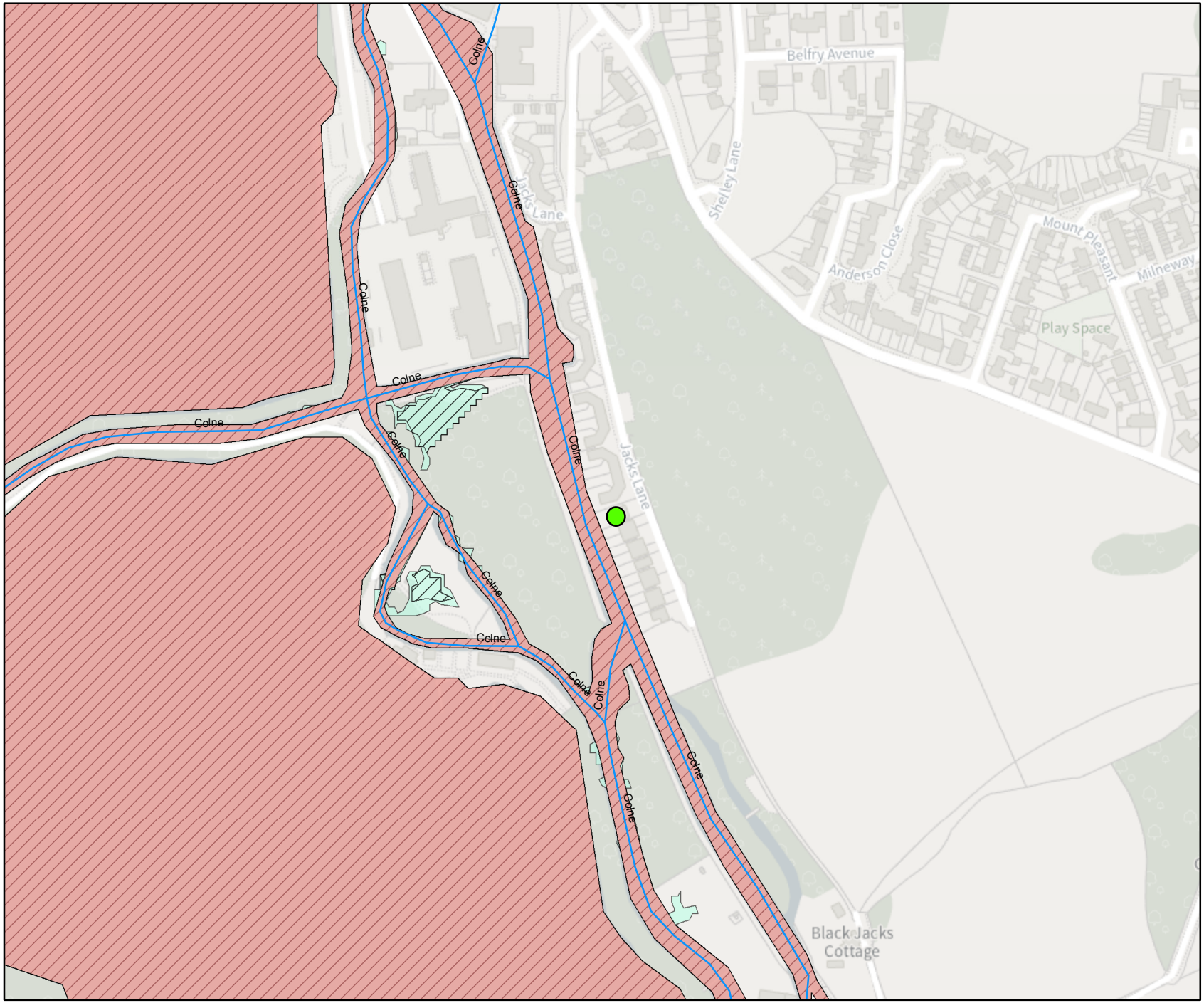
Detailed FRA centred on: 28 Jacks Lane, Harefield, UB9 6HE- 31/03/2022 - HNL 256423 HH



Environment Agency
Alchemy,
Bessemer Road,
Welwyn Garden City,
Hertfordshire,
AL7 1HE

N

0 55 110 220
Metres

Legend

- Main Rivers
- Site location

Defended Flood Outlines

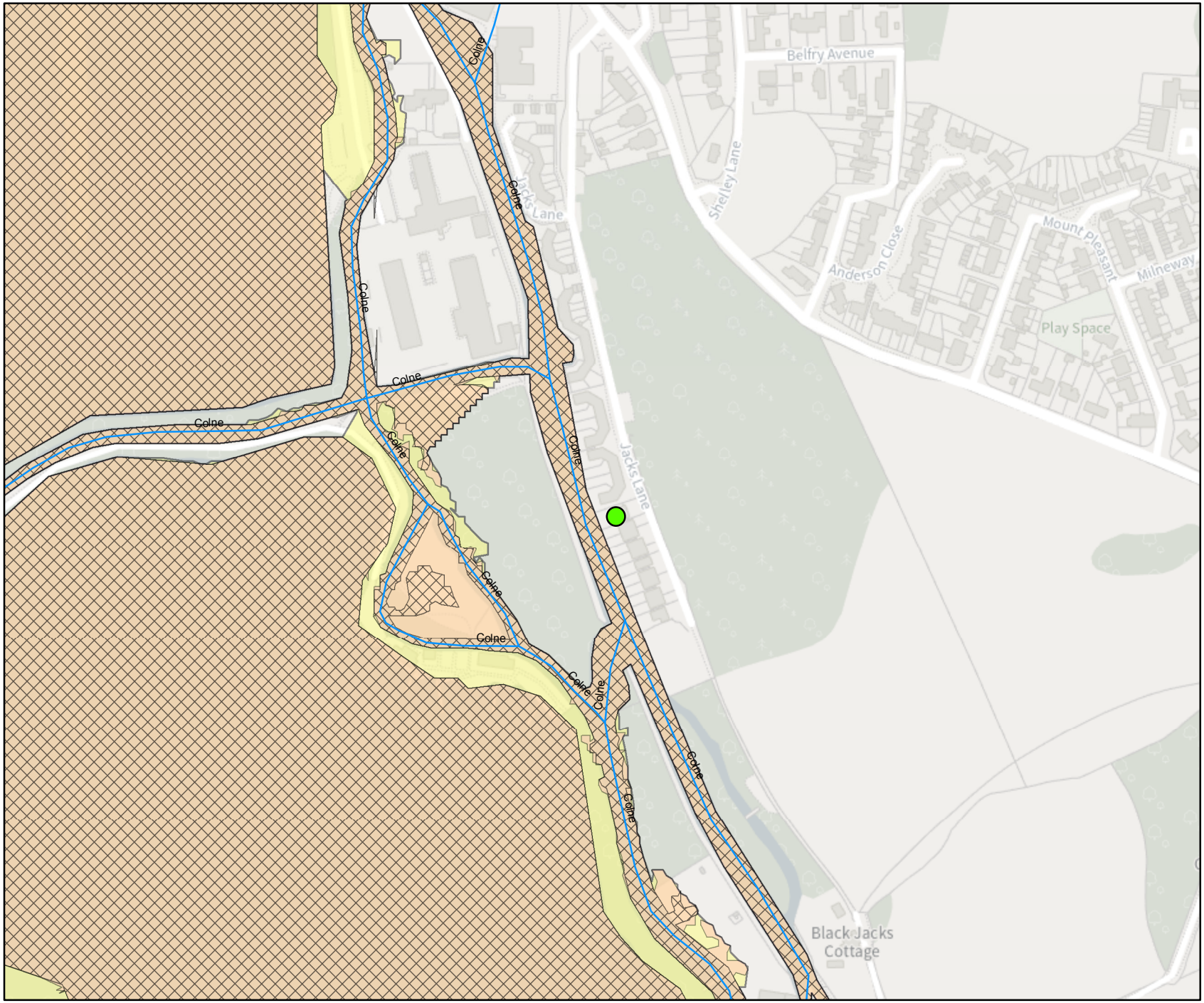
- 1 in 2 (50%) Defended
- 1 in 5 (20%) Defended
- 1 in 10 (10%) Defended

The data in this map has been extracted from the Upper Colne Flood Risk Mapping Study (Halcrow, 2010).
This model has been designed for catchment wide flood riskmapping. It should be noted that it was not created to produce flood levels for specific development sites within the catchment.
Modelled outlines take into account catchment wide defences.

Flood risk data requests including an allowance for climate change will be based on the 1 in 100 flood plus 20% allowance for climate change, unless otherwise stated. You should refer to 'Flood risk assessments: climate change allowances' to check if this allowance is still appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Produced by:
Partnerships & Strategic Overview,
Hertfordshire & North London

Detailed FRA centred on: 28 Jacks Lane, Harefield, UB9 6HE- 31/03/2022 - HNL 256423 HH



Environment Agency
Alchemy,
Bessemer Road,
Welwyn Garden City,
Hertfordshire,
AL7 1HE

N

0 55 110 220
Metres

Legend

- Main Rivers
- Site location

Defended Flood Outlines

- 1 in 20 (5%) Defended
- 1 in 50 (2%) Defended
- 1 in 100 (1%) Defended

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Modelled outlines take into account catchment wide defences.

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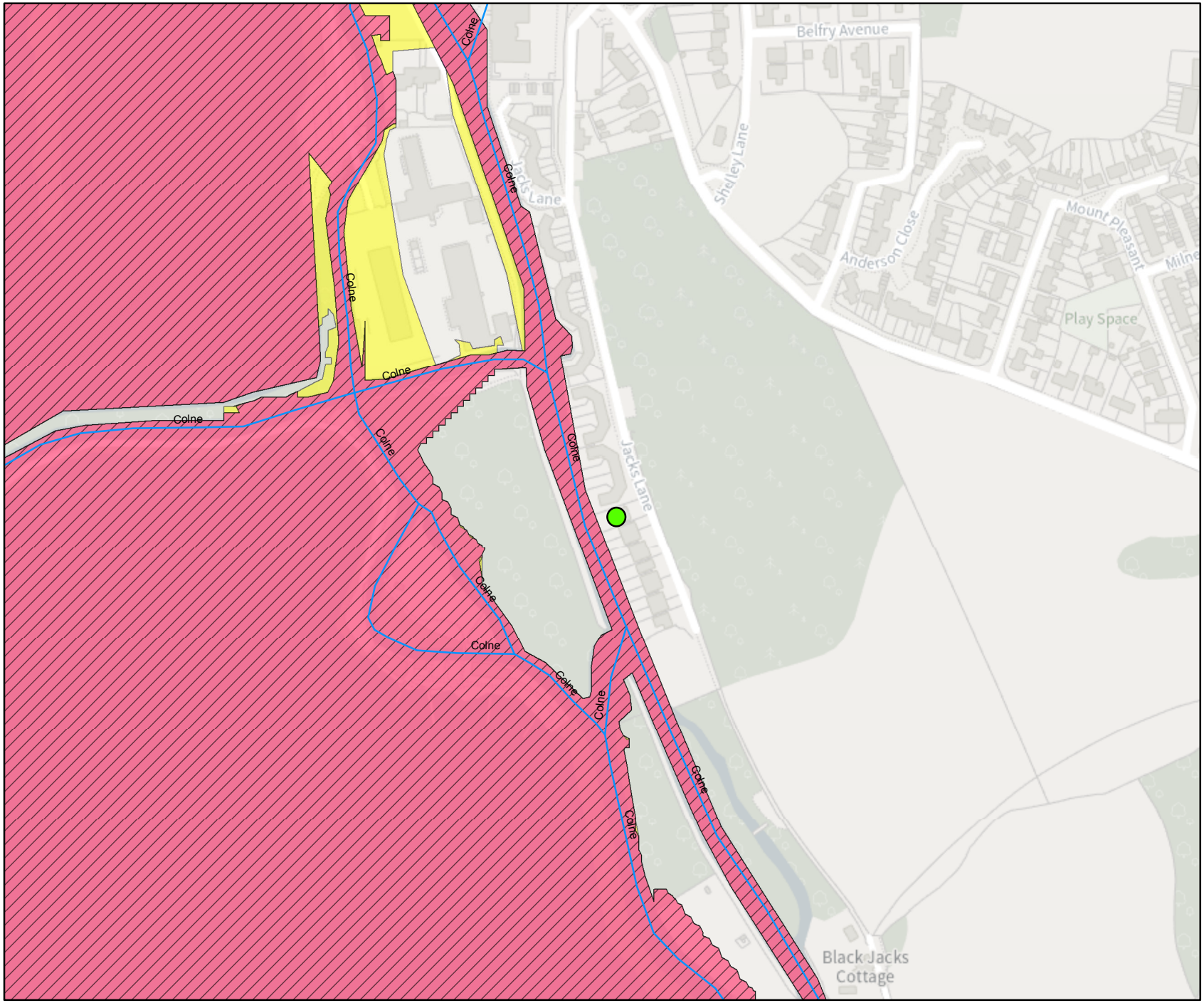
Detailed FRA centred on: 28 Jacks Lane, Harefield, UB9 6HE- 31/03/2022 - HNL 256423 HH



Environment Agency
Alchemy,
Bessemer Road,
Welwyn Garden City,
Hertfordshire,
AL7 1HE

N

0 50 100 200
Metres

Legend

- Main Rivers
- Site location

Defended Flood Outlines

- 1 in 200 (0.5%) Defended
- 1 in 100+20% (*CC) Defended
- 1 in 1000 (0.1%) Defended

The data in this map has been extracted from the Upper Colne Flood Risk Mapping Study (Halcrow, 2010).
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Modelled outlines take into account catchment wide defences.

Flood risk data requests including an allowance for climate change will be based on the 1 in 100 flood plus 20% allowance for climate change, unless otherwise stated. You should refer to 'Flood risk assessments: climate change allowances' to check if this allowance is still appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.
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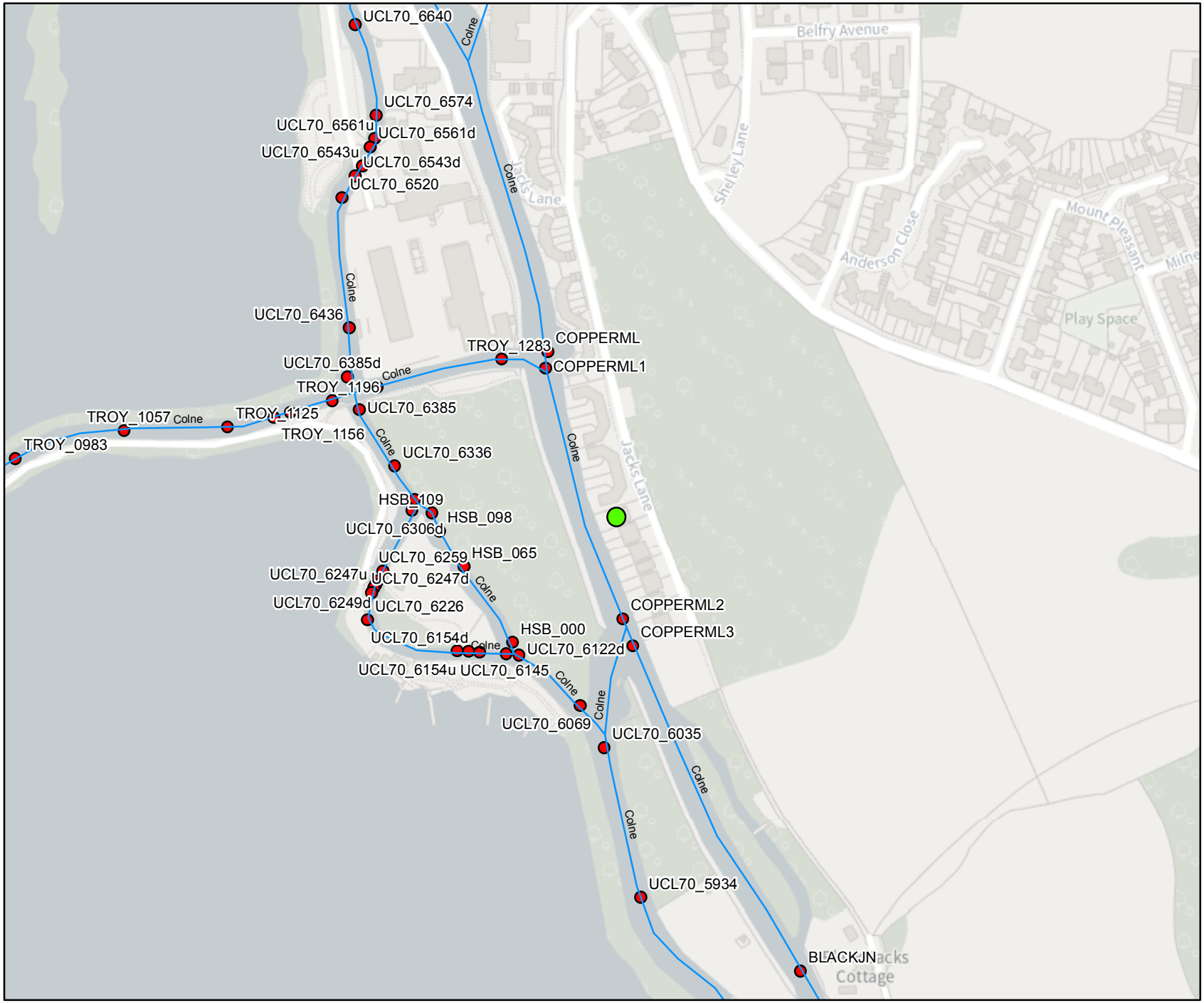
Detailed FRA centred on: 28 Jacks Lane, Harefield, UB9 6HE- 31/03/2022 - HNL 256423 HH



Environment Agency
Alchemy,
Bessemer Road,
Welwyn Garden City,
Hertfordshire,
AL7 1HE

N

0 50 100 200
Metres

Legend

- Main Rivers
- Site location

1D Node Results

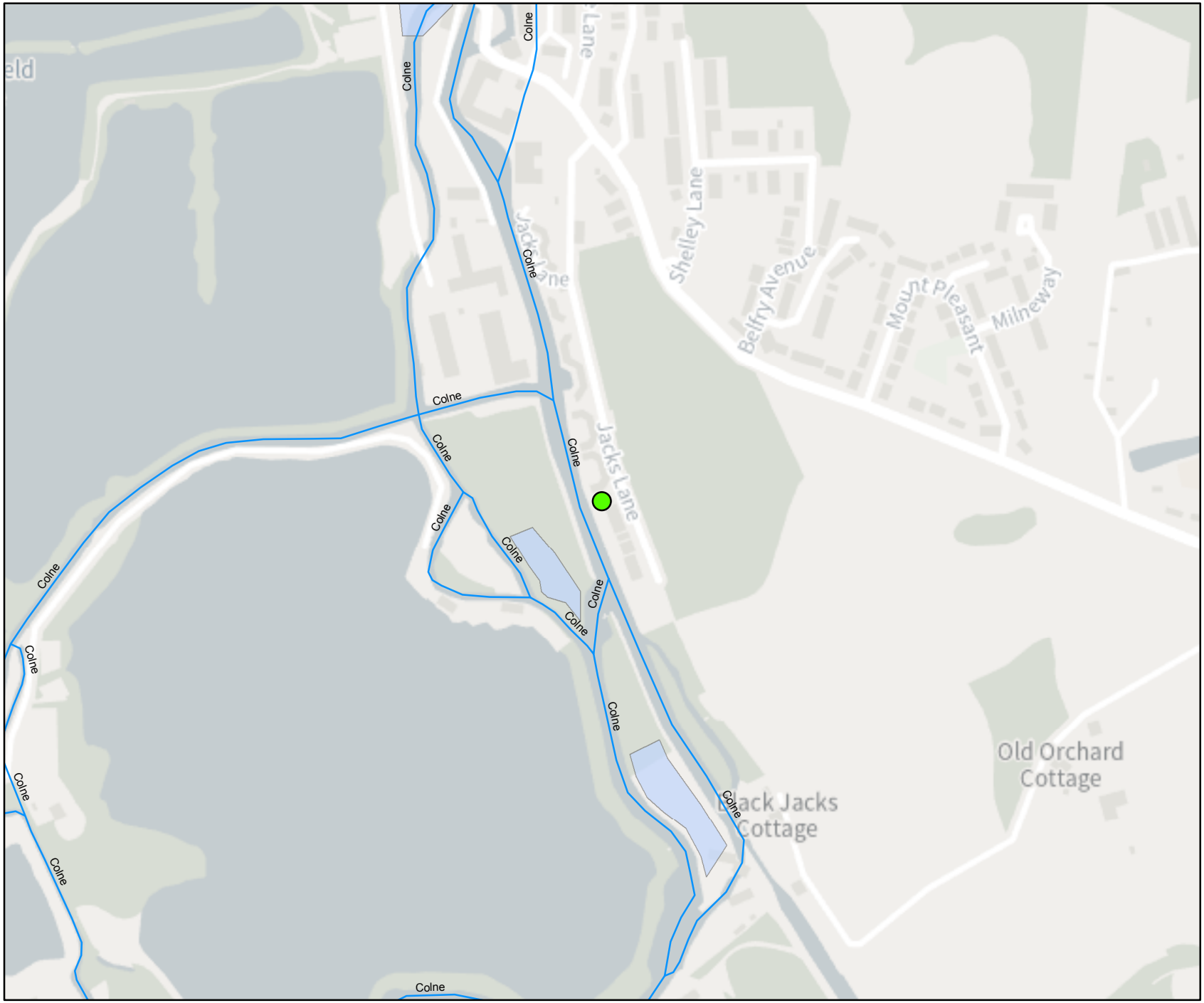
- Node Results

The data in this map has been extracted from the Upper Colne Flood Risk Mapping Study (Halcrow, 2010).
This model has been designed for catchment wide flood riskmapping. It should be noted that it was not created to produce flood levels for specific development sites within the catchment.
Modelled outlines take into account catchment wide defences.

Flood risk data requests including an allowance for climate change will be based on the 1 in 100 flood plus 20% allowance for climate change, unless otherwise stated. You should refer to 'Flood risk assessments: climate change allowances' to check if this allowance is still appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Produced by:
Partnerships & Strategic Overview,
Hertfordshire & North London

Historic Flood Map centred on: 28 Jacks Lane, Harefield, UB9 6HE - 31/03/2022 - HNL 256423 HH



Environment Agency
Alchemy,
Bessemer Road,
Welwyn Garden City,
Hertfordshire,
AL7 1HE

N

0 75 150 300
Metres

Legend

Main Rivers

Site location

Flood Event Outlines

1987

The historic flood event outlines are based on a combination of anecdotal evidence, Environment Agency staff observations and survey.
Our historic flood event outlines do not provide a definitive record of flooding.
It is possible that there will be an absence of datain places where we have not been able to record the extent of flooding.
It is also possible for errors occur in the digitisation of historic records of flooding.

Produced by:
Partnerships & Strategic Overview,
Hertfordshire & North London

Environment Agency ref: HNL 256423 HH

The following information has been extracted from the Upper Colne Flood Risk Mapping Study (Halcrow, 2010)

Flood risk data requests including an allowance for climate change will be based on the 1 in 100 flood plus 20% allowance for climate change, unless otherwise stated. You should refer to 'Flood risk assessments: climate change allowances' to check if this allowance is still appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.

https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Caution:
This model has been designed for catchment wide flood risk mapping. It should be noted that it was not created to produce flood levels for specific development sites within the catchment.

All flood levels are given in metres Above Ordnance Datum (mAOD)
All flows are given in cubic metres per second (cumecs)

Based on an understanding of the data used to develop the hydraulic and hydrological model, and the resolution of hydrological and hydraulic representation, a confidence score of 1 (high) to 5 (low) was attributed to model results within different reaches of the Upper Colne catchment for each of the following four aspects and an average produced to provide an overall confidence score.

- Hydrological Data
- Hydrological Analysis
- Hydraulic Data
- Hydraulic Analysis

MODELLED FLOOD LEVEL

			Return Period									
Node Label	**Easting**	**Northing**	**2 yr**	**5 yr**	**10 yr**	**20yr**	**50yr**	**100yr**	**100yr +20%**	**200yr**	**1000yr**	**Confidence**
COPPERML	504120	190800	39.83	39.88	39.96	39.96	40.00	40.07	40.14	40.14	40.60	3
COPPERML1	504119	190790	39.83	39.88	39.96	39.96	40.00	40.07	40.14	40.14	40.60	3
COPPERML2	504169	190627	39.82	39.86	39.93	39.93	39.96	40.02	40.08	40.07	40.39	3
COPPERML3	504176	190609	39.82	39.86	39.93	39.93	39.96	40.02	40.08	40.07	40.39	3
BLACKJN	504285	190398	39.82	39.86	39.93	39.93	39.96	40.02	40.08	40.07	40.39	3
TROY_1283	504090	190796	39.83	39.88	39.96	39.96	40.00	40.07	40.14	40.14	40.60	3
TROY_1196u	504009	190777	39.78	39.84	39.95	39.94	39.98	40.05	40.10	40.10	40.62	3
UCL70_6640	503995	191013	39.81	39.90	40.10	40.10	40.16	40.25	40.34	40.33	40.82	3
UCL70_6574	504008	190954	39.80	39.88	40.05	40.05	40.10	40.19	40.27	40.26	40.82	3
UCL70_6561u	504007	190939	39.79	39.86	40.00	40.00	40.04	40.12	40.18	40.18	40.76	3
UCL70_6561d	504004	190934	39.79	39.86	39.99	39.99	40.04	40.11	40.17	40.16	40.71	3
UCL70_6543u	504000	190921	39.79	39.86	40.01	40.01	40.06	40.13	40.20	40.19	40.74	3
UCL70_6543d	503995	190915	39.79	39.86	40.01	40.01	40.06	40.13	40.20	40.19	40.72	3
UCL70_6520	503986	190901	39.79	39.86	39.99	39.99	40.04	40.11	40.18	40.17	40.70	3
UCL70_6436	503991	190816	39.78	39.85	39.96	39.96	40.00	40.07	40.13	40.12	40.65	3
UCL70_6385d	503990	190784	39.78	39.84	39.95	39.94	39.98	40.05	40.10	40.10	40.62	3
UCL70_6385	503997	190763	39.78	39.84	39.95	39.94	39.98	40.05	40.10	40.10	40.62	3
UCL70_6336	504020	190726	39.78	39.84	39.94	39.94	39.97	40.03	40.08	40.07	40.52	3
UCL70_6306u	504034	190704	39.78	39.83	39.93	39.93	39.96	40.02	40.06	40.05	40.43	3
HSB_109	504045	190696	39.12	39.23	39.41	39.41	39.48	39.57	39.66	39.65	40.35	3
HSB_098	504050	190684	39.08	39.16	39.30	39.30	39.36	39.44	39.52	39.51	39.94	3
HSB_065	504066	190661	38.94	39.04	39.22	39.22	39.29	39.38	39.45	39.45	39.87	3
HSB_000	504097	190612	38.75	38.89	39.14	39.14	39.23	39.31	39.38	39.38	39.77	3
UCL70_6306d	504032	190697	39.78	39.83	39.93	39.93	39.96	40.02	40.06	40.05	40.43	3
UCL70_6259	504013	190658	39.78	39.84	39.93	39.93	39.97	40.02	40.07	40.07	40.51	3
UCL70_6249u	504009	190651	39.78	39.84	39.93	39.93	39.97	40.02	40.07	40.06	40.49	3
UCL70_6249d	504008	190649	38.78	38.92	39.20	39.20	39.30	39.39	39.45	39.44	39.81	3
UCL70_6247u	504007	190647	38.77	38.92	39.20	39.20	39.30	39.39	39.45	39.44	39.81	3
UCL70_6247d	504006	190644	38.77	38.92	39.20	39.20	39.30	39.39	39.45	39.44	39.81	3
UCL70_6226	504003	190626	38.77	38.92	39.20	39.20	39.30	39.39	39.45	39.44	39.80	3
UCL70_6154u	504061	190606	38.76	38.90	39.18	39.18	39.28	39.37	39.43	39.42	39.81	3
UCL70_6154d	504069	190606	38.76	38.90	39.16	39.16	39.24	39.33	39.40	39.39	39.78	3
UCL70_6145	504076	190605	38.76	38.90	39.16	39.15	39.24	39.32	39.39	39.39	39.78	3
UCL70_6122u	504093	190604	38.75	38.89	39.14	39.14	39.23	39.31	39.38	39.38	39.77	3
UCL70_6122d	504102	190603	38.75	38.89	39.14	39.14	39.23	39.31	39.38	39.38	39.77	3
UCL70_6069	504141	190570	38.58	38.73	39.03	39.03	39.12	39.23	39.31	39.30	39.64	3
TROY_1196	503980	190769	39.78	39.84	39.95	39.94	39.98	40.05	40.10	40.10	40.62	3
TROY_1167	503953	190761	39.77	39.82	39.93	39.93	39.97	40.03	40.08	40.08	40.68	3
TROY_1156	503942	190758	39.77	39.82	39.93	39.93	39.96	40.02	40.08	40.08	40.70	3
TROY_1125	503912	190751	39.76	39.81	39.92	39.92	39.96	40.02	40.07	40.07	40.73	3
TROY_1057	503844	190749	39.74	39.80	39.90	39.90	39.93	39.99	40.05	40.05	40.72	3
TROY_0983	503774	190731	39.71	39.77	39.86	39.86	39.90	39.96	40.02	40.01	40.72	3
UCL70_6035	504157	190543	38.58	38.72	39.01	39.01	39.11	39.21	39.29	39.29	39.60	3
UCL70_5934	504181	190446	38.48	38.61	38.89	38.89	38.98	39.08	39.16	39.15	39.45	3

MODELLED FLOWS

			Return Period									
Node Label	**Easting**	**Northing**	**2 yr**	**5 yr**	**10 yr**	**20yr**	**50yr**	**100yr**	**100yr +20%**	**200yr**	**1000yr**	**Confidence**
COPPERML	504120	190800	11.01	12.68	15.93	16.28	18.57	23.74	28.69	28.08	43.12	3
COPPERML1	504119	190790	7.45	9.45	13.54	13.64	15.74	19.56	23.37	22.95	52.38	3
COPPERML2	504169	190627	7.45	9.45	13.54	13.64	15.74	19.45	23.37	22.95	50.13	3
COPPERML3	504176	190609	0.10	0.10	0.09	0.09	0.09	0.13	0.14	0.14	0.12	3
BLACKJN	504285	190398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3
TROY_1283	504090	190796	3.65	3.86	4.11	4.18	4.30	4.35	5.32	5.14	6.22	3
TROY_1196u	504009	190777	3.65	3.86	4.10	4.18	4.30	4.35	5.32	5.14	6.21	3
UCL70_6640	503995	191013	3.97	6.04	10.83	10.83	12.09	14.27	16.11	15.92	31.45	3
UCL70_6574	504008	190954	3.97	6.04	10.83	10.83	12.09	14.27	16.11	15.92	21.34	3
UCL70_6561u	504007	190939	3.97	6.04	10.83	10.82	12.09	14.23	16.11	15.92	21.34	3
UCL70_6561d	504004	190934	3.97	6.04	10.83	10.82	12.09	14.23	16.11	15.92	21.34	3
UCL70_6543u	504000	190921	3.97	6.04	10.83	10.83	12.09	14.28	16.11	15.92	21.34	3
UCL70_6543d	503995	190915	3.97	6.04	10.83	10.83	12.09	14.28	16.11	15.92	21.34	3
UCL70_6520	503986	190901	3.97	6.04	10.83	10.83	12.09	14.26	16.11	15.92	21.50	3
UCL70_6436	503991	190816	3.97	6.05	10.83	10.83	12.09	14.28	16.11	15.92	24.52	3
UCL70_6385d	503990	190784	3.97	6.05	10.83	10.83	12.09	14.31	16.11	15.92	24.30	3
UCL70_6385	503997	190763	1.83	3.11	6.14	6.12	7.45	9.86	11.92	11.69	38.37	3
UCL70_6336	504020	190726	1.83	3.11	6.13	6.12	7.45	9.78	11.92	11.69	37.84	3
UCL70_6306u	504034	190704	1.83	3.11	6.13	6.12	7.45	9.74	11.92	11.68	38.82	3
HSB_109	504045	190696	0.09	0.25	0.64	0.64	0.81	1.08	1.33	1.31	3.06	3
HSB_098	504050	190684	1.40	2.24	4.26	4.25	5.14	6.64	8.18	8.02	25.73	3
HSB_065	504066	190661	1.40	2.24	4.26	4.25	5.14	6.64	8.18	8.02	25.73	3
HSB_000	504097	190612	1.40	2.24	4.26	4.25	5.14	6.63	8.27	8.09	24.32	3
UCL70_6306d	504032	190697	1.74	2.85	5.49	5.48	6.64	8.67	10.59	10.38	36.31	3
UCL70_6259	504013	190658	0.43	0.87	1.88	1.87	2.31	3.21	3.74	3.67	13.00	3
UCL70_6249u	504009	190651	0.43	0.87	1.88	1.87	2.30	3.04	3.74	3.67	12.93	3
UCL70_6249d	504008	190649	0.43	0.87	1.88	1.87	2.30	3.04	3.74	3.67	12.93	3
UCL70_6247u	504007	190647	0.43	0.87	1.88	1.87	2.30	3.04	3.74	3.67	12.93	3
UCL70_6247d	504006	190644	0.43	0.87	1.88	1.87	2.30	3.04	3.74	3.67	12.93	3
UCL70_6226	504003	190626	0.44	0.87	1.88	1.87	2.31	3.02	3.65	3.60	14.51	3
UCL70_6154u	504061	190606	0.43	0.87	1.88	1.87	2.25	2.68	2.93	2.92	7.00	3
UCL70_6154d	504069	190606	0.43	0.87	1.88	1.87	2.25	2.68	2.93	2.92	7.00	3
UCL70_6145	504076	190605	0.43	0.87	1.88	1.87	2.25	2.65	2.87	2.86	6.10	3
UCL70_6122u	504093	190604	0.44	0.87	1.88	1.87	2.25	2.65	2.87	2.86	5.96	3
UCL70_6122d	504102	190603	1.83	3.11	6.13	6.12	7.39	9.25	11.14	10.95	30.28	3
UCL70_6069	504141	190570	1.84	3.11	5.70	5.70	6.39	7.26	8.08	8.00	18.76	3
TROY_1196	503980	190769	5.45	5.98	7.04	7.04	7.46	8.50	9.51	9.38	11.81	3
TROY_1167	503953	190761	5.45	5.98	7.04	7.04	7.46	8.44	9.48	9.35	11.68	3
TROY_1156	503942	190758	5.45	5.98	7.04	7.04	7.45	8.40	9.26	9.15	11.21	3
TROY_1125	503912	190751	5.45	5.98	7.04	7.04	7.45	8.20	8.71	8.64	9.98	3
TROY_1057	503844	190749	5.45	5.98	7.04	7.04	7.45	8.16	8.66	8.60	9.71	3
TROY_0983	503774	190731	5.45	5.98	7.04	7.04	7.45	8.14	8.65	8.60	9.45	3
UCL70_6035	504157	190543	9.27	12.55	19.24	19.30	22.13	26.62	31.45	30.94	68.89	3
UCL70_5934	504181	190446	9.27	12.55	19.23	19.30	22.12	26.39	30.19	29.81	54.63	3