

Appendix 10.5c

Great Crested Newt Surveys (2006)



**M8 BAILLIESTON TO NEWHOUSE
UPDATED 2007
GREAT CRESTED NEWT SURVEY 2006

FINAL REPORT**

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FIGURE 1 - Location of Surveyed Ponds

APPENDIX 1 - 2006 Survey Results Summary Table

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1. INTRODUCTION

1.1 Background

1.1.1 Great crested newt surveys were carried out in 2004 and 2005 along the route corridor of the proposed M8 Baillieston to Newhouse (MFJV 2006). No great crested newts were recorded at the ponds surveyed and in general the number of amphibians was found to be low. To maintain up to date baseline ecological data during the period between publication of the Environmental Statement and possible commencement of the scheme, further amphibian surveys were carried out in spring 2006. This report presents the great crested newt survey results for 2006.

1.1.2 Twelve ponds were surveyed in May-June 2006 to determine presence/absence of great crested newts.



2. METHODOLOGY

2.1 Great Crested Newt Survey

2.1.1 Previous great crested newt surveys carried out along the survey corridor identified the presence of a number of ponds within 500m of the scheme boundary. Pond numbers remain as referenced in previous reports (MFJV 2006). Surveys to determine presence/absence of great crested newts were carried out at twelve ponds shown on Figure 1.

2.1.2 The water bodies were numbered as ponds 26 to 38 and surveys consisted of four visits undertaken by experienced and licensed great crested newt surveyors on 10th and 11th May and 12th and 13th June 2006. Survey methods utilised egg searches, torch surveys and bottle trapping where pond conditions allowed. Some ponds were too shallow to bottle trap or too turbid to allow torching (Appendix 1 Results Table 1). At ponds 32 and 36 all 3 methods were used on visit 1, by visit 2 they were too shallow to bottle trap and by visit 3 both pond 32 and 36 had completely dried up. At pond 31 egg search and torching were used on visits 1 and 2, but the water level was too low to bottle trap. On visits 3 & 4 this pond had also totally dried up. Ponds 28, 33, 34, 35, 37, 38 were dry on all survey visits. All surveys were undertaken in suitable weather conditions, with night time temperatures above 5°C and little or no rain.

2.2 Limitations

2.2.1 The surveys were carried out in accordance with published guidance and the results are supported by previous great crested newt surveys carried out in the same area. It is therefore not considered that there are limitations that would have any material effect on the conclusions reached in this survey report.





3. SUMMARY POND DESCRIPTIONS

Pond 26

This pond measures approximately 70m X 40m, with one steep bank side of approximately 80°. The water is clear, although it contains an abundance of dead vegetation and waste. Bankside vegetation comprises of hawthorn, rosebay willowherb, foxglove *Digitalis purpurea*, bramble *Rubus fruticosus* and hogweed *Heracleum sphondylium*. Marginal vegetation consists of tall fescue *Festuca arundinacea* and the emergent vegetation consists of soft rush and reed mace. Aquatic vegetation comprises of common water-starwort and creeping buttercup.

Pond 27

This is an area of water collected in a depression in a field used for grazing. It measures approximately 35m X 25m. Bankside, marginal and emergent vegetation comprises of rough grassland, with very small quantities or amphibious bistort.

Pond 28

This body of water has collected in a cattle poached depression and measures approximately 25m X 15m, with a depth of 30cm. Marginal vegetation consists of creeping buttercup and soft rush with floating sweet grass as the only aquatic vegetation present. The pond was dry on all four survey visits.

Pond 29

This is a 200m (approx.) long ditch that opens out into a pond with a maximum width of 5m and a depth of <1m. The banks have approximate slope angles of 45° to the south and 10° to the north where cattle poaching has occurred. Bankside vegetation is dominated by hawthorn and silver birch. Emergent vegetation comprises of soft rush and floating sweet grass, with a small quantity of brooklime *Veronica beccabunga* making up the aquatic vegetation. This pond is 50% shaded by trees.

Pond 30

This pond is approximately 20m X 10m, with a depth of 40cm. Marginal vegetation consists of soft rush and 80% of the pond is shaded by trees. This is a suboptimal habitat for GCNs.

Ponds 31-38 are shallow depressions in woodland and are likely to dry up in the summer months.

Pond 31

This pond is approximately 10m X 2m, with a depth of 10cm. Bank side vegetation consists of sycamore *Acer pseudoplatanus* and beech *Fagus sylvatica*, bluebell *Hyacinthoides non-scriptus*, and common nettle *Urtica dioica*. There is no marginal, emergent or aquatic vegetation present. 90 % of the pond is shaded by trees. This pond was too shallow to bottle trap and was dry on the final two visits.

Pond 32



This pond measures approximately 10m X 2m and is <0.5m deep. There are no banks and marginal vegetation consists of creeping buttercup. There is a small quantity of amphibious bistort as aquatic vegetation and 70% of the pond is shaded by the surrounding trees. This habitat is suboptimal for GCNs. This pond was very shallow and only bottle trapped on visit 1, by visit 3 it had totally dried up.

Pond 33

This pond measures approximately 3m X 2m with a depth <0.5m. Emergent vegetation comprises of floating sweet grass, creeping buttercup and tufted hair grass *Deschapsia cespitosa*. There is 80% shading from trees. Dry for all four survey visits.

Pond 34

The pond measures approximately 10m X 5m., with a 45° bank to the north. The bank side vegetation consists of silver birch and beech trees and 40% of the pond is shaded. Dry for all four survey visits.

Pond 35

This pond is approximately 4m X 2m, with a depth of 10cm. It has bank side vegetation comprising of young beech trees and 75% of the pond is shaded. This pond was dry for all four survey visits.

Pond 36

This pond measures 3m X 3m, with a depth of 10cm. 50% of the pond is shaded. This water body was very shallow and only bottle trapped on the first survey. On the 2nd visit bottle trapping was not possible and by visit 3 the pond had completely dried up.

Pond 37

This pond measures approximately 8m X 1m, with a depth of 15cm. Bank side, marginal and emergent vegetation comprises of soft rush and 40% of the pond is shaded. This pond was dry on all four surveys.

Pond 38

This pond measures approximately 5m X 2m, with a 50° bank to the south. The bank side vegetation consists of young beech and rosebay willowherb. There is 40% shading of the pond, and it was also totally dry on all four survey visits.

Pond 39

This pond was a shallow depression measuring just 4m X 2m and draining into a river in an area of rhododendron dominated woodland. This could potentially be 2 ephemeral water bodies but was dry on all four surveys.



4. RESULTS

- 4.1 No great crested newts, nor their eggs, were recorded in any of the ponds during the surveys.
- 4.2 Smooth newts were only recorded in one of the additional ponds surveyed, the maximum being one male in pond 29. Palmate newts were recorded in two ponds (29 and 30), with the maximum recorded being eleven (6M & 5F) in pond 29 and 12 (2M, 6F & 4 unknown) in pond 30. No great crested newts, smooth or palmate newt eggs were recorded in the ponds surveyed. Full results from the surveys are provided in Table 1 at Appendix 1. Overall low numbers of amphibians were recorded in all the ponds surveyed.



5. CONCLUSIONS

- 5.1.1 No great crested newts were recorded during the surveys, and low numbers of amphibians were present overall.



6 REFERENCES

MFJV 2006, M8 Baillieston to Newhouse Environmental Statement

FIGURES

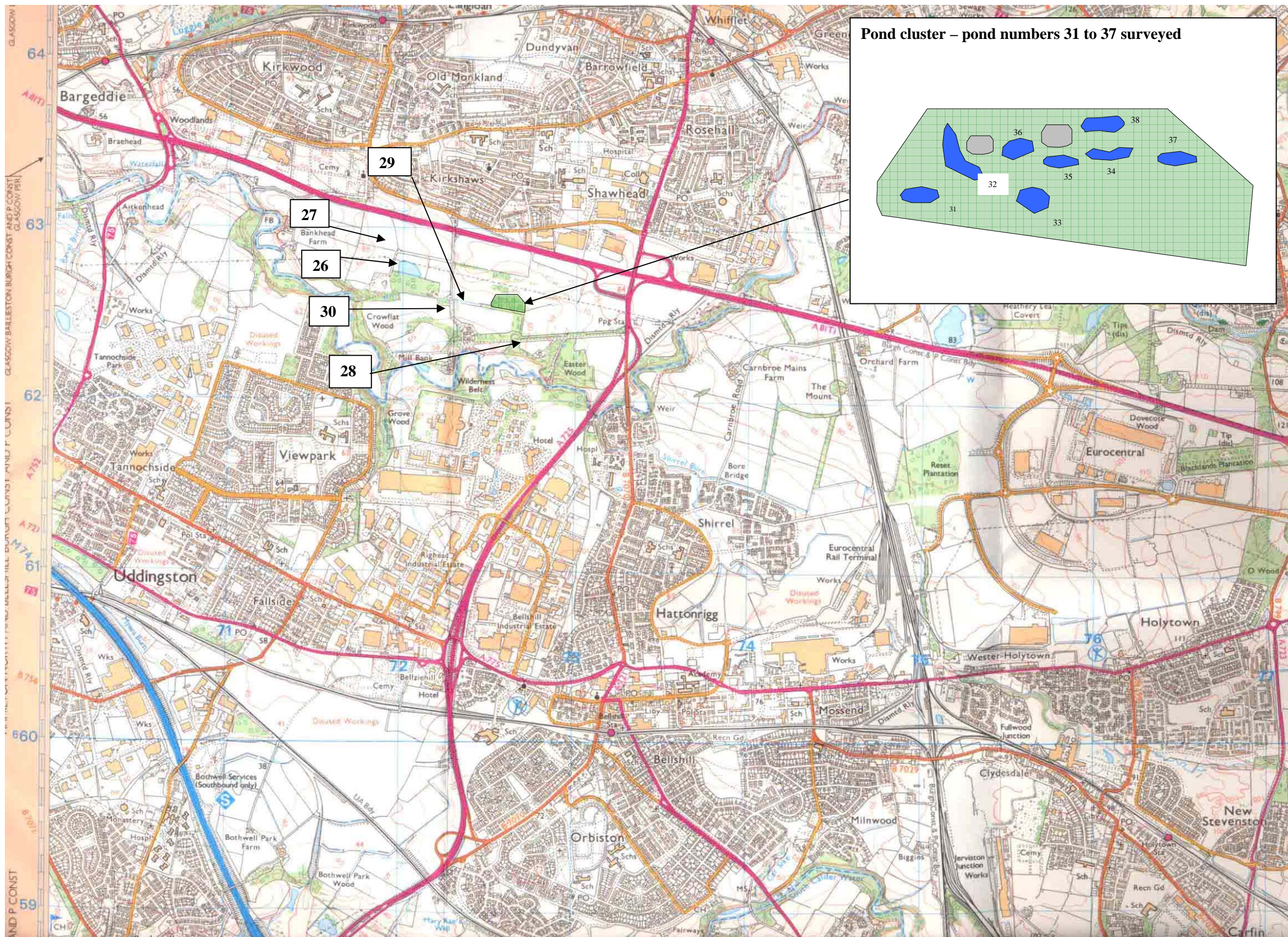
Figure 1

Project Title:
M8 Baillieston – Newhouse
Updated 2007
Great Crested Newt Survey
2006
Pond locations

Project No.: B4400/R3/GCN

Key:

29 Pond Number



The material in this plot is based upon an Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office.

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APPENDIX 1

Table 1 Summary Tables of Survey Results

GREAT CRESTED NEWTS <i>Triturus cristatus</i>						
Ponds	Survey Method	Dates (2006)				Notes
		10 th May	11 th May	June 12th	June 13th	
26	Egg search			*	*	Frog tadpoles
	Torching			*	*	
	Bottle-trapping			*	*	
27a	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
27b	Egg search			0	0	
	Torching			0	0	
	Bottle-trapping			-	-	
28	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
29	Egg search			0	0	Frog tadpoles
	Torching			0	0	
	Bottle-trapping			0	0	
30	Egg search			0	0	Frog tadpoles
	Torching			0	0	
	Bottle-trapping			0	0	
31	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
32	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
33	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
34	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
35	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
36	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
37	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	
38	Egg search			*	*	
	Torching			*	*	
	Bottle-trapping			*	*	

Key to tables: m = male; f = female; u=sex unknown; * = pond dry.

Key to tables: m = male; f = female; u=sex unknown; * = pond dry.

PALMATE NEWT <i>Triturus helveticus</i>						
Ponds	Survey Method	Dates				Notes
		10 th May	11 th May	June 12th	June 13th	
26	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	0	0	*	*	
27a	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	-	-	*	*	
27b	Egg search	*	*	0	0	
	Torching	*	*	0	1u	
	Bottle-trapping	*	*	-	-	
28	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
29	Egg search	0	0	0	0	
	Torching	6u	6f 4u	1m	0	
	Bottle-trapping	6m 5f	6f 4u	0	0	
30	Egg search	0	0	0	0	
	Torching	1m 4u	6f 2m 4u	1m	0	
	Bottle-trapping	2m	2m 1f	0	0	
31	Egg search	0	0	*	*	
	Torching	0	-	*	*	
	Bottle-trapping	-	-	*	*	
32	Egg search	0	0	*	*	
	Torching	0	-	*	*	
	Bottle-trapping	-	-	*	*	
33	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
34	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
35	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
36	Egg search	0	0	*	*	
	Torching	0	-	*	*	
	Bottle-trapping	-	-	*	*	
37	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
38	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	

Key to tables: m = male; f = female; u=sex unknown; * = pond dry.

SMOOTH NEWT *Triturus vulgaris*

Ponds	Survey Method	Dates				Notes
		10 th May	11 th May	12 th June	13 th June	
26	Egg search	0	0	0	0	
	Torching	0	0	0	0	
	Bottle-trapping	3m 3f	3m 1f	0	0	
27a	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	-	-	*	*	
27b	Egg search	*	*	0	0	
	Torching	*	*	0	0	
	Bottle-trapping	*	*	-	-	
28	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
29	Egg search	0	0	0	0	
	Torching	0	0	0	0	
	Bottle-trapping	1m	0	0	0	
30	Egg search	0	0	0	0	
	Torching	0	0	0	0	
	Bottle-trapping	0	0	0	0	
31	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	-	-	*	*	
32	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	0	-	*	*	
33	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
34	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
35	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
36	Egg search	0	0	*	*	
	Torching	0	0	*	*	
	Bottle-trapping	0	-	*	*	
37	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	
38	Egg search	*	*	*	*	
	Torching	*	*	*	*	
	Bottle-trapping	*	*	*	*	

APPENDIX 2

Target Notes

2006 Pond Assessment Target Notes

Number	Description
Pond 26	This pond measures approximately 70m X 40m, with one steep bank side of approximately 80°. The water is clear, although it contains an abundance of dead vegetation and waste. Bankside vegetation comprises of hawthorn, rosebay willowherb, foxglove <i>Digitalis purpurea</i> , bramble <i>Rubus fruticosus</i> and hogweed <i>Heracleum sphondylium</i> . Marginal vegetation consists of tall fescue <i>Festuca arundinacea</i> and the emergent vegetation consists of soft rush and reed mace. Aquatic vegetation comprises of common water-starwort and creeping buttercup.
Pond 27	This is an area of water collected in a depression in a field used for grazing. It measures approximately 35m X 25m. Bankside, marginal and emergent vegetation comprises of rough grassland, with very small quantities or amphibious bistort.
Pond 28	This body of water has collected in a cattle poached depression and measures approximately 25m X 15m, with a depth of 30cm. Marginal vegetation consists of creeping buttercup and soft rush with floating sweet grass as the only aquatic vegetation present.
Pond 29	This is a 200m (approx.) long ditch that opens out into a pond with a maximum width of 5m and a depth of <1m. The banks have approximate slope angles of 45° to the south and 10° to the north where cattle poaching has occurred. Bankside vegetation is dominated by hawthorn and silver birch. Emergent vegetation comprises of soft rush and floating sweet grass, with a small quantity of brooklime <i>Veronica beccabunga</i> making up the aquatic vegetation. This pond is 50% shaded by trees.
Pond 30	This pond is approximately 20m X 10m, with a depth of 40cm. Marginal vegetation consists of soft rush and 80% of the pond is shaded by trees.
	Ponds 31-38 are shallow depressions in woodland and are likely to dry up in the summer months.
Pond 31	This pond is approximately 10m X 2m, with a depth of 10cm. Bankside vegetation consists of sycamore <i>Acer pseudoplatanus</i> and beech <i>Fagus sylvatica</i> , bluebell <i>Hyacinthoides non-scriptus</i> , and common nettle <i>Urtica dioica</i> . There is no marginal, emergent or aquatic vegetation present. Ninety percent of the pond is shaded by trees.
Pond 32	This pond measures approximately 10m X 2m and is <0.5m deep. There are no banks and marginal vegetation consists of creeping buttercup. There is a small quantity of amphibious bistort as aquatic vegetation and 70% of the pond is shaded by the surrounding trees.
Pond 33	This pond measures approximately 3m X 2m with a depth <0.5m. Emergent vegetation comprises of floating sweet grass, creeping buttercup and tufted hair grass <i>Deschampsia cespitosa</i> . There is 80% shading from trees.
Pond 34	The pond measures approximately 10m X 5m., with a 45° bank to the north. The bankside vegetation consists of silver birch and beech trees and 40% of the pond is shaded.
Pond 35	This pond is approximately 4m X 2m, with a depth of 10cm. It has bankside vegetation comprising of young beech trees and 75% of the pond is shaded.
Pond 36	This pond measures 3m X 3m, with a depth of 10cm. 50% of the pond is shaded.
Pond 37	This pond measures approximately 8m X 1m, with a depth of 15cm.

Number	Description
	Bankside, marginal and emergent vegetation comprises of soft rush and 40% of the pond is shaded.
Pond 38	This pond measures approximately 5m X 2m, with a 50° bank to the south. The bankside vegetation consists of young beech and rosebay willowherb. There is 40% shading of the pond.