Wet Storage System Application Pro Forma

Use this pro forma to apply to the NSW Food Authority for approval to operate a shellfish wet storage system. Please indicate your agreement to each requirement that applies to your system. For guidance on the requirements, see Shellfish wet storage system requirements: Primary production and wholesale operations (PDF, 282 KB).

Applicant details

Licenced business name	
Food Authority licence number	
Address (location of wet storage system)	

Shellfish source requirements

		Yes
Biosecurity requirement	Class 1 High Risk • Stock from any source, including multiple estuaries, prohibited biosecurity movements, interstate, otherwise unregulated movements or stock held with an unknown biosecurity risk	☐
	OR	
	Class 2 Low Risk • Stock of local origin or following existing permitted movements from within NSW	☐

		Yes
Required	• Shellfish must be sourced from harvest areas classified as Approved / Approved Remote / Conditionally Approved or Restricted / Conditionally Restricted which are in the open status. (Note: Stock from Restricted harvest areas must be depurated prior to wet storage)	☐
	• Shellfish must not be commingled	☐
	• Shellfish batch identity must be maintained	☐

		Yes
	• Shellfish must not be mixed in the same tank as other non-bivalve shellfish	☐
	• Any dead, damaged or compromised shellfish must be discarded prior to wet storage	☐
Preferable	• In multi-species systems shellfish tanks are first inline after the disinfection step	☐
	• Any dead stock must be removed from the system	☐
Biosecurity considerations	• Unexplained mortality of stock in systems must be reported to the NSW Department of Primary Industries and Regional Development (DPIRD) via the Emergency Animal Disease Hotline 1800 675 888; by emailing aquatic.biosecurity@dpird.nsw.gov.au or by contacting a local Fisheries Officer or Authorised Officer. • Shellfish sourced from local (single origin) estuary or following existing biosecurity requirements for movements within NSW will be classified as Class 2 Low Risk. All others will be considered Class 1 High Risk. • Class 1 High Risk: — Stock is not to be returned to any NSW waters. • Class 2 Low Risk: — If not sold to market, shellfish may be returned to the estuary of origin, or any estuary permitted by existing shellfish shipment and biosecurity regulations.	

Water source requirements

		Yes
Required	Water sourced from: • An "Approved" or "Conditionally Approved" shellfish harvest area in the open status (without disinfection for flow through or continual disinfection with a re-circulating system); **OR**	☐
	• A "Restricted" or "Conditionally Restricted" shellfish harvest area in the open status and disinfected prior to entering the wet storage system (with continual disinfection); **OR**	☐
	• Outside formally classified shellfish growing areas or shellfish growing areas in the closed status (with continual disinfection) — Must not exceed 70cfu/100ml — Must not exceed 20ntu turbidity if UV disinfection is used; **OR**	☐

		Yes
	— Artificial or reconstituted seawater must be accompanied with a statement from the manufacturer confirming use in food production	☐
	• Containers used in transport of water must be food grade	☐
	• Water must be sampled monthly for faecal coliforms if continuously re-circulated and must return 0cfu/100ml	☐
Biosecurity requirements	• Each system must have separate water flow, with water from Class 2 systems to remain separate from Class 1 systems at all times	☐
	• Contact NSW DPIRD Aquatic Biosecurity and/or local council or water authority to seek approval to dispose of wet storage wastewater	☐
	• All systems must have the ability to isolate wastewater in the event of a system failure or stock issue	☐
	Class 1 High Risk system wastewater must be either: • discharged to municipal sewerage, OR • directly transported to a municipal sewerage system, OR • held in an effluent tank and treated prior to release from the facility, by first: a. removing all organic waste and disposing to landfill, followed by b. treatment with chlorine at a minimum rate of either: i. 200ppm available chlorine for 2 hours; OR ii. 30ppm available chlorine for 24hrs, followed by c. neutralisation of chlorine prior to discharge, via either: i. application of sodium thiosulfate, OR ii. vigorous aeration for 24 hours.	☐
	• Appropriate approvals must be sought with local council and/or water and sewer authority before discharging effluent saltwater to municipal sewerage	☐
Preferable	• Salinity is commensurate with shellfish species preferred range	☐
	• Seawater is best collected at high tide	☐
	• Water is disinfected prior to being stored	☐
	• Outlet pipe is raised off the floor of the storage tank	☐
	• A drain hole is lower than the outflow pipe to allow thorough cleaning	☐

Building requirements

		Yes
Required	• Effective barriers to prevent entry of birds, animals and pests	☐
	• Adequate security to prevent unauthorised access whilst in operation	☐
	• Adequate ventilation to allow surfaces to dry	☐
	• Free from conditions likely to harbour pests	☐
	• Adequate pest control measures	☐
	• Must have access to an adequate toilet	☐
	• Hand washing facility must be easily accessible and have soap and running water	☐
	• Toilets must be physically separated from wet storage system area	☐
	• Sufficient artificial light to visibly notice shellfish open and filtering	☐
	• Covers on all light fixtures	☐
	• Adequate area for separating product	☐
	• Adequate storage of items that may potentially be a source of contamination	☐
	• Floors, walls and ceilings to be easily cleanable	☐
	• Floors to slope toward drainage points	☐
Biosecurity requirements	• All systems must be enclosed	☐
	• Class 1 High Risk systems: — Must be installed within an enclosed facility, to prevent interaction with the environment, predatory animals or tampering by unauthorised personnel	☐
	— Located away from NSW waters in a dedicated lockable land-based enclosed facility, so that no unauthorised personnel can access the system, untreated wastewater associated with the system cannot reach a waterway, any other stock or equipment	☐
	— Personnel and facility hygiene required: 'Biosecurity Area' signage at entrance, footbaths at entry/exit points, personnel PPE (gloves and sanitiser)	☐

		Yes
	— Where a Class 2 system is to be held in a facility with Class 1 system, it must be isolated from the Class 1 system, with separate water flows for each system and use dedicated or suitably decontaminated equipment	☐
	• Class 2 Low Risk systems: — If installed outside, these systems must be covered with lids to isolate any exposed production systems	☐
Preferable	• Inside a secure building	☐
	• Soap dispenser and disposable paper towel	☐
	• Light units are not placed directly over the wet storage system	☐
	• Use of LED lights	☐
	• Separate room or physical barrier for separating product	☐
	• Separate room for storing items that may potentially be a source of contamination	☐
	• Lightly coloured to ensure cleanliness	☐

Record keeping requirements

		Yes
Required	• Complete and accurate records to enable a batch of shellfish to be traced back to the shellfish source harvest area	☐
	• If more than one batch of shellfish are held in a wet storage system at the same time the identity of each batch is maintained	☐
	• Any tests conducted on a wet storage system or water source are maintained for a minimum of 2 years	☐
Biosecurity requirements	• Records of all stock and numbers of stock in/out of the system must be kept	☐
	• Where stock is to be obtained from another estuary, a completed copy of the oyster shipment logbook must be completed and submitted to NSW DPIRD (Aquatic Biosecurity) no less than 48 hours and no more than 2 weeks prior to movement into the system	☐
Preferable	• Each batch of shellfish are held in separate trays, baskets or bags	☐

Wet storage requirements

		Yes
Required	• Recirculated water used in wet storage must be continuously disinfected or otherwise treated so that it is safe and does not interfere with shellfish survival, quality, or activity	☐
	• Flow rate throughout a wet storage system must not exceed the chosen water disinfection method efficacy	☐
	• Animal and human health risk for toxic by-products of any disinfection process is considered	☐
	• Tank or bins fabricated from non-toxic, corrosion resistant food grade, non-porous materials	☐
	• Adequate clearance between tank or bin floor and containers holding shellfish	☐
	• Shellfish holding containers must allow free flow of water to all shellfish within the container	☐
	• No rust or exposed porous areas	☐
	• All pipes and connections must be food grade material that is non-corrosive	☐
	• Pumps must be resistant to saltwater exposure	☐
	• Pumps must have sufficient flow rate to ensure constant water movement but not to exceed the water disinfection unit capacity	☐
	• Biological filters must be either external to the tank holding shellfish or separated from the section of tank holding shellfish by an impervious barrier which prevents backflow into the main tank	☐
	• Biological filters must be cleanable and/or back flushable	☐
	• Biological filters must be inline prior to the disinfection step	☐
	• Protein fractionators if used must prevent captured waste material from re-entering the tank and should be drained off to waste	☐
	• Any changes to a wet storage system must be approved by the NSW Food Authority	☐
	• Water disinfection units should be cleaned and serviced as frequently as necessary to ensure effective water treatment	☐

		Yes
	• Shellfish are thoroughly washed with water meeting Approved area classification or water meeting Restricted area classification following disinfection prior to use or potable water standards	☐
	• UV light, if used, is capable of 99.9% (3 log reduction) kill of E.coli	☐
	• UV light, if used, is UV-C or germicidal wavelength	☐
Preferable	• UV light lamps, if used, are replaced at manufacturer's recommendations or when UV output is 80% of the lamp rating	☐
	• Internal surfaces of the tank are lightly coloured to ensure cleanliness	☐
	• No open joints within the tank	☐
	• Junction between the wall and floor of the tank or bins is smooth	☐
	• No pipes with dead-ends which could harbour stagnant water	☐
	• Pipes are able to self drain	☐
	• No use of clear pipes and hoses	☐
	• Pump working parts should be free of corrosive materials	☐
	• New pumps to closely match the flow rate of the old pump	☐
	• Shellfish not placed directly within a turbulence zone	☐
	• Air stones to be suspended above the floor of the tank or bin	☐
	• External sand/bead filters with the ability to backflush to waste	☐
	• Replace parts for likeness with original part	☐
	• Wet storage systems are cleaned when water is replaced	☐
	• Disinfection systems should be cleaned on a 6-monthly basis	☐
	• Biological filters are backflushed on a monthly basis with either water from the wet storage process or potable water	☐

Wet storage equipment and specifications

Enter details	
Number of tanks / tubs / bins	
Construction material	
Length of water area (m)	
Width of water area (m)	
Depth of water area (m)	
Sump volume (L x W x D)	
Gross system capacity (L)	
Pump make and model	
Pump capacity (L/h, no head)	
Filter present? If yes, type (cartridge, sand, skimmer, matting, etc)	
Disinfection unit make and model	
Number of disinfection units	
Lamp type	
Lamp life (batches)	
Total disinfection unit capacity (L/h)	
Heating present	
Cooling present	
Water storage tank? If yes, capacity	
Basket capacity per layer	
Number of layers	
Basket type used	
How system is enclosed (inside facility / lockable lid)	

Enter details	
Wastewater discharge practice (chemically treated / sewerage network / direct to estuary)	
Class 1 systems - Biosecurity signage at entrance? (Yes / No)	
Class 1 systems – Footbaths / shed boots at entry / exit points?	
Class 1 systems - Personnel PPE (gloves / sanitiser)?	
Class 1 systems - Dedicated system equipment?	
Total disinfection unit capacity (L/h)	

Declaration

I acknowledge the information supplied is true and accurate and I am authorised to act on behalf of the business.

Name	
Position	
Signature (or type name)	
Date	

END OF PRO FORMA

Office use only	
Pro forma number:	
Assessor:	
Approved on:	