

**Declaration from the UK of a compartment free from KHV,
at Aquatic Nurseries, Wiltshire, England**

1. Introduction

The owner of Aquatic Nurseries, Wiltshire has developed his business as a source of koi carp and mirror carp free from Koi herpesvirus (KHV) and wishes to be able to trade to areas of equivalent status elsewhere in the EU. Confirmation of disease free compartment status will also allow the owner to offer greater customer confidence in the supply of Carp (*Cyprinus carpio*) for the re-stocking of fishery waters within GB.

2. The compartment

The Aquatic Nurseries compartment comprises a single farm site, in South West Wiltshire (figures 1 - 3). The farm comprises a hatchery and on-growing unit comprising of indoor recirculation systems, and has a number of outdoor flow-through tanks, static seasonally filled earth ponds and a small lake. The compartment is situated at the head of a tributary of the River Stour (Dorset). The water source for the site comes from three springs located within the boundaries of the farm site, Figures 4,5) Chlorinated mains tap-water supply is also used to supplement the spring supply when necessary. The springs are piped from source to the farm facilities and any unused spring water discharges through the farm outlet system

There are two outlets (on the North and South sides of the farm, figures 4, 5) from the compartment, which create two separate streams, augmented by a small additional volume of water from two springs rising along the periphery of the farm. These streams, which are too small to hold populations of any KHV susceptible species, join approximately 1.5km downstream and subsequently run into the Shreen Water which is a main upper tributary of the River Stour. The farm discharge water, though low in volume, comprises the majority of water in these streams through most of the year. Effluent water discharging to the North of the site passes through a reed bed and a gravel bed and is then piped to a final mechanical filter before falling approximately one metre into the discharge stream. The southern outlet is a combination of a flow from the upper part of the farm via a pipeline, which represents the majority of the flow off the site, plus discharge from the lake, via two screened outlet pipes 0.3m above the discharge stream. These piped discharges are above the maximum water level in the receiving stream and are sufficient to prevent the ingress of fish onto the site. There are no indigenous populations of species of fish susceptible to KHV in either of the discharge streams. There is no stocking of fish into the upper reaches of the tributary upon which the farm is sited. No angling clubs fish the sections of the River Stour associated with the discharge of the site and there are no other recreational activities.

The farm has operated as an SVC free farm for several years and has been subject to regular inspections and disease testing by the Fish Health Inspectorate since it was taken over by the current operator in 1999. There has been no evidence or suspicion of KHV on the site during that time.

There are three other fish farms in the Dorset Stour river catchment farming or holding species susceptible to KHV (Figure 4), the closest (by direct line) is 2.2km and is also the closest farm measured through the river network (11km). All farms holding KHV susceptible species in England and Wales have been subject to at least annual inspections since 1992, with no recorded occurrence of KHV.

3. Supporting information required by 2009/177/EC (Annex IV)

Requirements/information needed	Information/further explanation and justification
1. Identification of the programme	
1.1. Declaring Member State	United Kingdom
1.2. Competent authority (address, fax, e-mail)	Fish Health Inspectorate Centre for Environment, Fisheries and Aquaculture Science Barrack Road, The Nothe, Weymouth, Dorset DT4 8UB UK Tel: +44 (1305) 206673/4 Fax: +44 (1305) 206602 Email: phi@cefas.co.uk
1.3. Reference of this document	UK/8/2010 (KHV)
1.4. Date sent to the Commission	10 December 2010
2. Type of communication	
2.1. <input checked="" type="checkbox"/> Declaration of disease-free status	
2.2. <input type="checkbox"/> Submission of application for disease-free status	
3. National legislation (¹)	<ul style="list-style-type: none">• Aquatic Animal Health (England and Wales) Regulations 2009• Animal and Animal Products (Import and Export) (England) Regulations 2006• Import of Live Fish Act 1980

	For further information see: http://www.efishbusiness.co.uk/formsandguides/default.asp
4. Diseases	
4.1. Fish	<input type="checkbox"/> VHS <input type="checkbox"/> IHN <input type="checkbox"/> ISA <input checked="" type="checkbox"/> KHV
4.2. Molluscs	<input type="checkbox"/> infection with <i>Marteilia refringens</i> <input type="checkbox"/> infection with <i>Bonamia ostreae</i>
4.3. Crustaceans	<input type="checkbox"/> White spot disease

5. Grounds for disease-free status	
5.1. <input type="checkbox"/> No susceptibles ⁽²⁾	
5.2. <input type="checkbox"/> Pathogen not viable ⁽³⁾	
5.3. <input type="checkbox"/> Historic free-status ⁽⁴⁾	
5.4. <input checked="" type="checkbox"/> Targeted surveillance ⁽⁵⁾	The farm has been subject to an official inspection programme since 1999, which in the last 2 years has included official sampling and disease testing for KHV. No evidence for the presence of any notifiable disease has been found during official inspections and the owner has not reported any serious mortalities on the farm. The site has operated as a farm recognised free of Spring Viraemia of Carp (SVC) since 2006.
6. General information	
6.1. Competent authority ⁽⁶⁾	<p>The Cefas Fish Health Inspectorate acts for the Department for Environment, Food and Rural Affairs (Defra) and Welsh Assembly for Government (WAG) in undertaking statutory and inspection duties resulting from the EU Fish Health regime and other national legislation in the area of fish and shellfish health.</p> <p>Inspectorate's duties include:</p> <ul style="list-style-type: none"> ● Monitoring for notifiable diseases or other serious diseases. ● Investigating suspected cases of notifiable disease or abnormal mortalities. ● The placing of statutory controls. <p>The Inspectorate also licenses and monitors imports of fish and shellfish from other countries and runs an enforcement programme aimed at preventing the illegal importation of these animals.</p> <p>The Cefas Weymouth laboratory is designated as a national Reference Laboratory under the EU Fish Health regime and has modern diagnostic facilities. Routine samples taken by the Inspectorate are screened for serious fish pathogens, using methods laid down by the EU Fish Health regime. The laboratory also has experts in molecular biology, virology, bacteriology, parasitology and histopathology working in multidisciplinary teams applying the latest techniques, to assist in the identification of the cause of disease outbreaks.</p>
6.2. Organisation, supervision of all stakeholders involved in the programme to achieve disease-free status ⁽⁷⁾	<p>Aquatic Nurseries has been subject to a surveillance scheme by Cefas Fish Health Inspectorate, for a Compartment seeking status for KHV since 2006. With specific disease screening giving negative results for KHV since 2008.</p> <p>Details of inspections and sampling from 2006 are included in Section 4 (Supporting information required by 2009/177/EC [Annex V]).</p> <p>All fish farms within England and Wales are subject to official monitoring by the Fish health Inspectorate and at present none of the farms holding KHV susceptible species are known to be infected with KHV.</p>
6.3. An overview of the structure of the aquaculture industry in the area in question (disease-free Member State, zone or compartment) including types of production and species kept	<p>Aquatic Nurseries has been under its current ownership since 1999 and employs 5 fully trained staff. Originally established as a farm for holding and producing ornamental fish, it began producing species for the restocking market in 2006 to broaden its business opportunities. The business produces a range of ornamental species (Koi carp, Ghost carp, Golden Orfe, Golden and Green Tench, Golden Rudd, Gudgeon) for sale to the ornamental aquatic trade. It imports sturgeon species for growing on and holding, again for the ornamental aquatic trade. The restocking aspect of the business primarily deals with carp. The owner of the farm and business is an active member of the Ornamental Aquatic Trade Association (OATA).</p> <p>There are no fishery waters subject to control for KHV within the wider River Stour catchment, and there have been no reports of a suspicion of the disease in the catchment.</p>
6.4. The notification to the competent authority of the suspicion and confirmation of the disease(s) in question has been compulsory since when (date)?	The health status of Britain's freshwater fish stocks has been legally protected since 1937 when the Diseases of Fish Act was introduced. All fish farmers are under a legal obligation to notify the Cefas Fish Health Inspectorate immediately if they suspect the presence of any notifiable disease or are experiencing abnormal mortalities. KHV has been notifiable in England and Wales since 2007.
6.5. Early detection system in place throughout the Member	The Fish Health Inspectorate that has the responsibility for the detection,

State, enabling the competent authority to undertake effective disease investigation and reporting since when (date)? ⁽⁸⁾		<p>identification, and control of notifiable diseases in GB has been in operation since 1977.</p> <p>A broad awareness, among the personnel employed in aquaculture businesses, of any signs consistent with the presence of a disease is promoted through advice given by fish health inspectors during farm visits, and through the production of disease information brochures (e.g. http://www.efishbusiness.co.uk/formsandguides/KHV_Weyv3_press.pdf)</p> <p>It is a requirement of UK biosecurity measures plans that all aquaculture production staff are trained and competent in the identification of listed diseases.</p> <p>The Fish Health Inspectorate is of part of the Cefas Weymouth laboratory (designated National Reference Laboratory) and thus has full access to facilities for diagnosing and differentiating listed and emerging diseases.</p>
6.6. Source of aquaculture animals of species susceptible to the disease in question entering in the Member State, zone or compartments for farming		The farm imports certified KHV free Koi from a site free of KHV in United States of America, which is owned by the same business, and ornamental sturgeon species from a closed site containing no susceptible species, in Germany (Fischzucht Langwald, Germany).
6.7. Guidelines on good hygiene practice ⁽⁹⁾		Cefas guidelines on good hygiene practice and biosecurity can be found at: http://www.efishbusiness.co.uk/formsandguides/default.asp the farm operates to a biosecurity measures plan approved by the fish health Inspectorate.
7. Area covered		
7.1. <input type="checkbox"/> Member State		
7.2. <input type="checkbox"/> Zone (entire water catchment area) ⁽¹⁰⁾		
7.3. <input type="checkbox"/> Zone (part of water catchment area) ⁽¹¹⁾		
Identify and describe the artificial or natural barrier that delimits the zone and justify its capability to prevent the upward migration of aquatic animals from the lower stretches of the water catchment area		
7.4. <input type="checkbox"/> Zone (more than one water catchment area) ⁽¹²⁾		
7.5. <input checked="" type="checkbox"/> Compartment independent of the surrounding health status ⁽¹³⁾		<p>The proposed compartment comprises one isolated farm site (Aquatic Nurseries), located in South West Wiltshire, England.</p> <p>See Section 2 (general background to the proposed compartment)</p>
Identify and describe for each farm the water supply ⁽¹⁴⁾	<input checked="" type="checkbox"/> Well, borehole or spring <input type="checkbox"/> Water treatment plant inactivating the relevant pathogen ⁽¹⁵⁾	Source water for the Aquatic Nurseries site, is provided from springs (rising within the farm) that is piped directly to rearing facilities. There is also additional use of chlorinated potable mains water supply.
Identify and describe for each farm natural or artificial barriers and justify its capability to prevent that aquatic animals enter each farm in a compartment from the surrounding watercourses		<p>The farm is sited at the immediate source of a tributary of the River Stour, with the source comprising of several springs which rise on site from an underground aquifer.</p> <p>The outlets of the site do not allow ingress of any fish species onto the site from the streams into which they discharge.</p> <p>There are no populations of susceptible fish species in either of the streams the farm discharges into.</p>
Identify and describe for each farm the protection against flooding and infiltration of water from the surrounding watercourses		Aquatic Nurseries has no history of flooding. It farm production facilities are situated above the adjacent flood plain of the River Stour and there are no structures in the streams downstream of the farm that represent a blockage hazard that could cause water to “back-up” to the farm.
7.6. <input type="checkbox"/> Compartment dependent on the surrounding health status ⁽¹⁶⁾		
<input type="checkbox"/> One epidemiological unit due to geographical localisation and distance from other farms/farming areas ⁽¹⁷⁾		
<input type="checkbox"/> All farms comprising the compartment fall within a common biosecurity system ⁽¹⁸⁾		

<input type="checkbox"/> Any additional requirements ⁽¹⁹⁾		
8. Geographical demarcation ⁽²⁰⁾		
8.1. Farms or mollusc farming areas covered (registration numbers and geographical situation)		<p><u>Aquatic Nurseries:</u> (Authorisation number EW002-V-517)</p> <p>Aquatic Nurseries is a spring fed facility drawing water from the source of a tributary of the upper River Stour (see Figures 1-4). The farm is physically isolated from the surrounding environment, and as such it represents a discrete epidemiological unit, separate from other waters within Great Britain.</p> <p>Figure 1 – England and Wales with Dorset Stour catchment showing position of farm Figure 2 – Regional map showing surrounding towns and position of farm Figure 3 – Immediate neighbourhood Figure 4 – Location of other farms in the catchment. Figure 5 – Facilities and water flows</p>
8.2. <input type="checkbox"/> Non-free buffer zone ⁽²¹⁾	Geographical demarcation ⁽¹⁹⁾	
	Farms or mollusc farming areas covered (registration numbers, geographical situation and health status ⁽²²⁾)	
	Type of health surveillance	
8.3. <input type="checkbox"/> Non-free zones or compartments ⁽²³⁾	Geographical demarcation ⁽¹⁹⁾	
	Farms or mollusc farming areas covered (registration numbers, geographical situation and health status ⁽¹⁵⁾)	
8.4. <input type="checkbox"/> Extension of disease-free zone to other Member States ⁽²⁴⁾	Geographical demarcation ⁽¹⁹⁾	
8.5. <input type="checkbox"/> Existing disease-free zones/compartments in the vicinity	Geographical demarcation ⁽¹⁹⁾	
	Farms or mollusc farming areas covered (registration numbers and geographical situation)	
9. Farms or mollusc farming areas which commence or recommence their activities ⁽²⁵⁾		
9.1. <input type="checkbox"/> New farm		
9.2. <input type="checkbox"/> Recommencing farm	<input type="checkbox"/> Health history of farm known to competent authority	
	<input type="checkbox"/> Not subject to animal health measures in respect of listed diseases	
	<input type="checkbox"/> Farm cleaned, disinfected and, as necessary, fallowed	

⁽¹⁾ National legislation in force applicable to the declaration of and application for disease-free status

- (²) Applicable if none of the species susceptible to the disease(s) in question is present in the Member State, zone or compartment, and where relevant in its water source.
- (³) Applicable if the pathogen is known not to be able to survive in the Member State, zone or compartment, and where relevant in its water source. Provide the scientific information supporting the inability of the pathogen to survive in the Member State, zone or compartment.
- (⁴) Applicable if susceptible species are present, but where there has not been any observed occurrence of the disease for at least a period of 10 years before the date of declaration of or application for the disease-free status, despite conditions that are conducive to its clinical expression, and if it complies *mutatis mutandis* with the requirements laid down in Part I.1 of Annex V to Directive 2006/88/EC. This ground for disease-free status must be declared or applied for by 1 November 2008. Provide detailed information on the compliance with Part I.1 of Annex V to Directive 2006/88/EC.
- (⁵) Applicable if targeted surveillance complying with Community requirements has been in place for at least a period of two years without the detection of the disease agent on farm, or in mollusc farming areas that rear any of the susceptible species.
- Where there are parts of the Member State, zone or compartment in which the number of farms or mollusc farming areas is limited, but in which there are wild populations of susceptible species, information on the targeted surveillance in those wild populations shall be given.
- Describe diagnostic methods and sampling schemes. When OIE or EU standards are applied, reference must be made to them. If not, describe them. Name the laboratories involved in the programme (national reference laboratory or designated laboratories).
- (⁶) A description shall be provided of the structure, competencies, duties and powers of the competent authority involved.
- (⁷) A description shall be provided of the competent authority in charge of the supervision and coordination of the programme and the different operators involved.
- (⁸) The early detection systems shall in particular ensure the rapid recognition of any clinical signs consistent with the suspicion of a disease, emerging disease, or unexplained mortality in farms or mollusc farming areas, and in the wild, and the rapid communication of the event to the competent authority with the aim of activating diagnostic investigation with minimum delay. The early detection system shall include at least the following:
- (^a) broad awareness, among the personnel employed in aquaculture businesses or involved in the processing of aquaculture animals, of any signs consistent with the presence of a disease, and training of veterinarians of aquatic animals health specialists in detecting and reporting unusual disease occurrence;
- (^b) veterinarians or aquatic animal health specialists trained in recognising and reporting suspicious disease occurrence;
- (^c) access by the competent authority to laboratories with the facilities for diagnosing and differentiating listed and emerging diseases.
- (⁹) A description shall be provided in accordance with Article 9 of Directive 2006/88/EC.
- (¹⁰) An entire water catchment area from its sources to its estuary.
- (¹¹) Part of a water catchment area from the source(s) to a natural or artificial barrier that prevents the upward migration of aquatic animals from the lower stretches of the water catchment area.
- (¹²) More than one water catchment area, including their estuaries, due to the epidemiological link between the catchment areas through the estuary.
- (¹³) Compartments comprising one or more farms or mollusc farming areas where the health status regarding a specific disease is independent of the health status regarding that disease of surrounding natural waters.
- (¹⁴) A compartment which is independent of the health status of surrounding waters, shall be supplied with water:
- (^a) through a water treatment plant inactivating the relevant pathogen in order to reduce the risk of the introduction of the disease to an acceptable level; or
- (^b) directly from a well, a borehole or a spring. Where such water supply is situated outside the premises of the farm, the water shall be supplied directly to the farm, and be channelled through a pipe.
- (¹⁵) Provide technical information to demonstrate that the relevant pathogen is inactivated in order to reduce the risk of the introduction of the disease to an acceptable level.
- (¹⁶) Compartments comprising one or more farms or mollusc farming areas where the health status regarding a specific disease is dependent on the health status of surrounding natural waters regarding that disease.
- (¹⁷) A description shall be provided of the geographical localisation and the distance from other farms/farming areas that makes it possible to consider the compartment as one epidemiological unit.
- (¹⁸) A description shall be provided of the common biosecurity system.
- (¹⁹) Each farm or mollusc farming area in a compartment which is dependent on the health status of surrounding waters shall be subject to additional measures imposed by the competent authority, when considered necessary to prevent the introduction of diseases. Such measures may include the establishment of a buffer zone around the compartment in which a monitoring programme is carried out, and the establishment of additional protection against the intrusion of possible pathogen carriers or vectors.
- (²⁰) The geographical demarcation shall be clearly described and identified on a map, which must be attached as an Annex to the declaration/application. Any substantial modification in the geographical demarcation of the zone or compartment to be declared free must be subjected to a new application.
- (²¹) In connection with a zone or a compartment dependent on the health status of surrounding waters, a buffer zone in which a monitoring programme is carried out shall be established, as appropriate. The demarcation of the buffer zones shall be such that it protects the disease-free zone from passive introduction of the disease. (Part II.1.5 of Annex V to Directive 2006/88/EC).
- (²²) Health status in accordance with Part A of Annex III to Directive 2006/88/EC.
- (²³) Relevant in cases of declaration of disease-free Member States, where minor areas of the Member State are not considered disease-free.
- (²⁴) Where a zone extends to more than one Member State, it may not be declared a disease-free zone unless the conditions set out in points 1.3, 1.4 and 1.5 of Part II of Annex V to Directive 2006/88/EC apply to all areas of that zone. In that case both Member States concerned shall apply for approval for the part of the zone situated in their territory.
- (²⁵) In accordance with Part II.4 of Annex V to Directive 2006/88/EC.

4. Supporting information required by 2009/177/EC (Annex V) for the Aquatic Nurseries compartment

Data on farm inspection and testing of animals

Disease: KHV and SVC Year: 2006

Farm of mollusc farming area (b)	Number of samplings	Number of clinical inspections	Water temperature at sampling/inspection	Species at sampling	Species sampled	Number of animals sampled (total and by species)	Number of tests	Positive results of laboratorial examination	Positive results of clinical inspections
Aquatic Nurseries	2	2	12°C -23°C 15°C -23°C	Carp Goldfish Orfe Tench Rudd Barbel Gudgeon Sturgeon sp	Carp Goldfish	300	2 SVC only	0	0
Total						300		Total	

Disease: KHV and SVC Year: 2007

Farm of mollusc farming area (b)	Number of samplings	Number of clinical inspections	Water temperature at sampling/inspection	Species at sampling	Species sampled	Number of animals sampled (total and by species)	Number of tests	Positive results of laboratorial examination	Positive results of clinical inspections
Aquatic Nurseries	1	4	16- 23.2	Carp Goldfish Orfe Tench Rudd Barbel Gudgeon Sturgeon sp	Carp Goldfish	30	2 SVC + (KHV antibody)	0	0
Total						30		Total	

Disease: KHV and SVC Year: 2008

Farm of mollusc farming area (b)	Number of samplings	Number of clinical inspections	Water temperature at sampling/inspection	Species at sampling	Species sampled	Number of animals sampled (total and by species)	Number of tests	Positive results of laboratorial examination	Positive results of clinical inspections
Aquatic Nurseries	1	6	10.3 to 23	Carp Goldfish Orfe Tench Rudd Barbel Gudgeon Sturgeon sp	Koi Carp	150	1 (KHV) 1 (SVC)	0	0
Total						150		Total	

Disease: KHV and SVC Year: 2009

Farm of mollusc farming area (b)	Number of samplings	Number of clinical inspections	Water temperature at sampling/inspection	Species at sampling	Species sampled	Number of animals sampled (total and by species)	Number of tests	Positive results of laboratorial examination	Positive results of clinical inspections
Aquatic Nurseries	2	10	12.3 to 24.1	Carp Goldfish Orfe Tench Rudd Barbel Gudgeon Sturgeon sp	Koi Carp	300	3 2*KHV 1*SVC	0	0
Total						300		Total	

Disease: KHV and SVC Year: 2010

Farm of mollusc farming area (b)	Number of samplings	Number of clinical inspections	Water temperature at sampling/inspection	Species at sampling	Species sampled	Number of animals sampled (total and by species)	Number of tests	Positive results of laboratorial examination	Positive results of clinical inspections
Aquatic Nurseries	1	5	15.3 - 22.3	Carp Goldfish Orfe Tench Rudd Barbel Gudgeon Sturgeon sp	Mirror Carp Ghost Koi	140 10	2	0	0
Total						150		Total	

(a) Member State, zone or compartment as defined in point 7 of Annex IV.

(b) When the number of farms/mollusc farming areas is limited or no farms/mollusc farming areas are present in whole or parts of the Member State, zone or compartment subject to the application or declaration, and sampling therefore is done in wild populations, the geographical situation of the sampling should be given.

6. Additional biosecurity measures

The majority of Aquatic Nurseries outdoor facilities are surrounded by an electric fence to exclude any mammalian predators, any tanks that are not within this boundary are too high for such predators to reach, and in addition the tanks are covered with netting to prevent any avian predation. The site is surrounded by fences or hedges which make it difficult for entry to the site other than the main entrance (only usable access for vehicles) for which there are large lockable gates (figure 15) which have a sign indicating that there is no access unless by authorised personnel, the entrance is monitored by staff during working hours and locked at all other times. The majority of the site production, hatchery and broodstock are contained within a purpose built secure building (figure 16).

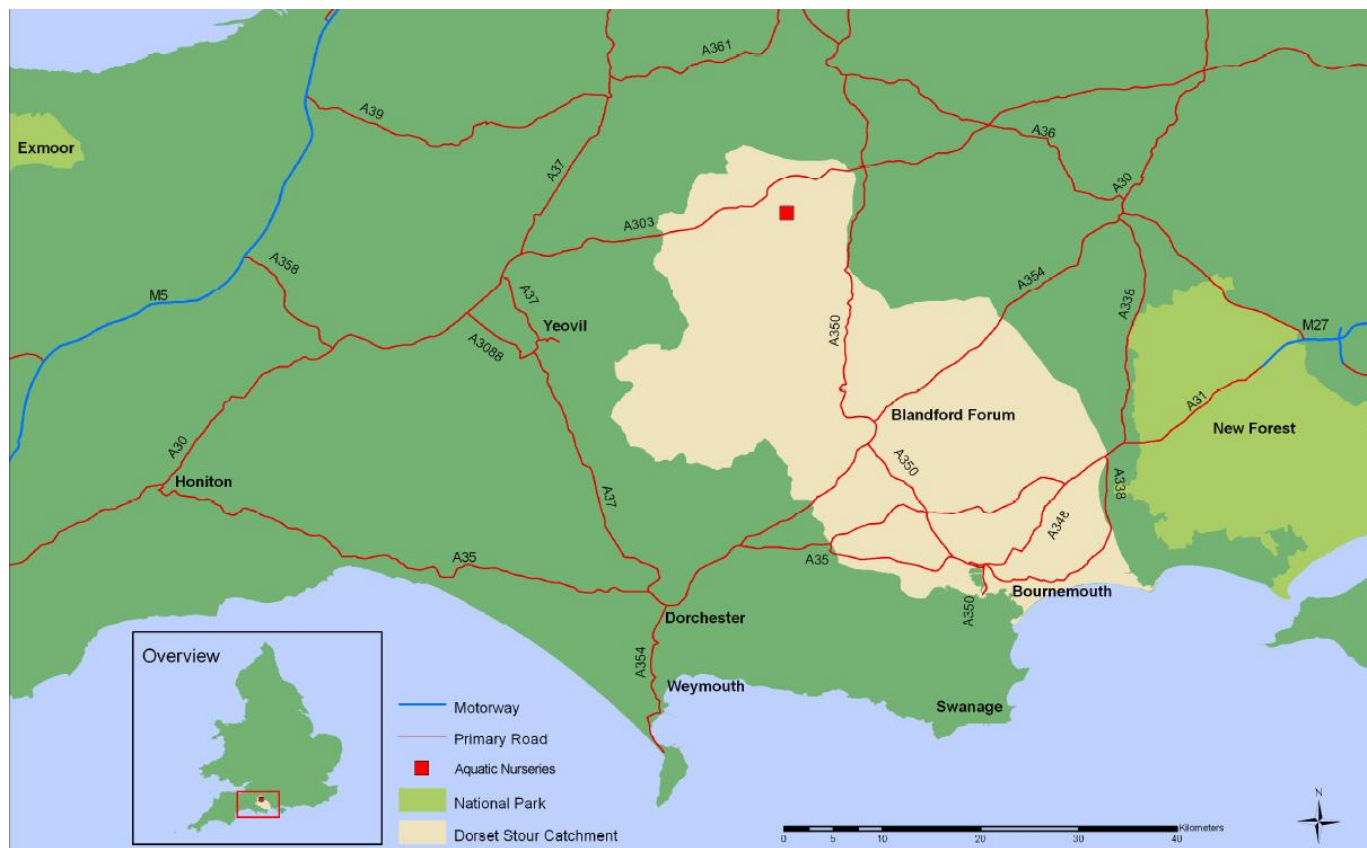
While the farm is recognised to have a single health status for notifiable diseases, the owners choose to operate the site as a series of zones, with the hatchery/indoor unit being having the highest status, in order to manage all fish health issues effectively. Fish are moved only from higher to equal/lower status zones, each zone or holding/growing installation has separate equipment and similarly staff work who work in lower biosecure zones generally do not work in higher biosecure zones unless following guidelines laid down in the sites Biosecurity Measures Plan.

7. Annex 1. Supporting figures.

Figure 1 – The location of the Dorset Stour catchment within England & Wales and the position of Aquatic Nurseries.

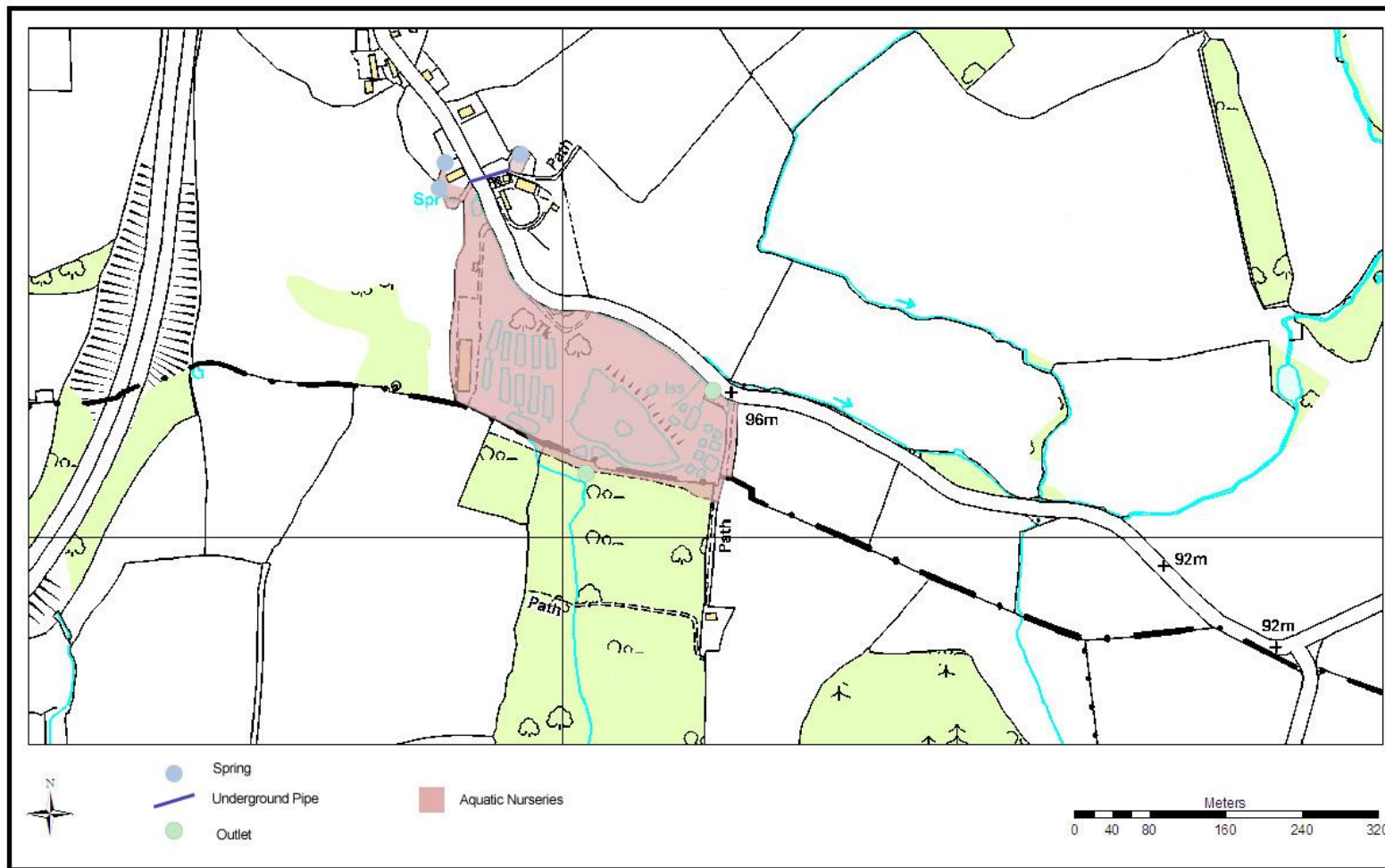


Figure 2 – Regional map showing position of Aquatic Nurseries and surrounding towns.



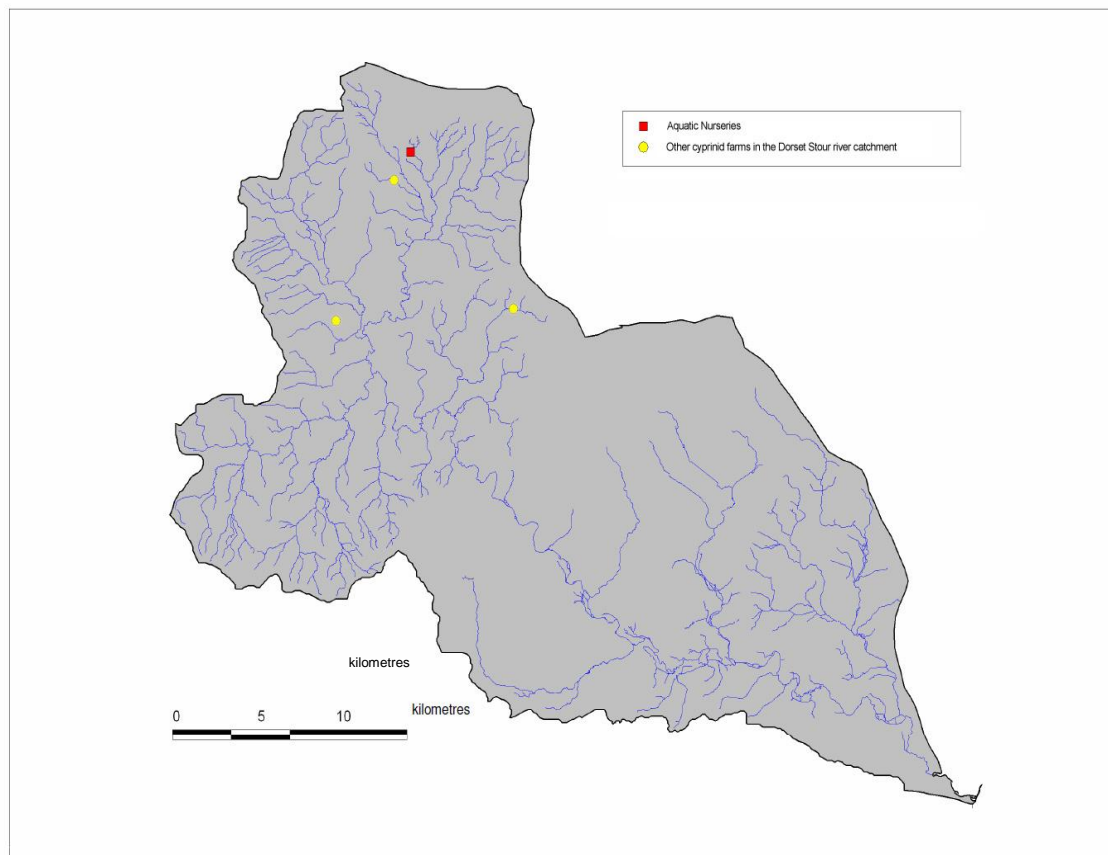
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Figure 3 – Immediate neighbourhood and extent of the proposed compartment



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Figure 4 – The Dorset Stour River catchment, showing position of Aquatic Nurseries and other cyprinid fish farms.



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Figure 5 – Plan of Aquatic Nurseries.

