



KEMPSEY
Shire Council

DIRECTOR SUSTAINABLE DEVELOPMENT SERVICES REPORT

11th December 2007

DSDS1	MODIFICATION OF CONSENT WASTEWATER TREATMENT SYSTEM - FREDERICKTON ABATTOIRS
	FILE: T6-04-399 DM1 {Folio No. *}

SUMMARY:

Reporting that Council has received an application for Modification of Consent for the construction of an abattoir waste water treatment system and irrigation of treated effluent, for which objections have been received. The modification involves relocation of the proposed site of the treatment ponds.

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Applicant: ERM PTY LTD - Port Macquarie
Subject Property: Lot 1713 DP717943, 151 Great North Road, Frederickton (Treatment Ponds)
 Irrigation Sites:
 Lot 29 DP752437, Quarry Road, Frederickton
 Lot 31 DP752437, 37 Raymonds Lane, Frederickton
 Lot 201 DP596719, 47 Raymonds Lane, Frederickton
 Lot 204 DP713220, 67 Raymonds Lane, Frederickton
 Lot 205 DP713220, 77 Raymonds Lane, Frederickton
 Lot 132 DP630462, 127-133 Great North Road, Frederickton
 Lot 2 DP853082, 82 Collombatti Road, Frederickton
 Lot 192 DP854714, 34 Quarry Road, Frederickton
 Lot 191 DP854714, Quarry Road, Frederickton
 Lot 5 DP838794, 25 Quarry Road, Frederickton
 Lot 1 DP1041815, 555 Pacific Highway, Frederickton

Zone: 1(a3) Rural "A3" Agricultural Protection Zone

BACKGROUND:

In 1995 Council approved extensions to the existing Frederickton Abattoirs including the installation of a waste water treatment system (WWTS).

The consent was modified in 1999 to allow for staging of the development. Stages 1 and 2 relates to extensions to the stockyard, kill floor, offal room, chillers and freezers. Stage 3 specifically relates to the upgrade of waste water, solid waste disposal and odour control measures and requires preparation of a Plan of Management.

In 2002, as part of this Plan of Management, the applicant proposed to modify the already approved WWTS by:-

1. Relocating the WWTS from the abattoir land onto another parcel of land which was not identified on the existing consent.
2. Include an additional 80 hectares of land for the irrigation of treated effluent not previously identified on the original application.

Council resolved to advise the owner that this would require the submission of a fresh application. This was subsequently lodged and was considered at the Council Meeting held on 8th August 2006. Approval was granted subject to a range of conditions.

Council has now received an application to modify the August 2006 Consent to allow for relocation of the site of the treatment ponds from the adjoining lot to the same lot as the abattoir.

Description of Proposal

The current application is for modification of the original consent, granted in August 2006, by relocation of the treatment ponds closer to the abattoir. The proposed new site was previously incorporated into the proposed irrigation area. [\(Appendix A – Page G1\)](#)

Specifically, the application is to amend the consent by modification of the plans and to delete Condition 13 requiring the consolidation of the two titles. Condition 13 was imposed to ensure that the treatment ponds would remain within the same parcel of land as the abattoir. Relocation of the site of the ponds to the same lot as the existing abattoir obviates the need for this condition.

Heads of Consideration

The proposal has been assessed having regard for the Heads of Consideration identified under section 79C (1) of the EPA, with the following matters deemed to be of particular relevance.

Kempsey Local Environmental Plan 1987

The proposal is considered to be ancillary to the existing abattoir which is defined as a “rural industry” and is permissible in the zone with consent.

The subject lots are zoned 1(a3) Rural “A3” Agricultural Protection. The objectives are: -

- a) to conserve land particularly for agricultural uses.
- b) to provide for compatible tourist uses.
- c) to protect arterial road frontages from developments which are visually intrusive or generate excessive traffic.

The proposal is considered to be consistent with the zone objectives as irrigation has the ability to substantially improve pastures, provided the final treated waste water meets industry standards.

Designated Development

The proposal is defined as “designated development” under Schedule 3 of the Environmental Planning and Assessment Regulation 2000 as it is proposed to treat more than 1000 tonnes per year of sludge or effluent. This applies to the original consent and the modification.

In accordance with the requirements of the Act and Regulations, an Environmental Impact Statement (EIS) was lodged in support of the original application. A Specification for the EIS was sought by the applicant from the Director General of Planning. It is considered that the EIS addressed all the issues required by the Director General’s Specification and there are no issues raised by the modification that invalidate the EIS.

Integrated Development

Pursuant to Section 91 of the Environmental Planning and Assessment Act 1979, the proposal is “integrated development” as it requires the Department of Environment and Climate Change (DECC) to issue a licence under the provisions of the Protection of the Environment Operation Act 1997.

The DEC is prepared to amend the existing licence (Environment Protection Licence 3117 – Tolsat Pty Ltd) and have provided General Terms of Approval to Council. The DEC advises that the proposal, if properly managed, would result in minimal impacts and improved environmental outcomes, compared to the previous operation.

In relation the proposed amendment, DECC has advised as follows:

The proposed location is closer to the township of Frederickton. Whilst the proposal would result in a significant increase in the number of residents within a one kilometre radius of the ponds, it results in a net increase in the distance between the ponds and the nearest sensitive receivers. The Modification of Consent document indicates that an acceptable level of environmental performance is achieved at the nearest receivers and therefore, by definition, we would not expect any adverse impacts on village residents as a result of this modification.

We are satisfied that the pond relocation will not result in any adverse impacts on the groundwater.

Based on the information provided, revising the location of the ponds will not result in any worsening of environmental impacts compared with the original location.

State Environmental Planning Policy 33 – Offensive or Hazardous Industries

In accordance with the requirements of SEPP 33 and the Department of Planning Guidelines, the proposal is a “potentially offensive industry”. The original proposal was assessed against SEPP 33. The proposed modification provides no additional issues of relevance.

State Environmental Planning Policy 14 – Coastal Wetlands

Approximately 300m to the north of one of the irrigation sites is Collombatti Swamp. This is listed as Coastal Wetland 478 under the provisions of SEPP 14. With adequate management of irrigation waters it is considered that

impacts on the functions and quality of the wetland will be insignificant and may actually improve. There are no statutory provisions under SEPP 14 that relate to the proposed development.

North Coast Regional Environmental Plan 1988

No additional impacts result from the proposed modification.

DCP-12 - Conflicting Land Uses

No additional impacts result from the proposed modification.

Environmental Impact

Council is required to assess the impacts of the proposal. Prior to the applicant compiling the EIS, consultation with Council, the DEC and the Department of Planning identified a number of issues that were required to be assessed as part of the original development application. These issues have been re-examined in light of the proposed modification:

Noise

Whilst the proposed WWTP will be closer to the town of Frederickton with an increase in the number of houses within a one kilometre radius, the distance from the WWTP to the nearest house will be greater than that of the original proposal. DECC is satisfied that the modification will have no adverse impact by reason of noise.

Odour

Odour was assessed in detail in the original proposal and was deemed to be capable of being managed within acceptable limits.

As with the noise assessment, the proposed location of the WWTP is further away from the nearest sensitive receptors than was the case in the original proposal, thereby reducing the potential for adverse impacts.

Irrigation and Soil Conditions

No additional impacts result from the proposed modification as there are no proposed changes to irrigation areas.

Consultation

The proposal was advertised in accordance the requirements of the Environmental Planning and Assessment Act 1979, from 24th October to 9th November 2007 with a total of 5 submissions received. The submissions raised a number of issues of concern to the community. It is considered that the issues of relevance have been adequately accommodated by the conditions imposed in the consent. The submissions are summarised as follows: - [\(Appendix B – Page G3\)](#)

Objection

1 The new location has increased potential to pollute Clybucca Creek

Planning Comment

1 The assessments by ERM and Douglas & Partners indicate that the site conditions are suitable for the design of holding dams

		that will prevent seepage. Conditions are also recommended in respect to the design and ongoing monitoring of the performance of the system. (Conditions 6,7,8,9,10,11,14,15,16,18,19,20,21,23,24,25,26)
2	Potential increase in fly problems associated with the ponds.	2 There is no evidence to support the claim that the holding ponds will create an increase in fly numbers in the area. Conditions are included in the previous consent related to the expansion of the abattoir that address fly control measures which may be an issue related to the holding yards.
3	Quarry site was determined in the EIS as the 'best' environmental location.	3 Further detailed assessment undertaken in accordance with the original consent has indicated that the proposed site offers an improved environmental solution.
4	Potential for further 'cost cutting'.	4 Cost minimisation is not a relevant matter for consideration.
5	Potential odour problems.	5 See "Odour"
6	Compensation required as a result of impacts.	6 Conditions are recommended and incorporated in DECC licensing requirements to ensure that impacts are within legally binding limits. Compensation is not an appropriate consideration in assessment of this proposal and should only be considered by way of acquisition of adjoining properties in the unlikely event impacts cannot be controlled to within the limits prescribed by conditions of this consent.
7	Potential for further extensions/delays.	7 Approval of the modification will allow expedient implementation of stage 3 of the project.
8	Additional public consultation required.	8 The matter has been subject to two periods of public notification in accordance with EPA Act requirements.
9	Concern that irrigation areas may be sold off.	9 The effect of Condition 28 is that the responsibility rests with the

10 Effect on property values.	operator to ensure that appropriate means of disposal is in place. Any alteration in the disposal arrangements must be notified to the DECC and would require a further modification of Council's consent.
11 History of unacceptable environmental impacts	10 Proposed conditions of consent are expected to ensure that no adverse impacts will result from the development, such that no impacts on property values are expected.
	11 It is accepted that this site has been the subject of environmental issues in the past. However, the proposed WWTP and lagoons are part of a program of actions to significantly improve the overall environmental performance of the development.

Advice from Relevant Government Departments

In accordance with the requirements of the Environmental Planning and Assessment Act and Regulations, the proposal was advertised and a number of government departments were notified. The responses are summarised as follows. [\(Appendix C – Page G10\)](#)

Department of Environment and Conservation

The DECC provided Council with specialist advice relating to technical aspects of the original proposal. This included a detailed analysis of the odour, noise and soil quality impacts. This advice was incorporated into the original Conditions of Consent. DECC have considered the proposed modification and have recommended that consent be granted.

Department of Planning

Following initial consultation, the Department of Planning advised that they would only respond during the advertising phase if there was an issue of major significance. A copy of all previous submissions was sent to the Department. No further correspondence was received.

Department of Primary Industry

The Department advised Council that there were no significant agricultural issues. DPI supported the use of wastewater for irrigation purposes that were carried out in a proper and sustainable manner.

New South Wales Health

The NSW Area Health Service made no further comment in addition to their comments presented in relation to original proposal.

REPORT IMPLICATIONS:

- ***Environmental***

The modification will have little environmental impact. The proposed waste water treatment system represents a much more sustainable practice than currently being undertaken at the abattoirs. It is envisaged that the system will significantly improve the quality of the waste water coming from the abattoirs, a view shared with the Department of Environment and Conservation. An ongoing monitoring program would ensure that the environmental benefits identified by the Environmental Impact Statement continue for the life of the abattoirs.

- ***Social***

There are a number of houses within a reasonable proximity to the proposed waste water treatment system. The effect of the proposed modification will increase the number of houses within the radius of one kilometre but will increase the distance from the ponds to the nearest houses. The Environmental Impact Statement has predicted that residents of these dwellings will not be adversely affected by noise or odours. In order to confirm this, the applicant will be required to submit the results of a monitoring program within 2 months of commencement of the operation to ensure that these noise and odour targets will be met.

- ***Economic (Financial)***

Once established, the waste water treatment system will provide a solution to waste disposal issues and ensure the continuation of an important employment generating business.

- ***Policy or Statutory***

Nil

RECOMMENDATION:

A. That the consent be granted subject to the following conditions:-

- 1. This consent is not to operate until after the expiration of twenty eight (28) days of the date of issue of consent. (Note: This condition applies to the date of the original consent).**
- 2. The development referred to in this application is to be carried out substantially in accordance with the approved development plans as modified by any conditions of this consent.**
- 3. This consent has been issued on the basis that Council has been appointed as the Principal Certifying Authority and Council has accepted the appointment and will be issuing the construction certificate.**

4. This consent does not permit commencement of any works. Works are not to commence until such time as a Construction Certificate has been obtained and the appointment of a Principal Certifying Authority.
5. A Construction Certificate shall not be issued until all relevant conditions of this consent have been complied with.
6. During the initial 6 months of operations of the Waste Water Treatment System a monitoring program is to be implemented with the following monitoring to be undertaken:-
 - a) Noise monitoring undertaken at the nearest sensitive noise receptors in accordance with the requirements of the NSW Industrial Noise Policy.
 - b) Odour assessment once the ponds are fully operational, with readings to be taken at the nearest sensitive noise receptor.
 - c) Monitoring of all other inputs and outputs is to be undertaken in accordance with the requirements of Environmental Protection Licence 3117 – Tolsat Pty Ltd (EPL 3117).
7. The proposed means for collecting and reporting monitoring results are to be compiled in a Monitoring Program which is to be submitted to Council for approval prior to release of the Construction Certificate.
8. The Irrigation Management Plan required by condition U1 of EPL 3117 is to be submitted to Council for approval prior to release of the Construction Certificate. This is to include (but not limited to) the following:-
 - a) Clarification of the roles and responsibilities of the various stakeholders in relation to the management of irrigation.
 - b) Standard operating procedures to be followed when irrigating including triggers, responses and contingencies.
 - c) Log to record the use of ultrazyme.
 - d) Information that addresses the management of the soil condition in specific paddocks, particularly in those areas that may have already been subject to extended periods of effluent irrigation or where soil conditions are more limited in capacity for sustainable effluent irrigation.
 - e) An assessment of the potential for potassium build-up and measures to mitigate this.

- f) **Details of how irrigation will be managed during wet weather to ensure compliance with all conditions of this licence.**
 - g) **Provisions to be made for the erection of temporary fencing to restrict stock from grazing on land immediately following irrigation and / or until soil moisture are sufficiently reduced.**
 - h) **Details on how it is proposed to suppress any potential dust within the irrigation areas.**
 - i) **Details of the proposed irrigation system, including an irrigation network plan is to be included. Where this involves pipes crossing Council road reserves, application pursuant to s138 of the Roads Act 1993 are to be submitted for approval.**
- 9. Detailed engineering plans for the proposed holding and treatment ponds are to be provided for approval prior to release of the Construction Certificate. Such plans are to include an analysis of soil used for construction and are to be certified by a suitably qualified Geotechnical Engineer indicating that suitable means have been employed to ensure leakage will not occur, including the proposed means of stabilising and maintaining dam walls so as to prevent soil erosion**
- 10. Upon completion of the ponds, a Works as Executed Plan shall be provided by a suitably qualified person certifying that the ponds have been constructed in accordance with the approved plans.**
- 11. Regular monitoring of the capacity of the holding pond and rate of settlement of sludge is to take place. Details of the means for disposing sludge (if any) are to be submitted prior to release of the Construction Certificate.**
- 12. The applicant is to provide a list of all cleaning and other chemicals used within the everyday operations of the abattoir. This list is to be accompanied by an appropriately qualified person stating that the list of chemicals will not result in adverse impacts to biological agents required in the treatment system.**
- 13. Written advice shall be provided to Council indicating the date of commencement of the Waste Water Treatment Facility.**
- 14. At the conclusion of two (2) months of commencement of operation of the Waste Water Treatment System, a report is to be submitted detailing the results of the noise and odour monitoring. Should the results indicate that the Waste Water Treatment System is not operating within the relevant guidelines, attenuation measures are to be put in place and a further report presented to Council within twenty eight (28) days. Should the results of this still reveal non compliances with respect to noise**

and odour, the operation is to cease until Council is satisfied that the Waste Water Treatment System can be operated within the appropriate noise and odour guidelines.

15. At the conclusion of 6 months of operation, the results of the monitoring are to be presented to Council for assessment.

In the event that non compliances are shown, a schedule of attenuation measures to be put in place is to be presented to Council for consideration.

16. The operation of the abattoirs is to cease immediately if, at any time, the proposed holding dam is full, required soil monitoring indicates that soils are unsuitable to receive waste water, or the relevant noise and odour criteria are not being achieved. Operations are not to recommence until prior approval in writing has been obtained from Kempsey Shire Council and the Department of Environment and Conservation, having regard to information supplied by the operator.

Department of Environment and Conservation – General Terms of Approval

17. The premises also includes the effluent utilisation areas as specified as *Land owned by Tolsat Pty Ltd* in figure 5.7 Proposed Irrigation Allotments Part B of the Environmental Impact Assessment dated February 2006. These areas are defined as Lot 29 DP 52437, Lot 1712 DP 703187, Lot 5056777 DP 505667, Lot 2 DP 529242, Lots 4,5 DP 838794 and Lot 1 DP 1041815.

18. Location of monitoring / discharge points and areas.

The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and / or the setting of limits for any application of solids or liquids to the utilisation area.

EPA Identification No.	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Quality and volume	Discharge to utilisation area	To be confirmed
2	Soil quality		Lot 1 on Figure 5.7 Proposed Irrigation Allotments in Environmental Impact Assessment dated 28 th February 2006
3	Soil Quality		Lot 7 on Figure 5.7 Proposed Irrigation Allotments in Environmental Impact Assessment dated 28 th February 2006
4	Soil Quality		Lot 10 on Figure 5.7 Proposed Irrigation Allotments in

			Environmental Impact Assessment dated 28 th February 2006
5	Soil Quality		Lot 11 on Figure 5.7 Proposed Irrigation Allotments in Environmental Impact Assessment dated 28 th February 2006
6	Groundwater quality		To be confirmed
7	Groundwater quality		To be confirmed
8	Groundwater quality		To be confirmed
9	Environmental monitoring		To be confirmed.

19. Volume and mass limits

For each discharge point or utilisation area specified below (by a point number), the volume / mass of:

- a) liquids discharged to water; or
- b) solids or liquids applied to the area;

must not exceed the volume / mass limit specified for that discharge point or area.

Point	Unit of measure	Volume / Mass Limit
1	kL/day	To be confirmed

20. Requirement to monitor concentration of pollutants discharged

For each monitoring / discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.

Water and Land

Point 1

Pollutant	Units Measure	of	Frequency	Sampling Method
Biochemical oxygen demand	mg/L		Weekly during trial	Grab sample
Faecal Coliforms	cfu/100mL		Weekly during trial	Grab sample
Nitrogen (total)	mg/L		Weekly during trial	Grab sample
Oil and Grease	mg/L		Weekly during trial	Grab sample
Calcium	mg/L		Weekly during trial	Grab sample
Magnesium	mg/L		Weekly during trial	Grab sample
Sodium	mg/L		Weekly	Grab sample

		during trial	
Potassium	mg/L	Weekly during trial	Grab sample
Phosphorus (total)	mg/L	Weekly during trial	Grab sample
Sodium Adsorption Ratio	µS/cm	Weekly during trial	Grab sample
Conductivity			
Chloride	mg/L	Weekly during trial	Grab sample
Total Suspended Solids	mg/L	Weekly during trial	Grab sample
pH	pH	Weekly during trial	Grab sample

Soil Points 2, 3, 4, 5

Pollutant	Units of Measure	Frequency	Sampling Method
Cation exchange capacity	mmol(+)/kg	Special frequency 1 (see Note 1)	Special method 1 (see Note 2)
Exchangeable calcium	mmol(+)/kg	Special frequency 1	Special method 1
Exchangeable magnesium	mmol(+)/kg	Special frequency 1	Special method 1
Exchangeable sodium	mmol(+)/kg	Special frequency 1	Special method 1
Exchangeable potassium	mmol(+)/kg	Special frequency 1	Special method 1
Exchangeable aluminium	mmol(+)/kg	Special frequency 1	Special method 1
Exchangeable sodium percentage	%	Special frequency 1	Special method 1
Phosphorus (available)	mg/kg	Special frequency 1	Special method 1
Conductivity	µS/cm	Special frequency 1	Special method 1
Nitrogen nitrate –	mg/kg	Special frequency 1	Special method 1
Phosphorus sorption capacity	mg/kg	Every three years	Special method 1
Saturated hydraulic conductivity	mm/hr	Every three years	In situ
pH	pH	Special frequency 1	Special method 1

Groundwater 6, 7, 8

Pollutant	Units of Measure	Frequency	Sampling Method
pH	pH	Quarterly	Groundwater sample probe
Conductivity	µS/cm	Quarterly	Groundwater sample probe
Standing water level	m AHD	Quarterly	In situ
Nitrogen nitrate –	mg/L	Quarterly	Groundwater sample probe

Nitrogen ammonia	-	mg/L	Quarterly	Groundwater sample probe
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21. Requirement to monitor volume or mass

For each discharge point or utilisation area specified below, the licensee must monitor:

- a) the volume of liquids discharged to water or applied to the area;
- b) the mass of solids applied to the area;
- c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure specified below:-

Frequency	Unit of measure	Sampling Method
Continuous	kL/day	To be confirmed

22. Environmental Monitoring

The licensee must maintain and install a rainfall measuring device.

23. Pollution Studies and Reduction Programs

Irrigation Management Plan

The proponent must prepare and submit an Irrigation Management Plan which details how irrigation will be undertaken in a manner consistent with the requirements of this licence. This plan should include but not limited to:-

Clarification of the roles and responsibilities of the various stakeholders in relation to the management of irrigation:-

- Standard operating procedures to be followed when irrigating including triggers / responses a contingency.
- Log to record the use of ultrazyme.
- Information that addresses the management of the soil condition in specific paddocks, particularly in those areas that may have already been subject to extended periods of effluent irrigation or where soil conditions are more limited in capacity for sustainable effluent irrigation.
- As assessment of the potential for potassium build up and measures to mitigate this.

- Details of how irrigation will be managed during wet weather to ensure compliance with all conditions of this licence.
- Clarifying the minimum area of land which must be available to enable the sustainable irrigation of treated effluent.
- Clear triggers and actions to be followed if the area of land available for irrigation drops to within 30% of this level.

24. Monitoring Plan

The licensee must submit a plan for monitoring effluent quality (during the trial) and soil / groundwater in irrigation areas.

Completion: Prior to the commencement of irrigation.

25. Pond Design

The licensee must submit final pond designs prior to commencement of construction work.

26. Waste water treatment contingency plan

The proponent will develop specific criteria for assessment of the acceptability of the waste water treatment system and to review the proposed pond system for suitability for the waste water treatment should the trial not prove effective.

Completion: Prior to the commencement of the trial period.

Special Conditions

27. The licensee must ensure that it has in place, at all times, arrangements for the sustainable disposal of effluent.
28. The licensee must advise the DECC in writing within 7 days if:
 - i) There is any change in ownership of land subject to a Landowners Agreement (or similar) with the licensee; or
 - ii) If the owners of land subject to a Landowners Agreement (or similar) advises the licensee of their intention to void the landowners agreement.

B. That the objectors be advised of Council's decision.

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R B Pitt

DIRECTOR SUSTAINABLE DEVELOPMENT SERVICES

