Department of Primary Industries

Class C, D, E, F, H permit application form

Who can apply?

This application is to be completed by a person or company who wishes to apply for the following class of aquaculture permit:

Class C - Extensive aquaculture where no nutrient input of feed is required. (Yabbies in farm dams)

Class D - Intensive aquaculture where nutrient input is undertaken (Silver perch, Murray Cod, Barramundi, Trout).

Class E - Extensive multi-site aquaculture where no nutrient input permitted. Class

F – Fish out business. (Tourist operation)

Class H – Hatchery

How to apply

This form consists of three parts. You will need to complete all parts before submitting the application. The NSW Land Based Sustainable Aquaculture Strategy will provide you with guidance on best practice and the planning and approval process.

What you will need to complete the application

- Complete all applicant details (part 1)
- A completed Project Profile Analysis and farm general details (part 2)
- A completed Commercial Farm Development Plan (part 3)
- The prescribed application fee (refer to the schedule of aquaculture fees and charges)

Submitting your application

- Mail to: NSW Department of Primary Industries, Locked Bag 1, Nelson Bay NSW 2315
- Email to aquaculture.administration@dpi.nsw.gov.au
- For all telephone enquiries contact an Aquaculture Officer on 02 4982 1232

OFFICE USE ONLY

Name of applicants: _____

Permit no allocated: **AP** , **AP** , **AP** , **AP** , **AP**

Farm no allocated: **A** Account no allocated: **D** File No: **INW**

Fee paid $ Initials Date: /

Personal information collected by way of this Application is subject to the Privacy and Personal Information Act 1998. You must provide the information in order for NSW DPI to assess this Application. NSW DPI may use the information, and

disclose it to authorised agencies, for related administration or research purposes. The information may be pooled in a manner not identifying individuals to form industry-based statistics. You may access or correct your information by contacting NSW DPI, Aquaculture Administration Section, Locked Bag 1, NELSON BAY NSW 2315, or Telephone 02 4982 1232.

Pre-application discussion

We strongly recommend you discuss your application with NSW DPI before submitting it. Have you had a pre-application discussion with our team at NSW DPI? ☑yes ☐no

If you answered yes, please provide details below.

Had numerous phone conversations with Graeme Bowley and Michael Baer.

Applicant checklist

This checklist will help you lodge a successful application

Item/s	Tick box
A completed application form, including any other attachments as requested in the application	☑
A completed Commercial Farm Development plan which must include a Biosecurity Plan	☑
The prescribed application fee – refer to current schedule of fees and charges. Cheques are to made payable to Department of Industry.	☑
Photographs of the site to be developed and plan showing where photos were taken and direction	☑
A copy of the Development Application (DA) to be submitted to the local Council, or if consent has already been granted a copy of the DA consent. If not applicable, a letter from Council stating that development consent is not required.	☑
Attach parish & topographical maps showing: • Location of farm in relation to adjoining waterways • Land ownership categories (if several, as stated in Section 1.5) • Any structure which may affect submerged (freshwater or saltwater) public water land (e.g. pump intakes, pipelines in natural waterways, structures located in part below Mean High Water Mark) • Existing vegetation type and cover. Wetland areas must be specified. • Flood contours for 1 in 100 year flood, if available. If not, obtain information on vulnerability of site to flooding; usually available from local council.	☑

A plan view (sketch/diagram) of the project showing all proposed structures, including buildings, ponds, raceways and/or tanks. Show: • Dimensions (length, width, area, depth, volume and water surface area) • Areas to be excavated • Water supplies (include pumps) • Reticulation design for the farm (include length and dimensions of supply (coloured blue) and effluent discharge (coloured red) • Effluent release points (i.e. irrigation and/or exit points for water on the site)	☑
Cross-sectional view (sketch) of ponds showing: • Dike dimensions • Pond bottom slopes • Water entry points to ponds, raceways and/or tanks (coloured blue) • Water exit points from ponds, raceways and/or tanks (coloured red)	☑

Note: If the information you are providing does not fit within the sections on this form please attach the relevant information.

Persons disqualified from holding an aquaculture permit

Has any individual applicant, director, manager, partner or corporation nominated in this application been disqualified under s.161 of the *Fisheries Management Act 1994*, from holding an aquaculture permit?

☐ Yes ☑ No

If yes please provide details below.

_____

_____

_____

Note: NSW DPI reserves the right to reject any application made by a disqualified person. Any person previously disqualified from holding an aquaculture permit who wishes to re-enter the aquaculture industry must ensure that their details are first removed from the disqualified person's register. This is usually achieved by paying any outstanding debt owed to the State with respect to previous aquaculture business.

Part 1 - Applicant details

Please complete either individual, partnership or corporation details

1.1 Individual applicant or partnership

Given name: Martin John Surname: Crossley

Signature of applicant 1  Date: 10/11/2022

****

Given name:_____ Surname:

_____

Signature of applicant 2_____ Date:_____/_____/_____

****

Given name:_____ Surname:

_____

Signature of applicant 3_____ Date:_____/_____/_____

Note: If there are more than three partners. Please provide additional information on a separate sheet.

Trading name (if applicable): _____

If partnership, please provide principal contact: _____

Postal address for all correspondence (1 address only if a partnership)

Address: 6 Reno Road

Town: JONES CREEK State:_ Postcode: 2722

3

Street address

Address: **SAME AS POSTAL ADDRESS**

Town: _____ State: _____

Postcode: _____

Email/s:-_____

Telephone contact details. Telephone: (____) _____

Mobile 1: 0492073310

Mobile 2: _____

Note: Mobile 1 will be used for any SMS messages

Farm Manager: - Martin Crossley Phone:

Note: Please only provide the farm manager's details if you approve the farm manager to act and/or correspond on your behalf.

1.2 Corporation details

The following extracts must be provided with the application:

- A copy of ASIC certificate of incorporation.
- A copy of ASIC listing of current directors of the company.

This information is available from the Australian Securities and Investments Commission (ASIC). You can contact ASIC on 02 9911 2000, or 1300 300 630 (ASIC Info line).

Corporation name: Australian Company no _____

Postal address for all correspondence

Address:
Town: State: _____Postcode: _____

_____

Street address of Corporation
Address:

Town: State: _____Postcode: _____

_____

Trading name (if applicable): _____

Email/s:- oldgoldfisheries@outlook.com

Principal contact person for this application: _____

Note: Principal contact person's mobile will be used for any SMS messages

Telephone contact details. Telephone: (____) _____

Mobile: _____

Farm Manager:_____Phone: _____

Note: Please only provide the farm manager's details if your company approve the farm manager to act and/or correspond on your company's behalf.

1.3 Declaration

Please complete the following declaration for either individual, partnership or corporation.

Any application lodged by a company must be signed by two directors, or one director and a secretary. If the company is a sole director company, where the sole director is also the sole secretary, the sole director must state next to his/her signature that he/she is the “sole director and sole company secretary”.

I/we lodge herewith the prescribed fee and certify that this is an accurate statement of my farming intentions

Dated this 10 day of November in the year 2022

Name of applicant(s) (Please print)	**Signature**	**Witness** (Please print Name and Sign)
Martin Crossley		Vicky Plum 

1.4 Payment details

To pay the application fee by credit card, simply fill out the credit card authority below. For security reasons we will contact you for the three digit security number (CVC).
A schedule of the fees can be found at:
https://www.dpi.nsw.gov.au/fishing/aquaculture/schedule

Name As it appears on the card: Mr Martin Crossley

Type of card Visa ☑ MasterCard ☐

Card Number: 4017 9541 7121 0512

Expiry date (month/year): 07 / 2024

Note: a surcharge applies to the following cards. Visa 0.4% Mastercard 0.4%

1.5 What class of aquaculture permit/s you are applying for?

a) ☑Class C ☑Class D Class E ☐ Class F☐ Class H☑

b) The farm site is located on:

☐ Freehold (Please provide proof of ownership, or formal option to purchase)

☑Leasehold (Please attach a copy of lease approval(s) by lessor(s) for activity and state whether over:

☐ State (Crown) land ☑Private land

c) Have you considered whether any other approvals may be required for the site, for example, laying water intake pipes through state land?

☐ Yes ☐ No ☑Not applicable

d) Please describe the land and locality according to title or lease (where relevant)

Local government area: Cootamundra Gundagai Regional Council

Locality: Reno

Street: 6 Reno Road

Lot/Portion no: 6

Deposited plan: 841293

Council zoning: RU1

e) What facilities do you intend to construct?

☑Grow-out ☐ Processing (e.g. cooking) ☐ Quarantine ☑Hatchery

☐ Cold storage ☑ Post harvest purging ☑ Broodstock holding

☐ Other e.g. fish-out (please specify): _____

g) What fish species do you want authorised on your aquaculture permit?

Provide the common and scientific name.

Common name	Scientific name
Murray Cod	Maccullochella peeli
Golden Perch	Macquaria ambigua

Silver Perch	Bidyanus bidyanus
Rainbow Trout	Oncorhynchus mykiss
Brown Trout	Salmo trutta
Yabbies	Cherax destructor
Eel Tailed Cat Fish	Tandanus tandanus

Are you applying for an aquaculture permit for:

☑ **A new site.** Please continue to section 2.1

☐ **An existing approved aquaculture farm.** Please go to section 2.3.

Note: If you are applying for a permit over an existing farm it is recommended that you discuss your application with NSW DPI.

Part 2 - Is your site suitable for aquaculture?

For the long term sustainability of an aquaculture enterprise, an environmentally sound, low risk site needs to be identified. This is the first step in establishing a sustainable aquaculture facility. Site selection should take into account climate, topography, soil type, water availability, and permissibility within existing land use zoning. Please refer to the NSW Land Based Sustainable Aquaculture Strategy for further details.

It is strongly recommended that you discuss completing this section with NSW DPI before submitting it.

2.1 Minimum requirements

The following are minimum performance criteria that proposals **must** meet to be permissible development within NSW. Your application needs to demonstrate that you meet these criteria.

Locational Criteria	Minimum performance
1. LEP zones for ponds or tanks[1]	Within permitted zones of LEP zoning table

2. Conservation exclusion zones	(1) Must not be carried out on land dedicated or reserved under the *National Parks and Wildlife Act 1974*: (2) Must not be carried out on the following land, except to the extent necessary to gain access to water: *(a)* land declared as critical habitat under the *Threatened species Conservation Act 1995* *(b)* vacant Crown land *(c)* land within a wetland of international significance declared under the Ramsar Convention on Wetlands. (3) Must not be carried out on the following land, except for purposes of minimal infrastructure to support the extraction of water from, and discharge of water to, the land concerned: *(a)* land declared as an aquatic reserve under the *Fisheries Management Act 1994,* *(b)* land declared as a marine park under the *Marine Parks Act 1997*

Operation criteria	Minimum performance
1. Species selection	Species of fish or marine vegetation cultivated or kept must be consistent with the relevant Aquaculture Industry Development Plan.
2. Intensive pond aquaculture – pond design	Ponds must be capable of being drained or pumped and then completely dried.
3. Intensive pond and tank aquaculture freshwater discharges	No discharge of freshwater used to intensively cultivate or keep fish to natural waterbodies or wetlands is permitted, except freshwater discharge from open flow through systems

Operation criteria	Minimum performance
4. Outlets from ponds etc	All outlets from culture ponds, tanks or other culture facilities must be screened to avoid the escape of fish.

1 Nothing in subclause (2) or (3) affects any requirement under an Act relating to land specified in subclause (2) or (3) to obtain a licence or other authority under that Act for development of the land.

LEP zoning table

LEP Rural Zones	Pond	Tank
RU1 Primary Production	Permissible	Permissible
RU2 Rural Landscape	Permissible	Permissible
RU3 Forestry	Permissible	Permissible
RU4 Rural Small Holdings	Permissible	Permissible

RU5 Village	Prohibited	Permissible
RU6 Transition	Prohibited	Permissible

LEP Residential Zones	Pond	Tank
R1 General Residential	Permissible (1)	Permissible (1)
R2 Low Density Residential	Permissible (1)	Permissible (1)
R3 Medium Density Residential	Prohibited	Permissible (1)
R4 High Density Residential	Prohibited	Prohibited
R5 Large Lot Residential	Permissible (1)	Permissible (1)

LEP Business Zones	Pond	Tank
B1 Neighbourhood Centre	Prohibited	Permissible
B2 Local Centre	Prohibited	Permissible
B3 Commercial Core	Prohibited	Permissible
B4 Mixed Use	Prohibited	Permissible
B5 Business Development	Prohibited	Permissible
B6 Enterprise Corridor	Prohibited	Permissible
B7 Business Park	Prohibited	Permissible

LEP Industrial Zones	Pond	Tank
IN1 General Industrial	Prohibited	Permissible
IN2 Light Industrial	Prohibited	Permissible
IN3 Heavy Industrial	Prohibited	Permissible
IN4 Working Waterfront	Permissible	Permissible

LEP Special Purpose Zones	Pond	Tank
SP1 Special Activities	Permissible	Permissible
SP2 Infrastructure	Permissible	Permissible
SP3 Tourist	Permissible	Permissible

LEP Recreation Zones	Pond	Tank
RE1 Public Recreation	Permissible	Permissible
RE2 Private Recreation	Permissible	Permissible

LEP Environmental protection Zones	Pond	Tank

		C, D, E, F, H permit application
E1 National Parks and Nature Reserves	Prohibited	Prohibited
E2 Environmental Conservation	Prohibited	Prohibited
E3 Environmental Management	Permissible (2)	Permissible (1)
E4 Environmental Living	Permissible (2)	Permissible (1)

LEP Waterway Zones	**Pond**	**Tank**
W1 Natural Waterways	Permissible (3)	Permissible (3)
W2 Recreational Waterways	Permissible (3)	Permissible (3)
W3 Working Waterways	Permissible (3)	Permissible (3)

Note (1) Permissible only if the development is for the purposes of small scale aquarium fish production.
Note (2) Permissible only if the development is for the purposes of extensive aquaculture. Note
(3) Permissible only if the development will utilise waterways to source water.

2.2 a Project profile analysis – criteria for pond & tank aquaculture - Tier 1 – site evaluation

In completing an assessment of your proposal against the criteria within the Project Profile Analysis you will need to demonstrate that you can meet the relevant criteria. This may include the attachment of plans, diagrams, photos or documents.

It is strongly recommended that you discuss your application with NSW DPI before submitting it. If your proposal does not comply with Part 2.2b you will be required to complete this part. Further information relating to each of these criteria can be found in the NSW Land Based Sustainable Aquaculture Strategy.

Information for Tier 1 site evaluation criteria is generally available from government sources such as Councils, Land & Property Management Authority, Department of Planning and other relevant government agencies.

Project Profile Analysis – Tier 1 level of Assessment – Site Evaluation Criteria

1. Water supply information	Level 1	Level 2	Level 3
a) Saline ground water availability	Saline water available from Saline Interception and Evaporation Scheme.	Bore required to source saline waters	
b) Fresh water availability	• Existing licence approved for bore or river extraction, or • Licence available	• New licence required for bore or river extraction or • Reliant upon on-farm dam and 10% of local run-off. • Use of a mains water supply for growout nursery or hatchery	
c) Freshwater projects that plan to pump water from a river – Environmental flows	No access restrictions based on flows in normal conditions	Access permitted only during high flows in normal conditions	

2. Acid sulphate soils (sourced from Acid Sulphate Soil (ASS) Risk Maps)	Level 1	Level 2	Level 3
a) If site is less than 2 metres AHD based on survey data, ASS soil profile based on ASS Risk Maps	ASS Landform Process Class A with Landform Element Class b, l, t, p, y or w.	ASS Landform Process Classes A,W, B, E, L, S with other Landform Element than b, l, t, p, y or w	

3. Heritage Issues	Level 1	Level 2	Level 3

a) Heritage sites based on LEP or REP maps and State Heritage Inventory	No listings on the proposed site	Listings onsite	
b) Aboriginal heritage based on DECCW Aboriginal	No recorded sites or places and DECCW advises that	Sites or places recorded on the land and/or DECCW	Sites/places of regional or

3. Heritage Issues	Level 1	Level 2	Level 3
Heritage Information Management System and Local Aboriginal Land Council	no cultural or archaeological assessment is required	advises that a cultural and/or archaeological assessment is required.	national significance present and likely to impact on sites/places.

4. Native Title issues	Level 1	Level 2	Level 3
Status of native title interests	Crown Land, previous determination Native Title extinguished	Crown Land Native Title interest needs to be determined	

5. Flooding (sourced from Office of Water or Council information where available)	Level 1	Level 2	Level 3
a) Consistency with Council and/or Office of Water Floodplain Management Plans	Development is consistent with the outcomes of management plans and needs no controls	Development of the site is consistent with the management plan but will be restricted or controlled	Development of the site is inconsistent with the outcomes of management plans
b) Floodway area	Development is not proposed in a floodway	Development is proposed in a floodway	

Project Profile Analysis – Tier 2 Level of Assessment – Site Evaluation Criteria

Tier 2 requires the proponent to undertake a detailed site assessment which may include investigations by technical experts and in some cases, laboratory analysis. The information gained from this investigation can provide the basis for preliminary design and operation planning.

6. Water supply quality	Level 1	Level 2	Level 3
a) Water quality risks from nearby land uses	Growout water quality is consistently suitable for aquaculture and has low risk of contamination.	Growout water quality is mostly suitable for aquaculture and has low risk of contamination.	Growout water quality is not generally suitable for aquaculture and requires treatment OR has a high risk of contamination.
b) Potable water for processing etc.	• Mains water; or • Reliable supply of potable water onsite.	• Insecure supply of potable water requiring supplementation during dry periods; or • No existing potable water supply on site.	

7. Water Supply Access	Level 1	Level 2	Level 3
a) Saline groundwater supply access	Via piping from a saline groundwater interception and evaporation scheme	Via saline groundwater bore on property	Via compacted earthen channel from a saline groundwater interception and evaporation scheme.
b) Location of inlet/outlet pipe for estuarine or marine farms.	• Existing infrastructure suitable to carry inlet/outlet pipe, or • Sump/pit or any deepening of bed of estuary or waterway is not required.	Rock anchoring of inlet/outlet pipeline for marine water, or Requires a sump/pit in estuary or waterway, or Establishment across ocean beach	
c) Fresh water pump station site	Does not require sump/pit or any deepening of bed of river	Requires a sump/pit in river	

8. Stock security	Level 1	Level 2	Level 3
a) Proposed species consistent with Table 3 (species culture methods and constraints) in Species Selection chapter.	Pond or tank site above the PMF level in the eastern drainage or above 1:100 ARI flood level in the western drainage. [3]	Pond or tank site below PMF level in the eastern drainage or below 1:100 ARI flood level in the western drainage but constructed so unlikely to be inundated and lose stock in a flood event. [3]	

9. Hydrology Issues	Level 1	Level 2	Level 3
a) Catchment Drainage including Stormwater	• No catchment drainage across site, or • Provision to manage across site flows not likely to affect surrounding area	• Catchment drainage across site; or • Alteration of the drainage of stormwater likely to affect surrounding properties	Flood management likely to alter the course of the river or drainage patterns.
b) Excess water (effluent) storage pond/dam.	No stormwater catchment drainage into excess water (effluent) storage pond/dam.		

10. Mean site elevation	Level 1	Level 2	Level 3
Mean elevation of the area occupied by ponds or tanks	>1 metre AHD	< 1 metre AHD	

11. Ecology	Level 1	Level 2	Level 3
a) Vegetation type on the actual development site (flora survey required)	Cultivated land, improved pasture, or predominantly cleared and no need for consent to clear or disturb native vegetation under Native Vegetation Conservation Act or Water Management Act.	Predominantly native vegetation – trees, shrubs, grasslands OR Clearing vegetation requires consent under Native Vegetation Conservation Act or Water Management Act.	Proposal likely to impact on vegetation of ecological significance.
b) Occurrence of threatened species, populations or ecological communities or their habitats (flora & fauna survey required)	No threatened species, populations or ecological communities or their habitats known or likely to occur –Test of significance not required	Threatened species, populations or ecological communities or their habitats known or likely to occur – Test of significance required	Likely to significantly affect threatened species, populations or ecological communities or their habitats. [4]
c) Likely impact on aquatic habitats and mangroves.	No likely disturbance or impact	Disturbance or impact on aquatic habitat or mangroves – approval or permit needed to disturb mangroves or seagrasses, reclamation or dredging works or impeding fish passages.	

12. Aboriginal heritage	Level 1	Level 2	Level 3
a) Consultation with Aboriginal community (Call DECCW for appropriate contacts)	No values of cultural significance to the Aboriginal community identified.	Values of cultural significance to the Aboriginal community identified. Agreement reached between Aboriginal community, DECCW and proponent on the management of these values.	Values of cultural significance and no agreement reached with Aboriginal community or DECCW on the management of these values.

12. Aboriginal heritage	Level 1	Level 2	Level 3
b) Location of Aboriginal Sites	No recorded Aboriginal site/place and DECCW advises that no cultural or archaeological assessment is required	Recorded Aboriginal site/place and/or DECCW advises that a cultural and/or archaeological assessment is required	
c) Likely impact on Aboriginal heritage [4]	No impact on Aboriginal sites/places or values of cultural significance to Aboriginal community	Impact on Aboriginal sites/places or values of cultural significance to Aboriginal community	Sites/places of regional or national significance present and likely to impact on sites/places.

13. Provision of riparian buffer	Level 1	Level 2	Level 3
Riparian buffer distance from the edge of the culture or effluent pond.	> 50 metres	< 50 metres	

14. Excess water disposal	Level 1	Level 2	Level 3
a) Management of excess freshwater from closed systems	• Non-irrigation reuse scheme (e.g. Hydroponics, reuse, discharge to sewer with a trade waste agreement); OR • Irrigation re-use scheme and irrigation site has adequate area and soils have slight limitations[5]	Irrigation re-use scheme and irrigation site has inadequate area and/or soils have moderate or severe limitations[5]	
b) Management of excess saline groundwater	Disposed to a saline groundwater interception and evaporation scheme, estuary or ocean via piping or channels lined with impervious liner.	Disposal from a closed system to an on-site evaporation system or direct injection to a saline aquifer.	Disposed to a saline groundwater interception and evaporation scheme, estuary or ocean via earthen channel.

15. Adjacent land use	Level 1	Level 2	Level 3
Potential for conflict with neighbours	Neighbouring land zoning compatible e.g. agriculture/industrial development.	Neighbouring land zoned for residential or rural residential purposes or has been identified as suitable for this purpose in an LEP or REP.	

16. Flooding - Proponent Studies considering DECCW or Council information where available	Level 1	Level 2	Level 3
Impacts of development on flooding	Development not likely to adversely impact flood behaviour	Development likely to adversely impact on flood behaviour	

3 Note: Highest historical flood level may be considered where 1:100 ARI flood level is not readily available in the western drainage 4
Note: approval from DECCW is required.

5. See Table 1 & Table 3 respectively in Agnote DPI-493 Landform and soil requirements for biosolids and effluent reuse for more details.

Project profile analysis Tier 3 – operational evaluation

The proponent in Tier 3 is required to investigate operational criterial for species, design, layout and operation of the aquaculture proposal.

17. Health management	Level 1	Level 2	Level 3
Identification and treatment of disease	• On site trained staff with appropriate facilities, or • Demonstrated arrangement with accredited laboratory or veterinary practice	No onsite provision for diagnosis of disease and no backup arrangements with an accredited laboratory or veterinary practice	

18. Feed management	Level 1	Level 2	Level 3
Feed storage	Vermin proof facilities to store feed (eg. enclosed shed, cool, low humidity)	Feed stored outdoors or so as not to minimise odour or other problems	

19. Water monitoring for intensive culture	Level 1	Level 2	Level 3
a) Capacity to monitor water quality.	Provisions of high quality water quality meters or test kits to monitor DO, Temperature, ammonia, salinity and pH	No provisions for regular monitoring	

20. Organic waste management (eg. mortalities, processing waste and other waste)	Level 1	Level 2	Level 3
a) Temporary storage of organic waste	•Daily disposal; or •Held prior to disposal so no odour generated (eg. frozen or chilled)	Held in sealed or covered containers prior to intermittent disposal	No specific arrangements

b) Disposal of organic waste on-site or off-site	• Disposed at an approved off-site recycling or landfill facility; or • Buried (with lime) or composted in an area which is > 100m from a waterways and where the groundwater is > 3m and the soil has low permeability	Buried (with lime) or composted in an area which is < 100m from a waterways or where the groundwater is < 3m or the soil is not low permeability.	No specific arrangements
c)Disposal of stock in the event of a mass mortality, on-site or off-site	Arrangements in place for disposal at an approved off-site recycling or landfill facility.	Buried (with lime) or composed in an approved onsite disposal area.	No specific arrangements

21. Recirculating water management for intensive culture	**Level 1**	**Level 2**	**Level 3**
Storage capacity for recycling water in semi closed and closed intensive culture systems.	> 2 times the volume of largest growout pond or tank	1 - 2 times the volume of largest growout pond or tank	< the volume of largest growout pond or tank

22. Discharge Water Management for Open (flow through) freshwater (for approved species) or estuarine, marine or saline ground water systems	**Level 1**	**Level 2**	**Level 3**
a)POEO Act Licence	Not required	POEO Act licence required.	
b)In stream water quality objectives.	In stream water quality objectives met.	In stream water quality objectives not met. Mitigation measures to meet WQOs required.	
c)Discharge water treatment	Discharge water screened to avoid escapement of stock and a water treatment system.	Discharge water screened to avoid escapement of stock and no treatment.	
d)Daily Discharge limits for species approved for freshwater open systems eg. salmonids.	< 60mg/l TSS < 0.30mg/l Total N < 0.05mg/l Total P	> 60mg/l TSS > 0.30mg/l Total N > 0.05mg/l Total P	
e)Total Discharge load limits for species approved for freshwater open systems eg. salmonids	< 55kg N/tonne of fish produced < 12kg P/tonne of fish produced	> 55kg N/tonne of fish produced > 12kg P/tonne of fish produced	

Project profile analysis – additional criteria for pond aquaculture

Tier 1 – Additional specific site evaluation criteria for pond aquaculture

23. Water Supply information for PONDS	Level 1	Level 2	Level 3
Estuarine - Tidal amplitude	Greater than 600mm	Less than 600mm	

Tier 2 – Additional specific site evaluation for pond aquaculture

24. Topography criteria for PONDS	Level 1	Level 2	Level 3
a)Estuarine ponds – slope of land	< 2% slope	>2% slope	
b)Freshwater ponds – slope of land	< 5% slope.	>5% slope	

27. Saline Groundwater Pond Design for PONDS	Level 1	Level 2	Level 3

a)Saline groundwater ponds including excess water	Artificial liner with compacted clay underneath and	Compacted clay and groundwater monitoring bores.	

25. Soils criteria for PONDS	Level 1	Level 2	Level 3
a)Soil Characteristics – Suitability for pond/dam construction	Clay with mixture of soil/sand and low erosion potential and suitable for dam construction	Sandy/gravely with erosion potential and/or limited water holding capacity – may need to import most pond clay for lining material or an artificial liner	
b)Soil Contamination based on SEPP 55 criteria for the area occupied by any pond	Suitable for residential use or for animal occupation	Exceed levels safe for animal or residential uses	

26. Hydrology issues for PONDS	Level 1	Level 2	Level 3
Potential to affect groundwater below any pond	No underlying potable or high quality fresh groundwater within 3m of the surface	Underlying groundwater within 3m of the surface.	

27. Saline Groundwater Pond Design for PONDS	Level 1	Level 2	Level 3
storage ponds.	ground water monitoring bores.		

Tier 3 – Additional specific operational evaluation criteria for ponds

28. Health Management for intensive culture for PONDS	Level 1	Level 2	Level 3

a)Period of total farm dryout after every production cycle for prawns.	>6 weeks between crops	<6 weeks between crops	
b)Predators management of fingerling or growout ponds	All fingerling ponds screened/netted, or other management systems not intending harm to predators in place for growout ponds	Only 'scare' systems (Note: may trigger need for Test of significance if threatened bird species are affected)	

29. Pond water management for intensive culture for PONDS	**Level 1**	**Level 2**	**Level 3**
a)Supply pipe or channel capacity	Largest growout pond can be filled in < 1 day	Largest pond can be filled in > 1 days	
b)Intensive Pond Outlet system	No pumping required to drain a pond completely.	Requires pumping from an internal or external sump to drain pond.	

Additional criteria for tank aquaculture

Tier 1 – Additional specific site evaluation criteria for tanks

30. Water supply information for TANKS	**Level 1**	**Level 2**	**Level 3**
Estuarine – Tidal amplitude	>300mm	< 300mm	

Tier 3 – Additional specific operational evaluation criteria for tanks

31. Health Management criteria for TANKS	**Level 1**	**Level 2**	**Level 3**
Disinfection of tank aquaculture system	Systems capable of disinfection and dry-out to break pathogen cycle	Difficulty in total disinfection and dry-out of facility or no provisions	

32. Culture water management criteria for TANKS	**Level 1**	**Level 2**	**Level 3**

Semi closed and closed tank aquaculture systems	Recirculating aquaculture system with biofiltration, solids filtration (fine, suspended, settlable) oxygen, UV, or ozone, pH control	Recirculating aquaculture system having reduced or non-standard componentry	

2.2 b Project profile analysis – extensive pond aquaculture permissible without consent

Extensive pond aquaculture that is authorised under a Class C or E aquaculture permit that utilises existing on-farm water storages (dams or ponds) and buildings and meets all of the following criteria is permissible without consent from your local council.

It is strongly recommended that you discuss with NSW DPI as to whether your proposal compiles with the requirements of this section before you submit your application.

Locational Criteria	**Minimum performance**
LEP zones	Within rural zone RU1 (Primary Production), RU2 (Rural Landscape), RU3 (Forestry), RU4 (Rural Small Holdings), or RU6 (Transition).
Conservation exclusion zones[6]	(1) Must not be carried out on land dedicated or reserved under the National Parks and Wildlife Act 1974: (2) Must not be carried out on the following land, except to the extent necessary to gain access to water: a. land declared as critical habitat under the Threatened Species Conservation Act 1995, or b. vacant Crown land, or c. land within a wetland of international significance declared under the Ramsar Convention on Wetlands.
Flood liability	Must be designed or constructed on land so that it will not be inundated by the discharge of a 1:100 ARI (average recurrent interval) flood event.

Operation criteria	
Species selection	Species of fish or marine vegetation cultivated or kept must be consistent with the relevant Aquaculture Industry Development Plan.
Pond design	1. Must not require the construction of new ponds, water storages, dams or buildings. 2. Must not be located on permanent watercourses, creeks, billabongs or isolated outreaches of creeks or rivers. 3. Must be capable of preventing the escape of stock into natural water bodies or wetlands.
Culture Water	Must use freshwater.

6 Nothing in in subclause (2) affects any requirement under an Act relating to land specified in subclause (2) to obtain a licence or other authority under that Act for development of the land.

2.3 The farm – general details

Please attach several photographs to illustrate the whole area(s) to be developed.

Photos attached in FFVS Crossley Native Fish and Yabby Biosecurity and Health Management Plan

a) Are the aquaculture facilities:

☑ Constructed ponds ☑ Tanks ☐ Raceways ☑ Farm dams

☐ Other (please specify): _____

Please provide brief details and plan, if applicable, of the following facilities:

b) Grow-out ponds (including volume, dike slope and sump design for harvest and include a diagram)

2 x 50m by 25m Nursery grow out ponds, volume of one megaliter, dike slope 1:5, and gravity sump drain

c) Grow out tanks (including dimensions of tanks and buildings)

2 x 2000L poly tanks, 6 aluminum troughs approximately 300cm long by 55cm wide, 30 plastic approximately 12L containers. Hatchery sheds 9m by 12m and 8m by 9m

d) Other grow out facilities

I have an Artemia hatchery for larval fish grow out.

e) Drainage/overflow mechanisms

All water on the farm site drains to the major storage Broodstock pond.

f) Aeration facilities (emergency and/or supplementary

SC Blower 0.7kW delivering through a 1.5-inch poly line for 700L/minute. Blower delivers compressed air to the hatchery for use with air stones, and for use in production ponds to get supplementary aeration to help combat any possibility of low dissolved oxygen in the water. Also have back up from solar powered aerators.

g) Pumping facilities (number, KW, output)

Solar pump – Mono Sun Sub Elect Track (NOV MONO SSO660MC30T with 600w solar tracker)
Yamaha irrigation pump 30HP

h) Feeding equipment

Artemia hatching facility.

i) Harvesting equipment

Landing nets
Plankton nets
Aquarium nets

j) Purging facilities

The only purging will be of Yabbies' for human consumption, and that will occur in the round poly tanks in the hatchery.

k) Emergency electricity generation

Emergency electricity generation is by a petrol-powered backup generator, HQM 8.5 kVa. Also have solar powered back aerators.

2.4 Water sources and systems

a) What is the major water source for the project?

☑ Rain-fed catchment (harvestable right) ☐ Pumping from aquifer (bore)

☐ Pumping from surface water supply (river, estuary) ☐ Irrigation scheme

☐ Other (please specify): _____

Note: Have you consulted the NSW Office of Water website www.waternsw.com.au/customer-service/water-licensing/basic-water-rights/harvestable-rights-dams/maximum-harvestable-right-calculator to check your permitted harvestable right.

b) Describe methods for managing the major water supplies. Please include size of pump lines and water storage capacity (other than culture facilities).

Major water supplies are provided by dams catching rain fed harvestable rights. The dams capacity on the farm are over 20 megaliters of storage. The pump line for the solar pump from dam to dam to achieve gravity flow in the hatchery is a two-inch black poly pipe

c) Does each pond/tank/raceway have an independent water supply and drainage system?

☑ Yes ☐ No

If yes provide details including an attached plan

All ponds and tanks can be independently filled and also drained independently. Plans attached in FFVS Crossley Native Fish and Yabby Biosecurity and Health Management Plan.

f) Can ponds/tanks/raceways or other grow-out facilities be gravity drained completely to dry bottom?

☑ Yes ☐ No

Please explain the method and estimated time to drain

All ponds and tanks drain quickly and efficiently. The two production ponds are gravity drained completely into a concrete sump for efficient fish harvest in a time frame of hours.

h) What is the total water surface production area? Please attach plans showing dimensions of ponds/tanks/raceways or other facilities

_____ M_2

i) If culture water is to be recirculated, describe methods of:

Recirculation:

Solar pump used to pump water from dam to dam to achieve gravity flow in the hatchery.

Biological and mechanical filtration:

Hatchery inflow water is put through a two Titan Series sand filter

Expected exchange rates:

Exchanges are managed according to the biomass load

2.5 Containment of stock, disease, pollution and prevention of predators

a) Describe predators (e.g., cormorants, water rats, and wild fish) likely to occur in the area and how you propose to manage them.

Predators include cormorants and turtles, and the proposed way of management is by exclusion nets and scare methods including mirrors and mannequins

b) How will you prevent farmed fish escaping? Give details of screens (material, aperture, size), barriers and methods to prevent escape during heavy rain for all of the facilities

All farm infrastructure is not near or adjacent to any permanent water course

c) What feeds will you be using to grow your fish

☑ Live feeds ☑ Frozen feeds ☑ Commercially prepared pellet feeds

☐ Other feeds. Please provide details: _____

If using live or frozen feeds please provide details of the proposed source of the feeds:

Live: Artemia from own hatchery
Yabbies: From own farm
Frozen: Carp caught by fishing bycatch. Chicken mince purchased from the butcher used for weaning Murray Cod onto commercial feed.

2.6 Environmental effects

a) Will the project involve:

Discharge of effluent to public water land ☐ Yes ☑ No

Discharge of effluent for use in irrigation (indicate on plan) ☐ Yes ☑ No

Has an EIS or an REF been prepared for the DA? ☑ Yes ☐ No

If you answered 'yes' to any of these effects, please give details and provide a copy.

Statement of Environmental Effects will be lodged with the DA

b) Will the project involve alteration, clearing or other harmful effects to:

Wetlands (e.g., mangroves, salt marshes, freshwater swamps ☐ Yes ☑ No

Seagrass beds ☐ Yes ☑ No

Creeks or rivers (including intermittent streams) eg damming, alteration of flow

☐ Yes ☑ No

Trees, shrubs, bush along watercourses ☐ Yes ☑ No

Major native faunal habitats ☐ Yes ☑ No

Terrestrial vegetation ☐ Yes ☑No

Nearby residences or developments e.g. through noise ☐ Yes ☑No
If you answered 'yes' to any of these effects, please give details

_____

c) Are there rare or endangered plants on the site? ☐ Yes ☑No

d) Are there rare or endangered animals on the site? ☐ Yes ☑No

What steps have been taken to establish this? (enquire at Office of Environment & Heritage)

_____

If present, what is being done to conserve them?

Are there traditional aboriginal sites on the land? ☐yes ☑no
What steps have been taken to establish this? (enquire at Office of Environment & Heritage)

_____

If present, what is being done to conserve them?

_____

2.7 Development application and other government requirements

a) Does the local council require a DA for the proposed development? ☑yes ☐no
b) Has the proposal been discussed with the agencies listed below?

☐ Office of Environment and Heritage

☐ Department of Planning & environment

☐ Other, please specify _____

Please continue to Part 3, Commercial Farm Development Plan

Part 3 – Commercial Farm Development plan (CFDP)

You will need to address each point itemised in Sections 3.1 to 3.10 below.

If you have already developed a business plan for your proposal it may fulfil the requirements of this section of the aquaculture permit application. Please contact NSW DPI to discuss this further before submitting your permit application.

3.1 Product definition

1. Indicate which species you intend to farm, and to what level you will concentrate on each species.

Will operate to produce Murray Cod, Eel tailed Catfish, Golden and Silver Perch, Trout and Yabbies. With Murray Cod I will concentrate on producing Larvae to pass onto other Cod hatcheries to cover their shortfall, as well as to produce fingerlings for local farm dams. Golden and Silver Perch will be produced as Larvae as well and going forward will attempt to produce fingerlings as well. Trout eggs will be purchased and hatched in incubators and grown out to fingerling size for local farm dams. As for the Yabbies some will be intensively grown for Aquariums and the extensive Yabbies will be harvested for the purpose of bait and human consumption.

2. Estimate annual production for each species to be farmed. Base conservative estimates on the full farm area applied for, and not on future expansion. What is your intended product? (e.g. Fingerlings, live or processed fish for human consumption, other) and quantity (e.g. Number of fingerlings, kilograms of product).

Annual production of Cod, Perches, Trout and Yabbies is governed by seasonal conditions. At first, we intend to produce Murray Cod larvae to fill the void in other hatcheries that either have had trouble getting past hatching stage or need more larvae to meet their criteria. The window for opportunity beckons here as due to the nature of the altitude in which we are located, our season for natives is much later.

In addition, approximately 80000 - 100000 Larvae will be added to two larval rearing ponds to produce fingerlings for local farm dams. At present we have the capacity to produce 1 million+ Larvae for each native species. During the winter months we intend to purchase fertilised trout eggs. These eggs will be hatched and reared in the hatchery until they reach fingering size then sold to local farmers for their farm dams. Production of trout will be reliant on how many can be purchased, which is reliant on both funds and availability. We strongly believe that production can yield an 85-90% success rate due to the quality of our water and infrastructure.

Yabbies will be produced both extensively and intensively. The intensive Yabbies will be specifically for ornamentals for the Aquarium market and extensive Yabbies to be harvested for bait and human consumption. We believe we can produce around 200 kg per annum.

3.2 Operating plan

3. *Where* will you obtain stock (e.g. fingerlings), and is consistent production dependent on stock being accessible at all times of the year?

Already have Murray Cod, Silver and Golden Perch, Eel Tailed Catfish and Yabbies in the dams on the property. The Murray Cod have been on the property for over 60 years after being introduced by my grandfather Cedric Crossley, whilst the Yabby seed stock has been here since the gold rush. Both Golden and silver perch had been introduced approximately 25 years, which were initially purchased from Narrandera Hatchery. Consistent production is a given as all broodstock being easily accessible at all times of the year.

4. What stocking rate do you anticipate (e.g. Kgs/ha or kgs/M^3)?

Hatchery can hold 1million+ Larvae at a time. Grow outs can currently hold up to 100,00. Any excess not sold or put in larval rearing ponds can be spread amongst other dams on the property for future Broodstock

5. Give details of husbandry practices you will use, including pond/tank/raceway preparation, stocking, pond/tank/raceway management and feeding techniques?

As prevention is the best cure to pathogens and diseases and a combination of good husbandry and management techniques will ensure that stock remains relatively disease free. Water quality should be maintained to relieve stress on the fish, and regular inspection of fish should be undertaken to monitor health. Upon the first signs of a disease outbreak a sample of fish should be inspected for obvious disease symptoms, and water quality should be checked. If a source of infection or disease cannot be identified, a qualified fish veterinarian should be consulted.

Every Season at the change of the weather, treat all main ponds with Formalin to maintain good health of the Broodstock. In addition to this the environment in which Broodstock is kept is maintained as a healthy ecosystem in which there is plenty of food to help allow for high quality and fertile fish with eggs of a high hatch rate and high quality and then healthy Larvae.

*Water temperature is checked and as soon as the water temperature reaches 18*c Artificial nesting drums are set to allow male Cod to perform their mating rituals. Once water temperature reaches 20*c drums are checked every 3 days, as eggs take 6 - 10 days to hatch. Once eggs are laid, they are taken back to the hatchery and filled with water which is continually run (turned off whilst adding formulin) and supplementary aeration placed in the middle. Two hundred milliliters of formulin is added and allowed to sit on eggs for 10-12mins before water being turned back on, 100ml is added each day until foam appears on top (this means they are starting to hatch). Once eggs have hatched Larvae are syphoned into a container through a sieve to separate Larvae from unhatched eggs and egg castings. Larvae are then moved into trays with supplementary air supply and left for 6-10 days, until their bellies have been absorbed and they start to "swim-up". Once swim-up is reached they are fed live Artemia every 4-5 hours for 14 days, cleaning in between feeds to maintain health. After most of the Larvae being sold approximately 80,000-100,000 will be kept to grown out to fingerling size in prepared Larval rearing ponds. Ponds will have supplementary aeration to help combat any possibility of low dissolved oxygen in the water.*

Water quality will be well managed and checked on a regular basis. The main site where the hatchery is situated the water flow is easily controllable and is continually circulated. First being pumped from the main dam via solar pump then gravity fed back though the hatchery.

6. Provide details of the intended production strategy (e.g., use of a nursery phase, grading etc.) and other factors as they relate to the production cycle.

The intended Trout production strategy is after eggs being incubated to grow out in hatchery in poly round tanks and fed an artificial commercial feed until the fingerlings at the required size to sell to local farmers for farm dams.
The intended Yabbies' production strategy will be to use intensive aquaculture to grow out in production ponds to sell as ornamentals, and using extensive aquaculture to harvest to sell for bait to places such as The Complete Angler in Wagga Wagga and Trowels Takeaway in Tumut, and for human consumption.

Intended Murray Cod production is to hatch and raise Larvae specifically for the Murray Cod Industry, as well as growing out approximately 100,000 to fingerling size to sell to local farmers for their farm dams, to sell to pet shops such as Bob's Birds and Pets and Wollundry Fruit Barn in Wagga Wagga and raising for future Broodstock. The production facilities used to include hatching of Artemia for food will all be located on the property at Jones Creek. The Broodstock will be held in earthen ponds on the property where spawning will occur in breeding drums, the drums once spawned can be transferred to the fully controlled hatchery where they are hatched and grown into larvae. Once larvae are 6- 10 days post hatch and are at swim-up stage they will be fed live Artemia. Fourteen days later 80,000-100,000 Fry will be transferred to the larval rearing ponds. Once fingerlings have been harvested by use of screens and nets, they will be transferred back to hatchery and quarantined and treated in a salt bath. After the fingerings will be graded according to weight then weaned onto artificial commercial feeds.

The health management strategies are in place that will support the maintenance and production of all species to be farmed. Excellent husbandry and management techniques will ensure optimal fish health. Minimal handling of Broodstock, along with regular does of formulin will help ensure overall fish health as prevention of disease and pathogens is the best cure. In addition, optimal nutrition at all stages of life will ensure the maintenance of healthy stock. Any handling of Broodstock will be kept to a minimum to avoid any undue stress on fish, especially during the four months leading up to breeding season. Periodic doses of formulin at 25-30 mg/L will help with the prevention of White Spot and Chilodnelliosis

Murray Cod: First feed will be live Artemia then on freshwater zoo plankton before being introduced to Larval rearing ponds which has a healthy plankton bloom made with Lucerne hay and Mono Ammonium Phosphate. Eight weeks later they will be harvested and taken back to the hatchery where they will be weaned onto an artificial commercial diet. Broodstock live off the live feed that are abundant in all Broodstock ponds, as well as occasional supplementary feeds.

Trout: After Fry's belly has been absorbed, they will be fed dust moving up a grade as they grow.

Yabbies': Bails of Lucerne will be rolled into Yabby ponds to assist in feeding them.

7. What is the expected maximum daily feeding rate per unit area (intensive culture only)?

The daily feeding rate is dependent on the life stage of the fish, as is stocking densities. Murray Cod do not need to be feed until they reach 6 - 10 days post hatch (when they have absorbed their egg sack and come to swim up stage). Once Larvae reach "swim-up" stage they are feed 1 tablespoon/5000-6000 artemia every 4 - 5 hours for approximately 10-14 days then weaned onto freshwater zoo plankton. Once fingerlings have been harvested, they are taken back to the hatchery and graded into separate tanks and weaned onto an artificial commercial feed with the help of chicken mince at a rate of 3-7% of body weight per day.

8. How will the product be harvested, e.g. seining, drain harvest, traps?

The Cod fingerlings in larval rearing ponds will be harvested by draining them into the sump and trapping fingerlings. They are then caught with nets and put into aerated tanks where they are treated in salt bath for 1 hour before taking them back to the hatchery. Back at the hatchery they are graded then weaned.

3.3 Quality assurance program

9. Have you considered all applicable quality assurance or food safety program provisions as required by NSW Food Authority, including quality assurance programs that may apply?

A Food Authority Food Processing licence is at this point in this time not required due to the nature of operations is not intended for food, other than yabbies which will be purged then sold.

3.4 Farm development plan

10. Discuss site development potential and future expansion plans (if any) including timetable, facilities for area and anticipated production during the next five years.

The farm site already has the ability to be both a Native and a Trout hatchery as spawning of each species occurs in different seasons.

Currently the property contains a large shed for the hatchery with three separate rooms, two larval rearing ponds with sumps in the bottom for harvesting. Also has three large main ponds with broodstock and is equipped with solar pump which is pumped into a pond above it then gravity fed back though the hatchery which is filtered with sand filtration.

Future expansion would potentially include a bore being dug for further water security.

The intended production over the next 5 years would primarily focus on the hatchery. Hatching out and providing other hatchery's and grow out operations with viable and healthy Larvae. In addition, with the production of Natives and Trout fingerlings for local farm dams. Yabbies' intended production would be both intensive and extensive. The intensive Yabbies' will be for fish aquariums for ornamental purpose, selling primarily to pet stores. While the extensive Yabbies' will be harvested and supplied to local fish and tackle stores for live bait, and some for human consumption.

11. When is work on the business anticipated to commence

Work will commence in the first season after this application is granted and permits obtained.

12. What is the expected initial capital investment in this business?

Expected initial capital investment would be the application fees related to the DPI plus a larger Artemia set up. I already have most of the infrastructure in place.

13. What is the expected total capital investment in this business?

Capital expenditure of around $10,000 would cover the necessary permits. We will also need to purchase more nylon screen to line breeding drums ($45/6 drums). A further $ 1000 will

cover the cost for a larger Artemia hatchery and another $1000 will cover the cost of Artemia cysts to be hatched for larval feed.

3.5 Organisation and personnel

14. How many people will be directly employed in this operation? (excluding workers developing site but including yourself and other family members working on the farm):

- At the commencement of work on the business?
- Over the next 12 months?
- Ongoing?
- How many extra people other than normal employees will be employed developing the site only (e.g. pond construction)?

There will be one person going forward with the continued development of the farm. Much of the construction is already complete, and I have done it myself.

15. Do you have adequate husbandry knowledge for the culture of your chosen species, or can you employ someone who does?

I believe I have adequate husbandry knowledge which I have learned off others in the industry after attending their farms. Including Noel Penfold from Murray Darling Hatcheries, Shannonn Whitley from Ararah Fisheries and Greg Semple for Murray Cod Hatcheries at Gumly Gumly. I have also attended the NSW DPI sponsored Murray Cod conference in Griffith. I have also spent time on many occasions with Matt McLennan and Lachie Jessi at the Narrandera DPI Fisheries Research Centre. I have also got experience of doing it all myself on my own property. Going forward I will continue to network with other fisheries members taking their knowledge on board were applicable.

3.6 Market analysis

16. What are the current average prices for the product you wish to culture, and what prices do you expect to receive for your product?

Trout fingerings will start at $1 each while native larval price will start at 10 c each for 6-10 days post hatch. Murray Cod fingerlings to be sold for $2.50 each at 45mm and $ 3 for 60+mm. Yabbies' weighing 90+ grams can be sold to pet shops and for human consumption for $10 each and smaller yabbies' (extensive only) sold for around $1 each.

17. What and where are your target markets, and what product form/s and volumes does your target market require?

In recent years there has been a huge growth in the industry with native fishes becoming more sort after and native wild populations being greatly depleted. My primary target market is within the industry itself and intended on helping to meet the shortfalls of other hatcheries and grow-out facilities, providing them with healthy and viable Larvae. Also, with favorable rains local farmers will be wanting to restock their farm dams.

18. What are the distances between your farm and your markets, and is there available to you the necessary infrastructure to transport across these distances?

All of the Major Cod hatcheries and Grow-out participants are within 300km away and easily accessible by road. Until the time in which I can afford a custom-built transport vehicle, deliveries will be made in oxygenated bags in Styrofoam boxes.

3.7 Marketing and sales strategy

19. Discuss your product distribution timing (when can prices be maximized, when can market surplus be avoided). Include an operating schedule and production-timing schedule.

The timing of our distribution has a distinct advantage as the altitude in which we are situated is much higher than other Cod Hatcheries. Meaning that our season finishes far later. As the season is later this gives us the opportunity to meet the shortfalls of other Hatcheries in the bid to help the industry meet long term production goals.

20. Are there any opportunities for value adding of the product you wish to produce, and will you undertake any value adding for your product?

For the next five years majority of the profits will go directly back into the business, focusing on expanding into more infrastructure to help meet the rapidly increasing market demand. In Addition, this gives more opportunity to expand into other areas of the industry including Fish-out and/or grow-out operations.

21. What are your marketing strategies to assist you to develop new markets for your product

Over many years I have been building relationships with the Murray Cod network. They are willing to purchase my product when it is available and have obtained a permit.

22. Can you complete against markets for your chosen product, including competition against wild caught product or imported product from interstate or overseas

We won't have to compete against the existing market. In fact, we can only assist the current industry as we can meet any short falls including but not limited to hatchery losses and increased demand for grow-out operations.

3.8 Risk management

23. Discuss contingency strategies you will employ in your farming practices, and strategies for the management of business risks

It has taken a Decade to get where I am today, building the farm from the ground up with my bare hands. As most of the current farm infrastructure is already in place and the foundation of knowledge is there the risk is dramatically decreased. In addition, being involved in the fisheries industry is something that I have wanted to be involved in all my life. I have always had a fascination with aquatic organisms and with growing up on a working farm this has brought those two things together. As I have already undertaken husbandry practices, I know it is possible to produce. All this keeps me focused into continually pushing forward and that further decreases the risks.

24. How will you stage your development over a number of years to spread the risk?

Development will be stage over a number of years by building infrastructure in stages over time so to spread the risk.

3.9 Financial forecast

25. Provide a cash flow analysis on your production estimates for a minimum of 3 crops, and indicate what assumptions this analysis has been based upon

The cash flow from full production estimates over three years would be up to $350,000 on the assumption of being able to sell 100,000 Murray Cod fingerlings at $2.50 and selling of one million Murray Cod larvae at 10 cents each. There is also the potential sale Yabbies' Perches and Trout depending their various successes.

26. What is the anticipated return on investment at full production capacity?

The anticipated return on investment at full production capacity would be healthy.

3.10 Biosecurity Risk Management Plan

Disease is an inevitable part of aquaculture production. Worldwide, there is increasing risk of significant aquatic animal diseases emerging and spreading.

Your Biosecurity Risk Management Plan should describes the systems you will put in place to protect your farm from diseases. These systems will reduce the risk of damaging diseases entering your farm, can prevent health issues emerging within the farm, and can reduce impacts of disease when it occurs.

As a minimum the Biosecurity Risk Management Plan should address the following issues:

- Location of the farm;
- Layout of the farm including reticulation plan and unique identifiers for each component of the farm;
- Volumes of water contained within each tank, pond or raceway;
- Risk analysis including:
  - Biosecurity risks associated with water source;
  - Biosecurity risks associated with juvenile (fingerling/spat) stock sources and all stock movements associated with your farming strategy;
  - Biosecurity risks associated with on-farm and inter-farm movement of people, stock, vehicles and farming equipment;
- On-farm water quality analysis
- Waste management, in particular in the event of an disease event;
- Disease identification, surveillance and associated reporting procedures;
- Biosecurity risk treatment options for potential diseases and any associated chemical usage;
- Identification of standard operating procedures;
- Staff training in regard to record keeping, disease identification and disease and pest reporting procedures; and
- An Emergency Disease Action Plan which clearly describes how you will respond should a disease or pest incursion occur on you farm.
- Review and audit procedures

This is not an exhaustive list of matters to be included and further information regarding the preparation of a Biosecurity Risk Management Plan is available at: 1. Aquaculture Farm Biosecurity Plan: generic guidelines and template.

2. Information regarding some diseases and pests is available on-line at https://www.dpi.nsw.gov.au/biosecurity/aquatic

Note: You may wish to contact your relevant aquaculture sector association as some associations have already developed specific Biosecurity Risk Management Plan for their sector.

Your application is now complete. Please refer to the applicant checklist on page 2

Glossary of terms used in this application form

Term	Definition
Broodstock	Parent fish used to produce offspring
Class C permit	Authorising extensive aquaculture to be undertaken otherwise than on public water land
Class D permit	Authorising intensive aquaculture to be undertaken otherwise than on public water land
Class E permit	Authorising extensive freshwater aquaculture to be undertaken at 2 or more privately owned locations otherwise than on public water land
Class F permit	Authorising a person to operate a fish pond, tank or other structure with a view to charging members of the public for the right to fish I the pond, tank or structure
Class H permit	Authorising a fish hatchery to be operated
DA	Development Application
EIS	Environmental Impact Statement
Extensive	Aquaculture undertaken without providing supplementary food for the fish or marine vegetation that are being cultivated
Facilities	Buildings, structures, machinery, plant, tools and equipment
Fish	All aquatic animals except marine mammals and reptiles or amphibians
Food	Includes any form of nutrient
Grow-out	Facilities for growing fish to market size
Hatchery	Facilities for maintenance and maturation of broodstock, spawning (natural or artificial) and larval rearing

Intensive	Aquaculture undertaken by providing supplementary food for the fish or marine vegetation that are being cultivated (whether or not naturally occurring food is consumed or available for consumption by the fish or marine vegetation
L, ML, L/s	Litres, megalitres, litres per second
Nursery	Facilities for growing to small size juvenile size eg from fry to fingerlings of weight 0.5g to 10.0g

Term	Definition
Public water	Land submerged by water (whether permanently or intermittently), being
Project	The proposed fish farm, the development, the enterprise
REF	Review of Environmental Factors
Waterways	Natural, ie a) sea or arm of the sea; or c) a bay, inlet, lagoon, lake or body of water, whether inland or not and whether tidal or non-tidal; or d) a river stream or watercourse, whether tidal or non-tidal.