



the environmental
dimension partnership

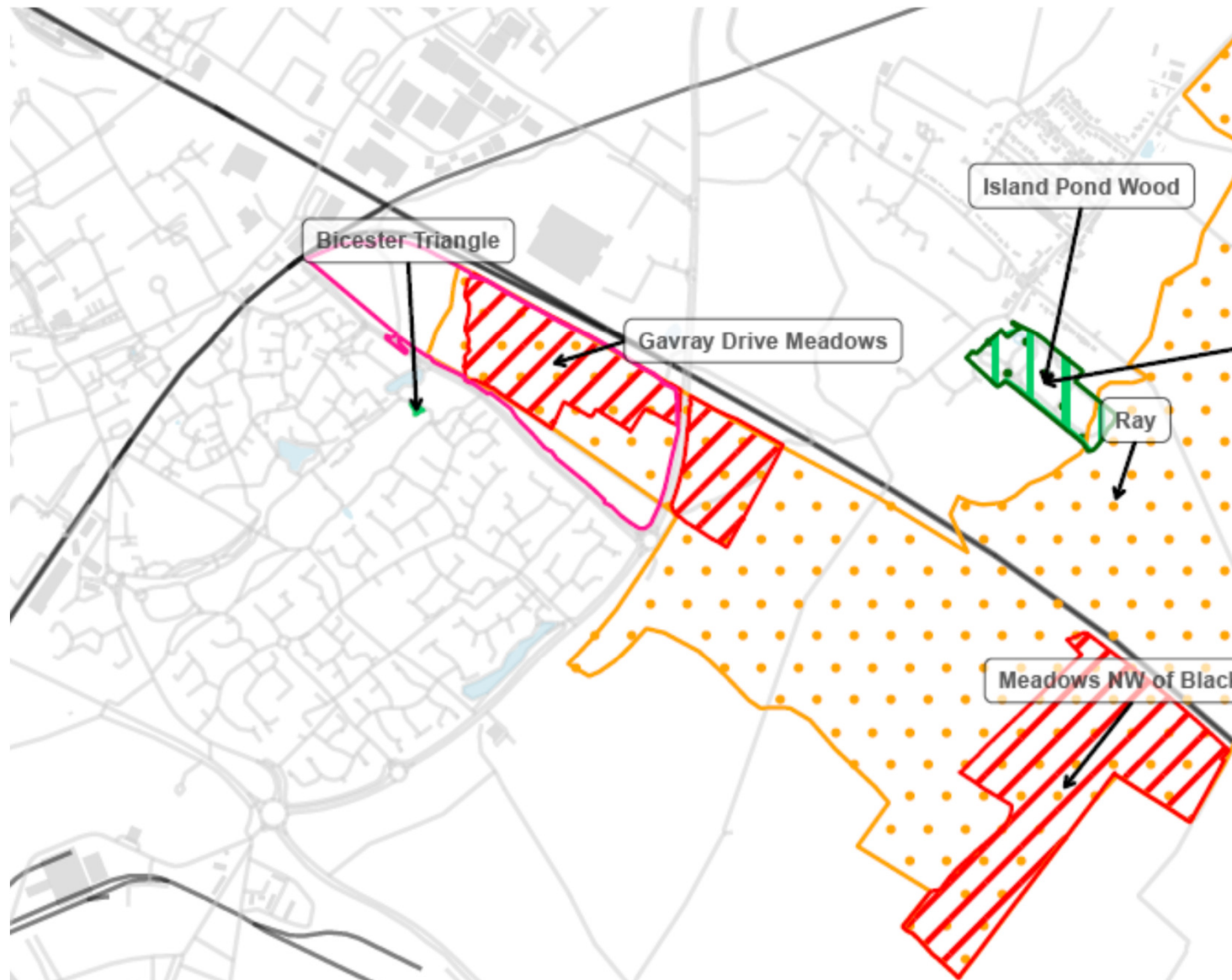
Ecology Mitigation and Management Strategy

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(Director EDP)

LANDSCAPE • ECOLOGY • HERITAGE • MASTERPLANNING • ARBORICULTURE • EXPERT WITNESS

- **Ecology Constraints and Opportunities**
- **Avoidance and Mitigation**
- **Restoration and Enhancement**
- **Biodiversity Net Gain**

Ecology Constraints and Opportunities

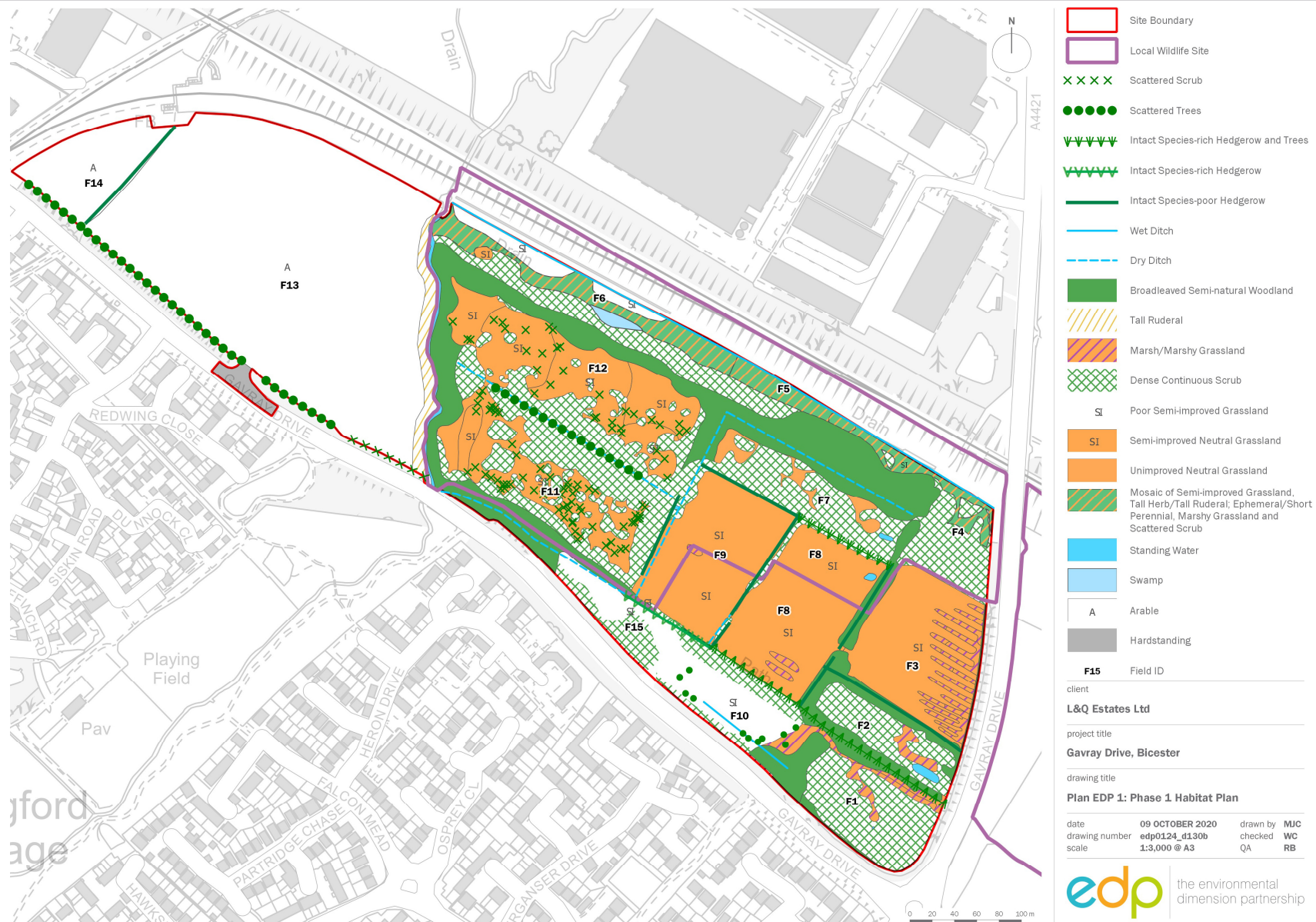


Ecology Constraints and Opportunities

Surveys completed	■
Surveys outstanding	■

Survey	2019					2020										
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
Phase 1/ botanical survey (grasslands)	■										■					
Butterfly surveys - black & brown hairstreak egg search				■	■											
Wintering bird surveys					■	■	■	■								
Butterfly surveys - white letter hairstreak egg search							■	■								
Great crested newt surveys								■	■	■	■					
Butterfly surveys - white letter hairstreak habitat assessment									■							
Breeding bird surveys									■	■	■					
Breeding nightingale surveys									■	■						
Badger walkover survey									■							
Dormouse surveys									■	■	■	■	■	■		
Reptile surveys									■	■	■		■	■		
Detailed invertebrate surveys									■		■	■	■	■	■	■
Bat roost surveys (trees) - preliminary ground-level assessment									■							
Bat activity surveys - transects (5 dusk, 1 dawn)										■	■	■	■	■		
Bat activity surveys - anabats (5 deployments)										■	■	■	■	■		
Water vole/ otter surveys										■			■			
Butterfly surveys - marsh fritillary timed counts										■	■	■				
Butterfly surveys - small heath timed counts										■	■	■	■	■		
Hedgerow assessment										■	■					
Butterfly surveys - black hairstreak timed counts											■	■				
Botanical survey (mid-summer update)											■	■				
Butterfly surveys - white letter hairstreak timed counts											■	■				
Night flying moth surveys											■	■	■	■		
Butterfly surveys - marsh fritillary larval web search														■		
Harvest mouse survey															■	■

Ecology Constraints and Opportunities



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Ecology Constraints and Opportunities



Ecology Constraints and Opportunities

- **Breeding birds**
- **Wintering birds**
- **Bats**
- Terrestrial mammals
- Otter and water vole
- Amphibians
- Reptiles
- Invertebrates



Ecology Constraints and Opportunities

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Inherent/Embedded Mitigation

- **Layout avoids CTA and LWS**
- **Public access restricted (TBC)**

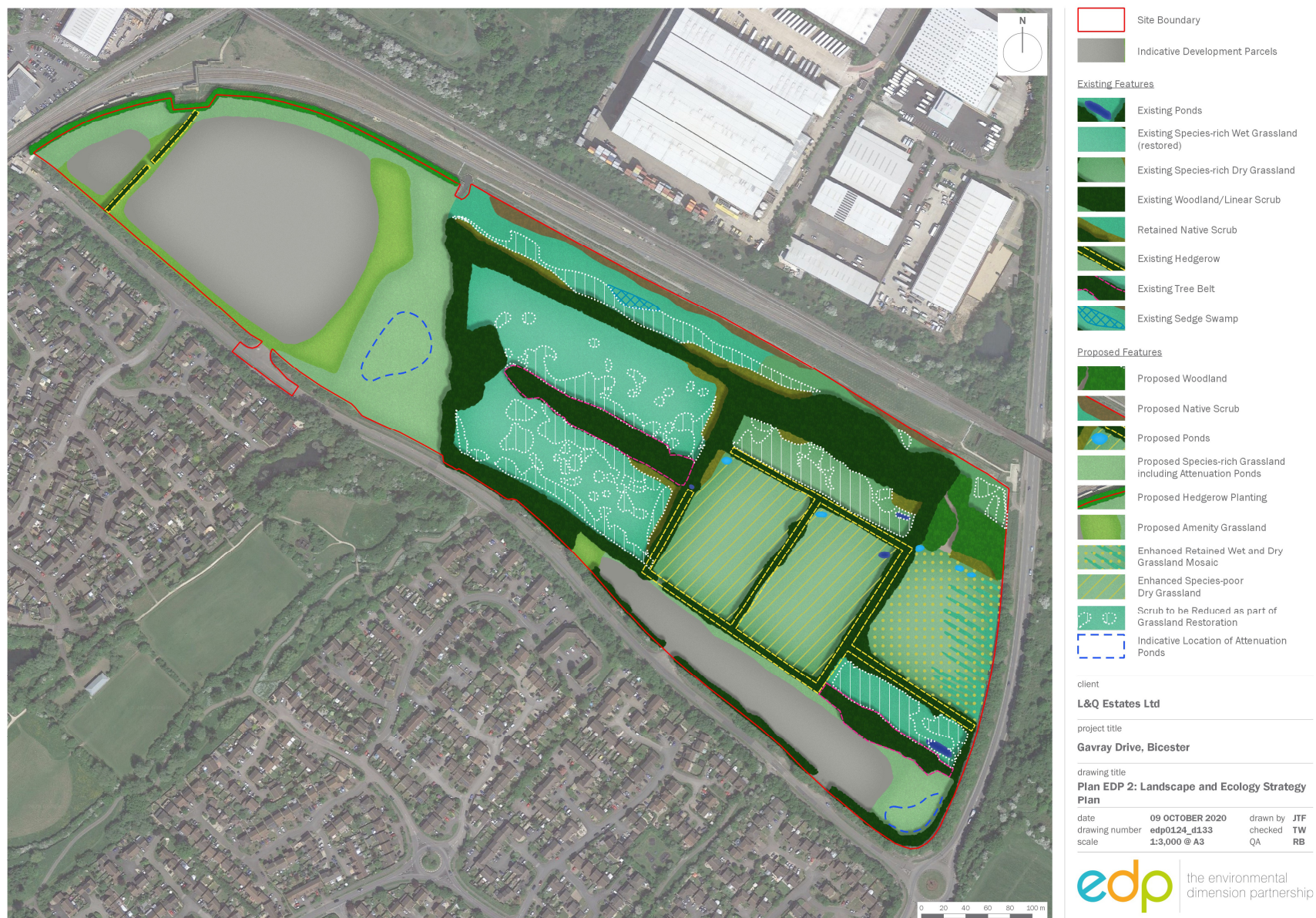
Construction Measures

- **Protection of retained habitat**
- **Sensitive timings and working methods**
- **Pollution prevention**

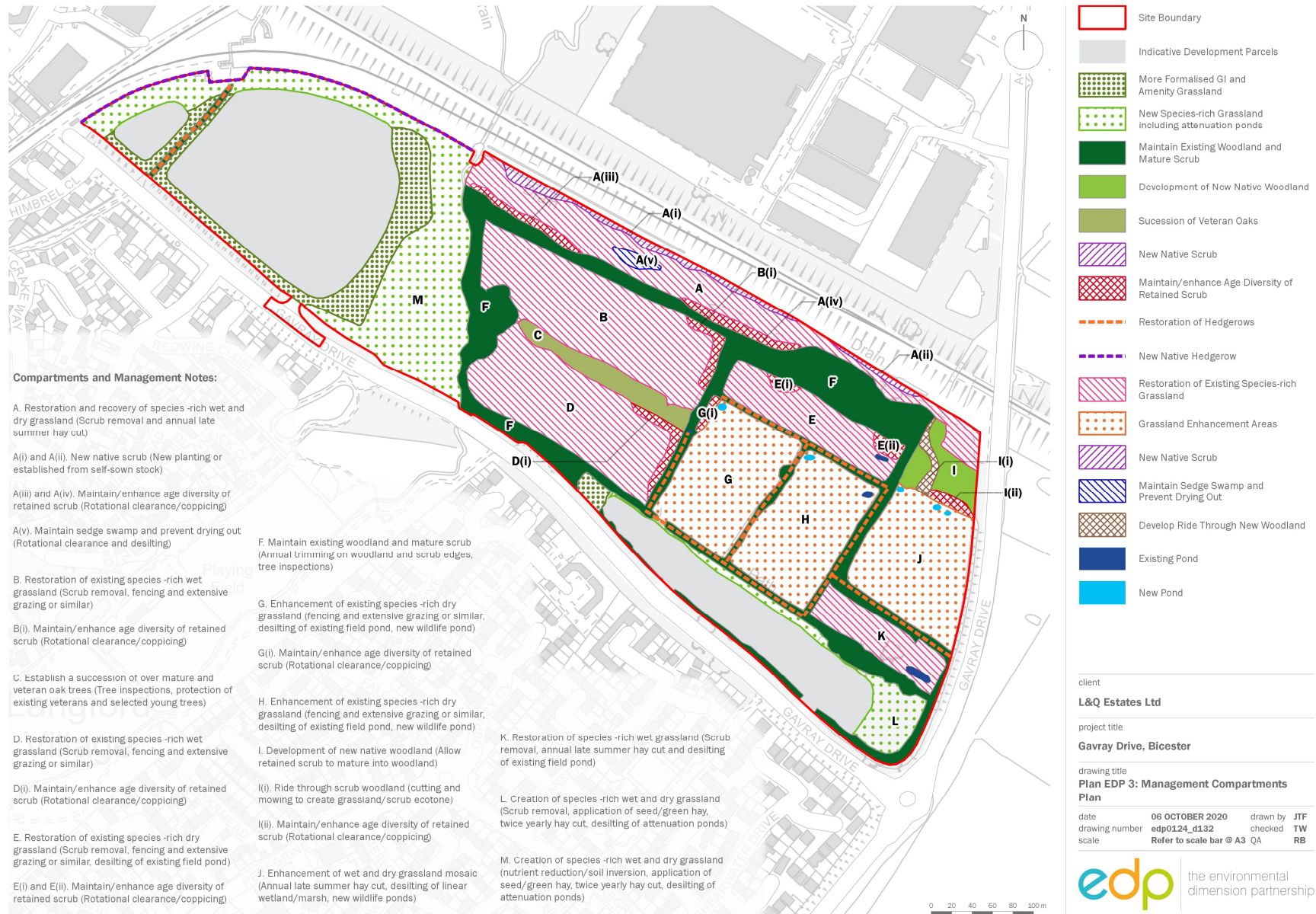
Lighting Strategy

- **Avoidance of light spill in retained habitat**
- **Position and design of new lighting**

Restoration and Enhancement



Restoration and Enhancement



Restoration and Enhancement

Management Objectives 1-8

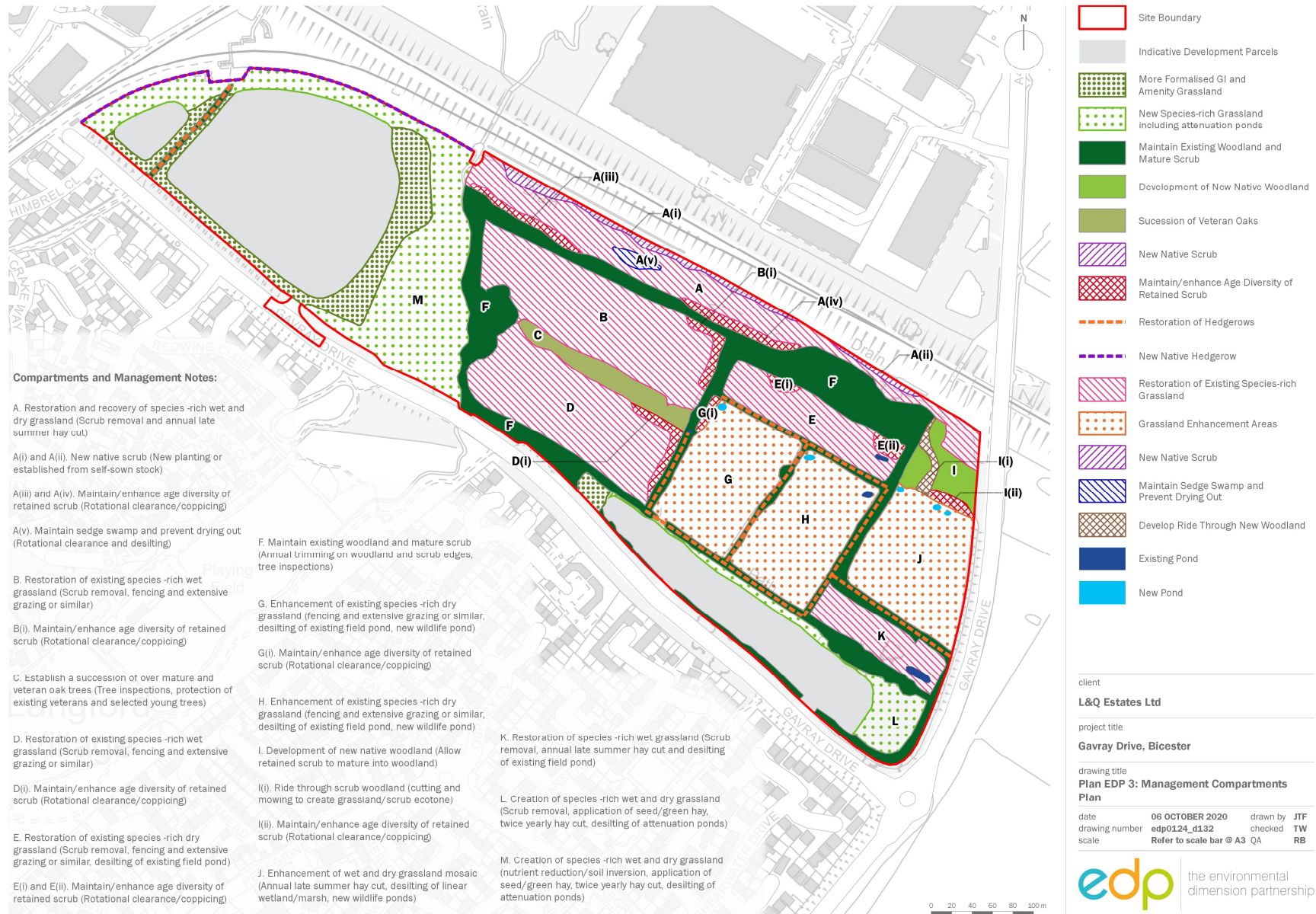
1	Manage Recreational Pressure within Gavray Drive Meadows LWS
2	Establish an Extensive Grazing (or similar) Regime in Compartments B, D, E, G and H to Restore, Maintain and Enhance the Grassland
3	Establish Hay Cutting Regime in Compartments A, J and K to Restore, Maintain and Enhance the Grassland
4	Selectively Remove Excessive Scrub in Compartments A, B, D and E and Maintain a Stable Distribution of this Habitat
5	Establish Permanent Zones of Blackthorn Scrub with a 20-year Coppice Cycle
6	Preserve Veteran Oak Trees and Promote Establishment of New 'Parkland' Oaks within Compartment C
7	Extend Life of Mature Crack Willows along the Langford Brook
8	Establish New Species-rich Neutral and Marshy Grassland within Compartments M and L

Restoration and Enhancement

Management Objectives 9-17

9	Restore Remnant Hedge Lines and Plant New Species-rich Native Hedgerow
10	Maintain and Enhance Woodland and Mature Scrub
11	Maintain and Enhance Existing Wetland and Ponds and Create New Wildlife Ponds
12	Maintain and Enhance Habitat for Invertebrates
13	Maintain and Enhance Habitat for Reptiles and Amphibians
14	Maintain and Enhance Roosting, Foraging and Commuting Opportunities for Bats
15	Maintain and Enhance Habitat for Breeding and Wintering Birds
16	Maintain and Enhance Habitat for Small Mammals
17	Provide Clear Results of Monitoring to Inform the Management Plan Review Process

Restoration and Enhancement



Biodiversity Net Gain

Gavray Drive

A-1 Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

Habitats and areas			Habitat distinctiveness	Habitat condition	Ecological connectivity	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value							Bespoke compensation agreed for unacceptable		
Ref	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance		Total habitat units	Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units	Baseline units successful	Area lost	Units lost	
1	Cropland	Cropland - Cereal crops	6.46	Low	N/A - Agricultural	Low	Within area formally identified in local strategy	Same distinctiveness or better habitat required	14.86				0.00	0.00	0.00	6.46	14.86	
2	Woodland and forest	Woodland and forest - Lowland mixed deciduous woodland	2.8	High	Fairly Poor	Medium	Within area formally identified in local strategy	Same habitat required	31.88	2.35			26.75	0.00	0.00	0.45	5.12	
3	Grassland	Grassland - Lowland meadows	0.13	V.High	Fairly Poor	Medium	Within area formally identified in local strategy	Bespoke compensation likely to be required	1.97		0.13		0.00	1.97	0.00	0.00	0.00	
4	Heathland and shrub	Heathland and shrub - Mixed scrub	4.51	Medium	Poor	Low	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	20.75	2.12	0.4		3.75	1.84	0.00	1.99	3.15	
5	Urban	Urban - Open Mosaic Habitats on Previously Developed Land	0.22	High	Fairly Poor	Medium	Within area formally identified in local strategy	Same habitat required	2.50	0.22			2.50	0.00	0.00	0.00	0.00	
6	Grassland	Grassland - Other neutral grassland	1.92	Medium	Fairly Poor	Low	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	13.25		1.92		0.00	13.25	0.00	0.00	0.00	
7	Grassland	Grassland - Other neutral grassland	3.46	Medium	Moderate	Low	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	31.83		2.42		0.00	22.26	0.00	1.04	3.57	
8	Grassland	Grassland - Lowland meadows	0.69	V.High	Fairly Poor	Medium	Within area formally identified in local strategy	Bespoke compensation likely to be required	10.47		0.69		0.00	10.47	0.00	0.00	0.00	
9	Lakes	Lakes - Ponds (Priority Habitat)	0.09	High	Poor	Medium	Within area formally identified in local strategy	Same habitat required	0.68		0.08		0.00	0.61	0.00	0.01	0.08	
10	Wetland	Wetland - Purple moor grass and rush pastures	0.06	V.High	Fairly Poor	Medium	Within area formally identified in local strategy	Bespoke compensation likely to be required	0.91	0.06			0.91	0.00	0.00	0.00	0.00	
11	Sparsely vegetated land	Sparsely vegetated land - Ruderal/Ephemeral	0.24	Low	Poor	Low	Within area formally identified in local strategy	Same distinctiveness or better habitat required	0.55		0.24		0.00	0.55	0.00	0.00	0.00	
12	Urban	Urban - Developed land; sealed surface	0.1	V.Low	N/A - Other	Low	Within area formally identified in local strategy	Compensation Not Required	0.00	0.1			0.00	0.00	0.00	0.00	0.00	
13	Wetland	Wetland - Fens (upland and lowland)	0.04	V.High	Poor	Medium	Within area formally identified in local strategy	Bespoke compensation likely to be required	0.40	0.04			0.40	0.00	0.00	0.00	0.00	
14	Grassland	Grassland - Other neutral grassland	1.92	Medium	Poor	Low	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	8.83		1.92		0.00	8.83	0.00	0.00	0.00	
15																		
16																		
17																		
18																		
Total site area ha			22.64					Total Site baseline	138.90	4.89	7.80	0.00	40.33	59.79	0.00	9.95	38.78	

Headline Results

A-1 Site Habitat Baseline

A-2 Site Habitat Creation

A-3 Site Habitat Enhancement

B-1 Site Hedge Baseline

C-1 Site River Baseline

G-9 Translation Phase 1

Technical ...

Biodiversity Net Gain

	Habitat Units	Hedgerow Units
On-site baseline	138.90	6.96
On-site post-intervention	163.23	7.80
Total net unit change	24.33	0.84
Total net % change	+17.52%	+12.12%

Thank you for listening
Any questions?



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