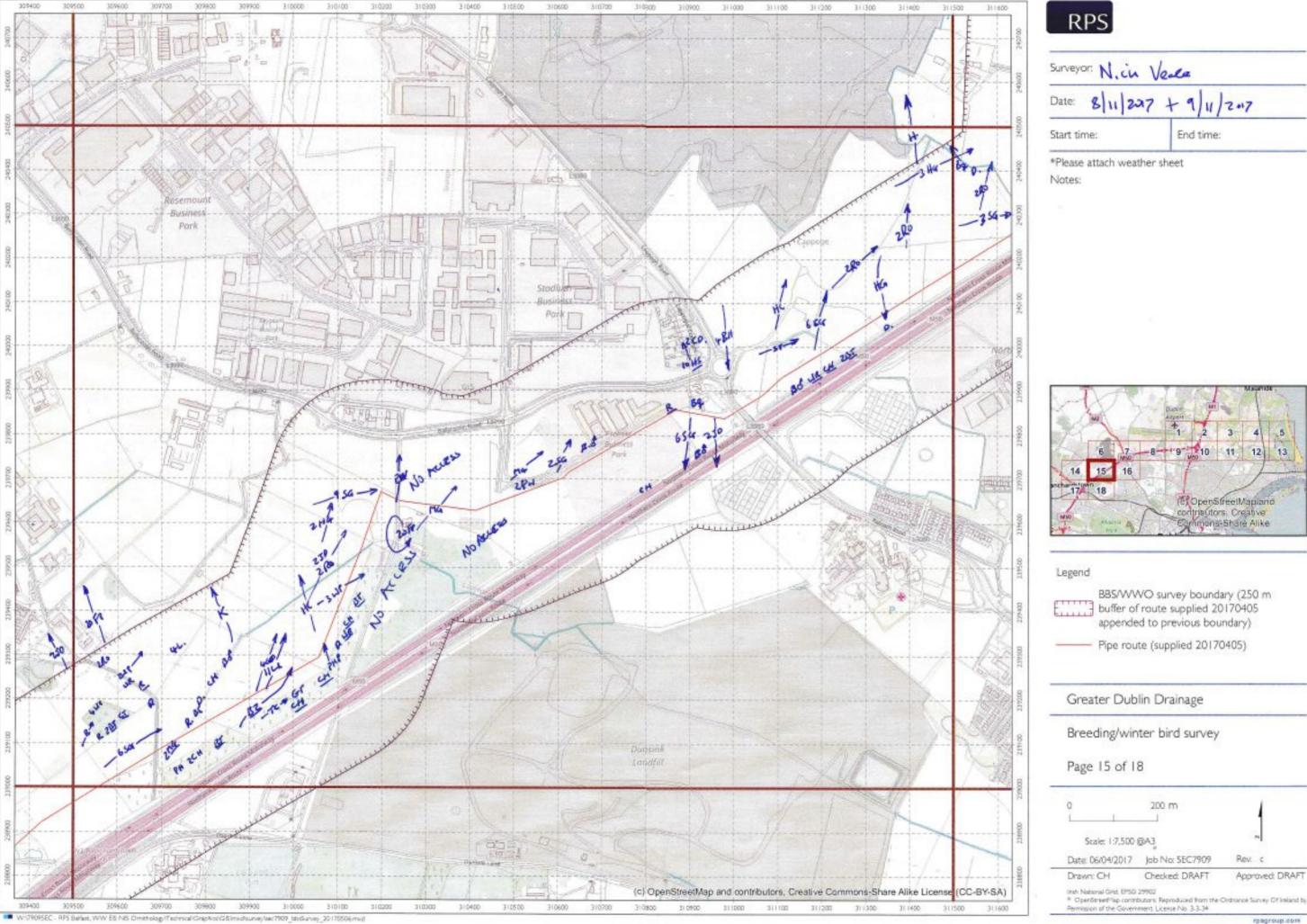
Approved: DRAFT

Date: 06/04/2017 Job No: SEC7909

Drawn: OH Checked: DRAFT

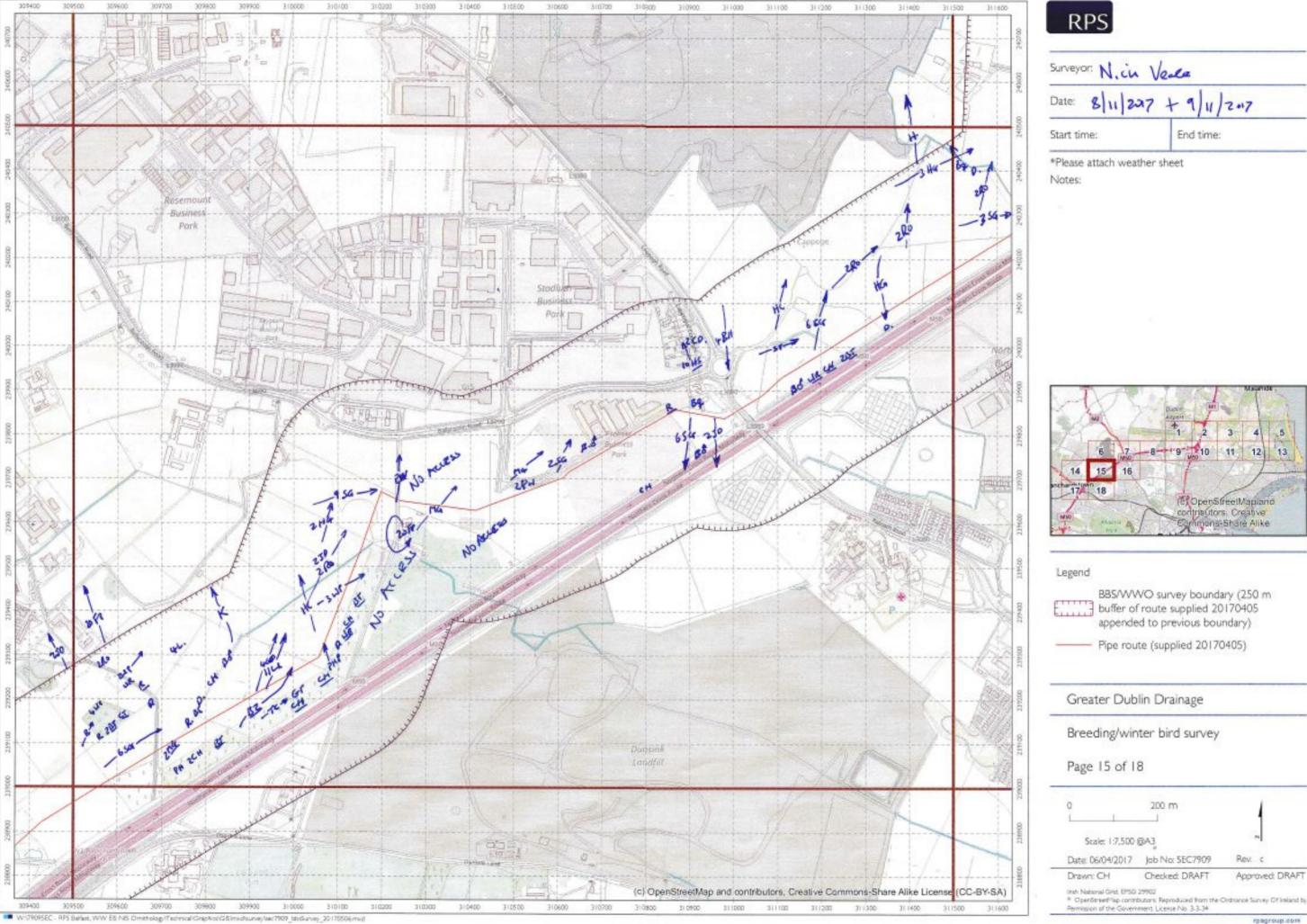
Irish National Grid, EPSG 19902.

* OpenStreet/lap contributors: Reproduced from the Ordnance Survey Of Ireland by Permission of the Government. License No. 3-3-34.

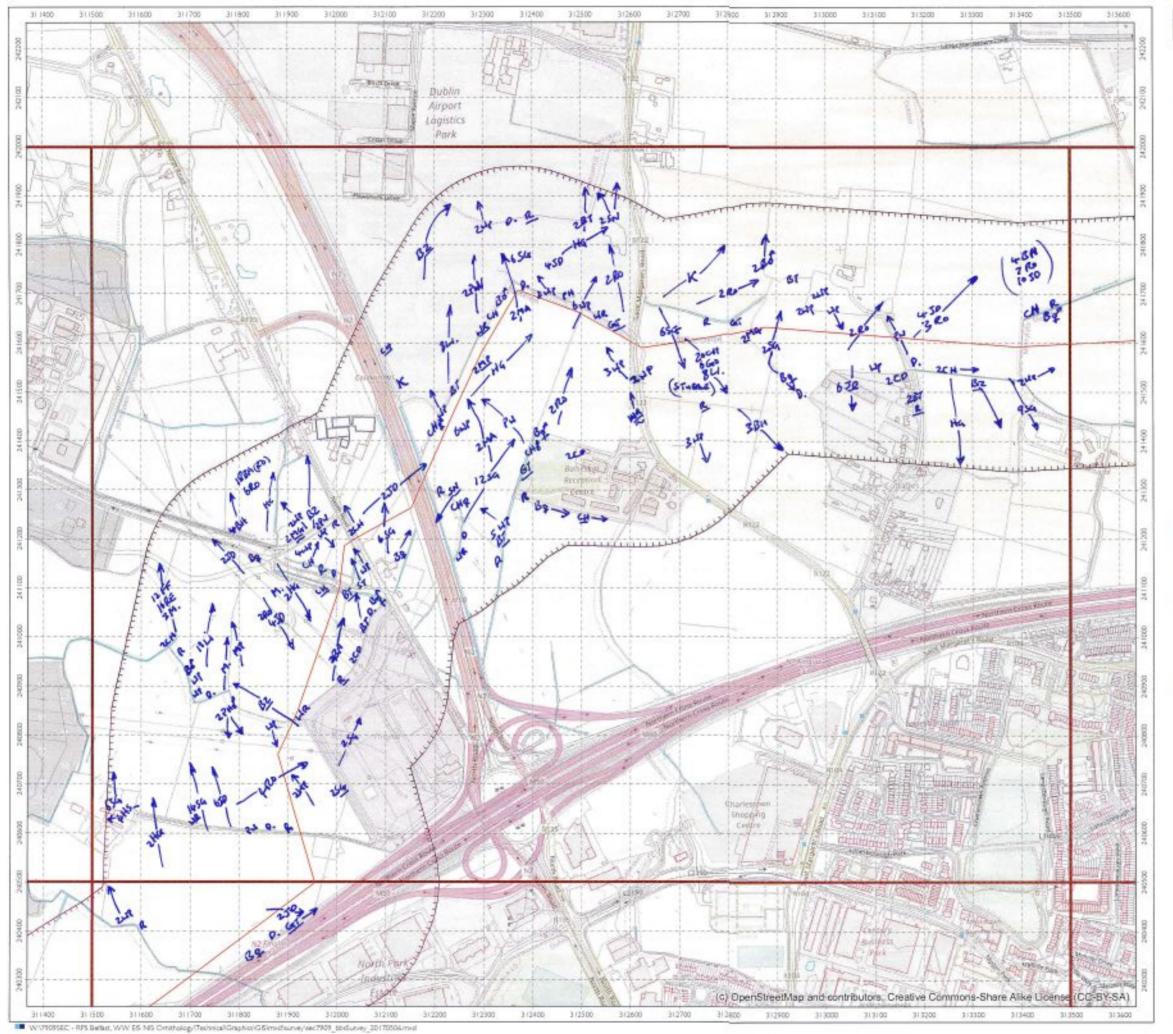


rpagroup.com

RPS	w	eather Sh	eet	10000	Speed Beauti	ort Mph	Direction	Rain/S	now	Cloud Cover	Cloud Height Height of cloud	Visibility
Site Date		00		Calm Light a Light b		>1 1-3 4-7	N NE E	None Drizzle/I Light sh	owers 2	In eighths e.g. 3/8	above average height of viewshed	Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2
	9	WO	_	Gentle Mod. b	breeze 3	8-12 13-18	SE	Heavy s	howers 3		<150m 0	
Survey				Fresh	breeze 5	19-24	SW	Lying :		Frost	150-500m 1	
Observer		in Veal	e	Mod. g	breeze 6 ale 7	25-31 32-38	W NW	None	0	None 0	>500m 2	l
Start Time	_	8:30		Fresh : Strong		39-46 47-54	100000	On site High gro		Ground 1 All day 2	Please be as acco	urate as possible, with ntering only one figure
Finish Tir	me	5: 30		Whole	gale 10	55-63		riigii gis	Juliu E	Pul day 2	not a range, e.g. V Use notes for extr	WS - 5, not 5-6.
Sheet 1/	&[]	Maps atta	ched	Storm	11 ane 12						E.g. WS - 5, gusti	
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	, temperatu	ire)	
Hr 1	5	NU	-1	8/8	1	2	_	_	88	-		
Hr 2	4	W	1	8/8	1	2	_	_				
Hr 3	4	W	0	6/8	1	2	-	_				
Hr 4	4	NU	0	6/8	2	2	_		11°C			
Hr 5	4	NW	0	6/8	2	2	_					
Hr 6	4	NW	0	SIE	2	2		_				
Hr 7	5	W	0	3/8	2	5	_		1100			
Hr 8 Field Notes	5	W	0	3/8	2	7			1100500000			
Maps at	se only. NE	I- Logged		Databa	ase Enter	ed D	atabase \	/alidate	d GIS	Entered	GIS Val	idated
Initial AND d	late All	209900	10	In carried to			GUALINGO .	- white		Entorou	GIO Val	dated



rpagroup.com



RPS

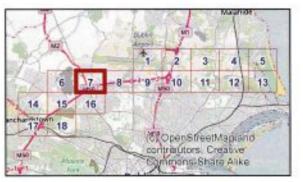
Surveyor: Niur Vella

Date: 9/11/2017

Start time: End time:

*Please attach weather sheet

Notes:



BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

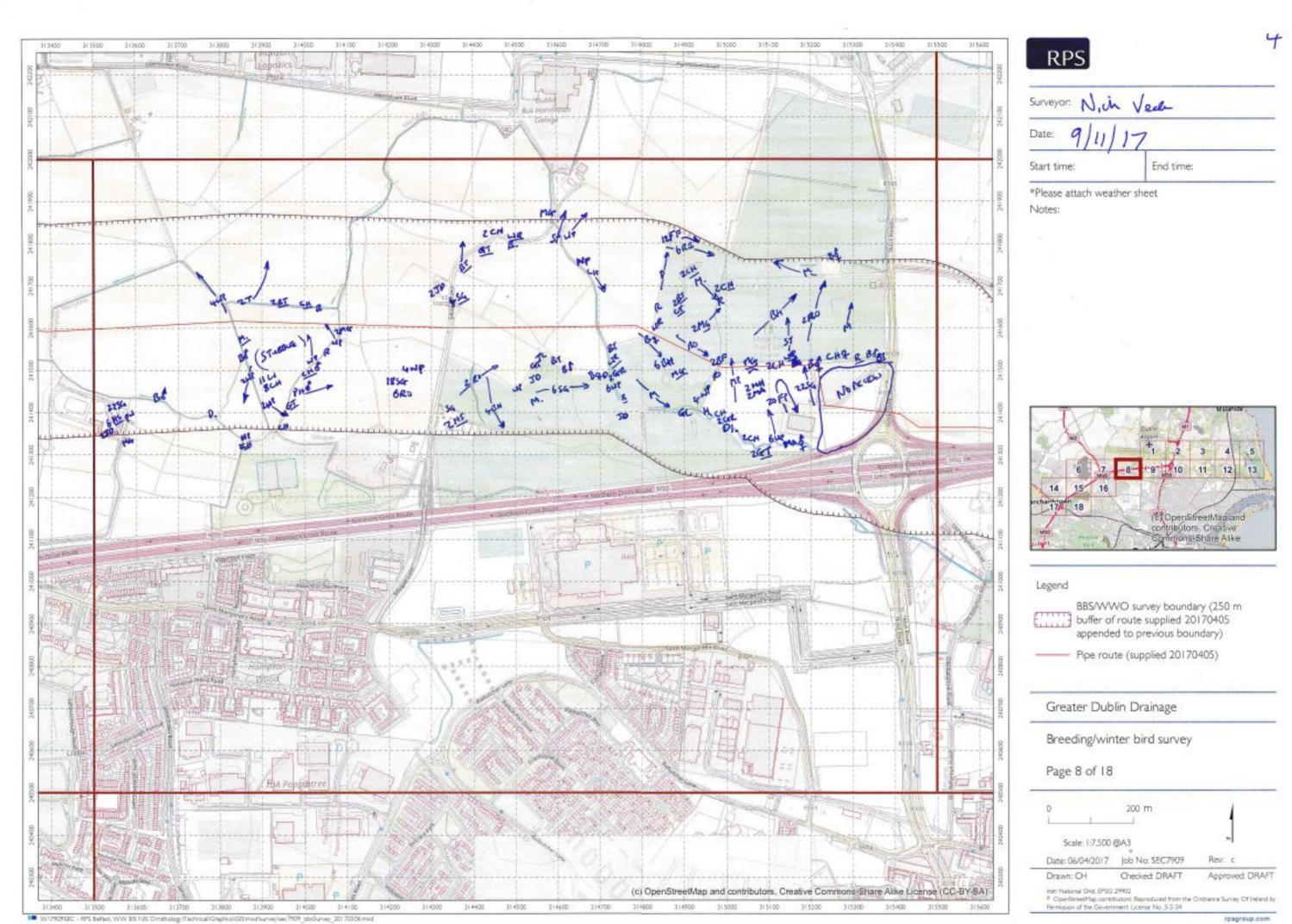
Greater Dublin Drainage

Breeding/winter bird survey

Page 7 of 18

hah National Grid, EPSG 29902.

* OpenStreet*lap contributions. Reproduced from the Ordnerce Survey Of Instand by Remassion of the Government Licetus No. 3-3-34.



RPS	w	eather Sh	eet		Speed Beaut	art Mph	Direction	Rain/S	now	Cloud Cover	Cloud Height	Visibility	
Site	G	-00		Calm Light a		1-3	N NE	None Drizzle/		In eighths e.g. 3/8	Height of cloud above average height of	Poor (<1km) 0 Moderate (1-3km) 1	
Date	13	3/11/17			breeze 3	8-12	E SE	Light sh Heavy s	howers 3		viewshed	Good (>3km) 2	
Survey	V	しいっ		Mod. b Fresh b			S SW	Lying :		Frost	<150m 0 150-500m 1		
Observer	A	1. Vede			breeze 6	25-31	W				>500m 2		
Start Time	-	8:40		Fresh	gale 8	39-46	I NW	None On site	0	None 0 Ground 1	Please be as accu	urate as possible, with	
Finish Tir		5:40		Strong Whole				High gro	ound 2	All day 2	not a range, e.g. \	ntering only one figure VS - 5, not 5-6.	
Sheet 1/		Maps atta	ched	Storm Hurrica	- 1						Use notes for extr E.g. WS - 5, gusti	a info. ng 6 [in notes].	
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	temperatur	re)		
Hr 1	3	U	0	6/8	2	2	1		1°C				
Hr 2	4	W	0	5/8	2	2	0						
Hr 3	3	يع	0	7/8	2	2	6		-,				
Hr 4	3	50	0	6/8	2	2	0		Soc				
Hr 5	3	Su	2	7/8	2	2	0						
Hr 6	3	ک	2	7/8	2	2	0		11.2				
Hr 7	4	Sa	2	8/8	1	2	0		700				
Hr 8	4	SW	2	8/8	1	2	0		700				
fr 8 Field Notes Maps att	:	SW	2	1818	1	2	0		7°C				
For office us Initial AND d boxes.	e only. NE	- Logged		Databa	se Enter	ed D	atabase \	/alidated	GIS	Entered	GIS Vali	dated	



RPS

Surveyor N. Veale End time: Start time:

*Please attach weather sheet

Notes:



Legend BBS/WWO survey boundary (250 m buffer of route supplied 20170405

appended to previous boundary) Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 9 of 18

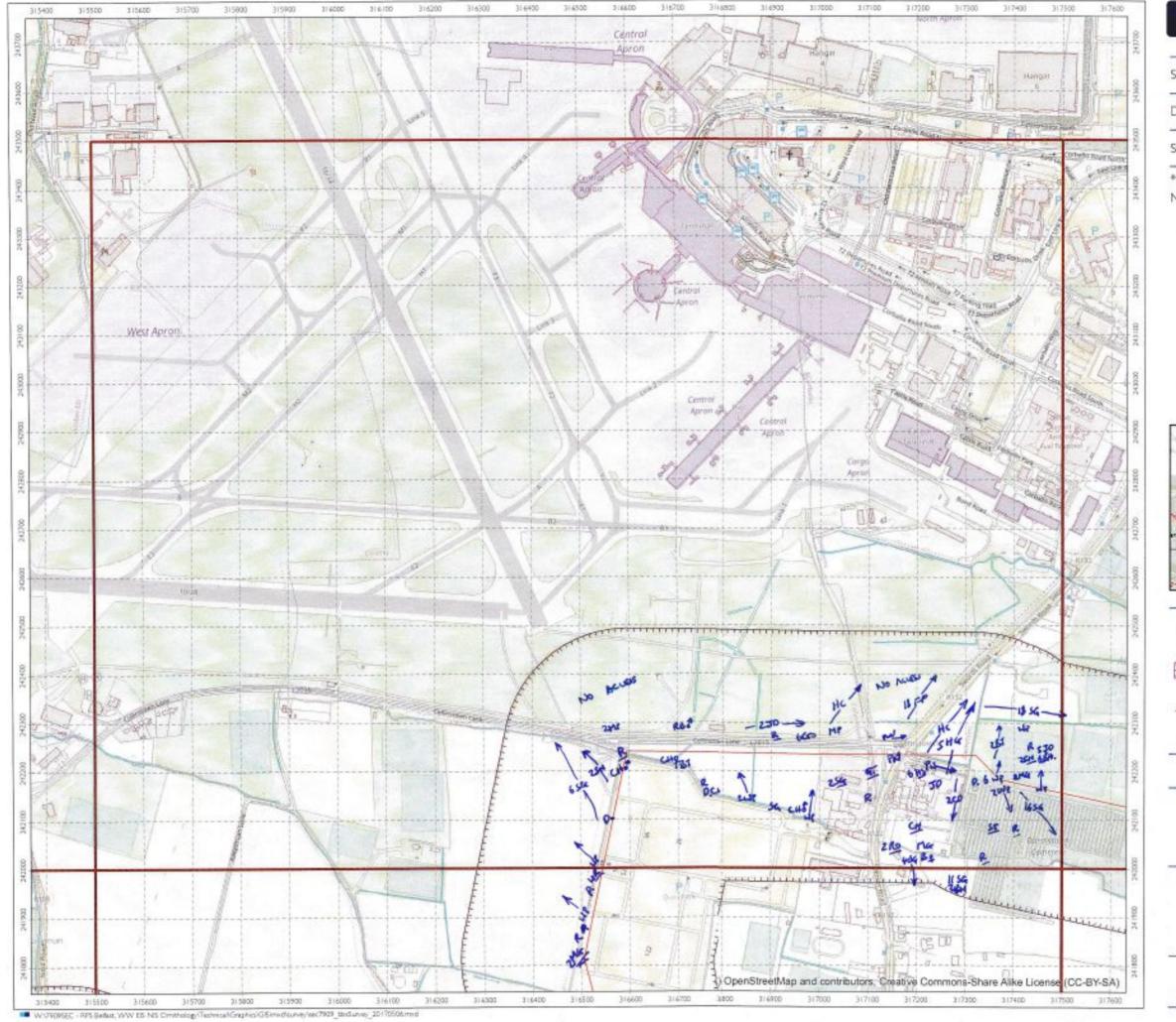
200 m Scale: 1:7,500 @A3 Date: 06/04/2017 | Job No: SEC7909 Drawn: CH

Checked: DRAFT Approved DRAFT

ligh National Grid. 975G 29903

OpenStreetHip contributors Reproduced from the Ordnatos Survey Of Inland by Permission of the Government, License No. 3-3-34

rpsgroup.com



RPS

Surveyor: N. Vecle

Start time:

End time:

*Please attach weather sheet

Notes:



Legend

BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page I of 18

200 m Scale: 1:7,500 @A3

Date: 06/04/2017 | Job No. SEC7909

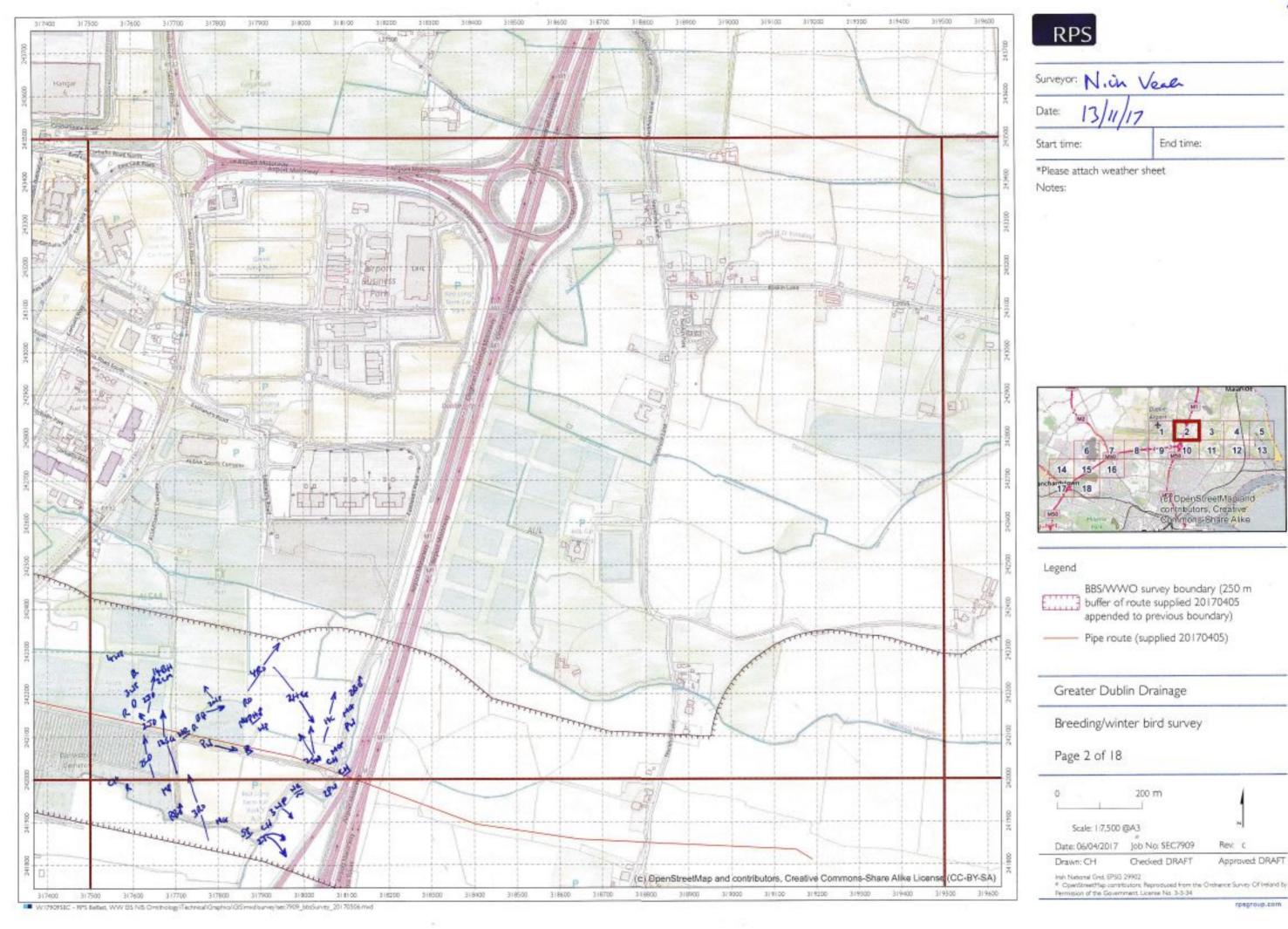
Drawn: CH Checked: DRAFT

Approved DRAFT

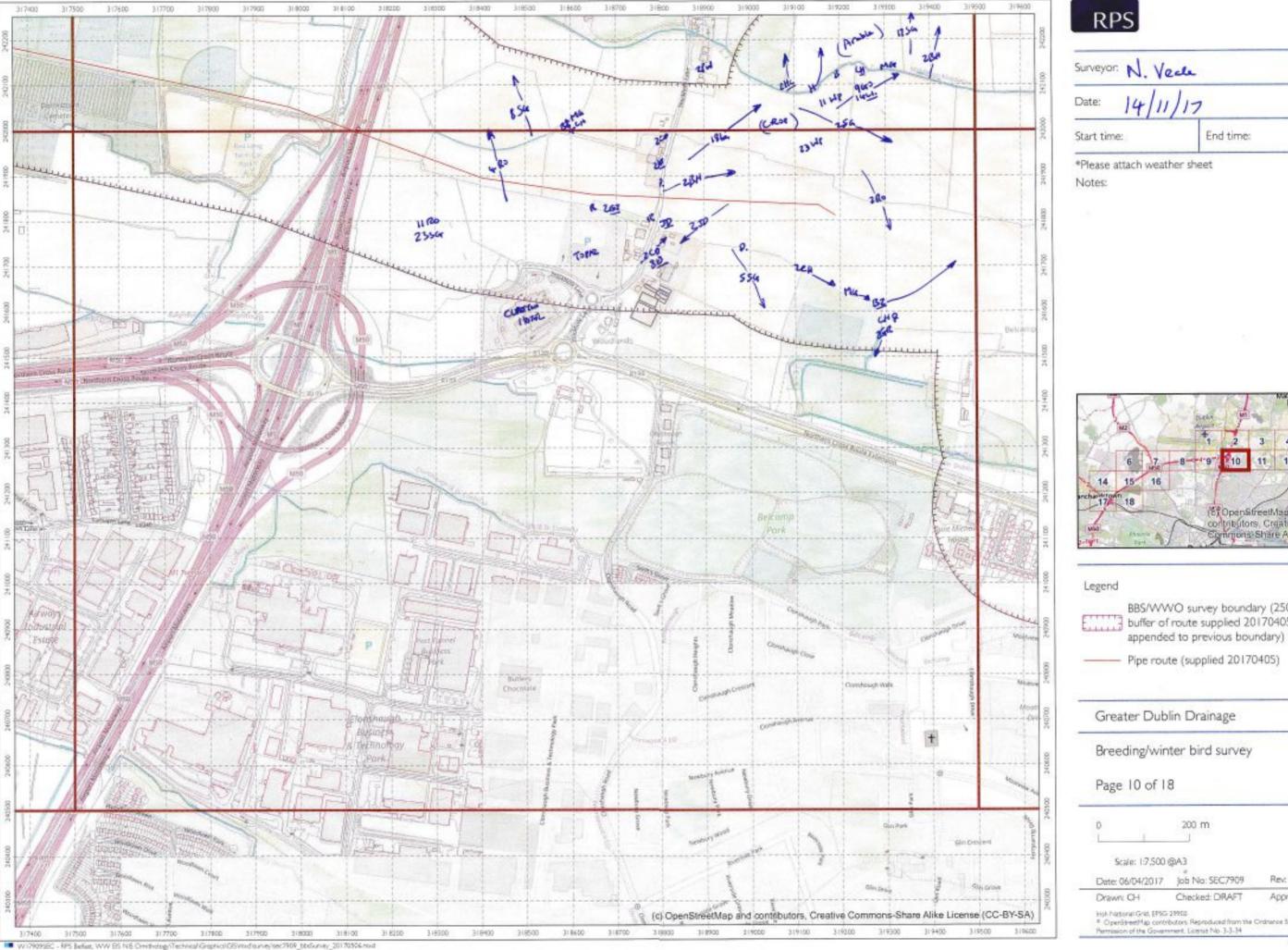
Insh National Grid, EPSG 29902.

* OpenStreetMap contributors: Reproduced from the Ordnance Survey Of Ireland by Remission of the Covernment, License No. 3-3-34.

rpsgroup.com



RPS	w	eather Sh	eet	Wind	Speed Beaute	ort Mph	Direction	Rain/Si		Cloud Cover	Cloud Height	
Site	G	00		Calm Light ai		>1 1-3	N NE	None Drizzle/		In eighths e.g. 3/8	above average	Moderate (1-3km) 1
Date	14	- 11 17	7		breeze 3	4-7 8-12	E SE	Light shi Heavy s	howers 3		viewshed	Good (>3km) 2
Survey		140		Mod. b	oreeze 5	13-18 19-24	S SW	Lying S		Frost	<150m 0 150-500m 1	
Observer	N	ul Ve	ele	Strong Mod. g	breeze 6 ale 7	25-31 32-38	NW	None	0	None	>500m 2	
Start Time	e 0	9:00		Fresh (gale 8	39-46		On site High gro	1	Ground	Please be as a weather details	ccurate as possible, with entering only one figure
Finish Tir	ne	0.00		Whole	gale 10	55-63		rigit gic	oung 2	Airuay	not a range, e.ç Use notes for e	. WS - 5, not 5-6.
Sheet 1/	&[]	Maps atta	ached	Storm	ine 1:	11.						sting 6 [in notes].
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	, tempera	ture)	
Hr 1	4	W	- 1	8/8	1	1	-		100			
Hr 2	5	U	0	8/8	t	2	_					
Hr 3	3	Su	2	5/8	2	2						
Hr 4	4	SW	0	6/8	2	2			loc			
Hr 5	4	W	0	618	2	2						
Hr 6	4	50	0	6/8	2	7 2						
Hr 7	4	SW	0	5/8	2				1200			
Hr 8	5	SW	0	418	2	2	-					
Field Notes Maps at												
For office us Initial AND of boxes.	se only. NE date <u>ALL</u>	- Logge	d	Databa	ase Enter	ed C	Database 1	Validate	d GIS	Entered	GIS V	alidated



Surveyor N. Vede End time:

*Please attach weather sheet



BBS/WWO survey boundary (250 m buffer of route supplied 20170405

Pipe route (supplied 20170405)

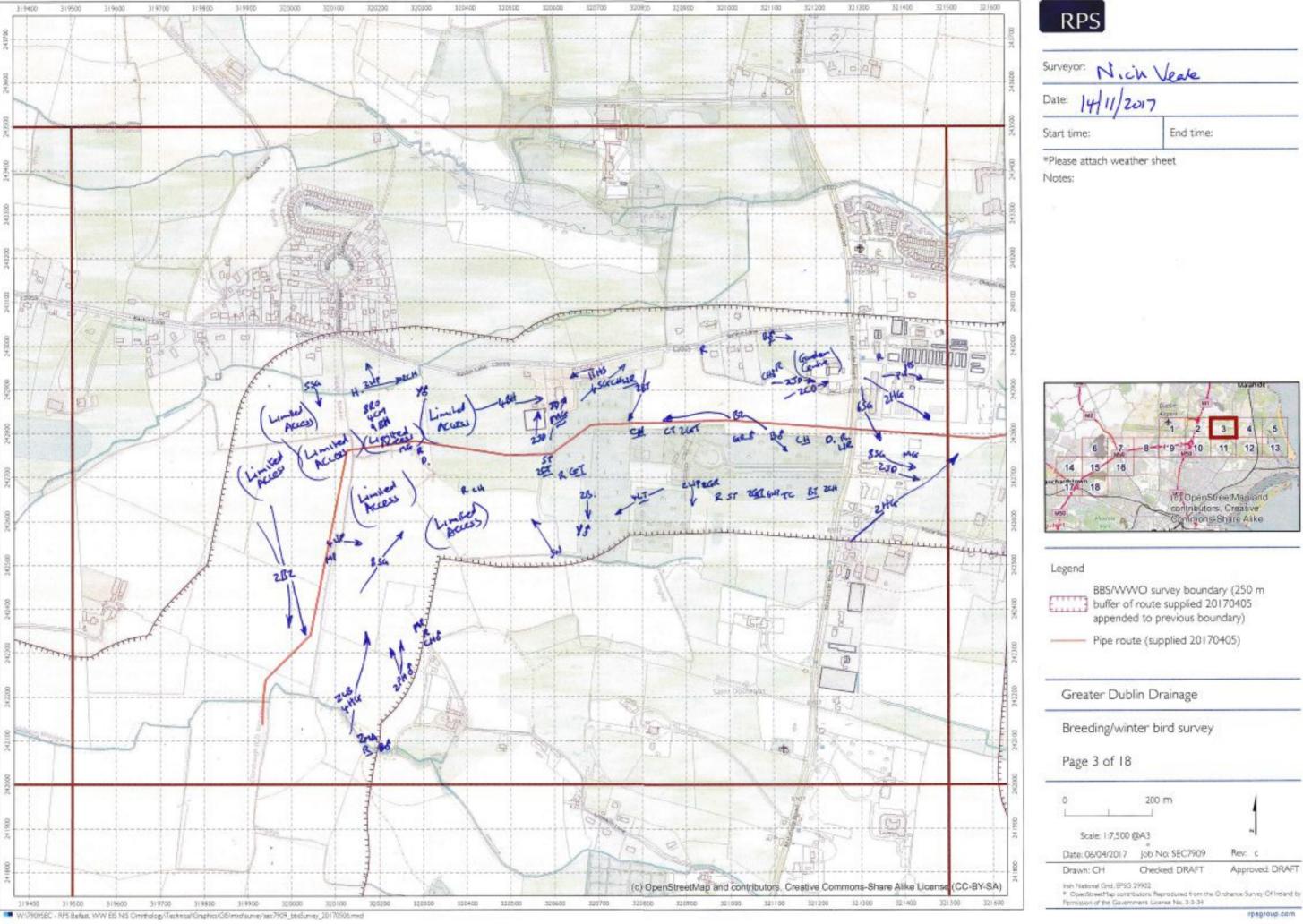
Greater Dublin Drainage

Breeding/winter bird survey

200 m Date: 06/04/2017 Job No: SEC7909

Checked: DRAFT Approved: DRAFT

OpenStreetNap contributors. Reproduced from the Ordnance Survey Of Instance by Permission of the Government. Licensis No. 3-3-34





Surveyor: N. Veale

Date: 14/11/17

Start time: End time:

*Please attach weather sheet

Notes:





BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 11 of 18

Drawn: CH Checked: DRAFT

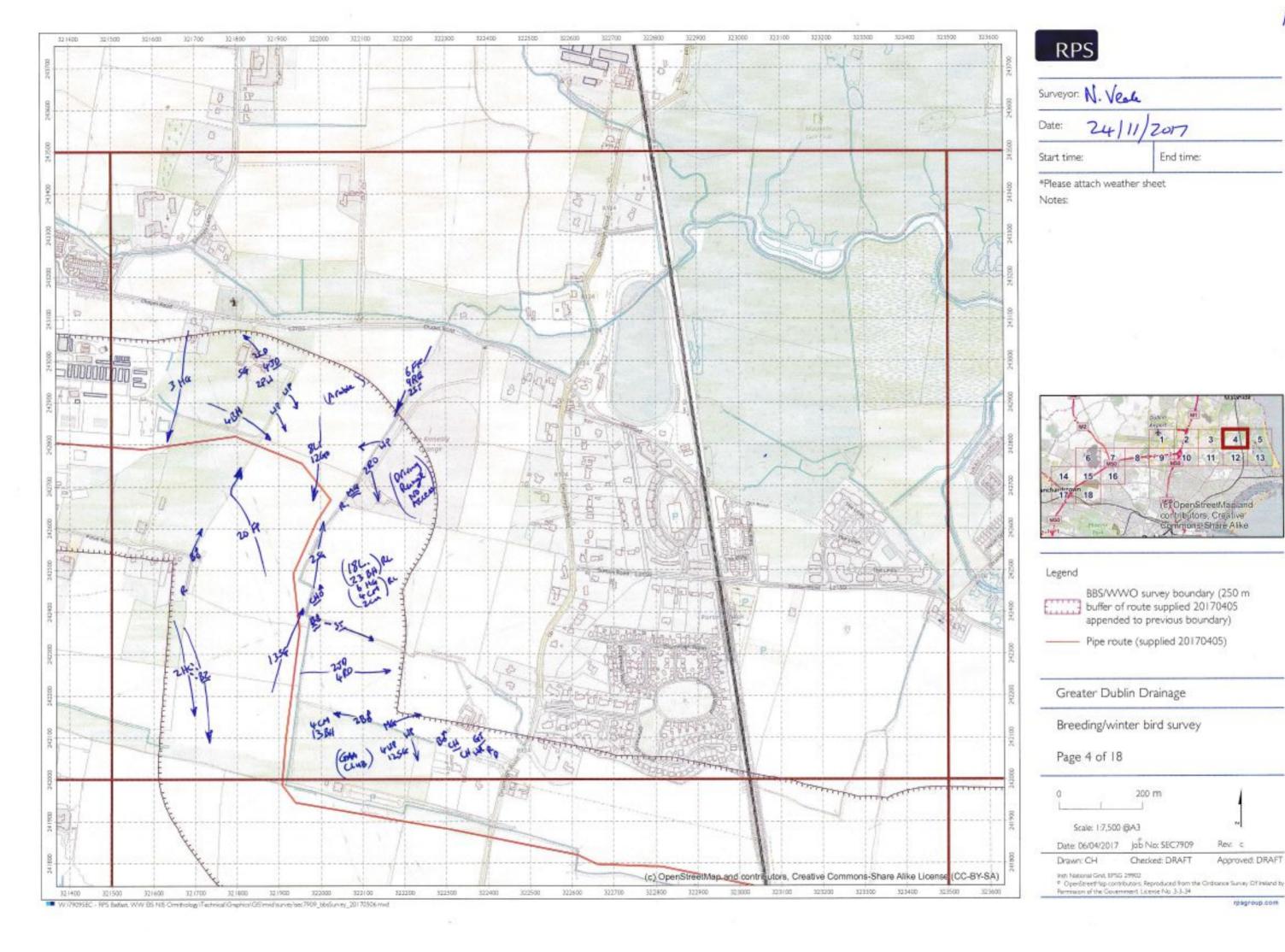
Inth National Grid. 8P9G 29902.

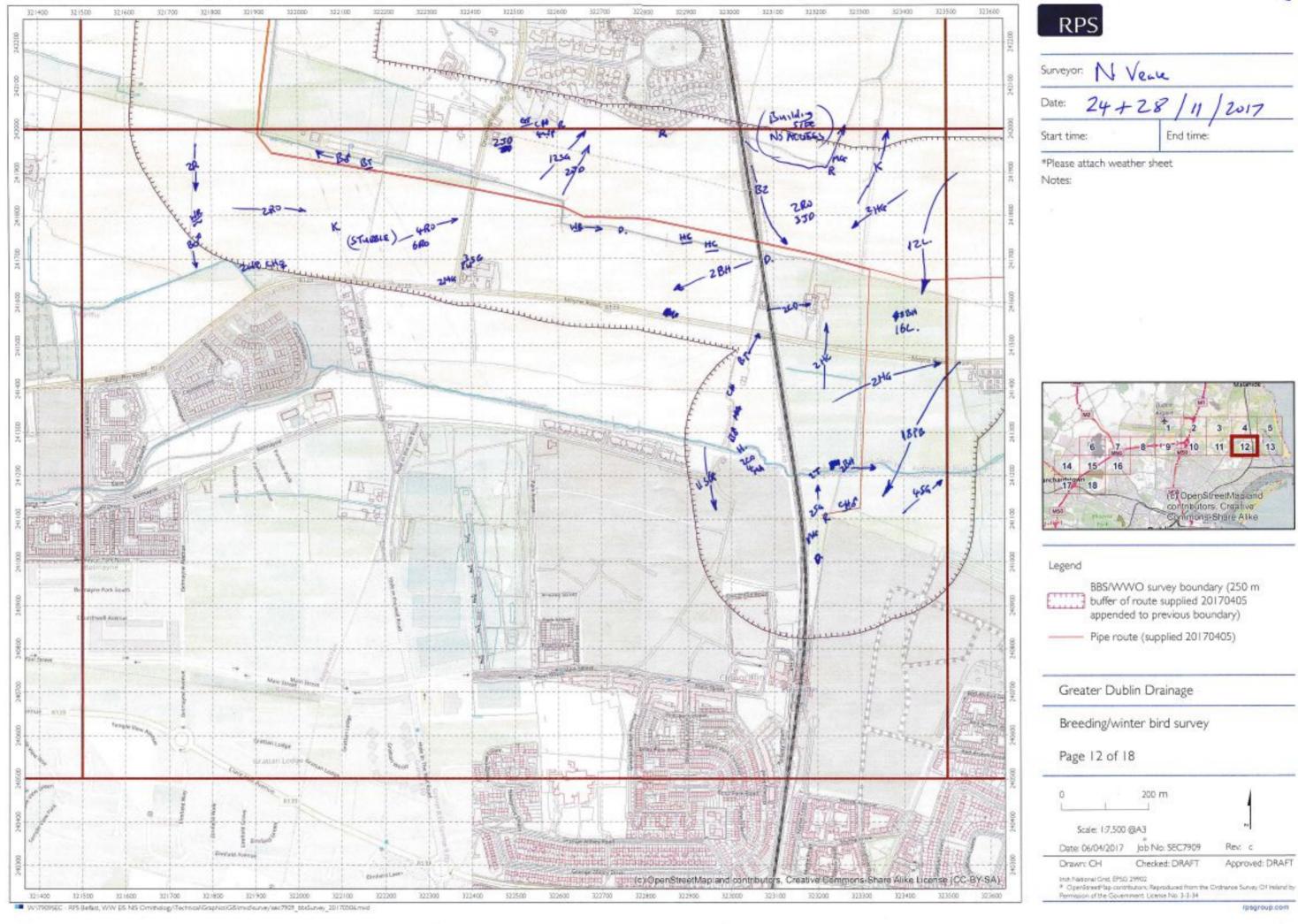
* OpenStreetMap contributors: Reproduced from the Orchance Survey Of Ireland by Permission of the Government. License No. 3-3-34.

rpagroup.com

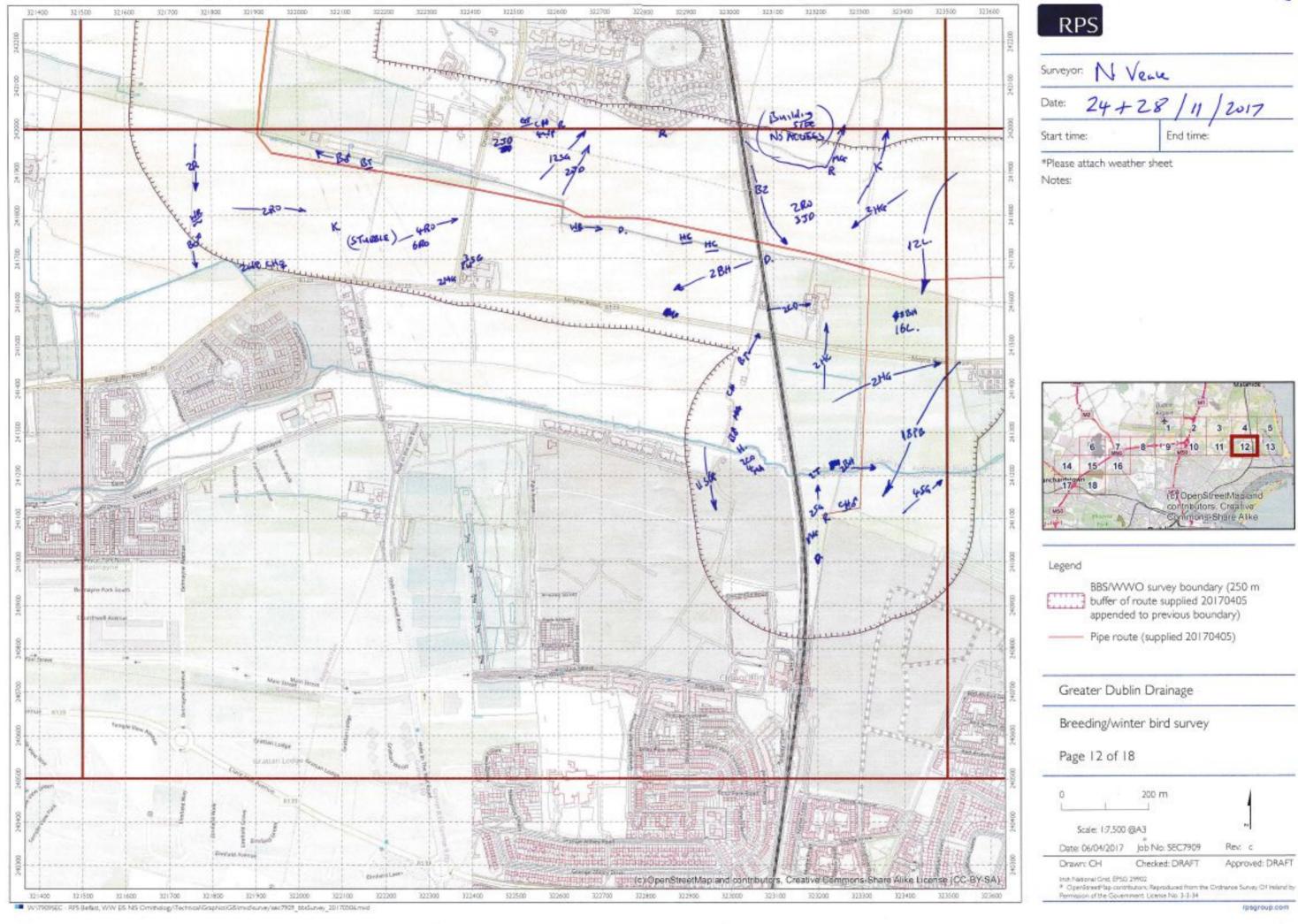


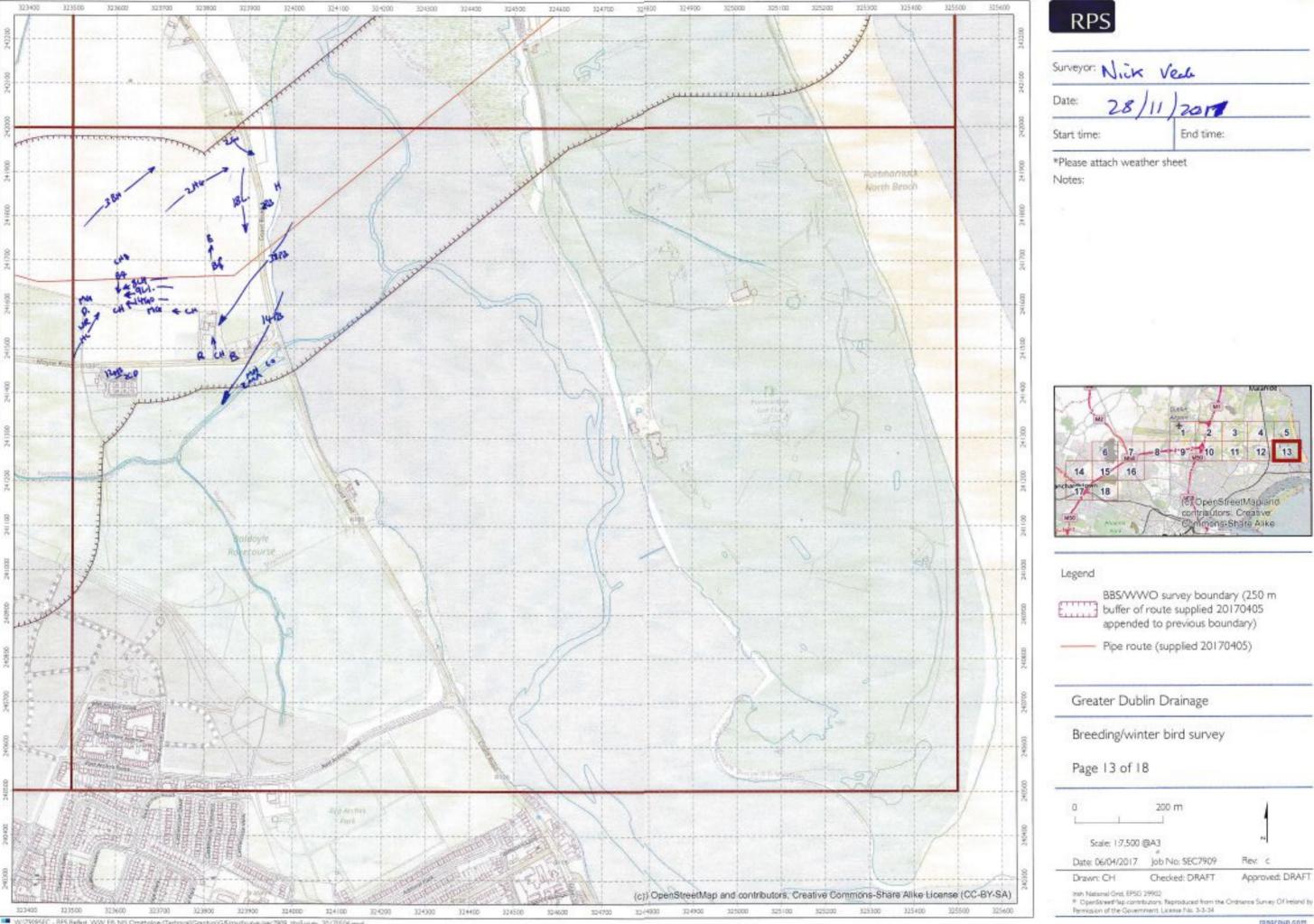
RPS	w	eather Sh	eet	Wind	Speed Beaut	ort Mph	Direction	Rain/S	now		Cloud Cover	T	Cloud Height	Visibility
Site	6	500		Calm Light ai	0 r 1		N NE	None Drizzle/I		0	In eighths e.g. 3/8	-	Height of cloud above average	Poor (<1km) (Moderate (1-3km) 1
Date		4/4/17		Light b		4-7	E SE	Light sh Heavy s	owers	2 3	0.9.00		height of viewshed	Moderate (1-3km) 1 Good (>3km) 2
Survey		VU0		Mod. b	reeze 4	13-18	S	Heavy n	ain	4			<150m 0	
Observer		Juive	0	Fresh t	breeze 5		SW W	Lying S	Snow		Frost		150-500m 1 >500m 2	
Start Time			a.b.	Mod. g	ale 7	32-38	NW	None		0	None 0	ı	Assessment and a second	rate as possible, with
	_	8:50		Fresh g Strong	gale 9	47-54		On site High gro		1 2	Ground 1 All day 2		weather details, e	ntering only one figure
Finish Tir	1	5:30		Whole	gale 1	70.00		1,500.00			3.5	-	not a range, e.g. \ Use notes for extr	a info.
Sheet 1/	&[]	Maps atta	ched	Hurrica								1	E.g. WS - 5, gusti	ng 6 [in notes].
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e	e.g.	temperatu	ıre)	
Hr 1	5	W	0	3/8	2	2	_	-	200	-				
Hr 2	5	W	0	5/8	2	2	-							
Hr3	5	W	0	5/8	2	2	_		3.0					
Hr 4	4	W	1	618	2	2	-							
Hr 5	5	W	2	6/8	2	2	_		4ºC					
Hr 6	5	W	2	6/8	2	2	_	_			30 30 50 -			
Hr 7	5	W	0	7/8	2	2	_		4ºC					
Hr 8	5	W	0	5/8	2	2								
Maps att	e only. NB	- Logged		Dataha	se Enten	ed I	atabase \	/alidated	ı lei	9 1 2	Intered		GIS Val	idated
Initial AND d	ate_ALL	Logged		Dalaba	se Elligh	ed D	alabase V	andated	, GR	o t	nierea		GIS Val	oated

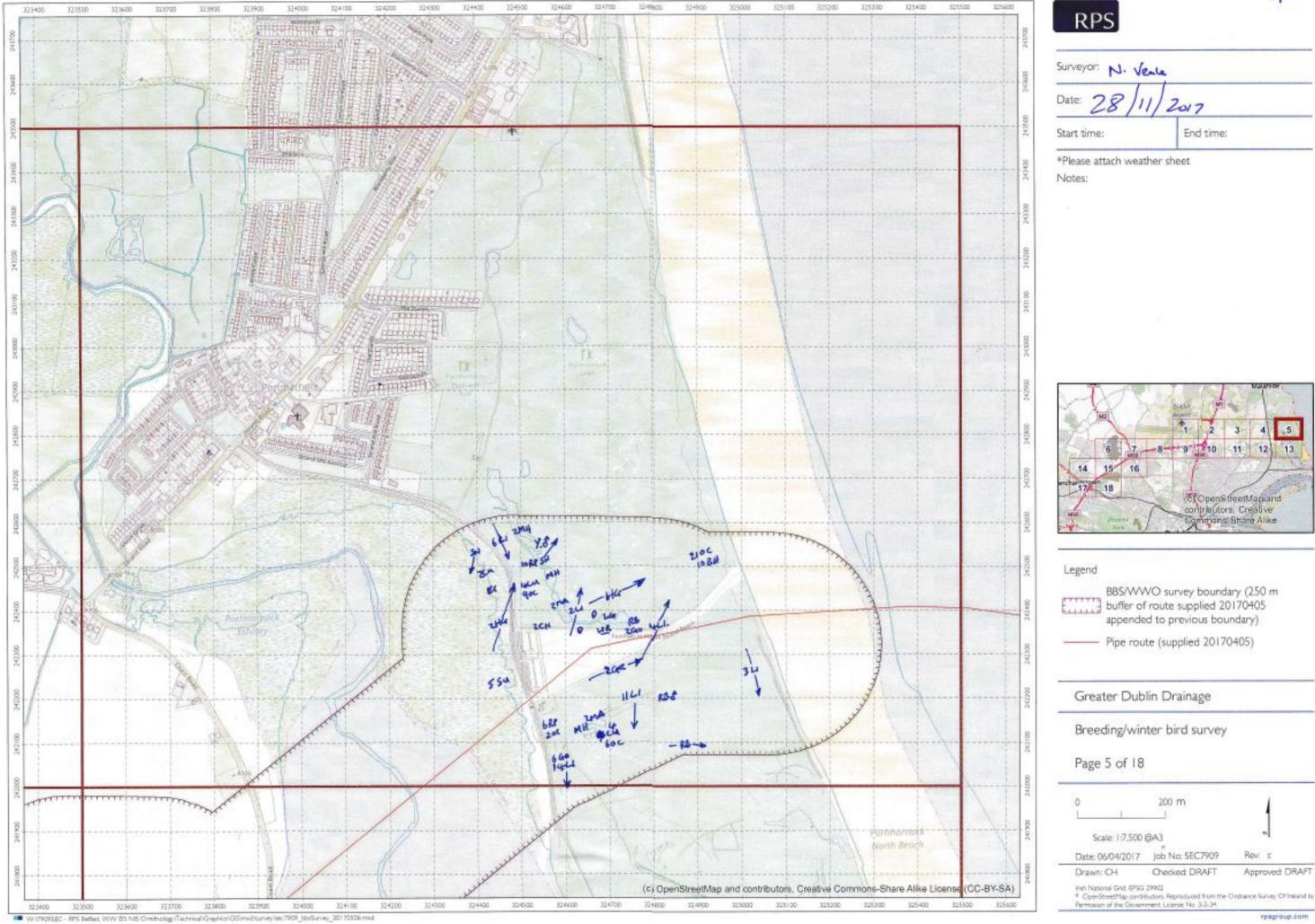




RPS	We	eather Sh	eet		Speed Beaut	ort Mph	Direction	Rain/S		Cloud Cover	Cloud Height Height of cloud	Visibility
Site Date		-00 8/11/17	,	Calm Light a Light b		1-3 4-7	N NE E SE	None Drizzle/I Light sh Heavy s	owers 2	In eighths e.g. 3/8	above average height of viewshed	Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2
Survey		SLIO		Mod. b	reeze 4	13-18	S	Heavy n	ain 4		<150m 0	
Observer	_	in Vede		Fresh to Strong	breeze 5 breeze 6		SW W	Lying S	snow	Frost	150-500m 1 >500m 2	
Start Time		in roc		Mod. g Fresh			NW	None On site	0	None 0 Ground 1	Please be as acco	urate as possible, with
Finish Tin				Strong Whole	gale 9	47-54		High gro	ound 2	All day 2	weather details, e not a range, e.g. \	ntering only one figure. WS - 5, not 5-6.
Sheet 1/		Maps atta	ched	Storm	1	1 64-72					Use notes for extr E.g. WS - 5, gusti	ra info.
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	. temperatu	re)	
Hr 1	5	NW	0	3/8	2	2	1	-	Ooc			
Hr 2	4	NW	0	3/8	2	2	- 1		100			
Hr 3	4	W	0	418	2	7	0	_	100			
Hr 4	5	U	0	3/8	2	2	0	_	200			
Hr 5	5	NW	0	2/8	2	2	0	_	3°(Guste	up to for	e 7
Hr 6	5	NJ	0	4/8	2	2	0	_	5°C	A	1	
Hr 7	5	NY	0	3/8	2	2	0	-	5°C			
Hr 8	5	NW	0	4/8	2	2	0		500			
Field Notes Maps att												
for office use only. NB- Logged nitial AND date ALL poxes.				Databa	se Enter	ed D	Database Validated			Entered	GIS Val	lidated







GDD Oral Hearing Response to Inspector's Questions

APPENDIX 6 SUMMER 2015 (APRIL AND JUNE)

The data from the April and June 2015 breeding walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

M-44529433-1 7

RRS	W	eather Sh	eet	Wind	Speed		Direction	Rain/S	Snow	Cloud Cover	Cloud Height	Visibility	
Observer Start Time Finish Time Sheet 1/ & Weather W St Hr 1 07:00 Hr 2 05:00		DP 104/201	5	100000000000000000000000000000000000000	reeze 2 breeze 3	>1 1-3 4-7 8-12	N NE E SE	None 0 Drizzle/Mist 1 Light showers 2 Heavy showers 3 Heavy rain 4		in eighths e.g. 3/8	Height of cloud above average height of viewshed	Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2	
Observer	-	reeding B		Mod. b Fresh t Strong		13-18 19-24 25-31	S SW W	Lying		Frost	150-500m 1 >500m 2		
Start Time Finish Tin	e come	3.00		Mod. g Fresh (Strong Whole Storm	gale 8 gale 9 gale 10	47-54 0 55-63 1 64-72	NW	None On site High gr		None 0 Ground 1 All day 2	Please be as accumented weather details, en not a range, e.g. V Use notes for extra E.g. WS - 5, gustin	info.	
	&[] Wind speed	Wind direction	Rain	Cloud cover	Cloud height	2 73+ Visibility	Frost	Snow	Notes(e.g	. temperatu			
Hr 1 07:00	2	SW	0	6/8	2	2	0	0	6°C				
A STATE OF THE PARTY OF THE PAR	3	SU	0	6/8	2	2	0	0	8°C				
Hr 30900		W	1	8/8	2	1	0	0	8.0				
Hr 4 15000	#2	W	0	8/8	2	2	0	0	9°C				
Hr 5)1:00	3	W	0	8/8	2	2	0	0	1100	1211		100	
Hr 6/2:00	2	W	2	8/8	2	2	0	0	1100				
		Maria Caracteria		100 00 100 100									

Field Notes: Maps attached

Hr 7 Hr 8

For office use only. NB- Initial AND date ALL boxes.	Logged	Database Entered	Database Validated	GIS Entered	GIS Validated	
--	--------	------------------	--------------------	-------------	---------------	--





Surveyor Nick Vecle 12015 End time: 13'.00 Start time: 07.00 *Please attach weather sheet

Notes:

> Transact route

1 * Dipper Nest Active (under bridge) 2 * Digger Nest Acrise (under bridge)

8 3 * Kinggishar Nest (Adult seen going in + and)



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 17 of 18

200 m Scale: 1.7,500 (0A3 Date: 20/04/2015 |ob No: SEC7909 Drawn: CH Checked DRAFT Approved DRAFT

OpenStreetTrip contributors, Reproduced from the Onthance Survey Of Inland by Permasses of the Government, Lotens No. 3-3-34

Site (Date Survey Observer Start Time		DO O4 20 reeding 8	15	Beaufort Mph Caim 0 >1 Light air 1 1-3 Light breeze 2 4-7 Gentle breeze 3 8-12 Mod. breeze 4 13-18 Fresh breeze 5 19-24 Strong breeze 6 25-31 Mod. gale 7 32-38 Fresh gale 8 39-46 Strong gale 9 47-54 Whole gale 10 55-63 Storm 11 64-72 Hurricane 12 73+			N None NE Drizzle/Mist E Light showers SE Heavy showers S Heavy rain SW Lying Snow W NW None			Cloud Cover In eighths e.g. 3/8 Frost None 0	Cloud Height Height of cloud above average height of viewshed <150m 0 150-500m 1 >500m 2	Height of cloud above average height of viewshed <150m 0 150-500m 1	
		6:50 C:50 Maps atta	ched					On site 1 High ground 2		Ground 1 All day 2	weather details, entering only one figure not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes].		
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	. temperatu	ire)	14	
Hr 1 0650	2	E	0	7/8	2	2	0	0	4°C	BURGER	Cincipal Con		
Hr 20750	3		0	718	2	2	0	0	7°C	2.31.20	100 100		
Hr 3 08.50	3	THE	0	618	2	2	0	0	7°C				
Hr 409:50	3	E	0	5/8	2	2	0	0	9°C	Y TELL			
Hr 510:50	3	E	0	5/8	2	2	0	0	10°C				
Hr 6 11:50	4	E	0	5/8	2	2	0	0	10°C				
Hr 7 12.50				-	1		-						
Hr 8						March .							
Field Notes: Maps atta													
For office use Initial AND da boxes.		Logged		Databa	se Enter	ed D	atabase V	alidated	GIS	Entered	GIS Val	idated	





Surveyor: Nick Veale

Date: 186/04/2015

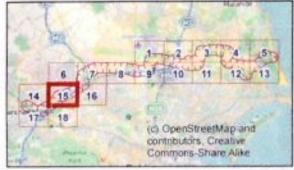
Start time: 606:50 End time: 12:50

*Please attach weather sheet

Notes:

HY Transect Vonte





Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 15 of 18

O 200 m

Scale: 1-7,500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev. a

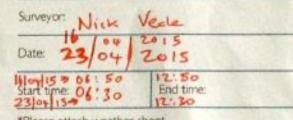
Drawn: CH Checked: DRAFT Approved: DRAFT Insh National Grid. EPSO 29902

* OpenStreet*Lap contributors: Reproduced their the Originance Survey Of Instend by Permission of the Government. License No. 3-3-34

rpagroup.com

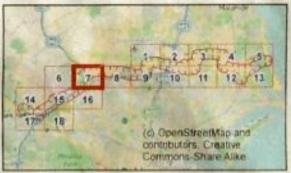






*Please attach weather sheet Notes

+> Transect Routes



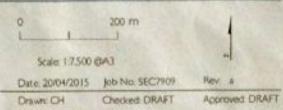
Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 7 of 18



sen National Ond, USG 29902 * Opinithrenthap contributors, Reproduced from the Children's Survey Of Ireland to Permation of the Government Literate No. 3.3-34

градгоцу сот

RPS Site Date Survey Observer	G 2 B	DD 3/04/2 ceding B	o 15	Mod. bi	Beauf 0 r 1 reeze 2 breeze 3 reeze 4	>1 1-3 4-7 8-12 13-18 19-24	Direction N NE E SE S SW W	None 0 Drizzle/Mist 1 Light showers 2 Heavy showers 3 Heavy rain 4 Lying Snow		Cloud Cover In eighths e.g. 3/8	Cloud Height Height of cloud above average height of viewshed <150m 0 150-500m 1 >500m 2	Visibility Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2
Start Time	0	6:30	Mod. gi Fresh g Strong Whole Storm	gale 8 gale 9	39-46 47-54 0 55-63	6 On site 4 High ground			None 0 Ground 1 All day 2	weather details, er not a range, e.g. V Use notes for extra	a info.	
Sheet 1/	&[]	Maps atta	ched	Hurrica	ne 1	2 73+					E.g. WS - 5, gustin	ng 6 [in notes].
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g.	. temperatu	re)	
Hr 1 06:30	0	/	0	0/8	2	2	0	0	8°C			
Hr 207.30	0	-	0	0/8	2	2	9	0	10°C			
Hr 3085	1	SE	0	0/8	2	2	0	0	13°C			
Hr 404:30	1	SE	D	1/8	2	2	0	0	16°C	Miles		
Hr 516.30	1	SE	0	1/8	2	2	0	0	11,0			
Hr 611:30	1	SE	0	1/8	2	2	0	0	17°C			
Hr 7 12:30	2	5	0	1000	2	2			18°C			
Hr 8	2	5	0									
Field Notes: Maps att												
For office use	only. NB-	Logged		Databa	se Enter	ed Da	atabase V	/alidated	GIS I	Entered	GIS Val	idated



Surveyor Nick Veale

Start time: 06:30

End time

*Please attach weather sheet

Notes:

Left numerous messeges, No



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 8 of 18

200 m

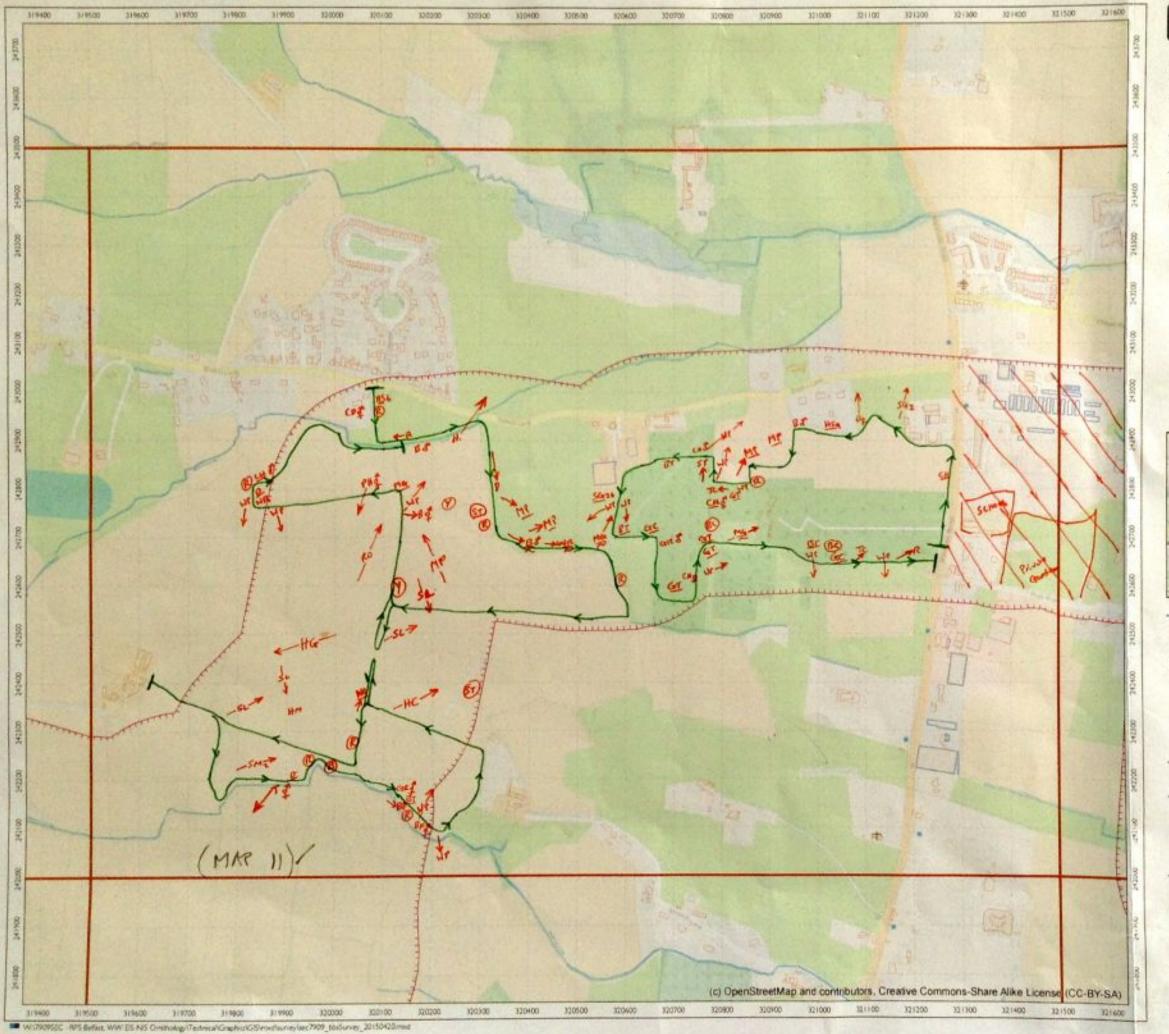
Scale: 17,500 @A3

Date: 20/04/2015 Job No: SEC7909 Approved DRAFT Drawn: CH Checked: DRAFT

Fron National Grid. (1955-29902)

* OpenStreetHip: contributors, Reproduced from the Dicharice Survey Of Instand by Permission of the Government, Science No. 3-3-34

Site Date Survey		eather She	کاه	Mod. b	Beauf 0 r 1 reeze 2 breeze 3 reeze 4	>1 1-3 4-7 8-12 13-18 19-24	1 N -3 NE -7 E -12 SE 3-18 S 9-24 SW		owist 1 owers 2 howers 3 ain 4	Cloud Cover in eighths e.g. 3/8	Cloud Height Height of cloud above average height of viewshed <150m 0 150-500m 1 >500m 2	Visibility Poor (<1km) 0 Moderate (1-3km) 1 Good (>3km) 2
Start Time		. Veala		Mod. g. Fresh g	ale 7 pale 8	39-46	NW	None On site	0 1 ound 2	None 0 Ground 1 All day 2	weather details, e	urate as possible, with intering only one figure,
Finish Tin	TOTAL STREET	2:30	Strong gale 9 47-54 Whole gale 10 55-63 Storm 11 64-72			High ground			2 All day 2	not a range. e.g. WS - 5, not 5-6. Use notes for extra info.		
Sheet 1/		Maps atta	ched	Storm Hurrica		COUNTY OF STREET	To the last				E.g. WS - 5, gusti	ng 6 (in notes).
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g.	. temperatur	re)	
Hr 10630	3	W	0	3/8	2	2	0	0	5°C			
Hr 207.50	4	W	0	3/8	2	2	0	0	1°C			
Hr 308:30	4	SW	0	4/8	2	2	0	0	8°C			
Hr 409:30	3	SW	0	2/8	2	2	0	0	10°C			
Hr 510:30	3	SW	0	2/8	2	2	0	0	120			
Hr 611:30	2	SE	0	2/8	2	2	0	0	13'C			
Hr 7												
Hr 8												
Field Notes Maps att												
For office us Initial AND di boxes.	e only. NB	Logged		Databa	se Enter	ed D	atabase \	Validate	d GIS	Entered	GIS Va	lidated



RPS

Surveyor: Nich Veale

Date: 24/04/2015

Start time: End time:

*Please attach weather sheet

Notes:

-> Transcet Route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 3 of 18

0 200 m L L J Scale 1.7.500 @A3 #1

Drawn CH Checked: DRAFT

tish National Ond, EPSC 29902.

© OpenStreetMap contributions Reproduced from the Ordneroe Sorvey Of Instant by Permisson of the Government, License No. 3-3-34.

Approved DRAFT



RPS

surveyor Nian Vecle 24/04/2015 End time: Start time:

*Please attach weather sheet

Notes:



BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 4 of 18

200 m Scale: 1:7,500 @A3 Date: 20/04/2015 Job No: SEC7909 Drawn: CH Checked DRAFT Approved DRAFT

Inch National Grid, EPSC 2990).

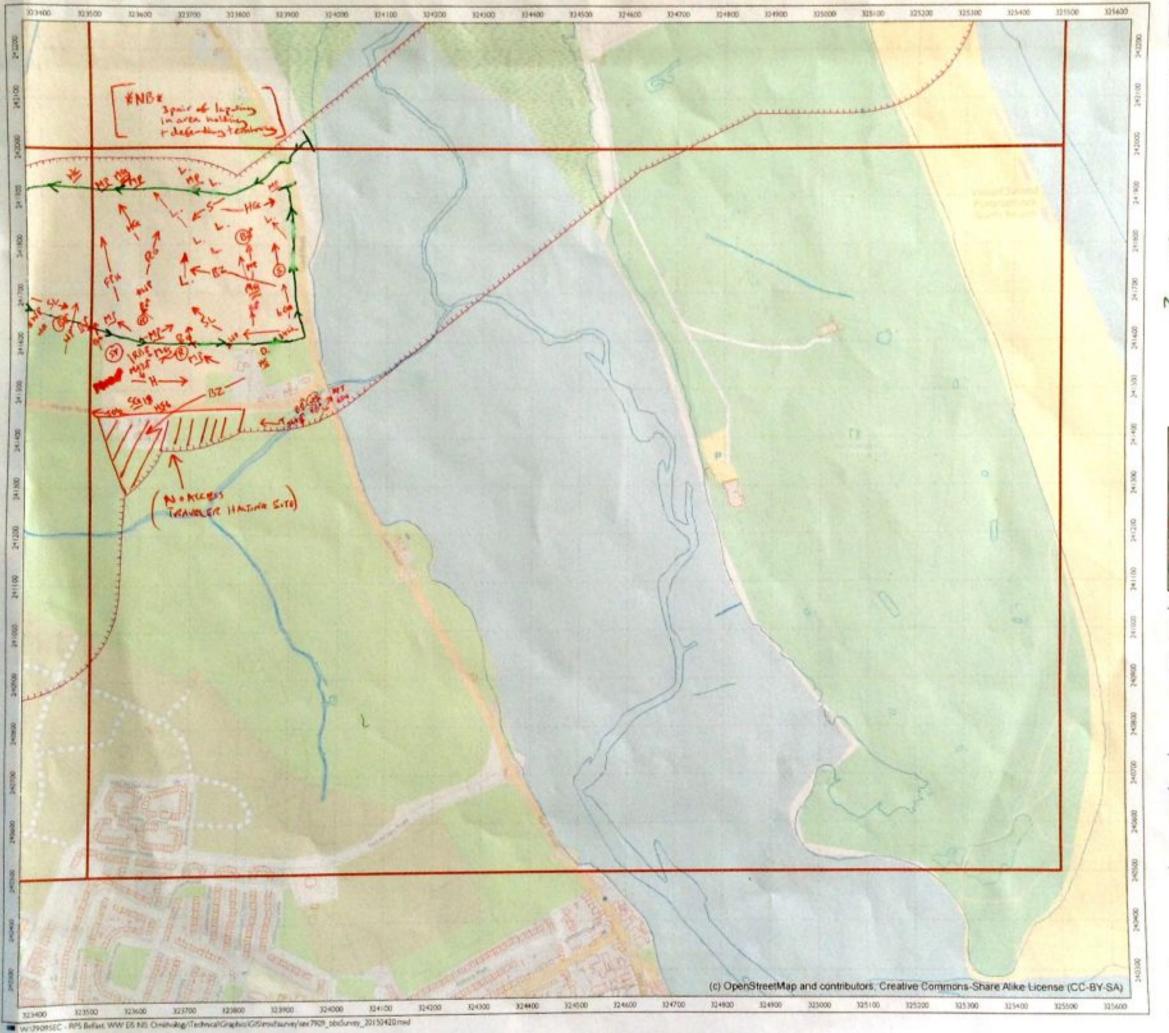
* OpenStreet*ap contribution. Reproduced from the Ordnance Survey Ciff Instend by Perroscop of the Government, License No. 3-3-34.

RPS	We	ather She	eet	Wind S	Beaufo		Direction	Rain/Si		Cloud Cover	Cloud Height Visibility Height of cloud Poor (<1km)	
Date 2.7 Survey CBS Observer No.6 Start Time 06 Finish Time 12		7/04/2 5 Halu	overs	Calm Light air Light br Gentle I Mod. br Fresh b Strong	eeze 2 breeze 3 eeze 4 reeze 5	>1 1-3 4-7 8-12 13-18 19-24 25-31	N None NE Drizzle/Mist E Light showers SE Heavy showers S Heavy rain SW Lying Snow			0 in eighths 1 e.g. 3/8 2 3 4 Frost	above average height of viewshed <150m 0 150-500m 1 >500m 2	Moderate (1-3km) 1 Good (>3km) 2
		:32 :32 Maps atta		Mod. ga Fresh g Strong Whole g Storm Hurrica	ale 7 jale 8 gale 9 gale 10	32-38 39-46 47-54 0 55-63 1 64-72	NW	None On site High gro	0 1 nund 2	None 0 Ground 1 All day 2	Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes].	
Weather	Wind	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	. temperatur	re)	
Hr 1	3	Sw	0	2/8	2	2	0	0	3° (Maxin A.		
Hr 2	4	U	O	3/8	2	2	0	0	4°C	N COST	tipes III	
Hr 3	5	W	2	4/8	2	2	0	0	700			
Hr 4	5	L	0	4/8	2	2	0	0	7°C			
Hr 5	4	W	0	5/8	2	2	0	0	lo°c			
Hr 6	4	W	23	5/8	2	1	0	0	10°C			
Hr 7											Note - Orași	First Warre
Hr 8												
Field Notes Maps at												
For office us Initial AND d boxes.		Logged		Databa	se Enter	ed D	atabase \	/alidated	GIS	Entered	GIS Va	lidated



Access: Eleine Quina Portmaronke Galf links

reagroup.com



Surveyor Nick Vecle End time: 12:32 Start time: 06:32

*Please attach weather sheet

Notes:

NB Transect continued on Man



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 13 of 18

200 m Scale: 1.7500 @A3

Date: 20/04/2015 Job No: SEC7909 Approved DRAFT Drawn: CH Checked DRAFT

tesh Neconal Gnd, EPSG 29902.

* OpenStreetMap contributors, Reproduced from the Ordnance Survey Of Ireland by Permission of the Gloyenmens, Uceroe No. 3-3-34.





Surveyor Nick Vede

Date: 27/04/2015

Start time: 06:32

End time: 12:32

*Please attach weather sheet

Notes

Transect Route



No Access Security Ferring observences from outside perimeter



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 12 of 18

200 m Scale: 1:7,500 @A3

Date: 20/04/2015 Job No: SEC7909

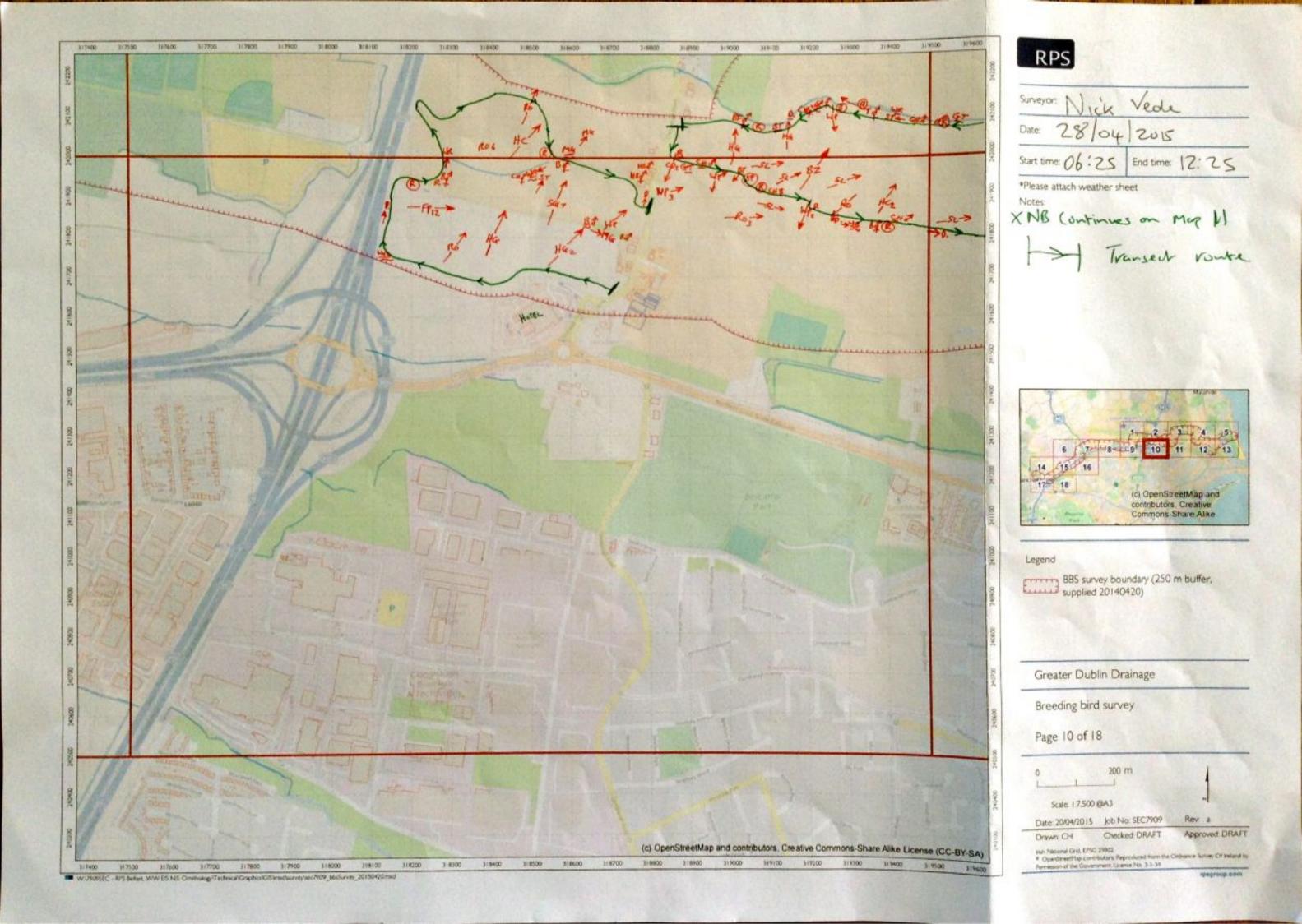
Approved: DRAFT

Drawn: OH Checked DRAFT

insh National Grid, EPSG 29900.

* OpenStreetHap contributions Reproduced from the Ordnance Survey Of Instand by Remassion of the Government, License No. 3-3-34.

RPS		ather She	eet	Wind	Speed Beauf	ort Mph	Direction	Rain/S	now	Cloud Cover	Height of cloud Poor (+1)	Visibility Poor (<1km) 0	
Site Date	28	00 104/201		Light a	r 1 reeze 2 breeze 3	1-3 4-7 8-12	NE E SE	Drizzle/Mist 1 Light showers 2 Heavy showers 3 Heavy rain 4		e.g. 3/8	above average height of viewshed <150m 0 150-500m 1	Moderate (1-3km) 1 Good (>3km) 2	
Observer Nice Start Time Ob		RO JACK	CONER	Fresh I	preeze 5	ALCOHOLD TO THE REAL PROPERTY.	S SW	Lying S		Frost		1/900	
		ck Ved	u	Strong Mod. g	breeze 6 ale 7	25-31 32-38	W NW	None	0	None 0	>500m 2		
		:25		Fresh	gale 8	39-46		On site	1	Ground 1	Please be as accurate as possible, with weather details, entering only one figure,		
		: 25		Strong Whole	gale 1	0 55-63	High ground 2			All day 2	not a range, e.g. WS - 5, not 5-6. Use notes for extra info.		
Sheet 1/	&[]	Maps atta	ched	Storm	ne 1:		100			1317	E.g. WS - 5, gusting 6 [in notes].		
Weather	Wind speed	Wind direction	Rain	Cloud	Cloud height	Visibility	Frost	Snow	Notes(e.g	. temperatu	re)		
Hr 1	3	WSU	0	1/8	2	2	1	0	10 C				
Hr 2	4	USW	0	1/8	2	2	0	0	30€				
Hr 3	4	W	0	2/8	2	2	0	0	600		di tili ini		
Hr 4	4	W	0	418	2	2	0	0	7°c				
Hr 5	4	U	0	4/4	2	2	0	0	9°6				
Hr 6	4	W	2	5/8	2	2	0	0	9°6				
Hr 7													
Hr 8 Field Notes											-		
Maps att	lached												
For office use only. NB- Initial AND date ALL boxes.		Logged		Database Entered			atabase \	/alidated	GIS	Entered	GIS Validated		





Surveyor Nich Vede Date: 28/04/2015 Start time: 66:25 End time: 12:25 *Please attach weather sheet

XNB Continued from Map 10



Legend

BBS survey boundary (250 m buffer. supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 11 of 18

Scale: 17,500 @A3

Date: 20/04/2015 Job No: SEC7909 Approved DRAFT

Drawn, CH Checked DRAFT

Insh National Onc. £190 19902.

* OpenSmeathsp contributors Reproduced from the Circhards Survey Of Instand by Permission of the Covernment License No. 3-3-34.

rpegroup.com



RPS

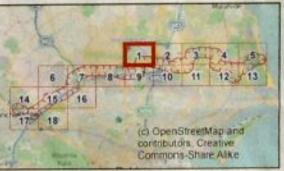
Surveyor N. VEALE

Date: 28/04/2015

End time: 17:25 Start time: 06: 25

*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page I of 18

Scale: 1.7500 @A3 Date: 20/04/2015 Job No: SEC7909

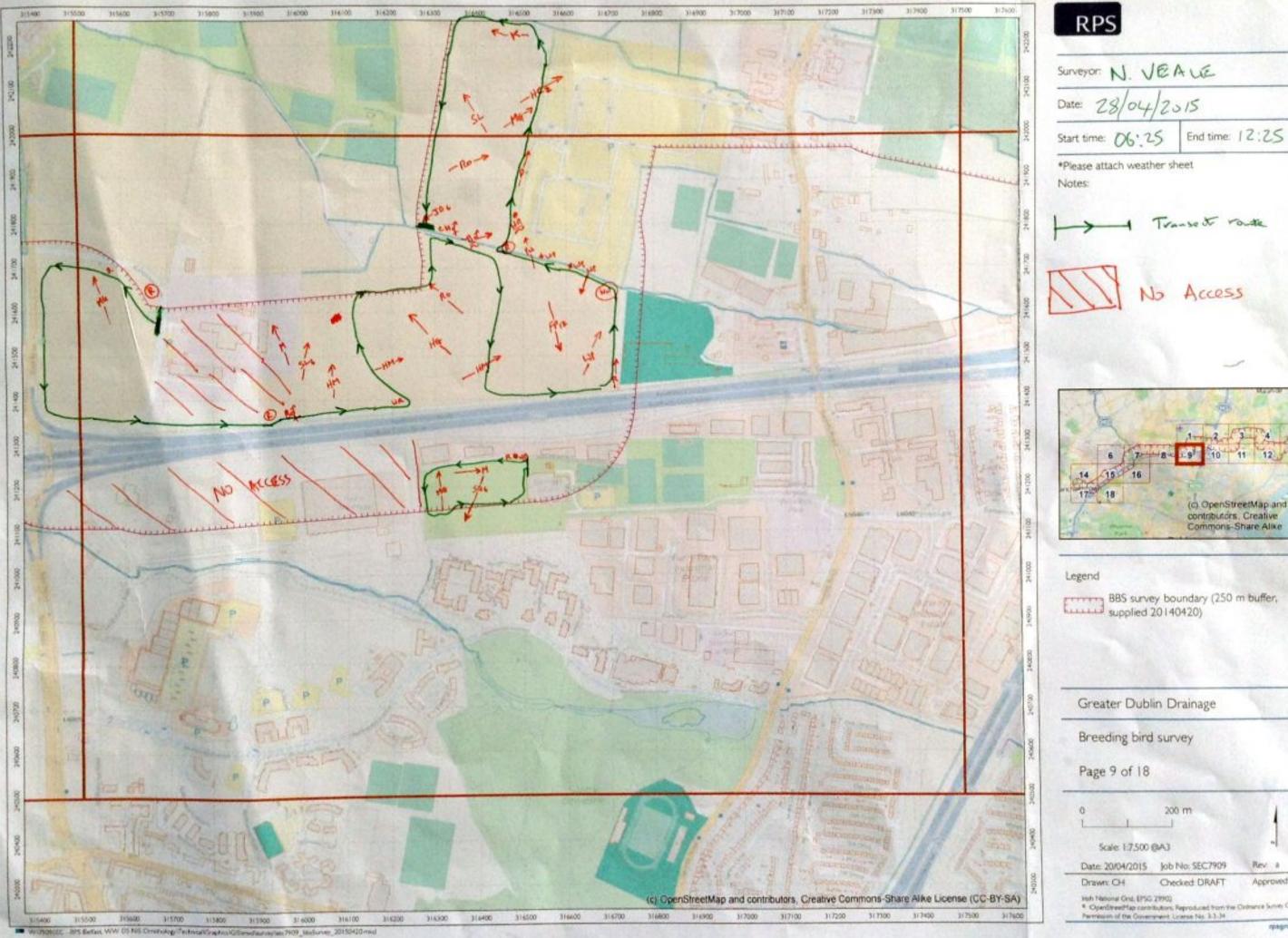
Drawn: OH Checked DRAFT

#sh National Grid, IPSG 19903.

* Opending Pilip completions: Reproduced from the Ordnance Survey Of Ferral to Permassion of the Cover-mont, Europe No. 3-3-34.

rpagroup.com

Approved DRAFT



Surveyor N. VEAUE

Date: 28/04/2015

*Please attach weather sheet





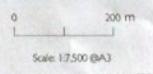


BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 9 of 18



Date: 20/04/2015 Job No: SEC7909 Drawn OH Checked DRAFT Approved DRAFT

Irsh National Grid, \$75G 27902

CopenStreetHap contributions, Reproduced from the Ordnance Survey Of reland to Permission of the Government Lineau No. 3-3-34

rpagroup.com



Surveyor N. VEALIE Date: 28/04/2015

Start time: 06:25

End time: 12:25

*Please attach weather sheet

Notes:

XNB * Transents Cross Maps 1+2



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 2 of 18

200 m Scale: 17,500 @A3 Date: 20/04/2015 Job No. SEC7909 Approved DRAFT Drawn: CH Checked DRAFT

Inch National Grid, EPSG 1990.

* OpenStreetHap contribution: Reproduced from the Onthwice Surrey Of Ireland by Permission of the Government License No. 3-3-34

rpagroup.com



RPS

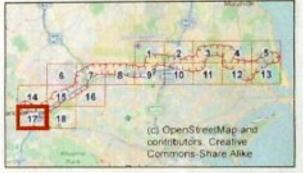
Surveyor Nick Vence Date: 02/06/2015 End time: Start time: 05:40

*Please attach weather sheet

Transect Route

* Dipper nests apear emply at least 2 adult birds near Bridge With 3 Juv.

* Kingsher seen but not near nest sife recorded in April.

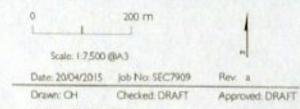


BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

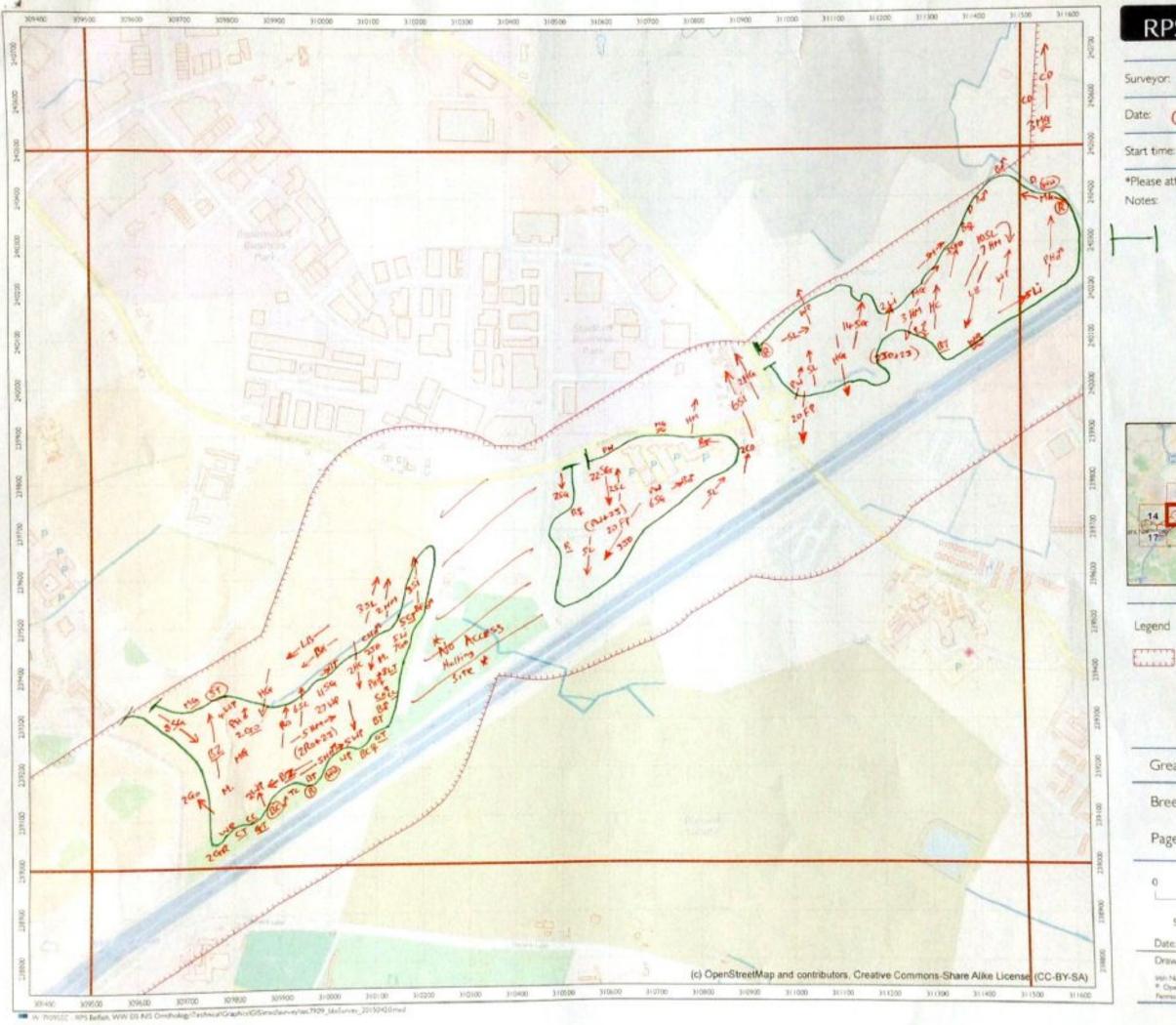
Page 17 of 18



His Nacional Cris, EPSC 29903.

4. OpenSheetHisp contributors. Reproduced from the Certifiance Survey Offeecand by Particulation of the Government, License Not. 3-3-34.

riprigroup, com



Surveyor Nick Vecle Date: 03/06/2015 Start time: 05:45 End time: 11:45

*Please attach weather sheet

Transect Voute



BBS survey boundary (250 m buffer. supplied 20140420)

Greater Dublin Drainage

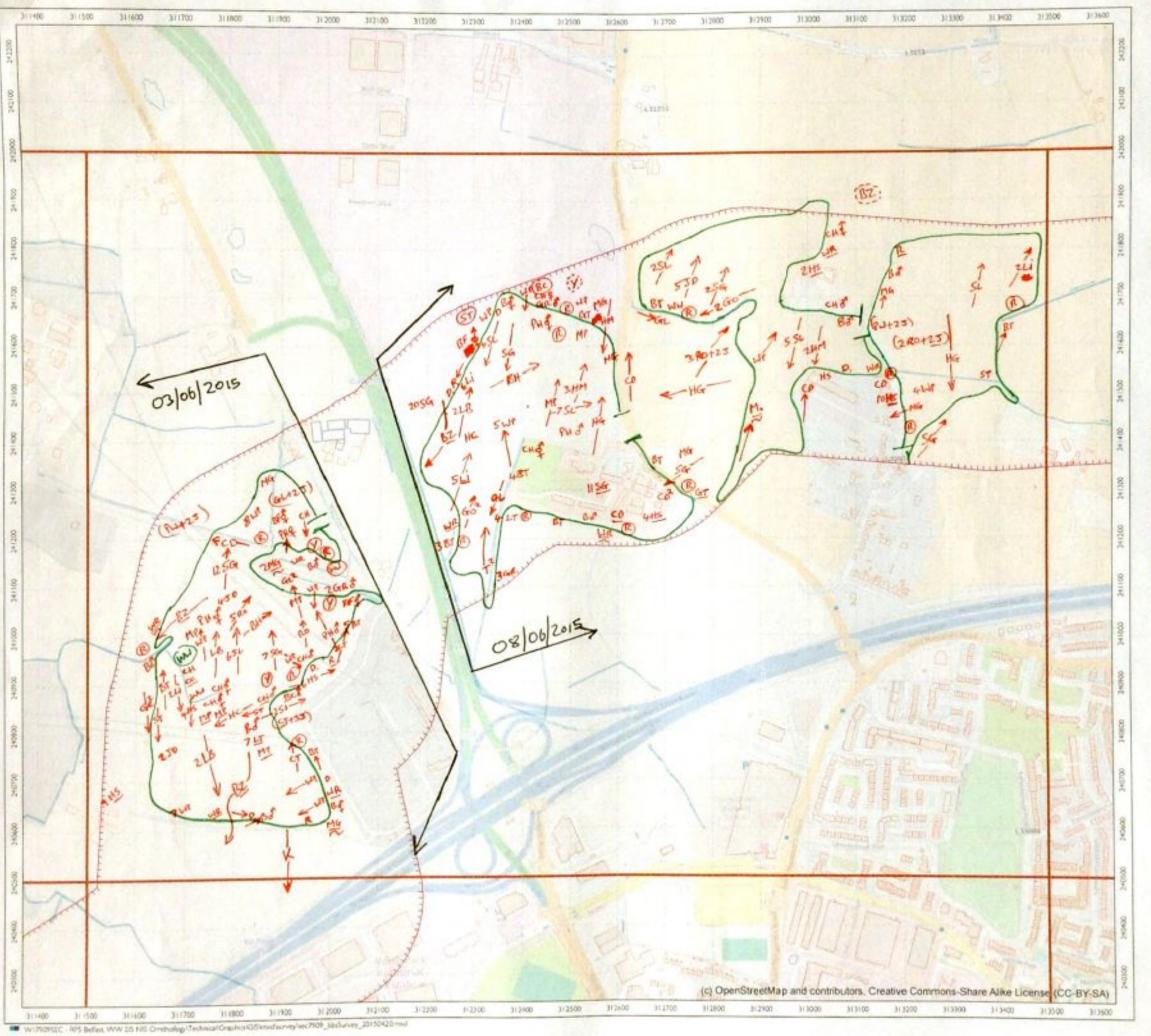
Breeding bird survey

Page 15 of 18

200 m Scale: 17,500 @A3 Date: 20/04/2015 | Job No: SEC7909 Drawn CH Checked DRAFT Approved DRAFT

With National Grid, \$750-29902.

* OpenGreen*up contributors, Reproduced from the Circumce Survey Of wound to Fermission of the Commercent License No. 8-3-34.



RP

Date: 03/06/2015 + 08/06/2015

03 04 2015 - 05:45 11:45 Start time: End time: 08 04 (015 - 05:30 11:30

*Please attach weather sheet

Notes:

- Transect Poute



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 7 of 18

0 200 m Scale 17.500 (\$A3

Date: 20/04/2015 | Job No: SEC7909 | R

Drawn: OH Checked: DRAFT Approved DRAFT

trun National Crist, 675C 29903.

* OpenStreet*sp contribution: Reproduced from the Ordnance Survey Of testand by Permission of the Government License No. 3.3-38.

313500 (-82) (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA) 315100 315200 315300 315400 31,3900 313700 313800 WilT095LC - RPS Befait, WW ES NIS Crestology/TechnicalCreption/G/Smix/autoy/sec7709_bts/saver_20150430 mag

46 - 1

RF

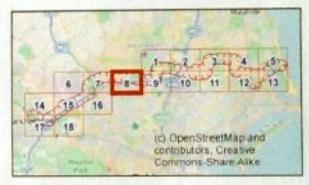
Surveyor Nick Vedle

Date: 08/06/2015

Start time: 05:30 End time: 11:30

*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

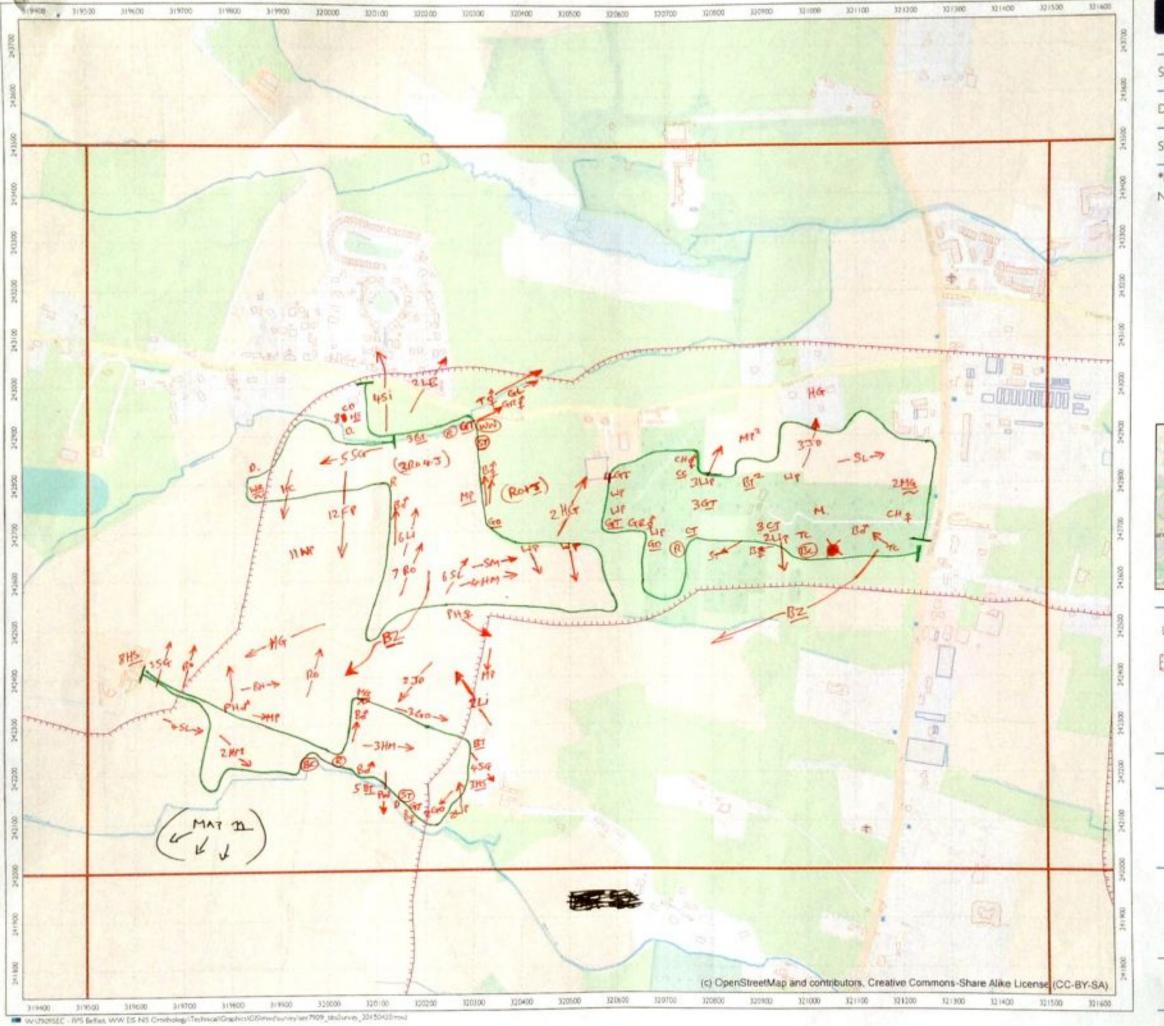
Page 8 of 18

0 200 m Scale: 17,500 @A3 Date: 20/04/2015 Job No: SEC7909 Rev. a

Drawn: OH Checked: DRAFT Approved: DRAFT

Insh National Grid, EPSC 29902

DenGreet*up constitute, Reproduced from the Ordnance Survey Of Intend by
Permission of the Covernment License No. 3-3-38



RP

Surveyor: Nich Veale

Date: 10/06/2015

Start time: 05:30 End time: 11:30

*Please attach weather sheet Notes:

Transcer route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 3 of 18

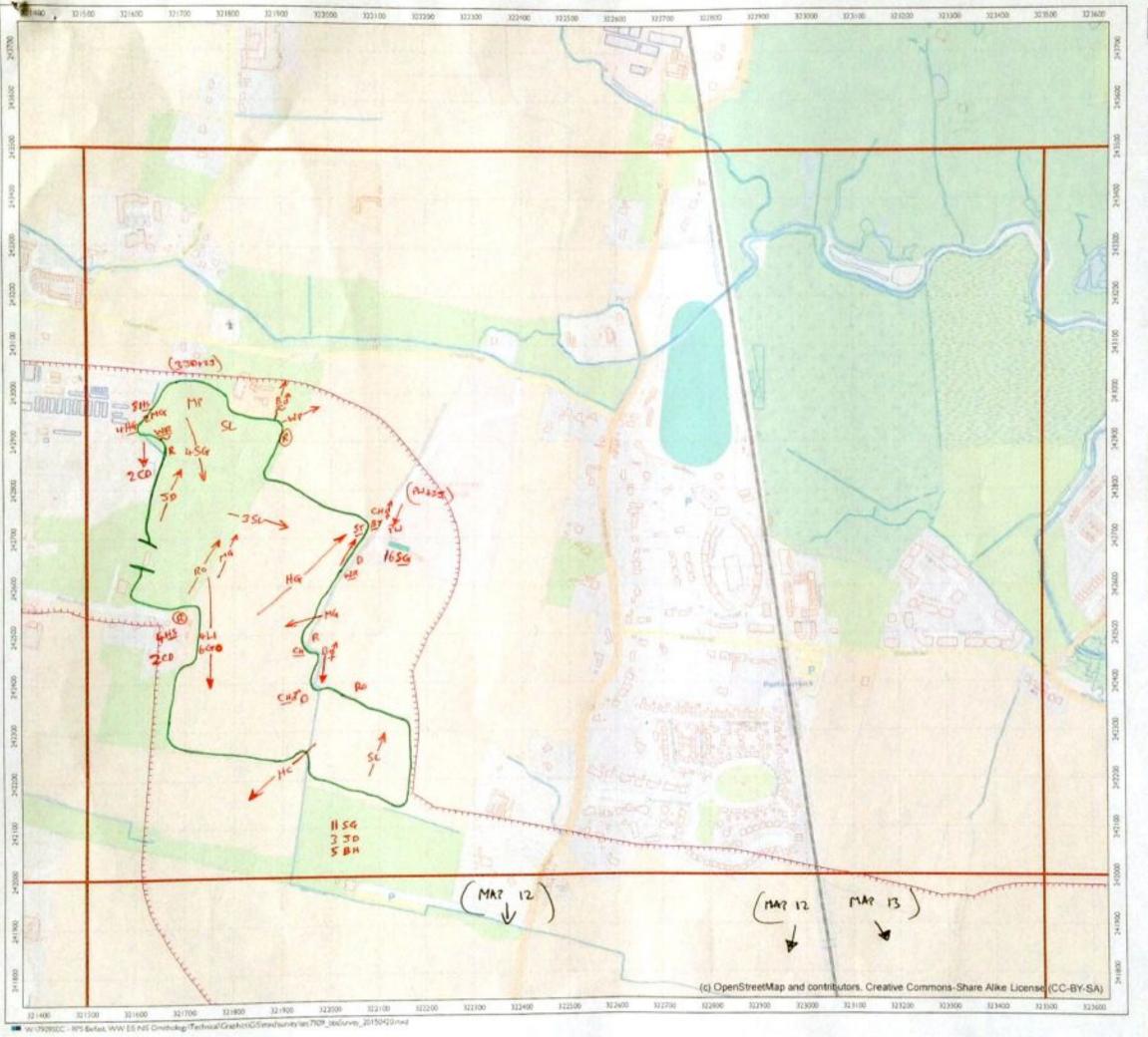
0 200 m Scale: 17.500 @A3 Date: 20/04/2015 | Job No: SEC7909 | Rev. a

Drawn: CH Checked: DRAFT Approved: DRAFT Hish National Cricl, EPIG 29902

Insh Natural Crid. EPSC 19902.

* OpenStreetHap contributors: Reproduced from the Ordnamer Survey Of Instand by Permission of the Government License No. 3-3-34.

rpegroup.com



Surveyor N. Vede End time: 11:30 Start time: 05:30

*Please attach weather sheet

Notes:



BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 4 of 18

200 m Scale: 1:7,500 @A3 Date: 20/04/2015 Job No. SEC7909 Approved DRAFT

Drawn: CH Checked DRAFT

Insh National Crid, EPSC 29902.

* OpenConstitution: Reproduced from the Ordnance Survey Of Instant by Permission of the Coveniment, Sucres No. 83-34.

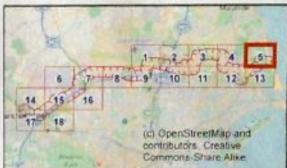
Paratitup.com



Surveyor Nick Veals End time: 11:30 Start time: 05:30

*Please attach weather sheet

Notes:



BBS survey boundary (250 m buffer, supplied 20140420)

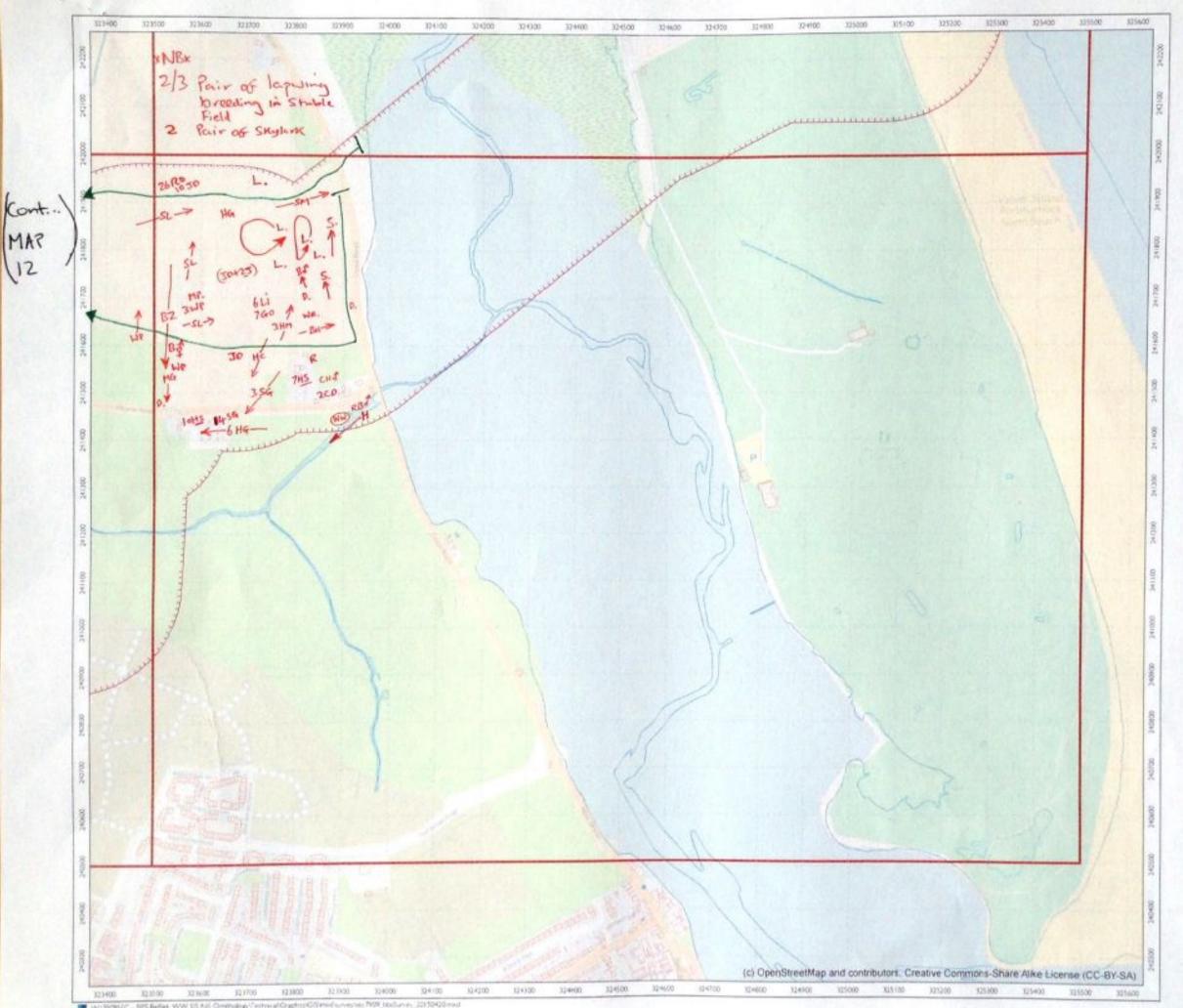
Greater Dublin Drainage

Breeding bird survey

Page 5 of 18

200 m Scale: 1.7.500 (BA3: Date: 20/04/2015 | Job No: 5EC7909 Drawn: CH Checked: DRAFT Approved DRAFT

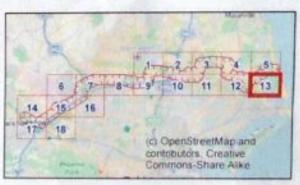
Inch National Grid. EPSC 20002.
* OpenforsePtab contributors. Reproduced from the Civiliance Survey CF secand to Fernission of the Government. Uppnie Rep. 3-3-34.



Start time: 05:30 End time: 11:30

*Please attach weather sheet

Notes



BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

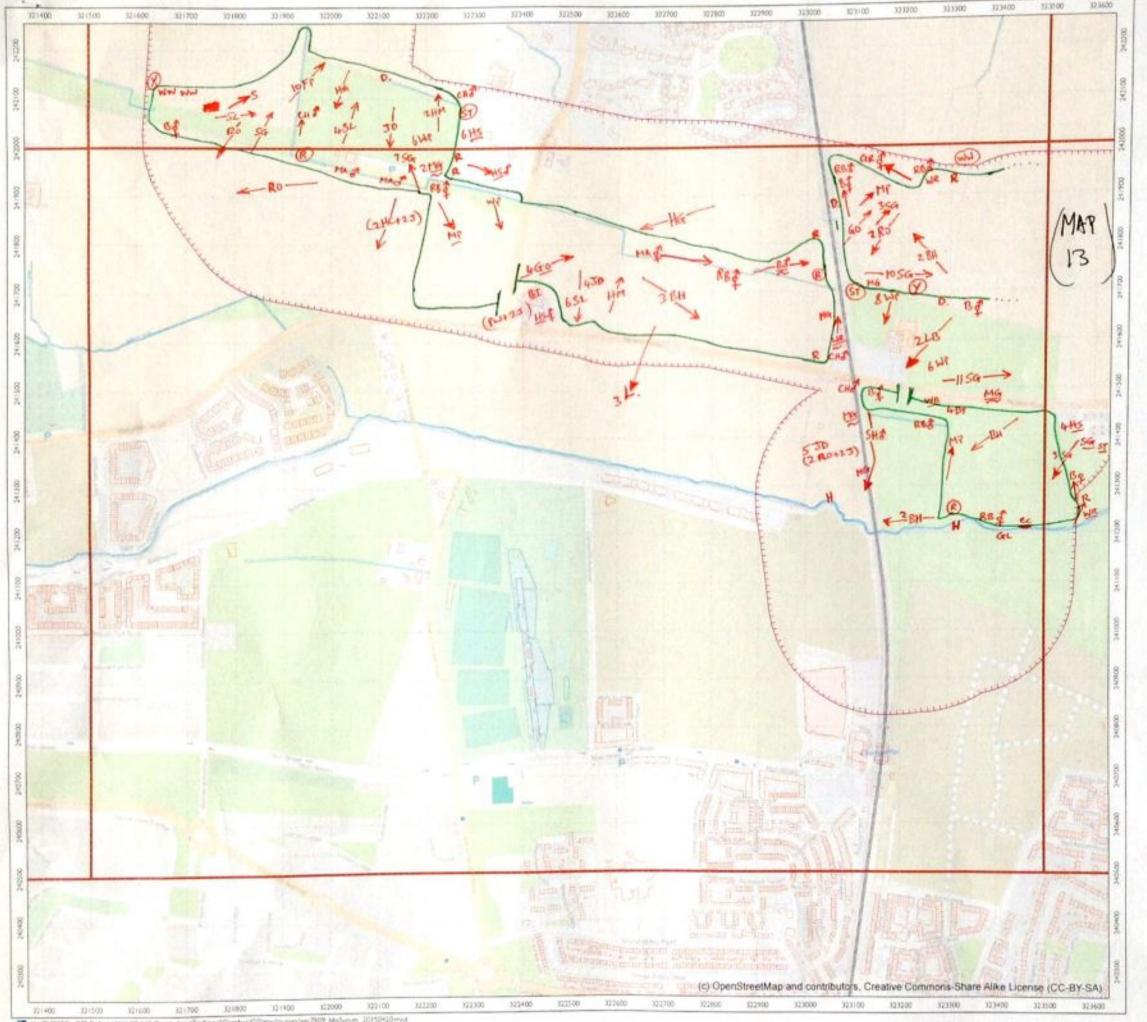
Breeding bird survey

Page 13 of 18

200 m Scale: 1.7,500 (BA3 Date 20/04/2015 Job No. SEC7909 Drawn: CH Checked DRAFT

eath National Crist EPSC 29903 * OpenStreePhap contributors Reproduced from the Ordnance Servey Of secand by Permission of the Government, License No. 3-3-34

rangroup.zom



RPS

Surveyor Nick Vecce Start time: 05:30 End time: 11:30

*Please attach weather sheet

Notes:



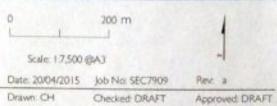
Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 12 of 18



Checked DRAFT

with National Cruit (1950-29902).

* OpenCheechup contribution, Reproduced from the Onthance Survey Of reliability Fernaucon of the Covernment License No. 3-3-39.

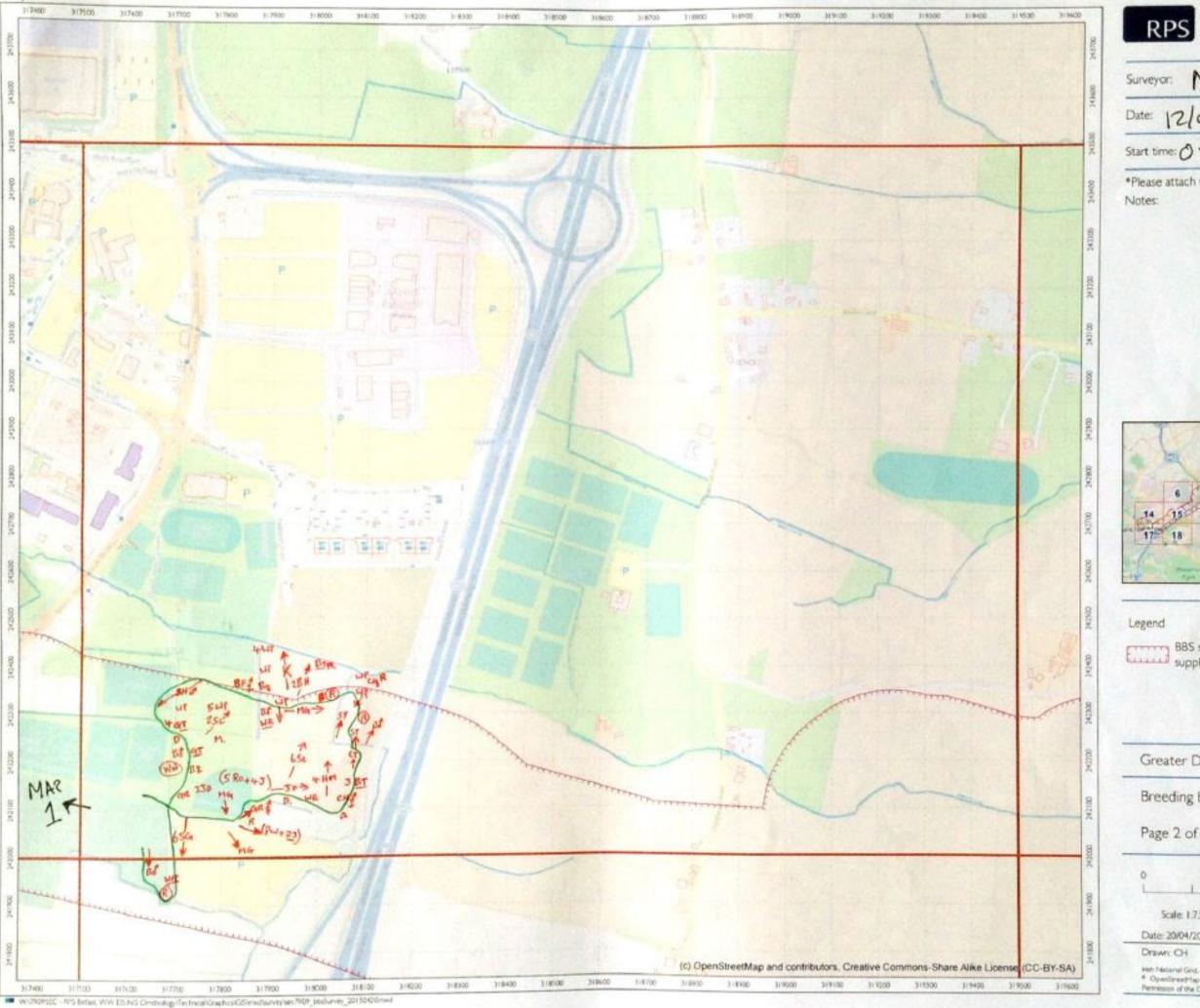
definition.



Transect route



Approved DRAFT



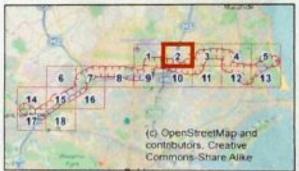
Surveyor: N Veale

Date: 12/06/2015

Start time: 0 540 End time: 11:40

*Please attach weather sheet

Notes:



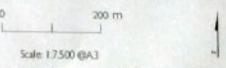
Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 2 of 18



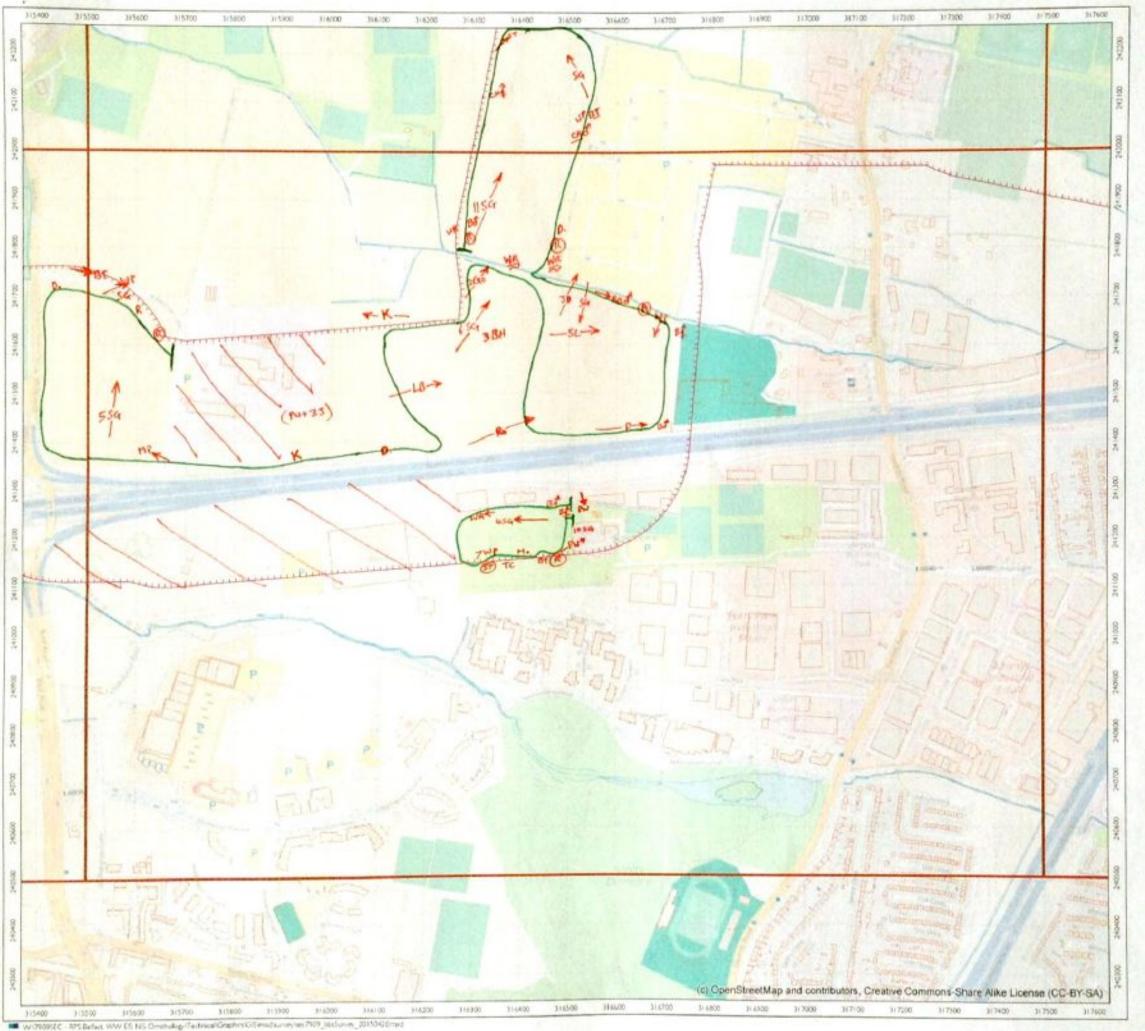
Date: 20/04/2015 | Job No: SEC7909

Approved DRAFT

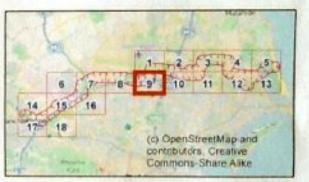
Inth National Grid, EPSG 20902.

4. Openforesthisp contributors, Reproduced from the Ordnance Survey Of Intendity Parriesson of the Government License No. 3-3-34.

Checked DRAFT



RPS Nick Veale Surveyor 12/06/2015 Date: Start time: 05:40 End time: 11:40 *Please attach weather sheet



BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

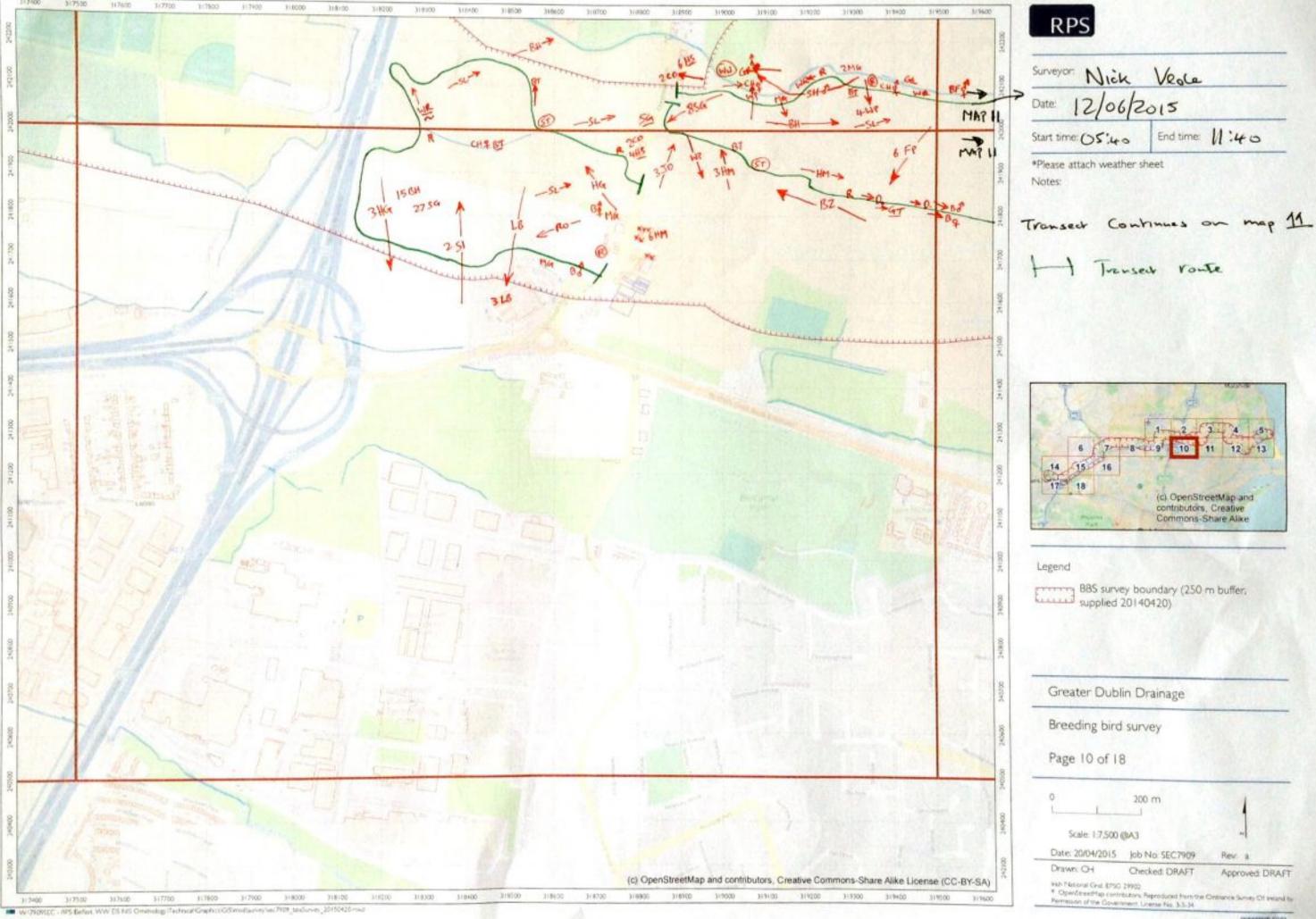
Page 9 of 18

200 m Scale: 17500 @A3 Date: 20/04/2015 Job No: SEC7909

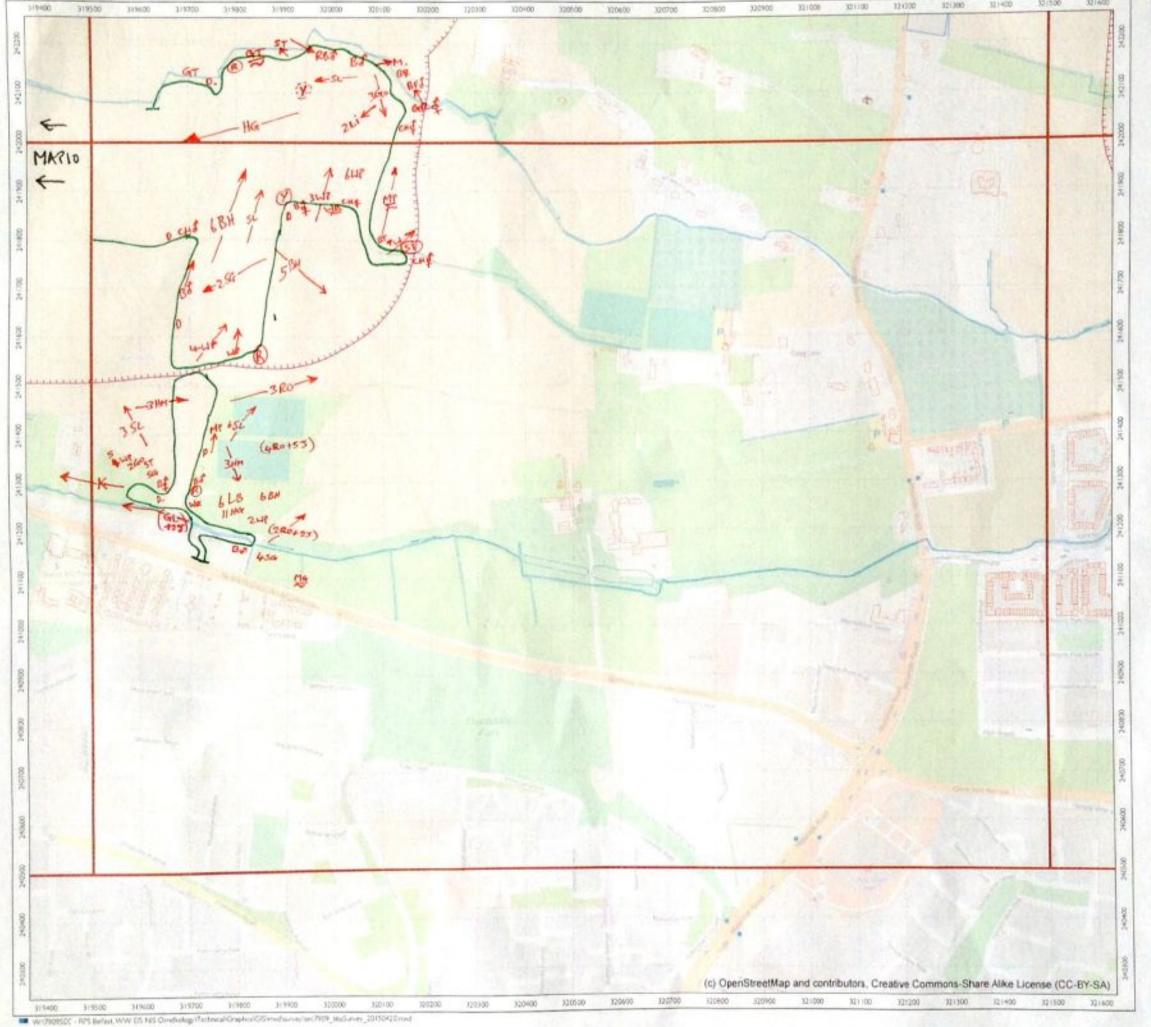
Drawn: CH Checked: DRAFT

Approved DRAFT Veh Netional Crist (190-1993)

* OpenStreething contributors: Reproduced from the Civinania Survey Of Ward by Permaien of the Covernment License No. 5.3-34.



PROGRESSION STORY



RP

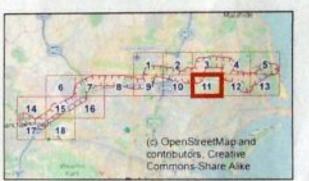
Surveyor: Nick Veale

Date: 12/06/2015

Start time: 05:40 End time: 11:40

*Please attach weather sheet
Notes:

Transect Vonte Transect Continues on Maplo



BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 11 of 18

0 200 m

Scale: 17,500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev. a

Drawn: CH Checked DRAFT Approved: DRAFT with Naconal Grid. EFSC 2003.

**Openion of the Government. License Not. 3,5-34

rpagraup.com

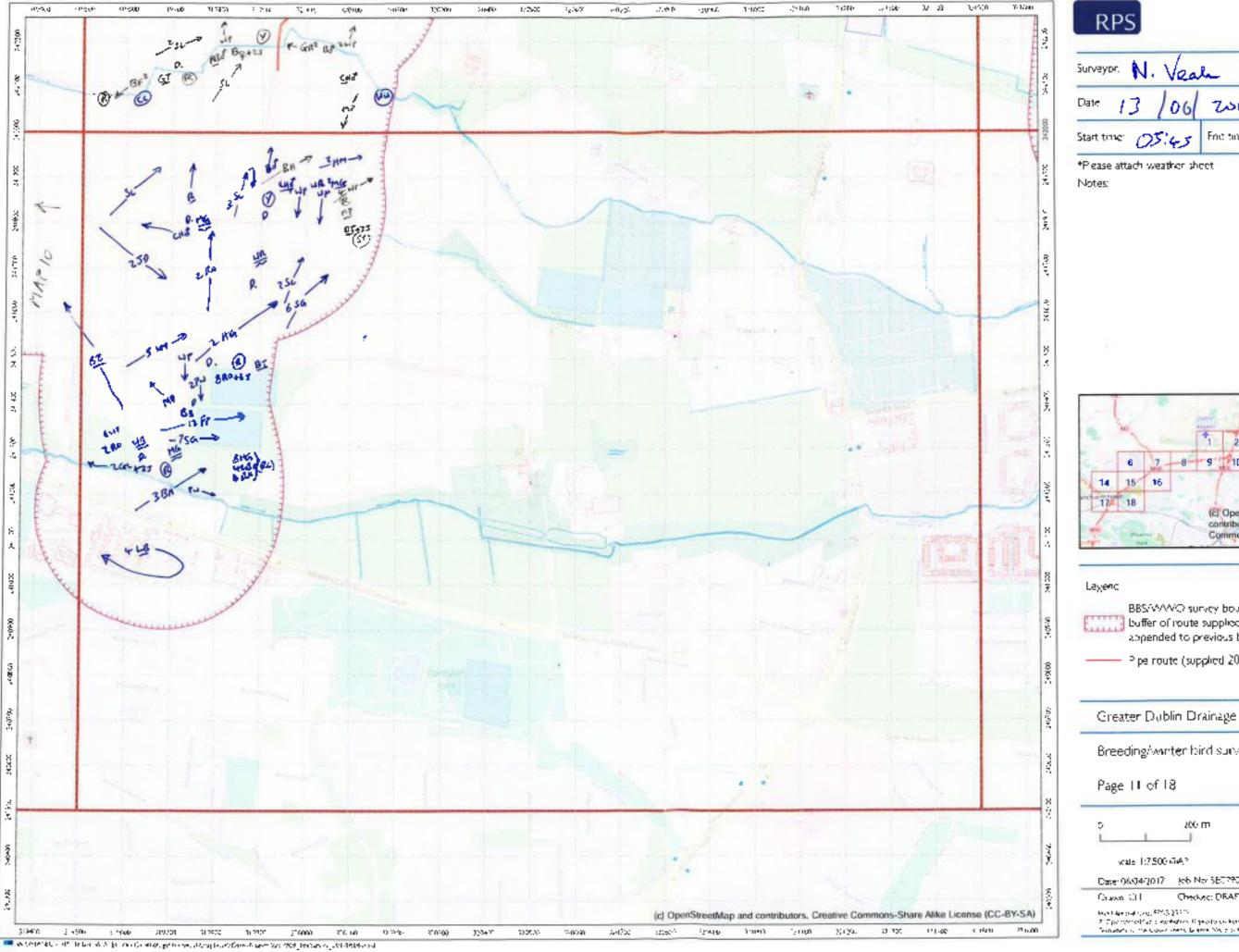
GDD Oral Hearing Response to Inspector's Questions

APPENDIX 7 SUMMER 2017 (MAY AND JUNE)

The data from the May and June 2017 summer walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

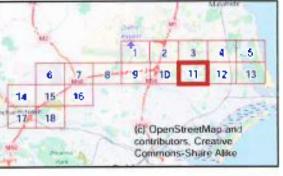
M-44529433-1 8

RPS	×	Weather Sheet	198	Wind	Wind Spend Beauter	no Mah	Direction	Язіп/\$лоw	MO	Cloud	Cloud Height	Visibility
Site		300		Calm Light a	°-		2 2	None Drizzle/Misi		in eighthe e.g. 3:8	above average	Poor («Muni d Moderate (1-3vm) 1
Date	1.	13/06/201	7	Light breeze Gentle breez	Light breeze 2 Gentle breeze 3	4-7 8-12	방	Light showers Heavy showers	nvers 2		vigashed	Good (>3kml
Survey	•	283		Mod breeze Fresh breeze	reeze d	13-18	u in	Heavy ram	1	Frost	-150m 0	
Observer		N. Veore		Siron	eze		***	2001			_	
Starl Time		54150		Fresh gale			2		3 - 0	Gourd 1		Please be as accurate as possible, with wanther dolaris, entering only one house
Finish Time		00:21		Whole gale				nan Aufau			_	Not a range, e.g. WS - 5, not 5-6.
Sheet 1/	&[]	Maps attached	peyor	Storm	쇧	11 64.72 12 73+					E.g. WS - 5, gusting 6 (in notes)	ng & (in notes)
Wealher	Wind	Wind direction	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notes(e.g	Notes(e.g. temperature)	re)	
Ę.1	~	35	-	718	-	H		1	13°C			
H. 2	~	Su	0	718	-	ч	1	(
Hr3	M	MS	9	8/9	2	2	1	1	الموار			
Hr 4	4	3	0	8 19	Ч	7	1	1				
Hr 5	4	ટ્ર	٥	718	4	2			2,91			
Hr 6	3-	MS	0	3113	2	2	1	1				
14.7	4	MS	2	818	ı.	2			2081	Sharands	4.5	
Hr 8												
Field Notes: Maps attached	tached										2	
	520											
For office use only. Initial AND date ALI	For office use only. NB- Initial AND date ALL	райбол -		Databa	Database Entered		Database Validated	/alidated		GIS Entered	GIS Validated	lidated



Surveyor, N. Veale 2017 Find time. /2:00

*Please attach weather sheet



BBS/MANO survey boundary (250 m. Euffer of route supplied 20170405 appended to previous boundary)

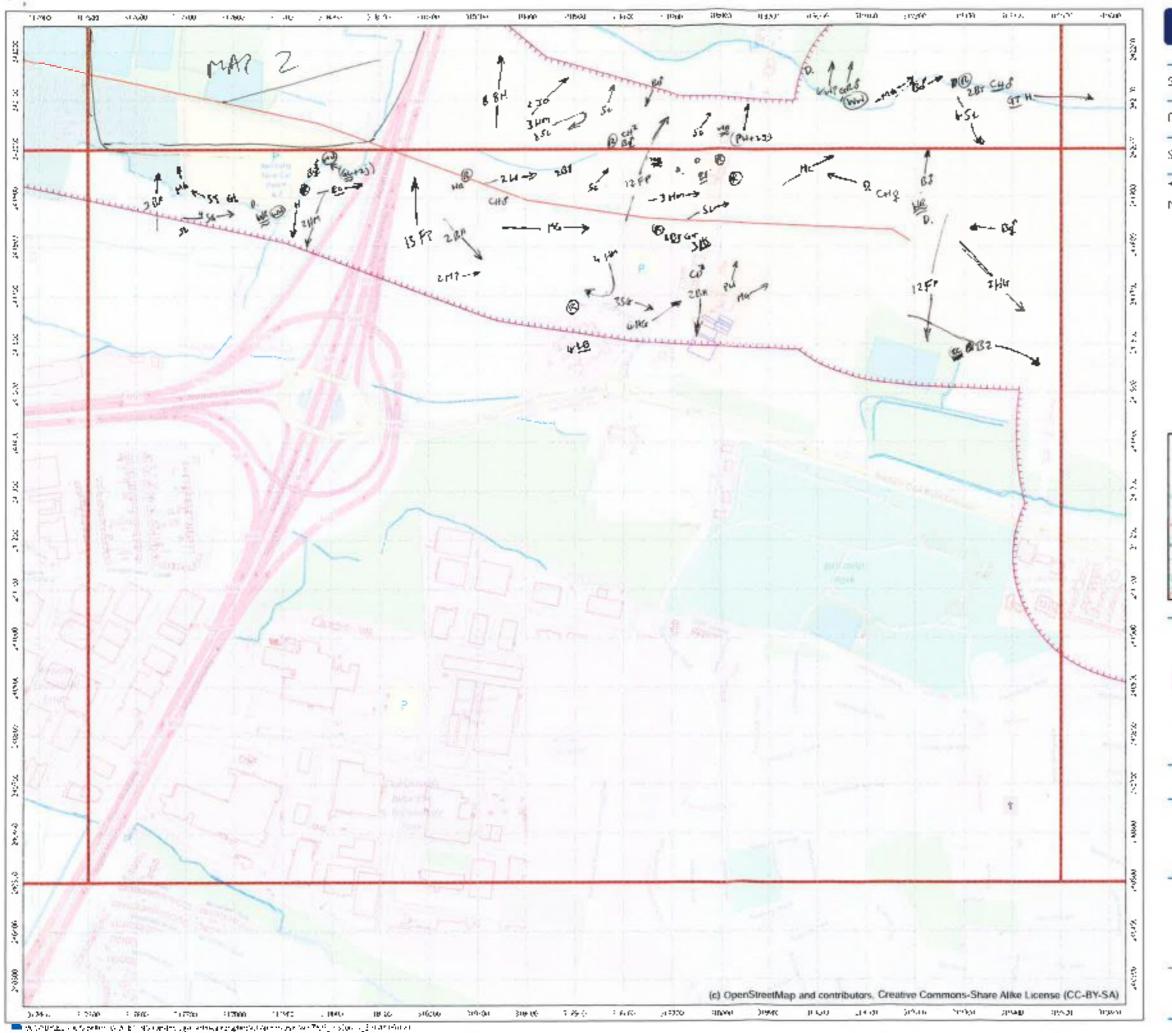
pe route (supplied 20170405).

Breeding/winter bird survey



engeneraliser i service de la contraction de production de la contraction de la compaction de la contraction de la contr

граспоиржил



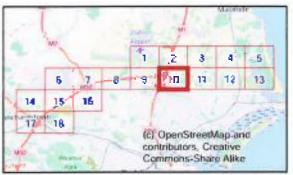


Surveyor Nich Veale

Date 13 06/2017

Startime 05/45 End time. 12:00

*-Noise attach weather sheet Notes



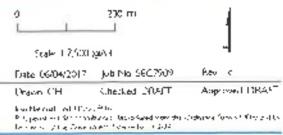
BRS/VVVO survey boundary (250 m buffer of mule supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

Greater Dublin Drainage

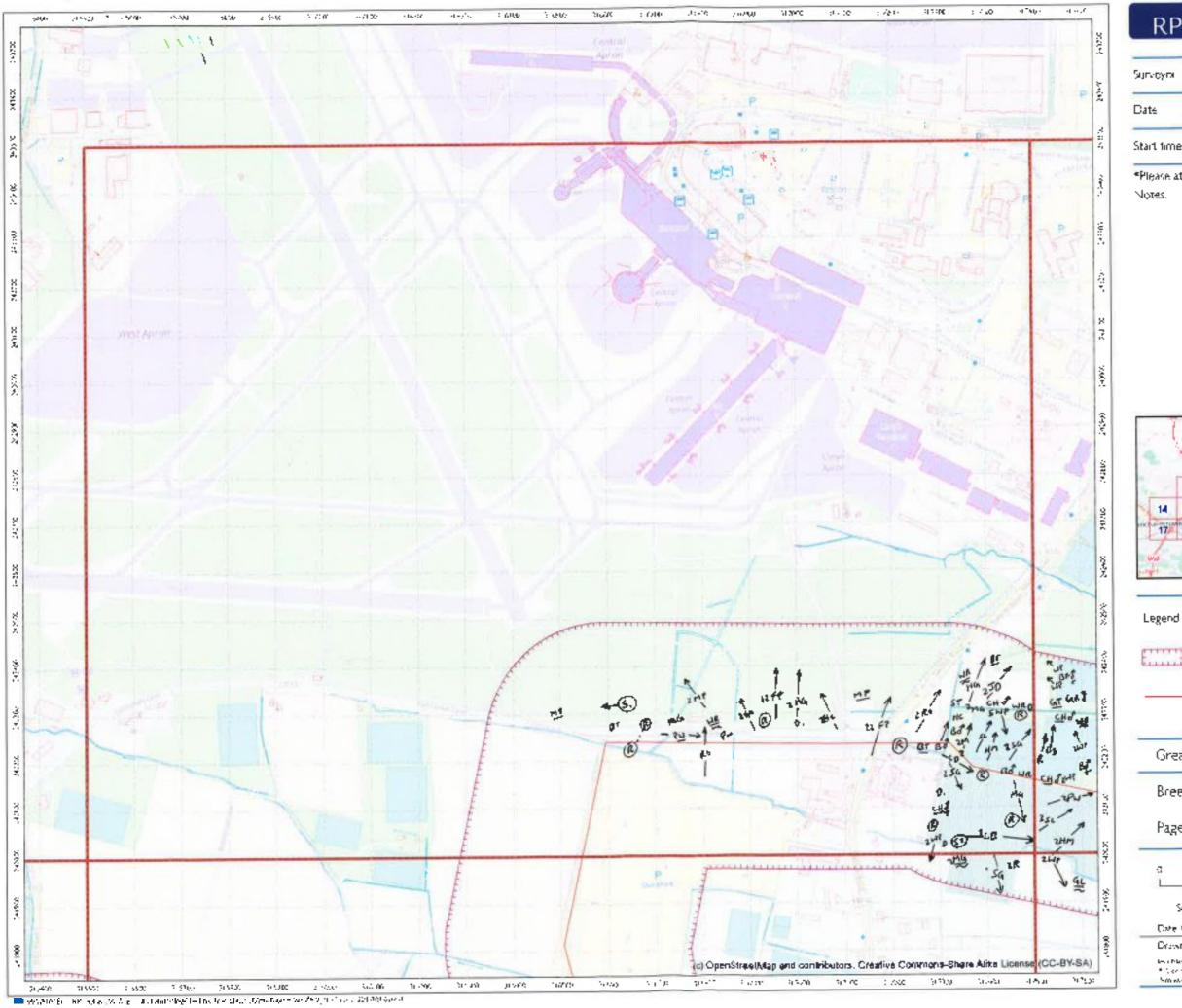
Breeding/winter bird survey

Page 10 of 18



предоприят

	, W	Westher Cheek	3	Wind Speed	рвеф		Direction	RainSnow	MO.	Cloud	Cloud Height	Visibality
χ J					Beaufort	_		-	,		Height of cloud	
Site	0	6600		California Light Bir	o -	- ÷	₽ ₩	Digz:B/Msi		FO ENGLINE FOR SAME	above average height of	Moderate (1:3km) 1
Date	Q	2 90 90	לותב	Certle breeze	Sector 2	4-7 8-12	밂	Light showers Heavy showers	NVErs 2		vewshad	Good (>3km) 2
Survey	-	1335		Mod. breeze		13-18	v Ž	Heavy rain	1	- Const	<150m 0	
Observer		N.ch Ve.	1	Sirong breeze	neeze 6	25-31	ž×.	Mous Suuta	*	201	-500m 2	
Start Time	T	06:00		Mrd. gale Fresh gale	Je 7 ale a	85.58 30.48	ΜW	None On site	0-	None O Ground	Please be as socu	Please be as accurate as possible, with
Finish Time		12:00	Γ	Sirong gale Whole gale				High ground		All day 2	meanter delata, entering any one not a range, e.g. WS - 5, not \$-8.	meather belata, emelting any one lighter, not a range, e.g. WS - 5, not \$-8. Hee notes for other offs
Sheet 1/	3.5) Maps attached	ched	Storm	12	73.					E.g. WS - 5, gusting 6 [in notes].	Ng 6 (en notes).
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notes(e.g.	Notes(e.g. femperature)	(8.	
구	3	3	0	is X	0	5		1	000			
Hr 2	. 7	3	0	2/9	6	ارا	1		300			
E F	8	3	0	4/4	Ŋ	2	١	1	ا _و د			
Hr 4	þ	3	0	5JH	4	4	1	-	1200			
무용	v	3	0	8/5	2	٦	ı	1	13.0			
H.6	۸	3	0	815	2	h	1	1	73,€			
Hr.7	W	3	0	8/9	7	2		١	2001			
호												
Field Notes: Maps attached	1: tached											
		H				Ì			1			
For office use only, NB- Inttel AND date ALL hoxes.	se only. NB tate <u>ALL</u>	Pegged .		Databa: 	Database Entered		Database Validated	/aliqated		GIS Entered	GIS Validated	dated
		-				+						





Start time 06:35 End time 12:00

*Please attach weather sheet





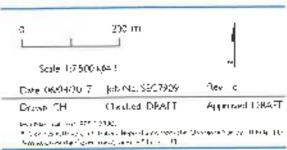
BBS/WWO kurvey boundary (250 %) buffer of route supplied 20170405 appended to previous boundary).

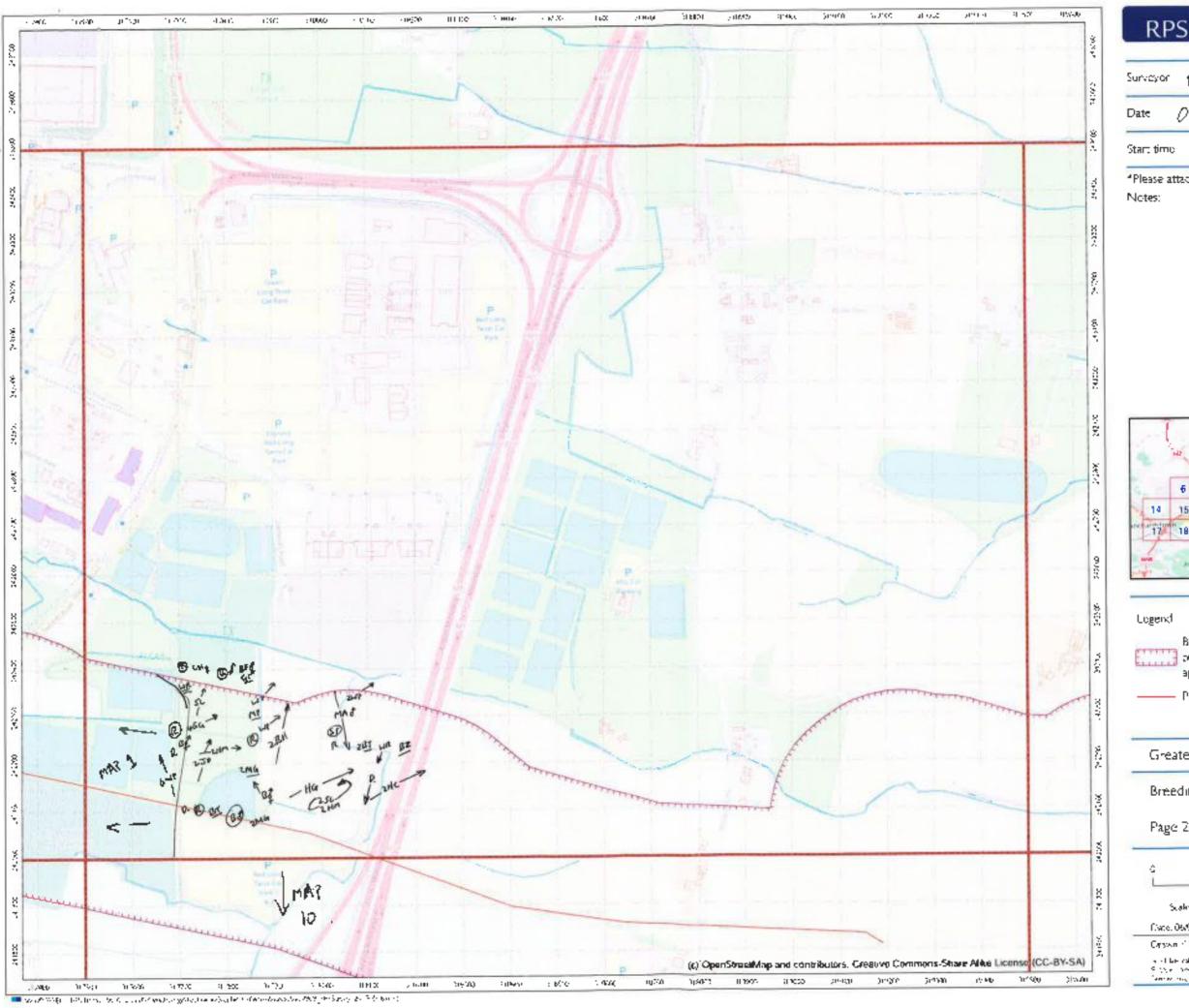
Pipe route (supplied 20170405).

Greater Dublin Drainage

Breeding/winter bird survey

Page Lof B

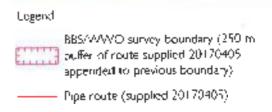




Surveyor Nick Venta Start time | 06:00 Lindtime /21 ८०4

*Please attach weather sheet



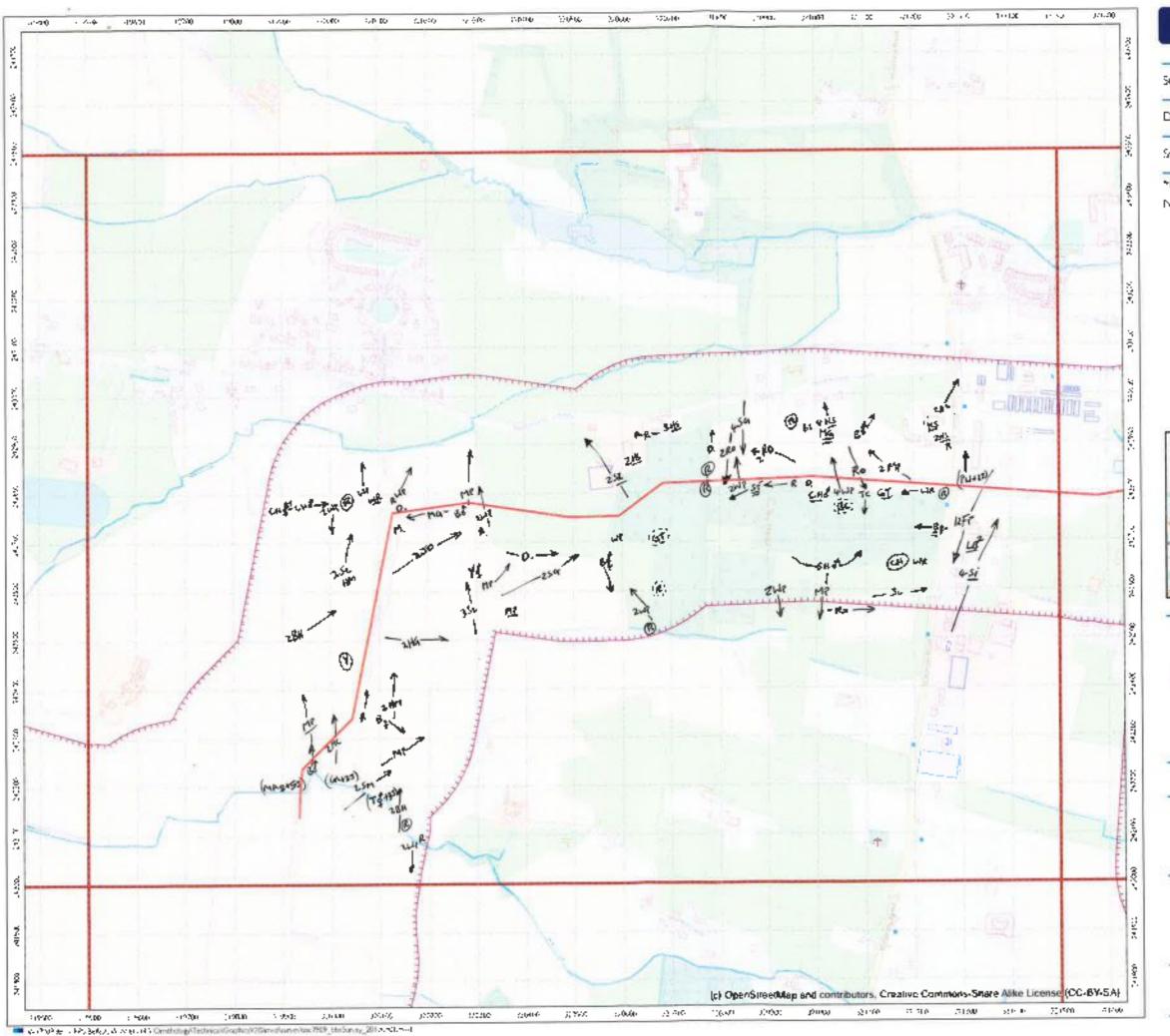


Greater Dublin Drainage

Breeding/winter bird survey

Page 2 of 18



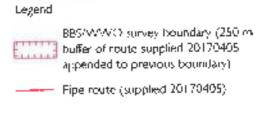




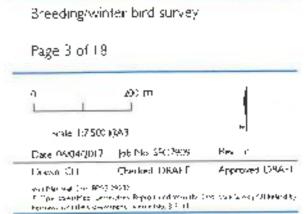
Surveyor N. Ve.de Date 06/06/2017 Start time 0630 Find time: 12100

*Please attach weather sheet Notes.

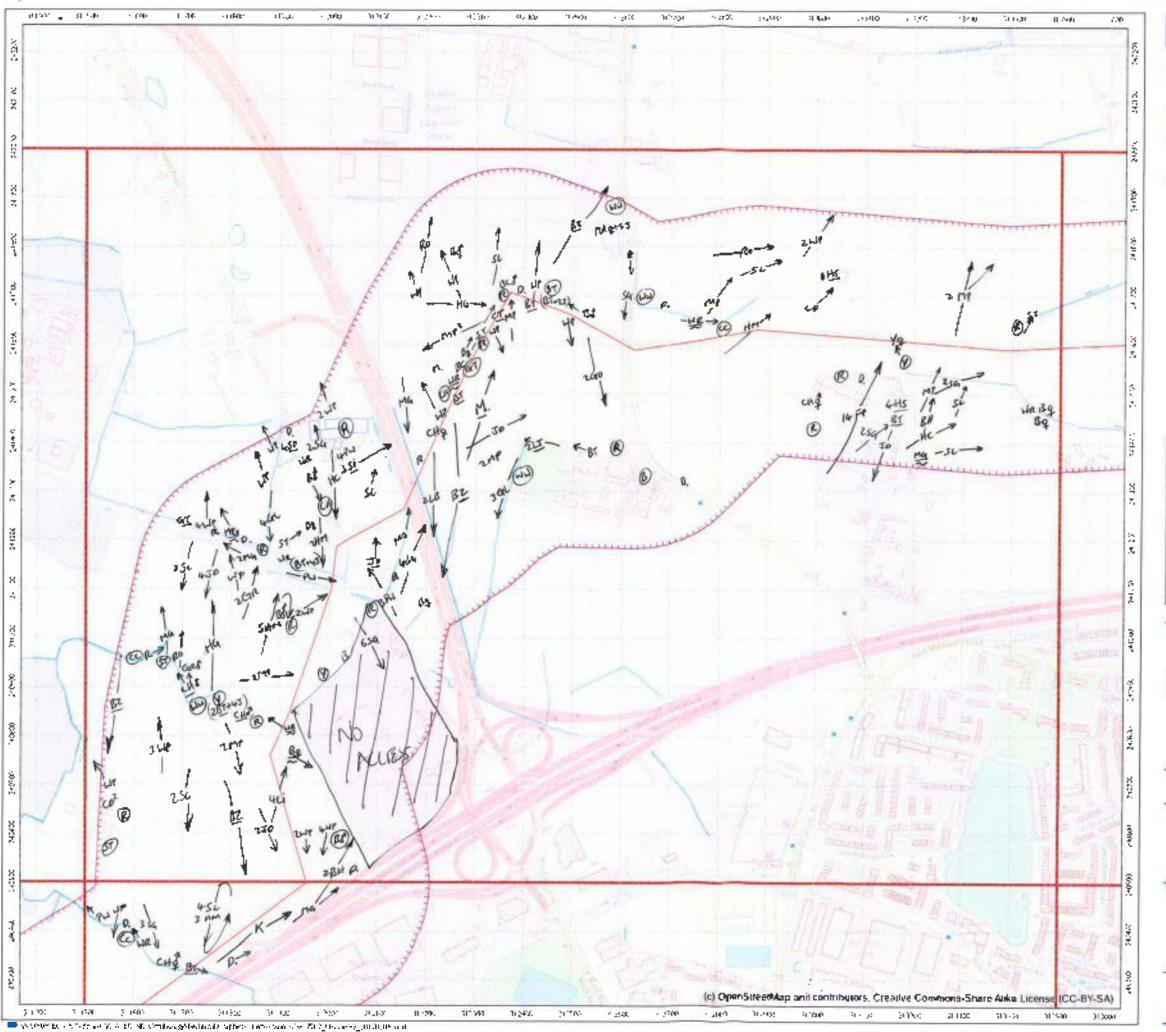




Greater Dub in Drainage



900	W.	Weather Sheet	190	Wind Speed	beed		Direction	RamSnow	WOI	Cloud	Cloud Height	Visibility	ı
<u> </u>			0		Beautor						Hointh and America		
Site	ড	000		Celm		7 2	2 ¥	None Driezłe:Mes		Freignibs e.g. 308	above average	Poor (< Horn) (o -
Date	0	CE2/90/50	-	Light brooks Gentle breeze	oeko 2 Meese 3	4-7 9-12	ᄪ	Light showers Heavy showers	owers 2		wewshed	Good (+3km) 2	61
Survey	8	583		Mod. breeze		13:18	ر در در	Heavy min	,	Emot	<150m D		
Observer		N.d. Vest	3	Slong breeze	9 82990		3				>530m 2		- 1
Slart Time		02:30		Freshoale			WW.	On site	J - 1	Growing 1	Please be as app.	Please be as accurate as possible, with months details an animal and the second	- 4
Finish Time		12:00		Whole gale	-			High ground		All day 2	not a range, e.g. WS - 5, not 5-6, the profession of the professio	15 - 5, 80 5-6,	ı.
Sheet 1/	[] a	Maps attached	ched	Sibra Humicane	12 1	2 73+					E.g. WS - 5 gusting 6 (in nabes).	g 6 (in nates).	
Weather	Wind	Wind	Rain	Cloud	Chourd	Visibility	Frast	Snow	Notesfe.g.	Notesfe.g. temperatura)	(e)		1
<u> 1</u>	٨	3	24	2/9	-	-		1	13.6				- 1
Hr 2	~	Se	2	8/8	_	_	1	((20				1
Hr 3	÷	Su	٥	8 10	-	-	١		¥.=				
Hr 4	4	š	0	618	-	ىم	,		1200				
Hr 5	<u>+</u>	75	0	818	7	4			75.41				
Hr 6	٠و	3	၁	8/6	7	2	1	1	2.51				1
Hr.7	m	2.5	o	8/9	2	نہ		1					1
H- 8													1
Field Notes: Maps attached	Harched												1
For office use only, initial <u>Min</u> date <u>ALI</u> boxes.	For office use only. NB- influel <u>AMD</u> date <u>ALL</u> boxes.	pañon .		Databas	Database Entered		Database Validated	/alidatec		GIS Entered	GIS Validated	dated	

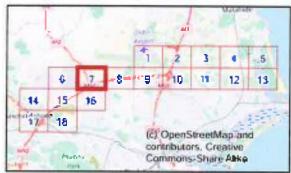




Nich Veca Startime ひちほい End time | 120 apr

*Please attach weather sheet

Notes:



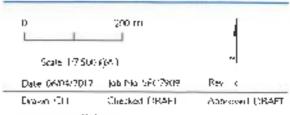
BBS/WWO survey boundary (250 m. buffer of route supplied 20170405 appended to previous boundary).

Pipe route (supplied 20170405).

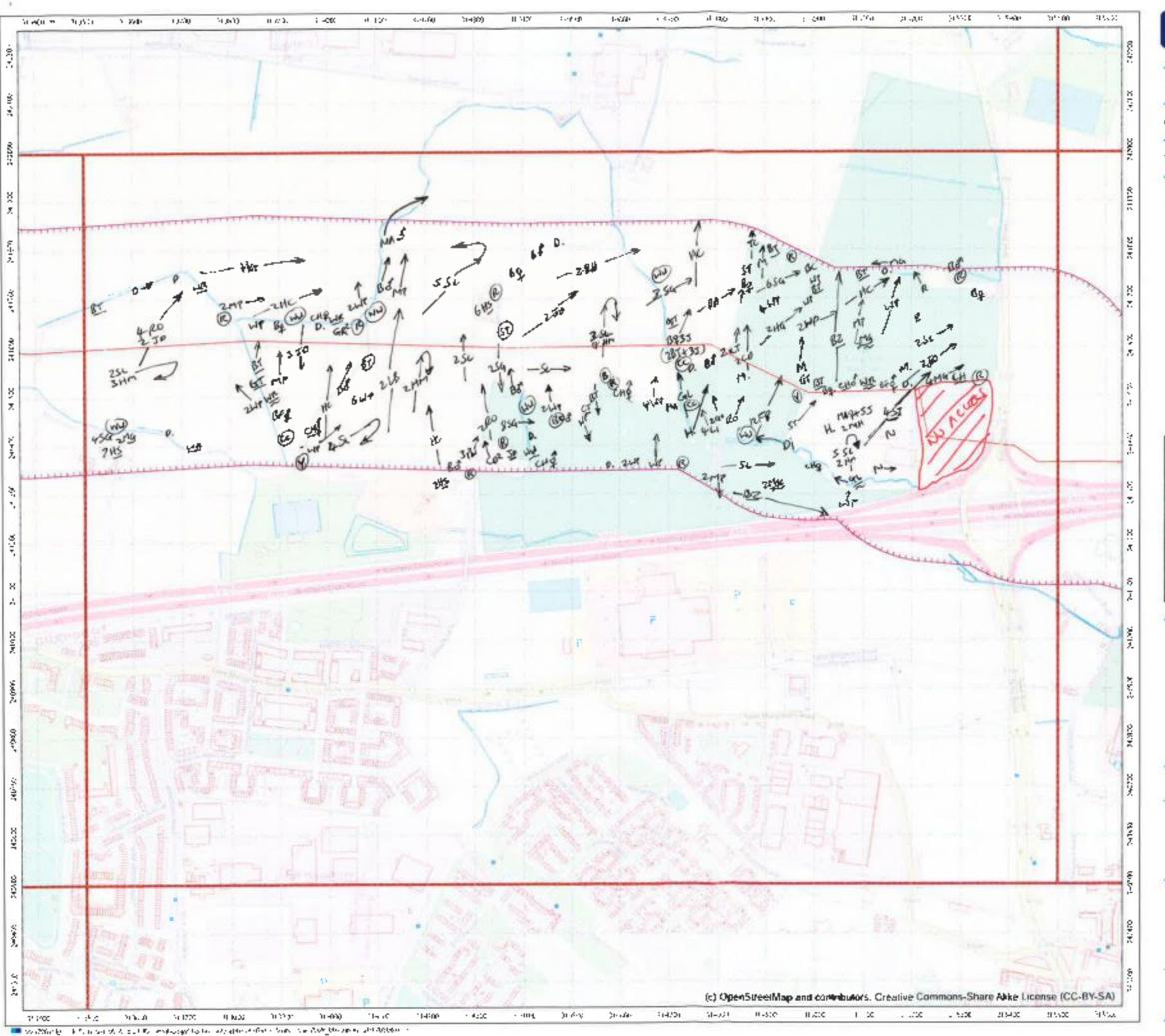
Greater Dub in Drainage

Breeding/winter bird survey

Page 7 of 18



este Margan, year 60,00 years. M. Caristered Rip or research Deposits eath or the Deposits only (1) his configuration. Marganitis in the Deposit of the caristic Sangle 10.00.





Surveyor Nich Veal Date: 05/06/2017 Start time: 05/30 Find time (2100

*Please attach weather sheet

Notes:



Legen

BBS/WWO survey boundary (250 m tuffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20) 70405).

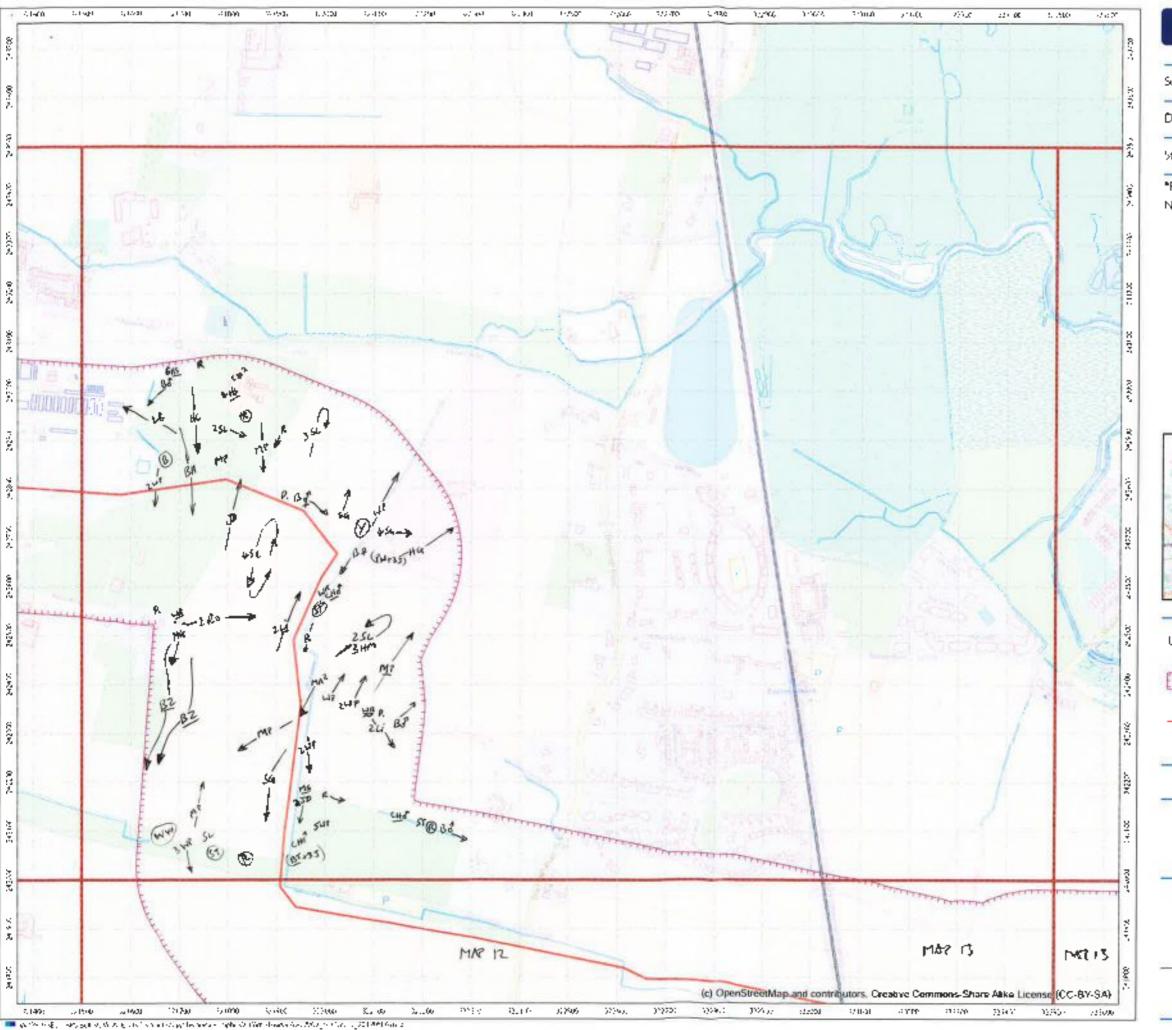
Greater Dublin Drainage

Breeding/winter bird survey

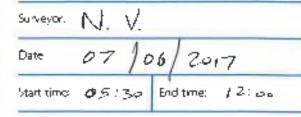
Page 8 of 18



Site C=00 Light air Date O7/06/24.7 Calin breaze Survey RSS Calin breaze Survey RSS Calin breaze Survey RSS Calin breaze Survey RSS Calin breaze Start Time O5:32 Calin breaze Sheet 1/ & Maps attached Sheet 1/ & Maps attached Hr 2 2	Wind Speed	Direction	RainSnow	Cover	Cloud Height Visi	Visibiliy
rey Ry Ry Ry Ry Ry Ry Ry Ry Ry	Beautori Mph 0 ×1	z	None		_	Poor (< fkm) 0
bever Nuck Vect. ITime O5:323 Sirong b Mod. ball Made gal Fresh yas Sirong b Mod. gal Fresh yas Speed direction Cover Cover Speed direction O 3/8 Whole gal Fresh yas O 3/8 Whole gal Fresh yas Sirong b Mod. gal Fresh yas Si	- 61	뿔교	s/Met showers		above average Mode height of Good yearshed	Ē
Fresh to Strong berver Nick Vect. I Time OS:30 Strong gath Time 12:00 Strong gath Time 13:00 Wind Wind Wind Wind Wind Wind Wind Speed direction Cloud Speed direction 0 3/8 Cover 0 0 S/8 Cover	3 B-12 4 13-18	ហ្គូស	Heavy Showars 3 Heavy rain 4	m =	<15/m 0	
ther Wind Wind Rain Cloud Speed direction of the work white game there will be a speed direction of the work with the work of the wore of the work of	S	As s	Mons	Frost	150-500m 1 >500m 2	
sh Time 12:		Š			Please be as accurate as possible, with	possible, with
ther Wind Wind Rain Cloud speed direction Spee			Hgh ground	All day 2	neamer because whitemap only one lighter, not a range, e.g. WS · 5, not \$-6. The notes for extra little	cony one ligure, not \$-6.
ther Wind Wind Rain Cloud Speed direction \$\frac{4}{3} 0 3/g \\ \$\frac{4}{3} 0 3/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 4/g \\ \$\frac{4}{4} 0 0 4/g \\ \$\frac{4}{4} 0 0 4/g \\ \$\frac{4}{4} 0 0 4/g \\ \$\frac{4}{4} 0 0 4/g \\ \$\frac{4}{4} 0 0 4/g \\ \$\frac{4}{4} 0 0 0 4/g \\ \$\frac{4}{4} 0 \q	12 73+				E.g. WS - 5, gusbing 6 [in notes]	holes
3/2 \(\triangle \) \(\triang	ud Visibility obt	Frost	Snow Notes(e.	Notes(e.g. temperature)	(é	
3 \ \(\begin{align*} \frac{3}{4}\times \\ \frac{4}{4}\times \\	2	1	- gec			
3 \(\begin{align*} \cdot \limits \\ \cdot \cdot \limits \\ \cdot \cdot \cdot \cdot \cdot \limits \\ \cdot \	-	1	2,21			
\(\begin{align*}		1	130			
4	2	1				
3 2 0 4/8 3 4 0 4/8			150			
3 Los 0 4/g	۲,	+				
sched		1	1700			
Veld Notes: Maps attached						
For effice use only, NB- Logged Dalabase Entered Initial AND date ALL boxes.		Database Validated		GIS Entered	GIS Validated	_

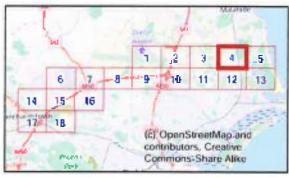






*Flease attach weather sheet

Notes:



Legend

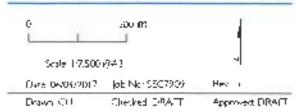
885/V/V/O survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipa route (supplied 20170405).

Greater Dublin Drainage

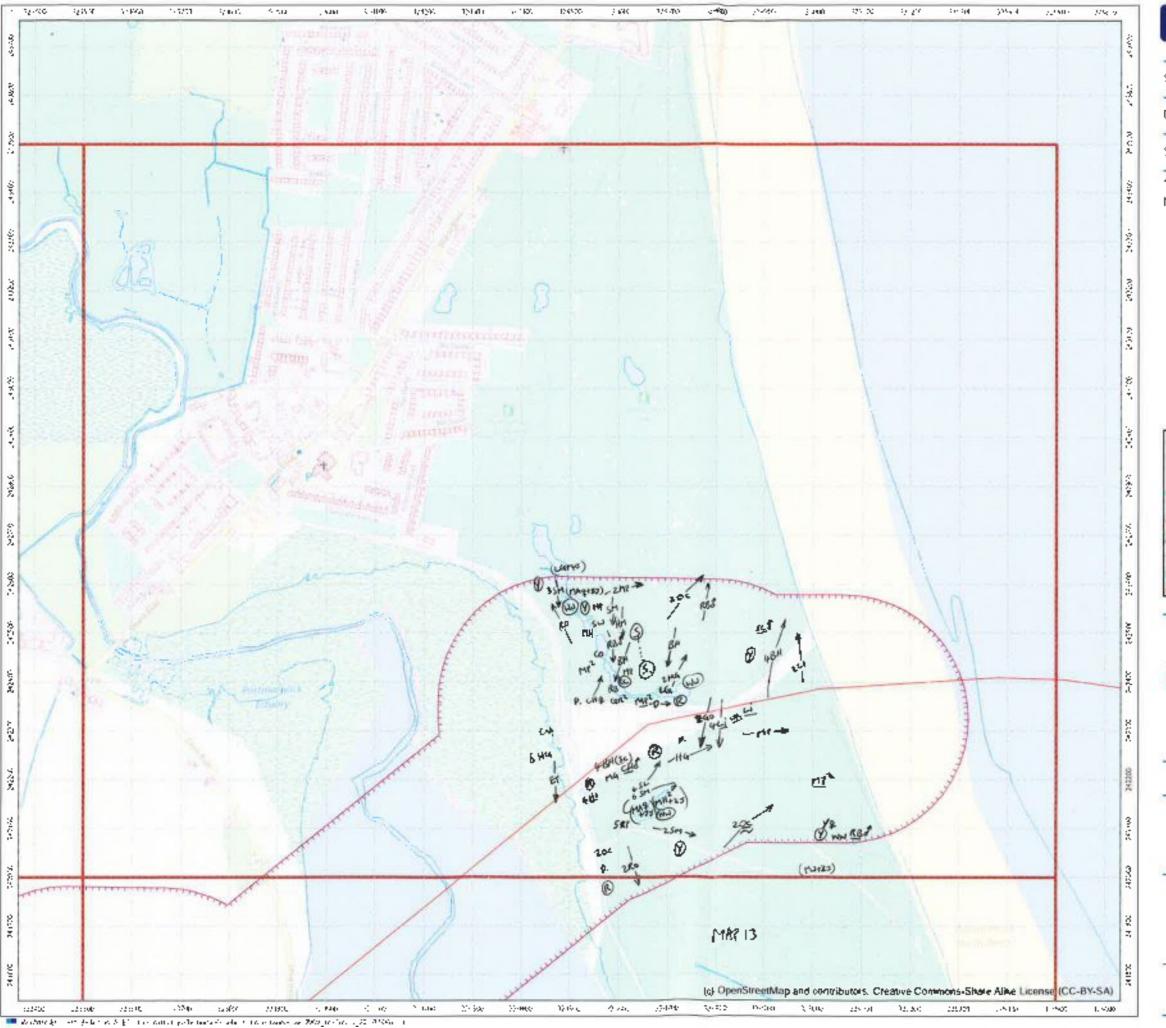
Breeding/winter bird survey

Page 4 of 18



ego baccant New EPY (1950)

 2^{-1} per distribution flower distribution distribution is a Chicago Chicago γ . Because the transfer of Labores too, $1.2\,12$





Vene Surveyor. Nich 2017 End time: 12100 حودک*ن* Start time

*Please artach weather sheet

Notes



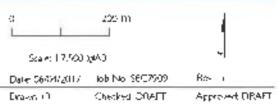
BBS/WWG survey boundary (250 m. buffer of route supplied 20170405 appended to previous ocundary).

Fipe route (supplied 20, 70405).

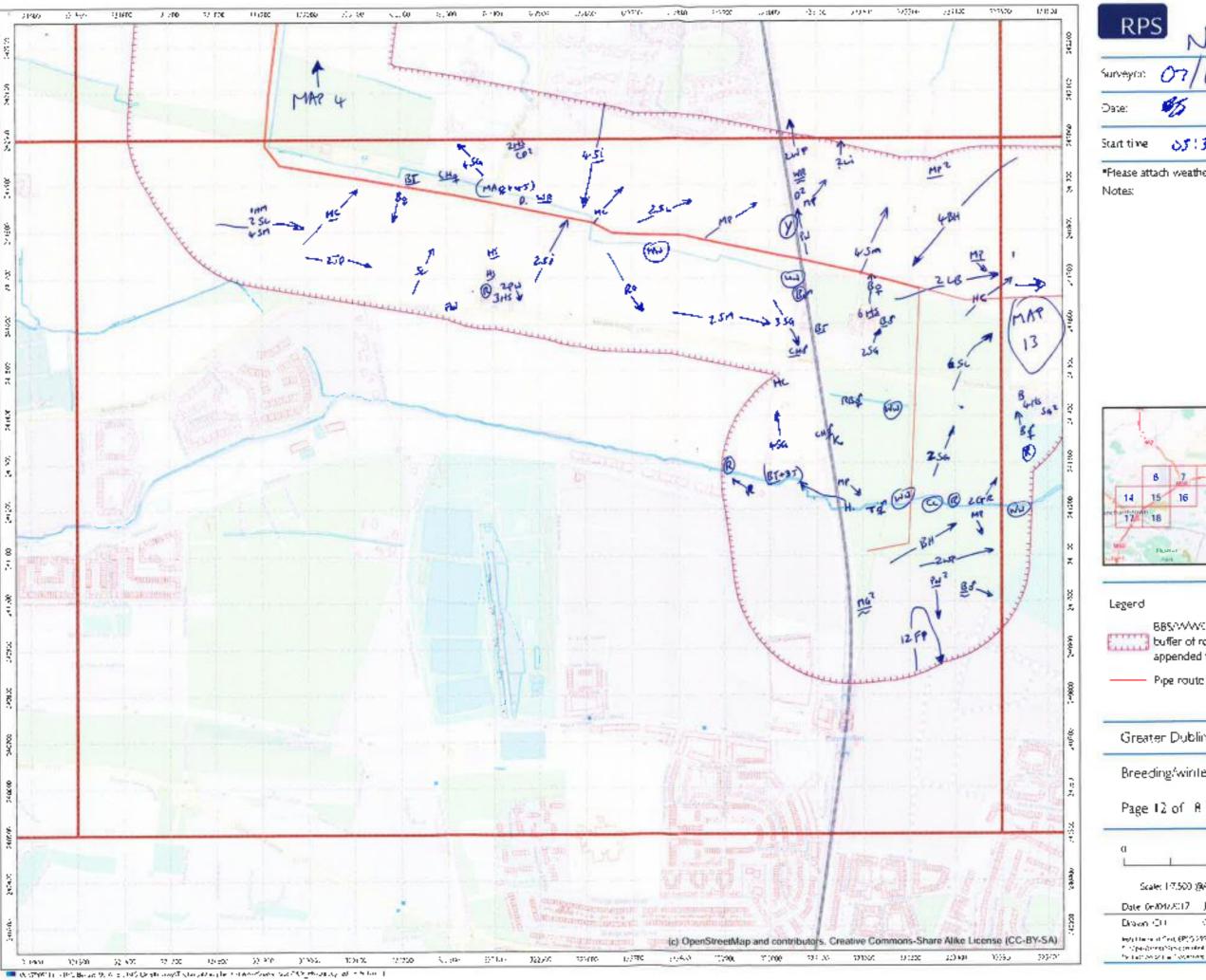
Greater Dublin Drainage

Breeding/winter bird survey

Page 5 of i8

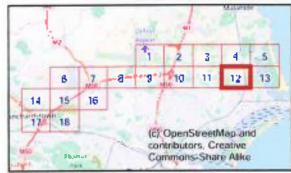


est the part of PPD 2007. The most of the most of the relative to the PPD between the most of the mos



05:35 Find time 12:00

*Please attach weather sheet



BBS/WWC> survey trounclary (250 m. buffer of route supplied 20 70405 appended to previous boundary)

Pipe route (supplied 20170405).

Greater Dublin Drainage

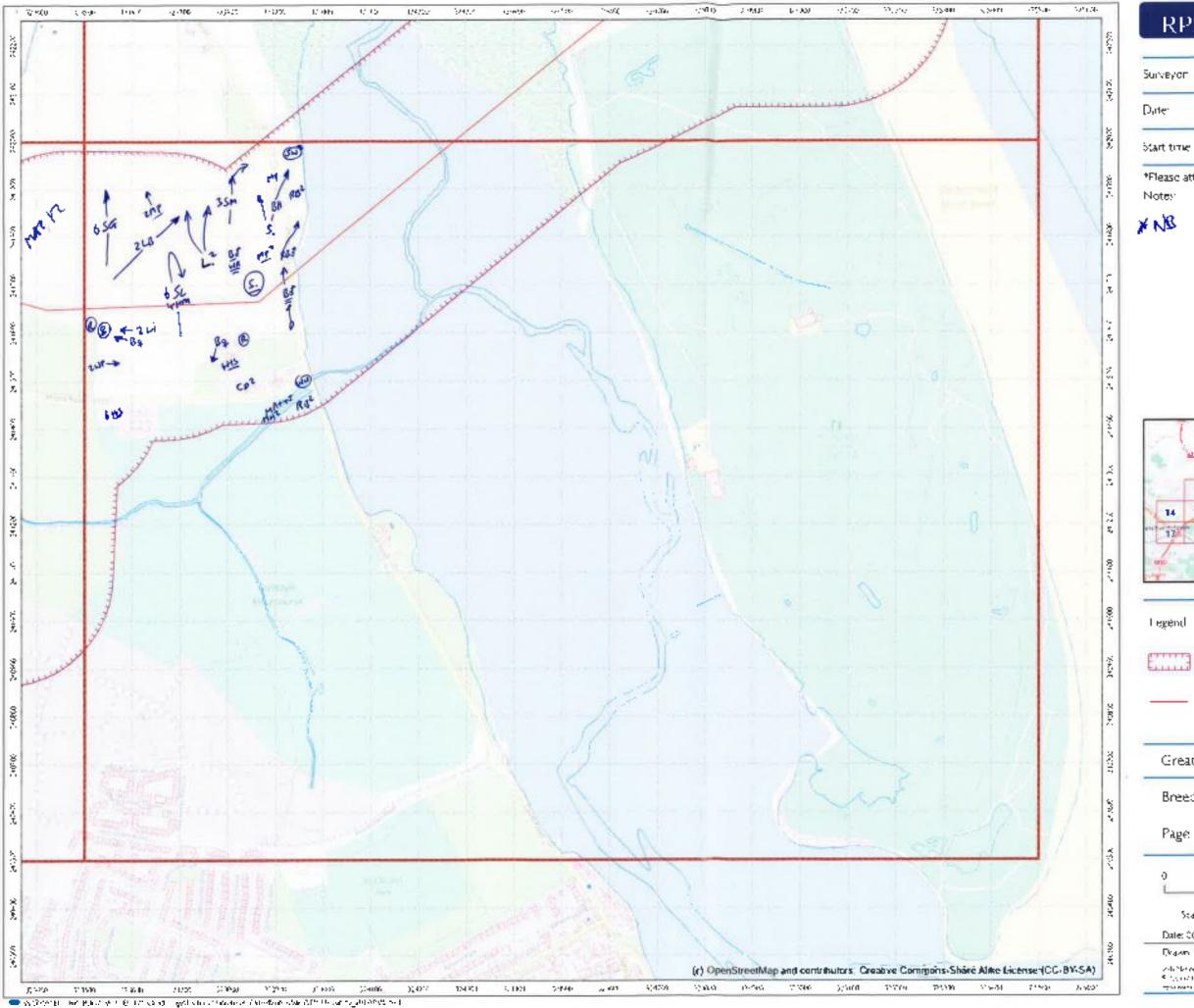
Breeding/winter bind survey.

200 m Scale: 17,500 (9A3)

Date 0e/04/2017 Job No SEC790N Approved DRAFT

legy the relations (PCC) 29000.

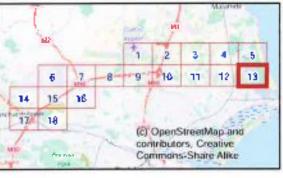
The Open Street Street and House Legislating the Contractive Street and Clinical by the Latinov Street England Street Stree





Nich Veal-Surveyor End time (2100 Start time (05:36) *Flease attach weather sheet

Notes



BBS/VVVO survey boundary (250 m. buffer of route supplied 20170405 appended to previous housilary).

Pipe rixite (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

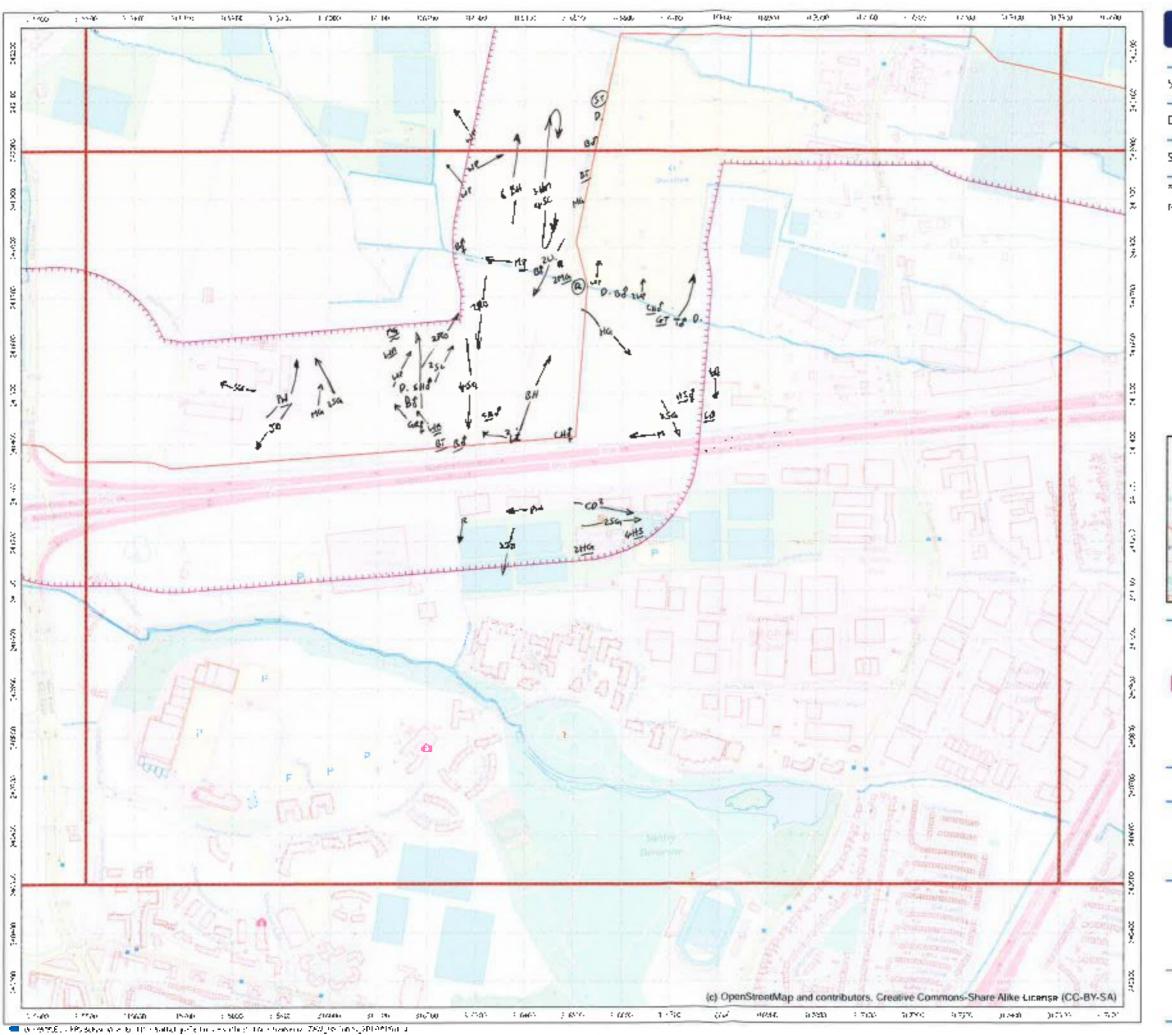
Page 13 of 18

 $201\,\mathrm{m}$ State 17,600 gold Date: 06/04/2017 July No. SEC 7909

Checked SRAFT Approved: DRAFT Drawn CH

with Nervice on TP to 2006. Single of the entry of the contribution and describe College of the \sim 0.11 and to \sim 0.11 an

<u>.</u>	3	Weather Sheet	100		****			Name of the Party	*6	Cover	-	CROUD HEIGHT	VISIONITY
				ć	Beauton		:		•	_		HeinN of aland	
Site	O	000		Call air	- 0	72	2 2	None Onzzle/Met		15 e.g. 3/8		above average	Paor (cikin) 0 Woderate (Lithrin) 1
Date	0	12/90/20	7	Light breeze Gentle (veeze	9828 2 VE528 3	6-7 51-8	m ‰	Light showers Heavy showers	wers 2			wewshed	Good (>3km) 2
Survey		২৮ ১১		Mod. breeze	• 0294	13.18	on d	Heavy fain	1	+	T	<150m D	
Observer	ż	. Vect		Shong breeze	hreeze 6	25.31		Lying Short				-500m 2	
Start Time		04:50		Mod, gale Fresh gale			AW.	Surger Sile	o = 1		0-	Please be as account	Please be as accurate as possible, with
Finish Time		12:00		Whole gale		_		High ground		2 8 8		regarder details, entering only one not a range, e.g. WS - 5, not 5-6. Het details for soler and	modernal details, efficiently only one agains, not a range, e.g. WS - 5, not 5-6. The details for each rack
Sheet 1/	≈ 7	Maps attached	ched	Storm		11 64 72 12 73 ·					_	E.g. WS - 5, gusting 6 (in rates).	g 6 (in moles).
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Fr0st	Show	Notes(e.	Notes(e.g. temperature)	ature		
Hr 1	-	3	2	3/6	2	2]	[J. 01				
Hr 2	-	SLI	0	8/8	~	N	1						
유	2	25	0	3/1	٢	۲	1	1					
Hr 4	2	3	0	8/9	رہ	4	1	1					
က I	ŀΛ	3	0	8/9	2	4		[
Hr 6	m	3	0	818	بے	M	1	1					
Hr 7	3	3	0	2/2	ړم	6	١						
Hr 8													
Field Notes: Maps all	Id Notes: Maps attached												
For office use only hilled <u>Ano</u> date Al boxes.	For office use only, NB- hiddel <u>AND</u> date ALL boxes.	- Logged		Databas	se Entered		Database Validated	/alidated	GIS	GIS Entered		GIS Validated	dated





Nich Veale Start time. 05 40 End time /2:00

*Please attach weather sheet

Notes.





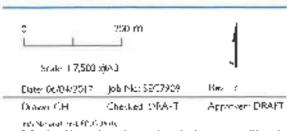
BBS/WWO survey boundary (250 m. tx.ffer of route supplied 2017040S appended to previous boundary).

Pipe route (supplied 20170405).

Greater Dublin Drainage

Breeding/winter bird survey

Page 9 of 18



into Norward and PDO 3000. The Control well near the Contracts well at This are be Secured to the Control well as the Control

RPS	*	Weather Sheel	198	Wind Spead	pead		Direction	Rain/Snow	WOL	Cover	Cloud Height	Visibility
Site	0	GOO		Calm	Beautort 0		zΨ	None Orizzle/Msi		in eighths	Heigh of cloud above average	Poor (« Hon) ()
Oate	10	2102 90 10		Genile breeze	chite 2	4-40 5-51	ш W	Light chowers Heavy showers	wors 2		height of	Good (>3km) 2
Survey	R	RAC		Mod. breeze	evze 4	13.18	on i	Heavy rain		\rightarrow		
Observer		Nich Vede	,	Sworing breeze	inters 6	25-31	* *	Lying Snow	MOU	Frost	150-50dm 2-500m 2	
Start Time				Mod. gale Fresh gale	다 다 다 다 보 나 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다	35 A	¥	On sile		None Ground	Please be as acc	Please be as accurate as passible, with
Finish Time		12:00	П	Vihole gale				High ground		A day		wistber delats, emening only one figure. Not a range, e.g. WS - 5, not 5-6.
Sheet 1/	≈ 0	Maps attached	ched	Starm	¥ 2 = 2	\$ \bar{\pi}{\sigma}					Use moles for extra info. E.g. WS - 5, gusting 6 [in notes].	ra into. rug 6 [in notes].
Weather	Wind	Wind direction	Rain	Cloud	Choud	Visibility	Frost	Snow	Notes(e.	Notes(e.g. femperature)	(ave)	
<u></u> 무 1	٨	41	0	3/4	6	۲,	1	1	20.41			
Hr 2	ب	V	0	8/8	~	~	J	1				
Hr 3	2	n	0	8 14	2	2	1	1	2,51			
Hr 4	2	5	0	3/5	2	2	1	1				
Hr S	Μ	V	0	8/8	را	r	}	1	20,91			
Hr.6	2	50	Q	8/8	2	þ	1	1				
Hr.7	٨	SE	<u>=</u>	18	7	-			7.4			
Hr 8					4							
Field Notes: Maps atlached	f: lached											
For office use only, initial <u>AND</u> date <u>AU</u> boxes.	For office use only, NB- Initial AND dele ALL boxes.	Logged		Databas	Database Entered		Database Validated	/alidated		GIS Entered	GIS Validated	dated





Nich Verla Start time (05:30) End time. | 24 @ @

*Please attach weather sheet Note:





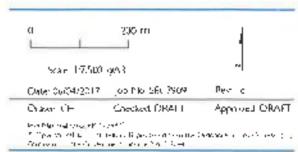
BBS/VVVO survey boundary (250 m. buffer of coate supplied 20170405 appended to previous boundary).

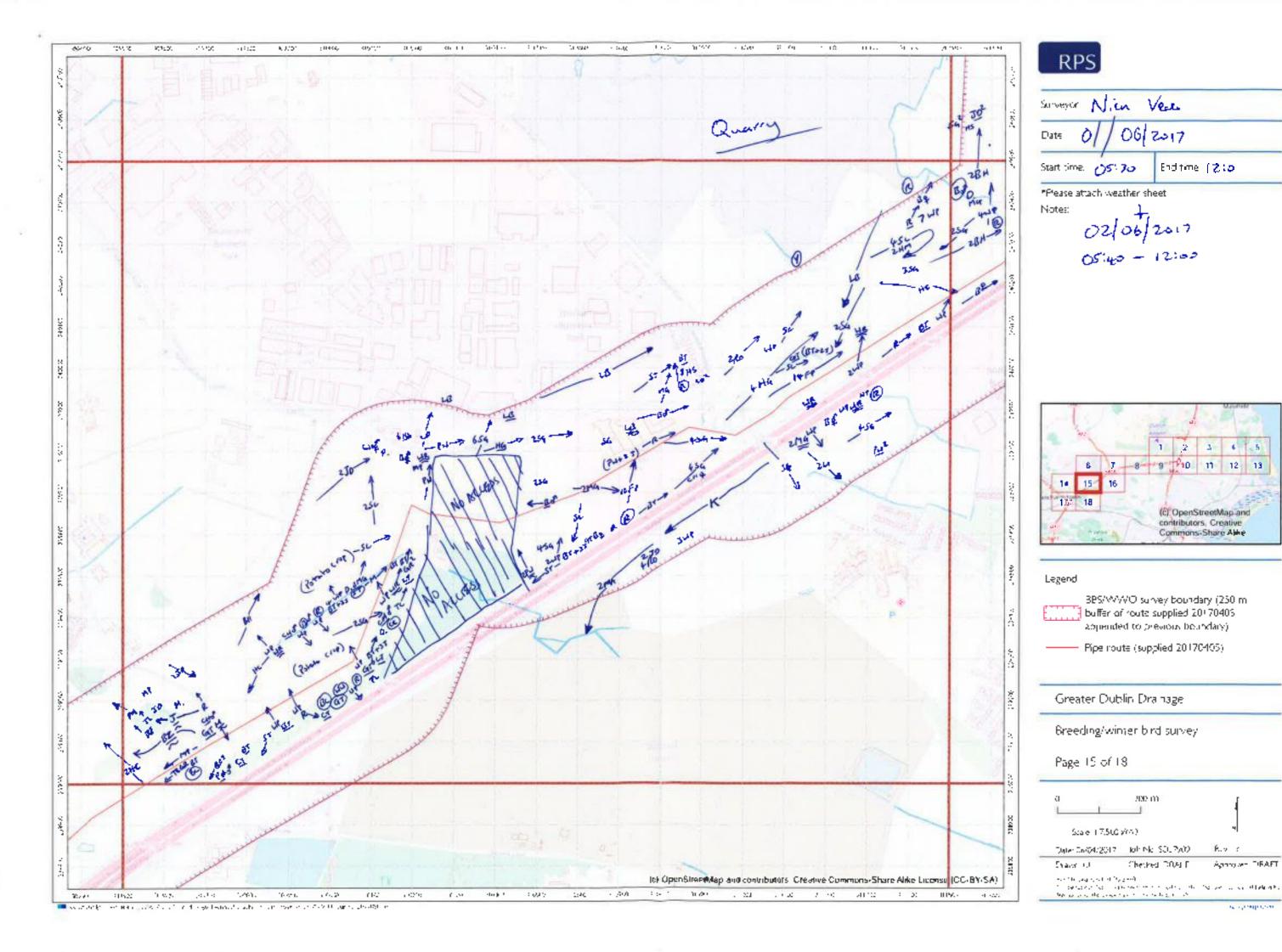
Pipe route (supplied 20170403).

Greater Dublin Drainage

Breeding/winter bird survey.

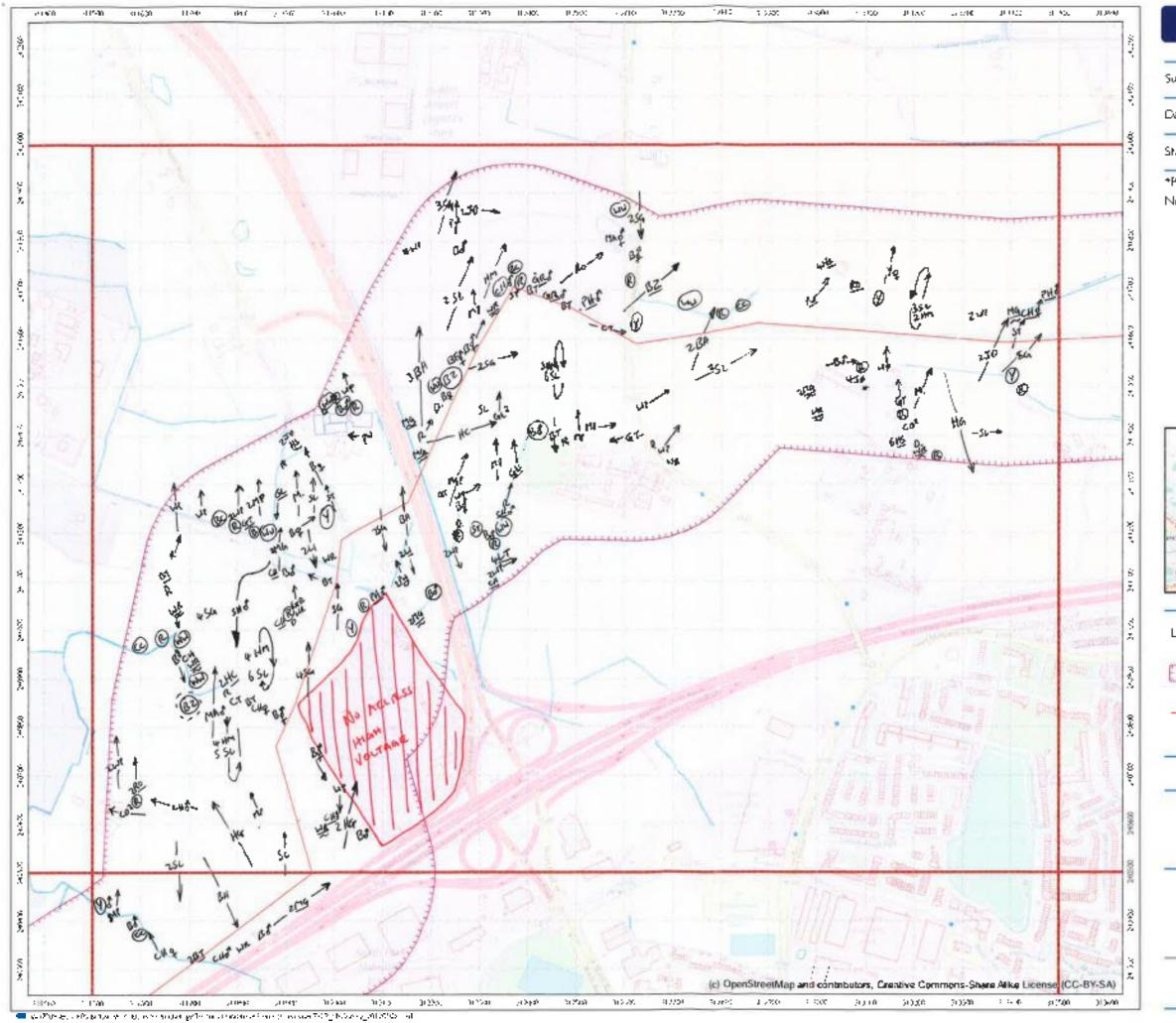
Page 17 of 18





the expension com-

Ne None C In eigration Ne Notes SE Heavy showers SE Heavy showers SW Lyting Snow SW Lyting Snow SW Notes Show SW Notes Show SW Notes Show Sho	RPS	\$	Weather Sheet	eet	Wind Speed	Speed Beautor	Moh	Direction	Rain/Show	Mon	Cloud	Cloud Height	Visibility
St OS Carl Design St OS Carl Design St OS Carl Design St OS Carl Design St OS OS OS OS OS OS OS	Site	৩	00		Call Light Bi			고	None		in eighdes e.g. 38	Height of cloud above average	
1883 1883 1884 1885	Date	3	1 (35/247)		Cight b	929	8-12	ПŅ	Light sh			height of vickshed	Good (>3km) 2
Time OS: 0-2 Nith Vid. Wind	Survey		183		Mod br		13-18		Heavy n				
Time OS: 0.5 Wind pale 7 32.39 NW Nane 1 Okonom 1	Observe			,	Shong	929 939	25-31	ž ≥	- Lyang	Mous	Frost	٤	
Trime 12.0	Start Tim		00:50		Fresh P		8 9 9 9 9 9 9 9	₹	Name On site		_	Please by as accu	rafe as possible with
1 8	Finish Ti		12:00		Whole g				High gra			wealther details, ar	itanng anly one ligue (S - 5, nol 5-6.
1	Sheet 1/		Maps atta	ched	Storm							E.g. W.S - 5. gustli	i infe. g 6 (in notes).
2	Wealher	Wind	Wind	Rain	Cloud	Cloud	Visibility	-	Snow	Notes(e.g.	temperatu	(9.	
2 56 0 5/4 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	<u>+</u> -	2	W	0	3/4	i A	0	I	1	Pare	300	7	
2 5/6 0 5/8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	H-2	7	W	0	873	-	0		1	P. L. A.	600		1 -
3 5/2 0 5/8 2 2 - 12% 4 5/2 0 6/8 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 2 - 14% 4 5/2 0 6/8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	43	2	36	O	1/5	-	-		1	7,11			
3 5E 0 6/8 2 2 2 2 4 4 5 5 5 5 5 5 5 5	4r 4	8	316	0	8/5	2	2	1	1	1230			
w SE O S/8 2 2 - Itelano os attached with the standard of the	4r 5	~	35	0	8/9	2	ب	1	1				
Works: ye set ached ye set only. NB. Logged Database Entered Database Validated GIS Entered GIS Entered	4.6	4	≥€	O	2/5	2	2	1	1				
Notes: ps attached lacalized for but Viscosity over 500 m 50 fire for 8/8. ce use only, NB. Logged Database Entered Database Validated GIS Entered	11.7	÷	56	0	8/5	2	7	1	1	160			
we lacalized for but Visconity over Soom so fine for 88. So use only, NB. Logged Database Entered Database Validated GIS Entered	4.8					1							
os use only, NB. Logged Database Entered Database Validated GIS Entered	Teld Notes	tached											
os use only. NB. Logged Database Entered Database Validated GIS Entered	Same			30	red.	Viser		¥	Sec m		& 1	RASS	
os use only, NB. Logged Database Entered Database Validated GIS Entered													
	or office us pixel AND d pres.	se only, NB late <u>ALL</u>			Databas			atabase \	/alidated		Entered	GIS Vali	Jaled





Surveyor N. Veck

Date 3/ /OS/17

Startaine US Co. End time: 12000

*Please attach weather sheet

Notes



Legend

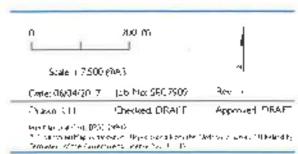
BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

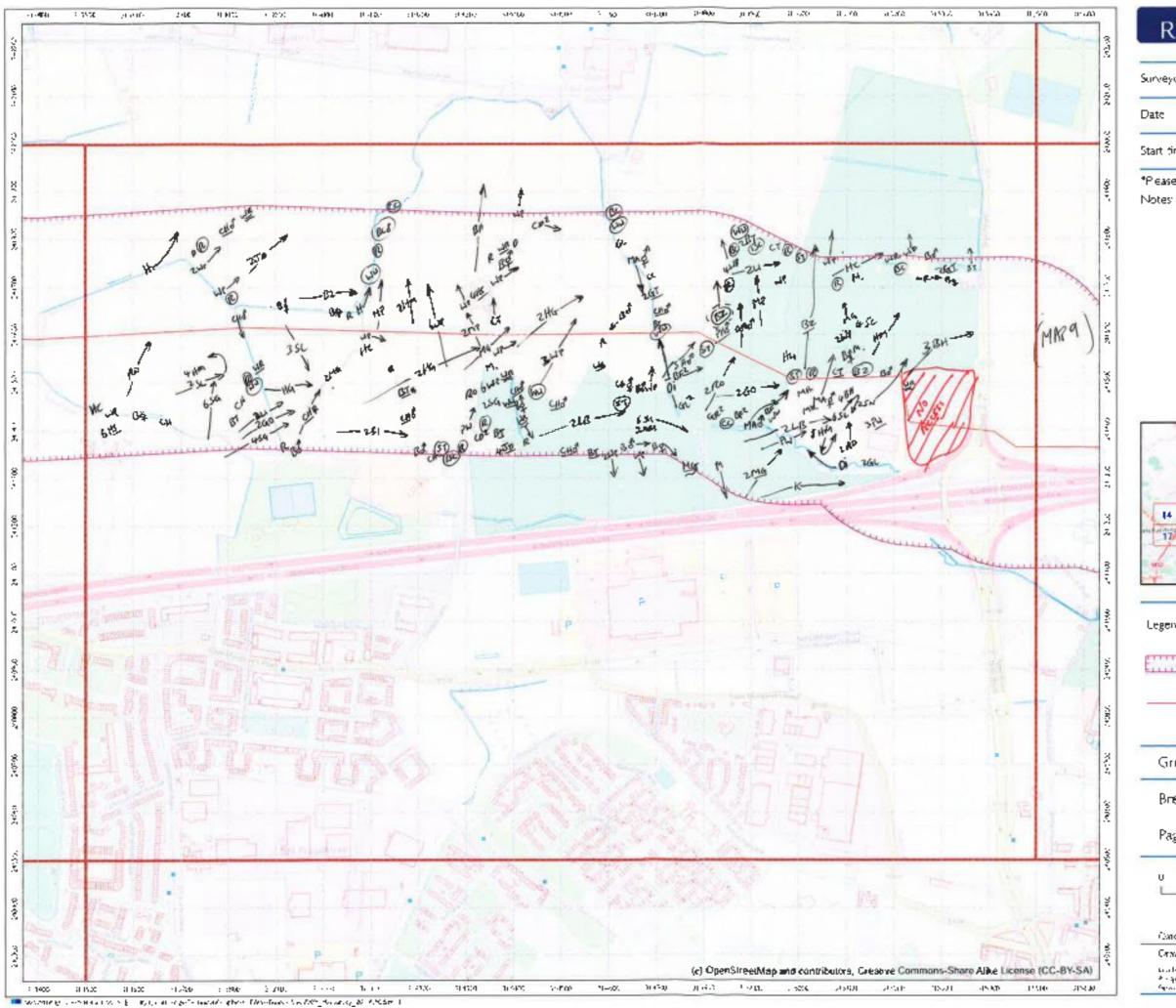
Pipe route (supplied 20170405).

Greater Dublin Drainage

Breeding/winter bird survey

Page 7 of 18







N. Veole. Surveyor. 05/2017 Date 3/ Fnc time. ∫ Z : ⊅ab Start time egrad

*Please attack weather sheet



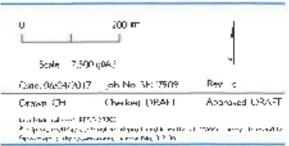
885/VVVO survey boundary (250 m. buffer of route supplied 2017C405 appended to previous boundary).

Pipe route (supplied 20170405).

Greater Dublin Drainage

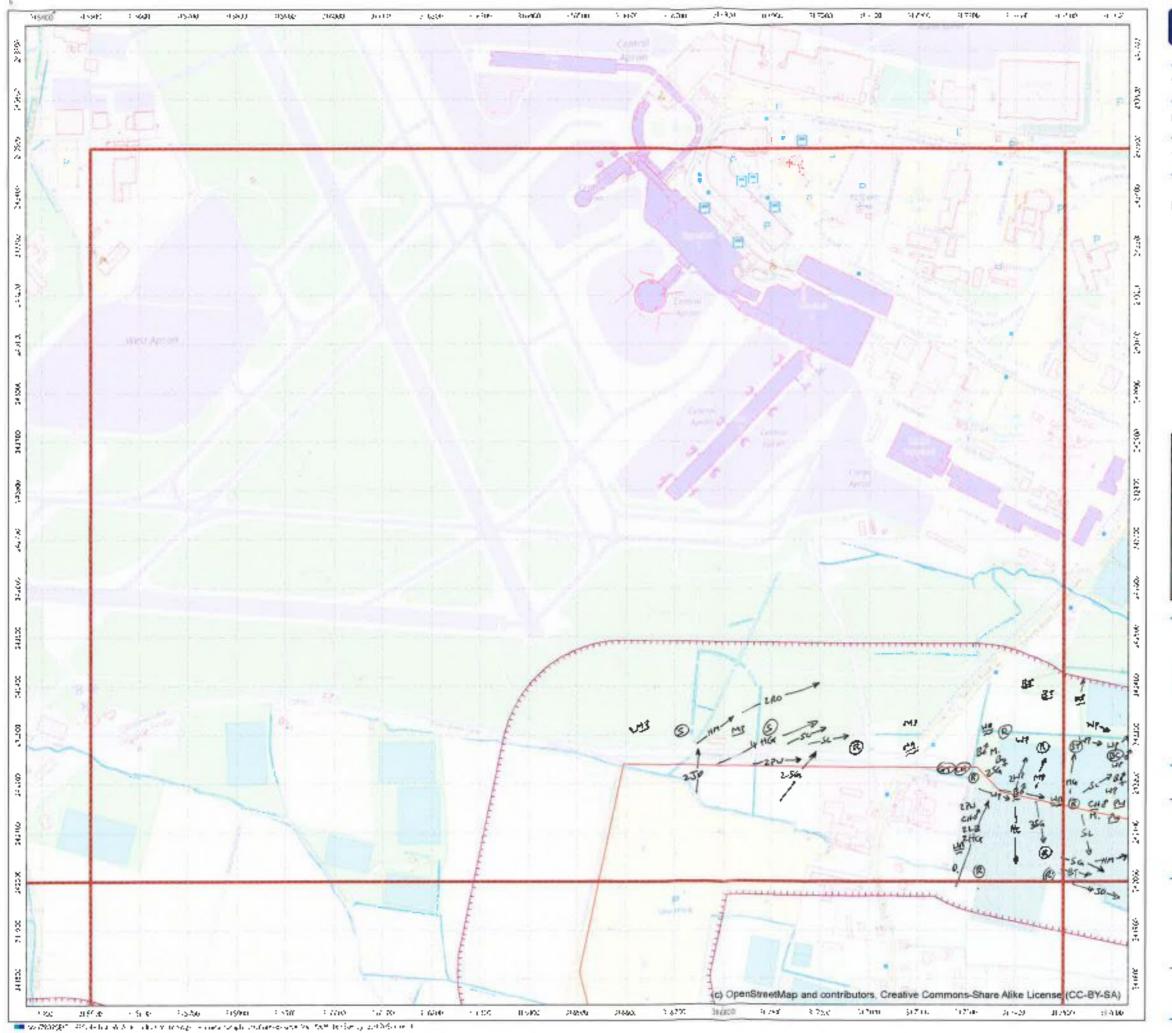
Breeding/winter bind survey

Page 8 of 18.



грациони вани

C-(1) Column Dealloid With None Column Dealloid With None Column Dealloid With None Column Dealloid With None Column Dealloid With Column Dealloid With Column Colu	RPS	Š	Weather Sheel	<u>ē</u>	Wind Speed	peads		Direction	Rain/Snow	Dr.W.	Cloud	Cloud Height	Visibility
State Stat	Site	9	00		Colin			2 4	None		Free eighths	Height of cloud above average	
Simple S	Date	23	5/05/201	7	Center Center	meter 3	4 e	П	Light show		i i i	height of viewshed	Good (>3km) 2
Time 12;00 Nove Signal person 13:00 Nove Signal person Signal person Nove Signal person	Survey	2	ZU.S		Mod. br		13.18	800	Heavy fhi	-1			
Time OS;30 Mod. gale 7 32-36 MV None 0 Nave 1 Os of the satisfied Os of	Observer		. Vock		Strong	626	19-24 25-31	A.S.	Lying 5	MON.	Frost	É	
Maps attached 12.00 Wind State 10 5458 High ground 2 All day 2 2 2 2 2 2 2 2 2	Start Tim		15:30		Mod. ga		39-46	M	Nora Sile			Please be as accur	Please be as accurate as possible, with
Maps attached Storm 11 64-72 Show Motes(e.g. temperature 12 59-64 Mind Rain Cloud Cloud Visibility Frost Show Motes(e.g. temperature Cover height 1 1 1 1 1 1 1 1 1	Finish Ti		9012		Whole g				High grou			weather dotals, entering any one not a range, e.g. WS - 5, not 5.6,	Pering andy one figure 15 - 5, not 5-6,
National Wind Hain Cloud Cloud Visibility Frost Snow Nates(e.g. temperature)	Sheet 1/		Maps atta	ched	Klorn							Use mores for exerta milo. E.g. W.S 5. gusting 6 (in notes).	nno. g 6 (m notes).
3 5E 0 6/4 1 1 1 1 2 - 6-te 2 5E 0 5/4 2 2 - 14 2 3 5E 0 4/7 2 2 - 14 2 3 5E 0 3/8 2 2 - 14 2 3 5E 0 3/8 2 2 - 18 2 400 tess: 410 date conty, NB Logged Database Entered Database Validated GIS Entered	Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	-	Notes(e.g.	femperatur	- i	
2 5E 0 4/7 2 2 11°C 24PLT 14°C 24	<u> </u>	Μ	Sé Sé	0	3/9	-	-		1	7011	1		
2	±2	2	56	3	3/8	-	-	ľ	1	ر ال	Pate		
2 E 0 4/7 2 2 14-7. 14-7. 3 E 0 3/8 2 2	±3	2	w	0	8/5	2	~		1				
3 56 0 14/9 2 2 18°C.	Hr 4	2	w	0	SP	٣	7			1430			
3 SE 0 3/8 2 2 18°C. Yotes: ps attached ice use only. NB. Logged Database Entered Database Entered Database Fitered Database Fitered Database Fitered Database Fitered Database Fitered Database Fitered Database Validated GIS Entered	Hr.5	м	35	0	4/9	r'	2						
40kes: ps attached ice use cmb, NB. Logged Database Entered Database Validated GIS Entered	46	2	> 8	0	3/8	~	Ŋ			7,89			
Votes: ps attached ce use only, NB: Logged Database Entered Database Validated GIS Entered	47	Μ	ш	٥	3/8	۲	۲		1				
yours: ps attached ice use cmb, NB: Logged Database Entered Database Validated GIS Entered	48												
ice use only, NB. Logged Database Entered Database Validated GIS Entered	Teld Notes Maps at	ached											
use use only, NB. Logged Database Entered Database Validated GIS Entered													
	or office us oxes.	e cmb, NB. Bre <u>ALL</u>			Databas	e Entere		atabase V	alidated	GIS	intered	GIS Validated	paled



RP

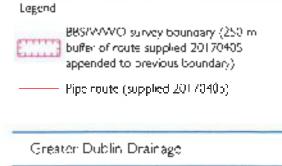
Surveyor: NICK Vecks.

Date: 25 /05/17

Start time 05.30 End time: 12100

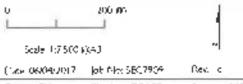
*Please attach weather sheet Notes





Breeding/winter bird survey

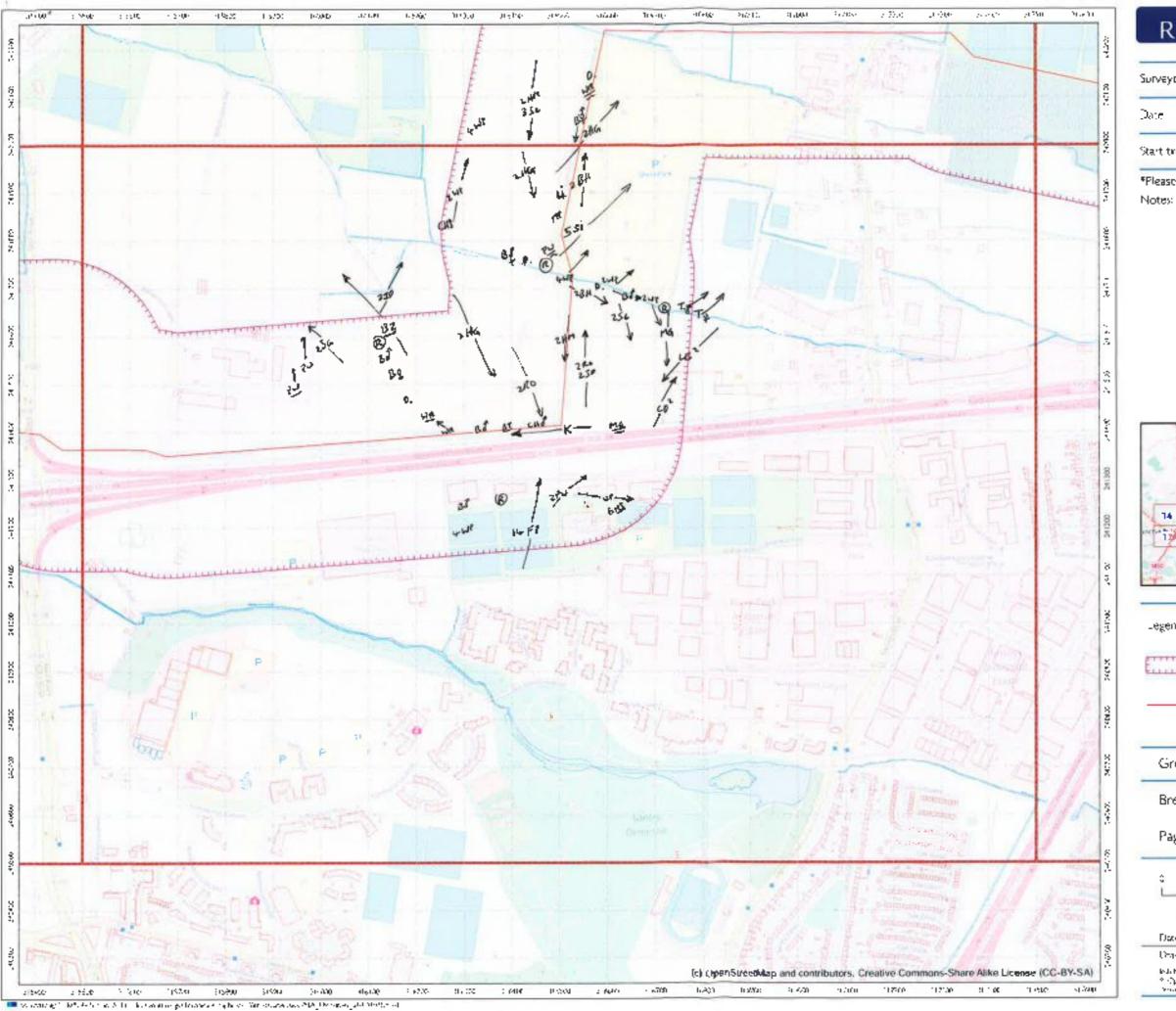
Page Lof 18



Crave 04/04/2017 | job Alex SBC7904 | Rev. ic | Craven CH | Checked: DRAFT | Agranoised CHAST

beta for year part ($P(t) \cap S(0)$). We approximately a function of the part of the part

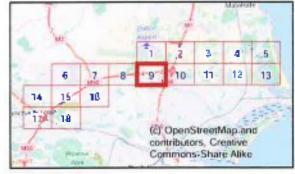
the distance and





Surveyor N.V Start tring: 05:30 End time 12:ಎಳ

*Please attach weather theet



Legend

RBS/WWO survey boundary (250 m. buffer of courte supplied 20170405 appended to previous boundary).

Pipe route (supplied 20170405).

Greater Dublin Drainage

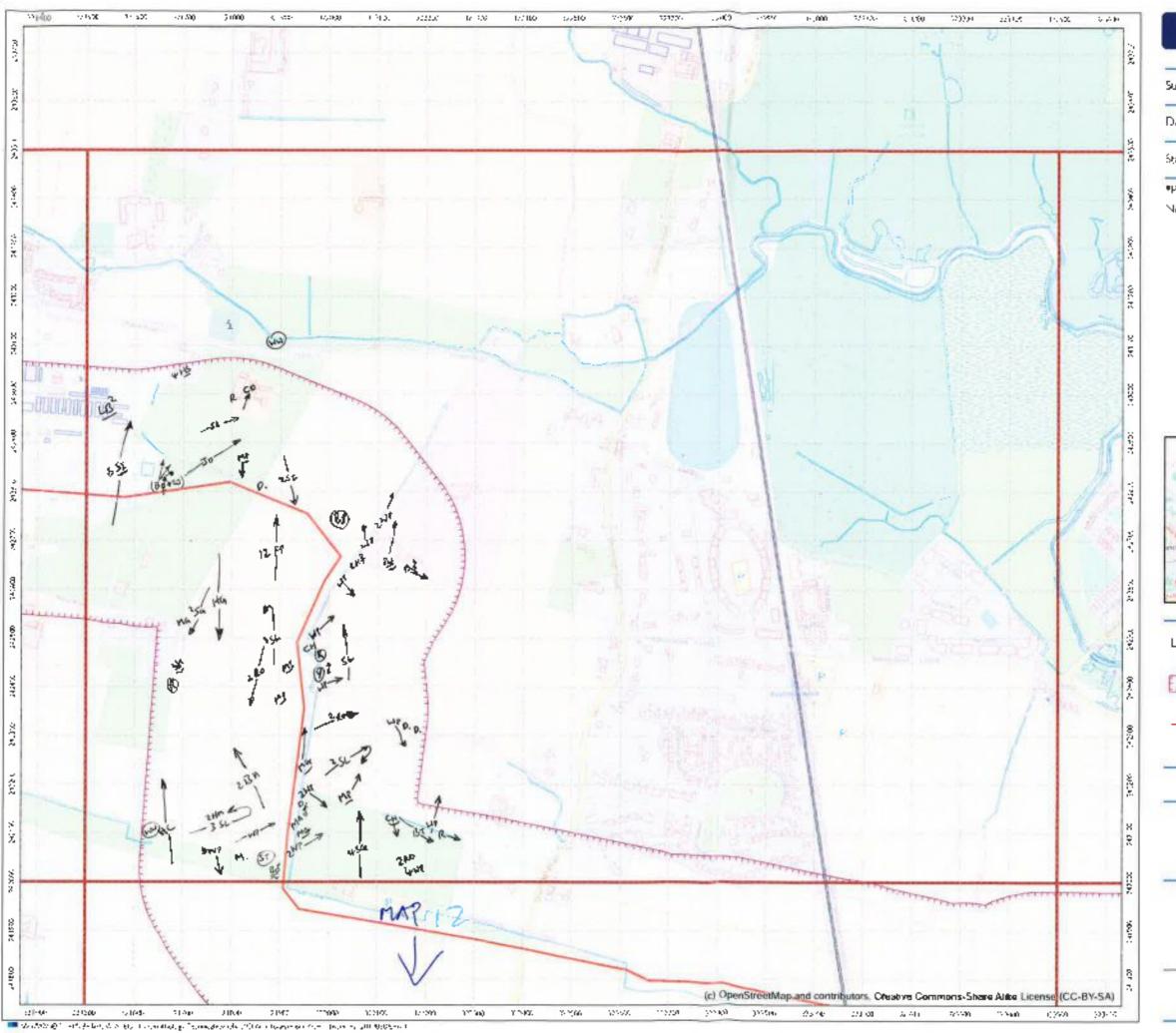
Breeding/winter bird survey.

Page 9 of 18



graph pulctoring

Ros	\$	Weather Sheet	36	N P	Speed Beautori	H QN	Direction	Rein/Snow	MOM	Cover	Cloud Height	Vielbility
Srte	9	000	73	Calm Light air			2 2	None		in eighthe	Height of cloud above average	Poor (<1km)
Date	2	24 (05/2017	24	Continuos	Light breeze 2 Gentle breeze 3	4-7-4	Ψģ	Light ahowers		3	heigh of	Moderate (1-3km) Good (>3km)
Survey	1	Res		Mod. breaza	70823a 4	13-18	60	Heavy rain			<150m 0	
Observer		N-Jeste	Γ	Strong	Shorig breeze 6	25-31	≵ձ	Lying Snow	Mone	Frost	150-500m 1 >500m 2	
Start Time		05:20		Mod. gale Fresh gale	- He - He	8 8 8 8	ž	S S S	۰-	None		rate as possible w
Finish Time		12:40	Γ	Sirong gale Whole gale	gale 9	47.54		High ground		All day 2	-	tering only one fig
Sheet 1/	[]	Maps attached	ched	Storm	\$ ∓						Use notes for extra info. E.g. WS - 5, gusting 8 [in notes],	info. 9 6 [in notes],
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frost	Snow	Notes/e.g	Notes(e.g. temperature)	re)	
1	₩3	_	0	3/2	2	2			10.11			
Hr2	M	SU	0	8/8	,	,		1	F			
보3	3	5 2	0	2/8	, ~	1			1001			
Hr 4	2	/4S	0	7/18	2	2	1	1	1			
s Ī	-	v	0	8/8	7	2	1	1	19.61			
9 <u>±</u>	'n	5 🏚	0	8/8	2	2	1	1				
Hr.7	3	×	0	8/8	2	2)	1	70.6			
¥-8												
Field Noise: Maps attached	ached											
For office use only, NB- Initial AND date ALL	only, NB-	peßgan		Databas	Database Entered		Database Validated	alidated	GISE	GIS Entered	GIS Validated	ated





Surveyor Nich Vener

Date 24 /05/2017

State time 05:120 Factorie 12:00

*Please attach weather sheet

Notes:





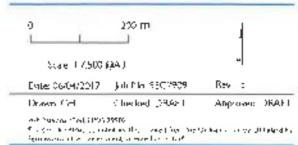
685/VVVVC) survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

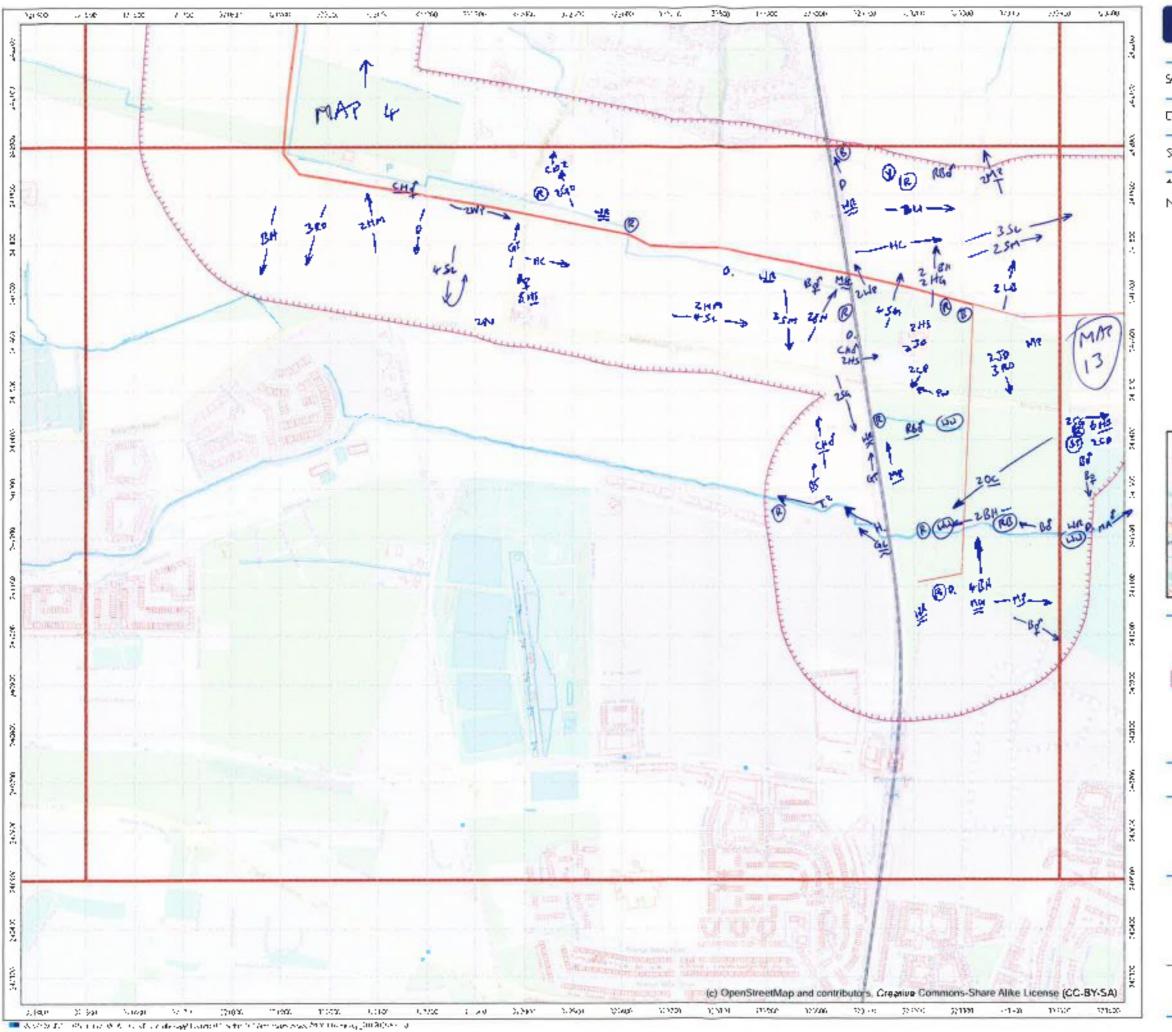
Pripe route (supplied 20170405).

Greater Dublin Drainage

Breeding/winter bird survey

Page 4 of 18







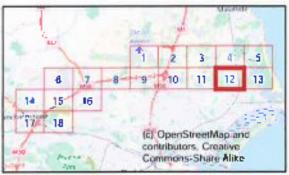
Surveyor N. Vest.

Date 24/05/2017

Start time 05/20 Fixt time. | 2:00

*Please actach weather sheet

Notes



BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

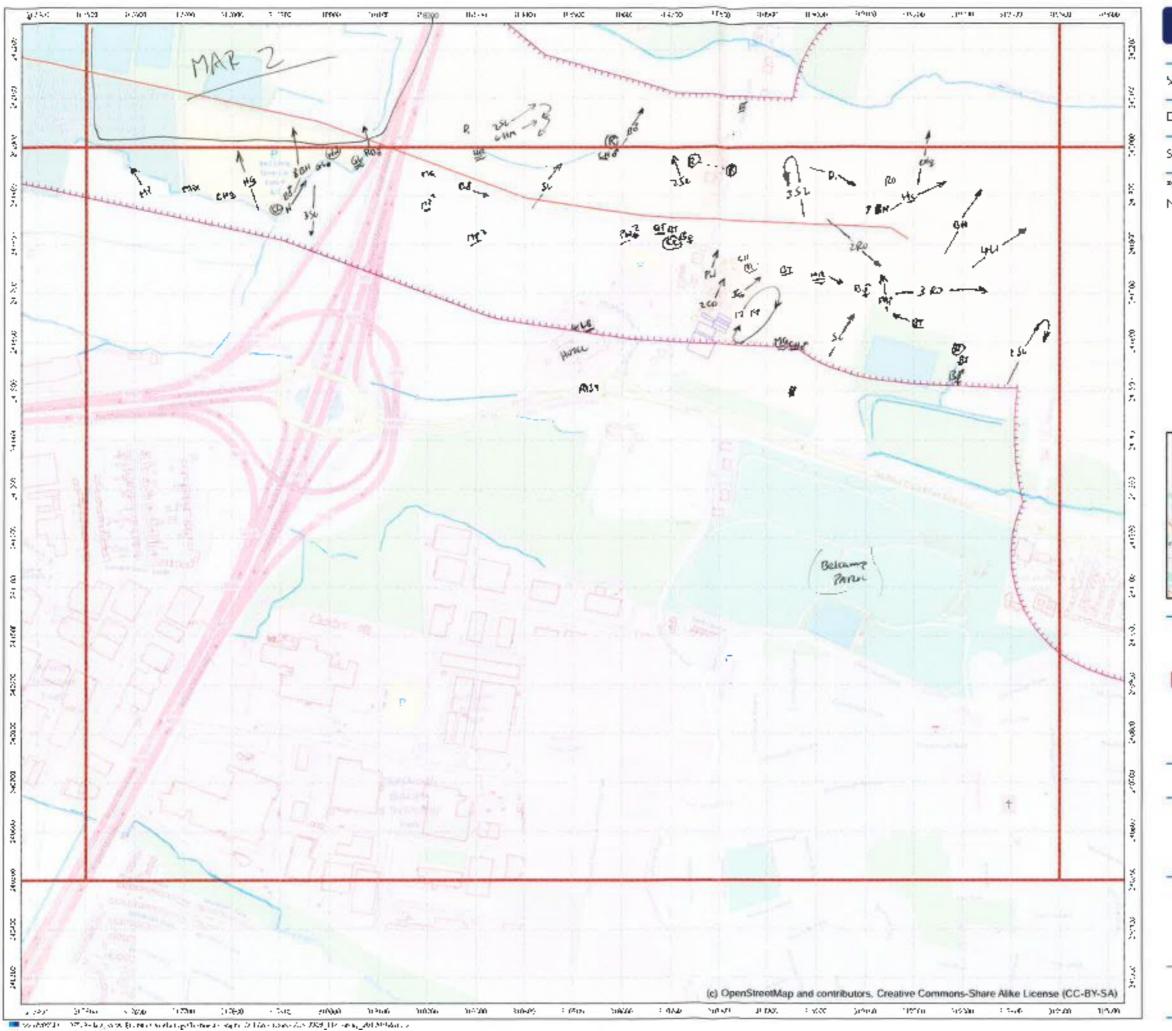
Greater Dublin Drainage

Breeding/winter bird survey

Page 12 of 18



perpaspioran



RP

Start time. 05:20 End time: 12:50

≅Ple) (e altach weather sheet

Notes





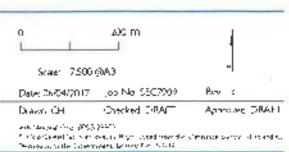
BBS/MAMO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

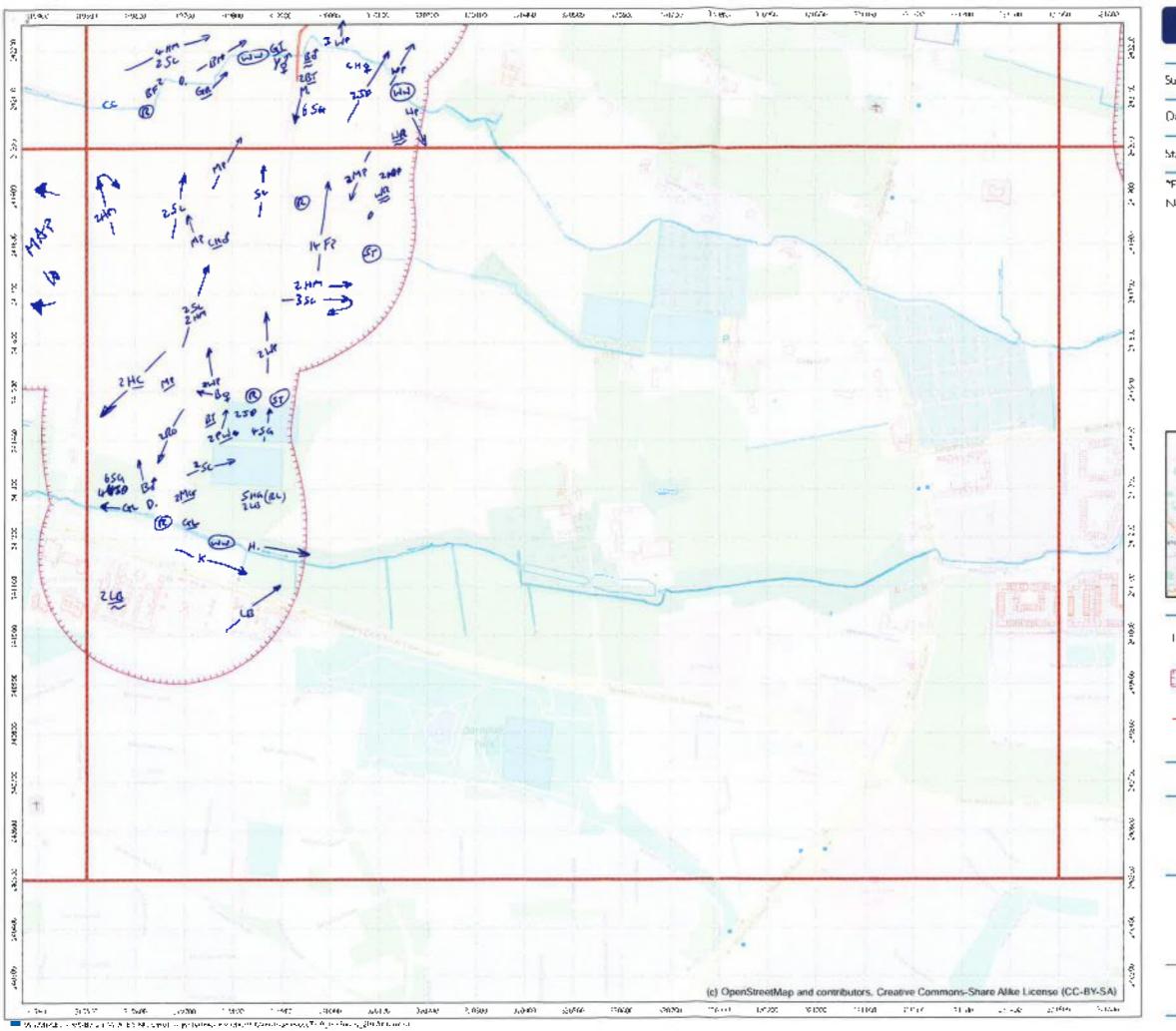
Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 10 of 18







Surveyor N. Veste

Date 24 /05/2017

Start times 05/20 End time, 12/1+0

*Pleaso attach weather sheet

Notes





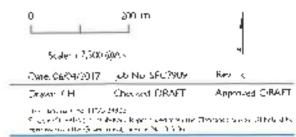
BBS/WWWD survey boundary (250 m polifer of route supplied 20170405 appended to previous boundary)

Pipe raute (supplied 20170405).

Greater Dublin Drainage

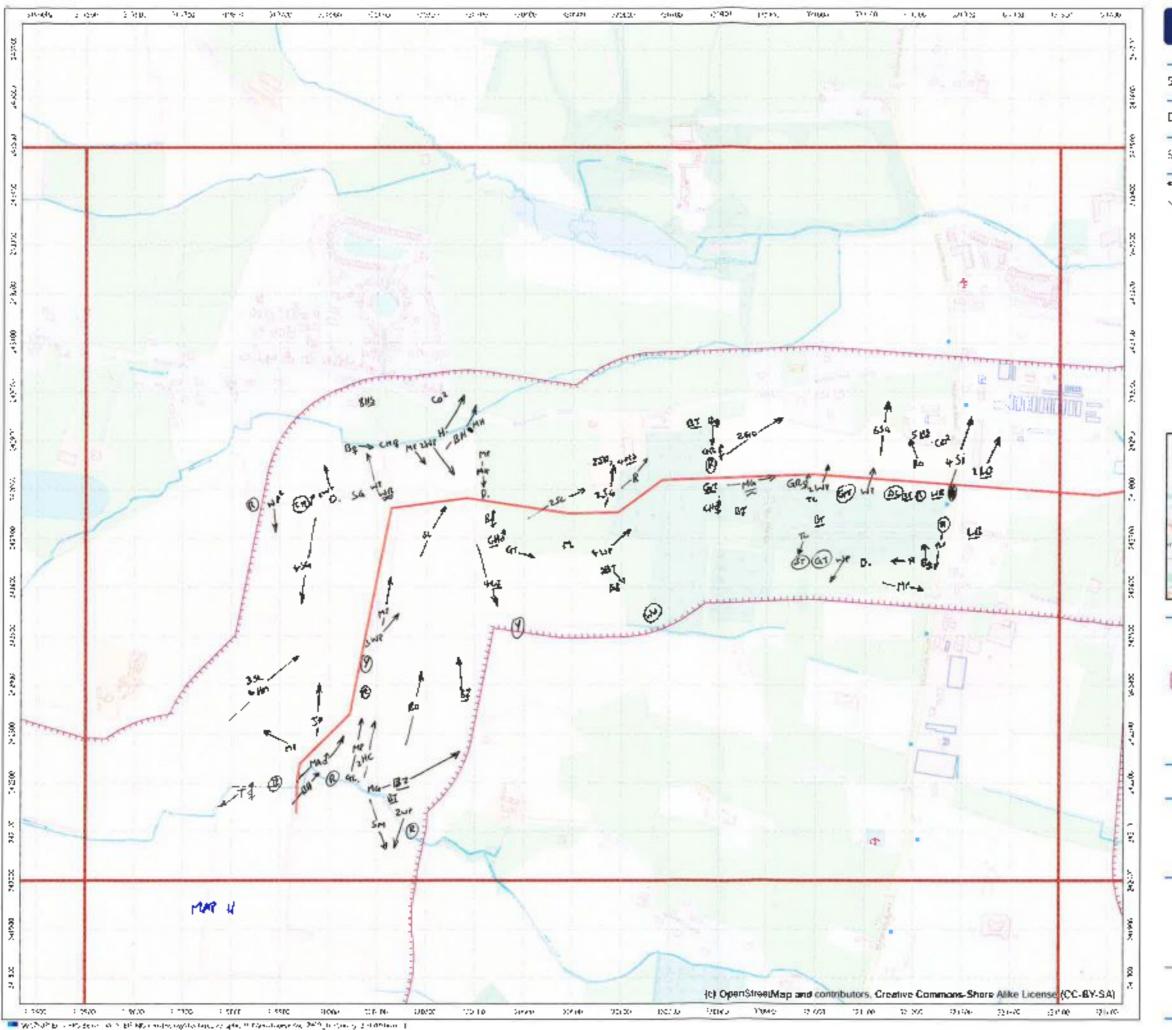
Breeding/winter bird survey

Page 11 of 18

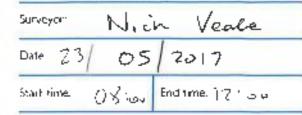


ng papiconi

RPS	*	Weather Sheet	ž	Wind Speed	Speed	Š	Direction	Rain/Snow	NO.	Cover	Cloud Height	Visibility
Site	9	600					z ¥	None Drizzle/Mist		h militar 8.0.38	Height of cloud above average	Poor (<1km) 0
Date	2	23/05/2017	112	Ughi breeze	VB629 3	4 % 5 2	n R	Light showers	OWNERS 2	_	viewshed	Good (>3km) 2
Survey	-	< \$15		Mod. breeze	9286	13-16	w 5	Heavy rain		i	c150m 0	
Observer		N. Vene		Strong breeze	WB620	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	*	Mark Sunds		E .	-500m 2	
Start Time		08/30		Fresh gale		# 68 69 69 69 69	Ě	\$ &	-		Please by as accu	Please by as accurate as possible, with
Finish Time		(2:00		Among gale				High ground		ě	not a range, e.g. WS - 5, not 5-6.	medium course, entering only one ingue, not a range, e.g. WS - 5, not 5-6.
Sheet 1/) Maps attached	Ded S	Storm	11 12	\$ £					E.g. WS · 5, gueting 5 (in notes)	ainio. Ng 5 (in notes).
Weather	Wind	Wind	Rain	Cloud	Cloud	Visibility	Frast	Snow	Notes(e.g	Notes(e.g. temperature)	.e)	
H-1	ل	2	0	8/5	Ļ	4	1		13.5			
Hr 2	4	3	٥	3/2	2	0	1		1600			
Η3	'n	2	0	2/19	ų	4	1	1	2.91			
Hr 4	Μ	3	0	8/8	2	4	1		180			
H.5												
Hr 6	1											
Hr.7												
Hr 8												
Field Notes: Maps attached	#Ghed											
For office use only, NB- hvite! AND date ALL boses.	e anty, NB are ALL	peggol .		Database	se Entered		Database Validated	'alidated		GIS Entered	GJS Validated	qaled

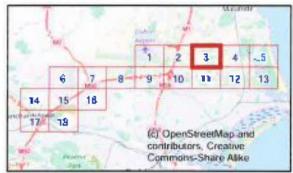






*Pigase attach weather sheet

Notes:



Legend

BBSAVAVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20) 70405).

Greater Dublin Drainage

Breeding/winter bird survey

Page 3 of 8





N. Veals Date 7.3 ېن.کن €nd time: | 72:00

*Please attach weather sheet



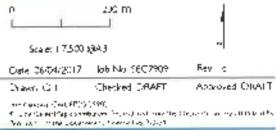
BBS/WWO survey boundary (250 m) buffer of route supplied 20170H05 appended to previous boundary)

Pipe route (supplied 20170405).

Greater Dublin Drainage

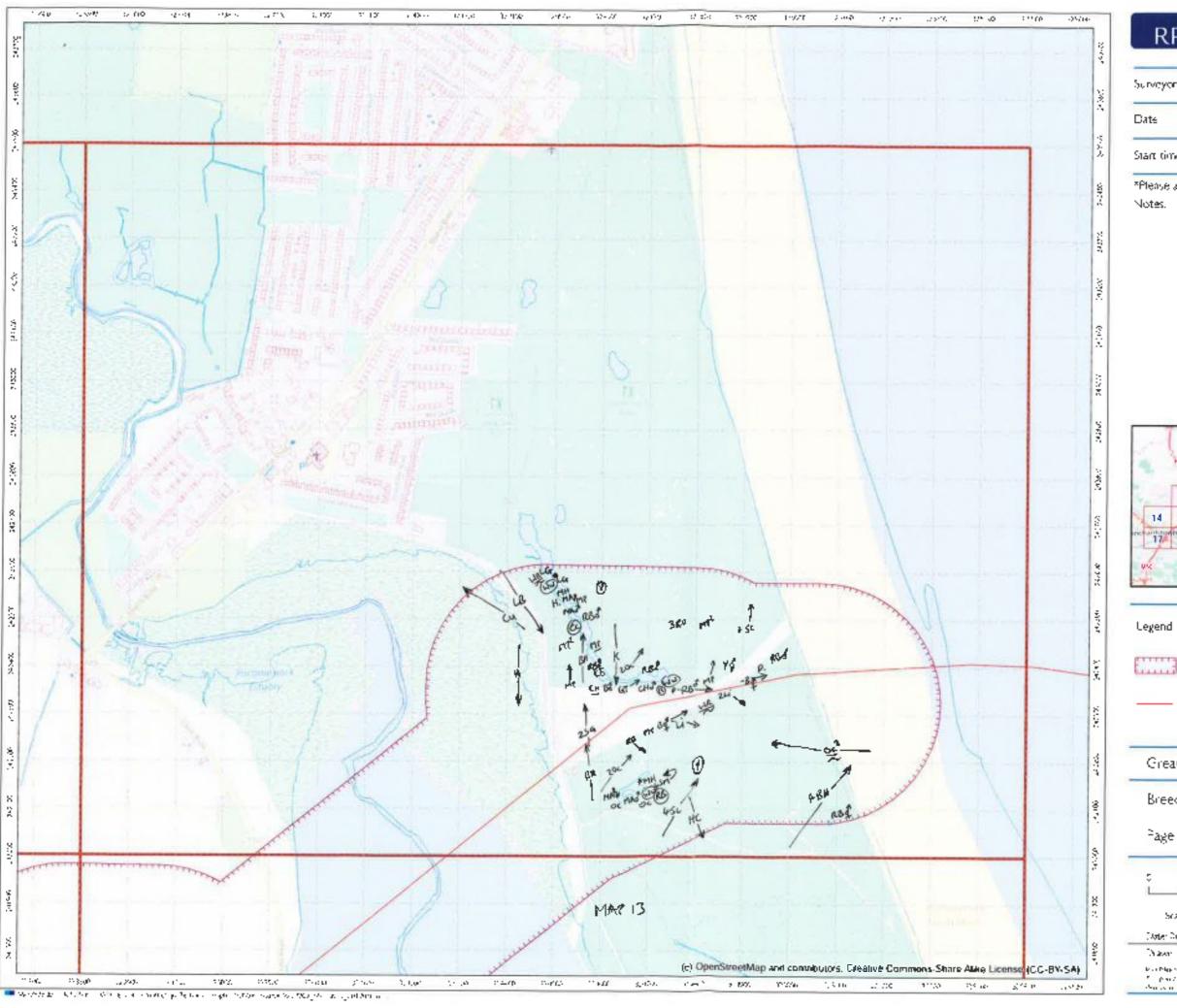
Breeding/winter bird survey

Page 2 of 8



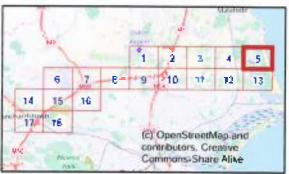
троф вириот

For office use only, NB- initial <u>AND</u> data <u>ALL</u> boxes.	Field Notes: Maps sita	Hr 8	H-7	Hr 6	Hr.S	H-A	¥3	H 2	푸1	Weather	Sheet 1/	Finish Time	Start Time	Observer	Survey	Date	Site	ĘŞ.
e only, NB.	Maps stached				1	7	u	3	W	Wind speed	å[]			Z,	12	Pl	6	*
Logged						2	ξ	38	SW	Wind direction	Maps attached	12:00	08:00	N. Veal	C (36)	19/05/2017	600	Weather Sheet
	Nor allowed				(,	c	ę	0	Rain	sched					7		<u> </u>
Databa	ما لعدواا				9.4	1/0	2/0	3/9	3/2	Cloud	Humicane	Whole gate	Fresh gale	Strong breeze	Mod. breeze	Light breeze	Color (Color (Co	Wind Speed
Datebase Entered	ध्री क				0	,	1	7	2	Cloud height	04 12			breeze 6	1982a 4	Light breeze 2 Gentha breeze 3	-	Spaed Spaed
	\$				1	1	7	۲,	2	Visibility	拉拉克		14 5 14 5 15 6	3 15 15 15 15 15 15 15 15 15 15 15 15 15	13-16	£ 4,		S
Delabese Validated	\$				1		1	1	Ī	Frost			2	٤	5 CS	en m	K Z	Oiraction
Validated	der d						1	1		Snow		High ground	On side	Paris Burga	Heavy rain	Light showers	None Drizzle/Mist	Rain/Snow
	S S				1400	1	701	7000	90P	Motes(e.g. temperature)		2						NOW.
GIS Entered	20									g tem	_	All day			+	64 E3	o In adjude	Cloud
8	9									peratur			Z."		1		\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3 2
GIS Validated	e Ci									e)	E.p. WS - 5, gueling 6 [in notes].	not a range, e.g. WS - 5, not 5-6,	Please be as acc	>500m 2		neight of	Height of cloud	Cloud Height
Idated	Clients										ing 6 fin notes].	mode range, e.g., WS - 5, not 5-6,	Please be at accurate as possible, with			Good (sakm)	Poor (<1lgn)	Visibility
													4					



N. Vede Surveyor 05/2017 End time: 17 : engin Start time.

*Please attach weather sheet



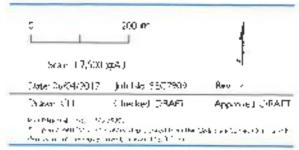
SBS/WWO survey boundary (250 m. hulfer af route supplied 20, 7040S appended to previous boundary).

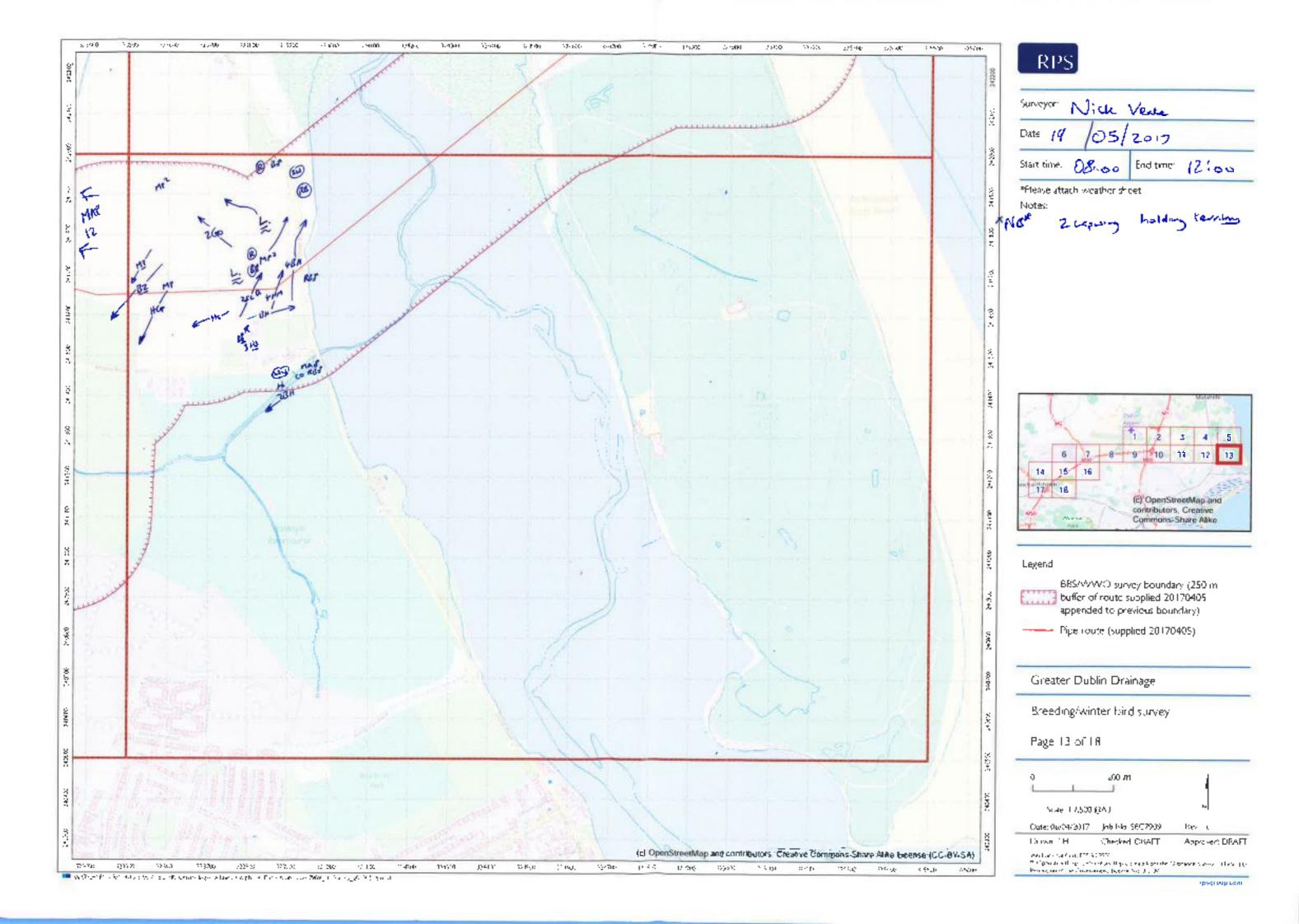
Aperouse (supplied 20170405).

Greater Dublin Drainage

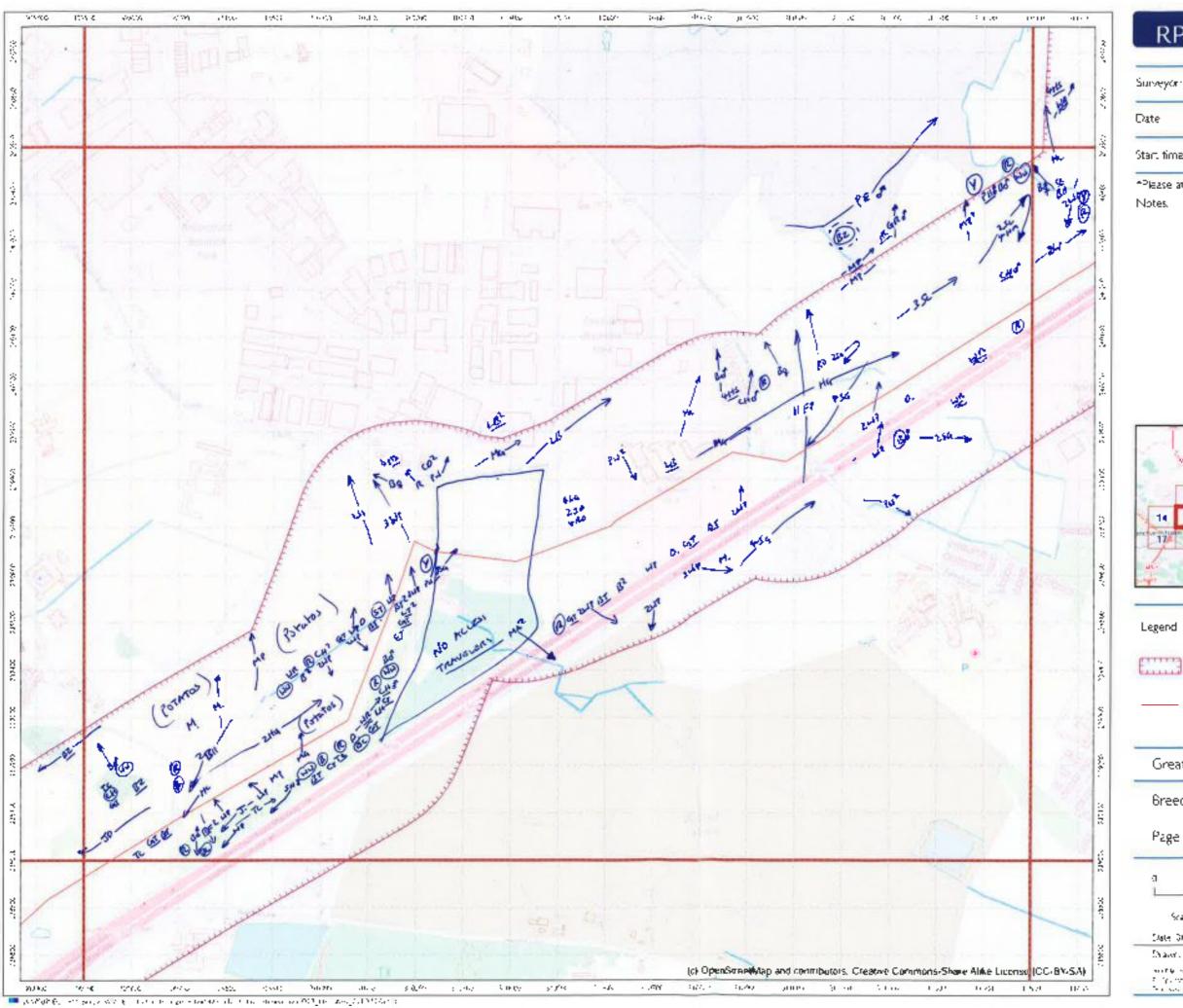
Breeding/winter bird survey

Page 5 of 18





RPS	W	eather Sh	00 1	Wind	Speed Seaul	lant Mach	Direction	Rain/Si	NOW	Cloud	Cloud Height	Visibility
Site	G	PD,		Çatim Ught a	0	2 I	NE NE	None Drizzle/I	0	in eighthe e.g. 3/8	Heighl of cloud above average	Poor (<tkm) Moderate (1-3km)</tkm)
Date		5405/2	417	Light b		4-7	E SE	Light shi	owers 2	B.g. 55	height of viewshed	Moderate (1-3km) Good (s-3km)
Survey		SIBS	- 1	Mod. b	reeze 4	13-16	s	Heavy ra	ain 4		<150m 0	1
Observer		in Vew			breeze 6	25-31	ŚW W	Lying S	Snow	Frost	150-500m 1 >500m 2	
Start Time	_	18.00		Mod. g. Fresh g			NW.	None On site	Q 1	None D Ground 1	Please be as acco	rate as possible, with
Finish Tir	_	CC; 5		Strong Whole		0 55-63		High gro	und 2	All day 2	not a range, e.g. t	rtering only one figur NS - 5, not 5-6.
Sheet 1/	4[]	Maps atta	ched	Storm Hurrica	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Use notes for extr E.g. WS - 5, gusti	a info. ng 8 (m noles).
Weather	Wind speed	Wind direction	Rain	Cloud	Claud height	Visibility	Frost	Snow	Notes(e.g	. temperatu	re)	
Hr1	2	SE.	0	4/2	2	2		_	13°C			
Hr2	2	SE	ð	5/8	2	2		_	1400			*
Hr 3	3	SE	0	5/8	2	2		_	15°C			
Hr 4	3	SIE	0	7/8	2	2			18"C			
Hr 5												
Hr 6												
Hr 7												
Hr B												
Field Notes Maps sit	-											
For office up initial <u>ANO</u> di	only. NB-	Logged		Databas	se Entere	ed Da	atabase V	alidated	GIS	Entered	GIS Vali	dated



Surveyor N. Veale 22/05/2017+19/05/2017

Start fime OB 109

End time. 12:00

*Please attach weather sheet



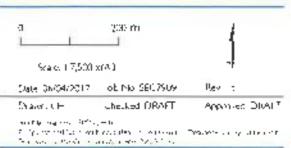
BBS/MMO survey boundary (250 m. buffer of route supplied 20170405 adjustified to previous (incordary).

App route (supplied 20170405).

Greater Dublin Drahage

Breeding/winter bird survey

Page 15 of 18



(payroup com



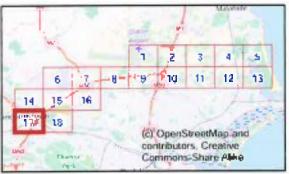


Surveyor Nich Vecer Shortime (Z¦⇔⊅ Start time: 🔘 😘 🍲 🐷

*Flease attach weather sneet

Notes:

Dipper nearly water N3 Bridge H



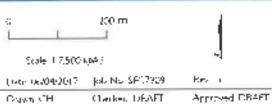
BBS/WWO kinsey boundary (250 m. buffer of route supplied 20, 70405 appended to previous boundary)

Pipe route (rupplied 20170405).

Greater Dublin Drainage

Breeding/winter bird survey

Page 17 of 18



Projection to the province of the province with the second by with the second by with the second by the second by

quagraphicom