

TODHURST RIFE WILDLIFE CORRIDOR LANDSCAPE & ECOLOGICAL MANAGEMENT PLAN FLEURIE NURSERY

LAND AT FLEURIE NURSERY, LAKE LANE, BARNHAM, WEST SUSSEX

Client: Fleurie Nursery

Our reference: FLEURIE NURSERY, LAKE LANE, BARNHAM, WEST SUSSEX, PO20 0AL

Report date: 24th February 2021

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1.0 SUMMARY

- 1.1 Fleurie Nursery is proposing to erect two blocks of high specification multi-span polythene structures and two blocks of multi-span glasshouse structures on an 8.93ha area, dominated by polytunnels, off Lake Lane, Barnham, West Sussex (SU 9763 0455). One polythene structure will be erected on an area that is currently uncropped, the remaining blocks will replace current glasshouses, polytunnels, outdoor cropping and associated service areas. Application Number: WA/75/20/PL. Arun District Council permitted full planning permission on 29th January 2021, which includes conditions 9, 10 and 11 that refer to the Landscape and Environmental Management Plan (LEMP) for the site:

- 9 *No works to trees, hedgerows or planting, as identified in the approved documents shall be undertaken until there has been submitted to, and approved by, the Local Planning Authority, a landscaping scheme including details of hard and soft landscaping and details of existing trees and hedgerows to be retained, together with measures for their protection during the course of the development. The submission scheme shall detail additional planting for screening along the southern boundary of the site. The submission scheme shall also demonstrate how additional planting will achieve biodiversity net gains over the existing baseline of the site as existing.*

The approved details of the landscaping shall be carried out in the first planting and seeding season, following the occupation of the buildings or the completion of the development, whichever is the sooner, and any trees or plants which, within a period of five years from the completion of development, die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.'

Reason: In the interests of amenity and of the environment of the development in accordance with policy D DM1 of the Arun Local Plan.

- 10 *Landscaping (hard and soft) shall be carried out in accordance with the details approved by condition 9 of this consent. All planting, seeding or turfing comprised in the approved details shall be carried out in the first planting and seeding seasons following the occupation of the buildings or the completion of the development, whichever is the sooner, and any trees or plants which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.*

Reason: In the interests of amenity and of the environment of the development in accordance with policy D DM1 and ENV DM4 of the Arun Local Plan.

- 11 *The recommendations detailed in the Preliminary Ecological Appraisal, produced by GM Ecology, and dated 11 October 2020 shall be undertaken in full and, where required, such measures shall be retained in perpetuity.*

Reason: In the interests of protecting habitats and species in accordance with policy ENV SP1.

- 1.2 On 4th February 2021 Fleurie Nursery, requested that GPM Ecology assist with discharging these Conditions. This Landscape and Ecological Management Plan has been developed with the aim to discharge Conditions 9, 10 and 11 of an Approved planning permission and developed on behalf of Fleurie Nursery to demonstrate biodiversity gain as required by Arun District Council and as detailed within the National Planning Policy Framework 2019¹.

¹ National Planning Policy Framework, Feb 2019, Ministry of Housing, Communities and Local Government

2.0 BACKGROUND INFORMATION AND ECOLOGICAL FEATURES ON SITE

- 2.1 The upper reaches of Todhurst Rife (SU 9763 0455) crosses the eastern side of the site, issuing from an historic pond (Pond 3) and running 525m, where it runs parallel with Lake Lane. Evidence of water vole *Arvicola amphibius* was recorded on site in 2019 and 2020, mainly focused around the main reservoir on site, Pond 2, but with scattered sightings along the Rife, south of the reservoir. Grass snake *Natrix helvetica* was also observed in May 2019 along the rife in the central part of the site. Great crested newts *Tristurus cristatus* have been recorded just over 0.5km north of the site. Priority BAP species observed in the vicinity of the site include three stag beetle *Lucanus cervus* records, the closest being 100m north of the site in 2007.
- 2.2 The application site consisted of open fields up until 1980s when a nursery was first developed on the site. Early 1st Edition OS Map dating from 1875 indicate that the ditch across the centre of the site appears to have remained more or less in the same location over the last 150 years. A number of noteworthy arable plant species have been recorded around the site including corn parsley *Petroselinum segetum*, blue pimpernel *Anagallis foemina* and broad-fruited corn salad *Valerianella rimosa*. The remaining field may have a seed-bank of vegetation dating from when the site was open farmland.
- 2.3 A walk-over assessment of the site took place on 25th August 2020, with the following ecological features identified (GPM Ecology October 2020²):
1. Evidence of water vole was picked-up along a 300m length of the Todhurst Rife, with a low to medium sized water vole population estimated at the time of the survey
 2. The site supports three ponds, not impacted by development
 3. Maintained semi and improved grassland (1.1ha) will be impacted by development.
 4. Non-native hedgerow (290m) or tree-line needs to be removed to accommodate development.
 5. Hedgerows 1 and 2 parallel to Lake Lane support dead trees, potential bat roost sites will be retained
 6. A small Eucalyptus-wood (0.45ha) is located within the south-east corner of the site
 7. Polytunnels, glasshouses, outdoor beds and hard-standing cover most of the site (over 5ha)
- 2.4 It is recommended within the report (GPM Ecology 2020²) that the following mitigation and enhancements are implemented as detailed below:
- 1. Water-voles** - Sections of ditch within 25m of construction will be protected with fencing and a tool box talk provided for site workers. Todhurst Rife requires sensitive maintenance for water-voles, which should form part of a Landscape and Ecological Maintenance Plan
- 2. Breeding Birds** - Hedgerow requiring removal should be cleared outside of the bird breeding season (September to February).
- 3. Todhurst Rife Wildlife Corridor** - The Nursery agree to create a wildlife corridor along the eastern spine of the site, with maintenance practises sensitive to water-voles and other priority species and habitat set-out within a Landscape and Ecological Maintenance Plan.
- 4. Mitigating Impact of Waste upon Aquatic Environments** - The Nursery also agree to adopt a site-based 'Waste Strategy', to minimise the diffuse and indirect impact of litter and pollution entering the Rife.

² GPM Ecology (11th October 2020), Polytunnel and Glasshouse Development, Fleurie Nursery, Lake Lane, Barnham, W. Sussex - Preliminary Ecological Appraisal

3.0 DESIGN AND MAINTENANCE OF BIODIVERSITY IN THE LANDSCAPE PLAN

Aims and Objectives

3.1 The principle aim of this Landscape Ecological Management Plan is to enhance the biodiversity of Todhurst Rife Wildlife Corridor at Fleurie Nursery, which will be achieved with the following management prescriptions:

1. Sensitive Rife and bankside maintenance for water voles.
2. Part-restoration of Pond 3, by removing of tree stumps along the southern margins
3. The Eucalyptus-copse is to be removed and reverted to grassland.
4. Establishment of native hedgerows parallel to Lake Lane.
5. Site based Waste Strategy, with focus upon Todhurst Rife
6. Water vole and Landscape Maintenance Plan monitoring

1. Todhurst Rife Sensitive Maintenance for Water Voles (Figures 1 to 3)

Based on LEAF Marque Scheme (member since 2017) survey guidance by CJH (2019³) recommended the following maintenance regimes to be implemented to enhance this 525m stretch of the Todhurst Rife:

- a) Width of the area of unmown bankside vegetation will be 2 to 5m, mown as per d) below.
- b) The ditch section in south-east corner of site to be cleared of bramble-scrub and Eucalyptus-woodland to be reverted to open grassland.
- c) Remove laurels adjacent to Rife, so that stream and bank vegetation can flourish, unshaded.
- d) All vegetation stream clearance and bankside works to take place October to late January.
- e) When working on banks in any area, work on one side at a time.
- f) Pond 2 (active reservoir) to be maintained to support minimum 25% plant-cover.

2. Part-restoration of Pond 3 (Source of Todhurst Rife - Figure 1)

Part-restoration of Pond 3 to take place (**Figure 1**), with the removal of wood-chip from the bankside, as well as tree stumps along the southern margins of the pond. The stumps are to be buried on site within the margins of the former Eucalyptus-plantation (see point 2 below). Note buried root bowls could potentially be utilised by stag-beetle and other saproxylic invertebrates. The southern margin of the pond will be maintained as grass margins (not re-planted with shrubs and trees) and the banks will be covered with topsoil from the central grassland area requiring removal to accommodate a glass-house. Open maintained grass-banks will allow the pond to have easier access for desilting in the future, as well as minimising shading and leaf litter inputs. With the removal of shade and nutrient input the biodiversity of the pond will increase, with the open aspect encouraging aquatic species such as water vole, dragonflies, and grass snake.

3. The Eucalyptus-copse is to be removed and reverted to grassland (Figure 3)

The Eucalyptus-copse will be removed and reverted to grassland, with a 2 to 5m wayleave along the Rife maintained as long-grass for water voles. The Eucalyptus and all other tree stems will be chipped and removed from the site as fuel-pellets for energy bio-generation. The cleared area will be levelled and managed as grassland, with topsoil from the central grassland area requiring removal to accommodate a glass-house. The eastern boundary of the former Eucalyptus-copse will form a low bank filled with root-bowls (both alder from Pond 3 and eucalyptus-root) in the south-east corner of the site. The root-bowls overtime, especially alder could be utilised by saproxylic invertebrates, such as stag beetle. The Rife's 2 to 5m width of banks and margins will be maintained for water voles as per the maintenance schedule as described above.

³ CJH Agri-Environment Consultants Ltd (August 2019), Biodiversity Action Plan for The Fleurie Nursery Ltd, Prepared for: Fleurie Nursery Ltd, Eastergate Nursery, Church Lane, Eastergate, West Sussex, PO20 3XD, By C J Hedley, 21 Lower Grove Road, Havant, Hants, PO9 1AS cjhedley@btinternet.com. August 2019

4. Hedge and Lowland Wood priority BAP Habitat Establishment (Figures 3 and 4)

Over-time non-native poplars and alders within existing hedgerows parallel to Lake Lane will be replaced with native hedgerow shrubs (Figures 3) about 120m in total length and a small copse. In addition, a length of new native hedgerow will be planted along the southern side of the newly created grassland (former Eucalyptus-copse). This will overtime create a native priority Biodiversity Action Plan hedge running parallel between Lake Lane and the sites southern boundary, totalling about 180m in length. Hedgerows on site will be maintain as tall 2 to 3m high hedges, cut annually outside of the bird-breeding season, between October and February. New areas of hedge and copse will be planted with the species as listed below.

Table 1: hedge and woodland species to be planted on site

Native Hedgerow Planting		Native Copse Woodland Planting	
Hawthorn	<i>Crataegus monogyna</i>	Hazel	<i>Corylus avellana</i>
Blackthorn	<i>Prunus spinosa</i>	Field Maple	<i>Acer campestre</i>
Hazel	<i>Corylus avellana</i>	Oak	<i>Quercus robur</i>
Field Maple	<i>Acer campestre</i>	Birch	<i>Betula pendula</i>
Holly	<i>Ilex aquifolium</i>	Aspen	<i>Populus tremula</i>
Dogwood	<i>Cornus sanguinea</i>		
Spindle	<i>Euonymus europeaus</i>		
Guelder-rose	<i>Viburnum opulus</i>		
Dog rose	<i>Rosa canina</i>		

Gapping-up hedgerows: The main lengths of existing hedge along Lake Lane, as shown in Figures 3, currently support non-native alder, will be strengthened and gapped-up over time as the diseased alders are removed, with hedge species listed above. This will gradually revert a non-native hedge to a native species hedgerow overtime.

Copse Planting: South-west boundary of the site (see Figure 4), will have a small copse about 0.1ha planted immediately to the north of the existing hedge, with the above listed native woodland plant species. This will be maintained as non-intervention woodland, cutting back woody vegetation as required for health and safety.

5. Waste Strategy - Mitigating Impacts of Waste upon Aquatic Environments

As part of Rife and water body maintenance a site-based 'Waste Strategy' will be adopted from the commencement of development, to minimise the diffuse impact of litter-pollution entering the Rife. It should be noted that litter was not observed as a current issue on the site, however it can present as an issue during development and on labour intensive sites when site operations increase and where a Rife is maintained. The strategy will include the following elements:

- Sighting waste bins and toilets a minimum distance from water-ways (e.g. over 10m), to minimise litter and incidental pollutants from entering water courses.
- Daily inspection schedule - to ensure all waste bins have lids present and litter is picked out of ditches, hedges and verges as necessary.
- Storage of nursery-related materials will be avoided along the rife-verge, to minimise litter and impacting potential ecological services and sites for wildlife to utilise.

6. Water-vole and LEMP Monitoring (Whole site)

Once works are complete monitoring visits will take place during spring-summer 2022 to assess establishment of the enhancements listed. In addition, water vole monitoring will take place, during April to May period 2022 using water vole latrine floats to determine extent of species along Rife.

Figure 1: LEMP Todhurst Rife (North)
 Fleurie Nursery, Lake Lane, Barnham
 GPM Ecology 24th February 2021

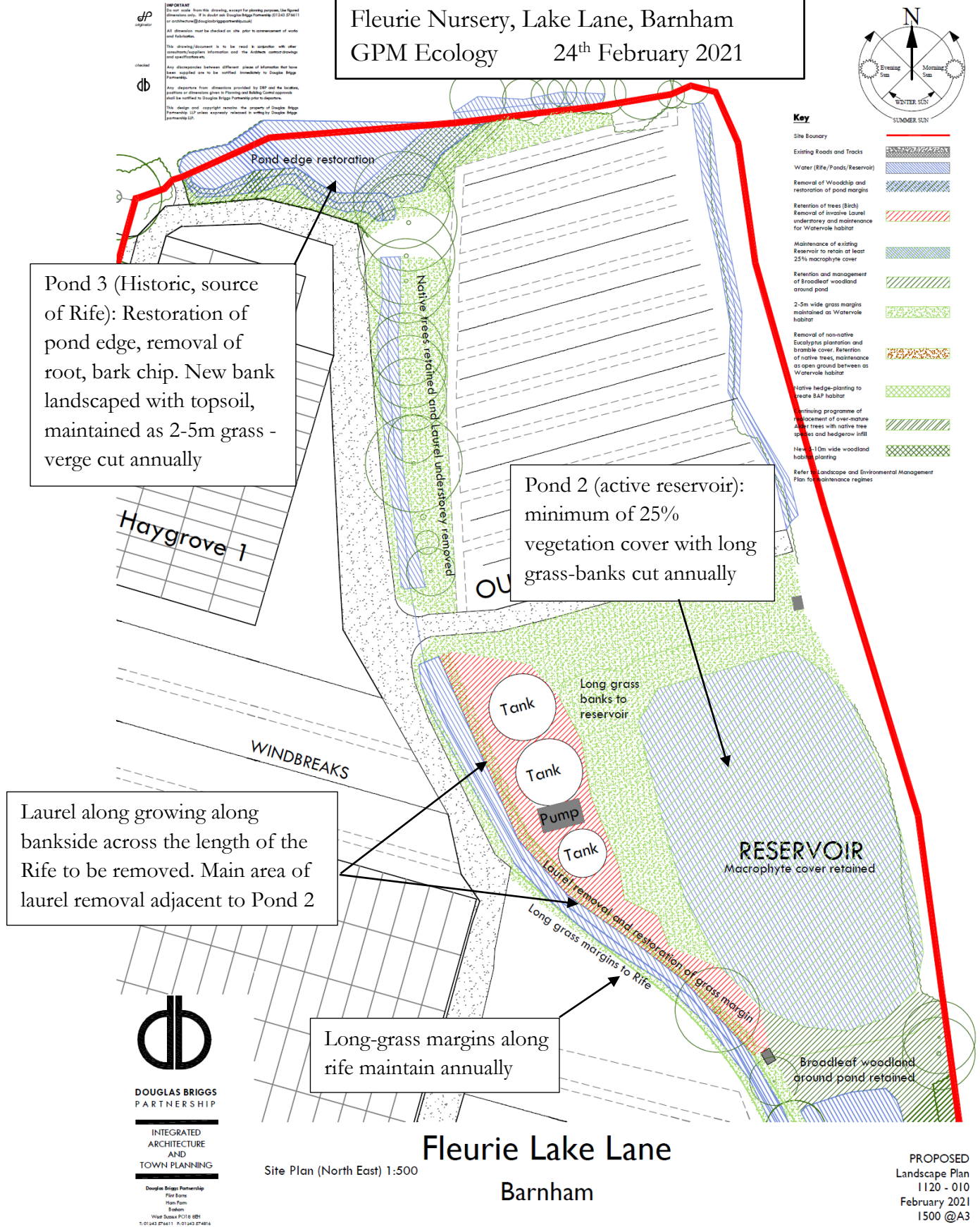


Figure 2: LEMP Todhurst Rife (East)

Fleurie Nursery, Lake Lane, Barnham

GPM Ecology 24th February 2021

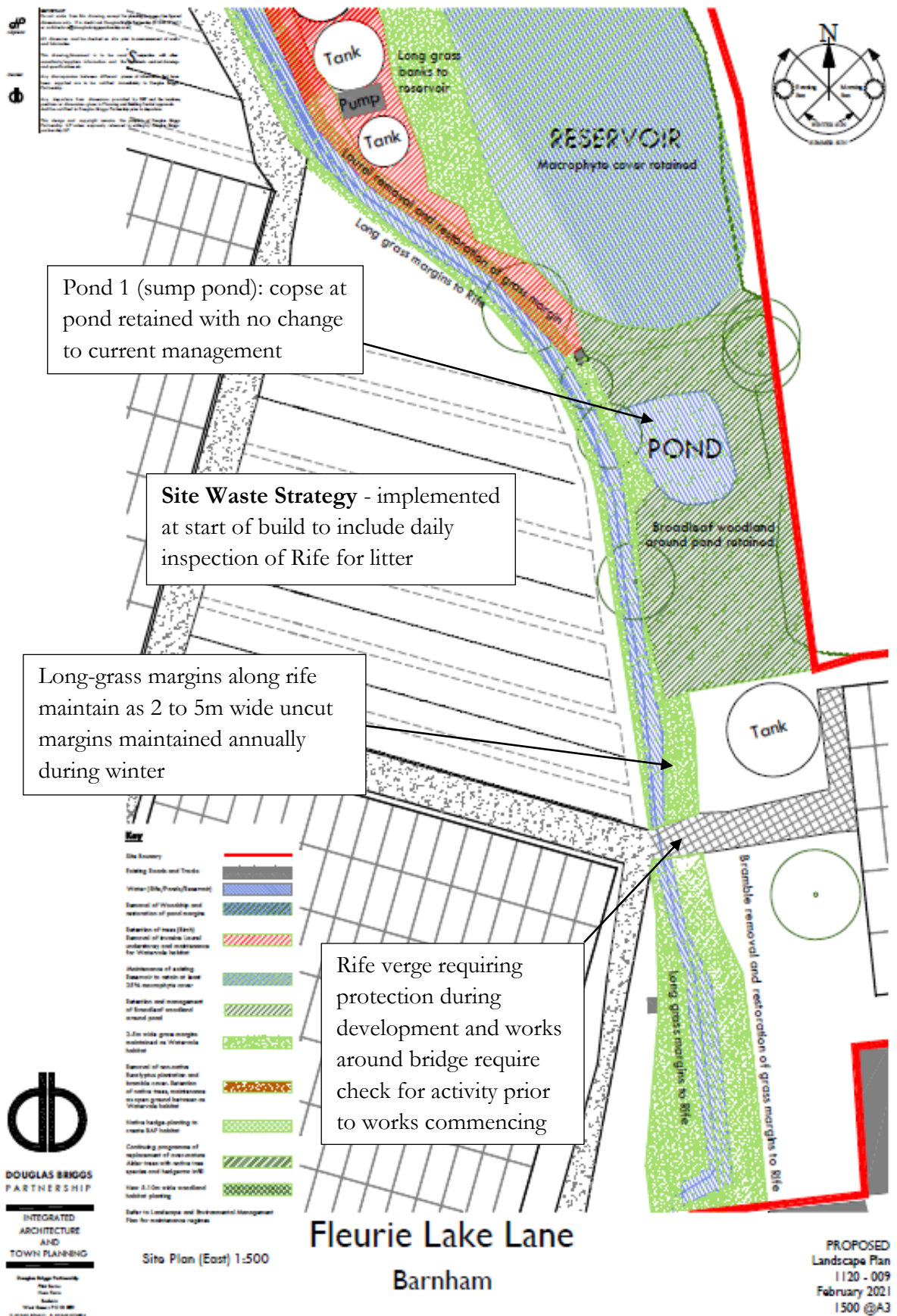
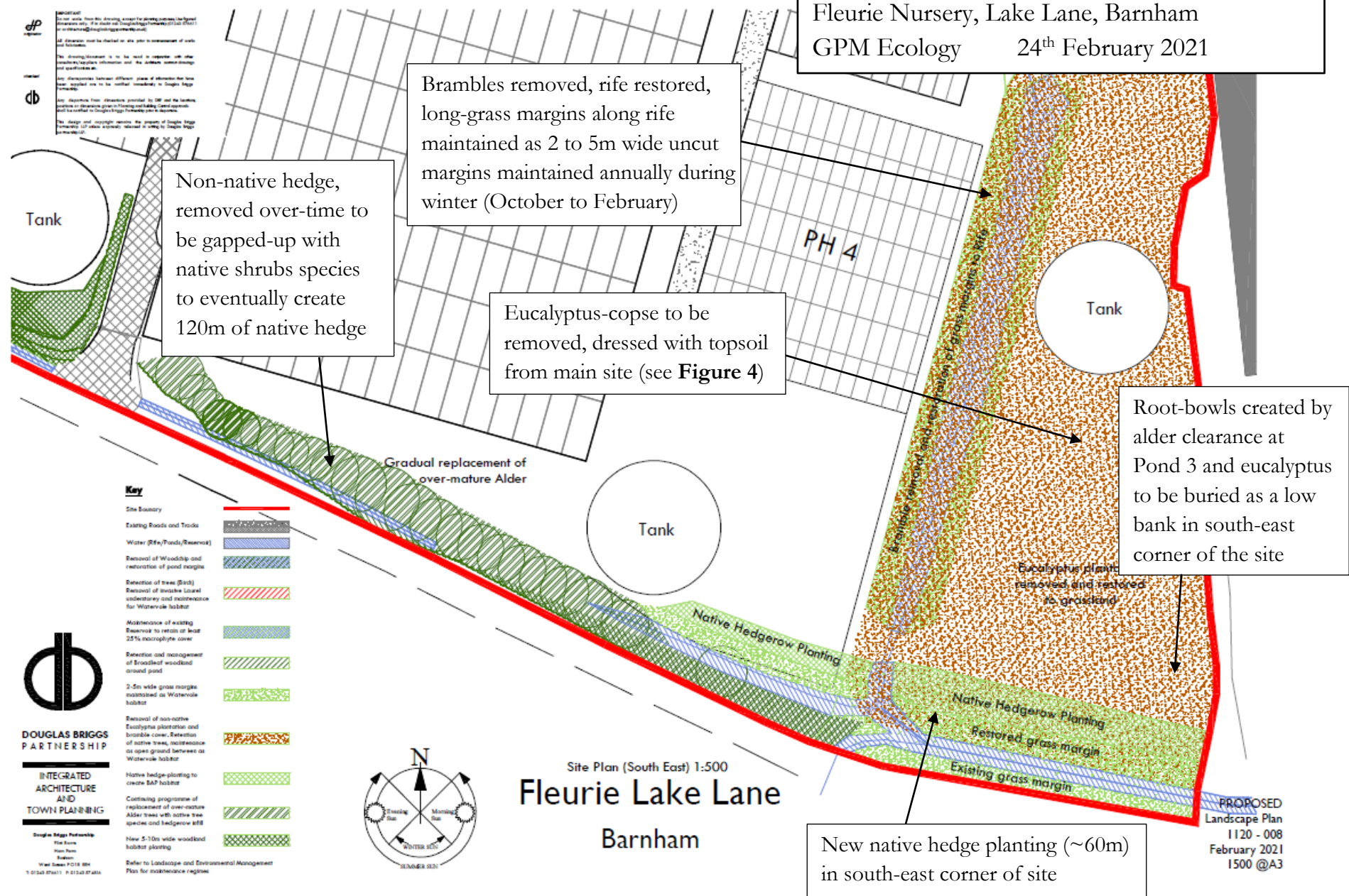


Figure 3: LEMP Todhurst Rife (South East)
 Fleurie Nursery, Lake Lane, Barnham
 GPM Ecology 24th February 2021



Photographs of Ecological Features along Todhurst Rife Wildlife Corridor, Fleurie Nursery



Photo 1: Laurel proposed for removal at the northern end of the corridor (**Figure 1**)



Photo 2: Central area of rife to be provided a wider margin of uncut grass-banks (**Figure 2**)



Photo 3: Eucalyptus-woodland and bramble-scrub over-growing Todhurst Rife (**Figure 3**)



Photo 4: Roadside natives hedging planted, to replace dying, diseased alder (**Figure 4**)