CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

CORE MANAGEMENT PLAN

INCLUDING CONSERVATION OBJECTIVES

FOR

Johnstown Newt Sites Special Area of Conservation (SAC)
EU SAC Code UK0030173
(THIS MANAGEMENT PLAN ONLY ADDRESSES THE SAC FEATURES)

Version: Final

Date: 25 January 2008

Approved by: Tim Jones 3/3/08

More detailed maps of management units can be provided on request.
A Welsh version of all or part of this document can be made available on request.

Cyngor Cefn Gwlad Cymru
Countryside Council for Wales

NATURA 2000

Ramsar

Llywodraeth Cynulliad Cymru
Welsh Assembly Government
CORFF NODDEDIG | SPONSORED BODY

CONTENTS

PREFACE

This document provides the main elements of CCW's management plan for the site(s) named. It sets out what needs to be achieved on the site(s), the results of monitoring and advice on the action required. This document is made available through CCW's web site and may be revised in response to changing circumstances or new information. This is a technical document that supplements summary information on the web site.

One of the key functions of this document is to provide CCW's statement of the Conservation Objectives for the relevant Natura 2000 site(s). This is required to implement the Conservation (Natural Habitats, &c.) Regulations 1994, as amended (Section 4). As a matter of Welsh Assembly Government Policy, the provisions of those regulations are also to be applied to Ramsar sites in Wales.

1. VISION FOR THE SITE

This is a descriptive overview of what needs to be achieved for conservation on the site. It brings together and summarises the Conservation Objectives (part 4) into a single, integrated statement about the site.

The site supports a breeding population of over 300 adult great crested newts as identified by torch surveys in the spring. The population of newts is stable or increasing, with at least 30 display/breeding ponds present across the site. Native macrophyte plants cover many of the ponds, but at least 40% of the surface remains as open water.

Fish are absent from all breeding/display ponds which support great crested newts, and wildfowl are only seen in small numbers. No non-native aquatic species will be present in any of the ponds.

Tall vegetation surrounds the ponds, but it does not lead to excessive shading of the water body. The current vegetation, together with fallen trees, and large stones provides refuge areas for the newts during the day as well as suitable foraging areas, and hibernation places for amphibians. Great crested newts disperse between the ponds using a network of corridors, formed by hedgerows and rough grasslands, together with habitats, such as ponds or scrub, that function as stepping-stones. Between sites, new surface water management systems will be amphibian friendly and will therefore not hinder newt dispersal.

Ponds exhibiting a range off seral conditions will occur throughout the site. Recreational activities will be sympathetic to newt conservation and consequently, individuals will no longer be able to utilize the site for off roading or fishing purposes. All section of the local community will be aware of the ecological value of the site and of the implications caused by the introduction or transference of fish between ponds.

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid reference: SJ 310466

Unitary authority: Wrexham County Borough Council

Area (hectares): 69.61 ha

Designations covered:

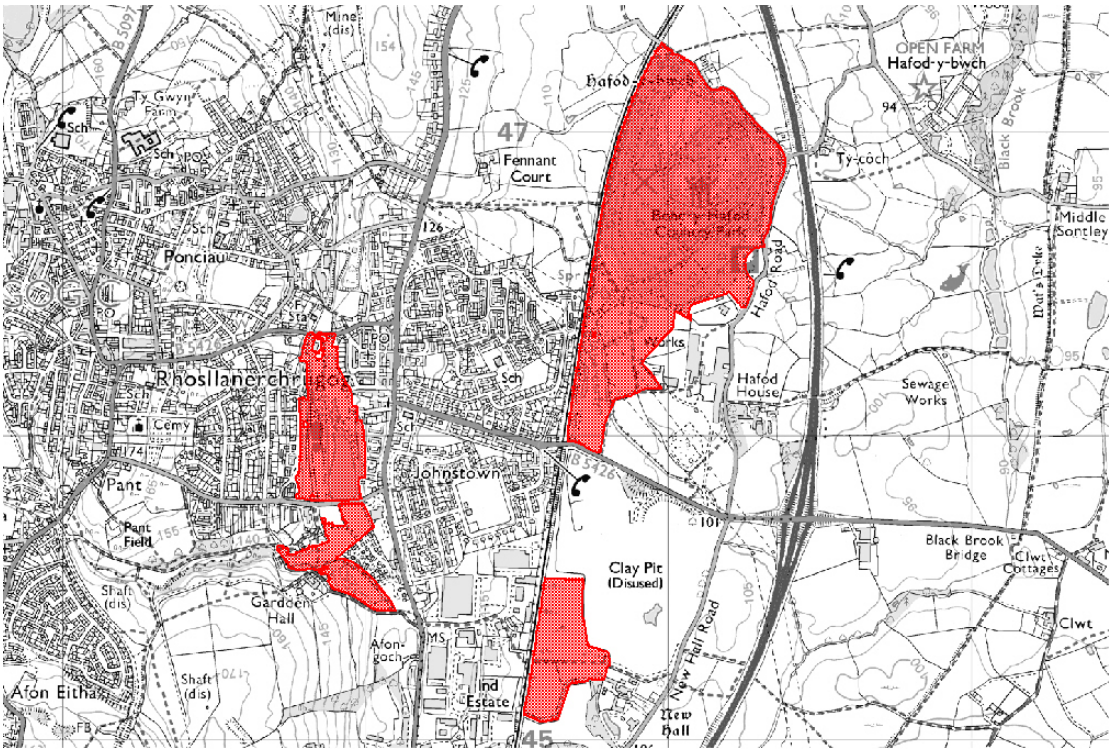
The Johnstown Newts Sites SAC is notified as one component SSSI:

- Stryd Las a'r Hafod SSSI

Detailed maps of the designated sites are available through CCW's web site:

http://www.ccw.gov.uk/interactive-maps/protected-areas-map.aspx

A summary map showing the coverage of this document is shown below:



The Johnstown Newt Sites SAC and the component Stryd Las a'r Hafod SSSI are shown in red

2.2 Outline Description

The site is located in the environs of the village of Johnstown, south west of Wrexham, at an altitude of 130m above mean sea level. It is of special interest for its population of the great crested newt *Triturus cristatus*. This species has suffered a marked decline throughout Great Britain and Continental Europe as a result of habitat loss. Great Britain is considered to support one of the strongholds for this species in Western Europe.

The Bettisfield Formation feldspathic sandstone and coal measures underlie the site and a number of capped mine shafts are present within the boundaries of the site. Where present, natural soils are of over-consolidated till (boulder clay) origin. The majority of the water bodies originated following the cessation of mineral extractive industries including coal mining and quarrying for clay and associated industrial developments. Certain ponds, particularly at Hafod, were specifically created for amphibian conservation purposes.

Surrounding areas of land support a mosaic of scrub and planted trees, grassland, and tall ruderal vegetation. These form important foraging and over wintering areas for adult and juvenile amphibians.

2.3 Outline of Past and Current Management

In the past the site has been predominantly used for industrial activities, namely the extraction of minerals such as coal and clay, and the disposal of waste materials. These activities have led to the formation of many of the ponds throughout this site.

The site is located contiguous to Hafod Quarry. This quarry is currently subject to landfill and mineral extraction operations. Newts from this quarry were relocated to two reception areas supporting 18 new ponds, specifically created for long term newt conservation purposes. Translocation operations were undertaken between 1999-2001 and 2005. These reception areas now form key compartments supporting the species.

Within other parts of the site, restoration has been carried on land previously used for the extraction of coal. Areas of mine spoil been capped and have been restored by the extensive planting of trees. These works have led to the creation of Hafod community woodland. A community nature park has also been developed at Stryt Las following the completion of infilling and restoration activities. The local community now frequently use both areas for quiet recreational purposes.

As the site is recognised for its exceptional population of Great Crested Newts current management focuses on improving the habitat for newts. Section 15 agreements are one of the tools implemented to achieve this. Wrexham Countryside Service and North East Wales Wildlife (NEWW) are playing an important role in the management of some parts of the site. Management also focuses on the creation of new breeding habitats, control of fish and non-native aquatic plant species, regulation of recreational activities and development proposals, to ensure the protection of the amphibian species on and within the vicinity of this site. Connectivity between compartments is considered to be a material component of the conservation objectives for the site.

2.4 Management Units

The plan area has been divided into management units to enable practical communication about features, objectives, and management. This will also allow us to differentiate between the different designations where necessary. In this plan the management units have been based on tenure and section 15 agreement areas.

See accompanying maps that show the management units referred to in this plan.

Management units of Johnstown Newt Sites SAC

The following table confirms the relationships between the management units and the designations covered:

Unit number	ISIS Ref No.	SAC	SSSI	Unit Name	CCW Owned/Occupied	Other
1	1142	✔	✔	New Hall Farm		
2	1143	✔	✔	R2 (Hafod Quarry)		
3	1144	✔	✔	Hafod Community Woodland		Wrexham County Borough Council
4	1145	✔	✔	Aberderfyn		North East Wales Wildlife
5	1146	✔	✔	Aberderfyn Bank		
6	1147	✔	✔	Aberderfyn Gas Compound		
7	1148	✔	✔	Gutter Hill Reserve		North East Wales Wildlife
8	1149	✔	✔	Bryn Estyn Bank		
9	1150	✔	✔	Brandie Brook		
10	1151	✔	✔	Brandy Cottage		
11	1152	✔	✔	Gardden Hall Fields		
12	1153	✔	✔	Stryt Las		Wrexham County Borough Council
13	1154	✔	✔	R1 (Hafod Reserve)		
14	1155	✔	✔	Hafod Bank		
15	1157	✔	✔	Gardden Hall		
16	1158	✔	✔	Brandie Cottage Bank		
17	1159	✔	✔	Bryn Glas		

3. THE SPECIAL FEATURES

3.1 Confirmation of Special Features

Designated feature	*Relationships, nomenclature etc*	*Conservation Objective in part 4*
SAC features		
Annex I habiats that are a primary reason for selection of this site Not applicable		
Annex II species that are a primary reason for selection of this site **1. Great crested newt *Triturus cristatus***	**EU Species Code: 1166**	**1**
SPA features		
Not applicable		
Ramsar features		
Not applicable		
SSSI features		
2. A population of great crested newts	Refer to feature 1	**Actions in this plan will address this issue**
3. An assemblage of the five widespread amphibian species namely common frog, common toad, palmate newt, common newt and great crested newt		**Not addressed in this plan**

3.2 Special Features and Management Units

This section sets out the relationship between the special features and each management unit. This is intended to provide a clear statement about what each unit should be managed for, taking into account the varied needs of the different special features. All special features are allocated to one of seven classes in each management unit. These classes are:

Key Features
KH - a 'Key Habitat' in the management unit, i.e. the habitat that is the main focus of management and monitoring effort, perhaps because of the dependence of a key species (see KS below). There will rarely be more than one Key Habitat in a unit.
KS – a 'Key Species' in the management unit, often driving both the selection and management of a Key Habitat.
Geo – an earth science feature that is the main focus of management and monitoring effort in a unit.

Other Features
Sym - habitats, species and earth science features that are of importance in a unit but are not the main focus of management or monitoring. These features will benefit from management for the key feature(s) identified in the unit. These may be classed as 'Sym' features because:

a) they are present in the unit but are of less conservation importance than the key feature; and/or
b) they are present in the unit but in small areas/numbers, with the bulk of the feature in other units of the site; and/or
c) their requirements are broader than and compatible with the management needs of the key feature(s).

Nm - an infrequently used category where features are at risk of decline within a unit as a result of meeting the management needs of the key feature(s), i.e. under Negative Management. These cases will usually be compensated for by management elsewhere in the plan, and can be used where minor occurrences of a feature would otherwise lead to apparent conflict with another key feature in a unit.

Mn - Management units with no special feature present but which are of importance for management of features elsewhere on a site e.g. livestock over-wintering area included within designation boundaries.

x – Features not present in the management unit.

The table below sets out the relationship between the special features and management units identified in this plan:

Background information on Johnstown Newt Sites SAC

Johnstown Newt Sites SAC is a composite site and comprises one component SSSI, Stryd Las a'r Hafod SSSI. This site is included in the Natura 2000 series primarily for the population of great crested newts *Triturus cristatus* for which it is considered to be one of the best areas in the United Kingdom. In addition to the great crested newt population the site also supports a SSSI feature, namely an assemblage of widespread amphibian species including the common frog, common toad, palmate newt and common newt.

Stryd Las a'r Hafod	**Management unit**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
SAC	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SSSI	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SAC features																	
1. Great crested newt *Triturus cristatus*	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**	**KS**
SSSI features																	
3. An assemblage of the five widespread amphibian species namely common frog, common toad, palmate newt, common newt and great crested newt	Not addressed in this plan																

4. CONSERVATION OBJECTIVES

Background to Conservation Objectives:

a. Outline of the legal context and purpose of conservation objectives.

Conservation objectives are required by the 1992 'Habitats' Directive (92/43/EEC). The aim of the Habitats Directives is the maintenance, or where appropriate the restoration of the 'favourable conservation status' of habitats and species features for which SACs and SPAs are designated (see Box 1).

In the broadest terms, 'favourable conservation status' means a feature is in satisfactory condition and all the things needed to keep it that way are in place for the foreseeable future. CCW considers that the concept of favourable conservation status provides a practical and legally robust basis for conservation objectives for Natura 2000 and Ramsar sites.

Box 1
Favourable conservation status as defined in Articles 1(e) and 1(i) of the Habitats Directive

"The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

- population dynamics data on the species indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis."

Achieving these objectives requires appropriate management and the control of factors that may cause deterioration of habitats or significant disturbance to species.

As well as the overall function of communication, Conservation Objectives have a number of specific roles or purposes:

- Conservation planning and management.

  The conservation objectives guide management of sites, to maintain or restore the habitats and species in favourable condition.

- Assessing plans and projects.

  Article 6(3) of the 'Habitats' Directive requires appropriate assessment of proposed plans and projects against a site's conservation objectives. Subject to certain exceptions, plans or projects may not proceed unless it is established that they will not adversely affect the integrity of sites. This role for testing plans and projects also applies to the review of existing decisions and consents.

- Monitoring and reporting.

  The conservation objectives provide the basis for assessing the condition of a feature and the status of factors that affect it. CCW uses 'performance indicators' within the conservation objectives, as the basis for monitoring and reporting. Performance indicators are selected to provide useful information about the condition of a feature and the factors that affect it.

The conservation objectives in this document reflect CCW's current information and understanding of the site and its features and their importance in an international context. The conservation objectives are subject to review by CCW in light of new knowledge.

b. Format of the conservation objectives

There is one conservation objective for each feature listed in part 3. Each conservation objective is a composite statement representing a site-specific description of what is considered to be the favourable conservation status of the feature. These statements apply to a whole feature as it occurs within the whole plan area, although section 3.2 sets out their relevance to individual management units.

Each conservation objective consists of the following two elements:

1. Vision for the feature
2. Performance indicators

As a result of the general practice developed and agreed within the UK Conservation Agencies, conservation objectives include performance indicators, the selection of which should be informed by JNCC guidance on Common Standards Monitoring[1].

There is a critical need for clarity over the role of performance indicators within the conservation objectives. **A conservation objective, because it includes the vision for the feature, has meaning and substance independently of the performance indicators, and is more than the sum of the performance indicators**. The performance indicators are simply what make the conservation objectives measurable, and are thus part of, not a substitute for, the conservation objectives. Any feature attribute identified in the performance indicators should be represented in the vision for the feature, but not all elements of the vision for the feature will necessarily have corresponding performance indicators.

As well as describing the aspirations for the condition of the feature, the Vision section of each conservation objective contains a statement that the factors necessary to maintain those desired conditions are under control. Subject to technical, practical and resource constraints, factors which have an important influence on the condition of the feature are identified in the performance indicators.

[1] Available through www.jncc.gov.uk and follow links to Protected Sites and Common Standards Monitoring.

4.1 Conservation Objective for Feature 1:

Great crested newt *Triturus cristatus* (EU Species Code: 1166)

Vision for feature 1

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- No less than 300 great crested newts will be present on the site
- At least 30 display/breeding ponds will be found throughout the entire site
- Great crested newt larvae will be found in 7 or more of the breeding ponds
- Half of the display/breeding ponds on the site will have a water depth of 10cm of more during the summer months.
- Native macrophytes will cover at least half of the pond surface yet some of the water surface will still remain open.
- Aquatic marginal vegetation will be present around the ponds
- Breeding/display ponds will not be heavily shaded by surrounding vegetation
- Algal blooms and surface sheens will be absent from display/breeding ponds
- Fish will not be present in breeding/display ponds which support great crested newts
- Only small numbers of water and wildfowl will be seen on the ponds
- The terrestrial habitat surrounding breeding ponds will comprise of refuge areas for newts, foraging areas, areas of hibernacula and corridors which will aid the dispersal of great crested newts
- Off site habitats that function as stepping stone or corridors located between SAC compartments will be maintained for migration, dispersal, foraging and genetic exchange purposes
- Off-site features that impact on successful dispersal, such as roadside gully-pots, will not be subject to future construction
- Non-native aquatic species will not be present
- Amphibian chytridiomycosis will not be present
- All factors affecting the achievement of the foregoing conditions are under control.

Performance indicators for Feature 1

The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Performance indicators for feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1. Extent and distribution of adult great crested newts ***Triturus cristatus in breeding ponds***	Night counts of adults during the breeding season. Based on the number of great crested newts required to maintain a viable population - knowledge provided by staff with experience of the site.	*Upper limit*: Not required *Lower limit*: 50 individuals MU 2 25 individuals MU 3 50 individuals MU 4 30 individuals MU 7 10 individuals MU 9 10 individuals MU 10 20 individuals MU 11

	[Monitoring should take place each year to allow for any climatic variation between years]	30 individuals MU 12 75 individuals MU 13 for at least four years in a six year reporting cycle Total = 300
A2. Evidence of breeding success	Based on the number of breeding ponds showing recruitment which are required to maintain a viable population - knowledge provided by staff with experience of the site. [A breeding pond is defined as a pond in which *T. cristatus* is/or is likely to conduct egg laying, and successful metamorphosis once in every 4 years]	*Upper limit:* Not required *Lower limit:* 1 or more breeding ponds with evidence of recruitment per each of the following Management Units 7, 9, 10, 11, 12 *Upper limit:* Not required *Lower limit:* 5 breeding ponds with evidence of recruitment per each of the following Management Units MU 2, 3, 4, 13
Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***
F1. Extent of breeding/display ponds	Based on the number of breeding and display ponds required to maintain a viable population and to clarify the situation for legal purposes - knowledge provided by staff with experience of the site. [A breeding pond is defined as a pond in which *T. cristatus* is/or is likely to conduct egg laying, and successful metamorphosis once in every 4 years] [A display pond is defined as a pond in which adults and sub-adults occur between March and May]	*Upper limit:* Not required *Lower limit:* 4 breeding/display ponds across MU 7, 9, 10, 11, 12, *Upper limit:* Not required *Lower limit:* 11 breeding/display ponds across MU 2, 3, 4, 13 Target total No. = 30 display/breeding ponds
F2. Macrophyte Plant cover	Based on the amount of plant material required for egg laying and the area of open water required for displaying - knowledge provided by staff with experience of the site.	*Upper limit:* 60 % of display/breeding ponds will have <u>75%</u> native macrophyte cover across *Lower limit:* 60 % of display/breeding ponds will have <u>50%</u> native macrophyte cover across
F3. Water depth	Based on the standard CSM parameters for this feature. Influenced by siltation and build-up of decaying vegetation.	*Upper limit:* Water depth 10m between July and September in 50 % of display/breeding ponds *Lower limit:* Water depth > 10 cm between July and September in 50 % of display/breeding ponds MU: 2, 3, 4, 7, 9, 10, 11, 12, 13

F4. Presence of pollution	Based on the water conditions that are appropriate for successful breeding - knowledge provided by staff with experience of the site.	*Upper limit:* No surface sheens and algae blooms on display/breeding ponds in *Lower limit:* Not required MU: 2, 3, 4, 7, 9, 10, 11, 12, 13
F5. Extent of shading	Based on the water conditions that are appropriate for successful breeding - knowledge provided by staff with experience of the site. [Pond shading: % estimated for any tree/shrub cover greater than 1 m, for trees and shrubs up to 5m from a pond. Shading estimated for trees/shrubs casting shadow over a pond between 10am and 4pm]	*Upper limit:* 20 % shading on the southern margin or 60 % of the total pond margin shaded on 50 % of breeding/display ponds *Lower limit:* Not required MU: 2, 3, 4, 7, 9, 10, 11, 12, 13
F6. Extent and quality of terrestrial habitat	Based on the habitat required to provide foraging areas, hibernacula and connectivity for dispersal - knowledge provided by staff with experience of the site.	*Upper limit:* Not required *Lower limit:* Terrestrial "newt" habitat with a 250m radius from a breeding/display pond in MU 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 16, must have all and MU 8, 13, 15 and 17 must have at least one of the following characteristics: 1. Refuge areas, i.e. shady areas within the rough/tussocky grassland; scrub, fallen deadwood; underground crevices, tree root systems, mammal burrows, rubble piles, and/or old walls. 2. Foraging areas, i.e. grasslands and woodlands. 3. Potential hibernacula, i.e. log piles or piles of rubble.
F7 Dispersal routes	Existing dispersal corridors should be maintained and no new obstructions created. Assessed visually. Baseline from 2006 aerial photographs.	*Upper limits* No increase (or change in position) of barriers, such as roads and hedges. *Lower limit* There should be no significant loss, or fragmentation, of hedgerows and other dispersal corridors.
F8. Presence of water and wildfowl	Based on the standard CSM parameters for this feature.	*Upper limit:* 3 pairs of water and wildfowl per hectare of open water between April and September in MU 2, 3, 4, 7, 9, 10, 11, 12, 13 *Lower limit:* Not required
F9. Presence of fish*[2]	Based on knowledge from staff with experience of the site that the presence of fish will be detrimental to the great	*Upper limit:* No fish species (including sticklebacks) present in any ponds

	crested newt population	*Lower limit:* Not required
F10 Presence of non-native aquatic plant species, especially *Crassula helmsii*	Based on knowledge from staff with experience of the site	*Upper limit:* No non-native aquatic plant species present in any ponds *Lower limit:* Not required
*[1] 'Newt', includes woodland, scrub, parkland, un-improved/rough grassland, bracken/tall herbs, wetland and ponds, plus gardens and amenity grasslands, that can also provide valuable habitat for newts. *[2] 'Wildfowl' are defined as stocked ducks, swans or geese and naturalised Canada geese as well as native water bird species.		

Other factors considered include –

Owner/occupier objectives – The site has 10 owners with varying interests in the site including quarrying, landfill, housing and development, conservation of protected species and habitats and recreation.

Recreational use – The site is close to the communities of Johnstown and Rhosllanerchrugog and is used regularly for recreational purposes. Management unit 3, 7, 8 and 12 are within the country park. Teenagers are known to be moving fish between ponds, and some parts of the site are being used for off road motor sport.

5. ASSESSMENT OF CONSERVATION STATUS AND MANAGEMENT REQUIREMENTS

This part of the document provides:

- A summary of the assessment of the conservation status of each feature.
- A summary of the management issues that need to be addressed to maintain or restore each feature.

5.1 Conservation Status and Management Requirements of Feature 1:

Great crested newt *Triturus cristatus* (EU Species Code: 1166)

Conservation Status of Feature 1 within the site:

Unfavourable (2007)

The condition of the feature, as demonstrated by annual torch survey counts carried out on the site 2007, is assessed as **unfavourable, declining**. Total counts for the composite site were below the lower limit for the site (300 individuals). Evidence of recruitment was recorded in 2007. Actions are being actively carried out to facilitate recovery.

The data informing the above conclusions were derived from CCW in house monitoring and staff and volunteers from Wrexham County Borough Council's Countryside Service and North East Wales Wildlife. Great crested newt monitoring has taken the form of 3 or 4 torch counts between April and May together with an appraisal of recruitment during August, in accordance with the national monitoring guidelines.

Management Requirements of Feature 1:

Based on the information available to date (2007) the feature is in unfavourable condition. Great crested newts are found in low numbers and great crested newt larvae are only found in a small number of ponds. The principle reasons for this are, the presence of fish in breeding ponds, pond pollution, and *Crassula helmsii* coving large areas of the pond surfaces.

The great crested newt is dependent on a mosaic of terrestrial and aquatic habitats for breeding, shelter and hibernation. Each of these is discussed in further detail below. The provision of log and rubble piles within terrestrial habitats will provide suitable areas for shelter, protection and hibernation.

Pond Management

Excessive growth of aquatic and emergent plants, accumulation of decaying vegetation and silt and scrub encroachment can lead to the gradual loss of open water areas that are important to breeding newts. This is likely to be an ongoing problem. Periodic weed and silt removal will be required to maintain sufficient open water in all water bodies but this must be undertaken very carefully under licence at the correct time of the year to avoid disturbance to breeding newts and/or preventing damage to breeding sites/resting places. Native vegetation and silt should be left on the sides of the pool prior to disposal to allow amphibians and other aquatic creatures to return to the water. Alternative methods must be employed if non-native plant species are present. Bio-security techniques must be employed to minimize risks associated with the accidental spread of non-natives.

Pond construction and maintenance will need to be required for the purposes of ensuring seral diversity within the overall site. Additional ponds will therefore continue to be created within the SAC to increase the extent of aquatic habitat available to great crested newts, and thus increase the range

and extent of suitable breeding habitats. Whenever appropriate further ponds should be created off-site for the purposes of creating "stepping stones" between SAC compartments. This action will contribute to the delivery of actions associated with maintaining the conservation status of the species.

Water Quality

There is some concern about pollutants, such as oil from off-road vehicles entering the water bodies in management units 4, 5 and 6. Vegetation will act as a buffer to diffuse pollution entering ponds and consequently stands of emergent vegetation should be encouraged. Possible mitigation of impacts might be achieved by preventing the use of motorbikes in close proximity to the ponds. However water pollution is not considered to be a significant factor affecting the presence of great crested newts on this site.

Woodland, Scrub and Hedgerow Management

As far as possible, natural ecological processes should be allowed to operate within the wooded areas. These will, in time, create natural clearings, enable the promotion of tree and shrub regeneration, and ideally allow the steady accumulation of both standing and fallen deadwood, which are essential elements in a natural system. Any active management should aim to complement natural processes, to enhance the various vegetation communities now present, and to promote a greater diversity of woodland structures by encouraging a mixed-age distribution of trees and the wider development of a shrub and ground layer. Care should be taken during such work to avoid disturbance to the newts or their places of shelter.

Owing to a substantial area of the overall site being managed as a community woodland and amenity public open space, it is expected that a high degree of public usage will prevail within this area. As a result dangerous trees, hanging branches and standing dead timber, that are likely to be regarded as a safety hazard, may need to be cut down and retained on site. Fallen and cut timber must be allowed to accumulate on site and retained for the purposes of providing shelter, hibernation sites and foraging habitat for newts.

Hedgerows should be managed by trimming and periodic layering. They should be protected from grazing livestock and their bases left undisturbed to protect the newts.

Grassland Management

Open habitats such as grassland are important feeding areas but the sward should be long enough to provide cover for the newts and their prey. Areas of grass should be left uncut over the summer months to create rank grassland communities that provide both cover for newts dispersing from breeding and natal ponds and as foraging habitats. Consequently, extensive grazing or cutting is not strictly necessary as the newts can thrive in rank grassland and scrub. However, grassland management regimes should lead to the creation of a mosaic of grassland habitats. Frequent cutting for amenity purposes will only be permitted within 1m of statutory and permitted footpaths.

Other Factors to be considered:

Invasive Plants

Non-natives water plants such as *Crassula helmsii* can reproduce very rapidly and lead to a reduction in the open water habitat available for newts. At present (2007) *Crassula helmsii* has been removed from a number of ponds, however it is still problematic in management units 3, 7, 13 and 12. Greater control will be required to prevent the spread of this plant on this site by the effective implementation

of bio-security techniques.

Predators

Amphibian breeding ponds should ideally contain no predatory fish, as fish will predate newt larvae. Fish have been removed from some ponds using the technique of electro-fishing, netting and pumping. However the presence of fish is still a problem in management units 3, 7, 12 and 13. Without further removal of fish from ponds in the SAC great crested newt recruitment will decline. Members of the public also need to be discouraged from translocating fish between ponds for recreational fishing purposes. To facilitate effective fish control, the use of piscicides must be considered.

Water/wildfowl, although not currently a significant problem, have the potential to predate newt eggs/larvae if numbers are allowed to increase. Consequently land manages must be advised to actively discourage the feeding or introduction of waterfowl. If numbers increase, water/wildfowl numbers will need to be controlled.

Obstructions to Movement

Hedgerows and other linear landscape features must be present to enable the migration and dispersal of individuals, and facilitate genetic exchange between neighbouring newt populations. These features should not be removed or altered so as to restrict newt access. These may be on or off-site.

Off-site, newts can become trapped in roadside gully-pots during migration to and from breeding ponds. Once trapped, it is unlikely that animals will be able to escape. Where gully-pots are present, measures should be undertaken to reduce the likelihood of newts becoming trapped and to rescue those that do. In the medium to long term, alternative surface water management systems, that do not include gully-pots, should be installed.

Other potential barriers to newts, such as new roads, paths, walls and high kerbs should not be installed without providing adequate crossing points.

Development

The SAC lies within and at the edge of both residential and industrial areas of Johnstown. Consequently, owing to its location, pressure from development is likely to occur in the future. There is insufficient information on the nature and scale of future development and consequently potential impacts cannot be effectively assessed. However, appropriate scheme design and implementation will ensure that both direct and indirect impacts are either avoided or considerably minimized. This effectively prevents impacts on either the integrity and/or the feature of the SAC.

Recreational Use

The site is used heavily for recreational purposes as it is close to the communities of Johnstown and Rhosllananerchrugog. Management unit 3 is managed as a Country Park and Units 12, 7 and 8 are managed as a community nature park. The use of off road motorbikes needs to be discouraged as the oil pollutes the pond water and tyres cause compaction and erosion of terrestrial newt habitats. Recreational fishing within the site will not be permitted.

6. ACTION PLAN: SUMMARY

This section takes the management requirements outlined in Section 5 a stage further, assessing the specific management actions required on each management unit. This information is a summary of that held in CCW's Actions Database for sites, and the database will be used by CCW and partner organisations to plan future work to meet the Wales Environment Strategy targets for sites.

Site Name(s): Johnstown Newt Sites (SAC)

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
1	001142	New Hall Farm	The principal conservation management issue associated with this site is the continue implementation of appropriate grassland management.	Yes
2	001143	Hafod Quarry "R2"	Key management issues associated with this unit include pond creation and management and maintaining the diversity of terrestrial habitats (scrub and grassland). Target number of new ponds =5. Public access should not be encouraged on this compartment.	Yes
3	001144	Hafod Woodland	Key conservation management issues associated with this unit include fish and non-native plant control, pond creation and maintenance, and appropriate management of terrestrial habitats (grassland and recently planted woodland) Target number of new ponds = 10. Recreational issues also need to be crirtically assessed. Consideration must be given to narrowing the width of paths thoroughout this unit.	Yes
4	001145	Aberderfyn	Key management issues assocaited with this unit include the prevention of off-roading, pond construction and maintenance, and diversification of terrestrial habitats. Implementation of these works will require the installation of new fencing to prevent access by motorized vehicles. New ponds need to be created throughout the unit (target number = 5).	Yes
5	001146	Aberderfyn Bank	Management requirements within this unit are essentially the maintenance of existing scrub and grassland communities.	Yes
6	001147	Aberderfyn Gas Compound	There are no conservation management issues associated with this unit.	No
7	001148	Gutter Hill Reserve	Key conservation management issues associated with this unit include fish, Typha and Crassula control; grassland management and maintenance of scrub communities. Future action will also require further pond creation (target =5) and maintenance of all existing water bodies. The footpath network will need to be regulated to limit erosion related impacts. Wider management issues require off-site features whereby local residents (especially children) can be provided with fishing related opportunities.	Yes
8	001149	Bryn Estyn Bank	There are no known conservation management issues associated with this unit.	No
9	001150	Brandie Brook	Key issues associated with this site include terrestrial habitat management and pond/wetland creation. Current action includes hedgerow and scrub planting. Target number of ponds = 2. Public access to this unit should not be subject to encouragement in the short term	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
10	001151	Brandy Cottage	Management issues associated with this unit include pond creation and maintenance, and grassland management. Target number of new ponds = 1.	Yes
11	001152	Gardden Hall Fields	Key issues associated with this unit include grassland and pond management and pond creation (n=2).	Yes
12	001153	Stryt Las	Key issues associated with this unit include fish control and the implementation of appropriate grassland management regimes. Off-site projects are likely to be the best means of addressing fisheries related issues, ie the provision of a community fisheries facility in the environs of Johnstown. Waterfowl issues require controls in respect of duck feeding. Pond creation proposals need to be actively progressed. Target number =2.	Yes
13	001154	Hafod Reserve "R1"	Key conservation management issues associated with this unit include fish, Typha and Crassula control and the implementation of appropriate grassland management regimes. Pond creation and management action will also need to be actively progressed. Target number of new ponds = 8. Public access issues will also need to be subject to critical appraisal.	Yes
14	001155	Hafod Bank	Principle management issues associated with this unit concern the relocation of permanent amphibian fencing and terrestrial habitat management.	Yes
15	001157	Gardden Hall	Management issues associated with this compartment include grassland management and pond construction	Yes
16	001158	Brandie Cottage Bank	There are no significant conservation management issues associated with this unit. Key actions concern the maintenance of scrub vegetation.	Yes
17	001159	Bryn Glas	There are no ongoing issues associated with this unit.	No

7. GLOSSARY

This glossary defines the some of the terms used in this **Core Management Plan**. Some of the definitions are based on definitions contained in other documents, including legislation and other publications of CCW and the UK nature conservation agencies. None of these definitions is legally definitive.

Action A recognisable and individually described act, undertaking or **project** of any kind, specified in section 6 of a **Core Management Plan** or **Management Plan**, as being required for the **conservation management** of a site.

Attribute A quantifiable and monitorable characteristic of a **feature** that, in combination with other such attributes, describes its **condition**.

Common Standards Monitoring A set of principles developed jointly by the UK conservation agencies to help ensure a consistent approach to **monitoring** and reporting on the **features** of sites designated for nature conservation, supported by guidance on identification of **attributes** and monitoring methodologies.

Condition A description of the state of a feature in terms of qualities or **attributes** that are relevant in a nature conservation context. For example the condition of a habitat usually includes its extent and species composition and might also include aspects of its ecological functioning, spatial distribution and so on. The condition of a species population usually includes its total size and might also include its age structure, productivity, relationship to other populations and spatial distribution. Aspects of the habitat(s) on which a species population depends may also be considered as attributes of its condition.

Condition assessment The process of characterising the **condition** of a **feature** with particular reference to whether the aspirations for its condition, as expressed in its **conservation objective**, are being met.

Condition categories The **condition** of **feature** can be categorised, following **condition assessment** as one of the following[2]:

Favourable: maintained;
Favourable: recovered;
Favourable: un-classified
Unfavourable: recovering;
Unfavourable: no change;
Unfavourable: declining;
Unfavourable: un-classified
Partially destroyed;
Destroyed.

Conservation management Acts or undertaking of all kinds, including but not necessarily limited to **actions,** taken with the aim of achieving the **conservation objectives** of a site. Conservation management includes the taking of statutory and non-statutory measures, it can include the acts of any party and it may take place outside site boundaries as well as within sites. Conservation management may also be embedded within other frameworks for land/sea management carried out for purposes other than achieving the conservation objectives.

Conservation objective The expression of the desired **conservation status** of a **feature,** expressed as a **vision for the feature** and a series of **performance indicators**. The conservation objective for a

[2] See JNCC guidance on Common Standards Monitoring http://www.jncc.gov.uk/page-2272

feature is thus a composite statement, and each feature has one conservation objective.

Conservation status A description of the state of a **feature** that comprises both its **condition** and the state of the **factors** affecting or likely to affect it. Conservation status is thus a characterisation of both the current state of a feature and its future prospects.

Conservation status assessment The process of characterising the **conservation status** of a **feature** with particular reference to whether the aspirations for it, as expressed in its **conservation objective**, are being met. The results of conservation status assessment can be summarised either as 'favourable' (i.e. conservation objectives are met) or unfavourable (i.e. conservation objectives are not met). However the value of conservation status assessment in terms of supporting decisions about **conservation management**, lies mainly in the details of the assessment of feature **condition**, **factors** and trend information derived from comparisons between current and previous conservation status assessments and condition assessments.

Core Management Plan A CCW document containing the conservation objectives for a site and a summary of other information contained in a full site **Management Plan**.

Factor Anything that has influenced, is influencing or may influence the **condition** of a **feature**. Factors can be natural processes, human activities or effects arising from natural process or human activities, They can be positive or negative in terms of their influence on features, and they can arise within a site or from outside the site. Physical, socio-economic or legal constraints on **conservation management** can also be considered as factors.

Favourable condition See **condition** and **condition assessment**

Favourable conservation status See **conservation status** and **conservation status assessment.**[3]

Feature **The species population, habitat type or other entity for which a site is designated. The ecological or geological interest which justifies the designation of a site and which is the focus of conservation management.**

Integrity See **site integrity**

Key Feature The habitat or species population within a **management unit** that is the primary focus of **conservation management** and **monitoring** in that unit.

[3] A full definition of favourable conservation status is given in Section 4.

Management Plan The full expression of a designated site's legal status, **vision**, **features**, **conservation objectives**, **performance indicators** and management requirements. A complete management plan may not reside in a single document, but may be contained in a number of documents (including in particular **the Core Management Plan**) and sets of electronically stored information.

Management Unit An area within a site, defined according to one or more of a range of criteria, such as topography, location of **features**, tenure, patterns of land/sea use. The key characteristic of management units is to reflect the spatial scale at which **conservation management** and **monitoring** can be most effectively organised. They are used as the primary basis for differentiating priorities for conservation management and monitoring in different parts of a site, and for facilitating communication with those responsible for management of different parts of a site.

Monitoring An intermittent (regular or irregular) series of observations in time, carried out to show the extent of compliance with a formulated standard or degree of deviation from an expected norm. In **Common Standards Monitoring**, the formulated standard is the quantified expression of favourable **condition** based on **attributes**.

Operational limits The levels or values within which a **factor** is considered to be acceptable in terms of its influence on a **feature**. A factor may have both upper and lower operational limits, or only an upper limit or lower limit. For some factors an upper limit may be zero.

Performance indicators The **attributes** and their associated **specified limits**, together with **factors** and their associated **operational limits,** which provide the standard against which information from **monitoring** and other sources is used to determine the degree to which the **conservation objectives** for a **feature** are being met. Performance indicators are part of, not the same as, conservation objectives. See also **vision for the feature**.

Plan or project **Project:** Any form of construction work, installation, development or other intervention in the environment, the carrying out or continuance of which is subject to a decision by any public body or statutory undertaker.
Plan: a document prepared or adopted by a public body or statutory undertaker, intended to influence decisions on the carrying out of **projects.**
Decisions on plans and projects which affect Natura 2000 and Ramsar sites are subject to specific legal and policy procedures.

Site integrity The coherence of a site's ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it is designated.

Site Management Statement (SMS) The document containing CCW's views about the management of a site issued as part of the legal notification of an SSSI under section 28(4) of the Wildlife and Countryside Act 1981, as substituted.

Special Feature See **feature**.

Specified limit The levels or values for an **attribute** which define the degree to which the attribute can fluctuate without creating cause for concern about the **condition** of the **feature**. The range within the limits corresponds to favourable, the range outside the limits corresponds to unfavourable. Attributes may have lower specified limits, upper specified limits, or both.

Unit See **management unit.**

Vision for the feature The expression, within a **conservation objective**, of the aspirations for the **feature** concerned. See also **performance indicators.**

Vision Statement The statement conveying an impression of the whole site in the state that is intended to be the product of its **conservation management.** A 'pen portrait' outlining the **conditions** that should prevail when all the **conservation objectives** are met. A description of the site as it would be when all the **features** are in **favourable condition**.