

EPA's response to community concerns



Environment
Protection
Authority Victoria

1. INTRODUCTION

Environment Protection Authority Victoria (EPA) received a works approval application from Regional Livestock Exchange Investment Company Pty Ltd (RLX) to establish a saleyard with a designed annual throughput of 1.6 million sheep and 70,000 cattle. The saleyard will be located at (Part) 22-76 Victoria Street, Miners Rest 3352, on the junction of the Western Highway and the Sunraysia Highway.

The works approval application and the planning scheme amendment were jointly advertised in the Herald Sun and Ballarat Courier newspapers on 11 February 2015. The applications were on public exhibition between 12 February and 20 March 2015. There were two drop-in information sessions on 2 and 3 March 2015 at the Ballarat Turf Club, Miners Rest.

The application was referred to Department of Health and Human Services. EPA received approximately 180 submissions from the community. Key environmental issues raised through the submissions and the public information sessions were concerns about potential odour, noise, surface water and groundwater impacts of the proposal.

A joint planning panel and s20B conference was held to hear submitters' concerns between 22 June and 7 July 2015. The Panel prepared a conference report with recommendations to be considered by EPA during the works approval assessment and decision process. Subsequently, on 1 October 2015 EPA issued a s22 notice requesting RLX to provide further information to address issues raised in the Panel Report. In early June 2016, EPA received this further information and emailed it to submitters. Subsequently, a further 27 submissions were received.

EPA has comprehensively examined the application in line with the Act, relevant state environment protection policies and guidelines. EPA has considered the public submissions, the Panel's recommendations as well as issues resulting from the design amendments in the proponent's recent submissions. The assessment focused on the key environmental issues, including potential odour and noise emissions and surface water impacts associated with the proposed wastewater treatment plant, effluent reuse scheme, and the stormwater management system. The assessment also considered the solid waste management.

EPA has determined that the environmental risk posed by this proposal is considered acceptable and that it complies with the relevant state environment protection policies and guidelines and issue of a works approval with conditions has been recommended.

The works approval conditions include requirements for:

- additional odour and dust emission controls
- final designs for wastewater treatment system and wetland be submitted for approval
- commissioning and contingency plans be submitted for approval
- an operational environmental management plan (EIP), including monitoring, compliance review, corrective actions and community engagement be submitted for approval.

EPA's response to community concerns

2. OVERVIEW OF RESPONSE TO COMMUNITY CONCERNS

EPA's sole role is to regulate pollution and make regulatory decisions under the *Environment Protection Act 1970* (EP Act). EPA's decision criteria are based on the relevant state environmental protection policies and regulations. Issues relevant to this proposal are air and noise emissions and surface water contamination. In submissions, many issues were raised. Some of issues, such as occupational health issues associated with noise and air emissions, traffic, flooding and property values are not regulated by EPA.

3. RESPONSES TO SPECIFIC ENVIRONMENTAL ISSUES

3.1 Annual Throughput rate

The applicant has confirmed that the proposed annual throughput rate remains the same, namely 70,000 cattle and 1.6 million sheep per year.

3.2 Air emissions management

Issues raised were around how to minimise dust and odour emissions, particularly from the stockpile areas and what management plan could be instigated.

Our assessment has concluded that there is minimum change of odour emissions due to the change of design while the current application has not sufficiently addressed dust management.

To minimise off-site odour and dust emissions, EPA considers that effective controls and good site management are necessary. To achieve this, the works approval (conditions WA_W1, WA_W8 & WA_R1) requires the proponent to:

- provide screen planting for dust control
- install dust monitoring stations
- provide operational environmental improvement plan including the management of odour and dust emissions

3.3 Noise emissions

This issue is the extent of noise impact resulting from the revised design and whether EPA requires the proponent to provide adequate mitigation to minimise excess noise to particular areas of the site.

Our assessment has concluded that there is minimum change of noise emissions due to the change of design. The findings of the noise assessment are conservative. The assessment concludes that noise emissions would comply with noise limits, except during a rare event. Installation of 3m high noise screens would reduce the noise level by 1 dB, which is not effective.

RLX has addressed issues required by the Panel, such as the recommended maximum noise levels, effectiveness of noise barriers and truck dropping noise. Furthermore, the Panel recommended that the Works Approval should not seek to impose noise amelioration works unless required to achieve compliance and then only after an assessment as to their cost effectiveness (section 8.6).

The works approval (condition WA_R1) requires the proponent to:

- undertake noise monitoring during the commissioning phase to assess the need for further noise control required through checking the compliance performance

EPA's response to community concerns

- provide operational environmental improvement plan, including on-going noise monitoring, compliance review and triggers for further noise control measures.

3.3 Wastewater treatment system and effluent reuse

There are number of issues raised as follows:

1) *Basis of EPA's approval of on-site wastewater treatment plant*

The State Environment Protection Policy (Waters of Victoria) governs the management of treated industrial wastewater, including its recycling and reuse on land. Clause 31 requires that:

- re-use and recycling needs to be consistent with the Guidelines for Environmental Management – Use of Reclaimed Water (EPA publication 464).
- if the Authority is satisfied that wastewater can be treated and managed to a level that will protect beneficial uses, the discharge of that wastewater to surface waters to provide water for the environment or other uses is an acceptable form of re-use.

The purpose is to ensure that the re-use and recycling of wastewater is sustainable and does not pose an environmental risk to the beneficial uses of land, surface waters and ground waters.

Our assessment concludes that the proposed wastewater treatment is likely to produce class C effluent, as specified below, which is consistent with the policy.

- BOD: median 20 mg/l
- SS: median 30mg/L
- E coil: < 1,000org/100ml.

2) *The impact of Class C effluent on the receiving water, including on Burrumbeet lake:*

EPA considers that the impact of Class C water on the Burrumbeet lake should be insignificant due to the following reasons:

- The proposal has adopted a low application rate of 1.5 ML/ha/year (150mm/year). The effluent will be applied at a rate of 10mm when the soil moisture is 20 mm below field capacity. Thus, it should not generate run-off.
- Nutrient concentrations in the treated effluent are estimated to be 45mg/l for nitrogen and 30mg/l for phosphorous which is acceptable based on EPA's assessment. These nutrients will be taken up by crops/grass.
- During the wet season, the effluent will be stored in the holding lagoon which has been sufficiently sized using historical rainfall data.
- If there is any run-off, it will flow into the wetland prior to discharging off-site.

To ensure that discharge from the wetland will not cause impact to the receiving water, works approval condition (WA_R1) requires the proponent to monitor the discharge water quality during the commissioning to confirm that the quality is consistent with the modelling results specified in table 2 of the Stormwater Management Plan, May 2016.

3) *Why has the size of the proposed treatment ponds been increased?*

EPA required the proponent to design the wastewater treatment plant based on maximum weekly flow rather than peak daily flow during our submission to the Panel in June 2015. This has resulted in an increase in the daily flow loading from 110 to 375kl/day as a design parameter.

4) *Effluent reuse scheme management*

The works approval condition (WA_R1) requires the proponent to prepare an environmental improvement plan to manage the effluent reuse scheme in accordance with EPA publication 464 mentioned above. It is also required to install weather stations for rain and wind (WA_W8).

EPA's response to community concerns

3.4 Flooding issues

1) *Impact on Burrumbeet Creek*

Generally, flooding control and prevention measures are outside the scope of the Environment Protection Act 1970 and relevant policies, e.g. the State Environmental Protection Policy (Waters of Victoria). However, EPA's responsibility in this respect is to ensure there will be no adverse impact on Burrumbeet Creek resulting from the saleyard development.

An estimated 46.8ML of water from the wetland will be discharged to Burrumbeet Creek. There has been no data presented as to the current water quality in Burrumbeet Creek. The proposal relies on the inference that based on the MUSIC modelling, water quality in Burrumbeet Creek will not be adversely affected due to there being reductions in nutrients and sediment leaving the area compared to the pre-development condition. It is likely that the current water quality of Burrumbeet Creek is poor and does not meet the SEPP objectives. Any discharge is thus required to not make conditions worse and at least meet the background conditions. To ensure this, the works approval condition (WA_R1) requires the proponent to undertake water quality monitoring from the wetland to confirm its discharge meets the MUSIC modelling assumptions in table 2 of the Stormwater Management Plan, May 2016.

2) *Impact of C178*

A number of submissions raised issues related to the impact of C178 Burrumbeet Catchment – Proposed Flood Controls on the proposed saleyard as the project is to divert a high level flood waters directly to the edge of the proposed saleyard site from the Miners Rest community.

As part of the assessment, EPA has confirmed with the Glenelg Hopkins Catchment Management Authority that the proposed saleyard flood modelling had taken the impact of C178 into consideration and the current design of the saleyard flood control measures are adequate.

RLX's responses to various questions related to flooding are included in Attachment 1.

3.5 Q-fever

EPA has referred these comments to the DHHS. They commented that they require a contingency plan for major risks, including Q-fever. They also require the prevention of off-site migration of dust or aerosols so as to reduce the risk of wind-blown infectious agents on dust. To address this concern, the works approval (conditions WA_W1, WA_W8 and WA_R1) requires the proponent to provide engineering designed dust control measures, conduct dust monitoring and to develop a dust management plan and Q-fever contingency plan.

3.6 Other issues

Communication between RLX and Miners Rest community

Works approval condition (WA_R1) required the proponent to establish a community liaison committee (CLC) to address concerns raised by the community.

Pollution Report

Miners Rest community can lodge their pollution reports directly to the CLC or EPA by calling our pollution hot line 1300 372 842.

Attachment 1 - RLX's response to the submissions

1 Matters raised in Submissions

We have reviewed all the submissions received by the EPA. Rather than provide a response to every submission, we have focussed on those that generally reflect the matters outlined in all submissions. Responses are provided below to issues raised in Submission numbers 7.1, 7.3 and 11.

1.1 Northern Victoria Livestock Exchange at Barnawartha

Several submissions referred to the NVLX facility at Barnawartha, and cited alleged issues with dust, ammonia, soft flooring and noise.

Firstly, it is important to note that the two facilities have very different business and operating conditions and cannot be compared. An overview of the key differences between the two facilities is provided in the table below.

Business & Operating Environment Comparison	NVLX	CVLX
Livestock Sold	245,000 cattle annually (2014/15)	75,000 cattle annually (2014/15)
Livestock Cattle Sales	127	59
Sale Sequence & Frequency	Tuesday (weekly) Wednesday (weekly) Thursday (fortnightly)	Monday Prime Cattle Sale (weekly) Friday Store Cattle Sale (monthly)
Average number of yarded cattle	Tuesday – 2,363 head Wednesday – 1,007 head (based on 2014/15 data)	Monday prime cattle sale – 384 head Friday store cattle sale - 2,997 head (based on 2010-2015 data)

1.1.1 Soft Flooring

Soft flooring maintenance at CVLX will occur weekly on a Tuesday and/or Wednesday, given CVLX has a weekly Prime Cattle Sale on a Monday and a monthly Store Cattle Sale on a Friday.

The ability to power harrow and recondition soft flooring after sales at CVLX will be unrestricted given the scheduling of sales and the volume of cattle presented for sale on a weekly basis.

This form of maintenance will extend the life expectancy of flooring material at CVLX. Consequently the frequency of material rotation will be less than NVLX for several reasons, including:

- livestock numbers and sale frequency;
- the number of cattle yarded for sale at the facility each week is significantly less;
- the opportunity to gain access to power harrow and recondition material is significantly greater, and
- the ability to rest soft flooring or rotate areas used to present cattle for sale on a weekly basis is available in a CVLX operating environment, which is distinctly different to NVLX.

1.1.2 Dust and Ammonia

The issues submitters raise with respect to Media reports associated with dust and odour problems are incorrect and exaggerated. The assertion that Worksafe has been intervening in relation to the issue of dust is categorically wrong.

Attachment 1 - RLX's response to the submissions

Experts have independently assessed these matters at NVLX. Their findings clearly indicate that the measured ammonia and respirable dust concentrations are well below the occupational health and safety exposure limits indicated by Safe Work Australia and NIOSH and therefore unlikely to impact the health of users of the facility.

The design of the CVLX dust suppression system used in livestock handling facilities incorporates a livestock laneway and broad spectrum dust suppression to manage and suppress dust throughout the cattle facility. This is fundamentally the same system used at the Tamworth Regional Livestock Exchange (TRLX), which has demonstrated that the system effectively manages dust suppression throughout the cattle facility.

1.2 Throughput

(Response to Submission 11)

Can the EPA advise whether those figures for livestock throughput quoted in the December 2014 report have changed?

The Wastewater and Solid Waste Management report (May 2016) was prepared to specifically address the relevant requirements of the notice issued by the Environment Protection Authority (EPA) under Section 22(1) of the Environment Protection Act 1970 in relation to works approval number 1001580. As such, it did not repeat any information that remained consistent with previous reports.

The stock throughput numbers used for the design and assessment of the proposed facility have not changed from the December 2014 report.

Can it be assumed that because of the increase in the size of the ponds that there is an expected increase in the livestock throughput?

No. The EPA stipulated that the effluent management system be sized based on peak weekly flow. The revised design flow is stated in Section 3.1 of the Wastewater and Solid Waste Management report (May 2016). The stock throughput numbers have not changed.

Why are RLX saying that the number of livestock expected to go through the yards annually will not be increasing, yet they have increased the size of the facultative ponds?

The EPA stipulated that the effluent management system be sized based on peak weekly flow. The revised design flow is stated in Section 3.1 of the Wastewater and Solid Waste Management report (May 2016). The stock throughput numbers have not changed from the December 2014 report.

Where will this spill be released?

The Wastewater and Solid Waste Management Report (May 2016) report states *"It is concluded from this assessment that the system could be managed to effectively eliminate spills."* (page 10).

This statement relates to the management of the wet weather holding pond, not "from the various ponds" as quoted in the submission. It does not relate to the modelled spill from the surface water wetland system.

Attachment 1 - RLX's response to the submissions

The surface water wetland will manage general site runoff (not effluent). Modelling of the surface water management system, which has been peer reviewed, demonstrates that it achieves a neutral or beneficial effect. That is, runoff will continue to discharge from the site (as it does now) however the stormwater treatment system will reduce pollutant loads to less than the loads assessed as currently leaving the site, achieving the objective of zero adverse impact specified by the Ballarat Planning Scheme.

1.3 Flooding

(Response to Submissions 11 and 7.3)

A number of submissions raise concerns about the impact of the development on flooding in the area. It should be noted that the proponent engaged Water Technology to prepare a Flood Risk Assessment as part of the supporting technical reports. Water Technology used the same model that they used for the Burumbeet Flood Investigation work they prepared for the City of Ballarat. The Flood Risk Assessment has been reviewed by several water authorities, including Glenelg Hopkins CMA, and has been peer reviewed by Neil Craigie. All authorities are in support of the technical information submitted in support of the CVLX project.

How is a 600 mm levee going to prevent significant flooding problems in a 1:100 year flood?

Interaction with flood waters has been assessed through detailed modelling as presented in the Stormwater Management Plan (May 2016). The modelled 1% Annual Exceedance Probability (AEP) flood extents are illustrated in this report.

The facility has been designed to ensure all critical elements are located above the modelled 1% AEP flood level. This is achieved through the use of fill and embankments. The design does not rely on a 600 mm high levee.

All effluent treatment ponds (not the surface water wetland) have embankments that are a minimum of 600 mm higher than the modelled 1% AEP flood level.

The proposed design (fill and embankments) has been modelled by Water Technology which demonstrates that the proposed layout will not increase flood levels in Burrumbeet Creek or along the Sunraysia Highway. This modelling also demonstrates that the proposed facility is separated from flood waters.

This modelling and assessment has been reviewed and accepted by the Glenelg Hopkins Catchment Management Authority.

What will be done to mitigate flooding across the entry to the site?

Flooding patterns in the vicinity of the proposed development are shown and described in the Stormwater Management Plan (May 2016). Flooding around the northern part of the site, adjacent to the Sunraysia Highway, occurs in flood events greater than the 5% AEP event (1 in 20 year). This flooding emanates from a drainage line to the east of the development site. When flood levels in this eastern drainage line increase, water eventually breaks out along the Sunraysia Highway table drain and heads to the west to join the western floodway.

This transfer of floodwater is contained to the north by the table drain and embankment of the Sunraysia Highway. The water in the northern floodway meets the backwater created by the Sunraysia Highway embankment and culvert on the western drainage line.

Attachment 1 - RLX's response to the submissions

The proposed access road will connect with the existing road levels on the Sunraysia Highway which, in the location of the proposed facility entrance, remains flood free in a 1% AEP flood. The internal entry road will be on an embankment that connects with the Sunraysia Highway. It will therefore be flood free in a 1% AEP flood event.

The detailed flood modelling indicates that the internal access road is in an area of flood storage created by the existing Sunraysia Highway embankment. As noted in the assessment (and above), there are some floodwaters that move along the northern floodway into this flood storage area. A culvert is therefore proposed beneath the internal access road to balance these flows. Detailed modelling of the proposed design demonstrated that a four cell 1,500 mm wide by 600 mm high box culvert could accommodate the modelled flood flows without detrimentally impacting on flooding patterns.

This modelling and assessment has been reviewed and accepted by the Glenelg Hopkins Catchment Management Authority.

How will a 600 mm levee allow for that?

This question relates to proposed flood mitigation works in the Miners Rest area, potentially causing flood water to reach the CVLX site at a "faster flow rate and at a higher level".

Flood levels at the site are controlled by the Sunraysia Highway embankment and culvert. The developments referred to in the submission may change flood levels adjacent to Miners Rest and in areas further downstream. However, it is highly unlikely they would impact on flood levels immediately adjacent to the proposed development due to the existing control created by the Sunraysia Highway.

Further, any proposed flood mitigation works being undertaken in the Burrumbeet Creek catchment should be designed, assessed and undertaken without causing detrimental flooding impacts to offsite areas, including the proposed CVLX site.

...What difference is a culvert going to make?

Flooding patterns in the area have been subject to detailed numerical modelling. The proposed culvert under the internal access road has been sized to ensure no detrimental changes in flooding patterns.

The sizing and associated modelling and assessment of this culvert has been reviewed and accepted by the Glenelg Hopkins Catchment Management Authority.

Again, how will a culvert hold back flood waters? And how can I be assured that a levee will not affect the flow of flood water during a flood event?

The proposed culvert is not intended to hold back flood water. It is provided to ensure flood water emanating from the eastern drainage line can reach the western drainage line without detrimentally changing flooding patterns.

Figure 3 in the Stormwater Management Plan (May 2016) shows that the majority of the proposed development is well outside of the modelled 1% AEP flood extents. The detailed numerical modelling demonstrates that the proposed development will not increase flood levels in the western drainage line, Burrumbeet Creek or along the Sunraysia Highway up to and including the 1% AEP flood event.

This modelling and its conclusions have been reviewed and accepted by the Glenelg Hopkins Catchment Management Authority.

Attachment 1 - RLX's response to the submissions

1.4 Wastewater

(Response to Submission 11)

On what criteria does the EPA approve such a large wastewater management system as the one proposed for the Miners Rest saleyards?

The guidelines referred to in the submission relate to domestic effluent. The effluent management system has been sized based on a hydraulic load stipulated by the EPA and has been technically reviewed by experts on behalf of Central Highlands Water. This review indicates the system is appropriate.

How can RLX estimate this amount of sheep manure when they haven't confirmed the number of sheep expected to pass through the facility?

The solid waste estimates have been calculated from the proposed stock throughput detailed in the December 2014 report.

1.5 Irrigation

(Response to Submission 7.1)

Modelling of the irrigation of Class C treated effluent was based on a water balance that takes into account site specific climate data. The cooler, wetter winter periods experienced in the Miners Rest area have been assessed.

There is less opportunity to irrigate in cooler months and treated effluent will be stored in the wet weather holding pond so that it can be irrigated as warmer conditions allow. This is consistent with all effluent irrigation schemes and the proposed wet weather storage pond capacity exceeds EPA design requirements.

The annual irrigation application is very low compared to crop requirements and it will be done on a rotational basis so that only a small section of the available irrigation area will be used at any one time. Typically the values in January to May are around 10 to 17 mm per month as the effluent application is limited by the wastewater production (i.e. the wet weather holding pond is empty). Larger monthly values occur in October to December to empty the holding pond which has stored treated wastewater over winter (minimal irrigation in June to September). On average, there would be minimal irrigation from June to September (<5 mm per month) (Revised Water Cycle Management Report, 2015).

The potential for increased runoff from the irrigated areas was accounted for in the surface water quality modelling as recommended by the expert review conducted by Mr Neil Craigie. The surface water wetland system has been sized to manage the potential increased hydraulic and nutrient load from the development, including the irrigation areas.