

Island Road (West) Woodland Management Plan

Island Road, Reading

Report ID 165-03
NOVEMBER 2018

REPORT

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Date	23/10/18	23/11/18	
Prepared by	AA	AA	
Signature			
Reviewed by	CLIENT		
Signature			

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1. DESCRIPTION

1.1. LOCATION

- 1.1.1. Island Road Woodlands comprise a linear block of predominantly poplar trees along the southern shore of the River Kennet. The site boundaries are shown in Figure 1, which show that the area covered by this Plan is only the western part of the whole woodland block.

Grid reference: SU 70765 70980
Post code: SN25 6PB
Easting: 470765
Northing: 170980

1.2. LAND TENURE

- 1.2.1. The land is privately owned by:

Exton Estates
48 Charles Street
London
W1J 5EN

1.3. SITE STATUS

Statutory

Designations for wildlife

- 1.3.1. The woodlands have no national or regional statutory wildlife status.

Planning designations

Tree preservation order

- 1.3.2. In accordance with the Town & Country Planning (Tree Preservation) (England) Regulations 2012, the site is subject to a tree preservation order (TPO) made in January 2016. The TPO, referenced by Reading Borough Council as Order 5/16, concerns “land between Island Road, the River Kennet and the A33, Reading”. This Plan only concerns the western portion of the TPO - refer to Figure 2.

Planning policies SA17 & CS37

1.3.3. The following areas, as shown on the Reading Borough Council Proposals Map, are defined as Major Landscape Features – refer to Figure 2:

- The Thames Valley;
- **The Kennet and Holy Brook Meadows** (including Island Road Woodlands - Figure 2);
- The West Reading wooded ridgeline;
- The East Reading wooded ridgeline; and
- The North Reading dry valleys.

Non-statutory sites

1.3.4. There are six Local Wildlife sites within 2km of the woodlands, designated and proposed. These are shown on Figure 3, and Table 1 provides a useful summary.

1.3.5. There is also one Biodiversity Opportunity Area¹ part of which falls into the applicant site (refer also to Figure 3 below).

1.4. PHYSICAL FEATURES

1.4.1. The northern boundary of the site is formed by the banks of the River Kennet. The R. Kennet is a Local Wildlife Site (refer to Figure 3). To the south lies a new development, completed in 2018. The western edge of the site is comprised of a drainage ditch to provide drainage for the southerly Green Park development (not part of the site).

1.4.2. There are a series of wildlife boxes throughout the woodland: at the time of writing this plan the boxes were proposed as shown in Figure 4.

¹ **Biodiversity Opportunity Areas** indicate areas where there are substantial opportunities to make positive changes for biodiversity and should be used to inform conservation strategies and place planning. BOAs administered by the Berkshire Local Nature Partnership do not represent a statutory designation or a constraint upon activities.

Table 1: Local Wildlife Sites

Site Name/ref.	Register details
Holy Brook (SU77BH01)	A chalk river that carries water from and emptying back into the River Kennet.
Fobney & Kennet Valley Meadows (SU77A03)	A large area of permanent pasture with some wet grassland and patches of swamp vegetation.
River Kennet / Kennet & Avon Canal (SU77A02)	The River Kennet is one of the best examples of a chalk river nationally and is an UK BAP Priority Habitat. The Kennet & Avon Canal section is also fed by water from the River Kennet and is also calcareous in nature.
Burghfield Gravel Pits (67V01)	An extensive area of gravel pits with well-developed wooded areas, islands and marginal vegetation.
Whitely Park Farm / St. Patrick's Hall (SU77F01)	A Local Wildlife Site important in holding mixed broadleaved semi-natural woodland and a range of associated habitats, including two ponds.
The Cowsey (SU77F02)	An area of mature scrub and broadleaved woodland which surrounds grassy enclaves. There are natural springs, one supporting a ribbon of wetland plants in a shallow valley, one feeding a small pond and another drains an area of mature woodland.
Fobney Island	An island between the Kennet and Avon Canal and River Kennet.
Kennet Valley East	The Kennet Valley from Newbury to Reading extending to include large areas of gravel pits in the east.

Figure 1

Location

Island Road Woodlands (West)

Legend



Site location



Ownership boundary



Woodland Management Plan boundary



Reading Borough boundary

Grid Reference (to centre of woodland)

SU 70765 70980

Drawing No: 16503-25 Rev: A

A	B	C	D
17/10/18			

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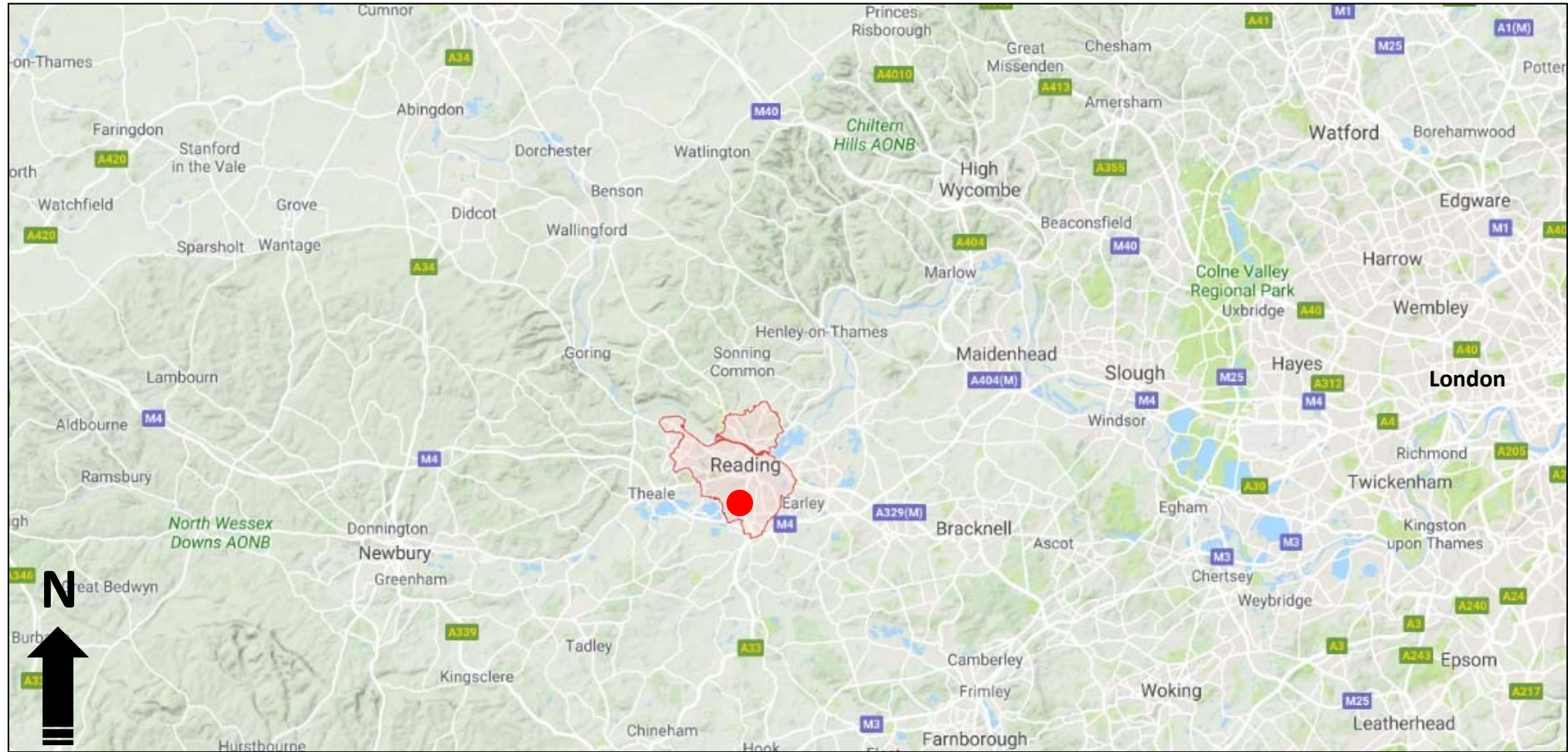


Figure 2

Planning designations

Island Road Woodlands (West)

Legend



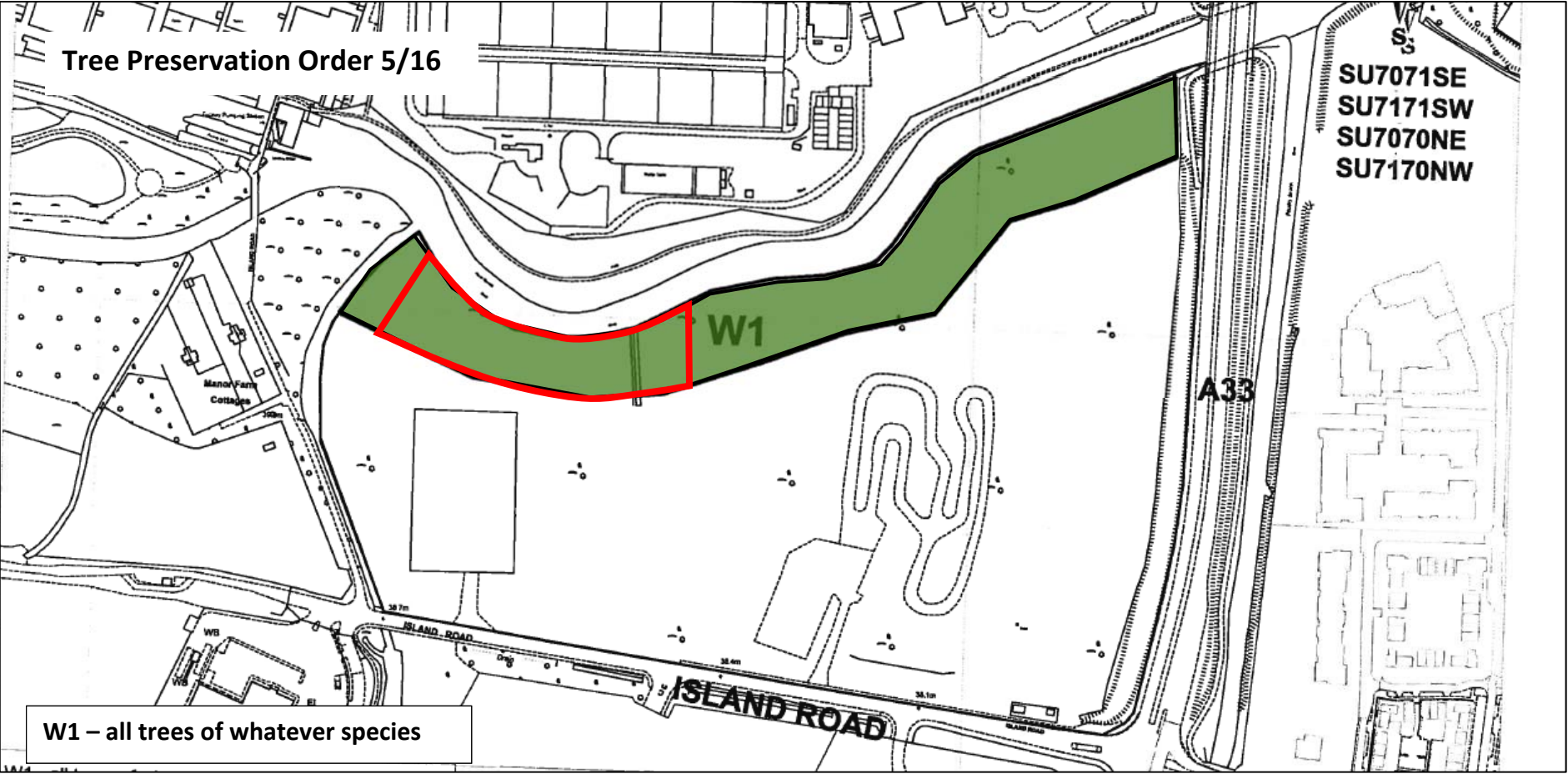
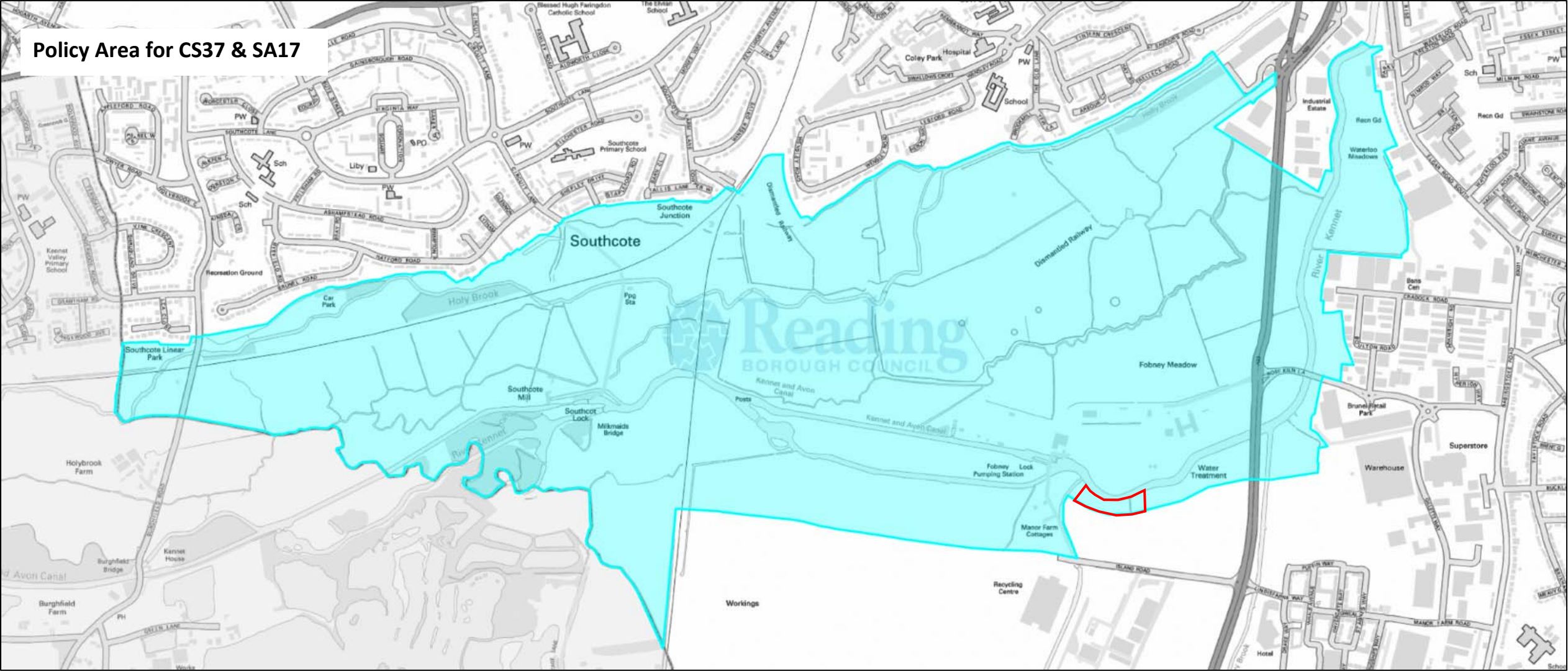
Policy Area for CS37 & SA17



Tree Preservation Order 5/16



Woodland Management Plan area



Drawing No: 16503-26 Rev: A

A	B	C	D
19/10/18			

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Figure 3

Non-statutory Sites

Island Road Woodlands (West)

Legend

Woodland Area

Search Area

Local Wildlife Sites

Proposed Local Wildlife Sites

Other Site

Biodiversity Opportunity Area

Drawing No: 16503-05 Rev: B

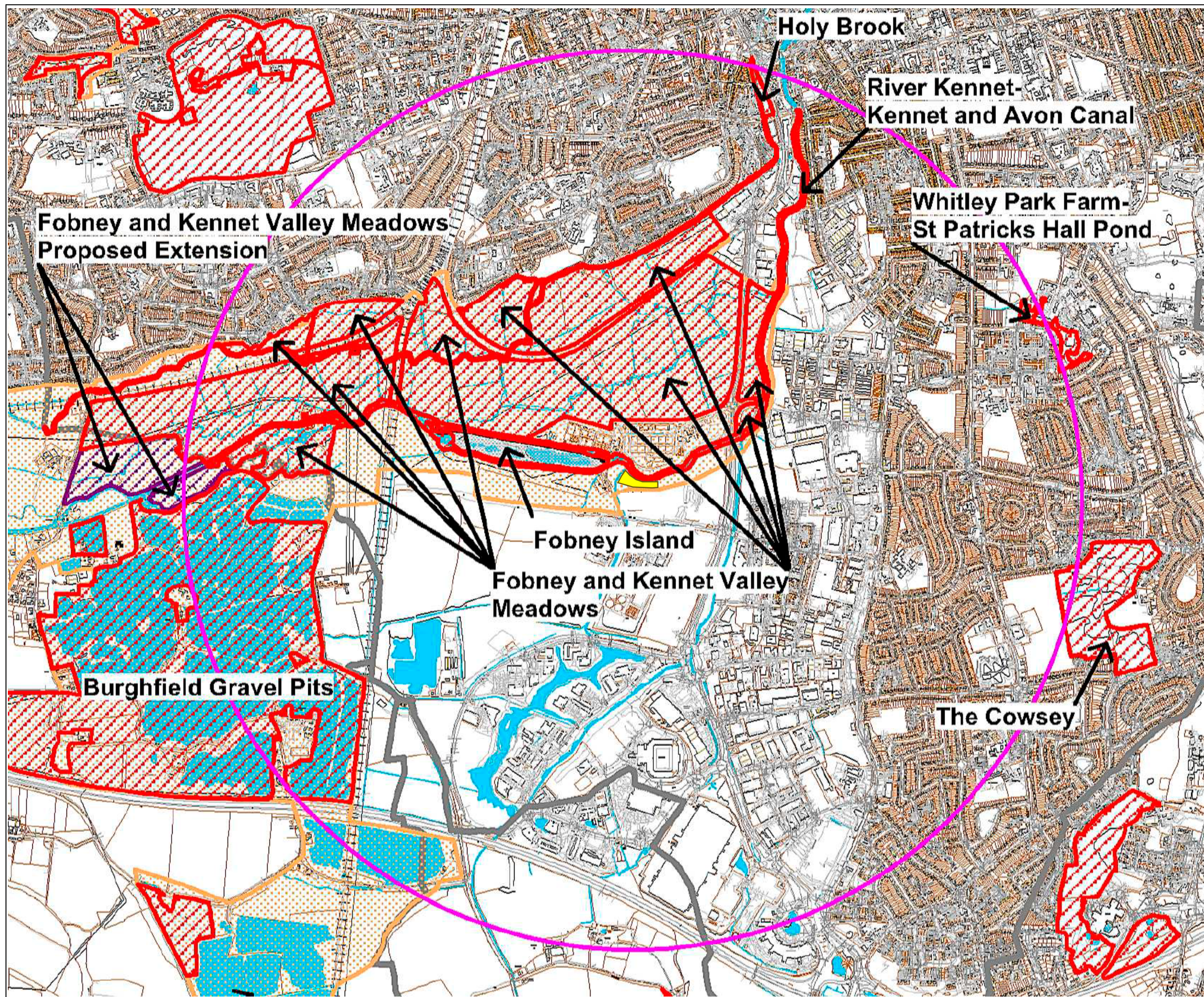
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26/08/16	19/10/18		

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Biodiversity Enhancements

Legend

- Bird-boxes**
At least one open-fronted box per scrub stand = 5 boxes (e.g. Schwegler 2H or 2HW).
Position and location to be determined locally by a SQE.

- Bat boxes**
Installed as a group of three at each location; east, centre, west = 9 boxes (e.g. Schwegler [x1 1FF + x2 2F] per group).

Position, aspect and location to be determined locally by a SQE.

- All permanent fencing**
Fencing to provide an aperture 200mm x 200mm at 20m intervals throughout (including perimeter development fencing where security is not compromised). To be approved by a SQE.

- Box installation**
To be carried out with a SQE present.

Boundaries and other extents are indicative. Please refer to Architect drawings for accuracy.

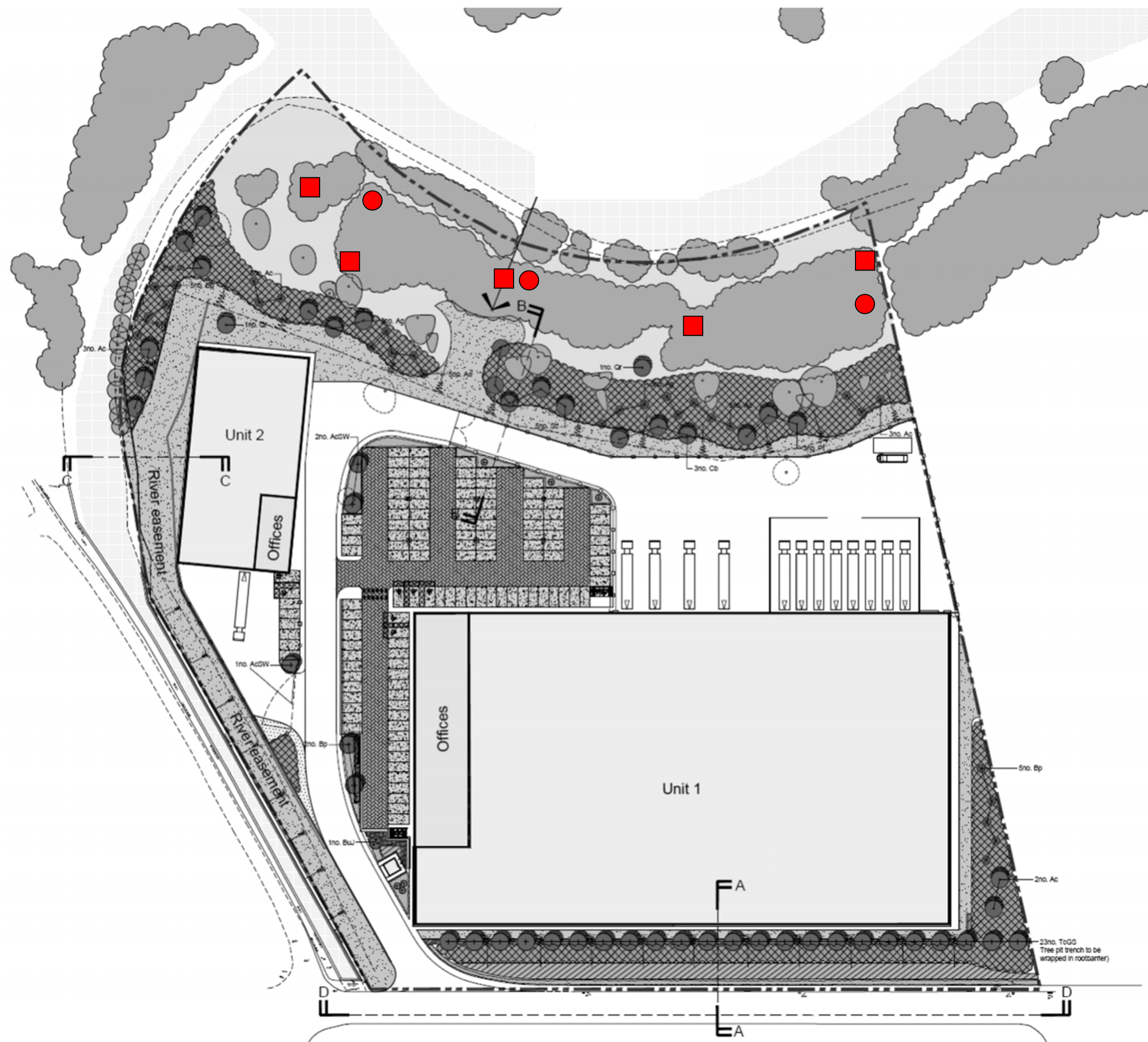
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A	B	C	D
10/11/17			

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2. BIOLOGICAL FEATURES

2.1. FLORA

- 2.1.1. The site was surveyed in August 2016 using both the Phase 1 habitat survey methodology recommended by Natural England (JNCC 2010²) and again in August 2018 using the latest guidelines for The National Vegetation Classification (NVC) (Rodwell 1991³).

Phase I Habitats

A1.1.2: Plantation Broadleaved Woodland

- 2.1.2. This was predominantly a non-native hybrid black poplar (*Populus x Canadensis*) plantation, in regular planting rows up to the river bank. There is a single row of white poplars (*P. alba*) along the edge of the river bank and occasional native woody species such as ash (*Fraxinus excelsior*), grey willow (*Salix cinerea*), white willow (*S. alba*), osier



(*S. viminalis*) and elder (*Sambucus nigra*) are present at the edges and at gaps in the canopy.

Photo 1: *Plantation Woodland*

² Joint Nature Conservation Committee 2010 Handbook for Phase I habitat survey: a technique for environmental audit. JNCC, Peterborough.

³ Rodwell, J.S. (ed.) 1991. *British Plant Communities. Volume 1. Woodlands and scrub*. Cambridge University Press.

- 2.1.3. The understorey comprises mostly sparse common nettle, with frequent hedge bindweed and Himalayan balsam (non-native invasive species invading from the river bank), hemlock, ground ivy, comfrey and greater burdock. Frequent deer trampling along the river corridor is evident.



Photo 2: *White poplars on River Kennet banks*



Photo 3: *Black poplar hybrid plantation*

- 2.1.4. The shrub layer was typically open with grey willow also being common, with hawthorn and elder on drier ground. Goat willow, holly, hazel and blackthorn may occur but were generally sparse.

A2.1: Dense scrub

- 2.1.5. South of the woodland and encircling it to the west the ground slopes gently down to the river; the habitat here is dominated by dense common nettle, with bramble and hedge bindweed and scattered scrub adjacent to the woodland belt bordering the banks of the River Kennet.



Photo 4: *Dense brambles on southern woodland edge*



Photo 5: *Dense nettles on southern woodland edge*

C3.1 Non-native species

- 2.1.6. Himalayan balsam is present at moderate abundance at the water's edge, and to some extent within the woodland understorey, up to 5m or more away from the water's edge, along the extent of the Kennet & Avon Canal on the northern boundary.
- 2.1.7. Floating pennywort is abundant in neighbouring watercourses, both as shown in Figure 6.



Photo 6: *Himalayan balsam along the southern banks of the Kennet / northern bank of the woodland.*



Photo 7: *North end of the western ditch showing dense floating pennywort.*

F2.1 Marginal vegetation bordering River Kennet

- 2.1.8. The river bank forms a steep earth cliff vegetated with bankside herbs comprising abundant Himalayan balsam (non-native invasive species), common nettle, reed sweetgrass, reed canarygrass and hedge bindweed, with locally frequent/occasional common figwort, marsh woundwort, water mint, water forget-me-not, yellow flag iris and gypsywort.



Photo 8: *Glyceria maxima* swamp at woodland edge with Himalayan balsam (TN2)



Photo 9: Marginal vegetation on the banks of the Kennet, view to East.

Woodland NVC Classification

- 2.1.9. The minimum five 20m x 20m quadrats were set out in August 2018 to determine the native woodland type. Although it didn't fit into any NVC classification, as it appears to be plantation poplar woodland, it is similar to NVC wet woodland community W6 *Alnus glutinosa-Urtica dioica* woodland. This is typically dominated by alder, with occasional pedunculate oak, ash and sycamore. Other willows (e.g. white willow, crack willow and osier) may be locally frequent depending on soil conditions.
- 2.1.10. The woodland has no real structural/age diversity as it was clearly all planted at the same time, although there is some natural scrub understorey encroachment. The understorey was very poor in diversity being dominated by nettle and ground ivy.

Table 2: Woodland Species list

English name	Latin name	DAFOR ⁴
Hawthorn	<i>Crataegus monogyna</i>	O/LF
Ash	<i>Fraxinus excelsior</i>	O
White poplar	<i>Populus alba</i>	O
Hybrid black poplar	<i>Populus x canadensis</i>	F/A
White willow	<i>Salix alba</i>	O
Goat willow	<i>Salix caprea</i>	O
Grey willow	<i>Salix cinerea</i>	O
Osier	<i>Salix viminalis</i>	R
Elder	<i>Sambucus nigra</i>	F/A

Table 3: Woodland Understorey Species list

English name	Latin name	DAFOR ⁴
Greater burdock	<i>Arctium lappa</i>	O
Hedge bindweed	<i>Calystegia sepium</i>	LA
Hemlock	<i>Conium maculatum</i>	O
Ground ivy	<i>Glechoma hederacea</i>	LF
Ivy	<i>Hedgera helix</i>	F/A
Creeping softgrass	<i>Holcus mollis</i>	LF
Bramble	<i>Rubus fruticosus</i>	F
Common comfrey	<i>Symphytum officinale</i>	O
Upright hedge parsley	<i>Torilis japonica</i>	LO
Common nettle	<i>Urtica dioica</i>	A

⁴ DAFOR scale: D- Dominant; A- Abundant; F- Frequent; O- Occasional; R- Rare

Table 4: Nettle-dominated scrub Species list

English name	Latin name	DAFOR ⁴
Greater burdock	<i>Arctium lappa</i>	O
Hedge bindweed	<i>Calystegia sepium</i>	LA
Hemlock	<i>Conium maculatum</i>	O
Ground ivy	<i>Glechoma hederacea</i>	LF
Ivy	<i>Hedgera helix</i>	F/A
Creeping softgrass	<i>Holcus mollis</i>	LF
Bramble	<i>Rubus fruticosus</i>	F
Common comfrey	<i>Symphytum officinale</i>	O
Upright hedge parsley	<i>Torilis japonica</i>	LO
Common nettle	<i>Urtica dioica</i>	A

Table 5: Marginal vegetation Species list

English name	Latin name	DAFOR ⁴
Hedge bindweed	<i>Calystegia sepium</i>	F/A
Ground ivy	<i>Glechoma hederacea</i>	LF
Reed sweetgrass	<i>Glyceria maxima</i>	LA
Floating pennywort	<i>Hydrocotyle ranunculoides</i>	LA
Himalayan balsam	<i>Impatiens glandulifera</i>	F
Yellow flag iris	<i>Iris pseudacorus</i>	O/LF
Gypsywort	<i>Lycopus europaeus</i>	O
Water mint	<i>Mentha aquatica</i>	O
Water forget-me-not	<i>Myosotis scorpiodes</i>	O
Wood meadow grass	<i>Poa nemoralis</i>	LF
Common figwort	<i>Scrophularia nodosa</i>	O
Marsh woundwort	<i>Stachys palustris</i>	O
Comfrey	<i>Symphytum officinale</i>	LO
Bulrush	<i>Typha latifolia</i>	LO
Common nettle	<i>Urtica dioica</i>	A

Table 6: Target Notes (Figure 5)

TN Ref.	Description
TN1	Part-canalised ditch borders western edge of site.
TN2	River Kennet
TN3	Broadleaved woodland – hybrid poplar plantation

Figure 5

Habitat distribution

Island Road Woodlands (West)



Legend

- Woodland Plan
- Deciduous woodland (with poplars)
- Nettle-dominated dense scrub
- Running water
- Marginal / inundation
- Target Notes (Table 6)
- Ownership

Drawing No: 16503-27 Rev: A

A	B	C	D
17/10/18			

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Figure 6

Non-native plants distribution

Island Road Woodlands (West)

Legend



Woodland Plan



Floating pennywort



Himalayan balsam



Orange balsam



Ownership

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A	B	C	D
29/10/16			

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2.2. FAUNA

Data trawl

- 2.2.1. Thames Valley Environmental Records Centre (TVERC) provided 764 records from a 2km area surrounding the site in 2016. After filtering these records to only those that merit some sort of protection, and that are potentially to be found in the habitats covered by this plan, Table 7 provides the results.

Table 7: Species data trawl

Common Name	Scientific name	European Directives	UK Legislation	NERC S.41	Other Designations
Stag Beetle	<i>Lucanus cervus</i>	HabDir-A2np	WACA-Sch5	*	Notable-B
Bluebell	<i>Hyacinthoides non-scripta</i>		WACA-Sch8		
Dunnock	<i>Prunella modularis</i>			*	Bird-Amber
Fieldfare	<i>Turdus pilaris</i>		WACA-Sch1-p1		Bird-Red
Green Sandpiper	<i>Tringa ochropus</i>		WACA-Sch1		Bird-Amber
Kingfisher	<i>Alcedo atthis</i>	BirdsDir-A1	WACA-Sch1		Bird-Amber
Linnet	<i>Linaria cannabina</i>			*	Bird-Red
Song Thrush	<i>Turdus philomelos</i>			*	Bird-Red
Starling	<i>Sturnus vulgaris</i>			*	Bird-Red
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	HabDir-A4	HabReg-Sch2, WACA-Sch5		
Long-eared Bat species	<i>Plecotus</i>		HabReg-Sch2, WACA-Sch5		
Noctule Bat	<i>Nyctalus noctula</i>	HabDir-A4	HabReg-Sch2, WACA-Sch5	*	
Pipistrelle Bat species	<i>Pipistrellus</i>		HabReg-Sch2, WACA-Sch5		
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	HabDir-A4	HabReg-Sch2, WACA-Sch5	*	
West European Hedgehog	<i>Erinaceus europaeus</i>			*	

Bats

Survey methods

- 2.2.2. A preliminary ecological appraisal was carried out during the Phase I Habitat survey (above). The woodland and the river corridor were both considered to provide opportunities for bats to roost (trees) and forage (corridor), therefore a ground investigation of the potential for trees to provide roosting opportunities was carried out in August 2016 together with an evening emergence survey. A single data logger was installed in the woodland area for 5 nights in late August. The surveyors used EM Touch© bat recording equipment.

Preliminary ecological appraisal (Bats)

- 2.2.3. A preliminary appraisal of habitats on and surrounding the applicant site showed that habitats exist for potentially roosting and foraging across and adjacent to the woodland. Table 8 shows that due to the presence of suitable habitat for both roosting (trees) and foraging (woodland and river habitat) further investigation was required.

Table 8: Bat habitat potential

Habitats	Suitability	
	Roosting	Foraging
On-site habitats		
Deciduous Woodland	High	High
Individual trees	Low	None
Bramble scrub	None	None
Adjacent habitats		
River corridor	None	High
Drains	None	Medium
Sewage Treatment Works	None	High

Ground investigation of trees

- 2.2.4. A ground investigation of individual trees was carried out, to examine trees for Potential Roost Features (PRFs) (without climbing them). This concluded that trees within the applicant site, being healthy and relatively young trees with no fissures or cracks, had no PRFs and there was little or no chance that bats were roosting in or adjacent to the applicant site.

Bat activity surveys

2.2.5. A transect survey focused on the on-site woodland habitat and off-site river corridor as the main areas of bat activity. A drawing showing the route taken has been provided as Figure 7 and Table 10 provides result.

- i) Frequent foraging activity of soprano pipistrelle, Daubenton's bat and noctule, with occasional common pipistrelle were recorded along the river (see Figure 7 ref. 1-5 and 9-13).
- ii) Away from the river corridor, occasional passes of single bats indicate some but minimal use of linear site margins for commuting common pipistrelle (ref. 6, 14) and soprano pipistrelle (ref. 7).
- iii) The weir and brick building off site to the north-west had frequent foraging activity by common and soprano pipistrelle (ref 8).

Static Anabat survey

2.2.6. A bat logger was placed in the woodland for five nights 31/08/16 to 04/09/16 at the location shown in Figure 7 and Table 9 provides the results.

Table 9: Anabat results (2016)

Species	No. of individual calls recorded each night					
	1	2	3	4	5	EM Touch [†]
	31/08	01/09	02/09	03/09	04/09	28/08
Common pipistrelle ♀	132	172	115	602	149	64
Soprano pipistrelle ♀	45	71	49	92	55	55
Noctule	9	5	3	4	6	8
Daubenton's Bat	1					19

Table 10: Transect results (Figure 7)

Map Reference	Location	Time	Species	No. passes	Activity
1	Riverbank west	20:21	Noctule	(distant)	foraging
		20:23	Soprano pipistrelle	(distant)	
2	Riverbank centre	20:27	Soprano pipistrelle	4 passes	foraging
		20:40	Noctule	1 pass	
3	Riverbank east	20:42 20:51	Soprano pipistrelle	6 passes	foraging
			Noctule	2 (faint)	
			Daubenton's	frequent	
4	Riverbank east	20:52-20:55	Daubenton's	foraging	foraging
			Soprano pipistrelle		
5	Riverbank east	20:56-11:11	Daubenton's Bat	Frequent foraging up/down stream	foraging
			soprano pip,		
			common pipistrelle		
6	Bramble bank	21:13	Common pipistrelle	1 pass	commuting
7	Track	21:21	Soprano pip	1 pass	commuting
8	Bridge/weir & building	21:24-21:26	Common & soprano	3 passes	Foraging /commuting
9	Riverbank, N side	21:27-21:30	Common pipistrelle	Frequent	Foraging
			Soprano pipistrelle	Frequent	Foraging
			Daubenton's Bat	single	Commuting
10	Midway along N bank	21:32-21:38	Common pipistrelle	Frequent	Foraging
			Daubenton's Bat	Frequent	Foraging
			Soprano pipistrelle	1 distant	Commuting
			Noctule	1 distant	Commuting
11	Riverbank, N side	21:42-21:47	Common pipistrelle	Frequent	Foraging
			Soprano pipistrelle	1 pass	Commuting
			Noctule	1 pass	commuting
12	River bank, N side	21:50-21:59	Common pipistrelle	Frequent	Foraging
			Daubenton's	Single pass	commuting
13	River bank, N side	22:00-22:02	Common pipistrelle	Frequent	Foraging
14	Travelling to south	22:08	Common pipistrelle	1 pass	commuting

Y The high number of these pips represented a lot of social calls (young/juvs) and distant, faint calls.

F EM touch no.'s presented for reference.

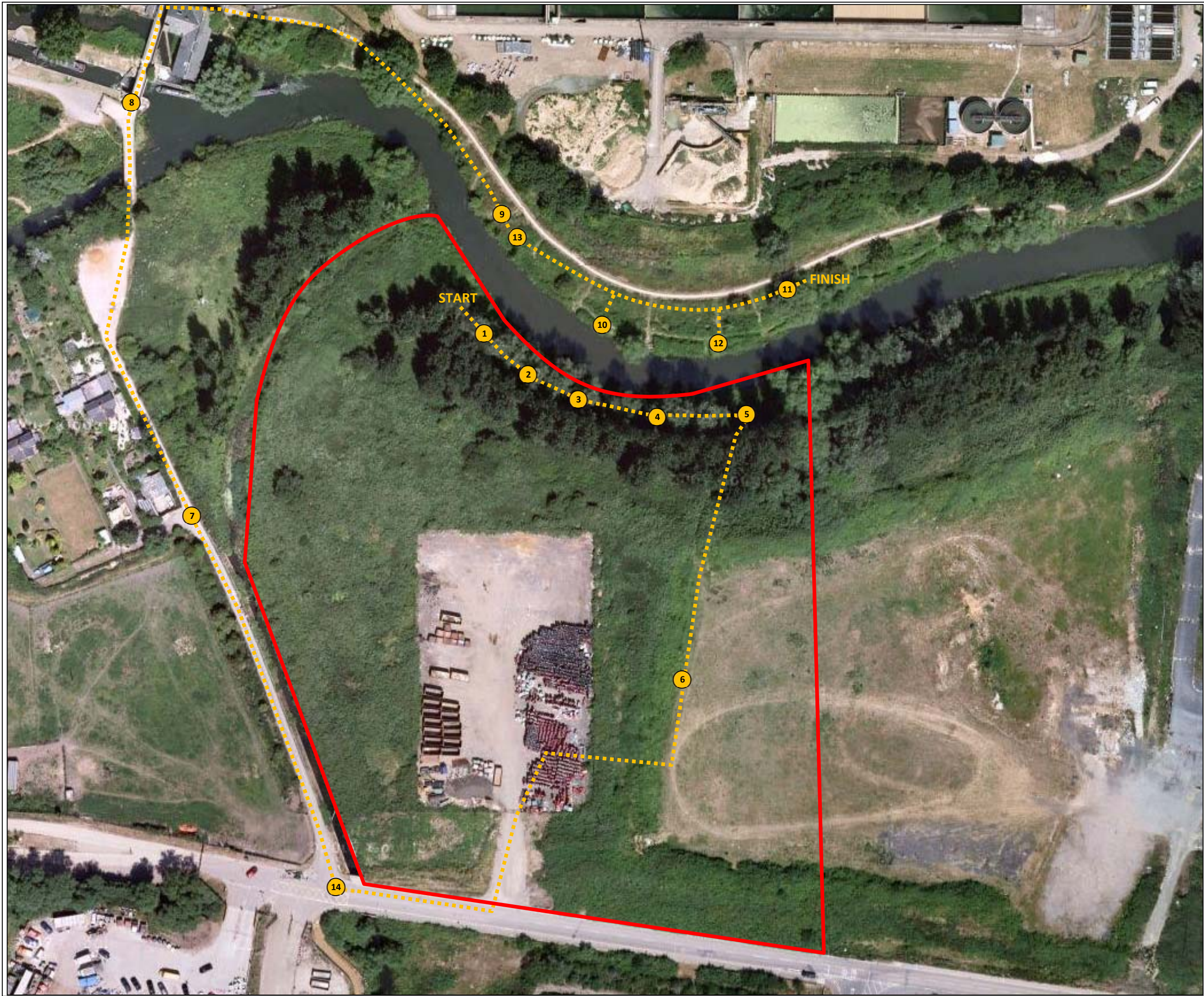


Figure 7

Bat Transect

Island Road Woodlands (West)

Legend

-  Applicant site
-  Transect route
-  Survey reference (refer to
-  Data logger location

Drawing No: 16503-07 Rev: B

A	B	C	D
21/10/16	29/11/16		

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Other species

- 2.2.7. A series of surveys looked at the River Kennet, the Kennet & Avon Canal and the Navigation to determine the presence / absence of water vole, to look for any evidence of otters and to assess the suitability of this adjacent habitat for white-clawed crayfish.

Water voles & otters

- 2.2.8. The survey looked at the banks of the Kennet Navigation and all wetland habitat that was adjacent to the applicant site. These banks, on both sides, were extremely densely vegetated. Using two surveyors working together and with considerable effort, adequate analysis was possible. No evidence of these mammals was found.

White-clawed crayfish

- 2.2.9. The Kennet Navigation adjacent to the site was considered too dangerous for an investigation for evidence of animals. Although a habitat assessment (e.g. Kemp et. al 2003⁵) proved suitability, the remains of a signal crayfish were found on the bankside during the habitat survey, and a mink scat was located nearby (see photo 10).



Photo 10: *Signal crayfish carapace and claw*

⁵ Kemp E, Birkinshaw N, Peay S & Hiley PD 2003. Reintroducing the White-clawed Crayfish *Austropotamobius pallipes*. Conserving Natura 2000 Rivers Conservation Techniques Series No. 1. English Nature, Peterborough

3. MANAGEMENT OPTIONS, AIMS & OBJECTIVES

3.1. VISION

- 3.1.1. Management of the woodland should not be a costly or resource-heavy item. The woodlands lie within the non-operational areas of the site and do not contribute towards operational objectives.
- 3.1.2. There are therefore **woodland management tasks for biodiversity**, and also key items that must be carried out for **good housekeeping**, to maintain the woodland habitat as a non-intervention portion of non-operational land at Island Road.
- 3.1.3. The site owner will appoint someone to implement the woodland management plan to comply with its objectives as set out in the 10-year plan. This will be dealt with in association with other common parts of the development.

3.2. WOODLAND MANAGEMENT FOR BIODIVERSITY

Glade creation

- 3.2.1. Increasing the light levels under the main tree canopy will greatly benefit plant diversity within a woodland. To achieve this, the canopy will be opened up by thinning out poorer specimens of trees to create glades and when planting young trees, they should be a greater distance apart. Different plant species have different light requirements. Therefore, in addition to generally increasing the amount of light reaching the woodland floor, encouraging a range of light levels within a woodland will also improve plant diversity

Tree species

- 3.2.2. Promoting a variety of different tree species will also improve structural diversity within the woodland. Different trees have different growth habits, sizes, branching shapes and physical properties. The bark and wood of different types of trees will have varying physical properties and construction. This has significant effects on the type and variety of microhabitats provided by the tree for animals, plants and fungi to colonize.

Bramble and Ivy

- 3.2.3. Brambles and scrub may have to be controlled to maintain access through the woodland, as well as to promote a diversity of plant species. Too much bramble can smother the ground flora, although, they should not be removed only in the interests of tidiness. Conversely, the shelter of thick bramble clumps will also provide safe nesting and breeding sites for birds and mammals, while the fruits are important seasonal sources of food.

Rotting Wood

- 3.2.4. The rotting wood fauna includes an enormous variety and number of beetles, ranging from stag beetles to bark beetles. Many of these live in the rotting wood as larvae, emerging from this microhabitat once mature. This provides habitat for the fungi and invertebrates which prefer this type of rotting wood. The rotting trunks also provide ideal nest holes for woodpeckers, as well as bats.

3.3. GOOD HOUSEKEEPING

Box maintenance

- 3.3.1. Nesting and bat boxes will need to be kept clean and free of pests. Generally, they should not be touched too often, and 1FF bat boxes are likely to be self-cleaning. Boxes should be cleaned in winter months only to ensure they are not being used when disturbed.

Survey data

- 3.3.2. Surveys are required to ensure management tasks are unlikely to have an effect on a particular species. It may also be helpful to monitor the effectiveness of some management tasks such as eradication of non-native species and be certain about colonisation of others such as water voles.

Plan maintenance

- 3.3.3. It is good practice to update a Plan quinquennially. Stakeholders should include the landowner, the local authority and the local wildlife trust/groups.

3.4. CONSTRAINTS

TPO management

3.4.1. Tree Preservation Orders prohibit:

- cutting down
- topping
- lopping
- uprooting
- wilful damage
- wilful destruction
- Cutting roots is also a prohibited activity and requires the authority's consent.

3.4.2. Permission to carry out any of these activities is required from the LPA in advance. The protection afforded to a woodland is that the protection extends to all trees in a woodland, even if not in existence at the time the Order is made. The Order does not distinguish between any tree species.

Invasive species

3.4.3. Himalayan balsam and floating pennywort are non-native, invasive plants proscribed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to allow plants to spread in the wild.

3.5. AIMS & OBJECTIVES

Aim	Objective
Woodland management for biodiversity	Glade creation
	Species diversity
	Invasive natives
	Rotting Wood
Good housekeeping	Box maintenance
	Survey data
	Plan maintenance
Manage constraints	TPO
	Non-native control

4. PROJECT DESCRIPTIONS

4.1. TPO MANAGEMENT

Table 11: *Tree preservation Order*

Reference	Activity	Details	Timing	Frequency
TM1	Contact LPA	Provide details of any intended tree surgery (i.e. refer to CG1)	Prior to works	N/A

Notes

1. Tree Preservation Orders prohibit actions listed in 3.4.1 without permission from the LPA.
2. The LPA is Reading Borough Council (see <http://www.reading.gov.uk/trees>).

4.2. GLADE CREATION

- 4.2.1. Removal of branches around a chosen area, or one poor specimen tree every 5th year.

Table 12: *Glade creation projects description*

Reference	Activity	Details	Timing	Frequency
GC1	Arboriculturalist	Identify area of branch or individual tree for removal	November-March	Quinquennially
GC2	Bat survey	Be sure to avoid any impacts to bats	November-March	Year of works
GC3	Tree surgery	Leave all felled timber in situ.	November-March	Quinquennially

Notes

3. Do not remove trees from the river bank preferring instead the southern portion of the woodland.
4. Fallen timber should be left to decay naturally where it lies. Leaving stacks of logs in a variety of conditions, from heavily shaded to wet will also encourage biodiversity.

4.3. SPECIES DIVERSITY

- 4.3.1. Planting trees to both extend the woodland and increase its tree diversity.

Table 13: *Species diversity projects description*

Reference	Activity	Details	Timing	Frequency
SD1	Tree selection	Select from Table 14	N/A	N/A
SD2	Plant trees	Avoid uniformity, be at least 3m apart	November-March	Once only

Notes

- Select trees from Table 14.
- Planting should avoid within 10m of the banks of the River Kennet, preferring the southern side of the woodland.

Table 14: *Native trees*

Tree Species
Oak (pedunculate & sessile)
Willow species
Birch (silver & downy)
Elm
Hazel (as scrub understory)
Lime
Rowan
Field Maple
Holly (as scrub understory)

4.4. ROTTING WOOD

- 4.4.1. Creating rotting wood piles to promote invertebrate diversity.

Table 15: *Rotting Wood projects description*

Reference	Activity	Details	Timing	Frequency
RW1	Create log piles	Use fresh timber and leave in piles exposed	N/A	N/A

Notes

- Standing dead wood should be left unless unsafe. Fallen timber should be left to decay naturally where it lies. Leaving stacks of logs in a variety of conditions, from heavily shaded to wet will also encourage biodiversity.

4.5. INVASIVE NATIVES

- 4.5.1. Brambles and ivy have to be controlled to reduce the dominance of bramble around the periphery of the woodland, and stop ivy strangling individual trees.

Table 16: *Invasive natives control project description*

Reference	Activity	Details	Timing	Frequency
IN1	Ecologist	Decide what brambles where have to be removed, avoiding the shadier areas and focussing on the southern periphery. Assess ivy at the same time	May-September	As required
IN2	Strim bramble	Create small glades and stop excessive growth to remove 1/5 th of habitat.	November-March	As required
IN3	Control ivy	Cut ivy at the base of the tree and leave to fall off naturally.	Any time	As required

Notes

8. Only use hand tools; vehicles are not permitted.

4.6. BOX MAINTENANCE

- 4.6.1. Keep all wildlife boxes clean and free of pests such as ticks and fleas.

Table 17: *Box maintenance project description*

Reference	Activity	Details	Timing	Frequency
BM1	Clean boxes	Clear out old bedding material and use a recognised disinfectant.	November-March	Tri-annually
BM2	Replace boxes	Check to ensure boxes are still present and in good working order	November-March	Annually

Notes

9. Boxes should not be touched too often, and 1FF bat boxes are likely to be self-cleaning.
10. To ensure that the woodlands ecological value is maintained and enhanced after the 10-year management period has expired, this maintenance process will be ongoing quinquennially.

4.7. DATA COLLECTION

- 4.7.1. Ensure the data upon which these management prescriptions are based is up to date and reflects the conditions on site.

Table 18: *Data collection project description*

Reference	Activity	Details	Timing	Frequency
DC1	Phase I habitat survey, to assess habitats' potential to support other species.	Carried out by an ecologist	Any	Quinquennially

Notes

11. Results of Phase I will identify the need for any other specialist surveys.
12. To ensure that the woodlands ecological value is maintained and enhanced after the 10-year management period has expired, this data collection process will be ongoing quinquennially.

4.8. PLAN MAINTENANCE

Table 19: *Plan maintenance project description*

Reference	Activity	Details	Timing	Frequency
PM1	Update Plan.	Provide a monitoring report for the preceding 5 years. Update the contents of the plan to accommodate any changes over the last 5 years	N/A	Quinquennially

Notes

13. To ensure that the woodlands ecological value is maintained and enhanced after the 10-year management period has expired, this management planning and review process will be ongoing.

4.9. NON-NATIVE SPECIES

Table 20: *Non-native species project description*

Reference	Activity	Details	Timing	Frequency
NN1	Himalayan Balsam	Hand pull plants	June-July	As required
NN2	Floating pennywort	Join Local Forum	N/A	N/A

Notes

14. Small infestations of Himalayan balsam can be controlled by hand pulling, as the plant is shallow rooted.
15. The local floating pennywort forum can be found through contact with Reading Borough Council ecologist.

4.10. TEN YEAR PLAN

4.10.1. This plan is to discharge Planning Condition 13 (planning ref: 170444), which states “The woodland management plan is to run for a period of 10 years”. The first five years will be as described here, but the following five-year periods will be subject to the Plan Review in PM1 (Table 19).

Table 21: 10 Year Work schedule

Aim	Objective	Project ref.	Preferred Seasons 2019 - 2029										Months of Activity	Other
			19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29		
Woodland management for biodiversity	Glade creation	GC1					✓					✓	11 to 03	Quinquennially
		GC2				✓					✓		11 to 03	within 1 year before GC1
		GC3					✓					✓	11 to 03	Quinquennially
	Species diversity	SD1											N/A	N/A
		SD2	✓	✓	✓								11 to 03	Select one year only
	Rotting Wood	RW1	✓	✓	✓								N/A	Select one year only
	Invasive natives	IN1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	05 to 09	Continuous, as required
		IN2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11 to 03	Continuous, as required
		IN3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	Continuous, as required
Good housekeeping	Box maintenance	BM1			✓			✓			✓		11 to 03	Tri-annually
		BM2			✓	✓	✓	✓	✓	✓	✓	✓	11 to 03	Continuous, as required
	Data collection	DC1					✓					✓	N/A	Quinquennially
	Update Plan	PM1					✓					✓	N/A	Quinquennially
Constraints	TPO	TM1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	Prior to any tree works
	Non-native species	NN1	✓	✓	✓								06 to 07	1 st three years, then as required
		NN2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	Continuous

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