

G7 **NIEA Groundwater Quality Test Results**

G7 NIEA Groundwater Quality Test Results

Groundwater monitoring data was acquired from an NIEA borehole at Grid Reference E332370, N 388190. The results are presented in Table G7.1.

A summary of the exceedances is provided in Table G7.2.

Table G7.2 Summary of exceedances of groundwater monitoring results

Location of exceedance (response zone strata)	Contaminant	Concentration (mg/l) / pH Value	UK DWS (mg/l)
NIEA borehole (Reference: GBNIGWNB15-C)	Phosphorus	12	2.2

Table G7.1 NIEA Groundwater Quality Data

Location and Description:**Reference:** GBNIGWNB15-C**Co-ordinates:** E 332370, N 388190**Data Source:** NIEA

Date Sampled	Units	UK DWS	13/03/2008	18/06/2008	04/09/2008	29/09/2008	21/11/2008	09/03/2009
Determinand								
1,2,3-Trichlorobenzene	ng/l		<6		<6			<6
1,2,4-Trichlorobenzene	ng/l		<6		<6			<6
1,3,5-Trichlorobenzene	ng/l		<6		<6			<6
2,3,6 - TBA	ug/l		<0.05		<0.05			<0.05
2,4 - D	ug/l		<0.05		<0.05			<0.05
2,4 - DB	ug/l		<0.05		<0.05			<0.05
2,4,5 - T	ug/l		<0.05		<0.05			<0.05
Aldrin	ng/l	30	<6		<6			<6
Alkalinity as CaCO ₃	mg/l		115	106	93.5		102	108
Aluminium, trace total as Al	ug/l	200	<0.4		7.79			0.71
Ametryn	ug/l		<0.020		<0.020			<0.020
Ammoniacal Nitrogen as N	mg/l		<0.04	0.05	<0.04		0.09	<0.04
Antimony, total as Sb	ug/l	5	<1		<0.01			0.18
Arsenic, trace filtered as As	ug/l	10	<0.1		<0.1			0.29
Atrazine	ug/l	0.1	<0.020		<0.020			<0.020
Azinphos-ethyl	ug/l		<0.002		<0.002			<0.002
Azinphos-methyl	ug/l	0.1	<0.002		<0.002			<0.002
Barium, ultra-low total as Ba	ug/l	1000	<0.1		<0.1			<0.1
Benazolin	ug/l		<0.06		<0.06			<0.06
Bentazone	ug/l	100	<0.05		<0.05			<0.05
Beryllium, trace total as Be	ug/l		<0.05		<0.05			<0.05
beta-HCH	ng/l							<2
Boron, ultra-low total as B	ug/l	1000	4.71		6.38			8.3
Bromoxynil	ug/l	0.1	<0.05		<0.05			<0.05
Cadmium, ultra-low total as Cd	ug/l	5	<0.05		<0.05			<0.05
Calcium , Total as Ca	mg/l	250	38	33	34		29	32
Carbophenothion	ug/l		<0.002		<0.002			<0.002
Chlopyralid	ug/l		<0.05		<0.05			<0.05
Chlordane - alpha	ng/l		<2		<2			<2
Chlordane - gamma	ng/l		<2		<2			<2
Chlorfenvinphos	ug/l	0.1	<0.002		<0.002			<0.002
Chloride as Cl	mg/l	250	12	12	11		11	16
Chlorpyrifos	ug/l	30*	<0.002		<0.002			<0.002
Chlortoluron	ug/l	0.1	<0.05		<2.00			<0.05
Chromium, Ultra-low Total as Cr	ug/l	50	2.46		3.23			2.37
Cobalt, ultra-low total as Co	ug/l		<0.03		<0.03			<0.03
Colour	mg/l Pt/Co	20	<1	<1.0	<1.0		<1.0	<1.0
Copper, ultra-low total as Cu	ug/l	2000	0.21		<0.15			0.28
Cyanazine	ug/l	0.6*	<0.020		<0.020			<0.020
Cyanide, Total as CN	mg/l	0.05	<0.1		<0.1			<0.1
Cypermethrin	ug/l		<0.002		<0.002			0.003
Demeton-s-methyl	ug/l							<0.020
Diazinon	ug/l	0.1	<0.002		<0.002			<0.002
Dicamba	ug/l		<0.05		<0.05			<0.05
Dichlobenil	ng/l		<2		<2			<2
Dichlorprop	ug/l	0.1	<0.05		<0.05			<0.05
Dichlorvos	ug/l	0.1	<0.002		<0.002			<0.002
Dieldrin	ng/l	0.03	<6		<6			<6
Diflufenican	ug/l		<0.020		<0.020			<0.020
Dimethoate	ug/l	0.1	<0.020		<0.020			<0.020
Disulphoton	ug/l		<0.020		<0.020			<0.020
Diuron	ug/l		<0.05		<2.00			<0.05
Endosulphan alpha	ng/l	100	<6		<6			<6
Endosulphan beta	ng/l	100	<6		<6			<6
Endrin	ng/l	100	<6		<6			<6
EPTC	ug/l		<0.020		<0.020			<0.020

Ethofumesate	ug/l		<0.020		<0.020		<0.020	
Faecal coliforms	cfu/100ml		0		0		0	
Fenitrothion	ug/l	0.1	<0.002		<0.002		<0.002	
Fenoprop	ug/l	0.1	<0.05		<0.05		<0.05	
Fenpropidin	ug/l				<0.020		<0.020	
Fenpropimorph	ug/l		<0.020		<0.020		<0.020	
Fenthion	ug/l		<0.002		<0.002		<0.002	
Field Alkalinity	mg/L		249	120		36.0	36	61.5
Field Ammonia	mg/L NH3_N		<0.01	0.11		<0.001	<0.01	<0.01
Field Dissolved Oxygen	mg/l		8.37	9.13		9.92	9.33	9.74
Field EH	mV		178.5	48.1		249	222	242.2
Field EC	µS/cm			559		21	39	92.1
Field Nitrate	mg/L			1.3		3.30	<0.01	<0.01
Field Nitrite	mg/L					<0.001	<0.001	<0.001
Field pH	pH		6.0	7.4		6.87	6.79	7.79
Field Phosphorus	mg/L					0.1	<0.1	<0.1
Field Temp	C		6.6			11.70	10.2	10.4
Fluoride as F	mg/l	1.5	<0.1		<0.1			0.1
Fluoroxypyr	ug/l		<0.05		<0.05			<0.05
Flutriafol	ug/l		<0.020		<0.020			<0.020
Hardness, Total as Ca	mg/l		61	56.1	57.1		50.5	55
HCH - alpha	ng/l		<2		<2			<2
HCH - beta	ng/l		<2		<2			<2
HCH - gamma	ng/l		<2		<2			<2
Heptachlor Epoxide	ng/l	30	<2		<2			<2
Hexachlorobenzene	ng/l	0.1	<2		<2			<2
Hexachlorobutadiene	ng/l		<2					<2
Ioxynil	ug/l	0.1	<0.05		<0.05			<0.05
Iron, ultra-low total as Fe	ug/l	200	<3	1.5	<3		5.13	<3
Isodrin	ng/l	100	<6		<6			<6
Isoproturon	ug/l	0.1	<0.05		<2.00			<0.05
Lead, Ultra-low Total as Pb	ug/l	25	<0.1		<0.1			<0.1
Linuron	ug/l	0.1	<0.05		<2			<0.05
Magnesium, Total as Mg	mg/l	50	14	14	14		13	14
Malathion	ug/l	0.1	<0.002		<0.002			<0.002
Manganese, trace total as Mn	ug/l	50	<0.05	0.3	<0.05		<0.05	0.05
MCPA	ug/l	0.1	<0.05		<0.05			<0.05
MCPB	ug/l	0.1	<0.05		<0.05			<0.05
Mecoprop	ug/l	0.1	<0.04		<0.04			<0.04
Mercury, Total as Hg	ug/l	1	<0.1		<0.1			<0.1
Metazochlor	ug/l		<0.020		<0.020			<0.020
Methabenzthiazuron	ug/l		<0.05		<2.00			<0.05
Mevinphos	ug/l		<0.002		<0.002			<0.002
Molybdenum, Total as Mo	ug/l	70*	<5		<5			<2
Monlinuron	ug/l		<0.05		<2.00			<0.05
Monuron	ug/l		<0.05		<2.00			<0.05
Nickel, ultra-low total as Ni	ug/l	20	0.35		<0.1			0.29
Nitrate as N	mg/l	50	8.7	8	8		8.1	6.8
Nitrite as NO2, Low Level	mg/l	500000			<0.01		<0.01	<0.01
Nitrogen, Total Oxidised as N	mg/l		8.7	8	8		8.1	6.8
o,p - DDE	ng/l		<2		<2			<2
o,p - DDT	ng/l		<2		<2			<2
o,p - TDE	ng/l		<2		<2			<2
p,p - DDE	ng/l		<2		<2			<2
p,p - DDT	ng/l		<2		<2			<2
p,p - TDE	ng/l		<2		<2			<2
Parathion-ethyl	ug/l		<0.002		<0.002			<0.002
Parathion-methyl	ug/l		<0.002		<0.002			<0.002
Pendimethalin	ug/l	0.1	<0.020		<0.020			<0.020
Phorate	ug/l		<0.002		<0.002			<0.002
Phosalone	ug/l		<0.020		<0.020			<0.020
Phosphate, Ortho as P	mg/l		<0.1	<0.1	0.6		<0.1	<0.1
Phosphorus, Total as P	mg/l	2.2	<0.1	11	<5		12	
Pirimicarb	ug/l	0.1	<0.020		<0.020			<0.020
Pirimiphos-methyl	ug/l		<0.002		<0.002			<0.002
Potassium, Total as K	mg/l	12	0.5	0.3	0.3		0.22	0.24
Prometryne	ug/l		<0.020		<0.020			<0.020

Propachlor	ug/l		<0.020		<0.020		<0.020
Propazine	ug/l		<0.020		<0.020		<0.020
Propetamphos	ug/l	0.1	<0.020		<0.020		<0.020
Propiconazole - Total	ug/l				<0.020		<0.020
Propyzamide	ug/l		<0.020		<0.020		<0.020
Selenium, total as Se	ug/l	10	0.28		<0.1		0.19
Silica, reactive, as SiO2	mg/l		27.4		28.9		27.36
Silver , Total as Ag	ug/l	10	<15		<15		<7
Simazine	ug/l	0.1	<0.020		<0.020		<0.020
Sodium , Total as Na	mg/l	200	21	13	14	12	13
Strontium , Total as Sr	ug/l		13		<10		4
Sulphate as SO4	mg/l	250	13	14	9	15	10
Tecnazene	ug/l		<0.010		<0.010		<0.010
Tecnazene	ng/l		<10				
Terbutryn	ug/l		<0.020		<0.020		<0.020
TOC (Filtered)	mg/l		1.4	0.5	2	0.9	3.1
Total coliform	cfu/100ml		0		0		0
Total Phosphorus	ug/l						11
Triademefon	ug/l		<0.020		<0.020		<0.020
Triallate	ug/l		<0.010		<0.010		<0.010
Triallate	ng/l		<10		<0.002		
Triazophos	ug/l	0.1	<0.002				<0.002
Triclopyr	ug/l		<0.05		<0.05		<0.05
Trietazine	ug/l		<0.020		<0.020		<0.020
Trifluralin	ug/l	0.1	<0.010		<0.010		<0.010
Trifluralin	ng/l	100	<10				
Turbidity	NTU	4	0.3	<0.2	<0.2	<0.2	0.86
TVC @ 22°C	cfu/ml		2500		10		20
TVC @ 37°C	cfu/ml		90		30		<10
Uranium, trace total as U	ug/l	15*	<0.1		<0.1		<0.1
Zinc , Total as Zn	ug/l	5000	22		<5		5

Notes:

UK DWS denotes UK Drinking Water Standard

This data has been provided by Northern Ireland Environment Agency

* denote World Health Organisation (WHO)

Denotes exceedance of UK DWS

G8 Groundwater Quality Results

G8 Groundwater Quality Test Results

Groundwater was sampled during the Main Ground Investigation and was tested for metals, non-metals, inorganics and organics. The results are presented in Table G8.1.

A summary of the exceedances is provided in Table G8.2.

Table G8.2 Summary of exceedances of groundwater monitoring results

Location of exceedance (response zone strata)	Contaminant	Concentration (mg/l) / pH Value	EQS , freshwater (mg/l)	UK DWS (mg/l)
BH1102	pH	8.1	6 - 9	6 - 8
BH108	pH	8.1	6 - 9	6 - 8
	Fluoranthene	0.1	0.1	0.1
	Benzo[b]fluoranthene	0.053	0.03	0.1
	Indeno[1,2,3-cd]pyrene	0.04	0.02	0.1
	Benzo[g,h,i]perylene	0.041	0.02	0.1
BH123 (Glacial Till)	pH	8.2	6 - 9	6 - 8
BH124	pH	8.2	6 - 9	6 - 8

Table G8.1 Groundwater Quality Results from Main Ground Investigation

Metals and non-metal inorganics

Units:			Calcium as Ca (dissolved)	Magnesium as Mg (dissolved)	Sodium as Na (dissolved)	Cadmium as Cd (dissolved)	Chromium as Cr (dissolved)	Copper as Cu (dissolved)	Lead as Pb (dissolved)	Nickel as Ni (dissolved)	Zinc as Zn (dissolved)	Iron as Fe (dissolved)	Total Alkalinity as CaCO ₃	Total Hardness as CaCO ₃	Total Sulphate as SO ₄ (Dissolved)	pH units	Arsenic as As (dissolved)	Mercury as Hg (dissolved)	Selenium as Se (Dissolved)	Vanadium as V (Dissolved)	Chromium VI as Cr	Sulphide as S	Chemical Oxygen Demand (Settled)	Biochemical Oxygen Demand
Sample Location	Depth (m)	Date Sampled	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pH Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Environmental Quality Standard (EQS)					170	0.005		0.028	0.01	0.15	0.075	1				6 to 9	0.05	0.001			0.02			
UK Drinking water standards (DWS)			250	50	200	0.005	0.05	2	0.01	0.02	5	0.2				6 to 8	0.01	0.001	0.01		0.05			
BH102		20/04/2010	51	34	18	<0.0001	0.002	<0.0001	<0.0001	<0.0001	0.003	0.1	215	268		8.1	<0.001							
BH108		20/04/2010	42	17	15	<0.0001	0.002	<0.0001	<0.0001	<0.0001	<0.002	0.06	163	175		8.1	<0.001							
BH122		20/04/2010	30	20	14	<0.0001	0.002	<0.0001	<0.0001	<0.0001	<0.002	0.04	157	157		7.5	<0.001							
BH123		20/04/2010	21	11	66	<0.0001	0.002	<0.0001	<0.0001	<0.0001	<0.002	0.03	231	98		8.2	<0.001							
BH124		20/04/2010	30	16	31	<0.0001	0.004	<0.0001	<0.0001	<0.0001	<0.002	0.03		141		8.2	<0.001							
BH102		24/05/2010	52	33	14	<0.0001	0.003	<0.001	<0.001	<0.001	<0.002	<0.01	221	266	16	7.7	<0.001	<0.0001	<0.001	0.007	<0.01	<0.05	8	<2
BH108		24/05/2010	28	17	14	<0.0001	0.002	<0.001	<0.001	<0.001	<0.002	<0.01	135	140	8	7.4	<0.001	<0.0001	<0.001	0.003	<0.01	<0.05	<5	<2
BH122		24/05/2010	32	19	16	<0.0001	0.002	<0.001	<0.001	<0.001	<0.002	<0.01	142	158	19	6.7	<0.001	<0.0001	<0.001	0.007	<0.01	<0.05	6	<2
BH123		24/05/2010	29	18	18	<0.0001	0.004	<0.001	<0.001	<0.001	<0.002	<0.01	149	147	9	7.2	<0.001	<0.0001	<0.001	0.005	<0.01	<0.05	<5	<2
BH125		24/05/2010	44	19	14	<0.0001	0.002	<0.001	<0.001	<0.001	<0.002	<0.01	174	188	9	7.2	<0.001	<0.0001	<0.001	0.006	<0.01	<0.05	<5	<2
BH102		28/06/2010	51	32	13	<0.0001	0.003	0.001	<0.001	<0.001	<0.002	<0.01	201	259	15	7.9	<0.001	<0.0001	<0.001	0.009	<0.01	<0.05	<5	17.5
BH108		28/06/2010	28	17	16	<0.0001	0.002	<0.001	<0.001	<0.001	<0.002	<0.01	128	140	9	7.4	<0.001	<0.0001	<0.001	0.002	<0.01	<0.05	<5	19.5
BH122		28/06/2010	33	20	16	<0.0001	0.002	0.001	<0.001	0.001	<0.002	<0.01	142	165	22	6.9	<0.001	<0.0001	<0.001	0.007	<0.01	<0.05	6	23
BH123		28/06/2010	29	18	16	<0.0001	0.003	<0.001	<0.001	<0.001	<0.002	<0.01	139	147	10	7.3	<0.001	<0.0001	<0.001	0.005	<0.01	<0.05	<5	19
BH124		28/06/2010	46	20	16	<0.0001	0.003	0.002	<0.001	0.001	<0.002	<0.01	190	197	9	7.3	<0.001	<0.0001	<0.001	0.006	<0.01	<0.05	5	20

Table G8.1 Groundwater Quality Results from Main Ground Investigation

Volatile Organic Compounds (VOCs)

Units:			Dichloro difluoro methane	Chloro methane	Vinyl Chloride	Bromo methane	Chloro ethane	Trichloro fluoro methane	1,1- Dichloro ethene	trans 1,2- Dichloro ethene	1,1- Dichloro ethane	2,2- Dichloro propane	cis 1,2- Dichloro ethene	Bromo chloro methane	Chloroform	1,1,1- Trichloro ethane	Carbon Tetrachloride	1,1- Dichloro propane	Benzen e	1,2- Dichloro ethane	Trichloro ethene	1,2- Dichloro propane	Dibrom omethane	Bromo dichloro methane
Sample Location	Depth (m)	Date Sampled	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Environmental Quality Standard (EQS)																		30						
UK Drinking water standards (DWS)																		1						
BH102		20/04/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH108		20/04/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH122		20/04/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH123		20/04/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH102		24/05/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH108		24/05/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH122		24/05/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH123		24/05/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH125		24/05/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH102		28/06/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH108		28/06/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH122		28/06/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH123		28/06/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
BH124		28/06/2010	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1

Table G8.1 Groundwater Quality Results from Main Ground Investigation

1,4-Dichlorobenzene	n-Butylbenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzene	Hexachlorobutadiene	Naphthalene	1,2,3-Trichlorobenzene
µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
						10	
						0.1	
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5
<1	<1	<5	<5	<5	<5	<5	<5

Notes:

- Denotes concentration above EQS
- Denotes concentration above UK DWS

G9 NIEA Response Letter

Suzanne Byrnes
ARUP

Your Ref:
Our Ref: WQU05864

5 January 2010

Dear Suzanne,

Re: A8 Dualling

Thank you for your email sent on 1 December relating to an area within a 2km radius of the site detailed above.

WMU hold the following information relating to Water which may be of use when carrying out your assessment:-

Surface Freshwater Quality

Please see attached NIEA – WMU – WQU05864 – WATER QUALITY – RESPONSE

Groundwater/Hydrogeology

Regional information on groundwater aquifer classification and/or groundwater vulnerability is now available directly from the Geindex on the British Geological Survey (BGS) website:
www.bgs.ac.uk/geoindex/index.htm.

(Important: For supporting information and background on the layer being queried and to note limitations on its use, click on the layer name.

See attached Groundwater **Guidance Note, GroundwaterGuidanceNote.pdf (85 KB)**

A search of the Groundwater Monitoring Database has found that there is one groundwater monitoring point within the requested search area.

The groundwater quality data is attached.

Abstractions

Historical

To the best of our knowledge there are 19 historical abstractions within a 2 km radius of the search location.

Station ID	Easting	Northin g	Source
51044	334893	397732	Groundwater
50873	332783	395637	Groundwater
51298	332893	394610	Groundwater
51036	333522	394630	Groundwater
50868	330546	390463	Groundwater
51033	331806	390365	Groundwater
51039	333831	398351	Groundwater
51040	333864	398436	Groundwater
51038	333711	397688	Groundwater
51035	332942	397253	Groundwater
50872	332727	390637	Groundwater

The abstraction site information within this dataset was compiled as part of a Northern Ireland water body characterisation study in accordance with Article 5 of the Water Framework Directive (2000/60/EC). The study report was published by EHS in 2005 and can be viewed at www.ni-environment.gov.uk/article5report.pdf. Prior to the advent of the Water Abstraction & Impoundment (Licensing) Regulations (Northern Ireland) 2006, which came into effect in February 2007, there was no formal register of abstractions within Northern Ireland, as a result the information in this dataset was sourced from a number of historical datasets held by Government Departments and external agencies including; NI Water Service (now NI Water Limited), Drinking Water Inspectorate and Geological Survey Northern Ireland. It should therefore be noted that the accuracy and currency of any information held within the dataset cannot be stated with any confidence.

The information lists locations of possible abstractions but it does not accurately reflect locations of current authorised abstraction activity within Northern Ireland

Current

There are 4 current abstraction licence applications within 2 km of this site. These are detailed below.

AIL Ref No.	Company Name	IGR	Source
AIL\2008\0018	N/A	J3639099470	Surface water
AIL\2008\0018	N/A	J3634099030	Surface water
AIL\2008\0018	N/A	J3651099030	Surface water
AIL\2008\0003	FP McCann Ltd	J3596098230	Surface water

Pollution Incidents

Information will be forwarded when it becomes available.

NIW Ltd. Discharges

From the information available to NIEA Water Management Unit utilising Northern Ireland Water's data, there are consented sewage discharges within 2 kilometres of the grid reference provided. There may be other assets present but not visible on the GIS system therefore NIW should be contacted in order to confirm which assets exist.

Ref	Name	Receiving Water	Discharge Pt
SPS 10a	Ballynure	Ballynure River	331350-393567

Name	Receiving Water	Discharge Pt
Belfast Road (56-58)	Trib of Larne River	33701-40054

The source of the data is the Northern Ireland Water's (NIW) Geographical Information System.

1. All information provided in the Data regarding the existence, location and depth of water and sewerage infrastructure should be regarded as approximate. It must be used with caution and should not be relied upon for engineering purposes.
2. The exact location of underground infrastructure should be determined prior to any excavation work and it is recommended that hand dug holes are used to establish the precise location.
3. Individual property services are not usually shown in the Data but their existence should be anticipated.
4. NIW does not accept liability for any loss incurred or damage to any person or property caused as a result of any inaccuracy in the Data.
5. The existence of any particular infrastructure data on Northern Ireland Water's Geographical Information System does not necessarily imply ownership of that particular item of infrastructure.
6. Northern Ireland water should be acknowledged in any use of the data.

Consented Industrial Discharges

See attached file **NIEA – WMU – WQU05864 – Industrial Consents – Response.XLS**

Consented Agricultural Discharges

There are 4 authorised areas for the disposal of sheep dip under groundwater authorisations, within the the area of interest as denoted by the supplied shape file. The grid references of the fields are as indicated below.

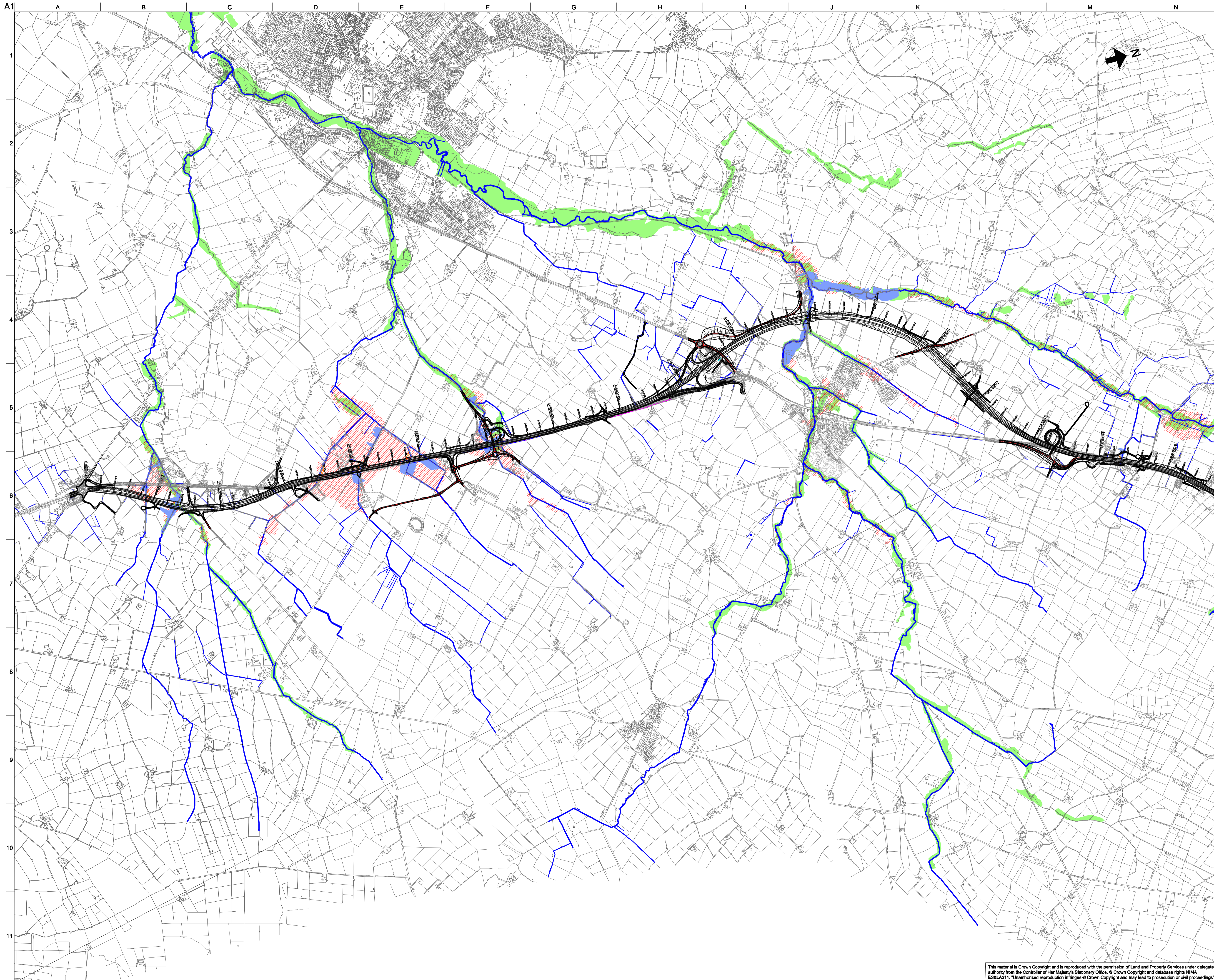
FIELD_NUMB	EASTING	NORTHING	GRIDREF
1	335393.91	397290.13	J 35393 97290
2	330249.02	392321.35	J 30249 92321
3	335168.33	400083.28	D 35168 00083
4	333028.36	395821.78	J 33028 95821

If you require any further water related environmental information about this or any other site please email details of your information request to WaterInfo@doeni.gov.uk

Yours sincerely,

Water Management Unit
Information Management Team

G10 Flood Plain Extent



LEGEND.

- ARUP revised existing Q100 flood plain
- Water Courses
- NIRA Flood plain with climate change
- ARUP detailed Topographical survey boundary
- ARUP provisional Q100 flood plain

IO	23/07/10	MH	MH	SH
Issued to Rivers Agency				
Issue	Date	By	Chkd	Appd

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Client



Northern Division

Job Title
**A8 Belfast to Lame
 Dual Carriageway
 (Coleman's Corner to
 Ballyrickard Road)**

Drawing Title
**1 in 100 year Flood Plains
 Sheet 1 of 2**

Scale at A1 1:12500

Plot ID

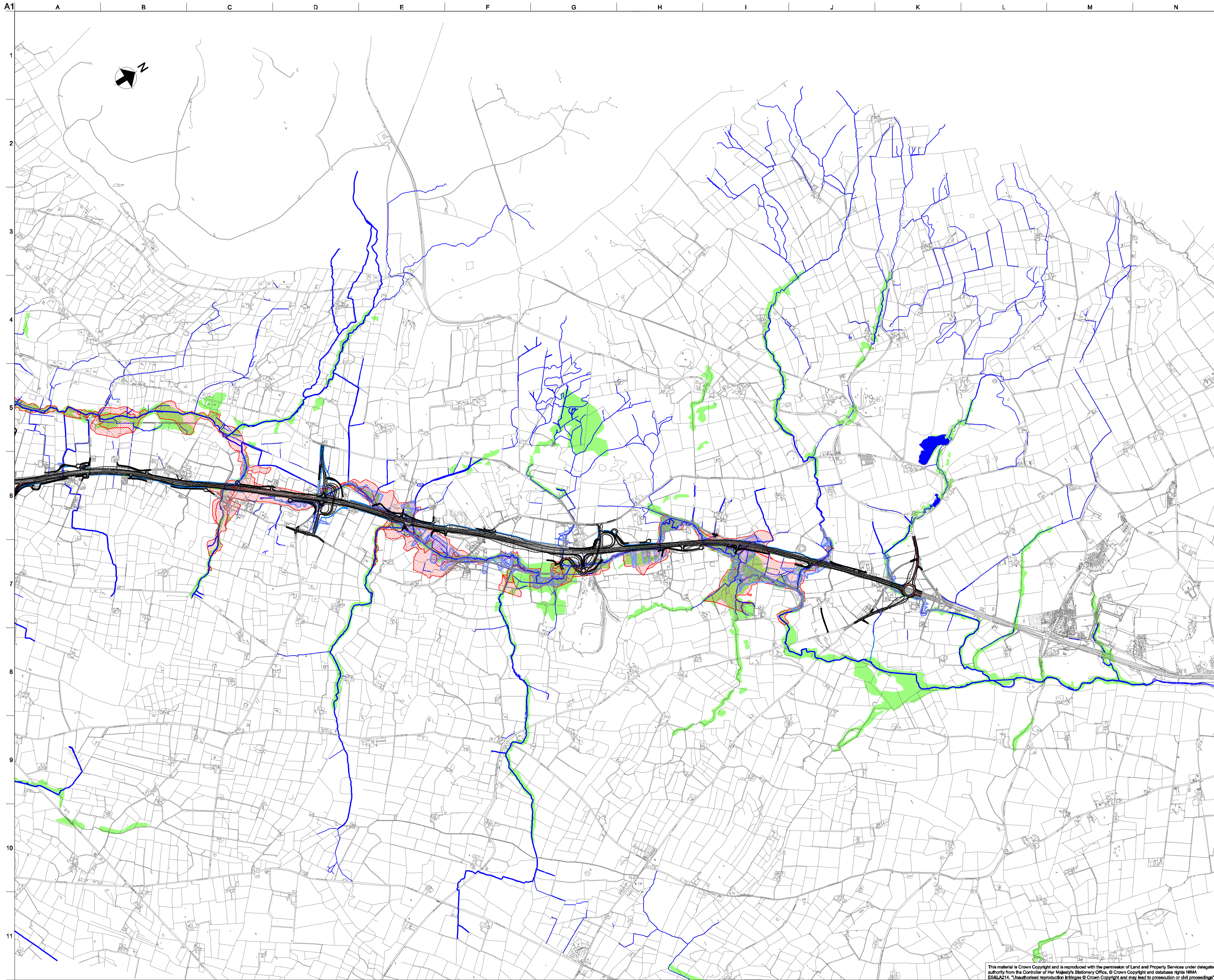
Drawing Status





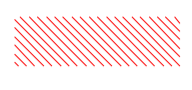
For Information

Job No	Drawing No	Issue
124785-00	A8_S3_0598	10

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- LEGEND.**
-  ARUP revised existing Q100 flood plain
 -  Water Courses
 -  NIRA Flood plain with climate change
 -  ARUP detailed Topographical survey boundary
 -  ARUP provisional Q100 flood plain

IO	23/07/10	MH	MH	SH
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 Sheet 2 of 2**

Scale at A1 1:12500

Plot ID

Drawing Status

For Information

Job No	Drawing No	Issue
124785-00	A8_S3_0599	10

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