

Rev	Date	Notes
A	12/11/19	Initial map production

Legend

- Site boundary
- Site boundary buffers (2km, 5km, 10km)
- Special Protection Areas
- Special Areas of Conservation
- Ramsar
- Sites of Special Scientific Interest

0 750 1,500 3,000 Metres



Proposed Development at Bramley Moore Dock, Liverpool.
Report to inform a Habitats Regulations Assessment – Stage 1 Assessment of Likely Significant Effects & Stage 2 Information to Inform an Appropriate Assessment

Bramley-Moore Dock
Everton Football Club

Scale at A3: 1:80,000	Project No: A100795	Drawing No: Appendix B	Revision: A
Drawn by: Ben Blowers	Drawn date: 12/11/2019	Approved by: Phil Preston	

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Appendix F – LAeq and LAmax baseline noise levels and noise levels at ecological receptor locations

Table 5.3 Results of Baseline Noise Monitoring Survey (Average Levels)

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
Weekday Day 07:00 - 23:00	111 Hours	20/04/2018 – 01/05/2018 07:00 - 23:00	LT1	52.3	98.6	30.5	51.3	45.0
Weekday Night 23:00 – 07:00	56 Hours	20/04/2018 – 01/05/2018 23:00 - 07:00		52.7	82.3	27.9	48.0	41.0
Weekend Day 07:00 - 23:00	64 Hours	20/04/2018 – 01/05/2018 07:00 - 23:00		51.2	83.9	32.1	50.8	44.0
Weekend Night 23:00 – 07:00	32 Hours	20/04/2018 – 01/05/2018 23:00 - 07:00		52.8	84.2	31.3	48.0	44.0
Weekday								
Weekday Day 07:00 – 19:00	15 Mins	20/04/2018 12:05	ST1	47.4	64.7	41.1	49.3	43.5
	15 Mins	30/04/2018 12:42	ST1a	72.5	95.5	53.9	74.8	62.2
	15 Mins	30/04/2018 12:50	ST2	74.4	95.1	54.5	77.2	60.7
	15 Mins	30/04/2018 13:11	ST3	71.2	89.3	54.4	74.5	61.6
	15 Mins	30/04/2018 13:01	ST4	58.6	78.2	48.0	59.3	50.8
	15 Mins	01/05/2018 10:46	ST5	72.2	90.2	54.8	75.5	61.7
	15 Mins	30/04/2018 13:30	ST6	50.7	67.6	42.7	53.4	45.7
	15 Mins	30/04/2018 13:07	ST7	65.4	80.7	50.3	68.9	55.0
	15 Mins	30/04/2018 12:45	ST8	65.1	79.4	52.1	68.5	56.9
	15 Mins	30/04/2018 16:22	ST9	57.6	84.8	50.9	58.7	53.3
	15 Mins	30/04/2018 16:29	ST10	55.0	72.9	40.0	56.6	50.2
	15 Mins	30/04/2018 16:24	ST11	50.7	68.2	45.4	51.1	47.4
Weekday Evening 19:00 - 23:00	15 Mins	30/04/2018 21:18	ST1	52.2	75.3	40.8	55.8	43.5
	15 Mins	30/04/2018 21:39	ST1a	68.4	86.3	42.5	72.5	46.0
	15 Mins	30/04/2018 21:18	ST2	66.6	85.7	49.9	70.3	54.3
	15 Mins	30/04/2018 21:58	ST3	67.2	80.8	46.3	72.2	49.9
	15 Mins	30/04/2018 21:57	ST4	55.7	76.5	48.6	58.2	50.6
	15 Mins	30/04/2018 21:38	ST5	73.3	102.0	39.5	70.7	45.1
	15 Mins	30/04/2018 21:53	ST6	48.1	68.0	36.7	47.7	38.9
	15 Mins	30/04/2018 21:32	ST7	61.5	75.6	44.6	66.0	47.9
	15 Mins	30/04/2018 21:13	ST8	59.5	73.5	47.4	63.6	50.8
	15 Mins	30/04/2018 22:38	ST9	53.0	65.0	47.4	55.7	49.8
	15 Mins	30/04/2018 22:37	ST10	62.2	66.4	40.1	63.9	60.3

Bramley Moore Dock, Liverpool. Shadow Habitats Regulations Assessment Stage 1 and Stage 2

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
	15 Mins	30/04/2018 22:42	ST11	49.7	63.5	45.2	51.1	47.8
Weekday Night 23:00 – 07:00	15 Mins	30/04/2018 23:59	ST1	47.6	63.3	38.7	50.9	41.2
	15 Mins	01/05/2018 00:56	ST1a	59.1	77.9	40.4	56.6	42.8
	15 Mins	01/05/2018 00:59	ST2	58.5	78.5	48.2	59.7	50.4
	15 Mins	01/05/2018 01:10	ST3	61.4	82.5	44.6	62.2	45.8
	15 Mins	01/05/2018 00:27	ST4	51.7	67.6	40.3	52.6	49.0
	15 Mins	30/04/2018 23:54	ST5	69.5	98.8	40.6	67.9	43.6
	15 Mins	01/05/2018 00:39	ST6	42.3	73.3	35.4	43.5	37.7
	15 Mins	01/05/2018 00:17	ST7	56.3	74.7	41.5	58.3	43.1
	15 Mins	30/04/2018 23:52	ST8	59.0	71.7	47.0	63.8	49.1
	15 Mins	30/04/2018 23:01	ST9	47.7	55.4	43.4	49.1	45.7
	15 Mins	30/04/2018 23:00	ST10	55.2	66.7	47.2	58.3	50.6
	15 Mins	30/04/2018 23:01	ST11	47.7	62.5	43.6	49.0	46.1
Saturday								
Saturday Afternoon 12:00- 15:00	15 Mins	21/04/2018 13:00	ST1a	69.9	84.4	46.1	73.6	56.8
	15 Mins	21/04/2018 16:19	ST2	70.0	82.7	49.7	73.6	57.4
	15 Mins	21/04/2018 13:21	ST2	71.0	83.0	47.7	75.0	57.6
	15 Mins	21/04/2018 12:57	ST3	69.6	81.5	46.7	73.5	58.3
	15 Mins	21/04/2018 16:15	ST3	69.7	80.9	41.2	73.4	58.7
	15 Mins	21/04/2018 13:19	ST4	55.1	74.3	40.3	55.0	47.9
	15 Mins	21/04/2018 13:47	ST4	56.3	79.8	46.5	56.6	50.1
	15 Mins	21/04/2018 13:40	ST5	71.5	85.2	44.7	75.0	59.6
	15 Mins	21/04/2018 16:13	ST5	73.3	99.5	49.0	75.8	63.6
	15 Mins	21/04/2018 13:42	ST6	49.7	69.2	41.2	50.7	44.0
	15 Mins	21/04/2018 13:23	ST7	66.4	82.1	46.2	70.4	53.2
	15 Mins	21/04/2018 13:03	ST8	67.5	78.2	48.9	72.1	53.1
	15 Mins	21/04/2018 12:04	ST9	58.7	86.7	44.0	51.5	46.4
	15 Mins	21/04/2018 12:04	ST10	51.4	72.3	43.9	52.8	45.7
	15 Mins	21/04/2018 12:10	ST11	50.3	71.4	43.2	52.9	45.7
Saturday Evening 19:00 – 22:00	15 Mins	21/04/2018 20:20	ST1a	65.8	78.7	43.5	70.9	50.8
	15 Mins	21/04/2018 21:01	ST1a	65.5	83.9	41.6	70.0	49.8
	15 Mins	21/04/2018 20:56	ST2	64.8	82.8	45.8	69.5	49.3
	15 Mins	21/04/2018 20:37	ST3	66.6	82.9	46.8	71.2	50.6
	15 Mins	21/04/2018 20:37	ST4	50.8	63.0	40.9	53.7	46.3
	15 Mins	21/04/2018 20:17	ST5	69.0	84.4	39.8	73.6	53.1
	15 Mins	21/04/2018 20:36	ST6	49.2	66.9	40.4	52.1	42.3
	15 Mins	21/04/2018 20:14	ST7	62.6	81.3	44.3	67.1	48.2
	15 Mins	21/04/2018 21:02	ST8	64.0	76.3	48.3	67.9	51.9
	15 Mins	21/04/2018 19:38	ST9	47.6	63.1	43.0	49.9	44.8
	15 Mins	21/04/2018 19:30	ST10	48.0	65.0	40.2	50.0	44.0
	15 Mins	21/04/2018 19:37	ST11	51.3	81.7	41.6	50.5	43.9

Bramley Moore Dock, Liverpool. Shadow Habitats Regulations Assessment Stage 1 and Stage 2

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
Sunday								
Sunday Early Afternoon/Mid Afternoon 12:00 – 15:00	15 Mins	22/04/2018 13:45	ST1a	70.6	78.0	40.8	74.2	60.1
	15 Mins	22/04/2018 13:04	ST1a	70.1	85.6	53.3	73.6	60.3
	15 Mins	22/04/2018 13:22	ST2	70.5	82.2	49.7	74.6	58.4
	15 Mins	22/04/2018 13:59	ST2	69.2	78.7	51.6	73.2	58.0
	15 Mins	22/04/2018 14:00	ST3	70.2	81.1	55.1	74.2	61.3
	15 Mins	22/04/2018 13:39	ST3	70.1	81.5	51.6	73.9	58.4
	15 Mins	22/04/2018 13:23	ST4	56.4	75.8	48.1	57.7	50.5
	15 Mins	22/04/2018 14:05	ST4	56.8	78.6	48.5	57.9	50.7
	15 Mins	22/04/2018 13:01	ST5	72.2	85.8	43.9	75.8	61.7
	15 Mins	22/04/2018 14:18	ST5	72.8	83.7	45.3	76.7	57.2
	15 Mins	22/04/2018 12:59	ST6	48.9	67.0	37.0	51.9	39.3
	15 Mins	22/04/2018 13:20	ST7	66.4	79.5	45.2	70.3	52.7
	15 Mins	22/04/2018 13:39	ST8	68.1	76.7	49.7	72.8	54.8
	15 Mins	22/04/2018 12:14	ST9	50.1	79.4	40.7	50.8	45.3
	15 Mins	22/04/2018 12:12	ST10	46.8	68.6	36.5	49.0	40.3
	15 Mins	22/04/2018 12:17	ST11	47.5	70.8	34.0	49.2	39.9
Sunday Late Afternoon 16:00 – 19:30	15 Mins	22/04/2018 18:17	ST1a	69.1	81.6	78.8	73.5	55.5
	15 Mins	22/04/2018 17:37	ST1a	68.2	80.6	43.0	72.8	54.8
	15 Mins	22/04/2018 17:02	ST2	69.9	82.2	51.6	74.3	57.4
	15 Mins	22/04/2018 17:57	ST2	68.5	80.8	49.8	73.0	55.6
	15 Mins	22/04/2018 17:57	ST3	69.0	80.0	44.7	73.3	52.5
	15 Mins	22/04/2018 17:53	ST4	57.2	76.3	44.3	55.7	49.6
	15 Mins	22/04/2018 18:12	ST4	58.2	79.2	46.9	57.0	49.5
	15 Mins	22/04/2018 17:08	ST5	71.8	86.7	43.1	75.7	56.8
	15 Mins	22/04/2018 17:33	ST5	70.2	84.7	41.0	75.0	51.8
	15 Mins	22/04/2018 16:56	ST6	48.5	70.6	38.2	50.0	41.5
	15 Mins	22/04/2018 17:17	ST7	63.8	81.1	43.4	68.5	47.4
	15 Mins	22/04/2018 17:37	ST8	67.1	80.2	46.5	71.8	51.0
	15 Mins	22/04/2018 18:57	ST9	51.3	73.9	36.9	52.0	41.0
	15 Mins	22/04/2018 18:58	ST10	52.0	65.8	43.9	53.5	49.1
	15 Mins	22/04/2018 19:05	ST11	54.6	87.0	37.9	51.7	42.2
Sunday Night 23:00 - 07:00	15 Mins	23/04/2018 01:12	ST1a	54.7	72.4	41.8	56.7	44.4
	15 Mins	23/04/2018 00:27	ST2	57.4	78.4	49.2	56.9	50.8
	15 Mins	23/04/2018 00:47	ST3	57.2	77.7	44.2	57.7	46.3
	15 Mins	23/04/2018 00:48	ST4	52.9	70.9	42.1	54.0	48.4
	15 Mins	23/04/2018 00:27	ST5	61.6	83.2	38.8	60.9	41.9
	15 Mins	23/04/2018 00:33	ST6	41.5	61.4	35.5	43.0	38.4
	15 Mins	23/04/2018 00:51	ST7	56.8	75.3	43.2	58.4	45.3
	15 Mins	23/04/2018 01:04	ST8	59.9	75.8	48.4	63.5	50.7
	15 Mins	23/04/2018 01:52	ST9	54.9	66.1	50.3	56.6	52.6

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
	15 Mins	23/04/2018 01:50	ST10	51.5	58.9	46.9	53.0	49.3
	15 Mins	23/04/2018 01:57	ST11	50.1	59.5	44.0	51.6	48.1

Table 6.12 Noise Levels at ecological Receptor Locations

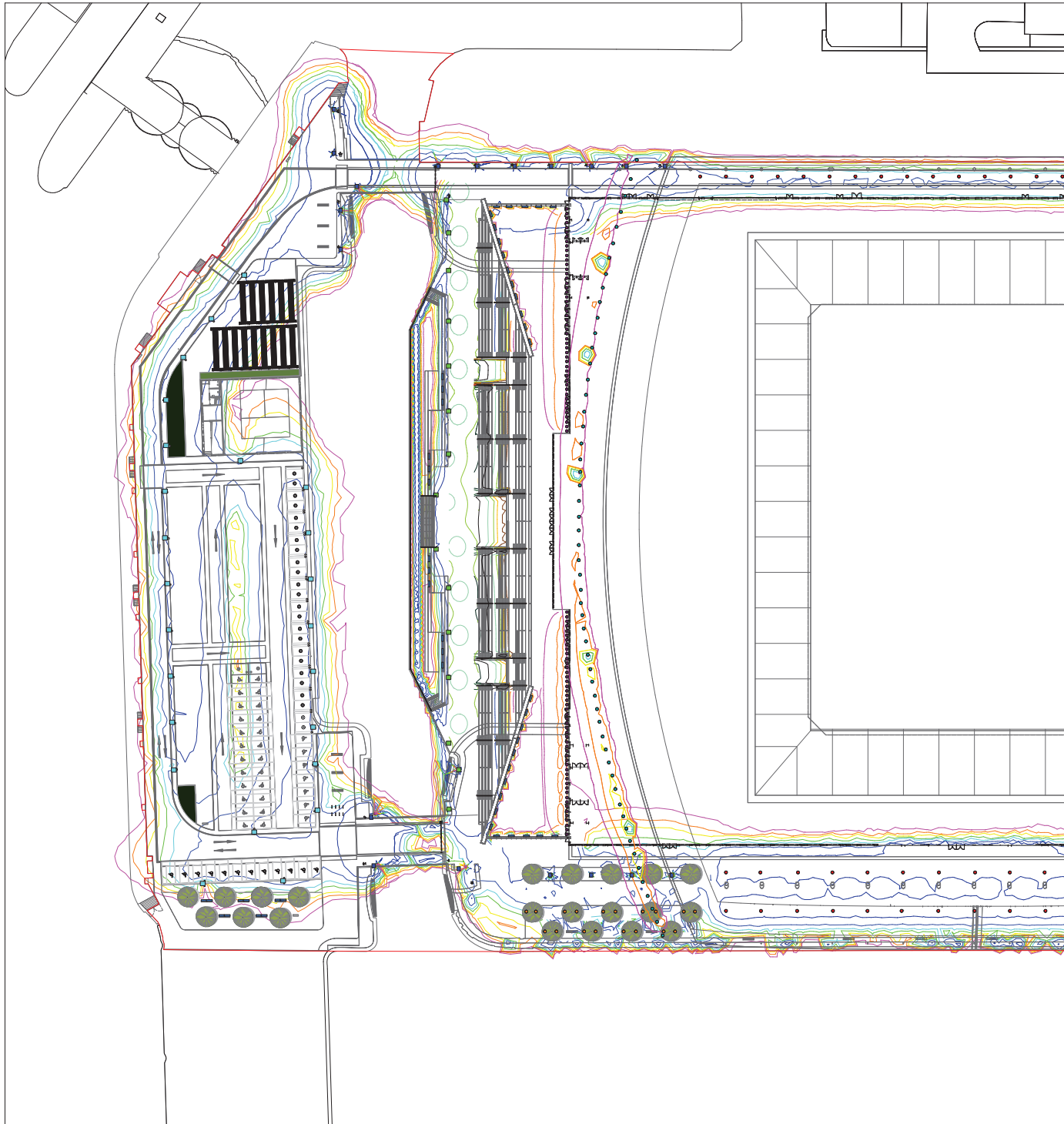
Location	Construction Noise			Operational Noise – Goal Being Scored			Music Noise		
	External L _{Aeq} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level	External L _{Amax} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level	External L _{Aeq} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level
West of Site Boundary									
EC01	67.4	55 - 72 dB	Moderate Noise Level Effects	75.4	> 72 dB	High Noise Level Effects	62.8	55 - 72 dB	Moderate Noise Level Effects
EC02	64.3	55 - 72 dB	Moderate Noise Level Effects	74.7	> 72 dB	High Noise Level Effects	62.0	55 - 72 dB	Moderate Noise Level Effects
EC03	62.0	55 - 72 dB	Moderate Noise Level Effects	74.1	> 72 dB	High Noise Level Effects	61.4	55 - 72 dB	Moderate Noise Level Effects
EC04	60.0	55 - 72 dB	Moderate Noise Level Effects	73.5	> 72 dB	High Noise Level Effects	60.8	55 - 72 dB	Moderate Noise Level Effects
EC05	58.3	55 - 72 dB	Moderate Noise Level Effects	73.0	> 72 dB	High Noise Level Effects	60.3	55 - 72 dB	Moderate Noise Level Effects
EC06	56.7	55 - 72 dB	Moderate Noise Level Effects	72.4	> 72 dB	High Noise Level Effects	59.7	55 - 72 dB	Moderate Noise Level Effects
EC07	55.4	55 - 72 dB	Moderate Noise Level Effects	72.0	55 - 72 dB	Moderate Noise Level Effects	59.3	55 - 72 dB	Moderate Noise Level Effects
EC08	54.4	< 55 dB	Low Noise Level Effects	71.5	55 - 72 dB	Moderate Noise Level Effects	58.8	55 - 72 dB	Moderate Noise Level Effects
EC09	53.6	< 55 dB	Low Noise Level Effects	71.1	55 - 72 dB	Moderate Noise Level Effects	58.4	55 - 72 dB	Moderate Noise Level Effects
EC10	53.4	< 55 dB	Low Noise Level Effects	70.7	55 - 72 dB	Moderate Noise Level Effects	58.0	55 - 72 dB	Moderate Noise Level Effects
North of Site Boundary									
EC11	64.6	55 - 72 dB	Moderate Noise Level Effects	75.4	> 72 dB	High Noise Level Effects	64.0	55 - 72 dB	Moderate Noise Level Effects
EC12	61.8	55 - 72 dB	Moderate Noise Level Effects	74.8	> 72 dB	High Noise Level Effects	63.2	55 - 72 dB	Moderate Noise Level Effects
EC13	59.6	55 - 72 dB	Moderate Noise Level Effects	74.4	> 72 dB	High Noise Level Effects	62.3	55 - 72 dB	Moderate Noise Level Effects

Bramley Moore Dock, Liverpool. Shadow Habitats Regulations Assessment Stage 1 and Stage 2

Location	Construction Noise			Operational Noise – Goal Being Scored			Music Noise		
	External L _{Aeq} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level	External L _{Amax} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level	External L _{Aeq} Noise Level	Criteria (TIDE, dB)	Noise Disturbance Significance Level
EC14	57.9	55 - 72 dB	Moderate Noise Level Effects	73.8	> 72 dB	High Noise Level Effects	61.5	55 - 72 dB	Moderate Noise Level Effects
EC15	56.3	55 - 72 dB	Moderate Noise Level Effects	73.3	> 72 dB	High Noise Level Effects	60.7	55 - 72 dB	Moderate Noise Level Effects
EC16	54.9	< 55 dB	Low Noise Level Effects	73.1	> 72 dB	High Noise Level Effects	60.0	55 - 72 dB	Moderate Noise Level Effects
EC17	53.7	< 55 dB	Low Noise Level Effects	72.6	> 72 dB	High Noise Level Effects	59.4	55 - 72 dB	Moderate Noise Level Effects
EC18	53.7	< 55 dB	Low Noise Level Effects	72.2	> 72 dB	High Noise Level Effects	58.8	55 - 72 dB	Moderate Noise Level Effects
EC19	52.0	< 55 dB	Low Noise Level Effects	71.8	55 - 72 dB	Moderate Noise Level Effects	58.3	55 - 72 dB	Moderate Noise Level Effects
EC20	50.4	< 55 dB	Low Noise Level Effects	71.4	55 - 72 dB	Moderate Noise Level Effects	57.8	55 - 72 dB	Moderate Noise Level Effects
South of Site Boundary									
EC21	64.1	55 - 72 dB	Moderate Noise Level Effects	76.0	> 72 dB	High Noise Level Effects	62.8	55 - 72 dB	Moderate Noise Level Effects
EC22	61.6	55 - 72 dB	Moderate Noise Level Effects	75.3	> 72 dB	High Noise Level Effects	62.6	55 - 72 dB	Moderate Noise Level Effects
EC23	57.0	55 - 72 dB	Moderate Noise Level Effects	75.3	> 72 dB	High Noise Level Effects	62.4	55 - 72 dB	Moderate Noise Level Effects
EC24	54.9	< 55 dB	Low Noise Level Effects	73.5	> 72 dB	High Noise Level Effects	62.1	55 - 72 dB	Moderate Noise Level Effects
EC25	51.5	< 55 dB	Low Noise Level Effects	72.6	> 72 dB	High Noise Level Effects	60.6	55 - 72 dB	Moderate Noise Level Effects
EC26	47.9	< 55 dB	Low Noise Level Effects	72.8	> 72 dB	High Noise Level Effects	59.4	55 - 72 dB	Moderate Noise Level Effects
EC27	50.3	< 55 dB	Low Noise Level Effects	72.2	> 72 dB	High Noise Level Effects	60.8	55 - 72 dB	Moderate Noise Level Effects
EC28	45.0	< 55 dB	Low Noise Level Effects	72.2	> 72 dB	High Noise Level Effects	60.1	55 - 72 dB	Moderate Noise Level Effects
EC29	42.2	< 55 dB	Low Noise Level Effects	70.3	55 - 72 dB	Moderate Noise Level Effects	58.9	55 - 72 dB	Moderate Noise Level Effects
EC30	40.2	< 55 dB	Low Noise Level Effects	68.2	55 - 72 dB	Moderate Noise Level Effects	54.1	55 - 72 dB	Moderate Noise Level Effects

All values are sound pressure levels in dB re: 2x 10⁻⁵ Pa.

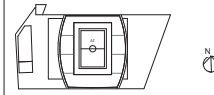
Appendix G – External lighting sheets



- LIGHTING KEY:
- LARGE MULTI DIRECTIONAL LIGHTING
15M HIGH POLE MOUNTED LUMINAIRES
8-10 LUMINAIRE FIXTURES PER COLUMN
TO LIGHTING SPECIALISTS SPECIFICATION
 - SMALL MULTI DIRECTIONAL LIGHTING
8M HIGH POLE MOUNTED LUMINAIRES
2 LUMINAIRE FIXTURES PER COLUMN
TO LIGHTING SPECIALISTS SPECIFICATION
 - MEDIUM MULTI DIRECTIONAL LIGHTING
12M HIGH POLE MOUNTED LUMINAIRES
8-10 LUMINAIRE FIXTURES PER COLUMN
TO LIGHTING SPECIALISTS SPECIFICATION
 - 12M & 8M HIGH POLE MOUNTED
LUMINAIRES
2 LUMINAIRE FIXTURES PER COLUMN
TO LIGHTING SPECIALISTS SPECIFICATION
 - CEILING RECESSED LUMINAIRES
TO LIGHTING SPECIALISTS SPECIFICATION
 - TREE MOUNTED SPOTLIGHTS
TO LIGHTING SPECIALISTS SPECIFICATION
 - UPLIGHT WALLWASHER LUMINAIRES
TO LIGHTING SPECIALISTS SPECIFICATION
 - HANDRAIL/BALUSTRADE INTEGRATED
LUMINAIRE
TO LIGHTING SPECIALISTS SPECIFICATION
 - WALL/BENCH INTEGRATED LUMINAIRE
FULLY ENCLOSED WATER TIGHT UNITS
TO LIGHTING SPECIALISTS SPECIFICATION
 - PROJECTOR LUMINAIRE UPLIGHTING
ARCHITECTURAL FRONT FACE PANELS OF
BARREL ROOF
TO LIGHTING SPECIALISTS SPECIFICATION
- LUX PLOT KEY:
- 3.0 LUX
 - 5.0 LUX
 - 7.5 LUX
 - 10.0 LUX
 - 15.0 LUX
 - 20.0 LUX
 - 30.0 LUX
 - 50.0 LUX
 - 80.0 LUX

FOR LOCAL AUTHORITY USE:

QIR Code



General Notes

Lighting Notes

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DISCIPLINE DRAWINGS, SCHEDULES AND SPECIFICATIONS, LEGENDS AND STANDARD DETAILS.
- THIS DRAWING IS COPYRIGHT AND SHALL NOT BE REPRODUCED WITHOUT PERMISSION.
- DIMENSIONS GIVEN ON ALL DRAWINGS AND DETAILS SHOULD ANY DISCREPANCIES BE FOUND WITH THIS DRAWING AND ANY ASSOCIATED DRAWINGS OR SPECIFICATIONS THE SHALLOING BROUGHT TO THE ATTENTION OF THE NAME BUILDING SERVICES CONSULTANT IMMEDIATELY.
- UNLESS OTHERWISE STATED ALL DIMENSIONS ARE IN MILLIMETRES.
- DO NOT SCALE FROM THIS DRAWING.
- DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND OR PREFABRICATED.
- THIS DRAWING SHOULD ONLY BE USED FOR THE SPECIFIC SERVICES INTENDED.
- THE DRAWING SHOWS THE DESIGN INTENT ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FULL CO-ORDINATION OF THE SERVICES INDICATED ON THIS AND ALL OTHER SERVICES DRAWINGS.
- FINAL ACCESS AND SETTING OUT OF SERVICES SHALL BE AGREED BETWEEN THE ARCHITECT AND THE CONTRACTOR.
- THE PROJECT NOTES ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT TECHNICAL SPECIFICATIONS.
- WHERE ELECTRICAL SERVICES PASS THROUGH FIRE COMPARTMENTATION CEILING, FLOOR, FLOODED AND STRUCTURAL WALLS THE CONTRACTOR SHALL SUBMIT A DETAIL TO THE ARCHITECT FOR REVIEW AND FIRE SEALANT APPROVED BY THE ARCHITECT.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECT'S DRAWINGS FOR DETAILS OF FIRE COMPARTIMENTATION.
- FOR THE SPECIFICATION OF ALL LUMINAIRES PLEASE REFER TO THE LUMINAIRE SCHEDULE.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS AND ROOM ELEVATIONS FOR THE EXACT LOCATION OF ALL SERVICES.

Rev Description

SAFETY, HEALTH AND ENVIRONMENT INFORMATION
Read notes on the identified hazard symbol referencing the unusual residual hazards / risks are listed above.

Rev	Description	Rev	Rev	Rev
01	01	01	01	01
02	02	02	02	02
03	03	03	03	03
04	04	04	04	04
05	05	05	05	05
06	06	06	06	06
07	07	07	07	07
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Project Manager: **GT GARDNER**
Contractor: **CBRE**

Main Contractor: **EMERSON (P) SERVICES**

Design Consultant: **PATTERN**

Structural / MEP / Infrastructure: **BURO HAPPOLD**

Project Title: **N3967_The People's Project**

Drawing Title: **EXTERNAL LIGHTING SHEET 1**

Checked: **AW** Drawn: **JRH** Designed: **AR**

Discipline of Issue: **D3 - PLANNING**

Model File Path: **BMD01-BHE-ZZ-M3-E-ElectricalRevit**

Project Name: **BMD01-BHE-ZX-XX-DR-YB-0300**

Scale: **As Issued** Status: **D3** Revision: **P04**

Scale: **1 : 400** Status: **D3** Revision: **P04**

Figure 1 – In-combination Schemes



Rev	Date	Notes
A	02/12/19	Initial map production

Legend

- Goodison Park
- Bramley Moore Dock
- Land between Blackstock Street & Paul Street
- The Tannery
- Bevington House
- Naylor Street- Phase 1
- 9-27 Freemasons Row
- Plot C02, Liverpool Waters
- Rose Place
- Southern Warehouse
- Tobacco Warehouse
- Strand House
- Pall Mall Exchange Phase 1
- The Metalworks
- LMU Campus
- Liverpool Cruise Liner Terminal, Princes Dock
- The Lexington
- Royal Liverpool University Hospital
- Aura, Manfred Street & Erskine Street
- Devon House
- One Islington Plaza
- Baltic Square
- One Park Lane
- The Address at One Wolstenholme Square
- New Merseyside Police Headquarters
- One Wolstenholme Square
- Renshaw Hall
- Horizon Heights
- Fabric Village
- Liverpool Waters



In-Combination Schemes

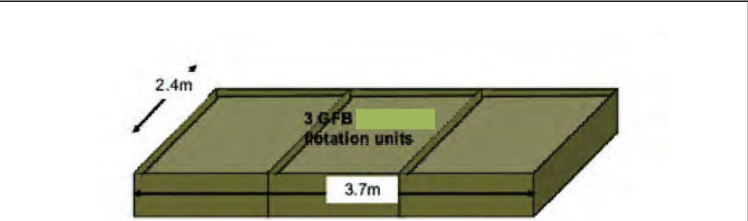
Goodwin Avenue, Everton Football Stadium
Everton Stadium Development Limited

Scale at A3:	Project No: A100795-1	Drawing No: Figure 1	Revision: A
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Drawn by: Ben Blowers	Drawn date: 02/12/2019	Approved by: Phil Preston
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Figure 2 – Indicative pontoon location, specification and installation measures

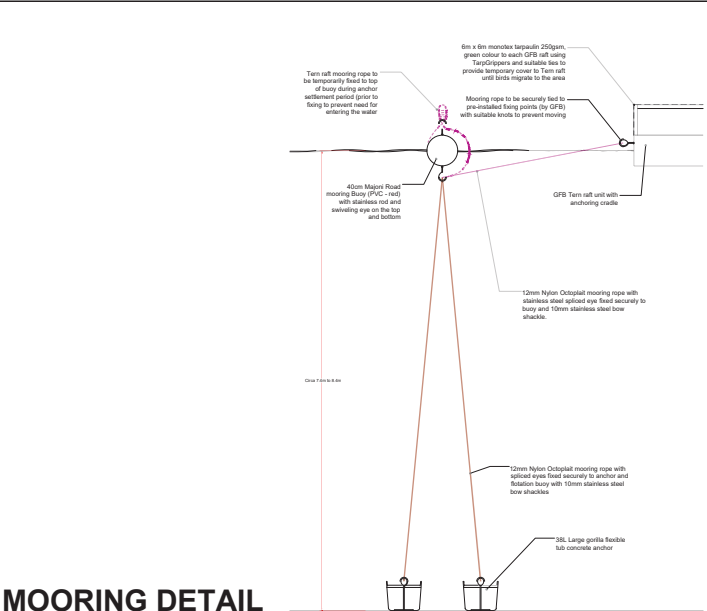


RAFT DIMENSIONS

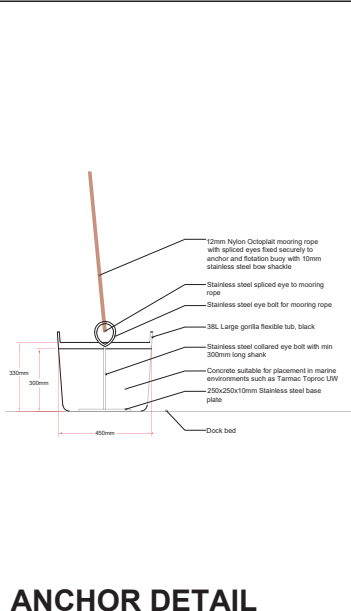
Typically, the rafts will be towed into position using a small vessel. The anchors themselves will either be carried in the vessel or they may be positioned on the raft and towed with it. The anchors will then be lowered into position until they are sat on the dock bed in accordance with the mooring and anchor details shown opposite.



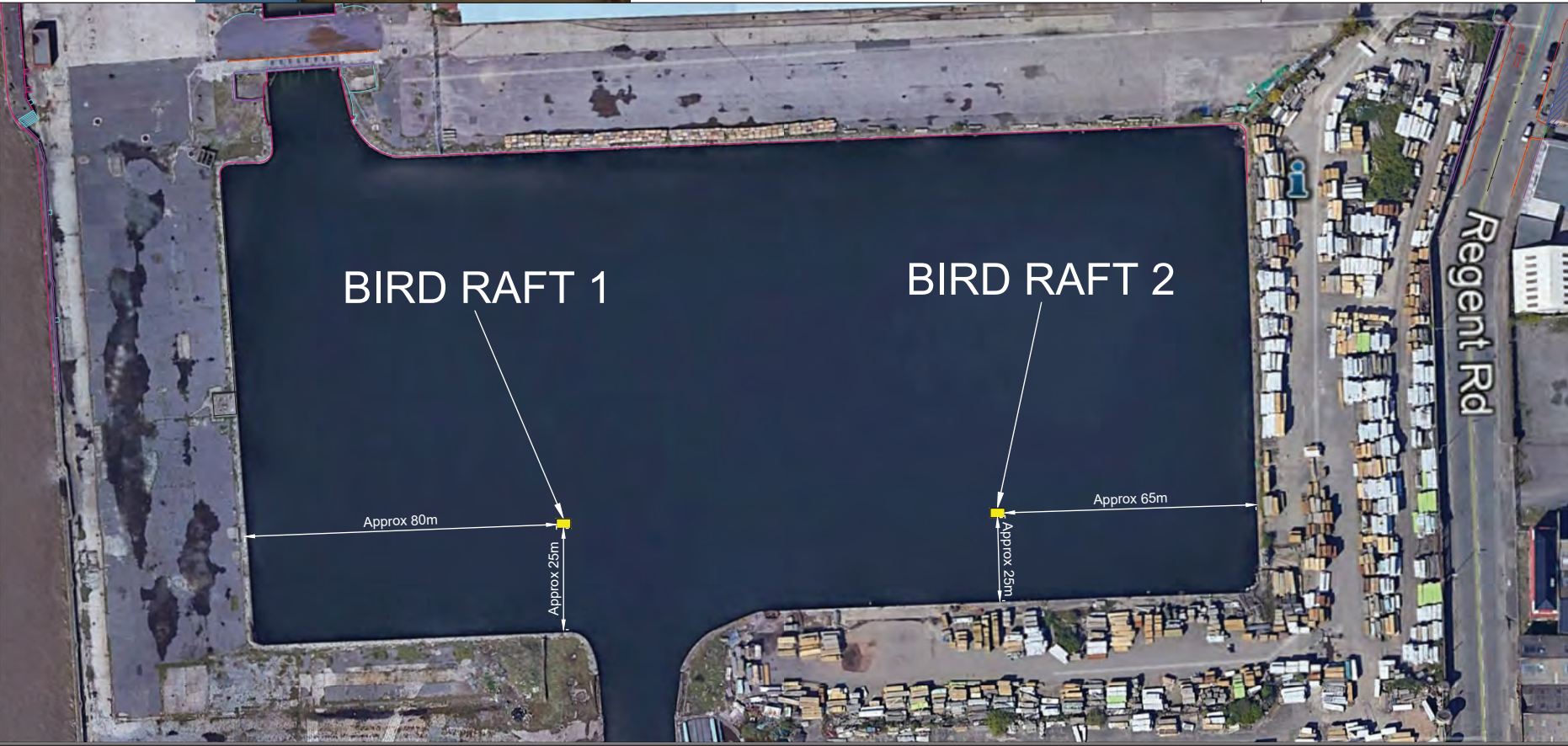
METHODOLOGY



MOORING DETAIL



ANCHOR DETAIL



P02 AB DEPTH OF ANCHORS AMENDED.		04/12/20
P01 AB FOR PLANNING PURPOSES ONLY		04/12/20
Rev. By: Chkd.	Comments.	Date. Authorised.
THIS DRAWING ORIGINATED IN THE FOLLOWING OFFICE: Laing O'Rourke, Unity Building (Level 02), 20 Chapel Street, Liverpool. L3 9AG		
Project THE PEOPLE'S PROJECT		
Drawing NELSON DOCK BIRD RAFT LOCATIONS & DETAILS		
Scale: NOT TO SCALE		
Drawing number TTP/LOR/AB/015		Rev. P02

ecology@wyg.com

**WYG Environment Planning Transport
Limited.**

Registered in England & Wales Number:
3050297

Registered Office: 3 Sovereign Square, Leeds,
LS1 4ER





Technical Appendix 5 – Consultee comments and responses.

Consultee comment	WYG response	Section
Clarity required from consultees in relation to construction methodology within the Shadow HRA	Construction works description amended.	Technical appendix 4, section 1.3
Clarity required regarding inclusion of fish species within Shadow HRA, as fish do not form qualifying feature of any Natura 2000 site.	Clarity provided explaining that fish species within the application site and wider dock provide prey species that support some of the.	Technical appendix 4, section 4.2
Clarity required regarding monitoring of contaminants within the dock during construction phase assessment within the Shadow HRA.	Relevant section of the Shadow HRA amended to demonstrate that contamination levels are sufficiently low enough to remove potential impact on designated sites. Where necessary appropriate measures have been included within the assessment to mitigate for contamination.	Technical appendix 4, section 4.2 Technical appendix 4, section 6.6
Further information required in relation to vessel transfer of infill material within the shadow HRA.	Detailed assessment of potential impacts of vessel movement included.	Technical appendix 4, section 4.2
Clarification on relevant designated sites and associated qualifying features required within the Shadow HRA.	Further detail is provided through out the updated Shadow HRA regarding which sites and their associated qualifying features are assessed at each stage of the assessment.	Technical Appendix 4, section 4.2 onwards.

Consultee comment	WYG response	Section
Revision to the Assessment of Likely Significant Effects stage of the Shadow HRA where mitigation may be implemented.	Assessment clarified to confirm no mitigation is required or where mitigation is required for a particular pathway this is progressed to the Appropriate Assessment stage.	Technical Appendix 4, section 4.2 and 6.6.
Where insufficient evidence is provided to rule out likely significant effects further information is required either at ALSE or AA stage of the Shadow HRA.	Revisions made to relevant pathways of effect assessments at both ALSE and AA stage	Technical appendix 4, section 4.2 Technical appendix 4, section 6.6
Additional projects and plans to be included within in combination assessment of the Shadow HRA	Revisions made to in combination assessment at both ALSE and AA stage.	Technical appendix 4, section 4.2 Technical appendix 4, section 6.6
Assessment in relation to wintering birds requires further justification within the Shadow HRA	Revision made to wintering bird assessment within the Information to Inform Appropriate Assessment.	Technical appendix 4, section 6.3
Further information required regarding bird use within the wider Liverpool Waters scheme required to justify conclusions drawn within the Shadow HRA.	Data from Liverpool Waters SEMP now included.	Technical appendix 4, section 6.1
Further information is required in relation to bat mitigation measures within the ES chapter	Mitigation measures in line with Bat Mitigation Class Licence are described	Appendix 12.1, Section 12.12.14

Merseyside Environmental Advisory Service
2nd Floor, Magdalen House
Trinity Road, Bootle, L20 3NJ
Director: Alan Jemmett, PhD, MBA

Enquiries: 0151 934 4951

Contact: Peter McKeon
Email: measdconsultations@eas.sefton.gov.uk

DEVELOPMENT MANAGEMENT ADVICE

To: Peter Jones
Organisation: Liverpool City Council

From: Peter McKeon
Principal Ecologist

Your Ref: 20F/0001
File Ref: LI20-014
Date: 20 April 2020

Development of stadium and associated works, including infilling of dock and demolition of existing structures Bramley Moore Dock, Regent Road, Liverpool

1. Thank you for consulting Merseyside Environmental Advisory Service in respect of this planning application. The proposals comprise the development of a new stadium and associated works, including the infilling of a dock and demolition of existing structures.
2. Having reviewed the application and supporting documentation, our ecological advice is set out below in two parts.
 - Part One deals with issues of regulatory compliance, action required **prior to determination** and matters to be dealt with through planning conditions. Advice is only included here where action is required or where a positive statement of compliance is necessary for statutory purposes.
 - Should the Council decide to adopt an alternative approach to MEAS Part 1 advice, I request that you let us know. MEAS may be able to provide further advice on options to manage risks in the determination of the application.
 - Part Two sets out guidance to facilitate the implementation of Part One advice and informative notes.

In this case Part One comprises paragraphs 3 to 25, while Part Two comprises paragraph 26.

Part One

Habitats Regulations Assessment

3. The application site lies directly adjacent to the Liverpool Bay SPA and is also near to the following European sites, UDP policy OE5 applies:
 - Mersey Narrows and North Wirral Foreshore SPA;

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- Mersey Narrows and North Wirral Foreshore Ramsar;
 - Mersey Estuary SPA;
 - Mersey Estuary Ramsar;
 - Ribble and Alt Estuaries SPA; and
 - Ribble and Alt Estuaries Ramsar.
4. Due to the proximity of the proposed development to the above sites and the potential impact pathways, the applicant has submitted a shadow Habitats Regulations Assessment (HRA) (*ES Appendix 12, Technical Appendix 4 – Report to Inform Habitats Regulations Assessment Stage 1 and Stage 2, WYG, December 2019, A100795*).
5. The shadow HRA concludes that the proposed development will not lead to an adverse effect on the integrity of European sites. However, before that conclusion can be accepted I advise that the following matters require further discussion and clarification:
- High fish densities were recorded within Bramley Moore Dock (BMD) during the fish surveys. Cormorant are a piscivorous bird species and the number of birds recorded within the site was significant in terms of the Liverpool Bay SPA and Mersey Narrows and North Wirral Foreshore SPA and Ramsar site populations (peak count 11). Despite this, the shadow HRA concludes that BMD does not form a valuable foraging resource for cormorant as the numbers recorded foraging within the dock during survey equated to less than 1% of the European site populations. However, using a precautionary approach, I advise that BMD should be considered as foraging habitat considering that a significant number of cormorant were recorded within the site and that the dock provides them with a good food source. The shadow HRA considers that fish stocking levels are consistent throughout the dock system. However, this is not necessarily the case, as studies completed in relation to proposed and on-going developments at Princes Dock and West Waterloo Dock have shown;
 - According to submission documents, the fish rescue methodology is to be agreed at a later date. However, to assist in determining effects on fish populations and potential prey availability for fish eating birds for HRA purposes, I advise that an outline of the fish rescue and translocation methodology will be required;
 - Fish captured during the rescue exercise are to be transferred to other (as yet unspecified) docks. I advise that clarification should be provided as to how the docks will be chosen and whether any sampling will take place to determine their suitability to support the translocated fish. Transfer of fish into hydraulically unconnected docks should be avoided;
 - The proposals could lead to a fundamental change in the ecology and water quality of Nelson Dock. Potential effects on functionally linked habitat at Nelson Dock (and effects on fish prey species for qualifying birds) during the construction and operational phases therefore requires further discussion. For example, hydrological connectivity between Nelson and BMD will be severed during the construction phase and the potential for a decline in water quality within the dock as a result of this needs to be

considered in the shadow HRA along with how it will be monitored and overcome, if necessary;

- Further discussion of the water quality management measures that will be undertaken during the operational phase at Nelson Dock (including for salinity, water levels and algae) is also required. This should include clarification as to when the sluice gates on the new water channel will be opened / closed and whether salinity is to be maintained in the dock and, if so, how;
- The shadow HRA considers lighting effects on Nelson Dock during the operation phase, although the effects of over-shading on the dock should also be considered;
- Great crested grebe, lesser black-backed gull and herring gull are part of the named waterbird assemblage of the Liverpool Bay SPA and the numbers of those species recorded during the surveys exceeded 1% of the Liverpool Bay SPA population. Despite this, they have been screened out of assessment in the shadow HRA as the numbers recorded fall under 1% of their respective GB populations. However, ultimately HRA must assess potential harm on the integrity of the European site, not the GB or international populations. Further assessment of the effects of the proposals on those assemblage features is therefore required;
- Noise and auditory disturbance effects, during both construction and operation, have been screened out in the shadow HRA and not taken forward into Appropriate Assessment. However, to be accepted this will need to be further evidenced and justified;
- The submitted Construction Method Statement (ES Appendix 4.1) describes some of the mitigation measures that will be embedded within the proposed development. These include the installation of acoustic fencing along the western site boundary during construction works. For completeness, this needs to be referenced in the shadow HRA;
- The proposed mitigation for waterbirds comprises the placement of two floating pontoons in the adjacent Nelson Dock and the shadow HRA states that they will be managed and maintained by the applicant (or their appointed management company) in perpetuity. However, to give sufficient re-assurance that long-term mitigation will be provided, I advise that outline details of the post-development monitoring that will take place to ensure the success of mitigation should be included. An adaptive management approach should be taken and monitoring used to inform any changes to the specification or location of the mitigation. A framework for reporting the outcomes of monitoring will also need to be in place; and
- With regard to the in-combination assessment, there are other schemes which require the provision of mitigation for non-breeding birds that should be considered within the assessment including the District Heating Network at Central Docks (LPA ref: 19F/1745), Isle of Man Ferry development (LPA ref: 17F/2628) and the Northern Link Road scheme (LPA ref: 18L/3232).



Ecology

6. The submitted ecological survey information is presented in Appendix 12.1 of the Environmental Statement. The survey reports meet BS42020:2013 and comprise the following:
- Ecological Appraisal (WYG, November 2019 (updated 13 March 2020), version 1);
 - Bird Survey Report (WYG, November 2019 (updated 13 March 2020), rev 1); and
 - Bat Survey Report (WYG, November 2019 (updated 13 March 2020), rev 1).

Bats

7. The bat surveys confirmed the presence of low numbers of common pipistrelle roosting bats within the pump house (B1) in the north-eastern corner of the site. The building is due to be refurbished as part of the proposed development.
8. As the presence of roosting bats has been confirmed, the Council is required to undertake the three test assessment **prior to determination** of the application and refurbishment works to the building will have to be undertaken under a Natural England EPS licence or the bat mitigation class licence CL21.
9. Section 12.7 and Appendix 12.1 of the Environmental Statement provides brief outline of what the proposed bat mitigation will entail, i.e. provision of an alternative roost, supervision of works to roosting areas and provision of five additional roosts. However, to enable the Council to complete the three test assessment further details of the proposed bat mitigation are required **prior to determination** (e.g. methodology, timings, locations and specifications of alternative roosting provision).

Non-breeding birds

10. The main findings of the surveys for wintering and passage bird species are mentioned in relation to the shadow HRA above and are not discussed further here.

Breeding birds

11. The presence of breeding birds on the site was confirmed during the surveys. However, qualifying bird species were not recorded breeding in significant numbers.
12. Built features or vegetation on site may provide nesting opportunities for breeding birds, which are protected and UDP policy OE5 applies. The following planning condition is required:

CONDITION

No scrub removal, ground clearance and/or building works is to take place during the period 1 March to 31 August inclusive. If it is necessary to undertake works during the bird breeding season then all buildings, scrub and affected areas are to be checked first by an appropriately experienced ecologist to ensure no breeding birds are present. If present, details of how they will be protected are required to be submitted for approval.

Landscaping and habitat creation

13. The application site lies adjacent to the Mersey Estuary Nature Improvement Area (NIA), although the site provides few opportunities for the creation of additional habitats. The proposed landscaping of the site should therefore ensure that opportunities for biodiversity enhancements are maximised.
14. The submitted Landscape Softworks Plan (*MEIS Architects, 4 September 2019, BMD001-PLA-L1-00-DR-L-2000*) shows the limited landscape planting which will occur in the eastern part of the site. However, this is to be undertaken entirely with either exotic species or those which are not locally native.
15. I advise that the planting of tall growing trees like Scot's pine (*Pinus sylvestris*) is avoided as, when mature, they may provide opportunity for roosting and nesting corvids which could predate the ground-nesting birds known to be present in the adjacent docklands. Suitable alternatives in that location include rowan (*Sorbus aucuparia*), native alder (*Alnus glutinosa*), wild cherry (*Prunus avium*).
16. I advise that a revised landscaping scheme is secured by a suitably worded planning condition.

Aquatic Ecology

17. Chapter 13 of the ES, the aquatic ecology impact assessment, was informed by the Aquatic Ecology Technical Report (Appendix 13.1) (*Carcinus Ltd, 3 January 2020, J0581_012020_02, Final Rev 1.3*). The Aquatic Ecology Technical Report assesses the potential impact of the proposed development on aquatic receptors including:
 - Fish / Shellfish Ecology & Fisheries;
 - Benthic Ecology surveys;
 - Marine Mammal Ecology; and
 - Sediment Chemistry.
18. I advise that the level of aquatic survey and sample undertaken is acceptable.
19. I have referred to fish in relation to HRA matters above and do not have any further comments to make on them here.
20. The nature conservation value of the benthic communities and habitats within BMD is considered negligible given the disturbed environment (industrial dock), the presence of invasive non-native species and the absence of species of conservation importance. I will defer to the Environment Agency on this matter, although I note that starlet sea anemone (*Nematostella vectensis*) were not recorded during sampling and will not, therefore, place any constraints on the proposed development. Starlet sea anemone, listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), was previously recorded in the vicinity of Princes Dock to the south.
21. The analysis of the sediment chemistry recorded a range of contaminants which are largely typical of the docklands location. Due to the proposed dock infill methodology, which involves leaving the existing dock sediment in situ and covering with membrane,

I do not have any significant concerns regarding the spread of contaminated sediments into neighbouring docks or into the adjacent SPA.

22. I will defer to colleagues in the Environment Agency with regard to the acceptability of the Water Framework Directive assessment which has been submitted in support of the application (ES Appendix 11.7).

Ecological Impact Assessment (EclA)

23. The EclA is summarised in Chapter 12 of the ES and is given in full in ES Appendix 12. The EclA follows best practice (e.g. CIEEM, 2018) and, subject to further discussion and clarification of the matters listed above regarding the shadow HRA, the conclusions of the EclA can be accepted.

Construction Environmental Management Plan (CEMP)

24. I advise that the applicant prepares a Construction Environmental Management Plan (CEMP) document to manage and mitigate the main environmental effects during the construction phases of the proposed development. The CEMP should address and propose measures to minimise the main construction effects of the development and, amongst other things, should include details of ecological mitigation, construction and demolition waste management, pollution prevention and soil resource management. The CEMP would normally be expected to include the agreed method statements to mitigate or avoid adverse environmental impacts. The CEMP should expand upon the measures outlined in the submitted Construction Method Statement for avoiding and minimising effects of noise and construction related pollutants during the works. The CEMP should also include, but not be limited to, the following:

- Detailed fish capture and translocation methodology;
- Details of the water quality monitoring of Nelson Dock, including the parameters which will be monitored and the frequency of monitoring. The water quality triggers / thresholds that will stop infilling works should be specified; and
- Measures that will be undertaken to avoid harm to roosting bats and breeding birds.

25. The CEMP should be compiled in a coherent and integrated document and should be accessible to site managers, all contractors and sub-contractors working on site as a simple point of reference for site environmental management systems and procedures. I advise that the CEMP can be secured through a suitably worded planning condition.

Part Two

26. Hemlock (*Conium maculatum*) was recorded during the 2019 extended phase 1 habitat survey within scattered scrub in the south western part of the site (TN2). As the plant can be harmful to human health, it should be disposed of from the site prior to the commencement of works.

I would be pleased to discuss these issues further and to provide additional information in respect of any of the matters raised.

Peter McKeon MCIEEM
Principal Ecologist

Merseyside Environmental Advisory Service – delivering high quality environmental advice and sustainable solutions to the Districts of Halton, Knowsley, Liverpool, St.Helens, Sefton and Wirral



Date: 20 April 2020
Our ref: 309854
Your ref: 20F/0001



Peter Jones
Liverpool City Council
peter.jones2@liverpool.gov.uk

cc. Jamie Johnson
Marine Management Organisation
Jamie.Johnson@marinemanagement.org.uk
In reference to MLA/2020/0109

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear Peter,

Planning consultation: Application for Full Planning Permission in accordance with submitted drawings for the demolition of existing buildings/structures on site (listed in the schedule); remediation works; foundation/piling works; infill of the Bramley-Moore Dock, alteration to dock walls and dock isolation works with vehicular and pedestrian links above; and other associated engineering works to accommodate the development of a stadium (Use Class D2) predominantly for football use with the ability to host other events with ancillary offices (Use Class B1a); Club Shop and retail concessions (internal and external to the stadium) (Use Class A1); exhibition and conference facilities (Use Class D1); food and drink concessions (internal and external to the stadium) (Use Classes A3 / A4 / A5); betting shop concessions (Sui Generis); and associated infrastructure including: electric substation, creation of a water channel, outside broadcast compound, photo-voltaic canopy, storage areas/compound, security booth, external concourse / fan zone including performance stage, vehicular and pedestrian access and circulation areas, hard and soft landscaping (including canopies, lighting, wind mitigation structures, public art and boundary treatments), cycle parking structures and vehicle parking (external at grade and multi-storey parking) and change of use of the Hydraulic Tower structure to an exhibition / cultural centre (Use Class D1) with ancillary food and drink concession (Use Class A3).

Location: Bramley Moore Dock, Regent Road, Liverpool

Thank you for your consultation on the above dated and received by Natural England on 20 February 2020.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Further information required to determine impacts on designated sites

In summary, Natural England advises that further information is required to provide appropriate detail and justification particularly regarding the proposed mitigation measures. We advise that uncertainty remains regarding the impacts of the proposed scheme on designated sites, both alone and in-combination.

Our advice follows below and we have provided detailed comments on the HRA in Annex A. The advice within this letter focuses on the following document:

- Report to Inform Habitats Regulations Assessment Stage 1 and Stage 2 v4 by WTG, dated March 2020

Natural England has utilised some of the additional documents available to inform our comments however, we will provide further detailed comments in respect to the Environmental Statement and other documents in due course.

We provide this letter to both Liverpool City Council (LCC) and to the Marine Management Organisation (MMO) to aid consistency and we are keen to work closely with both regulators (and also the Environment Agency) to adopt a coastal concordat approach with this development to ensure a single, robust Habitats Regulations Assessment is provided covering all aspects of the development.

Internationally and nationally designated sites

This application is adjacent to Liverpool Bay Special Protection Area (SPA) and within 1.2km of the Mersey Narrows and North Wirral Foreshore SPA and Ramsar, and the Mersey Narrows Site of Special Scientific Interest (SSSI).

In considering the European site interest, Natural England advises that you, as a competent authority under the provisions of the Habitats Regulations, should have regard for any potential impacts that a plan or project may have¹. The [Conservation objectives](#) for each European site explain how the site should be restored and/or maintained and may be helpful in assessing what, if any, potential impacts a plan or project may have.

Please see the subsequent sections of this letter for our advice relating to SSSI features.

Habitats Regulations Assessment (HRA)

The applicants have provided the document "Report to Inform Habitats Regulations Assessment Stage 1 and Stage 2" which assesses the impacts of the development. We provide the advice enclosed on the assumption that your authority intends to adopt this document as a shadow HRA to fulfil your duty as competent authority. We remind you that as competent authority, it is your responsibility to produce the HRA.

Natural England notes that an appropriate assessment of the proposal has been undertaken in accordance with Regulation 63 of the Conservation of Species and Habitats Regulations 2017 (as amended). Natural England is a statutory consultee on the appropriate assessment stage of the Habitats Regulations Assessment process, and a competent authority should have regard to Natural England's advice.

The appropriate assessment concludes that your authority is able to ascertain that the proposal will not result in adverse effects on the integrity of any of the sites in question. Having considered the assessment, and the measures proposed to mitigate for any adverse effects, it is the advice of Natural England that the assessment does not currently provide enough information and/or certainty to justify the assessment conclusion and that your authority should not grant planning permission at this stage.

Further assessment and consideration of mitigation options is required, and Natural England provides detailed advice on the additional assessment work required within Annex A.

Should the applicant wish to discuss the further information required and scope for mitigation with Natural England, we would be happy to provide advice through our [Discretionary Advice Service](#).

¹ Requirements are set out within Regulations 63 and 64 of the Habitats Regulations, where a series of steps and tests are followed for plans or projects that could potentially affect a European site. The steps and tests set out within Regulations 63 and 64 are commonly referred to as the 'Habitats Regulations Assessment' process.

The Government has produced core guidance for competent authorities and developers to assist with the Habitats Regulations Assessment process. This can be found on the Defra website. <http://www.defra.gov.uk/habitats-review/implementation/process-guidance/guidance/sites/>

In-combination assessment

When your authority undertakes the necessary HRA, consideration also needs to be given to the in-combination effects with other plans and projects, if it can be determined that the other plans or projects, themselves, would not result in likely significant effect. The assessment needs to consider those other plans and projects that could have the same effect such as displacement, disturbance, habitat loss.

Plans or projects comprise the following;

- a) The incomplete or non-implemented parts of plans or projects that have already commenced;
- b) Plans or projects given consent or given effect but not yet started.
- c) Plans or projects currently subject to an application for consent or proposed to be given effect;
- d) Projects that are the subject of an outstanding appeal;
- e) Ongoing plans or projects that are the subject of regular review.
- f) Any draft plans being prepared by any public body;
- g) Any proposed plans or projects published for consultation prior to the application

This could include plans or projects from neighbouring Local Planning Authorities and those in the marine environment.

Liverpool Waters (strategic approach)

We are aware that this development site falls within the wider Liverpool Waters scheme. The development proposed is a major change from that which was identified within the Outline Permission (planning reference 10O/2424) which originally proposed a water sports activity centre within Bramley Moore Dock. From our understanding the original development did not involve any works to infill the dock and therefore no loss of the water, however this application requires the infilling of the entire dock, which we note is the largest dock within the Liverpool Waters site accounting for ~4ha (20%) of all the open water available in the Liverpool Waters docks. As highlighted with evidence from the original permission and other reports (e.g. [TEP report 2015](#)) these docks provide functionally linked supporting habitat for SPA birds.

We acknowledge impacts on supporting habitat has been identified within the HRA, however we would like to highlight our concerns regarding increasing development pressure within all of the Liverpool (and Birkenhead) docks which is likely to cause a reduction in the availability of this supporting habitat available. We advise that a holistic approach to considering the implications of developments is necessary and a strategic approach to delivery of mitigation measures, ultimately ensuring that supporting habitat remains available for SPA birds.

We understand that this current application is a standalone application and must be considered on an individual case basis, however we advise that LCC should ensure that this development does not undermine the proposals as set out within the outline permission for Liverpool Waters. This further includes considering the impacts of the development on the proposed mitigation at Nelson Dock as set out within the Outline Permission HRA. There is a need to ensure that sufficient mitigation is provided across the wider site. Further consideration may be needed towards a review of the outline permission (review of consents) due to change in designated sites and the changing proposals coming forwards and to ensure that mitigation proposed remains sufficient for future developments. We highlight that it is LCC's duty to review existing consents and permissions (Regulations 65 & 66) to ensure that they remain compliant with the Habitats Regulations (2017) and that this applies to the principal consent.

We strongly advise that in order future developments in Liverpool Waters come forwards as Reserved Matters applications, therefore ensuring that the applications meet the requirements as agreed within the Outline Permission. We acknowledge that Peel have been working on a strategic mitigation package and we have provided advice to support such an approach. In line with comments above this development should ensure that a joined up approach with those measures are considered therefore ensuring resilience and wider enhancement opportunities across the site are maximised.

Environmental Statement (ES)

We note that within the Biodiversity Report (Appendix 12.1 of the ES) that tables 10.10, 10.11 and 10.13 within section 12.8 (Likely significant environmental effects of the scheme) include similar information to that presented within the HRA relating to impacts on designated sites, we refer you to our below detailed advice on the HRA and advise that our comments apply equally to the information provided within the above listed tables. It should be ensured that the tables and assessment within the ES are updated.

SSSI

Our concerns regarding the potential impacts upon the Mersey Narrows SSSI coincide with our concerns regarding the potential impacts upon the international designated sites.

Please note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 281 (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow a further period of 21 days before the operation can commence.

Discretionary Advice Service

Natural England can provide quality tailored advice at pre-application, pre-determination and post-consent stages through the Discretionary Advice Service (DAS). Natural England can ensure that appropriate environmental considerations are made at an early stage of a proposal minimising the risk of delays later in the consultation process. More information regarding the Discretionary Advice Service can be found at: <https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals> .

Other advice

Further general advice on the protected species and other natural environment issues is provided at Annex B.

If you have any queries relating to the advice in this letter please contact me at the details below. Please consult us again once the information requested above, has been provided.

Yours sincerely,

Amanda Yeomans

Senior Adviser
Cheshire to Lancashire – Coast and Marine Team
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Annex A: Detailed comments on shadow HRA

No.	Section No.	Document Page No.	Comment	Comment for LCC/MMO
1	1.3 Development Proposals	Starting pg. 4 to pg. 9	<p>The construction methodology here provides highly detailed information on all the activities to be undertaken to infill the dock. There is limited further information on the specific construction activities for the stadium development following dock infill with a simple bullet list of activities on page 9. We appreciate a further Appendix provides detail however it seems inconsistent with the detail provided on the initial methods.</p> <p>Should LCC/MMO wish to rely upon this document to provide the HRA for the development then consistent detail is required throughout. We advise that the HRA should cover all aspects of the development through enabling, demolition, construction and operation, therefore the relevant detail should be summarised for all of the construction phase together with bringing in the programme/phasing of works and associated timeline. This should sit within the body of the HRA and detailed information in the Appendix documents provided for further reference.</p>	LCC & MMO
2	1.3- Fish transfer	Page 4	<p>We note that there is quite a lot of detail provided around impacts to fish within this HRA- these fish species are not a designated feature of the designated sites therefore context should be provided to explain why the fish are considered within this assessment i.e. do they form part of a feeding resource for the bird species of the designated sites?</p> <p>NE defer to the EA for detailed advice on impacts to fish species within the dock system.</p>	LCC & MMO
3	1.3 Dock closure	Page 7	Comments on baseline monitoring- NE advises that further detail on any pre-construction baseline monitoring is presented alongside the application documentation. We question what monitoring will be undertaken to establish the level of contaminants if any within the docks and whether there is any risk of transfer of these through the dock system by activities undertaken.	LCC & MMO
4	1.3 Dock reclamation	Pages 7- 8	Comments on source of material and impacts- We note that material for dock infill is to be sourced from licenced area 457, we question whether the existing permission covers this volume of extraction and that this licence is fit for purpose. Please note that any licence granted for extraction prior to 2016 may not have considered impacts on additional features of Liverpool Bay SPA, therefore we advise that a review of consents may be required to ensure that the activity is covered by a	MMO

			<p>licence supported by a robust and up to date HRA.</p> <p>We question how many vessel transfer visits are required to the development site- vessel transfer should be considered as an additional impact pathway for disturbance to birds within the designated sites (mainly Liverpool Bay SPA).</p> <p>Note the in-combination assessment will need to consider any additional marine licence activities within the area, including ongoing dredging and further related activities in the marine environment and those associated with the docks e.g. Isle of Man Ferry Terminal.</p>	
5	1.3. Installation of permanent northern isolation structure	Starting page 8	<p>We note that there is proposed hydrological connectivity between Sandon Dock and Nelson Dock as outlined within Appendix 12.1 Biodiversity (section 12.1.5 (also see page 24 ASLE) but it is unclear how this will be achieved and whether there is further need to consider additional marine licence implications on any further activities. We defer to the MMO to consider implications of the remaining hydrological connectivity and request clarity is provided on the extent of marine licensing requirements throughout the northern docks.</p>	MMO (LCC)
6	1.6 Site selection	Page 10	<p>We acknowledge Mersey Estuary Ramsar has been identified here and welcome the inclusion of this site within the assessment.</p>	LCC & MMO
7	Table for ALSE		<p>NE Overarching comments on ALSE</p> <p>We advise that the impact pathways identified are appropriate, however further consideration of the potential receptors for each pathway is needed. For example it is not clear which designated sites/features are considered with each impact and whether some sites/features can be screened out at this stage and which must be considered further under AA.</p> <p>There is reference to the conservation objectives of the designated sites in some sections of the table, we remind you that consideration at ALSE stage is broad assessment of potential impacts that are likely to have a significant impact, in the absence of any mitigation measures, and therefore require further detailed consideration at AA. At AA the assessment must consider the impact on the conservation objectives and therefore whether there is an adverse effect on the integrity of the designated site.</p>	LCC & MMO
	Table for ALSE-Construction			
8	Table for ALSE-	Page 24	<p>Mobilisation of contaminated sediments- As per comments above we question</p>	MMO (LCC)

	Mobilisation of contaminated sediments		whether further contaminant testing will be undertaken. We note the reference to the Construction Management Plan (CMP) stating “..does not consider there to be any contaminated soils of sediment on site”- however section 5.2 of the CMP states that there “were typical contaminants on site and 2 results were hazardous”. We defer to the EA and CEFAS for further advice, however we advise that clear evidence of thorough consideration of impacts of any contaminants within the dock system is considered. Whilst direct impacts to the designated sites may not be likely there may be additional impacts within the docks which provide functionally linked supporting habitat and furthermore have been identified as mitigation sites for cormorants.	
9	Table for ALSE- Habitat loss within functional habitat	Page 24	NE concurs with the assessment here and further consideration of impacts on FLL is required in an AA. However, referring to our overarching comments above there is no indication as to which features are considered, we note that some species may be excluded from further assessment due to the docks not providing functional habitat based on evidence available (e.g. little gull and red throated diver)	LCC & MMO
10	Table for ALSE- Habitat degradation – air quality & dust deposition	Page 24-25	Potential impacts on Liverpool Bay SPA have been identified, should any mitigation measures be employed to reduce the impact of dust deposition within the site (referring to any measures set out within the CEMP) then we advise that further consideration is required at AA, in line with the People over Wind judgement. With the impact identified we therefore disagree that this is ruled out at this stage.	LCC & MMO
11	Table for ALSE- Habitat degradation – effects on water quality during dock infill preparation – raking of dock prior to infill	Page 25	We recognise here that there is further reference to fish species providing prey species for SPA birds, however there is no further detail recognising which SPA birds are most likely to be impacted. With reference to the potential impact and measures being employed we highlight that further assessment should be undertaken at AA. We question whether additional measures to reduce impact of contaminants within the water column and their transfer between docks is to be applied and if so then we advise that further consideration is required at AA, in line with the People over Wind judgement.	LCC & MMO
12	Table for ALSE- Habitat degradation – effects on water quality during dock infill	Page 26	We note that this section may include potential measures to reduce and mitigate impacts, therefore we advise that further consideration is required at AA, in line with the People over Wind judgement. We note that no consideration here is given towards direct run off to designated sites.	LCC & MMO
13	Table for ALSE- Disturbance of qualifying features during transfer of aggregate to site	Page 26	We advise further justification is provided here, i.e. how many additional vessel visits are anticipated. There is limited detail and evidence provided to support the conclusions made. We highlight that where there is uncertainty of an impact then further consideration at AA is required, therefore caution to using the term “highly unlikely” should be made as this does not provide the certainty as required by the Habitats Regulations- therefore we advise that a precautionary approach is made.	LCC & MMO

14	Table for ALSE- Disturbance of qualifying features – visual and auditory disturbance during transport and transfer of dredged materials	Page 26	We question what the difference is between this impact with that above “Disturbance of qualifying features during transfer of aggregate to site?” This impact could be considered jointly with that above (13). Note comments above also apply here.	LCC & MMO
15	Table for ALSE- Disturbance of qualifying features – visual and auditory disturbance.	Page 27	<p>NE disagrees that LSE is ruled out for this impact pathway. Further evidence and justification is required to demonstrate why noise and visual disturbance will not significantly impact on SPA birds present in area.</p> <p>Visual: We do not agree with the ruling out of visual impacts here with the justification provided that on the basis that qualifying features of designated sites will become accustomed to the works taking place. All of the works represent a significant change to the type of operations currently taking place in and around BMD, coupled with the scale of the development we advise that visual impact pathways require further consideration in the AA.</p> <p>Auditory: The baseline noise levels are stated to be between 47 and 52dB, with average construction noise levels expected range upwards from 67.4dB. We advise further consideration of noise impacts is required where there is more than a 3dB increase from baseline noise levels. Therefore, we consider there is potential for impacts as a result of noise and that further consideration within the AA is required. This should include further detail on the maximum average expected noise levels as well as the minimum of the range, and consideration of the peak noise levels which may be more disturbing particularly as they can be more intermittent.</p> <p>Reference to qualifying features being tolerant of noise levels in excess of 105dB is referenced- however there is no context or reference to what species are being considered here. Noise levels from construction activities are higher than baseline levels and measures such as acoustic hoarding have been identified within the CMP with the statement “Acoustic hoarding will be installed on the western site boundary to mitigate potential noise impacts on wintering birds associated with the surrounding European designated sites as far as practicable” (see section 6.2 pg.44) therefore in line with the People over Wind judgement further consideration is required at AA. Again as per our overarching comment disturbance may be ruled out for certain designated sites and features but note that we do not agree that all features/sites can be ruled out.</p>	LCC & MMO
16	Table for ALSE - Displacement of prey	Page 27	See comments above in relation to fish species which may further apply here. No clear link is provided to which SPA birds are impacted through this pathway within	LCC & MMO

	species for bird species forming qualifying features – noise and vibration		the HRA. NE defers to the EA for further advice on the fish species in question and expects there to be full consideration of impacts on fish within the EIA.	
17	Table for ALSE- Disturbance of qualifying features – lighting effects	Page 28	As mentioned above there may be potential measures that are being relied upon to avoid significant impact for SPA birds therefore if measures to reduce, minimise and avoid impact are being applied then further consideration of impacts is required at AA.	LCC & MMO
	Table for ALSE- Operation			
18	Table for ALSE- Habitat degradation within designated sites - as a result of increased visitor numbers causing trampling effects and disturbance to bird species	Page 28	As per our overarching comments it is not clear what sites are being considered here. Not all sites are likely to have this as an impact pathway, for example with distance to Mersey Estuary SPA/Ramsar. The impact pathway considers “habitat degradation within designated sites” however there is reference to FLL therefore the pathway is broader than that within the title.	LCC & MMO
19	Table for ALSE- Disturbance of qualifying features – visual and auditory disturbance.	Page 28	We note that noise levels are stated to be just 1.2 dB above baseline levels, however as mentioned above the baseline level is 47-52dB and the noise figures stated from activities, match days and events is greater than this. Therefore further evidence and justification is required to support the conclusions here. For visual disturbance there is no consideration of the impacts of the presence of the stadium building on shading impacts onto adjacent docks which may impact upon availability of supporting habitat.	LCC & MMO
20	Table for ALSE- Disturbance of qualifying features – lighting effects.	Page 29	Air quality: Limited evidence and justification is provided here to support the conclusions made, however we note that information is available within the Air Quality report and therefore we advise that the relevant detail from this document is incorporated into the HRA to support conclusions. Lighting: We disagree that impacts associated with lighting are ruled out at this stage based on the limited evidence and justification provided here to support the conclusions made. Further consideration to measures to limit light spill to surrounding habitats is required. The visual disturbance of lighting at this site is likely to be considerable more than the baseline lighting on the site, we question how this will impact upon supporting habitat and SPA bird behaviours such as roosting and	LCC & MMO

			foraging.	
21	5.0 In combination – 5.1. projects	Page 32	We note that reference is made to the EIA chapter for cumulative assessment, we would like to highlight that HRA is a separate environmental assessment required and therefore detailed references and lists should be provided within the HRA. We advise that there are additional schemes that are missing from the in combination list, we advise that you ensure all relevant planning and marine licence applications are considered. We note that other Liverpool Waters developments have not been included such as Northern Link Road, Southern Link Road, Isle of Man Ferry Terminal and Plot A03. There is the potential for marine works to impact in combination for example ongoing maintenance dredging and marine licences associated with Liverpool Cruise Terminal and Isle of Man Ferry terminal.	LCC & MMO
22	Liverpool Waters-	Page 36	Please note that the Liverpool Waters HRA does not include an assessment for Liverpool Bay SPA and NE regards the HRA for Liverpool Waters to be outdated and therefore should not be relied upon to draw the conclusions here. All Liverpool Waters developments are required to provide updated HRAs. Mitigation was identified for Liverpool Waters in the form of roosting pontoons to be provided within Nelson Dock, this is a requirement of the HRA. There is no further consideration or mention of this and how potential impacts from the development may impact and undermine the mitigation proposed. We are aware that a strategic mitigation package is being developed for Liverpool Waters and therefore there is the potential that this development can impact upon those plans. We disagree that Liverpool Waters outline permission is screened out here.	LCC (& MMO)
23	Liverpool Cruise Terminal	Page 36	We advise you ensure that the most up to date HRA is used to consider in combination impacts. We are aware that MMO have produced their own HRA which provides different conclusion to that mentioned within the text. Mitigation has been required for Liverpool Cruise Terminal and consideration of impacts at AA was carried out.	LCC & MMO
24	Wirral Waters	Page 39	Please note that since the EIA and HRA was produced for Wirral Waters there have been a number of changes, including new designated sites and the use of the docks by breeding common terns, therefore it is not appropriate to rely on conclusions made at the time. Further evidence can be seen in standalone applications that have come forwards. Further evidence of impacts is through the need for strategic mitigation. Standalone developments should be considered within the in combination assessment.	LCC & MMO
25	5.2 Plans	Page 41	We advise the North West Marine Plan is considered within this section. We note that the plan is now out for formal consultation so therefore is material consideration within the assessment process. See here for more information:	MMO (& LCC)

			https://www.gov.uk/government/collections/north-west-marine-plan	
26	5.2.2 Wirral Core Strategy	Page 43	<p>We advise that further consideration to updated information associated with the emerging Wirral Local Plan is needed. Information is available from the recent issues and options consultation and initial HRA. See here for more information: https://www.wirral.gov.uk/planning-and-building/local-plans-and-planning-policy/wirral-new-local-plan/new-local-plan</p>	LCC (& MMO)
27	6.0 Appropriate Assessment		<p><u>Overarching Comments</u></p> <p>As per above with the ALSE it is not clear which designated sites and features are being considered further at AA. We advise that it is unlikely based on the evidence provided that all species need to be considered at AA.</p> <p>There is an overall lack of evidence and justification for some of the conclusions made, some examples are provided below but this is not considered to be an exhaustive list of outstanding queries.</p> <p>In- combination projects are not clearly presented within the AA- focus seems to be on the Plans.</p> <p>Inconsistent use of CEMP as a mitigation measure or best practice – refer to comments below under 31.</p> <p>Consideration of impacts under AA requires consideration of the conservation objectives of the designated sites- there is reference to the favourable conservation status however this is a broad term that implies all species of all sites are in favourable condition- no evidence is referenced to support this. Conservation Objectives consider:</p> <ul style="list-style-type: none"> •the extent and distribution of the habitats of the qualifying features •the structure and function of the habitats of the qualifying features •the supporting processes on which the habitats of the qualifying features rely •the populations of each of the qualifying features •the distribution of qualifying features within the site 	LCC & MMO
28	6.1 Breeding birds	Page 45-46	<p>The evidence provided here demonstrates that no breeding birds were recorded at the site in numbers greater than 1% of their population- therefore these birds can be screened out at ALSE as there is no impact pathway for a significant effect. No further consideration of breeding birds is required within the HRA process, however, consideration of impacts to breeding birds is required within the EIA (Ecology chapter) to ensure that measures to avoid impacts to breeding birds such as</p>	LCC & MMO

			disturbing/ destroying any nests are avoided, noting that all breeding birds are protected under the Wildlife and Countryside Act 1981.	
29	6.2. Wintering birds	Page 46- 52	<p>We note that the majority of species are identified in figures >1% of the qualifying feature either on site or within 400m. Many of these species are not features in their own right nor do they form a named component of the assemblage with figures greater than 2,000 or the GB population. However, these species contribute towards the overall assemblage therefore consideration of an impact on these birds with respect to the diversity of the assemblage is required to support any reasoning for not considering the species further in the assessment. We draw your attention to the conservation advice package for Mersey Narrows and North Wirral Foreshore SPA which explains further detail about considering the diversity of the assemblage, please see here: https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9020287&SiteName=mersey+narrows&SiteNameDisplay=Mersey+Narrows+and+North+Wirral+Foreshore+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=5</p> <p>We are aware of recent additional survey work that has been undertaken to support the Liverpool Waters developments and the identification of the northern docks of being a key area for cormorants. We advise that all available evidence is utilised to support the HRA, therefore we encourage join up with the other schemes and outline permission for Liverpool Waters.</p>	LCC & MMO
30	6.3 Passage birds	Page 52	The evidence provided here demonstrates that no passage birds were recorded at the site in numbers greater than 1% - therefore these birds can be screened out at ALSE as there is no impact pathway for a significant effect.	LCC & MMO
31	6.5. Assessment of effects	Page 53	<p>We note the reference towards the inbuilt measures presented within the CMP and additional mitigation measures and suggest it would be useful to present a clear list of what these measures are.</p> <p>We appreciate there is a grey area between the need of consideration of further assessment for inbuilt measures, but where these measures are relied upon to reduce, minimise and mitigate impacts they must be assessed within the AA. For example relying on the CEMP is considered within this AA- therefore returning to comments above under ALSE there may be the need to consider further impact pathways at AA.</p> <p>We advise MMO and LCC to consider their position with respect to this to ensure</p>	LCC & MMO

			they are compliant with HRA and take a consistent approach.	
32	6.5.1 Habitat loss within functional habitat beyond boundary of designated sites	Page 53	<p>We advise further evidence and justification is provided for foraging habitat for cormorant. There appears to be inconsistency within the HRA with respect to the need to consider fish species as prey.</p> <p>Further evidence to the area the site provides as functional habitat should be provided to give context of the area of supporting habitat being lost. The importance of the resting resource is considered but again there is no indication to whether there are key hotspots identified from survey work and the importance of the northern docks which has been picked up in other survey work – referring to original work looked at by Liverpool Waters identified the Northern docks as a key area for cormorant.</p> <p>Further information, evidence and certainty is required for the mitigation. For example limited information is provided to explain why 2 platforms are deemed to be suitable, what is the carrying capacity of these platforms, how will they be installed and the timing of the installation? How will success of the mitigation rafts be determined? There is no reference to any monitoring or management plans and we advise that an adaptive management plan will be required to. Justification to the location of the mitigation is required, we note that it is stated that undisturbed areas of Nelson dock will be utilised, but further detail on the location and reasoning behind this location is required and how it will not be impacted by operational activities.</p> <p>The strategic approach to mitigation is identified, and as stated NE supports such an approach however, it is not clear how this mitigation fits into the wider strategic approach and monitoring programme that is being proposed across the wider site. Any implications of this development on the mitigation already set out for Liverpool Waters needs to be considered to ensure that this development does not undermine that which has been already agreed.</p> <p>Noting the potential hydrological connectivity between Sandon Dock and Nelson Dock we advise the MMO to consider any additional marine licence requirements for the pontoons. It would be useful if MMO can provide further clarity on marine licensing across the rest of these docks as there may be wider implications for Liverpool Waters.</p> <p>No consideration of the impacts on adjacent docks such as Nelson dock are</p>	LCC & MMO

			included, for example additional impacts from shading from the presence of the stadium are not picked up and this may impact on additional FLL available in the docks. What proportion of the docks will be impacted?	
33	6.5.2 Habitat degradation - water quality impacts as a result of pollution events	Page 55	Further evidence of potential risk of the impact should be described here, also making reference to direct impact to Liverpool Bay SPA. If additional consideration is looking at oil spill impacts to prey items within Liverpool Bay then there are wider implications than just cormorants- foraging common terns feed within the river Mersey- no consideration is made to wider impacts here.	LCC & MMO
34	6.5.3. Loss of qualifying features- potential bird strike	Page 56	Limited evidence is provided to support the mitigation measures proposed here. For example, what are the flight lines for cormorants across this dock and wider area? What is an appropriate distance from the stadium for the pontoons to reduce likelihood of approaching the structure in flight?	LCC & MMO
35	6.6. Conclusion	Page 57	We advise you ensure correct terminology and a succinct conclusion is present, again reference to negligible (bold text) does not follow the precautionary principle of HRA.	LCC & MMO
36	6.8 Discussion	Page 58	Our overarching advice to LCC and MMO is that NE are unable to concur with the assessment conclusions at the present time based on the need for further evidence and information required. We advise that a review of the ALSE is required to ensure that impacts are assessed at the correct stage of HRA, a number of pathways we advise need further consideration at AA. We therefore advise that LCC and MMO do not adopt the document in its current form to provide the HRA for the development.	LCC & MMO

Annex B: Additional advice

Natural England offers the following additional advice:

Landscape

Paragraph 170 of the National Planning Policy Framework (NPPF) highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland or dry stone walls) could be incorporated into the development in order to respect and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape & Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the [Landscape Institute](#) Guidelines for Landscape and Visual Impact Assessment for further guidance.

Protected Species

Natural England has produced [standing advice](#)² to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a SSSI or in exceptional circumstances.

Local sites and priority habitats and species

You should consider the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 171 and 174 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies.

Priority habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. List of priority habitats and species can be found [here](#)³. Natural England does not routinely hold species data, such data should be collected when impacts on priority habitats or species are considered likely. Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land, further information including links to the open mosaic habitats inventory can be found [here](#).

Environmental enhancement

Development provides opportunities to secure net gains for biodiversity and wider environmental gains, as outlined in the NPPF (paragraphs 8, 72, 102, 118, 170, 171, 174 and 175). We advise you to follow the mitigation hierarchy as set out in paragraph 175 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you should consider off site measures. Opportunities for enhancement might include:

- Providing a new footpath through the new development to link into existing rights of way.
- Restoring a neglected hedgerow.
- Creating a new pond as an attractive feature on the site.
- Planting trees characteristic to the local area to make a positive contribution to the local landscape.

² <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>

³ <http://webarchive.nationalarchives.gov.uk/20140711133551/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds.
- Incorporating swift boxes or bat boxes into the design of new buildings.
- Designing lighting to encourage wildlife.
- Adding a green roof to new buildings.

You could also consider how the proposed development can contribute to the wider environment and help implement elements of any Landscape, Green Infrastructure or Biodiversity Strategy in place in your area. For example:

- Links to existing greenspace and/or opportunities to enhance and improve access.
- Identifying opportunities for new greenspace and managing existing (and new) public spaces to be more wildlife friendly (e.g. by sowing wild flower strips)
- Planting additional street trees.
- Identifying any improvements to the existing public right of way network or using the opportunity of new development to extend the network to create missing links.
- Restoring neglected environmental features (e.g. coppicing a prominent hedge that is in poor condition or clearing away an eyesore).

Access and Recreation

Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be delivered where appropriate.

Rights of Way, Access land and Coastal access

Paragraphs 98 and 170 of the NPPF highlights the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts.

England Coast Path

Natural England has a duty to provide coastal access on foot around the whole of the English coast and is aiming to complete this by 2020. This is a new National Trail with an associated margin of land predominantly seawards of this, for the public to access and enjoy. Natural England takes great care in considering the interests of both land owners/occupiers and users of the England Coast Path, aiming to strike a fair balance when working to open a new stretch. We follow an approach set out in the approved Coastal Access Scheme and all proposals have to be approved by the Secretary of State.

We encourage any future proposals / projects to include appropriate provision for the England Coast Path to maximise the benefits this can bring to the area. This should not be to the detriment of nature conservation, historic environment, landscape character or affect natural coastal change. Natural England would be happy to provide suggestions as to the most appropriate areas for coastal access on site. You will find additional information at our website at:

<https://www.gov.uk/government/collections/england-coast-path-improving-public-access-to-the-coast>.

With the proposed alignment of the England Coast Path to be along Regent Road itself, the development site would fall within part of the default coastal margin (all the land between the line of the trail and the mean low water mark). When coastal access rights have been approved and are available for the public to use, people will then have a statutory rights of access to walk within the coastal margin unless those access rights are excepted (the coastal access rights would not apply to buildings and other land types) or have been excluded by direction for a specific reason. In view of the fact that this area is covered by the Liverpool Waters redevelopment scheme, we have

already decided to propose a direction to exclude coastal access rights covering this site whilst any preparatory work / construction work is taking place.

Once the building work is completed, that 'direction' would then need to be reviewed to see if it is still relevant and consideration would then be given to what, if any, further access management measures might be needed. At the same time, it may be that we would also wish to take that opportunity to consider whether the actual alignment of the England Coast Path should change too, perhaps following any new pedestrian routes closer to the river that might be created as part of the development.

Biodiversity duty

Your authority has a [duty](#) to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available [here](#).



Technical Appendix 6 – WYG, (2020), Bramley-Moore Dock: Biodiversity Net Gain Report, for Everton Stadium Development Limited, A100795.



Bramley-Moore Dock

Biodiversity Net Gain Report



For Everton Stadium Development Limited

January 2021

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

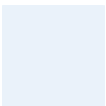
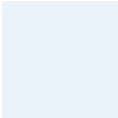

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5	05.01.2021	Elizebeth Wilcox	Phil Preston	Updated BNG Metric to DEFRA 2.0.

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FIGURES

Figure 1 – Site Location and Red Line Boundary

Figure 2 – Phase 1 Habitat Plan

Appendix A – Report Conditions

Appendix B – The Peoples Project – GA Plan - Softworks



Executive Summary

Contents	Summary
Site Location	The site is located alongside the River Mersey, Liverpool and is centred at Ordnance Survey National Grid Reference SJ 33452 92491.
Proposals	<p>The development proposals comprise a full planning application (submitted December 2019 – LPA ref. 20F/0001) for the development of a 52,888-seat capacity stadium with associated facilities and infrastructure at Bramley-Moore Dock ('BMD'), Liverpool.</p> <p>A detailed description of development is provided in the wider planning application submission (Planning Statement, Environmental Statement etc.), including the design changes associated with the revised 2020 submission reported in ES Chapter 3, Volume II. However, in summary, the application proposes:</p> <ul style="list-style-type: none"> • Demolition of non-listed structures; part-demolition of listed structures (Regent Road wall); remediation; infill of BMD; engineering works; and alterations to the dock walls to accommodate the development of the stadium (Use Class D2) with vehicle parking (external at grade). • Creation of a new (non-navigable) water channel, vehicular and pedestrian accesses, and hard / soft landscaping (including lighting, public art and boundary treatments). • Proposed change of use of the Grade II listed Hydraulic Tower structure to an exhibition/cultural centre (Use Class D1) (works to the tower subject to separate listed building consent submissions). <p>The stadium is proposed to be orientated north-south with public realm and circulatory space to the west beyond the new water channel and a large fan zone plaza to the east. Soft landscaping (including trees) is proposed around the application site within public realm areas.</p>
Existing Site Information	<p>WYG (2019) <i>Bramley-Moore Dock – Ecological Appraisal</i>.</p> <p>WYG (2020a) <i>Bramley-Moore Dock – Report to Inform Habitats Regulations Assessment Stage 1 and Stage 2</i>.</p> <p>WYG (2020b) <i>Bramley-Moore Dock – Ecological Impact Assessment</i>.</p>
Scope of this Assessment	<ul style="list-style-type: none"> • Assess the distinctiveness and condition of the vegetation types and other habitats present on site; and, • Present biodiversity net gain calculations, based on the most recent fixed proposals to inform the project on any potential biodiversity losses/gains as a result of the proposed site layouts and landscaping.
Results	<ul style="list-style-type: none"> • All of the total pre-development non-linear habitats (19.05 units) will be lost to the proposed development. • The proposed non-linear habitat creation has been calculated to have a biodiversity value of 4.13 units.



	<ul style="list-style-type: none">• Based on these figures it is predicted that the proposed development will achieve a net loss of 14.93 units, which represents a 78.34% loss of the pre-development site value.• No linear habitats are currently on site or proposed post-development.
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Glossary

BAP	Biodiversity Action Plan
BMD	Bramley Moore Dock
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
DEFRA	Department for the Environment, Food and Rural Affairs
EcIA	Ecological Impact Assessment
HPI	Habitat(s) of Principal Importance
JNCC	Joint Nature Conservation Committee
LCR	Liverpool City Region
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NERC Act	Natural Environment and Rural Communities Act 2006
NIA	Nature Improvement Area
NPPF	National Planning Policy Framework
PPG	Planning Practice Guidance
RIGS	Regionally Important Geological Site
SPD	Supplementary Planning Document
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UDP	Unitary Development Plan
UKHab	UK Habitat Classification
WHS	World Heritage Site



1.0 Introduction

1.1 Background

WYG was commissioned by Everton Stadium Development Limited (hereafter 'Everton') to undertake a Biodiversity Net Gain assessment of the application proposals at Bramley-Moore Dock ('BMD' - application site).

This report has been prepared by WYG Senior Ecologist Tim Lees MCIEEM and updated by Assistant Ecologist Elizebeth Wilcox and the conditions pertinent to it are provided in Appendix A.

1.2 Site Location

The application site is located at Bramley-Moore Dock (BMD) in Liverpool, National Grid Reference SJ 33452 92491. Bramley-Moore Dock forms a small part of a larger dock and canal network along the River Mersey. The outlet to the Leeds and Liverpool canal is approximately 0.5 km south of the site into Stanley Dock via Collingwood Dock.

The site is 8.67 hectares (redline boundary extent – see Figure 1) and is bounded to the north by the United Utilities waste water treatment plant and Sandon Half Tide Dock, to the east by Regent Road, to the south by Nelson Dock and to the west by the River Mersey wall. The western boundary of the site is limited to the foot of the concrete crown wall, built on top of the River Mersey wall.

In addition to the Grade II listed Hydraulic Tower which is to be renovated, the application site is currently occupied by a two-storey structure that sits at the western end of the north wharf and a shed structure on the southern wharf; both unlisted structures along with other smaller buildings such as sub-stations are to be demolished.

1.3 Development Proposals

In summary, the proposed development is for a 52,888 seated capacity stadium with associated facilities and infrastructure. To enable the proposed development, all buildings will be demolished with the exception of the Grade II listed Hydraulic Tower which will be retained. The Grade II BMD walls will also be retained and infilled, with a shallow water channel, oriented north to south, to be excavated from the infill on the western side of the dock.

The proposed stadium will be set within extensive hard landscaped areas with some soft landscaping (Appendix B). A new water channel is to be located to the west of the proposed stadium (excavated from the initial infill exercise) and will provide hydrological connectivity between Sandon Half-Tide Dock and Nelson Dock. This will be a non-navigable channel with isolation structures at its northern and southern ends. The isolation structure at the southern end is an existing structure. Hydrological connectivity will be achieved via a series of sluice pipes through each structure.



1.4 Planning Policy

1.4.1 National

National Planning Policy Framework

A revised National Planning Policy Framework (NPPF, Ministry of Housing Communities & Local Government, 2019) was issued on 19th February 2019 and currently supplements government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System.

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 170 of the NPPF also states that:

"Planning policies and decisions should contribute to and enhance the natural environment by:

...

- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*

Paragraph 174 then goes on to confirmed that:

When determining planning applications, local planning authorities should apply the following principles:

...

- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

Planning Practice Guidance

The government issued revised Planning Practice Guidance (PPG) in July 2019 (Ministry of Housing, 2019) in line with NPPF. The section relating to Natural Environment, includes reference to net gain and how to achieve it. It states that:

"...tools such as the Defra biodiversity metric can be used to assess whether a biodiversity net gain outcome is expected to be achieved."

1.4.2 Local

Liverpool Unitary Development Plan: A Plan for Liverpool

Section 38(6) of the Planning and Compulsory Purchase Act 2004 and Section 70(2) of the Town & Country Planning Act 1990 require that planning applications to be determined in accordance with the statutory development plan, unless material considerations indicate otherwise. The statutory development plan for the City of Liverpool currently comprises the Unitary Development Plan (UDP, adopted 2002).

Saved UDP Policy OE5 "PROTECTION OF NATURE CONSERVATION SITES AND FEATURES" states:



"The City Council will seek to protect the nature conservation interest of open land and the water environment in the City by not permitting development which would:

- i. destroy, fragment or adversely affect directly or indirectly a designated or proposed Special Protection Area (SPA), Ramsar site, or Site of Specific Scientific Interest (SSSI), unless the City Council is satisfied that there is no alternative solution and there are imperative reasons of overriding public interest;*
- ii. destroy, fragment or adversely directly or indirectly affect a Site of Nature Conservation Value as identified by the City Council unless it can be clearly demonstrated that there are reasons for the proposal including benefits to the community, which outweigh the need to safeguard the substantive nature conservation value of the site;*
- iii. destroy, fragment or adversely affect, directly or indirectly, a Regionally Important Geological /Geomorphological Site (RIGS) unless it can be demonstrated that the benefits of the proposal to the community outweigh the need to safeguard the geological value of the site;*
- iv. have an adverse effect on legally protected wildlife species; or*
- v. destroy, fragment or adversely affect, indirectly or directly, sites with known conservation value in a neighbouring authority area.*

In assessing criteria ii to iv full account will be taken of proposed mitigation measures."

Policy OE6 Development and Nature Conservation identifies that potential damage to designated ecological sites will be minimised. Developers are required to identify the nature conservation interest of the site, propose means of protecting and managing this value – possibly through the use of planning obligations or conditions – and provide compensatory measures for any nature conservation interest which is damaged or destroyed during the development.

The enhancement of nature conservation interest for both open land and watercourses is sought through **Policy OE7 Habitat Creation and Enhancement**. This includes supporting habitat creation, enhancing wildlife corridors and undertaking landscaping in a sensitive manner.

Liverpool Local Plan (Submission Version, May 2018)

The local plan has been subject to examination and therefore has significant but not yet full weight in decision taking until adopted. Policy GI5 'Protection of Biodiversity and Geodiversity' of the emerging plan states:

"Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations Assessment. Adverse effects should be avoided and/or mitigated to ensure that the integrity of internationally important sites is protected. Development which may adversely affect the integrity of internationally important sites will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest and suitable compensatory provision is secured. This also applies to sites and habitats outside the designated boundaries that support species listed as being important in the designations of the internationally important sites. [Emphasis added]

Development which may cause direct or indirect significant harm to other designated sites of nature or geological conservation importance, Priority Habitats, legally protected species and / or Priority Species will only be permitted on:

- *National sites (Mersey Estuary Ramsar site/Mersey Estuary Site of Special Scientific Interest (SSSI)): where there are no alternatives and where the reasons for and the benefits of development clearly outweigh the impact on the nature conservation value of the site and its broader contribution to the national network;*



- *Local Sites (Local Nature Reserves (LNRs), Local Wildlife Site (LWS) and Regionally Important Geological/Geomorphological Sites (RIGS): where the reasons for and the benefits of development clearly outweigh the impact on the nature conservation value of the site and its broader contribution to the*
- *Liverpool City Region (LCR) Ecological Network; Sites including Priority Habitats/ Irreplaceable habitats (including ancient woodlands and aged or veteran trees) unless the need for and the benefits of, the development on balance clearly outweigh the impact on the nature conservation value of the habitat and its broader contribution to the LCR Ecological Network.*

Where it has been demonstrated that significant harm cannot be avoided, appropriate mitigation, replacement or other compensatory provision may be required, to accord with the hierarchy of sites. The location of appropriate mitigation, replacement or other compensatory measures will be targeted, using a sequential approach as follows:

On site; Immediate locality and / or within the Core Biodiversity Area; LCR Nature Improvement Area within the City; and lastly LCR Nature Improvement Area outside the City.

Where significant harm resulting from development cannot be avoided, adequately mitigated or, as a last resort, compensated, then planning permission will be refused.

Development proposals which affect sites of nature conservation importance, priority habitats, legally protected species or priority species must be supported by an Ecological Appraisal and include details of avoidance, mitigation and /or compensation where appropriate.

The policy applies where development proposals in Liverpool may directly or indirectly affect sites with known conservation value in a neighbouring authority area.

This policy will apply to other sites recognised during the Plan period as being of nature conservation importance, including land provided as compensation."

1.5 Purpose of the Report

The purpose of this report is to:

- Assess the distinctiveness and condition of the vegetation types and other habitats present on the application site; and
- Present biodiversity net gain calculations, based on the most recent fixed proposals, to inform the project on any potential biodiversity losses/gains as a result of the proposed site layout and landscaping.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.



2.0 Methodology

2.1 Habitat Assessment

Habitats on site pre-development which are to be lost, retained or enhanced post-development are identified in accordance with the categories specified for a Phase 1 habitat survey (JNCC, 2010).

Wherever possible, habitats have been aligned with those listed in UK Habitat Classification: Habitat Definitions Version 1.1 (Butcher *et al.*, 2020), hereafter referred to as 'UKHab', using the Phase 1 translator tool included within the DEFRA Biodiversity Metric 2.0 Calculation Tool.

2.2 Condition Assessment

The method for the condition assessment follows the DEFRA guidance on Biodiversity Offsetting outlined in DEFRA Biodiversity Metric 2.0 User Guide (Crosher *et al.*, 2019a), and uses the DEFRA Biodiversity Metric 2.0 Calculation Tool. The DEFRA Biodiversity Metric 2.0 is currently published as a 'beta test' version only, with version 3.0 scheduled for release in Spring 2021.

2.2.1 Area and Length

The area of identified habitats is calculated in hectares. The length of linear features is measured separately in kilometres. The site has no existing linear features.

2.2.2 Distinctiveness

Each habitat is assigned a score for distinctiveness. Distinctiveness includes parameters such as species richness, rarity (at local, regional, national and international scales) and the degree to which a habitat supports species rarely found in other habitats (Crosher *et al.*, 2019a). For the purposes of this assessment, the distinctiveness categories from the DEFRA Biodiversity Metric 2.0 User Guide (Crosher *et al.*, 2019a), have been used (Table 1).

Table 1: Categories and scores for distinctiveness (Crosher *et al.*, 2019a).

Categories	Score	Description
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action e.g. blanket bog
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g. lowland fens.
Medium	4	Semi-natural habitats not classed as a priority habitat.
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub.
Very Low	0	Little or no biodiversity value e.g. hard standing or sealed surface.



In the DEFRA Biodiversity Metric 2.0, the distinctiveness score of each habitat is preassigned and these were not altered in any way during the site habitat baseline calculation.

2.2.3 Condition

The condition of each habitat is assessed following criteria set out in the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher *et al.*, 2019b), which includes detailed assessment criteria for different habitat types. This is used as a guide but may be superseded where appropriate by other evidence and best ecological judgement.

Condition scores within the DEFRA Biodiversity Metric 2.0 Calculator are as follows:

- Good: 3
- Fairly Good: 2.5
- Moderate: 2
- Fairly Poor: 1.5
- Poor: 1
- N/A – Agricultural: 1
- N/A – Other: 0

The condition assessments are based on criteria detailed on the Condition sheets included within the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher *et al.*, 2019b). The following condition sheets were used for the existing and proposed non-linear habitats onsite:

Table 2: Condition sheets used to assess existing and proposed habitats (Crosher *et al.*, 2019b).

Habitat description	Condition sheet
Existing habitats	
Heathland and shrub – Mixed scrub	Scrub
Sparsely vegetated land – Ruderal	Sparsely Vegetated & Rock Habitats
Urban – Artificial lake or pond	Lakes
Sparsely vegetated land – ephemeral	Sparsely Vegetated & Rock Habitats
Urban - Introduced shrub	No assessment required (allocated score of 1).
Urban – Developed land; sealed surface	No assessment required (allocated score of 0).
Proposed habitats	
Urban – Street Trees	No assessment required (allocated score of 2).
Urban – Amenity grassland	Grassland
Urban – Vegetated garden	No assessment required (allocated score of 1).
Urban – Artificial lake or pond	Lakes

Urban – Developed land; sealed surface	No assessment required (allocated score of 0).
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No condition sheet is recommended for Urban – Artificial lake or pond, so as the waterbody onsite is larger than 2.0ha, the 'Lakes' condition sheet was used.

All calculations are based on Client drawings: *The Peoples Project – GA Plan - Softworks*. Drawing No. BMD01-PLA-L1-00-DR-L-2000 Rev. p11." (PLANIT I.E. Ltd, 2020), which is included in Appendix B.

2.2.4 Ecological connectivity

As the DEFRA Biodiversity Metric 2.0 is a beta version, the assessment the connectivity score applied to habitats is restricted. As stated in Section 2.17 of the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher *et al.*, 2019b):

"...all High and Very High distinctiveness habitats is to be assigned a Medium connectivity multiplier; other habitats a low connectivity multiplier".

2.2.5 Strategic Significance

As stated within the DEFRA Biodiversity metric 2.0 the strategic significance provides '*additional unit value to habitats that are located in preferred locations for biodiversity and other environmental objectives*'. These aspirations are usually summarised in local strategic planning documents and will detail areas where biodiversity is of high priority. The LCR uses the LCR Ecological Network to identify Nature Improvement Areas (NIAs). NIAs are defined as '*large, discrete areas that are intended to deliver a step change in nature conservation, offer significant improvements for wildlife and people through the sustainable use of natural resources, provide opportunities to restore and create wildlife habitats, and enhance connectivity between local sites*' (LCR 2015).

The LCR Ecological Network is defined as:

'An evidence base which comprises ecological and biodiversity information on the City Region's natural assets. It's purpose is to identify opportunities to enable better protection and management of those natural assets and at the same time, describes opportunities to create new natural assets.'

The evidence base includes the LCR Ecological Network Final Report (2015) and associated online interactive mapping. The evidence base identified 17 NIAs in the LCR. The site does not fall into any NIAs but is immediately adjacent to the River Mersey NIA.

In addition, the site is also directly adjacent to Liverpool Bay SPA and forms functionally linked land for qualifying features of this site such as common tern *Sterna hirundo*. BMD acts as functionally linked land for the qualifying features of 4 designated sites in total, as detailed in Habitats Regulations Assessment Stage 1 and Stage 2 (WYG 2020a) (see Table 3).

Table 3: Qualifying species of designated sites functionally linked to BMD

Designated site	Qualifying species observed at BMD
Liverpool Bay SPA	Common tern



Ribble & Alt Estuary SPA	Common tern, Shelduck <i>Tadorna tadorna</i> , Lesser black-backed Gull <i>Larus Fuscus</i>
Mersey Narrows & Wirral foreshore SPA	Common tern
Mersey Estuary Ramsar	Shelduck

The DEFRA Biodiversity metric 2.0 categorises the strategic significance of areas as of either high, medium or low strategic significance (defined in Table 4).

Table 4: Strategic significance categories as defined in the DEFRA Biodiversity Metric 2.0 User guide (Crosher *et al.*, 2019a).

Category	Score
High strategic significance High potential & within area formally identified in local policy	1.15
Medium strategic significance Good potential but not within area formally defined in local policy	1.1
Low strategic significance Low potential but not within area formally defined in local policy	1

As the site, does not fall within a NIA but is immediately adjacent to the River Mersey NIA, and acts as functionally linked land for the Liverpool Bay SPA, Ribble & Alt Estuary SPA, Mersey Narrows & Wirral foreshore SPA and Mersey Estuary Ramsar, it is identified as having good potential for strategic significance and has been allocated a strategic significance category of medium.

2.2.6 Risk Factors

As part of any proposed habitat creation and restoration, risk factors must be taken into account to correct for disparity, delay or risk, these are:

- Time to target condition; and
- Difficulty of restoration / creation.

To take this into account, creation of a habitat which will take many years to get to target condition or is difficult to recreate would have a reduced biodiversity value compared to the same habitat already *in situ*. Therefore, to compensate for loss of that original habitat a larger area would be required as an offset.

Default values are provided for a range of habitats as part of the DEFRA Biodiversity Metric 2.0. These may be altered if informed by knowledge of the site and proposed management prescriptions.



2.3 Limitations

The habitat condition assessments have been made against the criteria in the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher *et al.*, 2019b) applying a 'best-fit' approach for vegetation present where possible. However, there can be discrepancies between the Phase 1 habitat survey types recorded, and the UKHab classification used for calculating the Metric, so where relevant, this is explained in the text, as appropriate.

3.0 Biodiversity Net Gain Condition Assessment

3.1 Non-linear Habitats

The following tables include the results of the condition assessments carried out across the site. Information on existing habitats is provided within the *Bramley-Moore Dock – Ecological Appraisal* (WYG, 2020b).

3.1.1 Heathland and shrub – Mixed Scrub (Scattered scrub)

Table 5: Summary of Heathland and shrub – Mixed scrub (Scattered scrub)

Area	0.12 ha
Distinctiveness	Medium: 4 – Heathland and shrub – Mixed scrub is assigned medium distinctiveness as a default. There is no overriding justification to vary this.
Condition	<p>Poor: 1</p> <p>Poor condition is assigned as 1/6 of the criteria will be met: The condition assessment criteria for scrub habitats are as follows:</p> <ol style="list-style-type: none"> 1. Condition assessment criteria for shrub habitats. – Assessment criteria most equate with POOR 2. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). - PASS 3. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. - FAIL 4. Pernicious weeds and invasive species makeup less than 5 % of the ground cover. - FAIL 5. The shrub has well-developed edge with un-grazed tall herbs. - FAIL 6. There are many clearing and glades within scrub. - FAIL

All of this habitat will be **lost** within the development.



3.1.2 Sparsely vegetated land – Ruderal (Tall ruderal vegetation)

Table 6: Summary of Sparsely vegetated land – Ruderal (Tall ruderal vegetation)

Area	0.07 ha
Distinctiveness	Low: 2 – Sparsely vegetated land – Ruderal (Tall ruderal vegetation) is assigned low distinctiveness as a default. There is no overriding justification to vary this.
Condition	<p>Poor: 1</p> <p>The condition assessment criteria for rock outcrops and scree habitats only and are not applicable. The habitat best fits the assessment criteria listed for 'poor' condition and does not have a high biodiversity value.</p> <ol style="list-style-type: none"> 1. Ruderal habitat with low biodiversity value. – YES 2. Relict of any of the habitat that can be restored. – NO (not relict habitat of any of the types listed: inland rock outcrops and scree, limestone pavement, other inland rock and scree). 3. Potentially restorable to a good condition with improved management. – N/A 4. Most of the condition criteria are being failed. – N/A 5. The habitat type has major differences between what is described in the relevant habitat classifications and what is visible on site, but is still fitting the vegetation components of the habitat type. – YES 6. Habitat is now severely degraded, or is created by accident but through human activity, with intervention and natural processes will develop the key characteristics of the habitats. – YES, created by accident, NO unlikely to be improved through intervention. 7. Cover of undesirable species above 20%, usually resulting in a dense scrub or tree cover, or high cover of exotic species, lack of bare ground and lack of structural diversity. - NO

All of this habitat will be **lost** within the development.



3.1.3 Urban - Artificial lake or pond (Open water)

Table 7: Summary of Urban – Artificial lake or pond (Open water)

Area	4.05 ha
Distinctiveness	Medium: 4 – No condition sheet is available for Urban – Artificial lake or pond within the DEFRA Biodiversity metric 2.0. Therefore, an assessment of distinctiveness has been made using the Lake Habitat Types Habitat Condition Sheet within the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher <i>et al.</i> , 2019b). The open water is highly industrialised; however, contains large numbers of fish (APEM, 2017) and accordingly has been assessed as urban – artificial lake or pond which is assigned medium distinctiveness.
Condition	<p>Poor: 1 – Assessed using criteria for Lake Habitat Types (Natural England, 2019).</p> <p>A 'Habitat Naturalness Assessment' is used to assess condition in the DEFRA Biodiversity Metric 2.0; however, this relates to Freshwater Biological Association methodology. Accordingly, the criteria set in the DEFRA Biodiversity metric to indicate characteristics of good quality lake have been used because of the salinity of the open water.</p> <p>Poor condition is assigned as 3/9 of the criteria were met:</p> <ol style="list-style-type: none"> 1. Are of good water quality and contain a range of features characteristic of that waterbody type. – PASS 2. There should be no obvious sign of pollution or of inappropriate quality of the water supply. – FAIL (due to known contaminated sediment within the dock and potential diffuse pollution via surface water run off) 3. The water body should be set within a semi-natural habitat – FAIL 4. Clear water is dominated by plants (and the water is not turbid or green). – FAIL 5. A marginal fringe of emergent vegetation is present. – FAIL 6. A range of submerged and floating leaved plants is present. – FAIL 7. The fish community comprises a range of suitable species if the water body is large enough to support them. – PASS 8. There is no artificial drainage impacting on water bodies, or lowering of the waterbody, which would include outfalls that have been deepened and widened. – FAIL 9. The water level and its management should be appropriate throughout the year for the waterbody type. – PASS

All of the existing habitat will be **lost** within the development.



3.1.4 Sparsely vegetated land - Ephemeral (Ephemeral/Short Perennial)

Table 8: Summary of Sparsely vegetated land – Ephemeral (Ephemeral/Short Perennial)

Area	0.23 ha
Distinctiveness	Low: 2 – Ephemeral/short perennial is assigned low distinctiveness as a default. There is no overriding justification to vary this.
Condition	<p>Poor: 1</p> <p>The condition assessment criteria for rock outcrops and scree habitats only and are not applicable. The habitat best fits the assessment criteria listed for 'poor' condition and does not have a high biodiversity value.</p> <ol style="list-style-type: none"> 1. Ruderal habitat with low biodiversity value. – YES 2. Relict of any of the habitat that can be restored. – NO (not relict habitat of any of the types listed: inland rock outcrops and scree, limestone pavement, other inland rock and scree). 3. Potentially restorable to a good condition with improved management. – N/A 4. Most of the condition criteria are being failed. – N/A 5. The habitat type has major differences between what is described in the relevant habitat classifications and what is visible on site, but is still fitting the vegetation components of the habitat type. – YES 6. Habitat is now severely degraded, or is created by accident but through human activity, with intervention and natural processes will develop the key characteristics of the habitats. – YES, created by accident, NO unlikely to be improved through intervention. 7. Cover of undesirable species above 20%, usually resulting in a dense scrub or tree cover, or high cover of exotic species, lack of bare ground and lack of structural diversity. – NO

All of this habitat will be **lost** within the development.

3.1.5 Urban - Introduced shrub

Table 9: Summary of Urban - Introduced shrub

Area	0.02 ha
Distinctiveness	Low: 2 – Introduced shrub is assigned low distinctiveness as a default. There is no overriding justification to vary this.
Condition	Poor: 1 – No assessment required per (Crosher <i>et al.</i> , 2019b), allocated a score of 1 (poor).

All of this habitat will be **lost** within the development.



3.1.6 Urban – Developed land; sealed surface (Buildings / Hardstanding)

Table 10: Summary of Urban – Developed land; sealed surface (Buildings / Hardstanding)

Area	4.18 ha
Distinctiveness	Very low: 0 – Default value for buildings / hardstanding.
Condition	N/A – Other No assessment required per (Crosher <i>et al.</i> , 2019b), allocated a score of 0.

Some of this habitat will be **lost** during the construction phase, however there are also new areas being created in the proposed development.

4.0 Proposed Habitats

The current proposals for the site are to infill the existing dock water body, construct multiple buildings including a stadium, sub-station compound and areas of hardstanding within the application site as presented within the softworks plan submitted with the current planning application (*The Peoples Project – GA Plan - Softworks*. Drawing No. BMD01-PLA-L1-00-DR-L-2000 Rev. p11." (PLANIT I.E. Ltd, 2020) Appendix B), resulting in a near complete loss of the existing habitats present within the site.

A narrow non-navigable water channel will be created as part of the final scheme (entire dock infilled with marine-won aggregate with water channel created via excavation of infilled material), with areas of amenity grassland, scattered trees and ornamental planting within the public realm areas surrounding the proposed stadium. Where ornamental planting falls beneath proposed trees on site; these areas are excluded from the calculation due to the higher distinctiveness of the scattered trees. The tables below give the target distinctiveness, target condition and time until target condition is achieved, with justification provided where required. For all habitat types, the recommended default values for distinctiveness and difficulty of creation / restoration have been used.

It should be noted that time frame provided within the "Time to target condition" section for each habitat is approximate. Such a timeframe is estimated based on the likely time required for habitats to mature into viable ecological features from the start of works to create them. Note start of habitat creation does not necessarily reflect start of works on site, any time delay to start of habitat creation should be added onto Time to target condition (i.e. if mixed scattered tree planting does not occur until year 2 of the construction programme the time to target condition would equal 2-20 years (plus 2 years)). The water channel will provide some biodiversity enhancements following development and implementation of a Habitat Creation Plan; however, details are yet to be formalised and so the calculation currently assesses the open water habitat post-development as of 'poor' condition.

4.1 Non-linear Habitats

4.1.1 Urban – Street Trees (Mixed scattered trees)

Seventy-four trees are proposed within the eastern and southern extent of site, comprising Scot's pine *Pinus sylvestris*, elm 'Columella' *Ulmus 'Columella'*, Italian alder *Alnus cordata* and dawn redwood *Metasequoia glyptostroboides*. Tree planting on site will provide nesting and perching opportunities for birds and a resource for invertebrates. The tree schedule is documented in *The Peoples Project – GA Plan - Softworks*. Drawing No. BMD01-PLA-L1-00-DR-L-2000 Rev. p11." (PLANIT I.E. Ltd, 2020) (Appendix B) and has been repeated below in Table 11.

Table 11: Tree schedule (Appendix B)

Species	Native/non-native	Height (mm)	Girth (cm)	Quantity (No.)
Dawn redwood	Non-native	7.0+	40-45cm	5
Scot's Pine	Native	7.0+	Strong stems & bushy	49
Italian Alder	Non-native	6.0 – 6.5m	30-35	7



Columnar Elm	Non-native	5.5 – 6.0m	25-30	13
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The street tree helper tool within the DEFRA Biodiversity Metric 2.0 was used to estimate the area. The street tree helper tool categorises trees by size (small, medium and large). These sizes are defined in the DEFRA Biodiversity Metric 2.0 Technical Supplement (Crosher *et al.*, 2019b). Trees of a breast height girth of 30cm are defined as small, those with a breast height girth of 90cm are medium and those with a breast height girth of 150cm are large. All the proposed trees were classified as 'small'. Dawn redwood have a girth of 40-45cm which falls between small and medium, these were classified as 'small' as the expected size is closer to that of small than medium. The street tree helper produced an area of 0.0335 for 74 small trees.

Table 12: Summary of Urban – Street Trees (Mixed scattered trees)

Area	0.03 ha
Distinctiveness	Low: 6 – Urban – Street Trees assigned low distinctiveness as a default. There is no overriding justification to vary this.
Target Condition	Poor condition is assigned as 4/12 of the criteria will be met. N/A – Other No assessment required per (Crosher <i>et al.</i> , 2019b), allocated a score of 2.
Time to Target Condition	27 years required to create.
Difficulty of Creation	1 – Low difficulty assigned as default. There is no overriding justification to vary this.

4.1.2 Urban – Amenity grassland (Football pitch)

The football pitch at the centre of the new stadium will create an area of amenity grassland on site. These areas will have negligible ecological value due to the intensive management regime, including frequent mowing along with use operational use a sports pitch and amenity area during match day and non-match day events.

Table 13: Summary of Urban - Amenity grassland

Area	0.72 ha
Distinctiveness	Low: 2 – Urban - Amenity grassland is assigned low distinctiveness as a default. There is no overriding justification to vary this.
Target Condition	Poor: 1 – Urban - Amenity grassland best fits the description for poor condition: <ol style="list-style-type: none"> 1. Agricultural, amenity and road verge grasslands characterised by vegetation dominated by a few fast growing grasses on fertile, neutral soils. 2. It is frequently characterised by an abundance of rye-grass <i>Lolium</i> spp. (above 25% cover) and water clover <i>Trifolium repens</i>. 3. Typically managed for recreation and amenity purposes.
Time to Target Condition	1 year is required to create.
Difficulty of Creation	1 – Low difficulty assigned as default. There is no overriding justification to vary this.

4.1.3 Urban – Vegetated Garden (Lawn and planting) (Ornamental planting)

Nine areas of ornamental planting will be created on site comprising a mix of native and non-native species including downy willow *Salix lapponum*, Argentine needle-grass *Nassella tenuissima* and feather reed grass *Calamagrostis x acutiflora* 'Karl Foerster'. Four of these areas are located beneath mixed scattered trees and are excluded from the calculation. The planting will have limited ecological value as it lacks diversity and will be isolated within a large area of hardstanding.

Table 14: Summary of Gardens (Lawn and planting)

Area	0.04 ha
Distinctiveness	Low: 2 – Urban – Vegetated Gardens (Lawn and planting) is assigned low distinctiveness as a default. There is no overriding justification to vary this.
Target Condition	Poor: 1 – No assessment required per (Crosher <i>et al.</i> , 2019b), allocated a score of 1 (poor).
Time to Target Condition	1 year is required to create.
Difficulty of Creation	1 – Low difficulty assigned as default. There is no overriding justification to vary this.

4.1.4 Urban - Artificial lake or pond (Open Water - Water Channel)

A new water channel is proposed to the west of the stadium (beyond public realm / circulatory space immediately adjacent to the stadium). The water channel will provide some biodiversity



enhancements following development and implementation of a Habitat Creation Plan; however, details are yet to be formalised and so the calculation currently assesses the open water habitat post development as of 'poor' condition. The new channel is proposed to ensure the visual continuity of the interlinked dock system remains following the proposed infilling of BMD to facilitate the stadium development. The channel is to be located between two isolation structures; an existing structure between BMD and Nelson Dock (hydrologically linked via open sluice pipes) and a new structure which is to be proposed between BMD and Sandon Half-Tide Dock to the north. The channel will therefore be non-navigable but is an interpretive feature proposed in recognition of the maritime heritage of the site as part of the interconnected dock system as noted in the Outstanding Universal Value of the World Heritage Site (WHS) and the WHS Supplementary Planning Document (SPD).

Table 15: Summary of Urban – Artificial lake or pond

Area	0.58 ha
Distinctiveness	Medium: 4 – The newly created open water habitat is considered consistent with the pre-development open water habitat removed from site and has been assessed using the Lake Habitat Types Habitat Condition Sheet within the DEFRA Biodiversity Metric 2.0 (Natural England, 2019). Accordingly, the open water has been assessed as a reservoir which is assigned medium distinctiveness.
Target Condition	<p>Poor: 1 – Assessed using criteria for Lake Habitat Types (Natural England, 2019).</p> <p>Poor condition is assigned as 4/9 of the criteria will be met:</p> <ol style="list-style-type: none"> 1. Area of good water quality and contain a range of features characteristic of that waterbody type. – PASS 2. There should be no obvious sign of pollution or of inappropriate quality of the water supply. – PASS (due to isolation of contaminated sediment during dock infill and implementation of appropriate surface water run off mitigation in accordance with the CMP). 3. The water body should be set within a semi-natural habitat. – FAIL 4. Clear water is dominated by plants (and the water is not turbid or green). – FAIL 5. A marginal fringe of emergent vegetation is present. – FAIL 6. A range of submerged and floating leaved plants is present. – FAIL 7. The fish community comprises a range of suitable species if the water body is large enough to support them. – PASS 8. There is no artificial drainage impacting on water bodies, or lowering of the waterbody, which would include outfalls that have been deepened and widened. – FAIL 9. The water level and its management should be appropriate throughout the year for the waterbody type. – PASS <p>Condition of this proposed habitat remains poor in comparison to existing habitat despite mitigation measures to be implemented in accordance with the CMP. This is due to the lack of physical naturalness (i.e. the “shoreline” is 100% artificial and marginal areas are absent).</p>
Time to Target Condition	1 year is required to create.
Difficulty of Creation	1 – Low difficulty assigned as default. There is no overriding justification to vary this.

4.1.5 Urban – Developed land; sealed surface (Buildings/Hardstanding)

The main construction at the site will be a building in the form of a new stadium, with hardstanding infrastructure in the form of pedestrian/vehicular access, public realm and car parking. A smaller building comprising a sub-station and outdoor compound is proposed to the west of the new water channel. The calculation accounts for all buildings and hardstanding post-development.



Table 16: Summary of Buildings/Hardstanding

Area	7.20 ha
Distinctiveness	None: 0 – default value for Buildings / Hardstanding.
Target Condition	N/A



5.0 Biodiversity Impact Assessment

The headline results are provided in Table 17. This shows that with the implementation of the GA Plan – Softworks (Appendix B), and achievement of the target condition of the proposed habitats the development proposals will achieve a decrease in habitat units of **-14.93 (-78.34 %)**.

Table 17: Headline results

Project Stage	Habitat Type	Units
On-site baseline	Habitat units	19.05
	Hedgerow units	0.00
	River units	0.00
On site post-intervention (Including habitat retention, creation, enhancement & succession)	Habitat units	4.13
	Hedgerow units	0.00
	River units	0.00
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post -intervention (Including habitat retention, creation, enhancement & succession)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention / creation)	Habitat units	-14.93
	Hedgerow units	0.00
	River units	0.00
Total net % change (including all on site & off-site habitat creation + retained habitats)	Habitat units	-78.34%
	Hedgerow units	0.00%
	River units	0.00%



6.0 Summary

- The pre-development non-linear habitats have a biodiversity value of 19.05 units, almost of which all will be lost as a result of the proposed development.
- The proposed non-linear habitat creation has been calculated to have a biodiversity value of **4.13 units**.
- Based on these figures it is predicted that the proposed development will achieve a net loss of **14.93 units**, which is equivalent to a **78.34% reduction**.
- The water channel will provide some biodiversity enhancements; however, details are yet to be formalised and so the calculation currently assesses the open water habitat post development as of 'poor' condition.



7.0 References

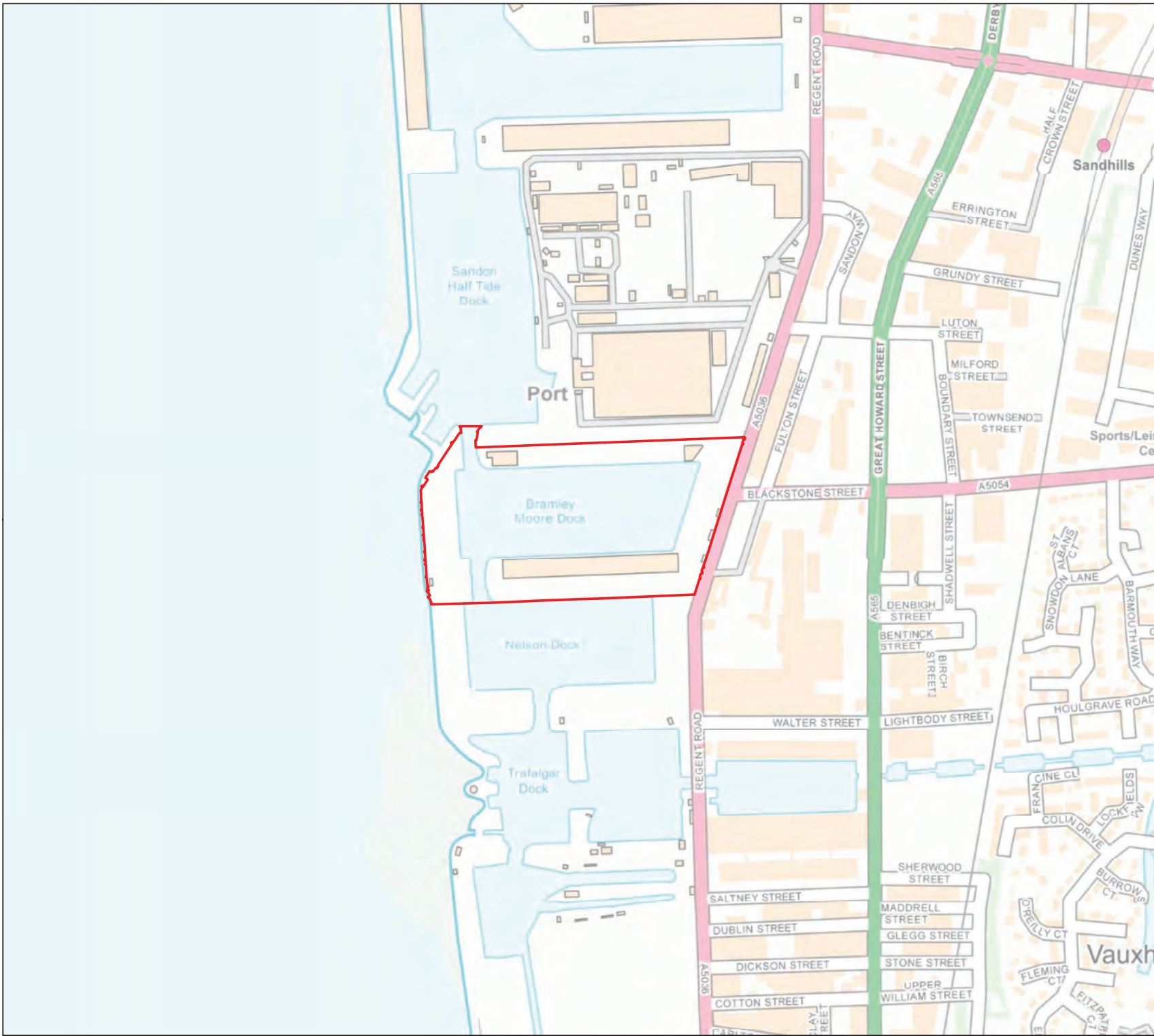
- APEM, (2017), *WYG Environment Planning Transport Ltd, Project Blue*, APEM ref P00001932.
- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *UK Habitat Classification – Habitat Definitions V1.1* [Online] Available at: <http://ukhab.org> . Accessed January 2021.
- Crosher et al (2019a), *The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. User guide (Beta Version, July 2019)*. Natural England.
- Crosher, I., Gold, S., Heaven, M., Heydon., Moore, L., Panks, S., Scott, S., Stone, D., and White, N. (2019b). *The Biodiversity Metric 2.0: auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019)*. Natural England.
- JNCC, (2010), *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*, JNCC: Peterborough.
- Liverpool City Region (2015). *Ecological Network Final Report (November 2015)* [Online] Available at http://www.meas.org.uk/media/5870/main-report-cbv1final_web.pdf and associate interactive mapping available at <http://www.lcreconet.uk/>.
- Ministry of Housing Communities and Local Government, (2019), *National Planning Policy Framework*, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf, Accessed March 2020.
- PLANIT I.E. Ltd (2020). *The Peoples Project – GA Plan - Softworks*. Drawing No. BMD01-PLA-L1-00-DR-L-2000 Rev. p11.
- WYG (2019). *Bramley-Moore Dock – Ecological Appraisal*. Reference A100795.
- WYG (2020a). *Bramley-Moore Dock – Report to Inform Habitats Regulations Assessment Stage 1 and Stage 2*. Reference A100795.
- WYG (2020b). *Bramley-Moore Dock – Ecological Impact Assessment*. Reference A100795.



FIGURES

Figure 1 – Site Location and Red Line Boundary

Figure 2 – Phase 1 Habitat Plan



Rev	Date	Notes
A	30/10/19	Initial map production

Legend

Site boundary

0 50 100 200 Metres

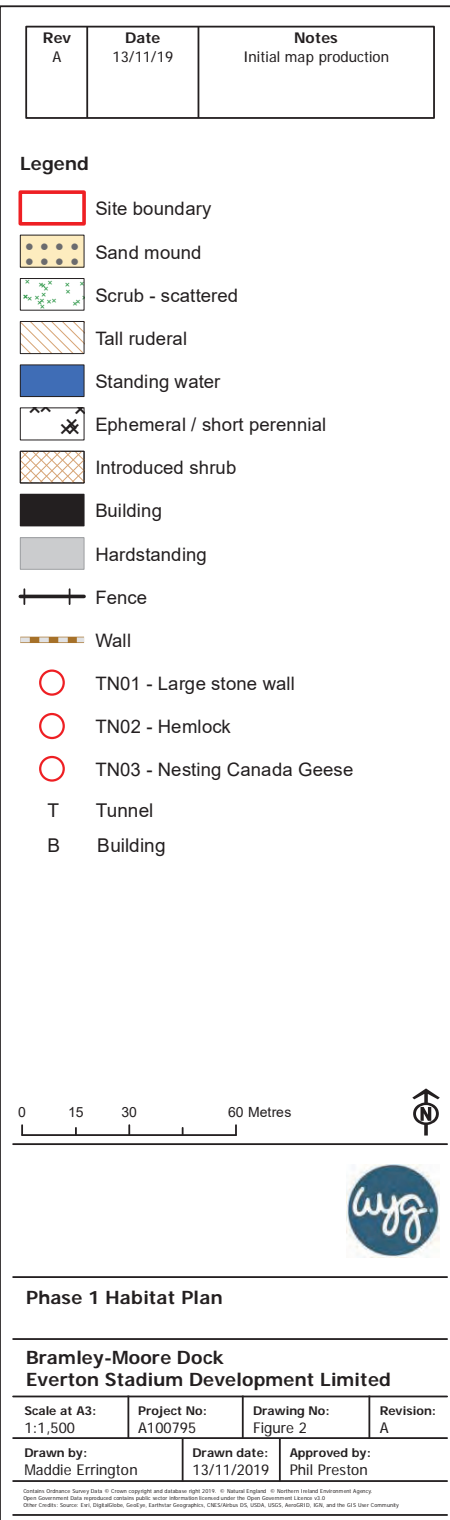


Site Location and Red Line Boundary

**Bramley-Moore Dock
Everton Stadium Development Limited**

Scale at A3: 1:5,000	Project No: A100795	Drawing No: Figure 1	Revision: A
Drawn by: Maddie Errington	Drawn date: 30/10/2019	Approved by: Patrik Gruba	

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Appendix B – The Peoples Project – GA Plan - Softworks



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