
JRPP No	2010HCC031
DA Number	39396/2010
Local Government Area	Gosford City Council
Proposed Development	Proposed Expansion of Existing Free Range Poultry Farm to include 4 additional Naturally Ventilated Poultry Sheds
Street Address	Lot 813 DP 529990 No 80 Bloodtree Road MANGROVE MOUNTAIN
Applicant/Owner	Aconsult
Number of Submissions	4
Recommendation	Refusal
Report by	Fred Dobbs

EXECUTIVE SUMMARY

Reason for Referral to Joint Regional Planning Panel (JRPP)

The JRPP at its meeting of 28 July 2011 resolved that determination of this application be deferred to enable Council to:

- 1 Provide a further report on the additional information that has been provided by the applicant
- 2 This report is to include comment on the watercourse/drain which traverses the centre of the site
- 3 The report be available for a further next possible meeting of the Joint Regional Planning Panel.

Assessing Officer

Fred Dobbs

Reviewing By

Independent Development & Environment Panel (IDEP)
Director Environment and Planning
General Manager

Recommendation

Refusal

REPORT

In relation to Part 1 regarding the additional information provided by the applicant, the following information is provided:

The applicant submitted the following additional documentation in support of the proposal to the JRPP

- (i) Letter from Benbow Environmental dated 27 July 2011 (Ref: 109161 LetRep 20110725).
- (ii) Letter from SLR Global Environmental Solutions dated 26 July 2011 (Report No 610.10682-R1) Response to Noise Related Issues.
- (iii) Letter from applicant dated 26 July 2011 as response to recommended reasons for refusal.

The above reports/letters were forwarded to Council's Consultant that carried out the original peer review, Air Noise Environmental Pty Ltd for further comment. Council's peer reviewer has provided comment on the issues raised by letter dated 1 August 2011 as follows:

"Further to our report letter 'Independent Peer Review – Odour Dust and Noise Assessments for Proposed Poultry Farm' (ref: 2719RepLet1 dated 6 June 2011), we present in this letter comments on the response provided by Benbow Environmental dated 27 July 2011 and the additional documentation provided by the applicant.

Comments on Benbow Environmental Response

Matter No. 1 – Building Downwash Algorithm

In accordance with current best practice, the Prime building downwash algorithm was identified as being used in the original Benbow Environmental report and this approach is supported. Review of the modelling files confirmed that an alternative algorithm had been utilised, and one that can, in our experience, significantly underestimate predicted ground level concentrations.

It is agreed that additional modelling would be required to determine the influence of the algorithm selected, as identified in the Benbow Environmental response. In our opinion this additional modelling is warranted.

Matter No. 2 – Terrain Resolution

Terrain data at a resolution of 100 m is readily available and is widely utilised in the air dispersion modelling field currently, particularly for projects where valley slope conditions have potential for katabatic winds.

At a recent poultry odour modelling workshop, convened by the NSW Office of Environment and Heritage, the need to use a fine terrain resolution (100 m) particularly where there was potential for katabatic wind influences was highlighted. The participants agreed that use of a terrain resolution of 100 m was an appropriate methodology in odour assessments of poultry farms.

Matter No. 3 – TAPM Over Prediction of Wind Speeds

No further comment at present.

Matter No. 4 – Shifting Batch Start Dates

This issue relates to the potential for coincidence of worst case emissions and worst case dispersion conditions. The nature of the source (whether point or an extended line) is considered irrelevant to this issue, as there is a direct relationship between the dispersion coefficient for a given hour of meteorological data and the emission rate assumed to occur for that same hour.

Matter No. 5 – Discrepancy in Adopted Odour Emission Rates

This is an issue where further investigation is considered warranted. The research published by Jiang and Sands adopted an emission rate of 322 ou/s/1,000 birds for a naturally ventilated farm with above average management methods (ie, a well managed farm) in the dispersion modelling presented in that research. The reason for the significant discrepancy with the emission rate adopted in the modelling for the Bloodtree Road Farm needs to be determined.

Matter No. 6 – Bird Thinning

Agreed.

Matter No. 7 – Use of Foggers

No additional comment at present.

Matter No. 8 – Temperature of Emissions

The explanation provided as to the means of determining the emission temperature is accepted.

Matters No. 9 and 10 – Mitigation Measures

As per our original response, we agree that the odour mitigation measures proposed by Benbow Environmental are the only methods likely to be suitable to odour mitigation in this case. This is because odour control at the point of emission (i.e., the openings in the shed) is impractical.

It is the ability of the proposed mitigation measures to achieve the reductions likely to be necessary in this instance that is considered to be questionable based on review of the currently available research.

Comments on Additional Information from Applicant

Two additional documents have been provided. The first is a short report from SLR providing additional commentary on noise aspects, and the second is a document prepared by Bloodtree Orsus Pty Ltd and Palm Marie Farms Pty Ltd.

Review of these documents confirms that there is no additional information contained in these documents that materially alter the validity of the conclusions made in our original Peer Review report dated 6 June 2011.

Conclusion

In conclusion, the additional information and responses provided to date with respect to the issues raised in our original Peer Review report dated 6 June 2011 are not considered substantive and do not affect the opinions we have expressed with respect to this application.

We remain of the opinion, on the basis of the material provided to date, that there is a significant risk of adverse odour impacts arising as a result of this development. Subject to confirmation of these risks through additional modelling, these odour impacts are considered sufficient to warrant refusal of the application.

With respect to noise impacts, the risk of adverse impacts is not considered sufficient to warrant refusal of this application.”

Council Assessment Staff Comments on Peer Review of Additional Information

The following points are made regarding the additional information submitted by the applicant:

- 1 Council's peer reviewer has reassessed all information submitted by the applicant and has confirmed that the additional information is not substantive and does not affect the previous assessment. The peer review confirms there is a significant risk of adverse odour impacts arising from the development.
- 2 Notwithstanding that Council's peer reviewer advising that noise impacts are considered insufficient to warrant refusal of the application, it is considered that noise impacts remain a substantial issue. The location of the subject site and the proximity of the access point to nearby sensitive receptors will result in unfair interruptions to sleeping residents caused by the noise of trucking movements in particular. Outlined below under Comments from Councils Adviser Engineer (Traffic and access) it is noted that Bloodtree Road is not located on a gazetted B-Double route. Although the applicant has proposed the use of B-Double trucks, their use is illegal along Bloodtree Road if greater than 19m in length and greater than 50 tonne capacity. This could translate to double the number of trucking movements due to the requirement to use smaller trucks and a resultant increase in noise levels. The current Benbow noise impact reports have not addressed this issue. The unfair noise impacts are therefore considered a relevant and applicable reason for refusal of the application.
- 3 The additional information provided by the applicant do not warrant changing the recommended reasons for refusal of the application outlined in the original report (attached).

(Refer refusal reasons 1-8)

In relation to Part 2 regarding the watercourse / drain which traverses the centre of the site, the following information is provided:

As part of its consideration of this application the JRPP have required comment on the watercourse/drain running east west approximately across the centre of the site. As a result of comments by JRPP members at its meeting of 28 July 2011, a detailed assessment of the watercourse / drain has been carried out. The existing watercourse / drain begins at a culvert located in Bloodtree Road midway along the frontage of the subject site and runs east-west across the centre of the site to Whipbird Creek. The applicant proposes to reroute the watercourse / drain by connecting an open swale (with rock scour protection) to the culvert under Bloodtree Road which in turn passes through a 600mm diameter pipe under the access road within the site to a grassed swale (with rock scour protection on bends in the swale) to a dam overflowing to Whipbird Creek.

Relevant issues include designation of the watercourse / drain, comments from the NSW Office of Water, comments from Council's Adviser Engineer (OSD, quality of stormwater discharge, flooding and drainage and traffic and access), comments from Council's Environment Officer (nutrient control and stormwater quality) and proposed fill / visual impact assessment. These issues are commented upon individually as follows:

Designation of the Watercourse / Drain

The subject watercourse / drain is not shown on Council's mapping system as a watercourse, lake, river, creek or waterway. (Council mapping is based on the LPMA mapping which

designates watercourses amongst other features. Under the Water Management Act 2000 a river includes “any watercourse, whether perennial or intermittent and whether comprising a natural channel or a channel artificially improved.”

The site contains a depression or low point running east west from the culvert in Bloodtree Road. Stormwater from the table drain along Bloodtree enters the depression during periods of rain and drains through the site to Whipbird Creek located on the western side of the site. Water entering the site from Bloodtree Road is not flowing through a channel, either natural or artificially improved. The watercourse / drain flows only during periods of rain, is regarded as intermittent and ephemeral and does not require issue of a controlled activity statement from NSW Office of Water (see comments from NSW Office of Water).

Comments from NSW Office of Water

As indicated in the original report (attached) the application was referred to the NSW Office of Water who have raised no issue with the watercourse / drain and advised there is no requirement for any controlled activities associated with the proposed development.

Comments from Councils Advisor Engineer

Stormwater from the culvert in Bloodtree Road currently entering the subject site is proposed to be diverted via a system of grassed swales and pipes around proposed Poultry Sheds 3 and 4 to a dam located in the south western corner of the site. In this regard Council's Advisor Engineer has provided a detailed assessment of on site detention proposals, quality of stormwater discharge, flooding and drainage and traffic and access issues and provides the following advice:

1. On site Detention

The development proposes to utilise the drawdown capacity of the 4ML dam to provide OSD. The details provided with the report on Water Cycle Management do not confirm that there will not be any increased runoff as a result of the development. There could be a resultant increase in runoff which would be detrimental to the downstream creek environment due to the increased volume of stormwater runoff flushing out the creek more regularly and therefore disturbing the habitat of the native flora and fauna.

2. Quality of Stormwater Discharge.

The development proposes to redirect a natural watercourse around the site of the chicken sheds and into a temporary dam. This dam is also to be utilised as a nutrient control facility to collect runoff pollutants from the free range area for the chickens. The report states that the existing dam will strain and settle litter and sediments by the use of plant growth in the form of microphytes naturally occurring in the shallow zones, while the deeper zones will allow natural ultra violet light to break down nutrients. It is proposed that a new dam be built for this purpose however as stormwater runoff from the catchment above the site will also be directed into this dam every time it rains the runoff will disturb the nutrients and sediments in the pond causing them to become suspended in the water and therefore to be flushed out into the downstream watercourse. This proposal to direct stormwater into the nutrient treatment facility is therefore not supported.

3. Flooding and Drainage

The proposed development is adjacent to Whipbird Creek and there has been no flood study submitted to indicate the extent of the 1% AEP Flood. It is proposed to fill the site but no information was submitted to verify that there will be no filling of the flood plain or if there will be any impact on the adjacent property. Council's Flooding & Drainage Development Engineer

has however assessed that in his opinion the site of the proposed poultry sheds are not within a floodway.

Sheds 3 & 4 are located downstream of a piped culvert across Bloodtree Rd. It is proposed to fill the site to provide a raised platform for the sheds and to then divert the stormwater around the development site to the south of sheds 5 & 6. This will direct stormwater away from its present flow path into a minor watercourse. The impact of doing this has not been adequately discussed in the report except to say that this will not cause localised flooding.

As stated above, the proposed deviation of the stormwater drainage from Bloodtree Rd is not supported as it will result in nutrients in the dam being flushed into the Whipbird Creek.

The development application plans have been amended to include a vegetated earth berm across the Bloodtree Rd frontage of the sheds. No provision has been made for an overland flow path for drainage. The Bloodtree Rd culvert consists of a 750mm diameter pipe however there is only a 600mm diameter pipe proposed under the earth berm and the adjacent driveway. Details need to be submitted to confirm that this pipe will meet Council's standard to convey the 1% AEP storm event allowing for 50% blockage of the pipe. The failure of this pipe will result in the build up of water and subsequently spilling over of the berm and onto the central driveway between the sheds.

For the reasons outlined above the proposed deviation of the drainage around the sheds is not supported. The drainage should be amended to pipe the stormwater down the driveway between the sheds and to design the driveway as an overland flow path to convey stormwater which exceeds the capacity of the piped drainage system. The proposed dam can then be downsized to meet the nutrient control requirements for the chicken sheds."

4. Traffic and Access

A new 5.5m driveway is proposed south of the existing access which is to be closed. The driveway width is adequate however there has been no longitudinal section submitted to confirm that the driveway meets the recommended driveway gradient of 5% at the road boundary in accordance with AS 2890.2 for commercial off-street parking. There has also been no turning template submitted to demonstrate that the largest vehicle expected to serve the development can turn around on site and exit in a forward direction.

The traffic report indicates that up to 3 B-double trucks per week will be used to deliver and pick up chickens. Bloodtree Rd is not a gazetted B-double route and B-double trucks should not be used for this purpose until Bloodtree Rd is gazetted by the NSW Government through the RTA for that purpose."

Conclusion

For the reasons outlined in this report I am unable to support the application in its current form and amended plans should be requested to address these issues, i.e.

1. Piping of the stormwater from the Bloodtree Rd culvert through the development via the internal driveway between the shed to the natural watercourse within the property,
2. Truck turning templates and driveway longitudinal sections,
3. Design and location of On-site Detention,
4. Redesign of Nutrient control facilities.

Comments from Council's Environment Officer - Nutrient Control / Stormwater Quality

Council's Environment Officer provides the following advice regarding the watercourse / drain, the quality of stormwater discharge and nutrient control issues:

- The development does not propose to redirect a “natural watercourse” but rather redirects stormwater that is discharged into the subject site from a piped culvert constructed under Bloodtree Road.
- This stormwater is not classed as a natural channel nor is it declared a river under the Water Management Act 2000.
- Notwithstanding the advice of NSW Office of Water that the proposal does not require a controlled activity statement, photographs have been submitted to Council showing stormwater flows discharging from the Bloodtree Road culvert. It is now acknowledged that overland flows are evident during periods of heavy rainfall over the central portion of the subject site.
- With regard to the above it is recommended that the stormwater drainage system should avoid being discharged into the dam where nutrient loadings generated from the free range yards are treated.

Assessment Planners Comment on Issues raised by Councils Advisor Engineer and Environment Officer

Council’s Advisor Engineer has raised a number of issues in relation to the Water Cycle Management Plan which would require the submission of additional information to provide a complete assessment. Both Council’s Advisor Engineer and Environment Officer are in agreement, particularly after viewing photographs submitted by objectors showing stormwater flows discharging from the culvert in Bloodtree over the subject site, that the stormwater drainage system and nutrient loadings from the free range yards should be separated. The present proposal has the stormwater system and the nutrient control system connected as one system which is unsatisfactory and may result in polluted waters entering Whipbird Creek.

The traffic issue regarding the site not being located on a gazetted B-Double truck route means any consent would need to be conditioned to ensure B-Double trucks greater than 19m in length and 50 tonnes capacity are not utilised. This could increase the number of truck movements and probably exacerbate noise impacts. The increased trucking movements would need to be subject to a revised noise impact assessment to determine the additional impacts of doubling the trucking movements if the application were to be supported.

The application has been recommended for refusal for a number of reasons including odour and noise impacts. As stated in the previous Report to the JRPP meeting of 28 July 2011 the submission of further information has not been required as Council has been provided with sufficient information to determine that the application should be refused mainly due to noise and odour impacts on neighbouring dwellings. The detailed assessment of the Water Cycle Plan has revealed an inappropriate method of stormwater disposal and nutrient control is proposed. An additional reason for refusal regarding this issue has therefore been added to the recommendation.

(Refer reason for refusal 9)

Proposed Fill / Visual Impact Assessment

At its meeting of 28 July 2011, the JRPP enquired about proposed earthworks including site fill, the height of the proposed chicken sheds and earth berms.

In this regard, to assist in the interpretation of the following points, cross sections have been provided in line with the watercourse/drain outlet and home owned by Hockings (Refer attachment B).

- 1 The proposed earth berm is located on natural ground level for its entire length. The finished height of the earth berm is 2.5m above natural ground level. Notably the natural ground level in the vicinity of sheds 3 and 4 is approximately 2 metres below the level of

Bloodtree Road. Therefore the finished height of the earth berm is approximately 0.5m above road level in the vicinity of sensitive receptors located opposite the site in Bloodtree Road. The effectiveness of the earth berm in mitigating noise and odour impacts is therefore questionable.

- 2 Proposed Shed 3 has a finished floor level of RL 285.5. Natural ground level at the southern end of shed 3 in the vicinity of the existing watercourse / drain is RL 283.5. This translates to a fill depth of approximately 2m under Shed 3.
- 3 Proposed Shed 4 has a finished floor level of RL 284.35. Natural ground level at the southern end of Shed 4 in the vicinity of the existing watercourse / drain is RL 283.0. This equates to a fill depth of approximately 1.3m under Shed 4.
- 4 In the vicinity of the existing watercourse / drain Shed 3 will have a wall height of 2.5m plus 2m of fill equating to a finished wall height of 4.5m and a finished ridge height of 6.4m above natural ground level.
- 5 In the vicinity of the existing watercourse / drain Shed 4 will have a wall height of 2.5m plus 1.3m of fill equating to a finished wall height of 3.8m and a finished ridge height of 5.7m above natural ground level.
- 6 Existing dwellings located opposite the site in Bloodtree Road currently view an open vista in an easterly direction across the site. Approval of the proposal will result in a congestion of high and long agricultural buildings however they would be screened with proposed vegetated earth mounds and existing trees along the frontage of the site in Bloodtree Road. Notwithstanding that the open vistas currently enjoyed by dwellings opposite the site will be impacted, such is considered to be insufficient to add to the original reasons for recommended refusal of the proposal.

Conclusion

This report includes assessment of the additional information submitted by the applicant and comments on the watercourse / drain, which traverses the centre of the site as required by the JRPP at its meeting of 28 July 2011. This further assessment verifies that all the previous reasons for refusal are relevant and that an additional reason for refusal regarding insufficient information being provided to assess stormwater management and nutrient control issues is warranted.

(Refer refusal reason 9)

The further engineering assessment also indicates that insufficient information has been submitted to properly assess driveway gradient and turning area compliance with the provisions of AS2890.2 for commercial off-street parking. This issue has also been added to the reasons for refusal.

(Refer refusal reason 10)

Attachments:

A	Original Report to JRPP meeting of 28 July 2011
B	Cross Sections of Development

Tabled Items:

A	Letter from Benbow Environmental dated 27 July 2011 (Ref: 109161 LetRep 20110725).
B	Letter from SLR Global Environmental Solutions dated 26 July 2011 (Report No 610.10682-R1) Response to Noise Related Issues.
C	Letter from applicant dated 16 July 2011 as response to recommended reasons for refusal.

RECOMMENDATION

- A The Joint Regional Planning Panel as consent authority refuse consent to Development Application No 39396/2010 for proposed expansion of free range poultry farm to include (four) 4 additional naturally ventilated sheds on Lot 813 DP 529990 for the following reasons:
- 1 The proposal creates unreasonable and non-compliant impacts on air quality (odour) and noise (from trucking movements in particular) to a number of nearby sensitive receptors. The additional impacts do not comply with the relevant guidelines of DECCW or the Industrial Noise Policy.
 - 2 The proposal creates an intensified land use that conflict with surrounding properties and the adjoining 7(b) zone in particular which contains most of the sensitive receptors.
 - 3 A Farm Management Plan to manage noise from truck movements is difficult to enforce and could result in regular offensive noise impacts to sensitive receptors.
 - 4 The EIS has not satisfactorily addressed or appropriately considered the following:
 - the impacts on nearby sensitive receptors particularly regarding odour and noise impacts,
 - social disadvantages to the surrounding area - the justification for the proposal incorrectly states there will be no significant social disadvantages for the surrounding area,
 - appropriate alternatives such as a smaller development and/or a staged development to monitor impacts before further development,
 - The provisions of SEPP 33 as the proposal is classified as a *“potentially offensive industry”* under the provisions of the SEPP.
 - The impact particularly in relation to air quality on the adjoining sportsground at Lot 81 DP 664567.
 - 5 The proposal is an overdevelopment of the site with regard to its size, shape and distance from nearby sensitive receptors. The additional sheds are unable to be located a sufficient distance from sensitive receptors to minimise air quality and noise impacts.
 - 6 The proposal is inconsistent with the relevant objectives of the 1(a) Rural (Agriculture) zone as well as being inconsistent with the principles of Ecologically Sustainable Development, as specified within the Local Government Act 1993
 - 7 The proposal does not comply with the relevant objective of SREP 8 - Central Coast Plateau Areas and relevant strategies of SREP 20 – Hawkesbury-Nepean River.
 - 8 Approval to the proposal is not in the public interest due to the potential additional odour and noise impacts to nearby sensitive receptors.
 - 9 Insufficient information has been submitted regarding an appropriate Water Cycle Management Plan that makes provision for adequate disposal of stormwater, on site detention and appropriate nutrient control facilities.
 - 10 Insufficient information has been submitted to properly assess driveway gradient and turning area compliance with the provisions of AS2890.2 for commercial off-street parking.

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- B The applicant is advised of Councils decision and of their right to appeal to the Land and Environment Court within 12 months after the date of determination.
 - C The objectors are notified of Council's decision.
 - D The External Authorities be notified of the Joint Regional Planning Panel decision.

ATTACHMENT A

REPORT TO JRPP - 28 JULY 2011

REPORT TO HUNTER & CENTRAL COAST JOINT REGIONAL PLANNING PANEL

TITLE **DEVELOPMENT APPLICATION NO. 39396/2010 PART 1**
APPLICANT: ACONSULT
PROPOSED: EXPANSION OF EXISTING FREE RANGE POULTRY FARM TO
INCLUDE 4 ADDITIONAL NATURALLY VENTILATED POULTRY SHEDS ON
LOT: 813 DP: 529990, 80 BLOODTREE ROAD MANGROVE MOUNTAIN
Directorate: Environment and Planning
Business Unit: Development

The following item is defined as a planning matter pursuant to the Local Government Act, 1993 & Environmental Planning & Assessment Act, 1979.

EXECUTIVE SUMMARY

Reason for Referral to Joint Regional Planning Panel (JRPP)

The proposal is designated Development pursuant to Part 3 Division 2 Clause 13B of State Environmental Planning Policy (Major Developments) 2005.

Assessing Officer

Fred Dobbs

Reviewing By

Independent Development & Environment Panel (IDEP)
Director Environment and Planning
General Manager

Date Application Received

14/09/2010

Proposal

Expansion of Existing Free Range Poultry Farm to Include 4 Additional Naturally Ventilated Poultry Sheds.

Zone

1(a) Rural (Agriculture) -IDO122

Area

122,700m² or 12.27 hectares.

Public Submissions

The following submissions **objecting** to the proposal were received:

Twenty-one individual letters

2 x petitions each containing 6 signatures

1 x petition containing 10 signatures

1 x petition containing 6 signatures supporting the proposal

Pre-DA Meeting

A Pre-DA Meeting was held on 4 February 2010. The applicant was advised the proposal was a Designated Development under Schedule 3 of the Environmental Planning & Assessment Act 1979.

Political Donations

None Declared

Relevant Statutory Provisions

- 1 Environmental Planning & Assessment Act, 1979 – Section 79C
- 2 Local Government Act 1993 – Section 89
- 3 Interim Development Order 122
- 4 State Environmental Planning Policy 55 – Remediation of Land
- 5 State Environmental Planning Policy (Major Developments) 2005
- 6 State Environmental Planning Policy No 33 – Hazardous and Offensive Development
- 7 State Regional Planning Policy No 8 – Central Coast Plateau Areas
- 8 Sydney Regional Environmental Plan 20 – Hawkesbury Nepean River 1997
- 9 Water Management Act 2000
- 10 Protection of the Environment Operations Act 1997

Key Issues

- 1 Environmental Planning & Assessment Act 1979 – Designated Development Provisions
- 2 Relevant Environmental Planning Instruments
 - SEPP (major Developments) 2005
 - SEPP 33 – Hazardous and Offensive Development
 - SEPP 55 – Remediation of Land
 - SREP 8 – Central Coast Plateau Areas
 - SREP 20 – Hawkesbury-Nepean River
- 3 Government Referrals
 - Protection of the Environment Operations Act 1997
 - Native Vegetation Act
 - NSW Rural Fire Service
 - NSW Office of Water
 - Department of Industry & Investment
- 4 Interim Development Order No 122
 - Permissibility
 - Objectives of Zone
 - Character
- 5 Draft Gosford Local Environmental Plan 2009
- 6 Environmental Impact Assessment
 - Air Quality – Odour & Dust – Applicants Position
 - Noise Impact – Applicants Position
 - Peer review of Air Quality and Noise Impact reports

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- Council Assessment Staff Comments on Peer Review
 - Flora & Fauna Issues – Comments from Council's Environment Officer
 - Water Supply Catchment
 - Landuse Zone Conflict
 - Visual Impact
 - Traffic & Transport
 - Waste & Dead Bird Disposal
 - Dangerous Goods & Chemicals
 - Pest Control
 - Nutrient Control

7 Public Submissions

Recommendation

REFUSAL

REPORT

Background / Existing Poultry Farm

The existing poultry farm (2 sheds) was approved by Council under DA 17361 on 21 October 1993. A subsequent Building Application 74293/1993 for the works was approved by Council on 1 February 1994. The existing dwelling and ancillary structures have been approved by Council under Building Applications 41663/1987 and 42237/1987. The existing poultry farm has been operating for almost 20 years. The current owners, Bloodtree Orsus Pty Ltd and Palm Maree Farms Pty Ltd purchased the poultry farm in November 2008. A number of complaints have been received by Council from nearby residents regarding noise and odour emanating from the existing poultry farm.

The Site

The site is located on the corner of Wisemans Ferry and Bloodtree Roads. The site is No 80 Bloodtree Road Mangrove Mountain, is an irregular shape containing an area of 12.27 hectares, has a frontage of approximately 800 metres to Bloodtree Road and a frontage of 256 metres to Wisemans Ferry Road.

(Refer to Figure 1 – Location Plan & Aerial Photograph showing nearby dwelling locations below).

Although an irregular shape the site has an approximate average width of 170m. This is a significant site constraint when considering a high impact use such as a poultry farm with the consequent air quality and noise impacts. Due to the narrow width of the site from Bloodtree Road minimal separation is achieved between the poultry sheds and the nearest sensitive receptors (dwellings) in Bloodtree Road.

The site is surrounded by eighteen (18) dwellings not associated with the subject poultry farm located between 52 to 868 metres from the subject site which have been classified under the air quality and noise impact reports as the nearest potentially affected receivers. Five (5) dwellings classified as sensitive receptors under the EIS are located opposite the site in Bloodtree Road at distances of approximately 50m from the site boundary. These five (5) dwellings are directly opposite the site separated only by the 20m wide Bloodtree Road. The southern section of the subject site is heavily vegetated.

The site presently contains an existing dwelling and machinery shed, swimming pool, two (2) free range naturally ventilated poultry sheds approximately 90m long x 12.5m wide and two farm dams. The site generally falls in an easterly direction to a watercourse on the eastern side of the site.

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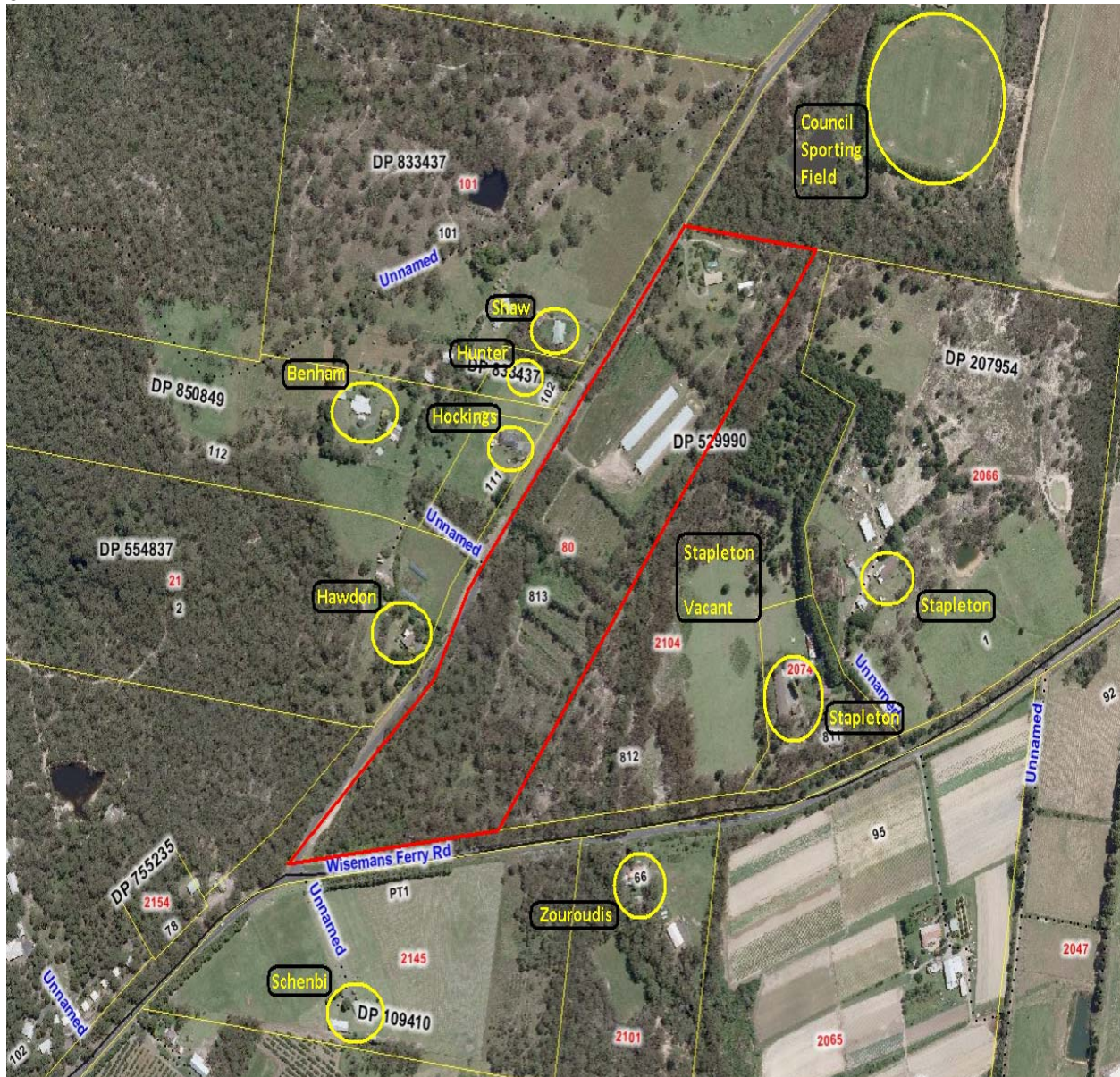


Figure 1 – Location Plan & Aerial Photograph showing nearby Dwelling Locations/Owners

Proposed Development

The existing poultry farm consists of 2 naturally ventilated poultry sheds with dimensions of 90m long x 12.5m wide x 2.6m high. Existing capacity is approximately 37,000 birds per batch.

The proposal is to expand the existing poultry farm by constructing four (4) additional naturally ventilated poultry sheds with dimensions 123m long x 14m wide x 4.4m high. The existing and additional sheds will have a **total capacity of 139,200 birds per batch** growing approximately **5.9 batches per year**.

Proposed works also include the following:

- Three (3) x 23.8 tonne silos located between both sheds 3 & 4 and 5 & 6 (detailed on site plan)
- Gas tank adjacent to new internal access drive and manoeuvring areas.
- Dead bird disposal shed (freezer room) 6m long x 2.5 wide x 2.6 high
- Generator shed generally west of proposed shed 3.
- Installation of four (4) x 150,000 litre water tanks downslope and adjacent to shed 6 and one x 150,000 litre header tank adjacent to proposed shed 3.
- Dust and odour mitigative measures including construction of a 2.5m high earth berm planted atop with thick vegetation.
- Noise control measures including construction of 2m high earth berms and 2m high noise wall.
- New and upgraded internal access driveways and relocation of proposed vehicular access way leading directly from Bloodtree Road. (The internal driveway will provide turning areas for the largest vehicle to be accommodated onsite which will typically be a 19m long semi trailer).

Request for Additional Information

The application was submitted on 14/09/10. Council advised the applicant via letters dated 04/11/10 and 25/11/10 that additional information was required regarding access and a number of environmental issues including flora and fauna, nutrient control, dust, odour, noise. Revised plans were also required showing proposed earth mounding, landscaping and drainage treatment. The applicant submitted most of the required additional information on 21/01/11. The additional information regarding noise issues was submitted on 08/04/11.

Peer Review of Air Quality and Noise Impact Reports

Assessment of the originally submitted documentation revealed issues and inconsistencies with the Environmental Impact Statement (eg inadequate Flora and Fauna Study prepared based on incorrect guidelines, no waste management plan and nutrient control plan submitted, errors/inconsistencies in the base data utilised in the dust, odour and noise impact reports, conflicting recommendations on height of earth berms to mitigate air quality and noise impacts).

Some of these issues were resolved by the submission, at Council's request, of additional information. The EIS however does not satisfactorily resolve issues relating to air quality and noise impacts. As air quality and noise impacts are the main issues due to the proximity and number of sensitive receptors, assessment staff determined that a peer review of the air quality and noise impact reports was necessary.

The peer review of the air quality and noise reports was conducted by Air Noise Environmental Pty Ltd (A & E) and submitted to Council on 6 June 2011. The peer review concluded that the application should be **refused** based on the currently available information. (Further details of peer review provided later in this report under Environmental Impact Assessment).

Assessment

This application has been assessed using the heads of consideration specified under Section 79C of the Environmental Planning & Assessment Act 1979, Council policies and adopted Management Plans. The assessment supports **refusal** of the application and has identified the following key issues which are elaborated upon for Council's information.

Environmental Planning & Assessment Act 1979 – Designated Development Provisions

Clause 21 (4) of the Environmental & Planning Regulation 2000 classifies the following commercial poultry farms as designated development:

21 *Livestock intensive industries*

- (4) *Poultry farms for the commercial production of birds (such as domestic fowls, turkeys, ducks, geese, game birds and emus), whether as meat birds, layers or breeders and whether as free range or shedded birds:*
- (a) *that accommodate more than 250,000 birds, or*
 - (b) *that are located:*
 - (i) *within 100 metres of a natural waterbody or wetland, or*
 - (ii) *within a drinking water catchment, or*
 - (iii) *within 500 metres of another poultry farm, or*
 - (iv) *within 500 metres of a residential zone or 150 metres of a dwelling not associated with the development and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to significantly affect the amenity of the neighbourhood by reason of noise, odour, dust, lights, traffic or waste.*

The proposal is a livestock intensive industry, being a poultry farm for the commercial production of birds which accommodates less than 250,000 birds. However the farm is located within a drinking water catchment (i.e. Mooney Mooney Water Supply Catchment Area) and is within 150 metres of dwellings not associated with the development which are likely to experience amenity impacts.

The proposal is not considered to fall within Clause 35 of the E P & A Regulation 2000 which relates to alterations or additions which do not significantly increase the environmental impacts of the total development, having regard to the factors for consideration under Clause 36 of the Regulation, the threefold increase in the number of sheds the number of birds.

Accordingly, the proposal is classified as designated development pursuant to Schedule 3 of the Environmental Planning and Assessment Regulation 2000 and an Environmental Impact Statement relating to the proposal has been prepared by the proponent in accordance with the Director-General's Requirements and related provisions of the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulation 2000*. The Environmental Impact Statement includes information provided by L. Fitzpatrick of Aconsult, specialist sub-consultants and relevant government agencies.

Relevant Environmental Planning Instruments

A number of State Environmental Planning Policies and Sydney Regional Environmental Plans are relevant to the proposed poultry farm as follows:

State Environmental Planning Policy (Major Developments) 2005

The proposal is regional development under Part 3 Division 2 Clause 13B (1)(e) of *State Environmental Planning Policy (Major Developments) 2005* which applies to designated development. Under these provisions determination of the application is the responsibility of the Joint Regional Planning Panel (JRPP).

State Environmental Planning Policy SEPP 33 – Hazardous and Offensive Development

SEPP No 33 has the primary aim of ensuring the consent authority has sufficient information to assess whether a proposal represents hazardous or offensive development.

Clause 3 of SEPP 33 states “a **potentially offensive industry** means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a

manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.”

The proposal has potential to have an adverse impact on the amenity of nearby residents in terms of noise, odour and dust emissions. The EIS (pages 40-41) provides an overview of SEPP 33 and states “*in terms of potential offensiveness, the sites existing proposed mitigative measures, employment of and continued best management practises ensure the level of offence is not considered significant.*”

As outlined in a number of publications including the NSW Meat Chicken Farming Guidelines (NSW agriculture) poultry farms fall into the category of a potentially offensive industry. Council’s site inspection of the existing facility and comments contained in the submissions received from nearby sensitive receptors confirm that existing levels of noise and odour are offensive. An EIS that validates offensive odour and noise impacts to nearby receptors from a known offensive industry such as a poultry farm in the manner of the submitted EIS must be viewed cautiously.

A peer review of the air quality and noise impact reports has revealed, particularly in relation to odour impact on a number of nearby sensitive receptors, the EIS recommendations are unlikely to provide mitigation to an acceptable level or within required guidelines. The proposal is regarded as a potentially offensive industry under the provisions of SEPP 33 and has not been appropriately documented and considered in the submitted EIS.

(Refer Refusal Reason 4)

State Environmental Planning Policy No 55 – Remediation of Land

SEPP No 55 – Remediation of land aims to promote the remediation of contaminated lands for the purpose of reducing the risk of harm to human health or any other aspect of the environment. The EIS does not address or identify any areas of potential chemical contamination.

Sydney Regional Environmental Plan No. 8 – Central Coast Plateau Areas

The subject site has been mapped as containing prime agricultural land and is affected by the provisions of the *Sydney Regional Environmental Plan (SREP) No. 8 – Central Coast Plateau Areas*. SREP 8 affects all Rural 1(a) zoned land within the plateau areas of the Gosford City area.

The relevant objective is as follows:

- (a) To provide for the environmental protection of the Central Coast plateau areas and to provide a basis for evaluating competing land uses.

Comment – The proposal severely impacts on nearby sensitive receptors particularly in relation to odour and noise. Peer review of the odour and noise reports indicate that compliance with required guidelines cannot be achieved and mitigation of odour impacts in particular to within acceptable limits cannot be achieved.

With regard to the above comments the proposal does not comply with the relevant objective of SREP 8.

(Refer Condition 7)

Sydney Regional Environmental Plan No. 20 – Hawkesbury Nepean River 1997

The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. Part 2 Clauses 5 and 6 of the SREP contain general planning considerations, specific planning policies and recommended strategies associated with the following:

- Total catchment management
- Environmentally sensitive areas
- Water quality and quantity
- Cultural heritage
- Flora and fauna
- Riverine scenic quality
- Agriculture/aquaculture and fishing
- Rural residential development
- Urban development
- Recreation and tourism
- Metropolitan strategy

The proposal will be located on previously disturbed and cleared areas of the site, however will impact severely and unfairly on existing rural residential development within close proximity to the site.

(Refer Refusal Reason 1)

SREP 20 states that rural residential development should not reduce agricultural sustainability and gives priority to agricultural production in rural zones. One of the main strategies of SREP 20 regarding rural residential development is to maintain or require appropriate separation between rural residential use and the proposed agricultural use. In this instance, several houses are located within relatively close proximity to the existing poultry farm. Peer review of the Air Quality and Noise impact Reports submitted with the EIS indicate that appropriate mitigation of odour and noise impacts is not possible mainly due to the small area of the site and the close proximity of sensitive receptors.

(Refer Refusal Reason 5)

Government Referrals

Protection of the Environment Operations Act 1997

The proposed development is not considered a scheduled activity under the *Protection of the Environment Operations Act, 1997*. As it is proposed to accommodate less than 250,000 birds at any one time for commercial purposes, a licence is not required from the Department of Environment, Climate Change and Water (DECCW).

Native Vegetation Act

Council's Environment Officer met with the Catchment Management Authority (CMA) on the 7th March 2011. It was ascertained at this meeting that Under Section 25 of the *Native Vegetation Act 2003*, clearing provisions are excluded for Designated Development. As such a referral was not made to CMA.

NSW Rural Fire Service

The application has been assessed in accordance with Section 79BA of the Environmental Planning and Assessment Act 1979. The NSW Rural Fire Service has raised no concerns or issues in relation to bush fire.

NSW Office of Water

The NSW Office of water advises there is no requirement for any 'controlled activities' associated with the proposed development.

The approved maximum harvestable right for the property is currently 1.2 megalitres. It is proposed to construct a 4 megalitre dam which will require an "Application for approval for Water Supply Works and Water Use" from the NSW Office of Water. An "Application for approval for Water Supply Works and Water Use" is also required if groundwater is proposed to be extracted for the proposed development. This requirement could be conditioned if the application were to be approved.

Department of Industry & Investment

The following comments were provided by the Department of Industry and Investment:

"Agriculture" -The site contains agricultural land classes 2 suitable for regular cultivation of crops, 3 suitable for cropping in rotation with pasture and drainage areas (class 8 on the attached map). The development would remove from production a small proportion of prime cropping land, however it is replacing it with a higher economic agricultural use and these soils should be better at sustaining vegetation growth for the poultry bird range yards.

Increasing poultry stock by three times the current level and with the site having 13 dwellings between 52m and 358m from the sites boundary in the range of high risk potential for noise and odour disturbance and with some nearby residents already informally noted some issues with the existing operation. It will require very good sound and odour attenuation to ensure these residents are not impacted by the expanded development and to ensure the sustainability of the agri-business.

The proposed mitigation using earth berms with vegetation can assist odour reduction by capturing dust particles which is a vector for odour dispersion. Best noise reduction can be achieved if berms are close to the noise source.

Assessment of optimum size for range areas is difficult due to lack of standards / data to support a standard in Australia. However, the main intent should be to limit potential for erosion by maintaining ground cover of 70%. As the current managers are good operators and wish to adhere to FREPAs Free Range Care Chicken Meat Bird Standards which notes that the range area must be capable of continued production of vegetation, this should be achievable.

Due to site constraints once the upgrade is complete future expansion on the current lot is limited - anecdotal evidence suggests that economies of scale for family poultry farms are possible up to 15,000m² of sheds.

The poultry industry is pursuing free range operations due to market demands - to ensure that other proposals are looked at favourably processors seeking free range poultry meat will want this proposal to work according to the assessment (p74) that this proposal will not impact significantly on the local environment or surrounding residents to what already occurs.

Fisheries - no issues

Minerals - Although the proposal is in a potential sand resource area it should not have a significant impact on future sand extraction potential in the area."

Interim Development Order 122

Permissibility

The site is zoned 1(a) Rural (Agriculture) pursuant to Interim Development Order No 122. Intensive agriculture is permissible with consent in the 1(a) Zone. Refer Figure 4: Zone Map below:

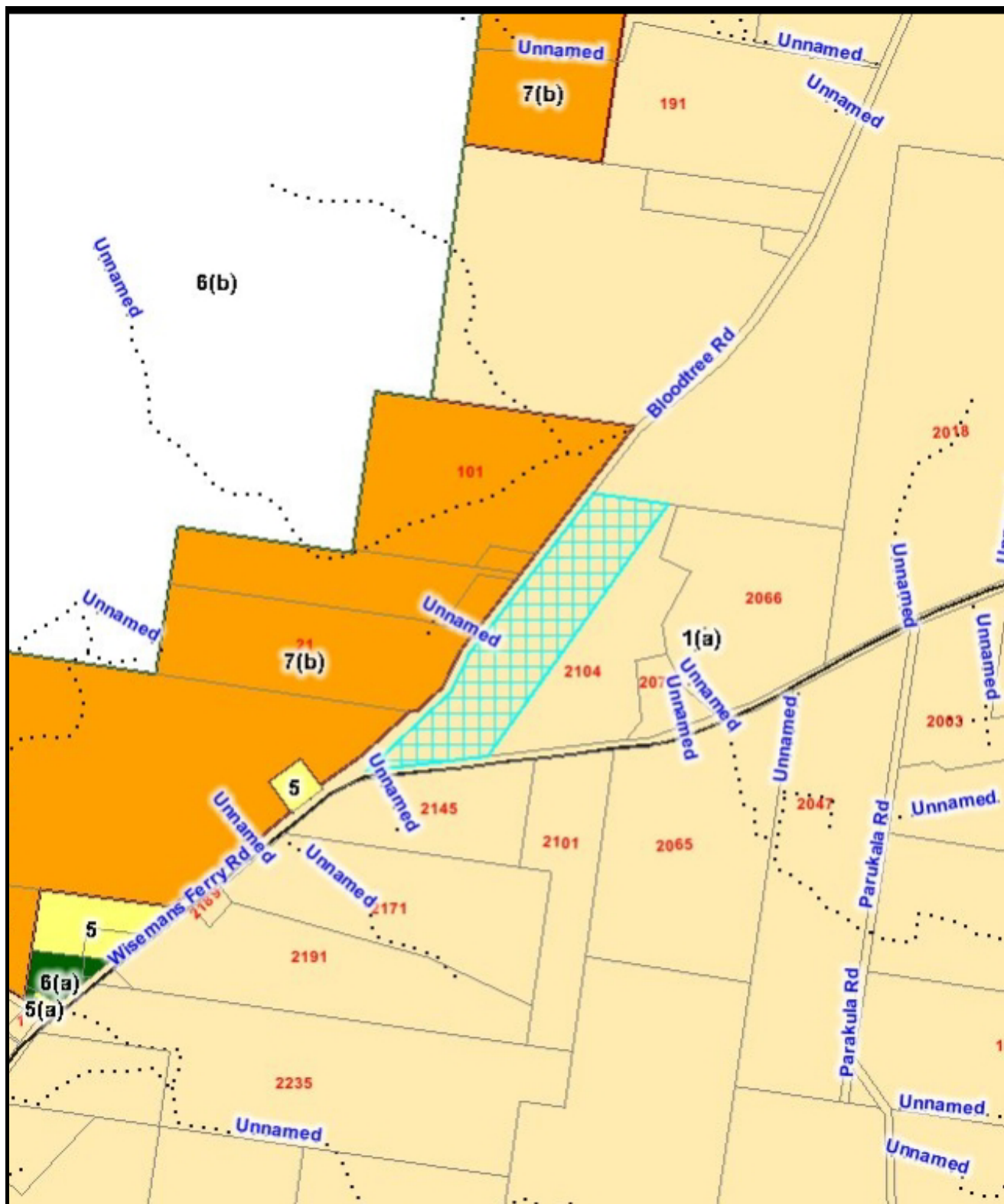


Figure 3 – Zoning Map

Objectives Of Zone

Clause 5(3) of Interim Development Order No 122 stipulates that consent must not be granted for development of land within the prescribed zone, unless the objectives of the zone have been taken into consideration in conjunction with the objectives of the Local Government Act 1993, pertaining to Ecologically Sustainable Development.

The stated objectives of the 1(a) Rural (Agriculture) zone are:

- (a) *to identify and provide suitable land for agricultural use;*
- (b) *to protect the agricultural potential of land identified as suitable for agricultural use;*
- (c) *to prevent the fragmentation of prime agricultural land;*
- (d) *to enable uses which are complementary to, and compatible with, the use of land for agriculture;*
- (e) *to protect the rural landscape quality of the area; and*
- (f) *to protect water catchments, water quality, soil conditions, and important ecosystems such as streams, estuaries, and wetlands, from inappropriate development and land management practices.*

An assessment of the zone objectives is as follows:

- (a) *To identify and provide suitable land for agricultural use.*

Assessment – As identified in other sections of this report, the site has an area of 12.27ha and an average width of approximately 170m in the vicinity of the four (4) additional poultry sheds. The size and shape of the site does not allow location of the additional sheds a sufficient distance from nearby sensitive receptors (5 dwellings within 130m and 3 dwellings less than 70m from the subject site boundary). The additional impacts particularly in relation to odour are unable to be mitigated to a level considered acceptable and compliant with relevant DECC guidelines. The site is therefore not suitable for this particular agricultural use.

- (b) *To protect the agricultural potential of land identified as suitable for agricultural use.*

Assessment – The subject site is not considered suitable for the proposed additions to the existing intensive agricultural use.

- (c) *To prevent the fragmentation of prime agricultural land.*

Assessment – The minimum area for subdivision in the 1(a) Zone is 20ha. Further fragmentation is not possible as the site is currently below the minimum lot size and therefore cannot be subdivided.

- (d) *To enable uses which are complementary to, and compatible with, the use of land for agriculture.*

Assessment – The proposed scale of the additions to the existing poultry farm is not compatible with the locality due to the close proximity of a number of sensitive receptors.

- (e) *To protect the rural landscape quality of the area.*

Assessment – The proposal if approved would involve the construction of a 2.5m high earth berm with a 2m high fence atop and vegetated screening. The earth berm would be partly visible from the public road and adjoining properties however is unlikely to have a significant visual impact on the rural landscape.

-
- (f) *To protect water catchments, water quality, soil conditions, and important ecosystems such as streams, estuaries, and wetlands, from inappropriate development and land management practices.*

Assessment – If the application were to be approved appropriate conditioning would ensure these impacts were minimised to within acceptable limits

In this instance, it is considered that the proposal is inconsistent with the relevant objectives of the 1(a) Rural (Agriculture) zone as well as being inconsistent with the principles of Ecologically Sustainable Development, as specified within the Local Government Act 1993.

(Refer Refusal Reason 6)

Character

Clause 5(4) of Interim Development Order No 122 stipulates that the Council must not grant consent for development unless it has taken into consideration the character of the development site and the surrounding area, where, for the purpose of this provision, character means the qualities that distinguish each area and the individual properties located within that area.

In this instance, the proposal would have minimal visual impact on the locality due to the agricultural buildings and structures being obscured from public view with the aid of existing vegetation and trees along the site boundaries. Proposed landscaping, earth mounds and vegetated screening would soften the visual impact of farm sheds from roads, public areas and nearby residences if the application were to be approved. Potentially lighting at night would be visible from the road and surrounding properties however any lighting impacts would be minimal and conditioned to minimise impacts if the application were to be approved.

Draft Gosford Local Environmental Plan 2009

Under Council's Draft LEP the subject site is proposed to be zoned RU1 Primary Production consistent with the existing zoning. The application has been assessed under the provisions of Draft Gosford Local Environmental Plan 2009 in respect to zoning, development standards and special provisions. The assessment concluded the proposal is consistent with the Draft Plan.

Environmental Impact Assessment

Poultry farms can potentially generate adverse environmental impacts during establishment and operation of the facility. Issues of concern include air quality, noise, land use zone conflict, impact on the water supply catchment, visual impact, lighting, traffic / transport and waste / dead bird disposal. A number of submissions have been received raising objection to the proposal on the basis of amenity impacts which are commented upon under Public Submissions. The areas of potential environmental impact and proposals for mitigation are assessed below.

Air Quality (Odour & Dust) – Applicant's Position

The proposal has the potential to increase current dust and odour levels with four (4) additional poultry sheds and in excess of treble existing bird numbers being proposed. The application is supported by Odour and Dust Impact Assessment Reports prepared by Benbow Environmental dated 11 May 2010 which assess the potential odour and dust impacts associated with the proposal at the nearest potentially affected receivers.

The Odour and Dust Impact Assessment Reports identify eighteen of the nearest potentially affected receivers. Impact on these receivers has been assessed in accordance with the guidelines of DECCW regarding criteria for assessment of odour impact and air pollutants.

Odour – The EIS indicates that consultants Benbow Environmental utilise a sophisticated standard of modelling software allowing a thorough input of relevant data including topography, climatic conditions, etc to ensure accuracy of results. The EIS further indicates the environmental studies concerning odour and dust confirm that, under prevailing standards of farm management, **no levels** of undesirable impact of any significance will result from the proposal. (EIS page 55)

Odour mitigation measures propose 2.5m high earth berms (Pg 29 Dust & Odour Impact Assessment report) along the north western boundary planted atop with thick vegetation. It is claimed that provision of this odour emission control will achieve noise and odour reductions and also improve the visual amenity of the site.

Dust - The dust impact assessment has considered the dust impacts associated with the proposal at the nearest potentially affected receivers in accordance with the DECCW guidelines. The proposed dust emission sources resulting from the proposed operations have been identified in the EIS as:

- litter contained within each poultry shed (released via the tunnel exhaust fans)
- unloading of feed into silos;
- vehicle movements along unsealed roads located on the site;
- removal of poultry manure from sheds; and
- loading of birds into (and out of) sheds.

Dust mitigation measures outlined in the EIS include the following:

- Site inspection and maintenance program, including on-going housekeeping activities, will be maintained to ensure that the facility is kept as clean as possible;
- Plant and equipment will be regularly inspected and maintained to ensure optimal operating condition;
- Stock piling of litter/spent litter will not occur on-site in order to minimize dust and odour generated from activities on-site.
- No long term stockpiling or disposal of waste products on-site;
- Periodic watering of unsealed roadways is able to undertaken to reduce dust emissions when necessary;
- Livestock transportation vehicles will be maintained in a clean and sanitary condition;
- Earthen mounds will be constructed along the north western boundary in accordance with Benbow recommendations
- Site landscaping, particularly the perimeter screen plantings, will be maintained and enhanced.

Noise Impact – Applicant's Position

The Noise Impact Assessment report prepared by Benbow Environmental and the EIS has considered the noise impact of the two (2) existing naturally ventilated sheds as well as the four (4) new naturally ventilated sheds. The assessment has focussed on the identified 16 sensitive receptors, the closest being 21 Bloodtree Road being 52 metres from the site. The primary document referenced is the NSW Industrial Noise Policy (INP) which applies guidelines that are applied to the assessment of noise emitted by industry.

Noise control mitigative measures include construction of 2m high earth berms and 2m high noise wall. In regard to truck movements a number of management procedures are recommended including:

- 40km/hr nighttime speed along Bloodtree Road
- No use of engine brakes as truck decelerates
- Low on site speed limit – walking pace

-
- No use of horns or engine brakes on site
 - No extended periods of on-site revving/idling
 - Trucks to park behind the berm to attenuate air release from braking systems
 - Adequate access road design/maintenance
 - Maintain all farm machinery and ancillary equipment to meet noise requirements.

The Benbow Report concludes *“the noise impact assessment has found that with noise controls in place the site operations will be able to satisfy the project specific noise limits. Although the free range poultry farm is within proximity of residences, the nature of the operation and the proposed layout of the sheds and the addition of several practical noise control safeguards will protect the amenity of residents”*. (Pg 33 Benbow Noise Impact Assessment)

Peer Review of Air Quality and Noise Impact Reports

Council identified a number issues in both the EIS and the accompanying Air Quality and Noise Impact Reports.

The EIS makes some unsubstantiated conclusions regarding the supposed low level of impacts particularly in relation to Air Quality and Noise.

Due to the close proximity (less than 150 m²) of a number of potential sensitive receptors Council engaged an experienced and appropriately qualified professional consulting firm, Air Noise Environmental Pty Ltd (A & E) to conduct a peer review of the Air Quality and Noise Impact Reports.

As the details are significant and in the interests of complete assessment the peer review of the Benbow Air Quality and Noise Impact Reports is included in full as follows:

Peer Review of Dust and Odour Assessment

Model Approach and Inputs

The CALPUFF modelling package has been utilised in the dispersion modelling, with the CALMET model and TAPM used to generate site specific meteorological data for use in the assessment. The use of these methodologies is supported, subject to the specific comments and issues raised below.

The modelling of naturally ventilated poultry sheds is complex and standard methodologies are not defined by regulatory authorities. Overall, the approach adopted in the Benbow Environmental assessment is considered reasonable in terms of describing the naturally ventilated shed sources. Specific issues associated with modelling sources of this type have been addressed, including the relevant CALPUFF modelling options such as the rain hat option to prevent vertical momentum flux associated with the emission sources.

The report identifies that the Prime building downwash algorithm has been utilised. Review of the modelling input file presented in Attachment 3 of the Odour and Dust Assessment report confirms that the Prime building downwash algorithm was not used. The ISC method was utilised, which can significantly underestimate plume downwash effects relative to the Prime algorithm. The use of the ISC method may have resulted in the predicted results being significantly lower than would be expected using the Prime algorithm.

In terms of terrain and receptor grid inputs, the overall methodology adopted for the preparation of the data inputs is consistent with standard approaches. The terrain resolution of 300 m is considered insufficient to adequately describe the potential for terrain influences such as katabatic flows. Terrain data at a resolution of 100 m or less is readily available, and would be considered best practice and more suited to capturing potential low wind speed phenomenon.

There is a potential for under-prediction of odour impacts under near calm conditions where katabatic and similar drainage flows are not adequately described in the modelling.

The meteorological data that is provided in the report has been developed using standard methodologies. However, caution must be used with the use of TAPM as it is well documented that TAPM over predicts wind speeds and under-predicts low wind speed and calm conditions. This has the potential to underestimate receptor impacts under low wind speed and near calm conditions. These are the conditions under which odour impacts are most likely to occur, hence an under-estimation of odour impacts can arise when TAPM meteorological data has been relied upon in a modelling exercise. Quantification of the degree of under-estimation resulting from this TAPM error is problematic, as alternative meteorological prediction methodologies are commonly not available. Therefore, while the use of TAPM for this study is supported, some caution must be adopted in interpreting the results of the CALPUFF modelling.

The use of a time varying emission file which has daily varying emission rates, against a full year of meteorological data has the potential to significantly underestimate the worst case receptor concentrations. This is because, unless by chance the peak emission rate coincides with poor dispersion meteorological conditions, the modelling will not account for the potential for peak emissions to occur under unfavourable meteorology. The modelling needs to be adjusted by shifting the start date of each batch of birds considered in the model emissions file, to allow iterative modelling for the batch start to occur on each week of the year (or preferably each day) to allow the potential for coincident worst case meteorology and emissions to arise. Previous analysis has shown that this can increase the predicted receptor impacts by 10-30%.

Odour Emission Data

The method adopted for development of the emission data utilised in the model is described in the report. In addition, the detailed emission input files for odours were provided for the purposes of this review by Benbow Environmental. With respect to the odour emission data, the maximum overall emission rates and the time varying emissions have been considered.

The odour emission rates utilised in the atmospheric dispersion modelling were determined from the average of two measurements completed by Benbow Environmental in a naturally ventilated poultry farm shed. **The adopted emission rates are significantly lower than the emission rates identified in previous industry research for similar size naturally ventilated sheds.** The Jiang *et al* research, based on 34 measurements at NSW naturally ventilated poultry farms, confirms that an emission rate of 311 – 322 ou/s/1,000 birds was measured on average per shed. The Benbow environmental report confirms a maximum emission rate of 190 – 199 ou/s/1,000 birds has been adopted. **As a result, the overall predicted results are expected to significantly under-estimate receptor concentrations (by approximately 50%).**

Comparison of the emission rates identified in the tables included in Attachment 2 of the report with the model input files confirms that the values identified in Attachment 2 appear to be per shed, not per source. This is not significant in terms of the comments presented in this review, as the emission rates input to the model have been commented on as opposed to those in Attachment 2.

The time varying profile generated for the emission data is not considered to be entirely consistent with the more recent research. Aspects that are not accounted for include changes in odour emissions for bird thinning, however these issues are not considered to be of sufficient significance to warrant remodelling.

With respect to the peak odour emissions, it is noted that **the new sheds are to contain four rows of foggers for use during the warmer months to assist in temperature control.** The use of foggers has the potential to significantly increase odour emissions, as wet litter has the

potential to generate significantly higher odour emissions than dry, friable litter. **This risk has not been commented on or addressed in the modelling or the analysis of mitigation measures.**

The emission temperatures adopted in the emissions file include temperatures of up to 308K (equivalent to 35°C). This is 4 degrees higher than the maximum target temperature of 31°C nominated in the Benbow Environmental report. **The adoption of higher than actual temperatures results in enhanced dispersion by buoyancy**, resulting from the temperature differential between the emissions and the surrounding air. Over estimation of buoyancy will result in improved dispersion, particularly under cool external conditions, with **a consequent underestimation of maximum predicted receptor concentrations likely to result from this over-estimation.**

Particulate Emission Data

The adopted particulate emission rates appear reasonable based on other available data for poultry shed particulate emissions.

Predicted Receptor Odour Concentrations and Proposed Mitigation

The adopted odour and particulate assessment criteria are considered appropriate, and the recommended peak to mean correction for short term odour impacts has been incorporated in the analysis.

In terms of the predicted concentrations, the modelling identifies non-compliance for a single receptor located approximately 59m from the sheds. Mitigation measures are proposed for addressing this non-compliance in the form of earth berms and vegetation. Whilst it is agreed that research has demonstrated that appropriately designed and well established shelter belts can provide a benefit in terms of reducing odour and particulate concentrations from poultry sheds, quantification of the benefits is more problematic.

To achieve a guaranteed 40% reduction at all times from the proposed mitigation technique is considered optimistic on the basis of the currently available studies. Recent research that considered available odour and dust control technologies for chicken sheds has identified that provision of dust control structures such as windbreak walls provides some improvement in dispersion and dust deposition, but the overall benefit cannot be quantified. Whilst some modelling studies have indicated that reductions of 35-56% may be achieved for particulates, only a proportion of poultry shed odour (some studies estimate up to 65%) will be carried on the particulates hence odour reduction would be significantly lower than the upper estimate of 56% particulate removal. Benbow Environmental confirms that previous studies they have completed resulted in 'approximately 40 %' of odour impacts being removed by a combination of earth berms and vegetation belts. Details of these studies, particularly the circumstances under which the reported reductions were achieved, do not appear to have been published.

Furthermore, in the context of the issues raised in this peer review regarding the odour modelling, **it is expected that significantly higher receptor odour concentrations will be predicted when the model inputs and variables are adjusted.** Significantly greater mitigation requirements would be expected as a result of these adjustments, that would be beyond the 40% mitigation suggested by Benbow Environmental as achievable using this method.

Overall, the location of the poultry sheds in very close proximity to existing receptors is considered to pose a very significant constraint on the proposed expansion. The ability to mitigate particulate and odour emissions from free-range naturally ventilated poultry sheds is largely restricted to measures of the types proposed by Benbow Environmental. **This**

significantly limits the overall reductions likely to be achieved, as point of release emission controls are impractical.

Peer Review of Noise Impact Assessment

Overall the noise assessment modelling methodology and approach is considered to be consistent with current best practice, subject to the following issue being addressed.

The acoustic assessment has excluded consideration of stable meteorological conditions associated with temperature inversions. However, the meteorological analysis presented in the air quality report indicates 23.4% occurrence of F class stability for all hours. As the vast majority of stable conditions occur at night, this indicates that the frequency of occurrence of stable conditions is likely to be well in excess of 30% for the night time. In accordance with the NSW Industrial Noise Policy, this would require consideration of the influence of temperature inversion conditions on propagation of noise from the poultry farm. **This is expected to result in a 1–3dB increase in predicted noise levels for the nearest receptors and the modelling and mitigation needs to be amended accordingly.**

In terms of the proposed management measures, provision of an earth berm to manage noise emissions is considered to be an appropriate methodology. **The management measures discussed for truck movements, particularly at night, are considered less practical. This is because there is a degree of reliance on management of behaviour (eg, travelling at no more than 40kph on a public road) and timetabling to minimising the number of vehicles on site at any one time. During night time bird pick ups, preventing more than one vehicle or forklift/loader operating at any given time may be impractical in reality.**

Overall Conclusions

Based on the information presented in this review, it is our opinion that revised air dispersion modelling is necessary to address the following issues:

- incorporation of the Prime building downwash algorithm;
- consideration of more detailed local terrain influences on drainage flows during low wind and near calm conditions;
- emission rates that are consistent with the emission rates presented in published research on naturally ventilated poultry farms;
- consideration of the potential co-incidence of peak odour emission rates and worst case meteorological conditions by completing iterative analysis with weekly batch start dates;
- adjustment of emission temperatures within the maximum expected operating temperatures.

In addition, any resultant emission controls or mitigation measures should be designed with a margin of error (a minimum of 10 %) to account for the potential error associated with the over estimation of wind speeds by TAPM.

The issue of odour and (to a lesser extent) particulate impacts is considered to be a significant concern for the proposed expansion. Provision of control measures for naturally ventilated poultry farms is complex. This is primarily because the atmospheric emissions are not contained to specific emission points, but emit along the length of the sheds. Implementation of point of release controls is problematic in these circumstances, and is further complicated for a free range farm by the need to allow suitable access for the chickens to enter

external yards. **The proposed use of a combination of earth berms and vegetation screens is expected to provide benefits in terms of odour and particulate removal, but there is significant uncertainty associated with the efficiency of removal that can be achieved.** The currently available research identifies these uncertainties, and highlights the need for more detailed research to confirm the variables that affect overall removal efficiencies and the benefits in terms of odour reductions.

Given the points raised above with respect to the dispersion modelling, significantly higher than a 40% reduction is expected to be necessary for odour concentrations at the nearest receptors. This is not expected to be practicable given the mitigation methods that can be implemented for naturally ventilated poultry farms.

For the acoustic assessment, it is recommended that the modelling is amended to account for temperature inversion conditions and amended mitigation measures developed if necessary as a result. It is noted that engineering controls are generally available for management of on-site noise emissions. Hence, with some adjustment to the proposed noise mitigation measures, compliance is expected to be feasible for noise emissions from on-site activities. Off-site noise impacts are more problematic to manage, however given the nature of the local area and the expected frequency of occurrence of these activities, this issue is not considered sufficient to warrant refusal of the application.

Council Assessment Staff comments on Peer Review of Air Quality and Noise Impact Reports

Figure 1 on page 4 of this report presents (8) properties located within 20m of or adjoining the subject site and a further three (3) properties less than 150m from the subject site. Most of the properties in this locality are of similar area to the subject site. The proposal has the potential to heavily impact on these properties and those further distant from the subject site. The peer review indicates that there are a number of issues that have not been properly addressed within the Benbow Reports.

Due to flaws in the dispersion modelling and the exclusion of consideration of factors such as use of foggers in the modelling, receptor impacts have been significantly underestimated particularly in relation to odour. Based on the current recommendations within the Benbow Air Quality report, mitigation measures need to achieve significantly higher than a 40% reduction in odour concentrations at the nearest receptors. This is unlikely to be achieved with the proposed mitigation measures presented in this development application.

(Refer Refusal Reason 1)

It is apparent from the peer review that the application cannot be supported due to the impacts to nearby receptors mainly from odour but also noise from trucking movements.

For clarification Council requested the peer reviewer to respond to the following questions. The response provided by Air Noise Environmental Pty Ltd follow each question as follows:

- 1 *Should the application be refused based on the number / and or proximity of sensitive receptors.*

Response – The odour risk to the nearest receptors warrants refusal based on the currently available information.

- 2 *Whether the mitigation measures proposed will result in compliance with relevant guidelines and criteria for noise, dust and odour with regard to impacts on the nearest receptors.*

Response – The proposed odour and particulate mitigation measures are not expected to result in compliance with the relevant guidelines. Particulate management is considered to be a less significant risk than odours. The noise mitigation measures for on-site noise, with some adjustment, are likely to achieve the relevant guidelines. Off site noise management is more problematic and may not result in full compliance at all times.

3 *Whether any additional measures should be added to those recommended in the Benbow assessments*

Response – Provision of additional odour / particulate management measures is problematic for naturally ventilated sheds. A reduction in the number of sheds could be considered to reduce the risk of impacts, or a staged development that allows implementation and testing of the vegetative screens for the existing operations prior to installation of any additional sheds.

The peer review indicates that the application should be refused due to the additional impacts on air quality and noise and that those impacts do not comply with the guidelines of either DECCW regarding Air Quality or the Industrial Noise Policy regarding Noise Impacts.

(Refer Refusal Reason 1)

The EIS has not satisfactorily addressed the impacts on nearby sensitive receptors nor suitably considered appropriate alternatives such as a staged development to monitor impacts before further development or a smaller proposal generally. Justification of the proposal has ignored the impact of the proposal on nearby sensitive receptors. The justification incorrectly states there will be no significant social disadvantages for the surrounding area (EIS Pg 33).

(Refer Refusal Reason 4)

The small area of the site at 12.27 ha and its long narrow shape with an approximate width of 170m in the vicinity of the proposed additional poultry sheds demonstrate the proposal is an overdevelopment of the site as the sheds are unable to be located the required distance from sensitive receptors to minimise air quality and noise impacts.

(Refer Refusal Reason 5)

The peer review indicates that the required guidelines of DECCW regarding odour impacts and the provisions of the Industrial Noise Policy cannot be complied with. Although the EIS has not appropriately addressed some relevant issues, further information will only confirm further that the application should be refused. The site has insufficient area and nearby sensitive receptors are located too close to the site to mitigate odour and noise impacts. The applicant therefore has not been required to submit additional information regarding any of the issues as sufficient information is now available to determine the application by way of refusal.

(See Refusal Recommendation)

Flora & Fauna Issues – Comments from Council's Environment Officer

Council's Environment Assessment Officer provides the following comments regarding Flora and Fauna Assessment:

Survey Effort

"A revised Flora and Fauna Assessment was generally in accordance with the survey methodology required under the LHCCREMS (2002) Flora and Fauna Survey Guidelines - Lower Hunter Central Coast Region. As requested, the applicant has overlaid the development footprint onto a detailed flora and fauna map (Figure 4). While this plan is not 100% accurate, it provides an indication of the overall impact of the proposal.

Endangered Ecological Community

The site has been mapped by Bell (2009) as containing an Endangered Ecological Community (EEC) - Duffys Forest. Pygmy Possum Ecological Consulting have undertaken survey work to ground truth the site and likened the vegetation to the Hawkesbury Peppermint-Apple Forest and Sheltered Dry Hawkesbury Woodland vegetation communities rather than the EEC. This information has been accepted in good faith.

The least disturbed examples of this vegetation community occur in the south-west corner of the site, the western end of Bloodtree Road frontage and along the eastern boundary of the site. These portions of the site will not be impacted by the development.

Threatened Flora Species

Prior to surveying the site, the ecological consultant visited locations in the Somersby-Mangrove Mountain area where *Tetratheca glandulosa* and *Prostanthera junonis* are known to occur. Species at these offsite locations confirmed that the species were flowering during the survey period in December.

T.glandulosa's dominant flowering period is between July and November however flowers may persist until late December. The species was not positively identified during the flora surveys. Council's Environment Assessment Officer's are of the opinion that the site does not contain suitable habitat for *T.glandulosa* as the species is not commonly associated with the woodland tree species found on the site. Further to this, the species prefers shallow soils with lateritic fragments which is absent from the soil profile. Whilst the species was not recorded during flora surveys, it is unlikely that the proposed development will have a significant impact upon this species due to the retention of suitable habitat.

P.junonis is restricted to the Somersby Plateau particularly the Somersby soil landscape that is mapped for the site. *P.junonis* dominant flowering period is October to mid-December. Potential habitat exists within the forested vegetation community in the southern portion of the site. Whilst the species was not recorded during flora surveys, it is noted that the Recovery Plan for the species was not addressed within the 'Section 5a assessment'. Given the limited amount of potential habitat being removed by the proposal, it is unlikely that the proposed development will have a significant impact upon this species due to the retention of suitable habitat elsewhere on site.

One threatened flora species *Hibbertia procumbens* was detected on the site. Approximately 57 clumps were recorded within the proposed development area and at least 87 clumps were observed outside the development area. This species is common throughout the Somersby Plateau especially in disturbed areas such as bush tracks and electricity easements. It is believed that numbers are increasing particularly over the past 10 years (Pers. Comm. Garon Staines 28/3/2011). Given the proposed development will retain examples of this species it is considered that the removal of a small number from the site will not result a significant impact for this species.

A proposal redesign was considered when undertaking the environmental assessment however, it was concluded that any redesign would compromise the riparian vegetation of Whipbird Creek. It is also acknowledged that the site is zoned 1(a) Agriculture and the proposed development satisfies the objectives of the zone including the protection of water catchments, soil conditions, improving water quality on site and ensures appropriate development and land management practices.

The environmental assessment has considered that it is likely that the current proposal will have an insignificant impact upon threatened flora species and a Species Impact Statement is not required. Conditions of consent have been recommended to reduce impacts of the

development upon threatened species and their habitat (including the recommendations contained in the Flora and Fauna Assessment).

Threatened Fauna Species

An unidentified glider was observed during the survey period. Three threatened bat species were also positively identified: *Miniopterus australis* (Little Bentwing Bat), *Saccolaimus flaviventris* (Yellow Bellied Sheath-tailed Bat) and *Scoteanax rueppellii* (Greater Broad-nosed Bat). *Allocasurina* species exist within the southern portion of the site and provide foraging habitat for the *Calyptorhynchus lathami* (Gloss Black Cockatoo).

Approximately 55 hollow bearing trees were recorded particularly within the vegetated southern portion of the site. The Flora and Fauna Assessment claims that the hollow bearing trees may provide roosting habitat for microchiropteran bats such as those identified on the site as well as hollow dependent mammals. Notwithstanding this, the hollows do not provide suitable roosting habitat for large forest owls. Conditions have been recommended for the management and removal of tree hollows under the guidance of a fauna specialist for those trees within the development footprint.

Evidence of the *Vombatus urinus* (Common Wombat) burrows was identified within the southern vegetated portion of the site. While this native fauna species is not listed under the Threatened Species Conservation Act 1995 it is protected as a native species under the National Parks and Wildlife Act 1974. In a relocation study in Kangaroo Valley, 5 radio collared adult wombats were released and tracked regularly. The wombats travelled 10 and 30 kilometres respectively back to their original burrow and were found in poor condition. It is known that relocated wombats try to find their original territory and will travel great distances in this effort (www.parliament.nsw.gov.au - [Questions & Answers Paper No. 84](#), 5 January 2009). The Wombat Protection Society of Australia's website provides a list of people with specialised expertise and experience with wombats. The society undertakes inspections and provides advises on burrow status, fencing options, rescue options and relocation services. If approval were granted a condition has been recommended for the management of wombats on the site.

The proposal will reduce the width of a vegetated corridor that provides opportunity for threatened fauna to migrate throughout the locality towards McPherson State Forest. Given the objectives of the agricultural zone and the tentative nature of the surrounding vegetation on neighbouring properties, removal of a portion of this corridor is unlikely to result in a significant impact on threatened species given the presence of the riparian corridor.

This assessment has concluded that it is unlikely that the proposal will have a significant impact upon threatened fauna species and as such a Species Impact Statement is not required. In the event that consent is granted, conditions have been recommended to reduce the impacts of the development upon threatened species and their habitat (including those recommendations provided in the Flora and Fauna Assessment).

Threatening Processes

The Amended Flora and Fauna Assessment Report (January 2011) states that the proposed development is likely to contribute to the following Key Threatened Processes:

- Clearing of native vegetation,
- Invasions, establishment and spread of lantana,
- Loss of hollow bearing trees,
- Removal of dead wood and dead trees,
- Human caused climate change.

As previously mentioned, the provisions of the Native Vegetation Act 2003 do not apply to 'designated developments'. The site has historically been used for agricultural purposes and

whilst it is proposed to clear native vegetation in the southern portion of the site, this vegetation is dominated by regrowth. Larger stands of this vegetation type are available within the immediate locality to the west. The site is zoned 1(a) Agriculture and the proposed development is permissible in this zone.

Lantana is the dominate understorey species of the planted windbreaks and would be removed from the site to make way for the proposed development.

The proposal is likely to contribute to the removal of hollow bearing trees, dead trees and dead wood from within the vegetated southern eastern portion where of the site. Of the 55 hollow bearing habitat trees detected on the site approximately 16 would be removed for the proposed development. Conditions could be included for the management and removal of tree hollows under the guidance of a fauna specialist for those trees within the development footprint (if the application were to be approved).

The proposed developed is likely to contribute to climate change due to removal of carbon sinks (native vegetation) and expansion of an intensive agriculture activity. It should be noted that the proposed development will require the retention of vegetation in the south-western corner and along Bloodtree Road. Given the minimal amount of native vegetation loss it is unlikely that the proposal will result in a significant impact upon climate change. “

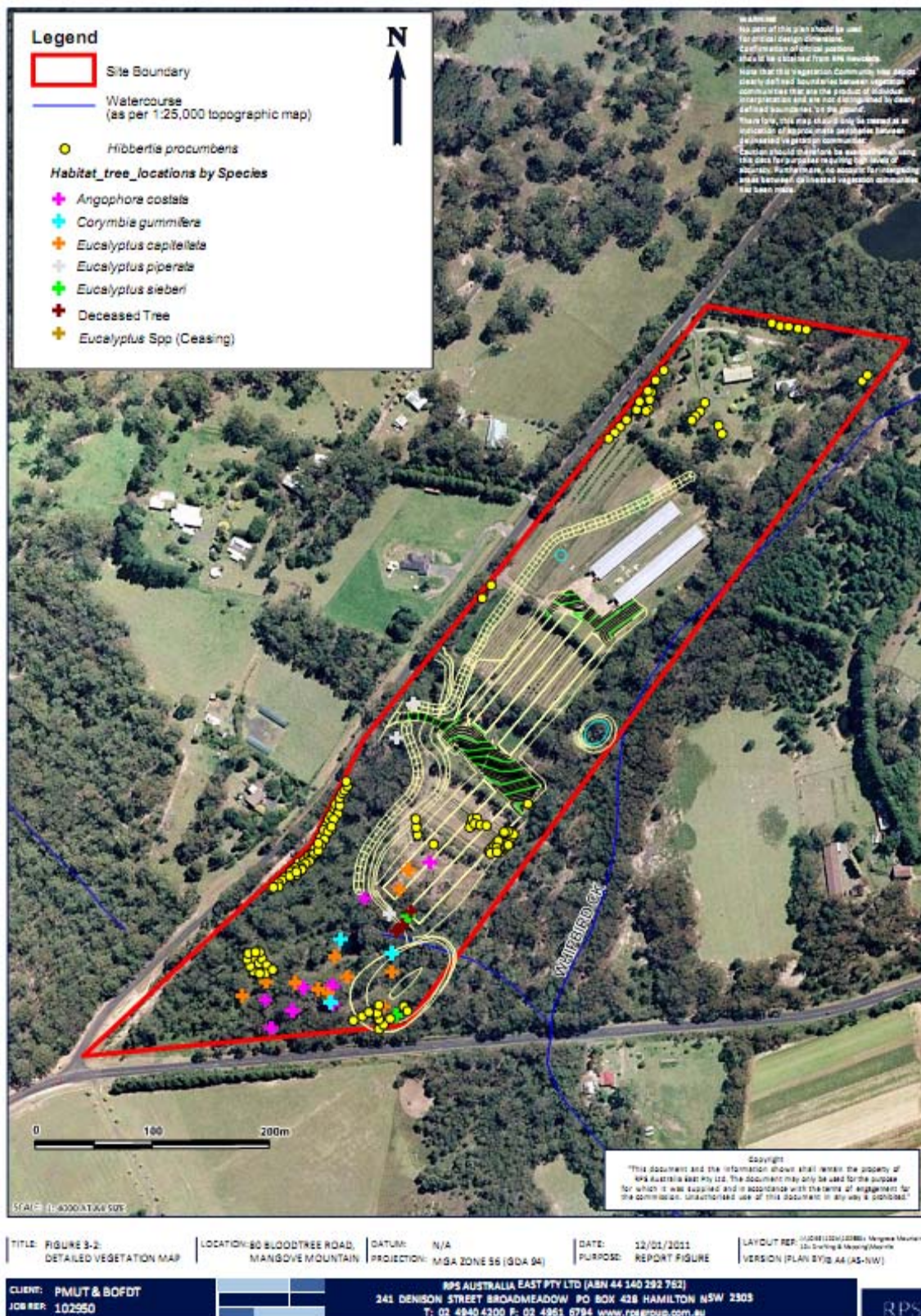


Figure 4 – Habitat map with an overlay of the development footprint

Water Supply Catchment

Councils Water & Sewer Section have advised that although a small portion of the property is mapped as being on the edge of the Mooney Mooney Water Supply Catchment, the proposed development does not drain toward the catchment area. In this regard no issues of the location of the proposal within a water supply catchment is raised.

Land Use Zone Conflict

The site is located at the zone interface of the 1(a) Rural and the 7(b) Conservation and Scenic Protection Zone. As shown above on the zoning map (Figure 3), the site is zoned 1(a) Rural (Agriculture). The neighbouring land generally to the north, south and east is also zoned 1(a) Rural (Agriculture). The land to the west (opposite the site and separated by Bloodtree Road) is zoned 7(b) Conservation and Scenic Protection.

The 7(b) Zone is applicable to land possessing aesthetic or conservation values with the principal objective of development being carried out in a manner which will not detract from the aesthetic or conservation quality. The 1(a) Zone is an agricultural zone with the principle objective being provision of land suitable for agricultural purposes.

Due to the small site area of the subject site at 12.27ha intensive agricultural usage is limited particularly in view of the close proximity of a number of sensitive receptors and the consequent inability to appropriately mitigate odour and noise impacts. Consequently the proposal presents a land use conflict with surrounding properties and the adjoining 7(b) zone in particular which contains most of the sensitive receptors.

(Refer Refusal Reason 2)

Visual Impact

Due mainly to their bulk and scale poultry sheds have the potential to intrude visually on the landscape. The appearance of the property, including the scale, colour and reflectivity of buildings and the visibility of machinery and access roads can affect how the proposal intrudes on local vistas.

Development Control Plan No. 89 aims to provide more detail with regard to management of the scenic quality of the Gosford Local Government Area. The DCP provides a policy document for scenic management of various landscape and geographic units. The suburb of Mangrove Mountain is identified as being located within the Upper Hawkesbury geographic unit and the Dharug, Popran Creek and Mangrove Creek landscape unit. Development objectives include encouraging new buildings to blend into the existing natural environment with darker colours being preferred and scenic quality issues should be considered regarding proposed land clearing.

Notwithstanding that the site will be somewhat congested with agricultural buildings and structures if the application is approved, in this instance, the site is secluded from public view with the aid of existing vegetation and trees along the site boundaries. Proposed landscaping, earth mounds and vegetated screening would soften the visual impact of farm sheds from roads, public areas and nearby residences if the application were to be approved.

Traffic and Transport

The site is accessed from Bloodtree Road which connects with Wisemans Ferry Road which in turn connects with the Sydney-Newcastle Freeway. Bird collection on the 50-54th day of the growth cycle will require on average **21 trucks** to access the site usually at night between 7.30pm and 3.00am to comply with relevant guidelines requiring birds be kept calm and unstressed. Additional truck movements (B-Double / 26 tonne with trailer) over the 8 week growth cycle consist of litter delivery and pickup, chicken delivery and collection and feed deliveries with a total of **14 truck** movements. With the exception of breakdown delays, all feed deliveries will be during daylight hours. Gas deliveries, spent litter and dead bird pickup by non-articulated smaller (6 tonne) vehicles will also occur during daylight hours.

The EIS is supported by a Traffic Impact Assessment prepared by B J Bradley and Associates. The traffic assessment indicates the following:

- Traffic volumes on Bloodtree Road are low and unlikely to alter significantly in the next 10 years
- Sight distances are significantly increased as the existing access from Bloodtree Rd will be relocated at a crest to provide excellent sight distance in both directions.
- The proposed additions to the facility will generate negligible traffic volumes onto Bloodtree Rd either during construction or for future operation.
- Potential traffic impacts are negligible

Traffic noise mitigation measures have been recommended as part of the Noise impact Assessment including the following:

- Travelling along Bloodtree Road at night time at maximum 40km/hr
- No use of engine brakes unless they are the silenced type
- Low on-site speed limits-walking pace
- No extended period of on-site revving/idling
- The truck parks behind the berm to attenuate the air release from the braking system
- Adequate access road design/maintenance.

The peer review of the Air Quality and Noise Impact Reports states *“In terms of the proposed management measures, provision of an earth berm to manage noise emissions is considered to be an appropriate methodology. The management measures discussed for truck movements, particularly at night, are considered less practical. This is because there is a degree of reliance on management of behaviour (eg, travelling at no more than 40kph on a public road) and timetabling to minimising the number of vehicles on site at any one time. During night time bird pick ups, preventing more than one vehicle or forklift/loader operating at any given time may be impractical in reality.”*

It is apparent that the noise mitigation measures relating to truck movements recommended by the applicant would rely heavily on compliance with a Farm or Environmental Management Plan which depends on the responsibility of the poultry farm operator and all the truck drivers. Such a Farm Management Plan would be difficult to enforce (particularly the 40km/hr speed limit on Bloodtree Rd as legal limit is 80km/hr), likely to be not complied with and impacts to sensitive receptors being consistently offensive.

(Refer Refusal Reason 1)

Waste and Dead Bird Disposal

Council's Environment Officer provides the following advice regarding dead bird disposal:

“The information submitted by the applicant relating to dead bird disposal has been reviewed. It is noted that the information is an extract from the free range broiler manual and not site specific to the operation of the farm. The attachment does list different disposal options for dead birds such as burial, freezing, an enclosed composter, waste disposal bin and a crematorium unit. Whilst the site plan indicates the location of a freezer the selected method and management of dead birds on the farm is unclear.”

Dead-bird disposal is one of the sources of odour emanating from the existing facility. The operators are disposing of dead birds using a procedure that is contrary to the conditions of consent to the existing facility. The existing consent (DA 17361) requires provision of a mechanical composter. The operators have been storing dead birds in an area of the site, adding sulphate and composting into a mixture for use as fertiliser. The compost is then picked up by truck for use in the agricultural industry. This is resulting in extremely offensive odours emanating from the existing facility which is heavily impacting on nearby sensitive receptors.

The non-compliance with the previous conditions of consent has been referred to Council's Compliance Unit and the operators have been required to comply with the previous conditions of consent regarding dead bird disposal. It is understood that dead bird disposal from the existing facility is now being carried out in accordance with the conditions of consent to the existing facility. Council's compliance Section have advised that a freezer has been installed for storage of dead birds until regular pickup. It is expected that this method of dead bird disposal will result in a reduction of offensive odour. No complaints from neighbours regarding odour have been received by Council since implementation of the new dead bird disposal procedure. (Recent complaints relating to noise from trucking movements have however been received).

Dangerous Goods and Chemicals

The majority of chemicals used on poultry farms fall into categories of cleaning compounds (principally detergents), sanitizers, disinfectants, rodenticides, herbicides, and insecticides. With the exception of the terminal disinfectants, most of these chemicals are commonly found in home and domestic garden situations. Such chemicals will be kept in a secure chemical store on the farm.

Pest Control

The proposed poultry farm expansion will be managed in strict compliance with Baiada Poultry Pty Ltd standard operating procedures, which includes pest management actions aimed at discouraging pests from establishing residency within and around the poultry farming operations. Such measures include the regular removal of spent litter at the conclusion of each growing batch cycle to prevent any larval development; design of poultry sheds to allow efficient waste removal with the litter acting as an absorbent material associated with any minor spillage from the nipple or drinkers which reduce the potential fly breeding areas, installation of bait stations to control vermin, regular housekeeping including site slashing and mowing to provide a clean working environment and eliminate rubbish/debris where vermin could live and breed, use of appropriate sanitizing agents during cleaning and ensuring that there is no long term stockpiling or disposal of water materials on-site.

Nutrient Control

Council's Environment Officer provides the following advice regarding stormwater management, water quality and nutrient control:

"Nutrient rich runoff generated from the routine cleaning of sheds and dead bird containers has been adequately addressed within the Water Cycle Management Plan and engineering drainage plans."

Public Submissions

A number of public submissions were received in relation to the application. Those issues associated with the key issues have been addressed in the above report. The remaining issues pertaining to various concerns were addressed in the assessment of the application pursuant to the heads of consideration contained within Section 79C of the Environmental Planning and Assessment Act 1979.

A summary of the submission is detailed hereunder.

- 1. A petition containing 6 signatures supporting the proposal due to benefits to the local economy and other surrounding farms.**

Comment

Signatories reside a minimum of 650m from the subject site and are unlikely to be impacted by the proposal due to their separation.

2. Do the existing chicken sheds have Council approval?

Comment

The existing poultry farm (2 sheds) was approved by Council under DA 17361 on 21 October 1993. A subsequent Building Application 74293/1993 for the works was approved by Council on 1 February 1994.

3. The site is zoned 1(a). There are 5 dwellings opposite the site in Bloodtree Road to the West zoned 7(b). Any 1(a) activity must consider the surrounding zoning. The location of the development is not remote as claimed in the EIS. The site is located with 30 minutes drive of Gosford City.

Comment

The issue of land use zoning and potential land use conflict has been assessed above under Environmental Impact Assessment. Both the 1(a) and 7(b) zones permit agricultural uses including poultry farms. The site is a small agricultural holding of 12.27ha and is located at the zone interface with the 7(b) zone. Assessment of the EIS and accompanying reports and plans reveal that the proposed additional sheds cannot be located a sufficient distance from the nearest sensitive receptors located within the 7(b) zone to sufficiently minimise impacts particularly in relation to odour and noise from truck movements. This land use conflict is one of the reasons why the application is recommended for refusal.

(Refer Refusal Reason 2)

4. The guidelines state neighbouring homes should be more than 150m from chicken farms. At least 4 dwellings are within that distance. This is in contravention of the Department of Primary Industries Guidelines in relation to Poultry Keeping.

Comment

Clause 21 (4) of the Environmental & Planning Regulation 2000 indicates that poultry farms within 150 metres of a dwelling not associated with the development constitutes Designated Development. This is one of the requirements that trigger the Designated Development provisions. The application has been submitted as a Designated Development and an Environmental Impact Statement in accordance with Director Generals Requirements has been submitted.

The DPI guidelines referred to in the submission are recommendations only. Notwithstanding this, assessment of the EIS indicates the potential impacts to nearby sensitive receptors cannot be mitigated within acceptable limits particularly in relation to odour and noise. This is one of the reasons why the application is recommended for refusal.

(Refer Refusal Reason 1)

5. Wastewater and run-off rainwater may enter Whipbird Creek and then Popran Creek. Avoidable pollution to the water sources for Gosford City should not be allowed at any cost. It is our understanding that no further water licences will be issued in this area.

Comment

A small area only of the property near the intersection of the intersection Wisemans Ferry and Bloodtree Roads is located within the water catchment area. Most of the property drains away from the water catchment including that part of the site on which the poultry farm is located.

The application was referred to the NSW Office of Water who advised there is no requirement for any controlled activities and an “Application for Approval for Water Supply Works and Water Use” is required for the proposed 4 megalitre dam and any proposed groundwater extraction. If the application were to be approved the requirements of NSW Office of Water could be conditioned.

6. Weather. We reject the scientific evidence relative to weather patterns as the data is based on supposition.

Comment

Computer modelling is an accepted method of determining environmental impacts provided the modelling is based on accurate base data. Council’s peer review of the air quality and noise impact reports indicates there are a number of issues with some of the base data utilised in the modelling. An example of this is the terrain resolution of 300m not being best practise as terrain data at a resolution of 100m is available. This creates under prediction of odour impacts in near calm conditions where katabatic and similar drainage flows are not adequately addressed in the modelling.

Enough information has been gleaned from the air quality and noise impact reports by Council’s Peer Reviewer to confirm that odour and noise impacts cannot be reduced to compliant and acceptable levels at the nearest sensitive receptors.

7. The Flora and Fauna Report is incomplete and therefore invalid. There will be a danger to wildlife crossing Bloodtree Road from increased traffic.

Comment

The original Flora & Fauna Report did not address an Endangered Ecological Community (EEC) and the Report was prepared without reference to the survey methodology of LHCCREMS (2002). It is therefore concluded the Report was incomplete.

A revised Flora & Fauna Assessment was submitted in accordance with the LHCCREMS (2002) Flora & Fauna Guidelines – Lower Hunter Central Coast Region. Council’s Environment Officer has assessed the revised Flora & Fauna Report as outlined above under Flora and Fauna - Comments from Environment Assessment Officer which indicate that a Nest-box Replacement Strategy is required to address the removal of hollow bearing trees. If the application were to be supported this requirement could be included as a deferred commencement condition. The perceived danger to wildlife from additional truck movements in an agricultural zone is insufficient reason to refuse the application.

8. Noise concerns including noise from trucks at night and a large generator planned on the western side of the property facing local residents in Bloodtree Road.

Comment

The issue of noise impact has been assessed above under Environmental Impact Assessment and Peer review of Air Quality and Noise Impact Reports. That assessment concludes that on site noise can be managed by provision of an earth berm as proposed. The management measures proposed for truck movements particularly at night are not

practical as such rely on the integrity of the farm operator and all the truck drivers to comply with requirements of a Farm or Environmental Management Plan utilising practises outlined in the EIS and the Noise Impact Report such as 40km/hr speed limit on Bloodtree Rd. Enforcement of such a Farm Management Plan would be difficult and non-compliance would result in offensive noise to the nearest sensitive receptors.

- 9. Dust and Odour entering the houses opposite the site in Bloodtree Road. The existing facility causes odious smells, particularly when chickens are collected and sheds cleaned out and litter removed. Those suffering asthma and allergies will be adversely affected. The dust and odour modelling is inaccurate and uses irrelevant data.**

Comment

The issue of dust and odour has been assessed above and Peer Review concludes that the proposal is unable to comply with the guidelines recommended by DECCW, particularly in relation to odour. There are a number of issues with the Benbow modelling which contribute to an inaccurate calculation of impact on sensitive receptors. The application has been recommended for refusal due to these concerns.

(Refer Refusal Reasons 1, 2 & 3)

- 10. Impact on the sports ground.**

Comment

The Crown Land adjoining the subject site is managed by Council and is the local sports ground. The issue of impact on the users of this sportsground has not been assessed in either the EIS or the Benbow Air Quality Reports.

(Refer Refusal Reason 4)

- 11. The property is unsuitable according to NSW Meat Chicken Farming Guidelines.**

Comment

The NSW Meat Chicken Farming Guidelines, a publication by NSW Agriculture outlines a series of recommendations regarding poultry farm site location, design and construction etc. The proximity of sensitive receptors and the size and shape of the subject property is a severe constraint on further development and enlargement of this poultry farm. The small area of 12.27ha and the average depth of 170m do not allow sufficient separation from sensitive receptors in Bloodtree Road.

(Refer Refusal Reason 5)

- 12. Traffic. Access is dangerous being on a slight uphill curve.**

Comment

The new access proposals and supporting Traffic Assessment Report have been assessed by Council's Development Engineer who has no objection to the proposal subject to a number of conditions including required width and standard of construction of the access crossing, driveway and parking area. Such conditions would be attached if the application were to be approved.

- 13. Social and Economic Impact. Economic Impact on the value of surrounding properties due to increased dust, odour and noise issues. The residents will suffer social disadvantage due to noise and odour issues.**

Comment

It is agreed that due mainly to odour and noise impacts the proposal will have social disadvantages for the surrounding area. This would likely translate to an economic impact by way of reduced land valuations to adjoining properties due to their location in close proximity to a potentially offensive industry. This matter has been inadequately addressed in the EIS and is one of the reasons why the application is recommended for refusal.

(Refer Refusal Reason 4)

- 14. Health and Drinking Water. There are no studies in the report to indicate how the proposal will impact on the aquifer. Bores into the aquifer are used by residents for drinking and healthy lifestyle. Seepage of chicken bi-products may contaminate the water table rendering current water uses by neighbours dangerous.**

Comment

A Water Cycle Management Plan and Engineering Plans including drainage and sediment & erosion control plans prepared by Ryan Consulting Group – Engineering Consultants form part of the application. Council's Development Engineer and Environment Assessment Officer are satisfied nutrient rich runoff generated by cleaning of sheds and dead bird containers has been adequately addressed subject to appropriate conditions of consent. Such conditions would be included if a consent were to be issued.

- 15. There is no economic benefit of the proposal**

Comment

The owners have advised that since purchasing the farm over 2 years ago, in excess \$150,000 has been spent on work contracts provided to local businesses, as well as annual cash running costs of around \$120,000, much of which goes to support local business and suppliers. The projected cash expenses for the proposed farm are in excess of \$300,000.

Notwithstanding the above economic benefits, the proposal will impact heavily on nearby sensitive receptors by way of odour and noise impacts and has been recommended for refusal mainly due to those impacts.

(Refer Refusal Reason 1)

- 16. The current operations have expanded**

Comment

The owners advise that stocking rates have reduced in accordance with free range contract requirements. Documentary evidence from the NSW Farmers Association Poultry Meat Manager confirms that the previous owners of the farm had the farm stocked at greater densities than present levels.

Although anecdotal the increased odour being experienced by nearby receptors from the existing facility has likely been resulting from the current unauthorised method of dead bird disposal which involves unenclosed composting. It is understood this method of dead bird disposal has now ceased after action by Council to obtain compliance with the conditions of consent to the existing poultry farm.

- 17. Likelihood of illness to residents and risk of exotic avian disease.**

Comment

In relation to this issue the poultry farm owner advises as follows:

- (a) There have never been any cases of avian influenza affecting humans in Australia.
- (b) Avian influenza virus of birds does not easily cause disease in humans

There is negligible risk of transfer of illness to humans therefore such cannot be sustained as a reason for refusal of the proposal.

18. There will be an increase in flies

Comment

The owner advises that chickens are natural predators of flies and insects in all lifecycle stages and the sheds and ranges of the existing facility are generally free from flies. Although difficult to substantiate it is possible that the odour associated with the existing facility does cause an increase in flies particularly during the summer months. However such cannot be sustained as a reason for refusal of the proposal.

19. The development will expose carcasses of Newcastle Diseased chickens.

Comment

The NSW Department of Agriculture buried diseased chickens from the Newcastle Disease outbreak in the late 1990's on the adjoining Council owned reserve (Lot 81 DP 664567). The NSW Department of Industry and Investment (previously Department of Agriculture) have no issue with these pits being in close proximity to the proposed poultry farm expansion.

20. The electrical draw of the proposed expansion will disadvantage neighbours.

Comment

If the application were to be approved relevant conditioning would require compliance with the requirements of Energy Australia.

21. The quality of captured rainwater will deteriorate as dust generated by the farm will settle on roof areas and reduce the quality of collected drinking water.

Comment

A dust impact assessment has been carried out by Benbow as part of the air quality assessment. Council's Peer Review notes that particulate emission rates appear reasonable based on other data for poultry shed particulate emissions. It is therefore unlikely that drinking water will be polluted by particulate matter, however this issue has not been dealt with as part of the EIS. The application has not been supported so further information on this issue was not requested.

22. Community consultation by applicant was inept and inaccurate. The EIS indicates letters were sent to sensitive receptors on 9 April 2010. Residents did not receive the letter until late July. No community consultation occurred as residents were told what was proposed and resident concerns were ignored. Residents were verbally threatened at the site inspection. Those residents who previously supported the proposal as indicated in the EIS now object or reside some distance from the site.

Comment

These comments are noted. The owner of the subject site has submitted lengthy commentary indicating that nearby landowners inspected the site and the proposal was fully explained. It is apparent community consultation was attempted by the applicant however most of the nearby property owners that were involved did not agree the facility should be enlarged or extended.

23. Before determination of this application, a site inspection by all Councillors is requested.

Comment

Council is not the responsible authority for determination of the application. Interested Councillors are able to make a submission either on their own or Council's behalf. To date no submission has been received from Council or individual Councillors.

Conclusion

Following is a summary of the most significant issues and reasons why the application is not supported:

- 1 **Air Quality and Noise Impacts** – The EIS has been prepared based on Director General's Requirements but is based on inadequate information and flawed modelling contained in the Air Quality and Noise Impact Reports not necessarily associated with best practise. The Air Quality and Noise Impact Reports and the EIS appear to have started from a point where the site physically contains sufficient area for a total of 6 poultry sheds, impacts on noise and air quality to nearby receptors are insufficient to warrant refusal of the proposal and then either omitted important base data from the modelling or made statements to achieve the required result rather than include all relevant issues to obtain an objective assessment of impact.
- 2 **Land Use Conflict / Overdevelopment of the site** – The site with its small area of 12.27ha and average width of approximately 170m in the vicinity of the proposed additional sheds does not permit the required separation from sensitive receptors particularly in Bloodtree Road to allow sufficient mitigation of odour and noise impacts. Although not creating any substantial visual impact issues, the proposal will result in congestion of buildings and structures on the site. The odour and noise impacts of the proposal conflict with nearby landuses located within the 7(b) Zone opposite the site in Bloodtree Road.
- 3 **Farm Management Plan** – As the Council's peer review of the Noise Impact Report by Benbow has outlined, on site farm noise impacts could potentially be mitigated by provision of earth berms as proposed. However management measures proposed for truck movements are less practical as they rely on management of behaviour particularly of all truck drivers (eg, complying with a 40km/hr speed limit on a road where the speed limit is 80km/hr). It is therefore doubtful that a Farm Management Plan will successfully manage noise impacts from trucking movements and would result in regular offensive noise impacts and sleep deprivation to the nearby sensitive receptors.
- 4 **The Environmental Impact Statement / Peer review of Air Quality and Noise Impact Reports** - The EIS has not appropriately and fully considered the impacts of air quality and noise impacts on sensitive receptors. Council assessment staff identified a number of issues in the EIS and the Air Quality and Noise Impact Reports, regarding stated low or no level of impact therefore a Peer Review of those Reports was commissioned. The peer review identified a number of issues and concerns in both Reports and concluded that the

application should be refused based on the unreasonable impacts on a number of nearby sensitive receptors. Those impacts relate mainly to odour and noise.

Other issues not appropriately and fully considered within the EIS are the social disadvantages to the surrounding area, alternatives such as a smaller proposal, consideration of a staged development to monitor impacts before proceeding to the next stage or reasons why that should be ruled out, the provisions of SEPP 33 as the proposal is classified as a potentially offensive industry and the impacts of the proposal on the adjoining sportsground to the north on Lot 81 DP 664567.

Justification of the proposal within the EIS incorrectly concludes that the proposal will have no socio-economic impacts. The impacts of odour and noise to nearby sensitive receptors cannot, contrary to the claims of the EIS, be appropriately mitigated to an acceptable and compliant level. The proposal will therefore have an unfair and offensive impact on the socio-economics of the locality including but not necessarily limited to an impact on land values due to nearby receptors being located in close proximity to a “*potentially offensive industry*” as defined within SEPP 33.

- 5 **Shortfall of Information within the Environmental Impact Statement** - The EIS has not appropriately addressed some relevant issues, particularly those identified by the peer reviewer regarding odour and noise emissions. Further information has not been required as Council’s peer reviewer has indicated that odour and noise impacts cannot in their opinion be mitigated to within acceptable levels or compliant with relevant DECCW and Industrial Noise Policy guidelines. The peer review demonstrates the site has insufficient area and nearby sensitive receptors are located too close to the site to mitigate odour and noise impacts. Further expense to the applicant in submitting additional information is therefore considered unjustified as sufficient information is available to determine that the application should be refused primarily due to impacts on neighbouring dwellings which are classified as sensitive receptors.
- 6 **Zone Objectives** – The main objective of the 1(a) zone is to identify and provide suitable land for agricultural use. The site contains insufficient area for an intensive agricultural use such as a poultry farm in close proximity to a number of sensitive receptors. The site is unsuitable for the proposed usage and therefore does not comply with the zone objectives of the 1(a) Rural (Agriculture) Zone.
- 7 **SREP 8-Central Coast Plateau Areas and SREP 20-hawkesbury Nepean River** – The proposal will severely impact on nearby sensitive receptors particularly in relation to odour and noise. Due to the size and shape of the site sufficient separation cannot be achieved between the proposed additional sheds and the nearby sensitive receptors. Strategies to mitigate impacts cannot achieve a satisfactory level of compliance with the required odour and noise emission levels. The proposal therefore does not comply with the relevant objectives of SREP 8 and SREP 20.
- 8 **Public Submissions** – Council has received 21 individual submissions and 2 petitions containing a total of 16 signatures objecting to the proposal. Most of the submissions are from either the nearby property owners or friends and relatives of those owners. All submissions have raised issues relating to odour, dust, noise (emanating from both on site and truck movements) and a number of other less significant environmental issues including flora & fauna, water catchment and wastewater etc. The issues with the existing facility regarding odour and noise are demonstrative of the fact that intensification of the existing poultry farm will likely exacerbate the current impacts, particularly noting that, as contained within Council’s peer review, potential impacts of the additional sheds cannot be mitigated to a compliant or reasonable level.
(Refer refusal reason 8)

The application has been assessed in accordance with the relevant matters for consideration under Section 79C of the Environmental Planning and Assessment Act 1979, relevant SEPPs, SREPs and relevant provisions under IDO 122. The EIS and supporting sub consultant reports have failed to demonstrate that the proposal has an acceptable environmental impact subject to the implementation of mitigation measures, environmental controls, best practice environmental management strategies and ongoing monitoring.

It is considered that approval to the proposal will result in an increase in impact to nearby sensitive receptors above that created by the existing facility and is therefore recommended for refusal.

Attachments: Attachment A - Architectural and Engineering Plans

RECOMMENDATION

A The Joint Regional Planning Panel as consent authority refuse Development Application No 39396/2010 for Designated Development – Expansion of existing poultry farm on Lot 813 DP529990, No 80 Bloodtree Road Mangrove Mountain for the following reasons:

- 5 The proposal creates unreasonable and non-compliant impacts on air quality (odour) and noise (from trucking movements in particular) to a number of nearby sensitive receptors. The additional impacts do not comply with the relevant guidelines of DECCW or the Industrial Noise Policy.
- 6 The proposal creates an intensified land use that conflict with surrounding properties and the adjoining 7(b) zone in particular which contains most of the sensitive receptors.
- 7 A Farm Management Plan to manage noise from truck movements is difficult to enforce and could result in regular offensive noise impacts to sensitive receptors.
- 8 The EIS has not satisfactorily addressed or appropriately considered the following:
 - the impacts on nearby sensitive receptors particularly regarding odour and noise impacts,
 - social disadvantages to the surrounding area - the justification for the proposal incorrectly states there will be no significant social disadvantages for the surrounding area,
 - appropriate alternatives such as a smaller development and/or a staged development to monitor impacts before further development,
 - The provisions of SEPP 33 as the proposal is classified as a “*potentially offensive industry*” under the provisions of the SEPP.
 - The impact particularly in relation to air quality on the adjoining sportsground at Lot 81 DP 664567.
- 5 The proposal is an overdevelopment of the site with regard to its size, shape and distance from nearby sensitive receptors. The additional sheds are unable to be located a sufficient distance from sensitive receptors to minimise air quality and noise impacts.
- 6 The proposal is inconsistent with the relevant objectives of the 1(a) Rural (Agriculture) zone as well as being inconsistent with the principles of Ecologically Sustainable Development, as specified within the Local Government Act 1993

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- 11 The proposal does not comply with the relevant objective of SREP 8 - Central Coast Plateau Areas and relevant strategies of SREP 20 – Hawkesbury-Nepean River.
 - 12 Approval to the proposal is not in the public interest due to the potential additional odour and noise impacts to nearby sensitive receptors.
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- B The applicant is advised of Councils decision and of their right to appeal to the Land and Environment Court within 6 months after the date of determination.
 - C The objectors are notified of the JRPP decision.
 - D The External Authorities be notified of JRPP decision.

ATTACHMENT B

CROSS SECTIONS OF DEVELOPMENT

