



LOWER MILL  
COTSWOLDS

LME LEMP 2022 - 2027

## SECTION THREE - SWILLBROOK LAKES



## LOWER MILL COTSWOLDS

Originally Lower Mill Estate was a livestock and arable farm with a farmhouse and a water mill drawing its power from the River Thames. It later became an extraction site for South Cerney gravel, resulting in virtually all the fields within the Estate being excavated to several metres depth and then allowed to flood. Some excavated fields were backfilled with the overburden and gravel washings and some left to vegetate naturally with willow being the main colonising tree. It is now actively managed by Habitat First Group to maximise its recreational and ecological value.

At completion, the built footprint of the Estate will comprise eight villages. In the order they were built, these are:

Mill Village  
Clearwater Village  
Howells Mere  
Water Garden  
Spinney Lake (to be completed)  
Minety Lake (to be completed)  
Lakeshore Reserve (to be completed)  
Barberry Lake (to be completed)

The villages have been designed to be as nature-inclusive as possible and the newer phases have been designed to be sustainable and climate-resilient. Habitat First Group have committed to becoming carbon neutral by 2030.

An allotment has been established at the entrance to the Estate and this provides organically grown produce for the onsite restaurant.

Lower Mill Estate covers 195 hectares comprising ten lakes (when completed); sections of three rivers (Thames, Swillbrook & Flagham Brook); a SSSI grassland (Pike Corner); a large wildflower meadow; a nature reserve grassland; several woodland copses; and areas of scrub. In addition, Habitat First Group, own and manage Swillbrook Lakes which comprises a large area of lake-habitat, wetland, woodland and scrub.

In 2019, Habitat First Group were accredited with the Building with Nature Design Award for their Masterplan of up to 575 holiday homes as part of the ecologically sensitive restoration of the former quarry site that Lower Mill Estate sits on. The accreditation stated that Lower Mill Estate provides a rich network of green infrastructure, bringing benefit to both people and wildlife through a landscape-led approach.

The Building with Nature Full Award (Excellent) was granted for the completed phases at Mill Village, Clearwater, Howells Mere, Water Garden, Clearwater Village and Howells Mere.

The level of compliance of Building with Nature Standards at Lower Mill Estate is such that the Award given met the Excellent level of the Building with Nature Benchmark; and as such Lower Mill represents a national exemplar in the design, delivery and maintenance of high quality green infrastructure for the benefit of people and wildlife, now and long into the future.

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# SWILLBROOK LAKES

Swillbrook Lakes (CWP 46/48) – SOUTH						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
Hedgerow management	Lightly trim hedgerow along the footpath to keep the footpath open	Hedgerow along public footpath – Section A	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
	Cut and lay 50m of hedgerow until all is laid		1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
	Once all is laid, trim the hedgerow into an A-shape to encourage bushy growth, keeping the bottom of the hedge wider than the top.		1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
Grassland management	<p>Strim grassland to reduce scrub growth. The uneven ground, and presence of Great crested newts, means no vehicles should be used. Clearance using a strimmer.</p> <p>Cut to a height of <b>15cm. Only cut on hot, dry days</b> (this minimises any potential risk impact on Great crested newts)</p> <p>Remove arisings and create egg-laying heaps for grass snakes.</p> <p><b>Do not strim within 5m of Great crested newt ponds.</b></p>	Grassland between public footpath and the lakes – Sections A & B	July (hot and dry days)	Annually	HFG	<i>Mowing following this regime is suggested in Great Crested Newt Conservation Handbook (p60) as a way of creating floristically-rich, invertebrate-rich and structurally varied grassland with minimal disturbance to any newts that may be present.</i>
Bramble management	<p>The aim is to manage bramble patches to create a mixture of both large and small blocks, while ensuring bramble does not take over all the grassland areas.</p> <p>Manage as necessary.</p>	Grassland, Land spit - Sections A & B	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	<i>Consult ecologist annually to decide which areas need managing.</i>
Tree management	Carry out a tree inspection to check the trees for Health & Safety	Along Minety Lane (Section C), and the public footpath (Sections A & B).	May 2025	Every 3 years	HFG/Professional tree surveyor	<i>Last done in May 2022</i>
	Manage saplings on land spits by coppicing on a 10 year rotation (i.e. coppice 1/10 <sup>th</sup> in every year). The aim is to create a mosaic of different habitats with vegetation at different heights and some areas of open ground.	Land spits (Section A)	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
	<p>Create brush piles with all cut material.</p> <p>Thin 1/3<sup>rd</sup> of trees with diameter less than 10cm and make log pile habitats from all fallen and felled wood.</p>	Mixed species coppice along lake edge - Section B	1 <sup>st</sup> September to 28 <sup>th</sup> February	2022/2023/2024	HFG	

# SWILLBROOK LAKES

Swillbrook Lakes (CWP 46/48) – SOUTH					
Management & Monitoring Task/s	Location/Area	Timing	Frequency	Responsibility	Comments
<b>Pond management</b> Manage the ponds to create optimal habitat for Great crested newts.  (i) Ensure a good quantity of Aquatic mint ( <i>Mentha aquatica</i> ) is growing in each pond. Plants can be translocated from other areas of the Estate.  (ii) Manage 1/3 <sup>rd</sup> of scrub around the ponds annually – creating access around the ponds for surveying. Create brash piles from cut material to make refuges for the newts and reptiles.  (iii) Strim 1/3 <sup>rd</sup> of grassland in the 5m from the pond edge annually in hot/dry weather only. This prevents scrubbing up.	Ponds 8, 10, 11 & Pond B	(ii) 1st September to 28th February  (iii) Late July/August	Annually	HFG	<i>These ponds are monitored annually for Great crested newts as part of the Natural England GCN licence associated with the development.</i>  <i>Aquatic mint is a favoured egg-laying plant for GCN.</i>
<b>Tern raft</b>	Put out tern raft	Section H	Late April	Annually	HFG
	Bring in tern raft, clean and repair	Section H	September	Annually	HFG
	Look to secure more tern rafts from the S106 Nature Conservation Fund				HFG
<b>Osprey Platform</b>	Replace artificial osprey nest as required	Section B	Dec-Feb	As required	HFG

# SWILLBROOK LAKES

Swillbrook Lakes (CWP 46/48) – NORTH						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
Planted hedgerow	<p>Cut and lay in 20m sections until completed. Remove tree guards and reuse them elsewhere when possible.</p> <p>Once all is laid, trim the hedgerow into an A-shape to encourage bushy growth, keeping the bottom of the hedge wider than the top.</p>	Section D	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
Flagham Brook – Development side	<p>Ensure that no development occurs within 3m of the top of the bank of the brook.</p> <p>No materials in the Service charge yard are to be stored within 3m of the bank of the brook</p> <p>No vehicles are to be parked within 3m of the bank of the brook</p> <p>No lighting on the water pumping station or service charge area are to be directed onto the surrounding trees and brook. No lighting to be left on overnight (uni-directional, motion sensor-lighting only)</p> <p><b>No works to any trees/scrub on the bank of the brook on the service charge side, from Minety Lane to the property. This area must remain screened and protect the amphibian/reptile and Roman snail receptor site beyond.</b></p> <p><b>Along the brook by residential properties, ensure Landscape plans are followed to ensure a large buffer of marginal vegetation and meadow grass along the bank.</b></p>	Section D	Ongoing	Ongoing	HFG/Grounds team	
Flagham Brook – Swillbrook Lakes side	<p>Cut 1/10<sup>th</sup> of woody scrub annually along the bank from Minety Lane to the area opposite the first residential building. Use cut material to brush pile refuges for wildlife.</p>	Section D	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
Scrub edge opposite Lakeshore Reserve	<ul style="list-style-type: none"> <li>Scrub Management to the rear of Lakeshore Reserve properties number 3 - 14 to be carried out annually with the scrub managed on a three year rotation, allowing a view over the scrub directly to</li> </ul>	<b>This section is in front of properties 1-14 and excludes Section D which will never be managed for views as it is an important receptor site for GCN and Roman snails</b>	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	<b>Grounds team only – no residents allowed to undertake clearance works</b>	<i>Brown hairstreak butterfly were added to the 2011 Planning agreement (section 7.1.1). Their presence on the Blackthorn on this bank of the Swillbrook impacts on how this area must be managed.</i>

**SWILLBROOK LAKES**

<b>Swillbrook Lakes (CWP 46/48) – NORTH</b>					
<u>Management &amp; Monitoring Task/s</u>	<u>Location/Area</u>	<u>Timing</u>	<u>Frequency</u>	<u>Responsibility</u>	<u>Comments</u>
<p>the left, centre or right of the property onto Swillbrook.</p> <ul style="list-style-type: none"> <li>• Scrub will be maintained in a way to maintain planning commitments of a permanent corridor for newts along the Northern edge of Swillbrook by ensuring scrub is <b>never cut below 1m</b> from ground level and <b>never cut more than necessary so as to achieve a view over the scrub onto the lake (i.e. the entire section from lake edge to the edge of the Flaghm Brook will not automatically be cut to 1m in height)</b>. Scrub will be managed to balance both views and ecological aims and may need to be adjusted in future.</li> <li>• Tree Management to the rear of Lakeshore Reserve properties 3 - 14 will be assessed annually and will only take place within the appropriate section as defined by the Scrub Management rotation year: 1, 2 or 3. Tree work will not be to create a managed/garden style of tree due to the location on a Nature Reserve.</li> <li>• Blackthorn will be managed on a 3-year rotation to allow fresh regrowth for Brown hairstreak butterflies. 2022-2023 will be considered year 1. And 2025-2026, year 3. No more than 1/3rd of Blackthorn to be cut on any given year. Management dependent upon Brown hairstreak surveys and will take place over the entire northern edge, not limited to the sections outlined. <i>This management to be undertaken by grounds staff only.</i></li> </ul>					

# SWILLBROOK LAKES

Swillbrook Lakes (CWP 46/48) – NORTH						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
<b>Pond management</b>	<p>Manage the ponds to create optimal habitat for Great crested newts.</p> <p>(i) Ensure a good quantity of Aquatic mint (<i>Mentha aquatica</i>) is growing in each pond. Plants can be translocated from other areas of the Estate.</p> <p>(ii) Manage 1/3rd of scrub around the ponds annually – creating access around the ponds for surveying. Create brash piles from cut material to make refuges for the newts and reptiles.</p>	Pond A	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	<i>This is a receptor pond for GCN and forms part of the Natural England licence obligations and is monitored annually.</i>
<b>Roman snail receptor site</b>	<p>Coppice 1/5<sup>th</sup> of scrub/small trees on bunds and slopes every year to create sheltered sites for the Roman snails.</p> <p>Use cut brash to make refuge piles for snails</p>	Section F	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	<i>Roman snails are a protected species.</i>
<b>Scrub management</b>	<p>Cut 1/5<sup>th</sup> of scrub annually creating and maintaining scalloped edges.</p> <p>Ring bark some medium diameter trees to create standing deadwood. Cut two rings spaced an inch apart</p> <p>Create brash piles with cut material.</p>	Section E	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	<p><i>This area can be accessed by foot from the edge of Section F.</i></p> <p><i>Scrub, Trees and Wet Woodland is one of the Action Plans under the new Cotswold Water Park Nature Recovery Plan and one of the key features of the recent designation of the Cotswold water Park as a SSSI.</i></p>
<b>Footpath</b>	Strim and maintain narrow footpath for use by properties Lakeshore Reserve 8 and HM99.	Section D	Year round	Annually	HFG	



## SWILLBROOK LAKES

LME – LEMP (2020 – 2027) – SECTION THREE

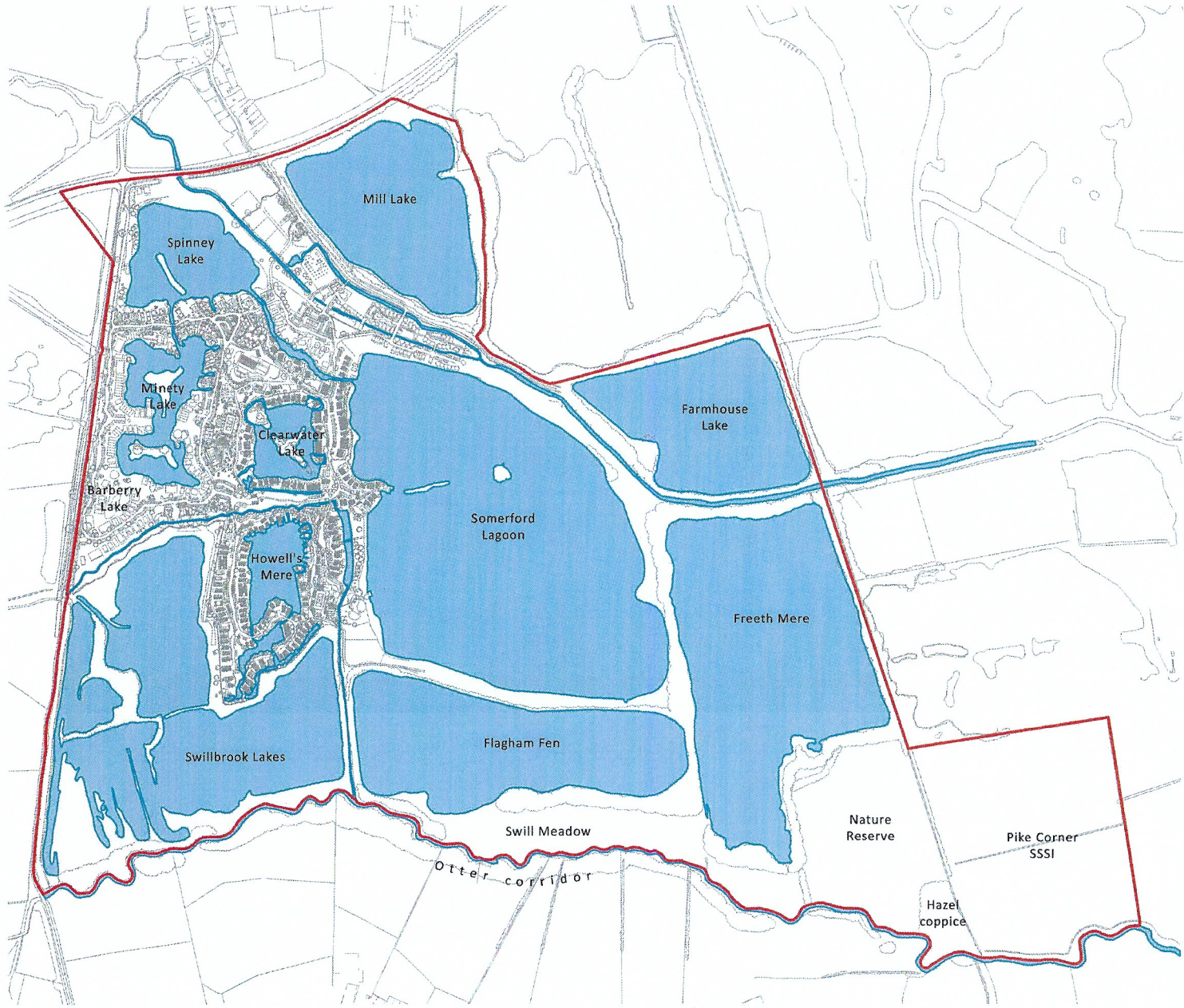
Swillbrook Lakes (CWP 46/48) – WEST <i>(Footpath that runs parallel to Minety Lane)</i>						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
Tree survey	Carry out a tree inspection to check the trees for Health & Safety	Along Minety Lane (Section C)	May 2025	Every 3 years	HFG/Professional tree surveyor	Last done in May 2022
Badger sett	Continue to protect badger sett along the bank of Minety Lane by preventing access across the ditch and ensuring that any tree works that need to be undertaken around the sett follow best practice guidance	Section C	Ongoing	Ongoing	HFG/Contractors	<a href="#">Forest-operations-and-badger-setts</a>
Footpath	Check footpath regularly for fallen branches & eroding edges.  Fix any eroding edges.	Section C	Ongoing	Ongoing	HFG	
Ditch	Remove debris from the ditch as required to allow the flow to the Swill Brook at its southern end. Use debris to make brash piles.  Make sure no removed debris is piled on or near the badger sett.	Section C	Ongoing	Ongoing	HFG	

Swillbrook Lakes (CWP 46/48) – EAST						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
Hedgerow management	(i) Coppice 1/10 <sup>th</sup> of scrub every 2 years on bank closest to Swillbrook Lakes.  (ii) Cut back 1/3 <sup>rd</sup> vegetation overhanging the brook annually for 3 years and then leave	Section G	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	
Bankside management	Strim 1/3 <sup>rd</sup> low level vegetation on bank to prevent it scrubbing over	Section G	1 <sup>st</sup> September to 28 <sup>th</sup> February	Annually	HFG	

# SWILLBROOK LAKES

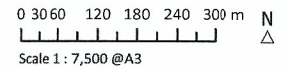
Lake 63 - Offices						
Management & Monitoring Task/s		Location/Area	Timing	Frequency	Responsibility	Comments
<b>Bankside management</b>	<p>Prevent bankside from fully scrubbing over. Create a bankside with a mixture of some open areas and scrub.</p> <p>Remove cut vegetation and make a pile of grass cuttings and cut vegetation which will be suitable for Grass snakes and other reptile/amphibian/invertebrates to use.</p> <p><b>Do not remove all scrub as it is important for Cetti's warbler (Schedule 1 listed)</b></p>	Lake edge	September	Annually	HFG	
<b>Lighting</b>	<p>Ensure overnight security lighting is downward facing and/or hooded to prevent disturbance to wildlife on the lakes and to bats using the hedgerow along Minety Lane.</p> <p>No lights to be left on in office buildings overnight</p>	Whole site	Ongoing	Ongoing	HFG	
<b>Hedgerow management</b>	<p>Remove weeds from the planted hedgerow</p> <p>(i) When the hedgerow is of the right age/size (ca. 7yrs old) it can be laid</p>	Northern boundary	June/Sept	Annually	HFG	
<b>Bund</b>	<p>Maintain the bund as a wildflower area and basking site for reptiles and invertebrates.</p> <p>Cut and collect annually.</p> <p>Remove encroaching scrub on the bund to maintain it as a wildflower area.</p>	Western end	July/August (after most flowers have set seed)	Annually	HFG	

# FIGURES



LEGEND

 Estate boundary

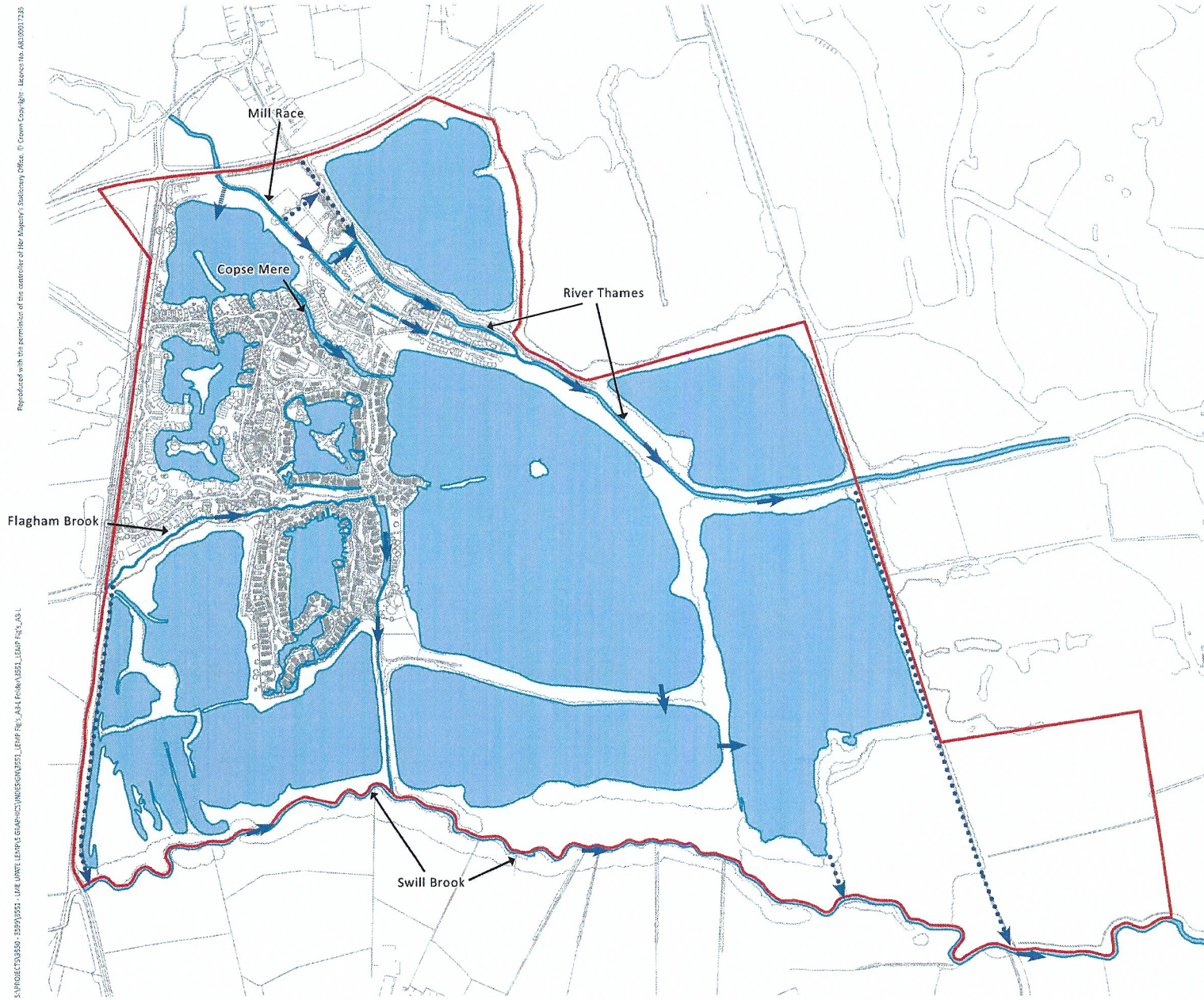


LOWER MILL ESTATE  
LANDSCAPE AND ECOLOGICAL  
MANAGEMENT PLAN  
2022 - 2027





FIGURE 1  
Estate map

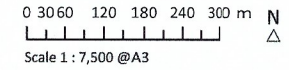
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LEGEND

-  Estate boundary
-  Flow direction
-  Flood relief route
-  Flow direction (ditch)



LOWER MILL ESTATE  
LANDSCAPE AND ECOLOGICAL  
MANAGEMENT PLAN  
2022 - 2027

FIGURE 2  
Water flow interaction throughout  
Lower Mill Estate

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**LEGEND**

- Estate boundary
- Clearwater Lake
- Mill Lake
- Clearwater Village
- Mill Race Corridor
- Copsie Mere
- Mill Village
- Farm
- Minety Lake
- Farmhouse Lake
- Nature Reserve
- Flagham Brook Corridor
- Orchard
- Flagham Fen
- Pike Corner SSSI
- Freeth Mere
- Somerford Lagoon
- Howell's Mere
- Spinney Lake
- Howell's Mere Village
- Swill Brook Corridor
- Isis Park
- Swill Meadow
- Lake 63
- Swillbrook Lakes Reserve
- Lakeshore Reserve
- Thames Corridor

0 30 60 120 180 240 300 m N  
 Scale 1 : 7,500 @A3

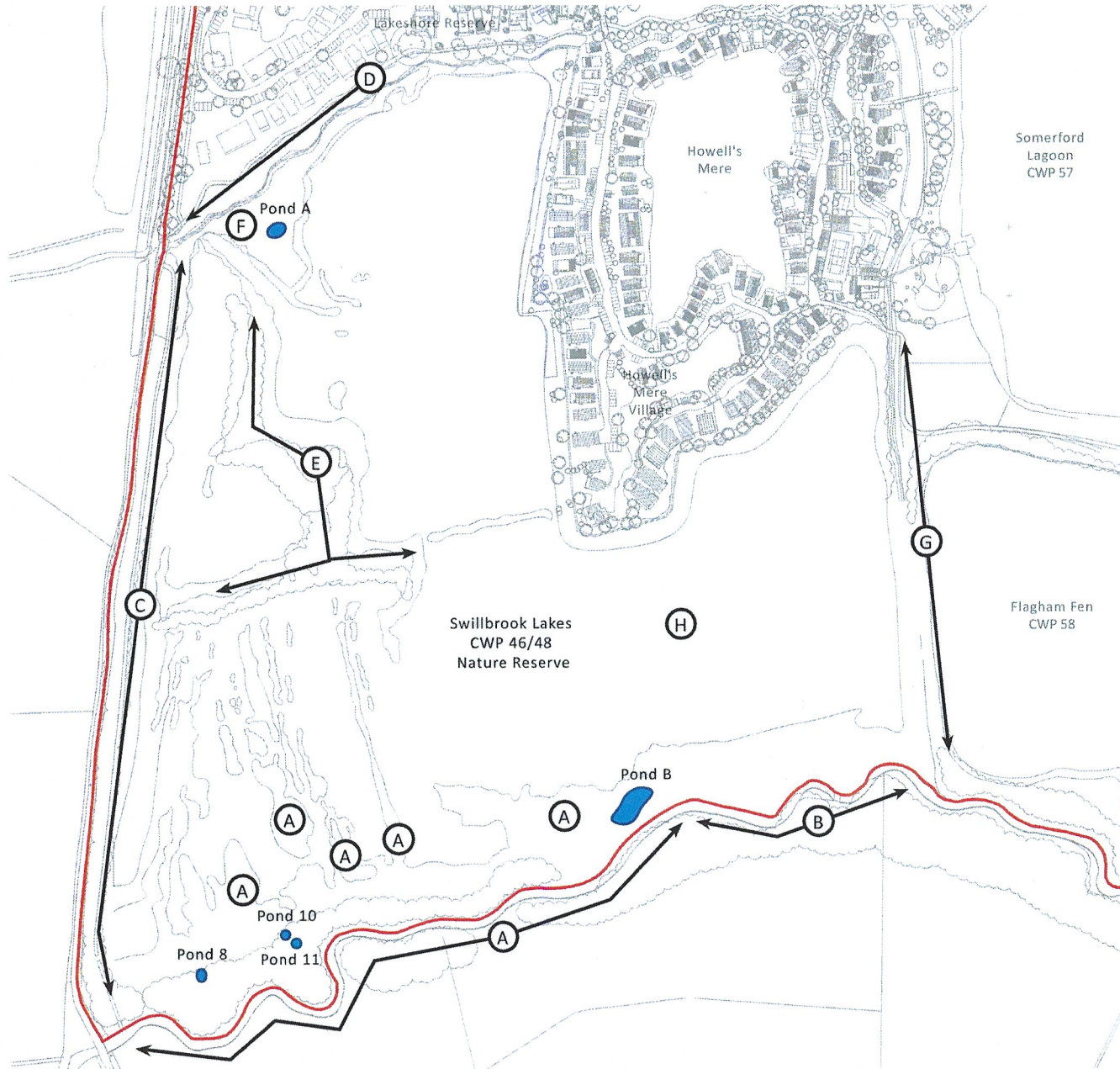
**LOWER MILL ESTATE  
 LANDSCAPE AND ECOLOGICAL  
 MANAGEMENT PLAN  
 2022 - 2027**

**FIGURE 3  
 Management Plan areas**




**THE Landmark  
 PRACTICE**

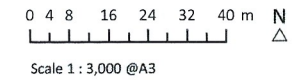
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LEGEND

-  Estate boundary
-  Section reference in prescription table
-  Ponds



LOWER MILL ESTATE  
LANDSCAPE AND ECOLOGICAL  
MANAGEMENT PLAN  
2022 - 2027

FIGURE 26  
Swillbrook Lakes (CWP 46/48)  
Nature Reserve  
(refer to relevant prescription table)

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