

David Denton
Denton Luxury Properties
PO BOX 3319
DURAL NSW 2158

June 28, 2019

Fee proposal for Onsite Wastewater Management Assessment 187 Tooronga Rd, Terry Hills

Dear David,

Thank-you for asking Harris Environmental Consulting to provide a fee to prepare an On-site Wastewater Assessment for the proposed dwelling, to replace an existing residence. I understand the proposed dwelling will have 5 bedrooms. The report will be prepared to meet the following assessment criteria:

- Northern Beaches Council DCP;
- Environment and Health Protection Guidelines (1998) On-site Sewage Management for Single Households (Department of Local Government)
- AS/NZ 1547:2012 On-site wastewater management (Standards Australia, 2012)

I wastewater to be applied by irrigation area at the location shown (exact area required has not been calculated – estimate only). Please let me know if client has preference for spray or subsurface. I understand a new AWTS will be installed.

Soil depth at this location is 350mm. An additional 150mm of topsoil will need to be added over the site. This would be done when the irrigation pipes are being installed., as they need to be buried to this depth.

My fee for preparing the Preliminary On site Wastewater Assessment is \$1,850 inc GST. If you would like me to proceed, please review the attached Terms and Conditions and General Information and send me a return email of confirmation.

Regards

Sean Harris, Msc Env, Grad dip Nat Res, BscAppSc PO Box 70, Jamberoo, NSW, 2533

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Terms and Conditions

- Once we are given approval to proceed, we will undertake the site visit to undertake the field assessment. Should you decide not to proceed with the report once after we have been commissioned to proceed and visited the site or request us to hold off on the project for more than 1 month, we will issue a part payment of \$500 inc GST to cover costs already incurred.
- 2. We are required to prepare the report for a specific method of wastewater treatment and disposal. If you are unsure about the options available, we can discuss this after our site assessment. However, once we prepare the report for a specific method of treatment and disposal, we try and avoid the need to make changes that could be avoided. If changes cannot be avoided, we can do so on our hourly rate of \$150/hr. The types of changes that could incur additional costs include:
 - A different method of wastewater treatment.
 - A different location or method of wastewater disposal.
 - A change to the number of bedrooms or location of the house.
 - Incorporate ancillary development into site plans such as sheds, swimming pools and driveways.
 - Moving the wastewater disposal area away from native vegetation that cannot be cleared.
 As a general rule, we do not include the wastewater disposal area within native vegetation
 unless we are told the vegetation has approval to be cleared and it is the owners intention
 to do so.
- 3. The final report will be emailed after we receive payment.



General Information

The on-site wastewater report is also referred to as an effluent study, wastewater geotech report and water cycle management study. This report is required by Council for new dwellings, installing a new wastewater treatment or disposal system to replace an existing system (often when failing), alterations and additions (ie., additional bedrooms), granny flats, subdivisions/boundary adjustments and swimming pools and sheds if they occupy land required for wastewater disposal.

I will need to visit the site to assess the soil and site. The soil assessment involves me digging a hole and recording the soil profile. The outcome of the soil and site assessment will allow me to advise you on your options for wastewater treatment and disposal.

The basic information I will need to prepare this report includes the following:

- Proposed water supply (town, tank or bore)
- Proposed power supply (mains or off grid)
- Proposed house plans, if new development proposed
- Your contact details (name, phone number, email)
- Site address & Lot/DP
- Your preferred method of wastewater treatment (AWTS/septic tank)
- Your preferred method of wastewater disposal (irrigation, soil absorption bed)

The size of the wastewater disposal system will depend on the number of bedrooms, water supply (town or tank) and soil type. Council requires the wastewater treatment and disposal area to be sized for a wastewater flow rate generated from 2 persons per bedroom. It must also include potential bedrooms such as studies, theatre rooms and guest rooms. A potential bedroom is a room that could reasonable used as a bedroom. A potential bedroom is a room with a closable door, at least one window and a minimum of 8 square metres (including, but not limited to a study, sewing room, gym, games and craft rooms). A room in a separate building such as a studio could be a potential bedroom if it has a toilet and washing facilities or close access to those facilities.

The location of the wastewater disposal area is generally determined by the owner's preference, subject to the preferred site having suitable soil characteristics and meeting specific buffers from permanent or intermittent watercourses, groundwater bores, proposed residence, sheds, property boundaries and driveways.



If there is insufficient irrigation area available for wastewater disposal, a soil absorption bed can be used as it has a smaller footprint. However, a soil absorption bed has more restricting site requirements than irrigation and will generally cost more to construct that an irrigation system.

The report will include a general and detailed Site Plan. The general Site Plan identifies where the wastewater management area is to be located in context of the entire property. The wastewater management area must have suitable soil characteristics (depth, texture, permeability, groundwater etc) and the required distance from dams, springs, groundwater bores, watercourses, dwellings and sheds, both on and off the property.

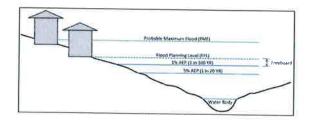
Please let me know where your preferred location for wastewater disposal so I can take your preference into consideration. The detailed Site Plan provides the construction information for installation. This includes buffer distances, components and a cross section of the treatment and disposal system.

We do not install the wastewater treatment or disposal system.

The location of the effluent management area cannot be moved after it is approved by Council. By contrast, the location of the wastewater treatment system (septic tank or AWTS) is not the primary focus of this assessment and it is only shown conceptually on the site plan. It must be downslope of building and ideally within close proximity to minimise connection costs. It must be at least 1.5m from building and 2.5m from boundary. The location can be altered at the time of installation.

In most cases, the owner does not need to be present when the site visit is undertaken. The site visit involves a soil assessment and walk over the property at the location where the wastewater disposal area is proposed or best suited, considering slope, proximity to watercourses, dam, groundwater bores etc.

The wastewater treatment system must be above the 1 in 100 year flood contour and the wastewater disposal area must be above the 1 in 20 year flood contour. This proposal does not include a flood study to assess the flood levels, but we will apply our own best judgement and site investigation to make our own determination. If there is a chance your property is flood affected, please provide any relevant information to help us in our assessment.





The wastewater disposal area cannot be located within 100m of a groundwater bore licenced for domestic use. If the only location for a wastewater disposal area is within 100m of a bore, it will be owner responsibility to either decommission the bore or modify the licence conditions with WaterNSW.

If your Development Application is located within Bushfire Prone Land and native vegetation needs to be cleared for an Asset Protection Zone, Council may require the wastewater disposal area to be located inside the APZ if the land is suitable for wastewater disposal. If you think this is relevant, please send a copy of the bushfire hazard assessment and call to discuss.

If the wastewater assessment is required for a propose subdivision, I will need to assess the condition of the existing wastewater management system and confirm that it is not affected by the proposed subdivision. If the existing wastewater management system is failing or somehow compromised by the proposed subdivision, I will discuss this with you / owner to determine what needs to be done.

I will need to drive into the property to undertake the soil assessment. However, the drilling equipment can be carried into the site if the entrance is locked or the site not accessible by vehicle. If the property includes an existing residence that is occupied by tenants, please ensure they are notified of the site visit. If there are aggressive dogs or similar hazards on the property, please advise prior to the site visit. The assessment does not require entry into existing buildings.

Council does not allow the report to provide options for wastewater treatment and disposal. Therefore, you need to be fully aware of the specific method of treatment and disposal being proposed in the wastewater report. Once the report has been submitted and approved by Council, any changes will require a Section 96 modification and Council will impose additional charges.

One of the common reasons people may request a change in the method of wastewater treatment or disposal is the cost for installation, running cost and the area of land required (may restrict future opportunities for sheds, swimming pools, subdivision etc). I am happy to discuss these options after I assess the site but I need to write the report for only one method of treatment and disposal.

Our site plan will show the location of the existing or proposed development, using the plans, drawings, dimensions ect you provide us. If the location of the buildings changes or is modified by the time your proposal is submitted to Council, our report may need to be modified if there is a change to the number of bedrooms or the building site encroaches onto the buffer of the wastewater disposal area. In this case, we will need to recalculate and re-draw the site plans and then re-issue a new report.



The report and site plan will include the owners name and contact details. Please ensure you provide us with the correct names (persons or company details) that you want to be shown on the report, along with phone and email address.

Once the report has been released to the client, we are happy to make simple changes. If you request changes that require a major re-write, we may request an additional fee. This may be where the client has required a new method of wastewater treatment, location and method wastewater disposal, change to the number of bedrooms or an 88B that we were not told about. If you think there may be restrictions on the title regarding the method of wastewater treatment and disposal, please email a copy of the 149 Certificate for use to review.

Any changes required by Council that relate to an error on our behalf are my responsibility to amend.

Single domestic facilities (designed to treat effluent from 10 or fewer people or an average daily flow of less than 2,000 litres) must be accredited by NSW Health, unless exempted by the Regulations. A list of NSW Health accredited facilities is available on the NSW Health website (search for 'domestic wastewater').

It is your responsibility to provide Council with the technical and accreditation details of your chosen wastewater treatment system. The manufacturer will email you with this information on request. You will also need to complete Councils application form *Application to modify/Install On Site Wastewater Treatment System* (Section 68 application form) available from Council website. You will need to fill the application form in and send it together with the wastewater report to Council.

The application will go through to customer service, records and then to the assessing officer who will assess and give the approval for the system to be installed as recommended in the report. You will then need to contact the assessing officer via phone or email once the work is completed to conduct the final inspections to check the installation is in accordance with the approval. The assessing officer will then issue the 'certificate of audit' and 'approval to operate' via hardcopy in the mail.



Topographic map and aerial images

