

Environmental Compliance  
8am to 5:30pm Mon - Thurs, 8am to 5pm Fri  
Phone 9970 1111

19 December 2013

Oliver-Higgins Wastewater  
Attention: Mr Mark Boyle  
PO Box 494  
**NEWPORT NSW 2107**

Dear Mr Boyle

**Re: Construction Certificate CC0260/13**  
**Property: 6 KARA CRESCENT, BAYVIEW NSW 2104**

Please find enclosed your approved Construction Certificate and stamped plans.

**Did you know that work is unable to commence until such time as a completed Notification of Commencement Form has been submitted to Council at least two (2) days prior to starting work? Not to do so is a breach of the Environmental Planning and Assessment Act, which would result in a Penalty Infringement Notice (on-the-spot fine) being issued to you and the builder.**

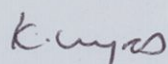
To assist you please find enclosed a "Notification of Commencement and Principal Certifying Authority Service Agreement" form to enable you to appoint Pittwater Council as your Principal Certifying Authority (PCA).

If appointed as the PCA, Council would carry out various inspections as indicated in Part 6 of the enclosed "Notification of Commencement and Principal Certifying Authority Service Agreement" form and ultimately issue an Occupation Certificate for your development. Appointment and inspection fees are also detailed in the enclosed form.

Council will endorse your "Notice of Commencement and Principal Certifying Authority Service Agreement" form and return a copy to the applicant with advice as to the required critical stage and other inspections to be carried out by Council.

Council is committed to providing a quality service and would value your business in being appointed as the Principal Certifying Authority for your development.

Yours sincerely



Kristy Wyres  
**DEVELOPMENT COMPLIANCE OFFICER**





# PITTWATER COUNCIL

**COPY**

## Construction Certificate No: CC0260/13

Site Details: **6 KARA CRESCENT, BAYVIEW NSW 2104**

Legal Description: **Lot 3 DP 237045**

Type of Development: **Building Work**

Description: **Installation of an AWTS system**

Associated Development Consent No: **N0224/13**

Dated: **18 October 2013**

Building Code of Australia Certification: **Class 10b**

Details of plans, documents or Certificates to which this Certificate relates:

- **Geotechnical Risk Management Form 2 – Part B, dated 8 June 102, signed by Peter Thompson of Jack Hodgson Consultants Pty Ltd**
- **Details addressing conditions of Development Consent N0224/13 issued by Oliver-Higgins Wastewater**
- **Certificate of Accreditation for the Aqua-Nova 10EP AWTS**
- **Manufacturer's specification for the Aqua-Nova 10EP AWTS including drawing N° M-5108, dated 2 March 2010**
- **Site plan, drawing N° VR23645**

I hereby certify that the above plans, documents or Certificates satisfy:

- The relevant provisions of the Building Code of Australia, and
- The relevant conditions of Development Consent No: **N0224/13**

And, that work completed in accordance with the documentation accompanying the application for this certificate (and any modifications as verified by me and shown on that documentation) will comply with the requirements of the Environmental Planning and Assessment Regulation, referred to in section 81A(5) of the Environmental Planning and Assessment Act, 1979.

Kristy Wyres  
**DEVELOPMENT COMPLIANCE OFFICER**  
Accreditation No. BPB1560

19 December 2013  
**Date of Endorsement**

**Note:** You are reminded that pursuant to provisions of Clause 81A, you must nominate whether Council or an accredited certifier will be the principal certifying authority, also you must give notice to Council of your intention to commence work at least two days beforehand.



**GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER**  
**FORM NO. 2 – PART B - To be submitted with detailed design for construction certificate**

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

I, Peter Thompson on behalf of Jack Hodgson Consultants Pty Ltd  
(insert name) (trading or company name)

on this the 6 KARA CRESCENT, BAYVIEW  
(date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater – 2009 and I am authorised by the above organization/company to issue this document and to certify that the organization/company has a current professional indemnity policy of at least \$2million. I also certify that I have reviewed the design plans and structural design plans in accordance for the Construction Certificate Stage and that I am satisfied that:

**Please mark appropriate box**

- ☒ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto  
☒ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy

**Geotechnical Report Details :**

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AT 6 KARA CRESCENT, BAYVIEW – MN 28219 FOR AWTS SYSTEM

Report Date: 8<sup>TH</sup> JUNE, 2012

Author: BEN WHITE

**Documentation which relates to or is relied upon in report preparation:**

CONCEPT PLAN RE LAYOUT FOR NEW SEWERAGE TREATMENT - AWTS AND SUB-SURFACE IRRIGATION, DATED 11-4-12 BY UNNAMED PROVIDER

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

Peter Thompson  
(name)

Peter Thompson  
(signature)

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk

Signature Peter Thompson  
Name Peter Thompson

<b>PITTWATER COUNCIL CONSTRUCTION CERTIFICATE</b>	
Number: <u>CC 0224/13 0260/13</u>	Chartered Professional Status <u>MIE Aust CPEng</u>
This is a copy of submitted plans, documents or Certificates associated with the issue of the Construction Certificate.	
Endorsed by: <u>K</u>	Company <u>Jack Hodgson Consultants Pty Ltd</u>
Date: <u>19 DEC 2013</u>	



To- Pittwater Council  
From – Oliver-Higgins Wastewater

Re DA Consent No N0224/13  
Site- 6 KARA Cres, Bayview  
Owner- T & V Cormack  
Application for Construction Certificate

PITTWATER COUNCIL CONSTRUCTION CERTIFICATE	
Number:	CC0260   13
This is a copy of submitted plans, documents or Certificates associated with the issue of the Construction Certificate.	
Endorsed by:	
Date:	19 DEC 2013

Matters arising from conditions of approval

Section C. Matters to be satisfied prior to the issue of the Construction Certificate

1. Form 2 of the Geotechnical Risk Management for Pittwater  
(enclosed)
2. Submission of construction plans and specifications. Satisfy conditions in part B of the approval  
( plans enclosed)

Section B

1. All sanitary plumbing and drainage work to be done in accordance with Water, Sewerage and Drainage Regulation 1993. No alterations or additions are permitted without the express approval of council.
  1. Alteration of plumbing incorporates disconnection of a single plumbing line from the existing receiving septic tank and diverting the line to the proposed AWTS a distance of approximately 4 mtrs. To be carried out by a qualified plumber. Plan to be drawn up showing location of extended plumbing line and location of I/O's
2. All effluent arising from an AWTS must be managed wholly within the premises where the system is installed.
  2. The treated effluent is to be disposed of on-site through the designated irrigated fields as shown on the DA consent stamped Plan. This is to ensure that all effluent arising is managed wholly within the premises.
3. Effluent must not be permitted to discharge to any natural waterway or stormwater drain.
3. The irrigation areas use sub surface disposal of effluent and are of light gradient to prevent the run off of effluent. There are no waterways or stormwater drains in or adjacent to the irrigation areas.
4. An AWTS must not be installed in such a way that it can contaminate any domestic water supply
4. The Aqua-Nova AWTS and its irrigation are to be installed as a dedicated system with no connections to the domestic water supply



5. All distribution lines of the irrigation system must be buried to a minimum depth of 100mm
5. All Irrigation lines are to be installed with a minimum of 100mm ground cover. As per the Wastewater Management report.
6. All irrigation equipment must be installed in such a way that it will not be readily subject to damage.
6. All lines to and in the irrigation area are to be buried and all auxiliary equipment is to be located either within or adjacent to the tank. Externally mounted fittings, filters etc are to be housed in durable boxes.
  - 1.
7. All irrigation pipework and fittings must comply AS2698 and 7.1 standard household fittings may not be used and 7.2 the irrigation system may not be capable of being connected to the mains water supply.
7. All fittings comply with AS2698 including lilac stripe delivery lines and lilac driplines
  - 7.1 Standard hose fittings will not be used
  - 7.2 No Fittings installed will be suitable for connection to the mains water supply
8. Effluent from the AWTS must be managed by one or more of the irrigation technique specified in AS/NZS 1547
8. Effluent is irrigated by sub surface irrigation as per AS/NZS 1547
9. If land application is by surface irrigation, the land application area should not be used for passive or active recreational purposes.
9. Irrigation is by sub surface irrigation, no surface spray is to be used
10. The land application area must not be used to grow fruit or vegetables
10. The land application area is existing vegetation consisting of turfed areas and areas of low shrubs. No fruit or vegetables are to be grown in the application area.
11. The land application area may be divided into two or more areas
11. Land application areas is designed in two areas, other areas are available for future usage if required
12. Additional land application areas may be used only with the written approval of council.
12. If further application areas are required in the future written approval is to be obtained from council prior to installation of the irrigation network in those areas.
13. Soaker hose and standard household sprinklers not to be used.



13. Repeat of 7 above. Netafim dripline (16mm, pressure compensating) to be used only, standard household irrigation fittings will not be used.
14. Irrigation must be operated in a way as to prevent run-off of effluent from the land application area
14. Sub-surface irrigation on light to level slope complying with Wastewater consultants report.
15. The land application should be landscaped by terracing and filling etc
15. Land application area is of light slope and as such does not require terracing or filling
16. All effluent land application areas must be completely prepared or landscaped prior to commissioning of the AWTS
16. All irrigation feed and distribution lines are to be laid by hand, any damage will be minor. Prior to commissioning the system any damage will be completely repaired by landscaping.
17. Within the effluent irrigation area there must be two warning signs to 1319 standard
17. Two warning signs complying with AS/NZS 1319 will be placed at prominent locations with-in the irrigation areas.
18. The AWTS unit shall be maintained by an approved service agent. Backflush water is to be discharged to a grassed vegetated area or trench. Surface run-off resulting from the discharge should be contained on the premises.
- 18A The system is provided with the first years quarterly maintenance included in the package. The system will be serviced by OHW/All Brands in that period.
- 18B. Backflush water discharges to vegetated area with a buffer zone of minimum 40 mtrs. Has been in use for years, no problems experienced nor has there been any complaints from down slope neighbors'
19. A Wastewater Treatment System shall be installed and operated in accordance with the manufacturer's specifications and guidelines and the wastewater consultants report
19. The AWTS will be installed and operated as per the manufacturers specifications and associated guidelines.
20. As per 19 includes maintenance
20. The system shall be maintained as per Manufactures specifications and guidelines, NSW health regulations and Wastewater consultants report
21. The on-site wastewater treatment system must be designed, constructed, maintained and operated in a manner to prevent air, water noise, odour or land pollution with respect to the protection of the environment operations act 1997 and other relevant legislation.
21. The system is designed to prevent environmental issues. The system will be installed to ensure that the environment is protected.

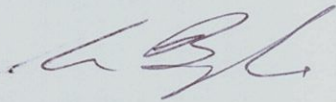


22. The wastewater system is to be located not less than 1.5mtr from building (for desludging)  
22. Actual installation will be approximately 6mtrs from the building
23. If Aboriginal engravings or artifacts are unearthed all work will cease immediately and authorities notified, work to cease immediately. Pittwater council, MLALC and DECC to be advised of find.
24. NA
25. Repeat of previous.

Section D Matters to be satisfied prior to and during works.

1. Temporary sedimentation and erosion controls,  
A siltation fence will be installed on the low side of the excavation to prevent discharge of sediments from that excavation.
2. Adequate measures are to be undertaken to remove clay from vehicles leaving the site.  
Machinery is to be unloaded and loaded on the sealed driveway within the property, if required hose down of wheels/tracks can be done on grassed area and clay collected.
- 3 & 4 Use of Council's Road Reserve.  
All works are to be conducted with-in the property, all materials are to be delivered and stored within the property, skip bins etc are not required.
4. Signage to be posted on main entrance (Driveway Gate) as detailed in DA approval

Sincerely Yours



Mark Boyle





Health

# Certificate of Accreditation

## Aerated Wastewater Treatment System

*This Certificate of Accreditation is hereby issued by the Director-General of the NSW Department of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.*

System: *Aqua-Nova 10EP AWTS*

Manufacturer: *Everhard Industries Pty Ltd*

Of: *405 Newman Road, Geebung, QLD, 4034*

*This is to certify that the Aqua-Nova 10EP AWTS as described in Schedule 1, has been accredited as a sewage management facility for use in a single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2, and in accordance with the Sewage Management Facility Accreditation Guideline, May 2005.*

*Director, Environmental Health Branch  
for Director-General (delegation PH335)*

*Date of Issue: 21 December 2012*

PITTWATER COUNCIL CONSTRUCTION CERTIFICATE	
Number:	CC0260/13
This is a copy of submitted plans, documents or Certificates associated with the issue of the Construction Certificate.	
Endorsed by:	
Date:	19 DEC 2013

*Certificate No: AWTS 006*

**This Certificate of Accreditation is in force until 31 December 2015**




### Schedule 1: Specification

The Aqua-Nova 10 EP Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Aqua-Nova 10 EP AWTS is contained in vertical axis type cylindrical precast concrete or injection moulded polypropylene septic tanks and collection wells each with design capacities as set out below.

The Aqua-Nova 10 EP AWTS is assembled in the following configurations:

Design capacities	polymer 2 x 3000lt 80202	polymer 2 x 3900lt 80203	concrete 2 x 3000lt	concrete 2 x 3900lt
primary sedimentation	3000 lt	4175 lt	3000 lt	3587 lt
• partition	yes	yes	yes	yes
secondary treatment	3000 lt	3340 lt	3075 lt	3490 lt
• aeration chamber	1985 lt	3010 lt	2253 lt	2630 lt
• sedimentation	430 lt	430 lt	430 lt	430 lt
• irrigation	393 lt	393 lt	393 lt	393 lt
emergency storage	1000 lt	1052 lt	1095 lt	1040 lt
operational water level	(mm)	(mm)	(mm)	(mm)
• primary	1385	1770	1510	1500
• secondary	1350	1730	1510	1400

- A chlorine disinfection unit is installed on the outlet of the clarifying chamber.
- Air is supplied to the contact aeration chamber by a Nitto LA80-A air blower or equivalent, producing an airflow of a nominal 100 litres/minute at 1.3 m water depth.
- A Davey model D-25A submersible irrigation pump or equivalent is installed in the irrigation chamber.

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Date: 19 DEC 2013



## Schedule 2: Conditions of Accreditation

### 1.0 General

- 1.1 For each installation the owner/occupier of a premises shall make an application to the Local Authority to install a Aqua-Nova 10EP AWTS as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 26 of the Local Government (General) Regulation 2005.
- 1.2 The Aqua-Nova 10EP AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Department of Health.
- 1.3 Any modification or variations to the accredited design of the Aqua-Nova 10EP AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Director-General of the NSW Department of Health.
- 1.4 Each Aqua-Nova 10EP AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
  - The brand name of the system;
  - The manufacturer's name or registered trademark;
  - The month and year of manufacture.
- 1.5 The manufacturer shall supply with each Aqua-Nova 10EP AWTS an owner's manual, which sets out the care, operation, maintenance and on-going management requirements of the system.
- 1.6 The manufacturer shall provide the following information to each local authority where it is intended to install an AWTS in their area once Departmental accreditation has been obtained:
  - Statement of warranty
  - Statement of service life
  - Quality Assurance Certification
  - Installation Manual
  - Service Manual
  - Owner's Manual
  - Service Report Form
  - Engineering Drawings on A3 format
  - Detailed Specifications
  - A4 Plans
  - Accreditation documentation from NSW Health.



## **2.0 Installation and Commissioning**

- 2.1 The Council should require that on completion of the installation of the Aqua-Nova 10EP AWTS, the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design, conditions of accreditation and any additional requirements of the Council.
- 2.2 The Council should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

## **3.0 Maintenance**

- 3.1 The Council shall require the owner/occupier of a premises to enter into an annual service contract with a representative of Everhard Industries Pty Ltd or a service contractor or company acceptable to the Council.
- 3.2 The Aqua-Nova 10EP AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.
- 3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:
  - The chlorinator and replenishment of the disinfectant,
  - Pumps, air blower, fan or air venturi,
  - The alarm system,
  - Slime growth on the filter media,
  - Operation of the sludge return system,
  - The effluent irrigation area,
  - On-site testing for free residual chlorine, pH and dissolved oxygen.
- 3.4 The Council should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the Council and the triplicate retained by the service contractor.



#### **4.0 On-going Management**

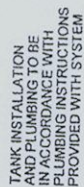
- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Aqua-Nova 10EP AWTS. The plan shall include details of:
- the treatment process,
  - procedures to be followed in the event of a system failure,
  - emergency contact numbers,
  - maintenance requirements,
  - inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the local authority.
- 4.2 Effluent from the Aqua-Nova 10EP AWTS taken in any random grab sample shall comply with the following standard:
- BOD<sup>5</sup> less than 30 mg/L
  - SS less than 45 mg/L
  - Thermotolerant coliforms less than 100 cfu/100 ml
  - Free residual chlorine greater than 0.2 and less than 2.0 mg/L

#### **5.0 Permitted uses**

- 5.1 The effluent is suitable for re-use for garden purposes by way of any of the forms of irrigation as described in AS/NZS 1547:2012:
- above ground spray irrigation; or
  - surface drip irrigation covered by mulch; or
  - sub-surface drip irrigation installed at around 100 mm depth.

Each of the three forms of irrigation is subject to the approval of the Council.





## Date: 19 DEC 2013

AMENDMENT 2	2-3-2010	INLET INVERT DEPTH & TOWERS CORRECTED		B.D
DATE	24-2-99	APPROVED FOR MANUFACTURE	MADE BY	FOOD No.
B.D			PASS	SCALE
				1.25
TITLE		Refer Table		
AQUANOVA MWTS SYSTEM		EVERHARD INDUSTRIES PTY LTD		
2 x 3000 IF POLYMER SOUTH TANK SYSTEM		405 INMAN ROAD GERRING, VIC 4034		
NSW & VIC EPA APPROVED		PH : 071 9437 6446		
		FAX : 071 3266 2201		
		EPCOING INSUPER		
		FRTM		
		2		
		23/9/00		



**PROPOSED LAND APPLICATION AREA = 400m<sup>2</sup> FOR THE MAXIMUM DESIGN EFFLUENT VOLUME OF 570 LITRES/DAY - TO BE ESTABLISHED WITH SUBSURFACE DISPERSAL LINES + COMPRISES EFFLUENT APPLICATION AREA 1 AT 185m<sup>2</sup> AND EFFLUENT APPLICATION AREA 2 AT 215m<sup>2</sup>**

**EFFLUENT APPLICATION AREA 1 AT 185m<sup>2</sup> - TO BE ESTABLISHED WITH SUBSURFACE DISPERSAL LINES**

**EFFLUENT APPLICATION AREA 2 AT 215m<sup>2</sup> - TO BE ESTABLISHED WITH SUBSURFACE DISPERSAL LINES**

**AVAILABLE EFFLUENT APPLICATION AREA 3 AT 60m<sup>2</sup> ONLY TO BE USED IF EVER REQUIRED IN THE FUTURE**


**EXISTING SEPTIC TANKS TO BE DECOMMISSIONED**

**APPROVED DEVELOPMENT CONSENT PLANS**

**Site Plan**  
 6 Kara Crescent, Bayview  
 VR 23645  
 Scale 1:200

**5 10 METRES**

10

 **PIT MEADOWS COUNCIL**

**APPROVED DEVELOPMENT  
CONSENT PLANS**

NOTE: THESE PLANS MUST BE READ IN  
CONJUNCTION WITH THE CONDITIONS OF  
DEVELOPMENT CONSENT.

**THIS APPROVAL DOES NOT AUTHORISE ANY  
WORKS ON THE ADJACENT ROAD RESERVE  
OR ANY COUNCIL RESERVE.**

5 10  
METRES

PITTSWATER COUNCIL CONSTRUCTION CERTIFICATE	
Number: CC0260/13	
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Endorsed by: <i>ka</i>	
Date: 19 DEC 2013	