

Maelor Creamery, Pickhill
LL13 0UE

Ecological Management Plan and Method Statement

Demolition and construction works
as part of WCBC P/2011/0750

For: First Milk

April 2012



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CONTENTS

1.0 INTRODUCTION

1.1 Background	3
1.2 The site	3

2.0 ECOLOGICAL CONSTRAINTS TO ADDRESS

2.1 Production site	4
2.2 Farmland	4

3.0 STATUS AND ECOLOGY OF SPECIES AND HABITATS POTENTIALLY EFFECTED BY THE PROPOSALS

3.1 Bats (<i>Chiroptera</i>)	5
3.2 Otter (<i>Lutra lutra</i>)	4
3.3 Great Crested Newt (<i>Triturus cristatus</i>)	6
3.4 Breeding birds (<i>Aves</i>)	6
3.5 Badger (<i>Meles meles</i>)	7
3.6 Veteran trees	7
3.7 Common blue butterfly (<i>Polyommatus icarus</i>)	7

4.0 MITIGATION AND ENHANCEMENT STRATEGY

4.1 Bats (<i>Chiroptera</i>)	8
4.2 Otter (<i>Lutra lutra</i>)	8
4.3 Great Crested Newt (<i>Triturus cristatus</i>)	8
4.4 Breeding birds (<i>Aves</i>)	8
4.5 Badger (<i>Meles meles</i>)	9
4.6 Veteran trees	9
4.7 Common blue butterfly (<i>Polyommatus icarus</i>)	9
4.8 Long term Method Statement Implementation	9

5.0 METHOD STATEMENT and drawing GLEC-0510-01	10-13
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1.0 INTRODUCTION

1.1 Background

Gerald Longley, Ecological Consultant, has been commissioned to undertake an Ecological Management Plan and Method Statement as part of conditions on planning approval P/2011/0750 on the First Milk, Maelor Creamery at Pickhill, LL13 0UE, National Grid Reference SJ385467. In 2011 an Ecological Scoping report was carried out as part of the pre-planning application enquiries.

The request for this work comes from the Wrexham County Borough Council's (WCBC) and the applicant's need to ensure that the needs of any wildlife using the factory site and the surrounding land also in First Milk's ownership are fully taken into account in the proposed redevelopment of the facility and ongoing operation from that date. In addition the WCBC have duties under the Natural Environment and Rural Communities (NERC) Act 2006 under Section 40.

1.2 The Site

The site sits on a river bluff above and to the north of the River Dee. The River Dee passes through the southern perimeter of the non-production part of the site, it is designated a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC) and is therefore amongst the most protected sites in Great Britain for their wildlife interest. Species of note for its designation are Atlantic salmon, otter, and floating-leaved water plantain. Otter and ideal roosting habitat for bats have been recorded in the surveys preceding this plan on the non-production site.

The site for the purposes of this management plan is divided into two areas and they will be addressed separately:

1. **Production site**, within a security fence including: car parking, offices, production buildings, grassland areas and an effluent treatment plant. Major works are to go ahead here with demolition of buildings/structures and new buildings etc. constructed.
2. **Surrounding farmland**, including pasture, woodland, wetland, veteran trees, part of the river Dee and a former railway line with brick culverts underneath. It also has the buried effluent discharge pipe and a small building at the discharge point to the River Dee. There are currently no plans for any works on this area as part of this planning application.

2.0 ECOLOGICAL CONSTRAINTS TO ADDRESS

2.1 Production Site

The constraints to address are:

1. Replacement of the nesting habitat in existing buildings/structures for around 10 pairs of swallow, house sparrow, robin, and other birds. It could include enhancement with boxes for barn owl.
2. Protection and management of the short grassland area on the north of the production site with a range of plants and breeding common blue butterflies.
3. Ensure the plant effluent treatment system is designed and functions in accordance with discharge consents to protect the River Dee.

2.2 Farmland

The constraints to address are:

1. Otters, which are present in the River Dee, the wetlands and the small stream on site.
2. Great crested newt. The discharge pipe passes right under a wetland and pond and this species is highly likely to be present there.
3. Veteran trees numerous around the site. Some are close to the southern perimeter fence of the production site and need particular attention.
4. Bats, three man-made structures and numerous older and veteran trees have potential for roosting bats. They should be protected and enhanced.
5. Badger runs have been recorded in the woodland and around the former railway.
6. The overall sympathetic management of the farmland and woodland by low intensity grazing and non-intervention in the woodland areas.

3.0 STATUS AND ECOLOGY OF SPECIES AND HABITATS POTENTIALLY EFFECTED BY THE PROPOSALS

Protected species have been identified on the two sites, one of which is to undergo development. These species include badgers, otters, bats, great crested newts and nesting birds. UK Biodiversity Action Plan (UKBAP) habitats such as woodland has also been recorded. Of these bats, otters and great crested newt are European Protected Species and under the Habitat and Species Regulations 2010. Habitats protected under this Regulation are also in the site, the SAC the River Dee.

3.1 Bats (*Chiroptera*)

There are 17 species of bats resident in Britain. Bats are small flying mammals that are nocturnal (active during the night) during their active season which is roughly April to October. Bats in Britain feed exclusively on insects and other invertebrates such as spiders. However insects are in short supply during the winter months and so bats hibernate in their winter (hibernation) roosts to survive this lean period. Bats emerge from hibernation around late March/early April and move into transition/intermediary roosts. By the beginning of May, female bats have gathered in their summer/maternity roosts where they will give birth to a single baby between late May and early July. Mother and baby bat will stay in the maternity roosts until August and the baby is weaned and independent by the autumn. After this time, the bats will move to transition / intermediary roosts. Autumn is the time of voracious feeding, whilst bats gain the extra weight required to hibernate.

Bats can roost in many different types of structure, including man-made structures such as bridges, ice-houses, pill-boxes, disused railway tunnels etc.; in houses and other buildings; in natural structures such as caves or rock faces; and in trees. Bats do not have territories as such, but have home ranges which vary from species to species. The smaller bats such as the pipistrelles (*Pipistrellus* spp.) may fly just 3-4km from the roost to feed, while large bats such as the noctule (*Nyctalus noctula*) may fly 20km or more. Bats have few natural predators as they can out-manoeuvre most aerial predators. Owls are opportunistic hunters and will occasionally take bats.

3.2 Otter (*Lutra lutra*)

Otter are accomplished predators and one of Britain's largest mammals. An otter can inhabit a home range of up to forty kilometres of waterway. Although mainly nocturnal, otters may also be active in the day in a diverse array of freshwater and coastal habitats, including rivers, streams, ditches, wetlands, lakes, ponds and reservoirs.

Otters feed on a variety of prey that varies throughout the seasons depending on the most abundant prey species present at a given time of year. Fish species and eels are among the favoured prey whilst amphibians such as frogs and toads become increasingly important prey during late winter and early spring. An otter's territory must include an adequate number of safe resting areas or holts along watercourses. Holts can take various forms including exposed root systems at water level, natural cavities along river banks and man-made holes/tunnels such as under bridges and culverts. Lying up sites, or above ground holts can be found in dense areas of scrub and couches in rough grassland. Suitable breeding holts are in short supply as they need to be sited in a secluded area away from disturbance. Otters are not confined to large rivers, small-secluded tributaries can offer ideal breeding locations, as well as providing important resting holts in flood conditions.

3.3 Great Crested Newt (*Triturus cristatus*)

The great crested newt is one of the rarest amphibian species in Britain and is the largest of the three newt species. It is primarily a terrestrial animal, spending much of its life on land, but returning to the water to breed. The great crested newt, in similarity with other British amphibian species, will often return to breed in the same water body that it was spawned in. However, they are opportunistic and will also colonise suitable new water bodies rapidly. Newts are comparatively weak swimmers and prefer still or very slow moving water, such as in ponds, ditches and occasionally canals.

Great crested newts lay eggs in the spring which hatch into water-dwelling larvae, and by the end of the summer most of these turn into young air-breathing juvenile newts. Adult and juvenile newts typically hibernate during the winter months on land, but may occasionally remain in water in mild winters.

Both the adult newts and larvae are voracious predators, taking and eating a diverse range of invertebrate and other prey items, including the smaller species of newt. Perhaps the greatest natural threats to great crested newts are other aquatic predators that eat the larvae and eggs, either deliberately such as dragonfly larvae and fish, or accidentally such as ducks and geese.

Great crested newts are relatively long-lived animals, with individuals often reaching 15 years of age. They are also comparatively slow to develop and do not reach sexual maturity until 2-4 years old. Immature or juvenile newts do not return to breeding ponds until they are ready to breed. Whilst on land, the favoured habitat for the newts is usually woodland, but they also utilise many other habitats including scrub, hay meadows, grazed pasture, arable land and hedgerows etc., where these offer suitable moist and shaded conditions. Breeding appears historically to have taken place typically in small farm and field ponds, usually with gently sloping banks. However, they also breed in many other types of water body, including concrete-sided ponds and cisterns, quarry ponds, disused swimming pools, canals, ditches and ornamental ponds etc. The main habitat preferences appear to be for small to medium-sized, still water bodies, with good aquatic vegetation cover, little shade and an absence of fish. Water quality appears to be a less significant factor, provided the water is not actually polluted.

3.4 Breeding birds (Aves)

All naturally occurring bird species in Britain are protected under the Wildlife and Countryside Act 1981 (as amended). The legislation protects all birds, their nests and eggs and it is an offence to:

- intentionally kill, injure and take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

In addition to the basic protection, any bird listed on Schedule 1 of the above legislation is afforded further protection and it is an offence to:

- intentionally or recklessly disturb the bird while nest building or while at (or near) a nest with eggs or young; or
- disturb the dependent young of such a bird.

Birds generally breed between March and September, although they are able to breed all year round if winters are mild enough. Some birds have only one clutch of eggs, whilst others will double- or even triple-brood. Birds in Britain do not hibernate, as many mammals do, but some will migrate to warmer climes for the lean period, returning in the spring.

3.5 Badger (*Meles meles*)

Badgers and their setts are afforded limited protection under the Wildlife and Countryside Act 1981 (as amended). However, their main protection comes from the Protection of Badgers Act 1992; under this Act it is an offence to:

- Kill, injure, take or attempt to kill, injure or take a badger
- Disturb a badger while occupying a sett; or
Interfere with a badger sett by:
- Damaging or destroying a sett
- Obstructing access to a sett

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger". The badger is a nocturnal mammal which lives in social groups in underground homes called setts. They are one of Britain's most recognisable animals and are relatively common and widespread throughout the UK. Badgers are omnivores, taking vegetation and animals in their diet. A favoured food of badger is earthworms but they are opportunists and will take advantage of other foods, such as fruit, eggs and plants. Although badgers are typically associated with woodland for sett building and foraging, setts can be dug in many different habitats, including scrub, hedge-banks and grassland. Badgers will forage over wide areas throughout their home range which can comprise many habitat types, including woodland, grassland, parkland, hedgerows and hedge-banks.

3.6 Veteran trees

Although not specifically protected by law, unless covered by a Tree Preservation Order, such trees are the subject of most Local Biodiversity Action Plans in the UK. They are the repository of a few hundred years of life and support more wildlife than any other "habitat" of their size. They are especially useful to wildlife if they are part of a hedge, in groups of trees, in parkland settings or when amongst woodland where they can be sheltered from strong winds by younger trees.

3.7 Common blue butterfly (*Polyommatus icarus*)

Not protected by law but an usual species in the intensively farmed landscape and especially to inhabit a factory site. It is entirely the species richness of the grassland on the bank where they breed in that it is full of pea family plants, especially bird's-foot-trefoil which is the main food plant for this butterfly species.

4.0 MITIGATION AND ENHANCEMENT STRATEGY

4.1 Bats

Enhancement by placement of bat boxes on poles and trees.

Protection of existing veteran trees as potential bat roosts.

Planting / landscaping and woodland to create new foraging grounds / enhance existing foraging areas and to create bat flight lines.

Roost locations and flight lines to be complemented by sensitive site lighting with no up-lighting and no lighting of vegetation.

4.2 Otter

In general impacts on otters are likely to arise principally from construction and other works on or near the River Dee, the stream running north east to the south of the production site and the pool on it. Particularly work to the discharge pipe and the discharge point building on the banks of the River.

Otters would be unlikely to suffer any disturbance from the production and operation of the site given that a well-used path passes through the farmland area already.

No natural or artificial holt was located in the farmland site during the Ecological Scoping Survey. It will be proposed to create an artificial log pile holt in the woodland area beside the former railway to provide a new, potential breeding site for otter.

4.3 Great crested newt

In general, impacts on great crested newt are likely to arise principally from construction and other works anywhere off the production site, when the newts are mainly terrestrial at any time of year, and on or near the stream running north east to the south of the production site and the pool on it especially in the spring and summer. Particularly work to the discharge pipe.

The pool south of the production site was very shaded and becoming less suitable for newt breeding. To counter this it should have the trees coppiced around it and the brash/logs stacked in piles near the pool as newt hibernacula.

4.4 Breeding birds

Protection of existing veteran trees as potential bird nest sites.

Since numbers of swallow, robins and other birds have been excluded from nesting on the old building/structures on the production site, as they will be demolished, replacement nest boxes should be provided aimed at the following species:
swallow, house and tree sparrow, barn owl, tits, robins/wren and other birds nesting in open fronted boxes.

Given the food production nature of the buildings, First Milk have considered the risks with birds actually nesting on the buildings and have decided that consequently no bird boxes can be placed on or in them. Therefore, bird boxes will only be placed on other structures/trees away from the buildings. This leaves a shortfall in mitigation, as regards swallow, which is an

amber listed species and one of the main species to mitigate for as part of the works. This is because it only nests on and in buildings under overhangs, in darkened areas etc. Only one other suitable location for new swallow nest sites can be found, which is on the walls in the large culvert through the former railway line. This off the production site but no where nearly the number of swallow nests sites needed can be offered in this new location. Wrexham County Borough Biodiversity Officer has been consulted on this deviation from standard mitigation and agreed that in the circumstances this is acceptable.

4.5 Badgers

In general, impacts on badger are likely to arise principally from construction and other works anywhere off the production site, at any time of year, and in particular near the former railway line and the woodland areas.

4.6 Veteran Trees

In principle these trees should be retained indefinitely. The location of mature/veteran trees with a high potential for use by roosting bats and birds. These trees were identified as part of the Ecological Scoping report, but no bird or bat emergence surveys have been undertaken to date. Bird and bat emergence surveys should be undertaken by a Suitably Qualified Ecologist (SQE) in the season prior to the felling of or tree surgery work on any tree with a high potential for use by birds/bats. The trees immediately south of the southern production site perimeter fence are those of most concern, since if they fall they may hit the production site security fence, and hence will be more the target for requests for felling/tree surgery.

4.7 Common blue butterfly

The grassland area which they inhabit shall be conserved and not be subject to construction or any storage works etc. It shall be protected by separate Heras type fencing and labelled for its specific protection during demolition and new construction nearby. Even during demolition and construction and beyond it will require ongoing management. This shall be cut, and managed in a similar way to the past.

The future enhancement of this and other species supported by the same habitat with the establishment of a new wildflower meadow area, on the farmland area, on a presently improved pasture on the northern part of it.

Both areas then to be subject to appropriate management. The area in the production site, cutting. That on the farmland hay making and grazing.

4.8 Long term Method Statement Implementation

The works in the demolition and construction phases, i.e. 2012 to 2013 will be organised on behalf of First Milk by Chalcroft, the design and building contractor for the project. The long term management of, in particular the farmland and its associated ecological responsibilities and ongoing projects will need the creation of a management body, made up of representatives of the company and others, possibly from the local Wildlife Trust or other body. This body will help guide the appropriate and lawful exercise of ecological responsibilities and functions with sufficient resources and access to company information to enable this to take place. The final responsibilities for operation of the site would ultimately, as in all cases, be the legal responsibility of the company directors.

5.0 METHOD STATEMENT

Timetable of Works Maelor Creamery Ecological Management Plan April 2012 Projects numbered 1 to 19 SQE - Suitably Qualified Ecologist			
Project Number	Work/Project	Timing	Who to carry out
PRODUCTION SITE			
Bats			
01	SQE to provide copies of this Method Statement to Building Contractor and Site Operator and them to workers/contractors.	Prior to works start, Spring 2012	SQE
02	Erection of 12 bat boxes for small bats on poles (3 per pole) at 3m-4m in new shrubberies & woodland planting in locations approved by SQE.	2012/13	Poles building contractor, then SQE.
03	Erection of 12 bat boxes for larger bats on poles (3 per pole) at 3m-4m in new shrubberies & woodland planting in locations approved by SQE.	2012/13	Poles building contractor, then SQE.
04	External lighting will be directed away from bat boxes and no lighting specifically intended to light trees or vegetation in the landscaping.	During building construction 2012/13	Building contractor.
05	Planting of shrubbery/trees & woodland to provide foraging routes for bats	winters 12/13 and 13/14	Landscaping design/contractor
Birds			
06	Provide in locations approved by SQE: 6 swallow nest cups located in the large culvert under the former railway* 10 sparrow terrace nest boxes on boundary fencing. 10 open fronted boxes on poles/trees 10 tit boxes on poles/trees. *off the production site	2012/13	Poles Building contractor, then SQE.
Common blue butterfly			
07	Fence the bank of grassland at the northern edge of the site (see plan) with Heras fencing, label area to be protected from storage/site traffic etc. Protection fence to be replaced by single plain wire and posts after construction to demark different management to other amenity grassland.	Prior to works start, Spring 2012	Building contractor supervised by SQE
08	Manage the bank of grassland by two grass cuts one in April the other in October	Spring 2012 and ongoing	Landscaping design/contractor

Project Number	Work/Project	Timing	Who to carry out
FARMLAND			
Common blue butterfly			
09	Sow wildflower grassland Emorsgate EM7 on an area of improved grassland on the farmland. Management, haymaking and light grazing.	Sow wildflower mixture in 2013/14 and ongoing	Landscaping design/contractor supervised by SQE
Bats			
10	Protect all veteran trees as marked * on plan into perpetuity. Any felling/tree surgery will be preceded by surveys by SQE.	Spring 2012 and ongoing	SQE
11	Erection of 10 bat boxes on trees, structures, at a height of about 3m -4m in locations approved by SQE.	2012	SQE
12	There are currently no plans for any works on the land outside of the production site, should works be proposed to either brick culvert under the former railway, it will be preceded by surveys for bats by a SQE	Spring 2012 and ongoing	SQE
Otter			
13	There are currently no plans for any works on the land outside of the production site, should works be proposed including excavation / construction to the effluent out fall pipe, the discharge point building, the river, the culverts and the stream and pool area, it will be preceded by surveys for otters by a SQE. CCW and EA to be consulted on the results.	Spring 2012 and ongoing	SQE
14	Create an artificial log pile holt in the woodland area beside the former railway	Winter 2012/13	Contractor supervised by SQE
Great crested newt			
15	There are currently no plans for any works on the land outside of the production site, should works be proposed including excavation / construction to the effluent out fall pipe, the discharge point building, the river, the culverts and the stream and pool area, it will be preceded by surveys for great crested newt by a SQE. CCW and EA to be consulted on the results.	Spring 2012 and ongoing	SQE
16	Coppice all trees around pond south of the production site and stack brash in piles as hibernacula.	Winter 2012/13	Contractor supervised by SQE
Badgers			
17	There are currently no plans for any works on the land outside of the production site, should works be proposed including excavation / construction to the former railway line area and woodland nearby it will be preceded by surveys for badger by a SQE. CCW and EA to be consulted on the results.	Spring 2012 and ongoing	SQE

Project Number	Work/Project	Timing	Who to carry out
FARMLAND			
Veteran Trees			
18	Veteran trees should be conserved into perpetuity as far as possible. The line of trees just south of the southern perimeter fence in particular should be conserved and by tree survey in the first instance if the security fence nearby is threatened. Work will be preceded by tree surveys by an approved arborist	Spring 2012 and ongoing	Arborist
Management Body			
19	Creation of a management body, made up of representatives of the company and others. This body will help guide the appropriate and lawful exercise of ecological responsibilities in perpetuity.	2012 and ongoing	First Milk

MONITORING & REVIEW	
1. Initial Monitoring 0-15 years on an annual basis. This establishes the baseline for subsequent monitoring. 2. Year 15 Review of Monitoring 3. Years 16 onwards - monitoring required to inform site management and conservation status of butterfly/other identified ecological features. Duration informed by monitoring review. Indicatively, monitoring to be undertaken every 3 - 6 years.	

