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Planning and Environment Committee
AGENDA NO. 13/15

Meeting Date: **Tuesday 1 September 2015**
Location: **Committee Room 2, Level 5, Civic Centre, 1 Devlin Street, Ryde**
Time: **5.00pm**

NOTICE OF BUSINESS

Item **Page**

1 CONFIRMATION OF MINUTES - Meeting held on 18 August 2015

Report prepared by: Section Manager - Governance
File No.: CLM/15/1/3/2 - BP15/1223

REPORT SUMMARY

In accordance with Council's Code of Meeting Practice, a motion or discussion with respect to such minutes shall not be in order except with regard to their accuracy as a true record of the proceedings.

RECOMMENDATION:

That the Minutes of the Planning and Environment Committee 12/15, held on 18 August 2015, be confirmed.

ATTACHMENTS

1 MINUTES - Planning and Environment Committee Meeting - 18 August 2015

ITEM 1 (continued) **ATTACHMENT 1**

Planning and Environment Committee
MINUTES OF THE MEETING NO. 12/15

Meeting Date: **Tuesday 18 August 2015**
Location: **Committee Room 2, Level 5, Civic Centre, 1 Devlin Street, Ryde**
Time: **5.00pm**

Councillors Present: Councillors Chung (Chairperson), Laxale, Simon and Yedelian OAM.

Apologies: Councillor Salvestro-Martin.

Staff Present: Acting Group Manager – Environment and Planning, Service Unit Manager – Assessment, Team Leader – Major Development Team, Consultant Town Planner (City Plan Strategy and Development), Senior Development Engineer, Business Support Coordinator – Environment and Risk and Audit Coordinator.

DISCLOSURES OF INTEREST

There were no disclosures of interest.

1 CONFIRMATION OF MINUTES - Meeting held on 4 August 2015

RESOLUTION: (Moved by Councillors Laxale and Yedelian OAM)

That the Minutes of the Planning and Environment Committee 11/15, held on 4 August 2015, be confirmed.

Record of Voting:

For the Motion: Unanimous

Note: This is now a resolution of Council in accordance with the Committee's delegated powers.

ITEM 1 (continued) **ATTACHMENT 1**

2 120-124A VICTORIA ROAD GLADESVILLE. LOTS 1 and 2 DP 552766 and LOT A DP 439417. Local Development Application for construction of a six storey residential flat building with forty six (46) apartments and basement parking containing fifty six (56) car parking spaces. LDA2014/0379.

Note: Graeme Cordiner (objector), Philip Howe (objector), Elizabeth Bush (objector) and Peter Brooks (applicant) addressed the meeting in relation to this Item.

Note: A document was tabled by Elizabeth Bush in relation to this Item and a copy is ON FILE.

RESOLUTION: (Moved by Councillors Simon Yedelian OAM)

(a) That Local Development Application No. 2014/0379 at 120-124A Victoria Road Gladesville, being LOTS 1 and 2 DP 552766 and LOT A DP 439417 be **APPROVED** subject to the attached conditions (**Attachment 1**), with an amendment to Condition 1 to provide additional privacy screening to the terraces on the Pearson Street side, to reduce overlooking. The amendments are to be made prior to the issue of the Construction Certificate.

(b) That the persons who made submissions be advised of Council's decision.

(c) That the parking issues raised by the residents in Pearson Street be referred to the Group Manager - Public Works to investigate other possible solutions to address the more general on-street parking issues in Pearson Street in consultation with those residents.

Record of Voting:

For the Motion: Unanimous

Note: This is now a resolution of Council in accordance with the Committee's delegated powers.

The meeting closed at 5.31pm.

CONFIRMED THIS 1ST DAY OF SEPTEMBER 2015.

Chairperson

2 142 MORRISON ROAD, PUTNEY – LOT 7362 – DP1166680. Development Application for Installation of Playing Field Lighting at Morrison Bay Park. LDA2014/0289.

Report prepared by:	Creative Planning Solutions; Team Leader - Assessment
Report approved by:	Manager - Assessment; Acting Group Manager - Environment and Planning
Previous Items:	3-142 MORRISON ROAD, PUTNEY – LOT 7362 – DP1166680. Development Application for Installation of Playing Field Lighting at Morrison Bay Park. LDA2014/0289.
File Number:	GRP/09/5/6/2 - BP15/1222

1. Report Summary

Applicant: City of Ryde
Owner: City of Ryde and Crown Land (under care, control and management of City of Ryde)
Date lodged: 04 July 2014 (additional information received 3 June 2015 and 7 July 2015)

This report considers a development application (DA) for the erection of eight (8) galvanised steel poles with luminaries (4 x 23m high and 4 x 18m high) to illuminate two (2) playing fields at Morrison Bay Park. The proposed hours of illumination of the playing fields are as follows:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) for social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training.

The originally submitted DA was first considered at Council's Planning and Environment Committee meeting held on 3 February 2015. The recommendation of this meeting was that determination of the DA be deferred pending additional information to be submitted addressing the issues of concern raised in Council's assessment report including;

1. An Acoustic Report which addresses actual park operations associated with the proposed lighting to reflect the arrangements for the use of both Fields
2. An updated Ecological Assessment
3. An Acid Sulphate Soils Management Plan.

At its Ordinary Meeting of 10 February 2015, Council resolved to defer consideration of the proposal pending submission and consideration of the above listed additional information. It was also resolved that this matter be publically renotified.

ITEM 2 (continued)

On 3 June 2015, Council received an updated Acid Sulphate Soils Management Plan, and Ecological Report. On 7 July 2015, an updated Acoustic Report was received.

This additional information submitted for the DA was renotified to the same land owners and occupiers of surrounding properties that were subject to the previous two notifications associated with the subject DA. In response, a total of 67 submissions were received – 14 objections and 53 letters in support.

The submissions in support of the proposal were mostly on the basis that the Putney, and wider Ryde local government area, does not have adequate illuminated sports fields and there is a demand for illuminated sports fields to accommodate the growing number of people taking part in organised sport and training within not only the local government area, but also the wider region.

The submissions objecting to the proposal indicate opposition to the development mostly on the following key grounds:

- Acoustic impacts;
- Light spillage;
- Traffic and Parking;
- Loss of Park Amenity; and
- Impact of Park Ecology and Acid Sulphate Soils.

This planning assessment report has determined the following:

1. In relation to the acoustic impacts of the proposal, it is considered that noise from the sports field use is satisfactorily limited to acceptable levels consistent with other noise generated from recently approved illuminated sports fields at Waterloo Park and Magdala Park. This is because the revised acoustic report has undertaken a more rigorous, detailed and representative assessment than that which was undertaken in the original acoustic assessment. From the results of the new assessment it is clear the proposal has a much lower noise impact than originally predicted.

   It is therefore considered that the revised assessment results combined with the additional noise mitigation measures recommended within this assessment report will assist in reducing potential noise impacts to acceptable levels.

2. In relation to the updated ecological assessment and impact of the proposed sports field luminaries on the park ecology, it is considered that the revised report has satisfactorily demonstrated that the proposal will have no significant impact on the identified species, subject to the adoption of the recommendations within the report. For this reason, it is considered the Ecological Assessment recommendations should form part of the consent, if approved.

ITEM 2 (continued)

3. An Acid Sulphate Soils Management Plan submitted to Council has been prepared in accordance with the NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC – P04). In this regard it is generally considered to be satisfactory.

Having regards to the heads of consideration in Section 79C of the Environmental Planning and Assessment Act 1979, the following has been determined:

- When assessed against the relevant environmental planning instruments pertaining to the subject site, including Ryde Local Environmental Plan 2010, now gazetted as the Ryde Local Environmental Plan 2014, the proposal, in its current form, complies with all of the objectives of the RE1 zoning for the site;

- The likely noise impacts of the proposed development have been reconsidered and determined to be satisfactory when having regard to the noise levels predicted at adjoining residences;

- The subject sports fields at Morrison Bay Park are considered to be a suitable site for the scale of the currently proposed development. This is because of the rigorous examination of the predicted noise levels stemming from the playing field use on adjoining residences, particularly from Field 2, have demonstrated that noise levels can be managed to acceptable levels through the implementation of specific noise mitigation measures.

- All other identified environmental impacts were assessed as satisfactory within the previous report to committee dated 3 February 2015.

- Overall, when considering submissions both in support and against the proposal, as well as the assessment with the applicable planning controls, the proposed development, on balance, is considered to be in the public interest.

On this basis, the subject DA is recommended for **APPROVAL**.

Reason for Referral to Planning and Environment Committee: Nature of proposed development; number of submissions received; and proposal is for Council owned land where Council is also the proponent for the DA.

Public Submissions: 119 submissions received, consisting of:

- *Original Notification Period:* 35 objections; and 11 submissions in support (including one letter from Putney Rangers Football club containing 324 signatures)
- *Notification of First Round of Additional Information:* 6 further objections received (no further submissions in support).

ITEM 2 (continued)

- *Notification of Second Round of Additional Information:* 14 further objections received; and 53 submissions in support.

Clause 4.6 Ryde LEP 2010 objection required? None required.

Value of works?: $250,000

RECOMMENDATION:

(a) That LDA2014/0289 at 142 Morrison Road, Putney being LOT 7362 – DP1166680 be **APPROVED** subject to the conditions listed in **ATTACHMENT 1**;

(b) That the persons who made submissions be advised of Council's decision.

ATTACHMENTS
1 Draft Conditions of Consent
2 Acoustic Report - Morrison Bay Park Lighting Development Application (6 July 2015)
3 Acid Sulphate Soil Management Strategy (8 May 2015)
4 Ecological Assessment (May 2015)
5 Map
6 A4 Plans
7 Previous Report – Planning and Environment Committee – 3 February 2015

Report Prepared By:

Ben Tesoriero Planning Consultant
Creative Planning Solutions

Chris Young
Team Leader - Assessment

Report Approved By:

Liz Coad
Manager - Assessment

Sam Cappelli
Acting Group Manager - Environment and Planning

ITEM 2 (continued)

2. Site *(Refer to attached map overleaf)*

Address	:	142 Morrison Road, Putney Physical Works taking place on LOT 7362 DP1166680 and LOT 1 DP 107801, ancillary use of the park and parking areas etc. on nearby lots including LOT 2 DP 1124578, LOt 1 DP 912044, and LOT 1 DP 1058077.
Site Area	:	8.8ha (from Morrison Bay Park Plan of Management) Deposited Plan 116680 shows Morrison Bay Park to have irregular boundaries that have partial road frontages to Morrison Road to the north and Frances Road to the west. Morrison Bay Canal divides the park running from the north to the south into Morrison's Bay. The remaining boundaries are formed by Morrison Bay to the south and residential properties to the west (along Stanley Street) and to the east (along Bayview Street) with an additional access point from Teemer Street to the east. A smaller portion Morrison Bay park extends on the western side of Frances Road, although not land subject to this application it is noted that use of the existing car park on the western side of Frances Road will intensify as a result of the proposed development.
Topography and Vegetation	:	The topography of the subject site, being the sports field and curtilage area, is relatively level with slight undulations around the periphery of the site. It is noted that the fields gently slope towards the central portion of the site, or the playing field surface itself. The site where the works are to take place is clear of any significant vegetation, while the perimeter of the site includes some strands of continuous vegetation to adjoining residential properties to the east. The remainder of the perimeter contains mainly scattered vegetation.
Existing Buildings	:	Sports field-associated buildings including amenities blocks, cricket nets, bike paths etc.
Planning Controls Zoning	:	RE1 – Public Recreation under Ryde LEP 2010 RE1 – Public Recreation under draft Ryde LEP 2011 (now the Ryde LEP 2014)

ITEM 2 (continued)

Other	:	SREP (Sydney Harbour Catchment) 2005 Ryde DCP 2014 Sydney Harbour Foreshores Area Development Control Plan Morrison Bay Park – Plan of Management

3. Councillor Representations

None.

4. Political Donations or Gifts

None disclosed in applicant's DA submission or in any submission received.

5. Proposal

The following outlines the scope of works proposed as part of the DA at 142 Morrison Road, Putney.

- Erection of eight (8) galvanised steel poles with luminaries (4 x 23m high to Field 1) and 4 x 18m high to Field 2) to illuminate the playing fields at Morrison Bay Park. The proposed lights are to be located either side of each playing field as shown in ***Figure 1.***

The proposed hours of operation for the floodlighting are:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) for social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training

Note: The details of the proposed development essentially remain unchanged as a result of the additional information submitted for assessment.

ITEM 2 (continued)

Figure 1 – Proposed location of the light poles at Morrison Bay Park sports field.

6. Background

The previous report to Planning & Environment Committee 3 February 2015 contains an assessment of the proposal as originally submitted, and details of the background to the development application (ie including details of history of Council's consideration of sports field lighting at Morrison Bay Park) up until that point in time.

At this meeting, the Planning & Environment Committee recommended that the DA be deferred pending additional information to be submitted addressing the issues of concern raised in Council's assessment report including;

1. An Acoustic Report which addresses actual park operations associated with the proposed lighting to reflect the arrangements for the use of both Fields

2. An updated Ecological Assessment

3. An Acid Sulphate Soils Management Plan.

ITEM 2 (continued)

At its Ordinary Meeting of 10 February 2015, Council resolved to defer consideration of the proposal pending submission and consideration of the above listed additional information. It also resolved that this matter be publically renotified when the additional information was received.

On 3 June 2015, Council received an updated Acid Sulphate Soils Management Plan, and Ecological Report. On 7 July 2015, an updated Acoustic Report was received.

On 13 July 2015 this additional information was re-notified to the same land owners and occupiers of surrounding properties that were subject to the previous two notifications associated with the subject DA. In response, a total of 67 submissions were received – 14 objections and 53 letters in support.

The submissions in support of the proposal were mostly on the basis that the Putney, and wider Ryde local government area, does not have adequate illuminated sports fields and there is a demand for illuminated sports fields to accommodate the growing number of people taking part in organised sport and training within not only the local government area, but also the wider region.

The submissions objecting indicated opposition to the DA mostly on the following key grounds:

- Acoustic impacts;
- Light spillage;
- Traffic and Parking;
- Loss of Park Amenity;
- Impact of Park Ecology; and
- Impact on Acid Sulphate Soils.

This report now considers the additional information submitted by in relation to Council's resolution, as well as take into consideration the submissions received as a result of the re-notification of the additional information.

7. Submissions

The additional information submitted for the DA following the Council resolution was notified in accordance with the Ryde DCP 2014 on 13 July 2015. As a result, 67 submissions were received – 14 objecting and 53 letters in support.

<u>Submissions of Objection</u>

A. Acoustic Impacts.
Concerns are raised that the proposal will result in unacceptable noise impacts associated with the use of the playing fields for sporting activities in the evening.

ITEM 2 (continued)

Concerns have also been raised over the adequacy of the new acoustic report submitted as part of the additional information. The concerns relating to the adequacy of the new acoustic report are covered in a submission from the Morrison Bay Park Community Action Group (MBPCAG) that includes a report prepared by The Acoustic Group.

Assessment Officer's Comment: The original acoustic report[1] submitted with the DA predicted the noise levels at 84% of the measurement locations will exceed the noise assessment objective of background plus 10dB. In particular, the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park which are closest to the sports fields were predicted to be between 12dB(A) and 14dB(A) over the noise assessment objective.

Based on the noise level predictions contained within the originally submitted acoustic report, it was considered that the acoustic impacts associated with the proposal would have a significant and direct impact on the amenity of those residential areas surrounding Morrison Bay Park.

However, the original planning assessment also had concerns over the adequacy of the originally submitted acoustic report, particular in the manner in which the background noise measurements were undertaken, and the lack of adequate measurements undertaken to obtain a true reflection of the intended use of the illuminated sports fields.

As such, at their Ordinary Meeting on 10 February 2015, Council resolved to recommend a new acoustic report be prepared. On 6 July 2015, this new acoustic report[2] was submitted to Council for consideration.

Through a more detailed and representative assessment, the new acoustic report shows the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park which are closest to the sports fields are much lower, and only up to 4dB(A) over the noise assessment objective[3] in worst case match conditions (full 11 men per side game – i.e. 22 men on the field). During moderate training activities the proposal has been predicted to be within the noise assessment objective.

[1] The original acoustic report submitted with the DA was titled *Noise Assessment – Proposed Floodlighting* and was prepared by Acoustic Consulting Engineers dated June 2014.
[2] The new acoustic report submitted as part of the latest round of additional information is titled Morrison Bay Park, Lighting Development Application and has been prepared by Marshall Day Acoustics and is dated 6 July 2015.
[3] The noise assessment objective under the original acoustic assessment report was background plus 10dB. The noise objective under the new acoustic assessment report is outlined as 47-50dbA $L_{Aeq, 15min}$. This represents background plus 10db also.

ITEM 2 (continued)

Compared to the original acoustic assessment which predicted noise between 12dB(A) and 14dB(A) over the noise assessment objective, it is clear the proposal has a much lower noise impact than originally predicted.

This assessment report has included additional noise mitigation measures to further assist in reducing potential noise to those nearest adjoining residential areas. This is recommended by way of the conditions of consent that require preparation of a noise management policy, spectator exclusion zones closest to nearby residential areas, prohibition of the use of the additional training area for men's soccer games/matches, and prohibition of public address systems.

Through incorporation of the above noise mitigation measures, along with those mitigation measures contained within the new acoustic report, it is considered that noise from the sports field use can be satisfactorily limited to acceptable levels consistent with other noise generated from recently approved illuminated sports fields at Waterloo Park and Magdala Park.

As mentioned, submissions received have also questioned the adequacy of the new acoustic report prepared by Marshall Day Acoustics. In particular, this report utilising measurements taken from Meadowbank Park. It is acknowledged that a key criticism of the original acoustic report was that it did not include measurements of those age groups known to be louder, i.e. men's 11 per side teams. For this reason, it is understood that the new acoustic report undertook measurements at Meadowbank Park to capture measurements of a variety of activities, age groups and ability levels to determine a worst case scenario for Morrison Bay Park. Given the new acoustic report appears to have appropriately responded to Council's concerns in relation to the original report, it is therefore considered the report prepared by Marshall Day Acoustics is adequate in this regard.

Included with a submission from the Morrison Bay Park Community Action Group (MBPCAG) was a report prepared by The Acoustic Group that outlines criticisms of both the originally submitted acoustic report and new acoustic report relied upon by Council. The following provides consideration and response to the key criticisms outlined within the report from The Acoustic Group:

1. The proposal principally involves the extended use of existing playing fields during the winter months through installation of light poles and luminaries to two sports fields at Morrison Bay Park.

   Accordingly to obtain an understanding of how adjoining residences will be most affected during the winter months, it is considered appropriate that background noise modelling be undertaken during the winter season, which is April to August.

ITEM 2 (continued)

Comment: The originally submitted acoustic report undertook background noise monitoring during the month of October. This was considered to be unrepresentative of the time of year that the proposed development was principally going to occur. As such, at the Ordinary Meeting on 10 February 2015, Council resolved that a new acoustic report be prepared that better represents the nature of the proposed development.

The new acoustic report undertook background noise monitoring during the month of May, which coincides with the abovementioned winter season for which the proposal principally relates. In this regard, it is considered that the new acoustic report achieves the recommendation of Council that a report be prepared that better reflects the nature of the proposed development.

Accordingly, criticisms of the background noise monitoring being undertaken during the winter season in The Acoustic Group submission on behalf of the MBPCAG are not supported.

It is important to note that the Acoustic Group submission does not undertake any noise modelling to refute the data utilised in the new acoustic report, nor does it undertake any measurements of comparable sport training and social sport activities.

2. The Acoustic Group submission also raises criticism of both the original acoustic report and new acoustic report utilising a noise assessment objective/criteria of 10dB above background noise levels. This is despite both reports outlining that this is the appropriate criteria based on the provisions of the Environmental Protection Authority's (EPA) Industrial Noise Policy, and also other development control plans used in the wider Sydney region, i.e. Camden Council.

   Comment: Importantly it needs to be acknowledged that a noise assessment objective of background plus 10dB has recently been accepted by City of Ryde for comparable DA approvals at Waterloo Park and Magdala Park. In this regard, the criticism of the adopted noise assessment objective/criteria in the submitted acoustic reports by The Acoustic Group is not supported on this basis.

3. A third key criticism outlined within The Acoustic Group submission is that relating to a lack of consideration of the EPA's Noise Guide for Local Government (Noise Guide). A detailed assessment of the proposal against the provisions of the Noise Guide has been undertaken in ***Section 10*** of this report.

ITEM 2 (continued)

Comment: The results of the assessment against the noise guide conclude that the proposed development will not necessarily result in 'offensive noise' being generated from the prolonged use of the sports fields. This is primarily because the new acoustic report demonstrates that the loudness of the noise only exceeds the noise assessment objectives in worst case scenarios, which are to be infrequent, and not inconsistent with the existing noise that is typical for the area given the existing use of the sports fields.

Given the above, the objectors issues raised in relation to the acoustic impacts of the proposal have been appropriately considered.

Reference should be made to ***Section 10*** of this report for a complete assessment of the acoustic impacts of the proposed development that have been predicted through the new acoustic report submitted for assessment.

B. Light Spillage.

Concerns are raised again that the proposed lighting will cause loss of amenity to nearby dwellings through high levels of illumination and light spillage, and also on flora and fauna within the area.

Assessment Officer's Comment: It is noted that the additional information submitted to Council following the Ordinary Meeting on 10 February 2015 proposes no change to the lighting structures, their specifications or their use. As such, the original assessment of light spillage impacts associated with the development is considered to remain valid.

This original assessment concluded that based on the outcomes of the independently prepared Assessment and Recommendations report for New Floodlighting at Morrison Bay Park by GRA Electrical Engineers dated June 2014 and the Ecological Assessment Report prepared by NGH Environmental dated June 2014, the illumination impacts with the proposal are such that are likely to be acceptable to that of the surrounding built and natural environment.

This was principally because the proposal is able to comply with AS4282-1997 for the obtrusive effects of outdoor lighting.

Despite this, the following conditions have been recommended following information sought from light spill consultant that indicated the maximum level of lux could be further reduced by the installation of glare shields that can further reduce Lux levels between 2-3 Lux.

ITEM 2 (continued)

Glare Shields – *Glare shields are to be installed on all proposed light poles to help minimise the light spill associated with the proposal at neighbouring residential property boundaries.*

Curfew switches - *Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition below*

Based on the proposal being capable of meeting AS4282-1997, and also the additional mitigation measures provided through glare shields and curfew switches, the objectors concerns relating to light spill are considered to be satisfactorily addressed.

Reference should be made to ***Section 10(a)*** of this report for a more detailed assessment of the light spillage impacts of the proposed development on the built environment, and ***Section 10(b)*** of the report for an assessment of the light spillage impacts of the proposed development on the natural environment.

C. Traffic and Parking.

Concerns are raised that the additional hours of park usage created by the proposed lighting will see increased traffic congestion and parking demand.

Assessment Officer's Comment: It is noted that the additional information submitted to Council following the Ordinary Meeting on 10 February 2015 proposes no change to the scale or operational arrangements of the proposed sports field lighting DA. As such, the original assessment of traffic and parking impacts associated with the development is considered to remain valid.

The Traffic Impact Assessment report prepared by Bitzios Consulting dated 2 May 2014 acknowledges that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by their traffic monitoring.

Given the above, the proposal is considered to remain satisfactory with regard to traffic and parking implications the objectors concerns in relation to this matter are not supported.

ITEM 2 (continued)

D. Loss of park amenity.

Concerns have been raised that by installing lighting to the park exclusive use and privilege will be given to the sporting clubs until late in the evening, leaving little time for nearby residents to use and enjoy the park. Concerns are also raised in relation to the capacity of existing amenities blocks within the park to accommodate an expanded use of the park.

Assessment Officer's Comment: Again it is noted that the additional information submitted to Council following the Ordinary Meeting on 10 February 2015 proposes no change to the scale or operational arrangements of the proposed sports field lighting DA. As such, the original assessment of park amenity impacts associated with the development is considered to remain valid.

It is noted that the outcome of this original assessment was that the potential park amenity impacts are considered balanced between those active and passive users of the park.

This is essentially because active users of the park will be able to take advantage of the extended use of sports fields for training and social sport games, whilst passive uses are not considered to be interrupted as the proposal only relates to a portion of the park in the night-time period when this part of the park may not have been utilised otherwise. Additionally the proposed development does not include any changes to the existing picnic areas, cycling, walking, playground, fitness and BBQ areas of the park that may still be used by passive users.

Given the above, it is considered that a fair balance is maintained to both passive and active users of the park as a result of the proposal.

With regard to the capacity of the existing amenity blocks, it is noted that the proposal does not necessarily expand the use of the park, but rather extend the operation hours of the sports fields. As such, there is not considered to be a significant increase in the demand for the amenity block.

Accordingly, the objectors issue on loss of park amenity is not supported in this instance.

F Impact on the Park Ecology

Concerns have been raised in the submissions on the adequacy of the submitted Ecological Assessment and the impacts of the proposed sports field lighting on bird and animal life in the park. Concerns have also been raised in relation to the disturbance of Acid Sulfate Soils and the potential impact on migratory birds.

ITEM 2 (continued)

Assessment Officer's Comment: The original Ecological Assessment was claimed by objectors to inadequately assess the impacts of the proposal on migratory birds known to be present at Morrison Bay Park. In this regard, at their Ordinary Meeting of Council on 10 February 2015, it was resolved that the determination of the DA be deferred pending the submission of an updated Ecological Assessment that better takes these matters into account.

A revised Ecological Assessment prepared by NGH Environmental and dated 27 May 2015 has been submitted for assessment. As part of the revised report, the consultant undertook an additional site inspection at low tide on 26 May 2015 for the purpose of assessing migratory wading birds, and for identifying any habitat available for other threatened fauna species such as the Grey-headed Flying-foxes and Powerful Owls.

The revised Ecological Assessment outlines that some species of migratory wading birds, as well as Grey-headed Flying-foxes and Powerful Owls utilise the site. However the assessment concludes that no significant impacts on these identified species are considered likely to occur due to:

- The small number of individuals that are likely to utilise available habitat;
- The absence of any impact on diurnal wading bird foraging habitat;
- The small area of foraging or roosting habitat present in the park and surrounds; and
- The temporal scale of any potential ongoing disturbance due to light spill.

A number of recommendations have been made in the revised Ecological Assessment to both reduce the potential for any impacts on the identified species, and maintain or improve all the biodiversity values currently present in Morrison Bay Park. These recommendations have been reviewed, and are considered appropriate. For this reason, it is considered the Ecological Assessment recommendations should form part of the consent, if approved. See condition 27.

It is acknowledged that the Ecological Assessment does not provide a discussion on the recently released Parramatta River Catchment Native Habitats and Fauna Report prepared by Applied Ecology for the Parramatta River Catchment Group, however given the above findings of the Ecological Assessment, it is satisfied that the proposal will have no significant impact on the identified species considered likely to occur, subject to the adoption of the recommendations within the Ecological Assessment.

At their Ordinary Meeting of Council on 10 February 2015, it was also resolved by Council that an Acid Sulphate Soil Management Plan be submitted given the site's location within a Class 2 ASS soils area.

ITEM 2 (continued)

An Acid Sulphate Soil Management Plan (the Plan) has been prepared by NGH Environmental and submitted to Council for consideration. The Plan has been prepared in accordance with the NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC – P04). In this regard it is generally considered to be satisfactory.

However, it is acknowledged that the Plan submitted remains unsigned and in draft format. In this regard, it is considered appropriate that the following condition of consent be imposed to ensure the Plan is both signed and finalised prior to the issue of construction certificate. This is to ensure that the final technical detail and design is undertaken and adopted as a final document prior to the issue of a Construction Certificate for the development:

Acid Sulphate Soil Management Plan. *The Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental and dated 8 May 2015 is to be finalised and submitted to the principal certifying authority for approval prior to the issue of* ***Construction Certificate***.

Reference should be made to ***Section 10(b)*** of this report for a complete assessment of the impacts on the natural of the proposed development on Morrison Bay Park.

8. Clause 4.6 Ryde LEP 2010 objection required?

None required

9. Policy Implications

Relevant Provisions of Environmental Planning Instruments etc:

(a) Ryde Local Environmental Plan 2014

Ryde LEP 2014 commenced on 12 September 2014 as the new environmental planning instrument applicable to the City of Ryde. In relation to existing applications un-determined as of 12 September 2014, this instrument contains a Savings Provision (clause 1.8A), which states:

> *If a development application has been made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application must be determined as if this Plan had not commenced.*

ITEM 2 (continued)

The DA was made (lodged) on 4 July 2014, before the commencement of the Ryde LEP 2014, and so it must be determined as if Ryde LEP 2014 had not commenced. What this means is that the now-gazetted Ryde LEP 2014 is treated as a draft instrument.

The details of the proposed development in relation to the Ryde LEP 2014 are as follows:

- the subject site remains within the 'RE1 Public Recreation' land use zone;
- the proposed development remains as development which is permitted with consent under the RE1 Public Recreation land use zone;
- based on the additional information submitted following the Ordinary meeting on Council on 10 February 2015, the proposed development is now considered to be consistent with all of the objectives of the RE1 Public Recreation zone;
- the provisions of clause 5.9 – Preservation of Trees or Vegetation of the Ryde LEP 2014 are considered to be consistent with the provisions of clause 5.9 – Preservation of Trees or Vegetation of the Ryde LEP 2010.

(b) Ryde Local Environmental Plan 2010

Zoning

Under the Ryde LEP 2010 the zoning of the subject site is RE1 – Public Recreation. Within this zoning, the proposed development is permissible with Council's development consent.

Zone Objectives

The objectives of the RE1 zone under the Ryde LEP 2010 set out the purpose of the zone and reflect the strategic land use direction for land. These objectives for the RE1 zone are listed below, followed by an assessment of how the proposed development performs against each of these objectives:

- *To enable land to be used for public open space or recreational purposes.*

Assessment Officer's Comment: The proposed development will further enable Morrison Bay Park to be used for public open space and recreational purposes by way of increasing its usability into the evening period where previously lack of lighting did not allow for extended use of the park for organised sport. In this regard it can be considered that the proposed development would be consistent with the objective of enabling the land within Morrison Bay Park to be used for recreation purposes, however there is a need also to consider what impacts the extended proposed sports field usage will have on other community users of the park. This is explored further below.

ITEM 2 (continued)

- *To provide a range of recreational settings and activities and compatible land uses.*

Assessment Officer's Comment: As outlined on the City of Ryde website, and as observed during site visits undertaken both during the day and in the early evening, Morrison Bay Park provides for a range of recreational settings and activities both in a passive and active environment including:

- Picnic areas
- BBQ;
- Playground
- Sports field
- Cricket Nets
- Cycle path
- Walking track/path
- Fitness circuit
- Natural Area

As the proposed development is limited to the installation of sports field lighting, and subsequent illumination of the sports field in the early-to-mid evening period for certain times, the proposal is not considered to significantly reduce, or negatively impact on the existing range of recreational settings and activities within Morrison Bay Park.

Given the proposed development will effectively enable the extended use of the sports field within Morrison Bay Park into the mid-evening period at certain times, and given the outcome of the proposal will enable the sports field to comply with Australian Standards for ball physical training and local football competition purposes (AS 2560.2.3 – 2007), it is considered that the proposal will enhance the range of activities and recreational uses of Morrison Bay Park

It is now considered that the proposed development satisfactorily maintains Morrison Bay Park's compatibility with surrounding residential land uses. This is because the impacts on the built environment, more specifically its direct acoustic impacts on surrounding residential properties, have been proven to be satisfactory (subject to conditions) through the additional information submitted following Council's Ordinary Meeting on 10 February 2015.

- *To protect and enhance the natural environment for recreational purposes.*

Assessment Officer's Comment: No vegetation is proposed to be removed as part of the proposed development. As such impacts on floristic components of the natural environment are considered to be minimal.

ITEM 2 (continued)

As detailed later in this report under the assessment of the proposal's impacts on the natural environment, a revised Ecological Assessment has been submitted for assessment which identifies recommendations to both reduce the potential for any impacts on natural fauna assets and the unique environmental qualities present in Morrison Bay Park. The recommendations are intended to form part of the conditions of consent for the proposal.

Additionally, an Acid Sulphate Soil Management Plan has now been submitted to Council which has been assessed as satisfactory, subject to conditions.

Accordingly having regard to the above it is considered that the proposal has an ability to satisfactorily protect and enhance the natural environment for recreational purposes.

- *To provide adequate open space areas to meet the existing and future needs of the residents of Ryde.*

Assessment Officer's Comment: As outlined in the Statement of Environmental Effects (SEE) submitted as part of the DA package of information, the proposed development comes as a result of an audit of existing lighting at local sports fields completed in 2008. The audit identified that many of the existing floodlit sports fields in the City of Ryde currently do not comply with the requirements as set out in the Australian Standard AS2560.23 for the safety of participants and level of visual tasks anticipated.

Accordingly, there is an identified need for the proposed development to meet the existing and future needs of those persons using the sports field, particularly as demographic information provided on the City of Ryde website indicates that the City of Ryde population forecast for 2013 is 110,157, and is forecast to grow to 135,508 by 2031.

Given the above population forecast and available details of sports clubs currently utilising the playing fields, it is considered that the proposal will help meet the existing and future needs of not only the residents of Ryde, but the wider region that utilise the facilities at Morrison Bay Park.

- *To protect and enhance the natural bushland in a way that enhances the quality of the bushland and facilitates public enjoyment of the bushland in a way that is compatible with its conservation.*

Assessment Officer's Comment: As previously mentioned in this section of the report, an independent Ecological Assessment was undertaken as part of the proposed development which notes that the vegetation surrounding the playing fields at Morrison Bay Park consists mainly of planted trees with scattered patches of remnant estuarine and coastal vegetation overstorey trees.

ITEM 2 (continued)

This can be evidenced on the aerial photograph contained in ***Figure 1*** of this Report, which shows the scattered patches of vegetation around the park boundaries as well as on the opposite side of Frances Road (partly Zoned E2 Environmental Conservation).

Given the small footprint of the proposed works that are confined to existing cleared areas, it is considered that the proposed development is unlikely to significantly impact on areas which constitute natural bushland.

Having regard to the above-listed objectives of the RE1 zone under the Ryde LEP 2010, and the Assessment Officer's Comments, it is considered that the proposed development is consistent with the objectives of the zone. This is because the additional information submitted to Council following the Ordinary Meeting on 10 February 2015 demonstrates that the adverse impacts of the proposed development are significantly less that predicted under the original consulting reports submitted in support of the proposal.

Accordingly it is considered that the proposed development can achieve all the strategic land use directions for the zone, and is therefore supported, subject to the imposition of the recommended conditions of consent.

Mandatory Requirements

The following mandatory provisions under Ryde LEP 2010 apply to the development:

Clause 5.9 – Preservation of trees or vegetation. The objective of clause 5.9 of the Ryde LEP 2010 is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.

Specifically, this clause states that a person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:

a) development consent, or
b) a permit granted by the Council.

The Part 9.6 Tree Preservation of the Ryde DCP 2010 would apply to trees that form part of Morrison Bay Park and its curtilage areas. Although it is acknowledged that the proposed development does not propose to ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation, it is considered that there is a responsibility to consider the impact of the proposed development on such vegetation given the objectives of this clause.

ITEM 2 (continued)

In this regard, reference is again made to the updated Ecological Assessment submitted as part of the revised package of information for the subject DA. The updated Ecological Assessment concludes no significant impacts on (identified species) are considered likely to occur.

Given the above, it is considered that the proposed development is consistent with the objectives of clause 5.9 of the Ryde LEP 2010, and also in compliances with the provisions of this clause.

Clause 6.1 Acid Sulfate Soils

The objective of this clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

As identified on the Acid Sulfate Soil map, Morrison Bay Park is identified as Class 2. This means that pursuant to Subclause (2)

(2) Development consent is required for the carrying out of works described in the Table to this subclause on land shown on the Acid Sulfate Soils Map as being of the class specified for those works.

Class 2 - Works below the natural ground surface. Works by which the watertable is likely to be lowered

It is noted that Subclause (3) states

(3) Development consent must not be granted under this clause for the carrying out of works unless an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been provided to the consent authority.

As part of the additional information submitted to Council following the Ordinary Meeting on 10 February 2015, an Acid Sulphate Soil Management Plan (the Plan) prepared by NGH Environmental dated 8 May 2015 has been submitted.

However, it is acknowledged that the Plan submitted remains unsigned and in draft format. In this regard, it is considered appropriate that the following condition of consent be imposed to ensure the Plan is both signed and finalised prior to the issue of construction certificate:

> ***Acid Sulphate Soil Management Plan.*** *The Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental and dated 8 May 2015 is to be finalised and submitted to the principal certifying authority for approval prior to the issue of* ***Construction Certificate****.*

ITEM 2 (continued)

(b) Relevant State Environmental Planning Policies (SEPPs)

State and Sydney Regional Environmental Planning Policies

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005:

The SREP (Sydney Harbour Catchment) applies to the proposed development as it is located on land within the Sydney Harbour Catchment.

The subject site is located within a 'Foreshore and Waterways Area' (as demonstrated in ***Figure 2***). The following planning principles (under Part 2 of the SREP) are relevant to the proposed development.

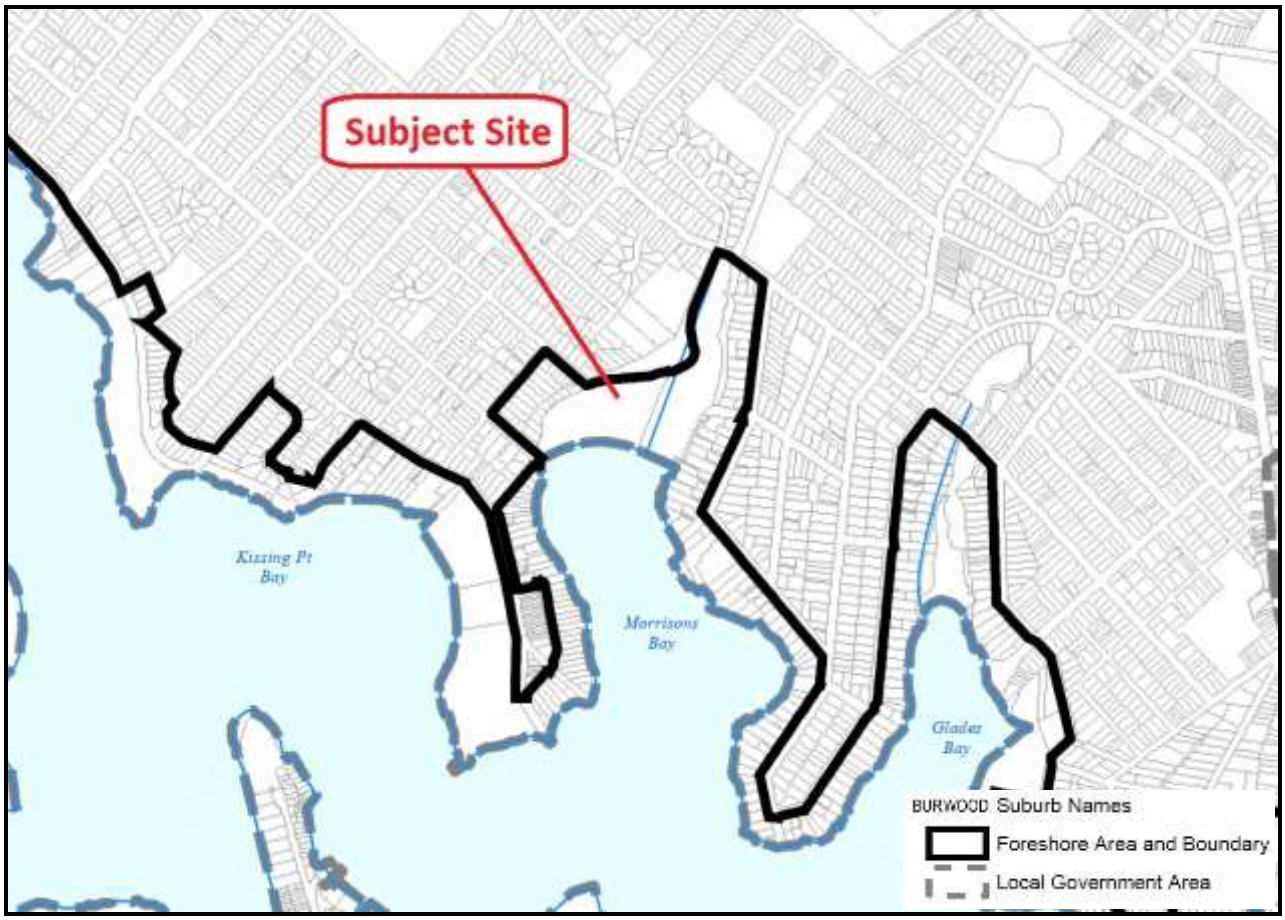

Figure 2: 'Foreshore and Waterways Area' map extract from SREP (Sydney Harbour Catchment) 2005. Subject Site is located within the foreshore area

Planning principles – Foreshores and Waterways Area

- *development should protect, maintain and enhance the natural assets and unique environmental qualities of Sydney Harbour and its islands and foreshores,*

ITEM 2 (continued)

Assessment Officer's Comment: No vegetation is proposed to be removed as part of the proposed development. As such impacts on flora are considered to be minimal.

As detailed later in this report under the assessment of the proposal's impacts on the natural environment, a revised Ecological Assessment has been submitted for assessment which identifies recommendations to both reduce the potential for any impacts on natural fauna assets and the unique environmental qualities present in Morrison Bay Park. These recommendations have been reviewed, and are considered appropriate. For this reason, it is considered the Ecological Assessment should form part of the consent, if approved.

Accordingly having regard to the above it is considered that the impacts associated with the proposed development on the natural environment are satisfactory, and can be mitigated by way of conditions of consent.

- *public access to and along the foreshore should be increased, maintained and improved, while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,*

  Assessment Officer's Comment: The proposed development is not considered to impact on public access to and along the foreshore. Access to the foreshore is maintained via an existing shared pedestrian and cycle path which connects Morrison Road to Jetty Road. In addition it is noted that although the floodlights will mean access may be restricted at times through Fields 1 and 2, the foreshore will remain accessible from other points within Morrison Bay Park. As no change in access is proposed to the foreshore as part of the originally submitted DA or the subsequent additional information, it is not considered that the existing access arrangements will impact on the watercourse, wetlands, riparian land and remnant vegetation.

- *access to and from the waterways should be increased, maintained and improved for public recreational purposes (such as swimming, fishing and boating), while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,*

  Assessment Officer's Comment: As noted above the proposed development is not considered to impact on public access to and along the foreshore.

- *development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores,*

ITEM 2 (continued)

Assessment Officer's Comment: The assessment has taken into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita.

It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

It is noted that the additional information submitted to Council following Council's Ordinary Meeting earlier this year does not propose to change any aspects of the proposal that would lead to a change in the visual impact of the proposal.

- *adequate provision should be made for the retention of foreshore land to meet existing and future demand for working harbour uses,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposal is not anticipated to impact on working harbour uses.

- *public access along foreshore land should be provided on land used for industrial or commercial maritime purposes where such access does not interfere with the use of the land for those purposes,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposals is not considered to interfere with industrial or commercial uses.

- *The use of foreshore land adjacent to land used for industrial or commercial maritime purposes should be compatible with those purposes,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposals is not considered to interfere with industrial or commercial uses.

ITEM 2 (continued)

- *water-based public transport (such as ferries) should be encouraged to link with land-based public transport (such as buses and trains) at appropriate public spaces along the waterfront,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposal is not considered to influence public transport.

- *the provision and use of public boating facilities along the waterfront should be encouraged.*

  Assessment Officer's Comment: The proposed development is not likely to impact on the provision and use of existing moorings within Morrison Bay.

(c) Any draft LEP

None relevant.

(d) The provisions of any development control plan applying to the land

Ryde Development Control Plan (DCP) 2014.

Ryde DCP 2014 does not contain any specific development controls applicable to the proposed development.

Sydney Harbour Foreshores and Waterways Area DCP 2005:

This DCP was made by the State Government to support the provisions of Sydney Regional Environmental Plan (Sydney Harbour Foreshores) 2005, and therefore it applies to the subject proposal.

The following provides an assessment of the proposal against the provisions of the Sydney harbour Foreshores and Waterways Area DCP 2005.

Part 2 Ecological Assessment

A review of the ecological communities and landscape character map at ***Figure 3*** below has revealed that the predominant terrestrial community within Morrison Bay Park to be grassland and the predominant aquatic community to be mudflats.

Grasslands are identified within this DCP as having low conservation value and mudflats are identified to have medium conservation value.

ITEM 2 (continued)

Figure 3: Site Located within Terrestrial Ecological Communities of Low Conservation Value

Morrison Bay Park is identified on the above map to have a predominantly grassland terrestrial ecological community. The statement of intent and performance criteria from the DCP, along with an assessment officer comment is detailed below.

Vegetation Protection *-To conserve and enhance vegetation.*

- *Mature trees containing hollows are preserved where feasible.*
- *Natural watercourses and any special natural features such as cliff faces and rock outcrops are protected.*
- *The incremental and cumulative effects of development are considered having regard to the above performance criteria.*

Assessment Officer Comment: Although no vegetation is planned to be removed to accommodate the proposed flood lights, an Ecological Assessment has been prepared and submitted with the DA which has determined that the impacts of the proposed development on vegetation is acceptable. Recommendations for safeguards and management measures to minimise environmental damage during the proposed works have been included in the Ecological Assessment.

ITEM 2 (continued)

Reduce Predation Pressure *- To minimise the risk of predation on native fauna species by domestic pets*

- *Fencing to contain domestic pets is provided*

Assessment Officer Comment: Morrison Bay Park is not identified as a specific 'Off Leash Area' on the Ryde Council Website. However, it is noted that the originally submitted Ecological Assessment reported that during a site inspection:

> *"at one point, two domestic dogs were observed to run out onto the mudflat and chase away the foraging birds."*

Whilst this incident it noted, signage indicating dogs must be on leads is shown at the commencement of the shared footpath and it is not considered that the proposed development will significantly increase the risk of predation on native fauna species by domestic pets.

Soil Conservation and Pollution Control *- To minimise impacts associated with soil erosion, water siltation and pollution.*

- *Measures to minimise soil erosion and siltation during construction and following completion of development are implemented.*
- *Controls are implemented to prevent pollutants from entering the waterway.*
- *Any pollutants and any increase in suspended solids is temporary and does not exceed the current pollution and range of turbidity.*

Assessment Officer Comment: It is noted that the proposed development is on land identified as Class 2 Acid Sulphate Soils. As part of the originally submitted DA package an Acid Sulphate Soil Management Plan was not submitted, despite this being a statutory requirement pursuant to clause 6.1 of Ryde LEP 2010.

At the Ordinary Meeting on 10 February 2015, Council resolved to defer determination of the DA until which time a range of additional information had been submitted to Council, including an Acid Sulphate Soil Management Plan.

An Acid Sulphate Soil Management Plan (the Plan) has been prepared by NGH Environmental and submitted to Council for consideration. The Plan has been prepared in accordance with the NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC – P04). In this regard it is generally considered to be satisfactory.

ITEM 2 (continued)

However, it is acknowledged that the Plan submitted remains unsigned and in draft format. In this regard, it is considered appropriate that the following condition of consent be imposed to ensure the Plan is both signed and finalised prior to the issue of construction certificate:

Acid Sulphate Soil Management Plan. *The Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental and dated 8 May 2015 is to be finalised and submitted to the principal certifying authority for approval prior to the issue of* ***Construction Certificate***.

Aquatic Ecological Communities of Medium Conservation Value

The waterway adjacent to Morrison Bay Park is identified on the above map to have a predominantly mudflat aquatic ecological community which are identified to have a medium conservation value. The statement of intent and performance criteria along with an assessment officer comment are detailed below.

Shading *To minimise impacts on communities from shading.*

- *Shading of communities is not increased to an extent that would harm flora and fauna.*
- *Food sources for grazing organisms are protected.*
- *Light penetration is not reduced so that algal growth in the intertidal zones is protected.*

Assessment Officer Comment: It is not considered that the proposed light poles will significantly overshadow the adjacent mudflat ecological community during daylight hours. As shown in the images of the proposed development contained in the original assessment report from earlier in the year, only two (2) of the eight (8) poles are located directly adjacent to the nearby mudflats. These proposed light poles are relatively narrow in structure and thus likely to result in minimal overshadowing.

Reclamation *To minimise the effects from reclamation where it provides the optimum environmental outcome.*

- *Reclamation mitigation measures outlined in the NSW Fisheries Department's Estuarine Habitat Management Guidelines, Section 3.1— Reclamation and Dredging are to be followed and the applicant will need to demonstrate that the proposal will not adversely affect beach formation.*
- *Harmful contaminants will not be disturbed, or only when this will not adversely affect birds, fish and invertebrates.*

Assessment Officer Comment: No reclamation is proposed.

ITEM 2 (continued)

Urban Run-off *To minimise the effects from urban run-off.*

Appropriate on-site control measures are to be implemented to ensure that:

- *pollutants are not transferred into the intertidal zone;*
- *the proposal will not increase nutrient levels in the intertidal zone; and*
- *any increase in suspended solids (turbidity) is temporary and does not exceed the current range of turbidity.*

Assessment Officer Comment: The increased use of the park as a result of the proposed development may lead to an increase in urban runoff and litter into both Morrisons Bay Canal and Morrison Bay. However this is considered to be satisfactorily addressed by Council's Plan of Management for Morrison Bay Park.

Dredging *To minimise the effects from dredging.*

- Mitigation measures outlined in the NSW Fisheries Department's Estuarine Habitat Management Guidelines, Section 3.1—Reclamation and Dredging are to be followed

Assessment Officer Comment: No dredging is proposed.

Landscape Area 14

As shown on the Landscape Character Map at ***Figure 3***, Morrisons Bay is identified to be within Landscape Area 14. The performance criteria for Landscape Area 14 are identified below along with an Assessment Officer comment.

iii. Performance Criteria
Any development within these areas is to satisfy the following criteria:

- *consideration is given to the cumulative and incremental effects of further development along the foreshore and to preserving the remaining special features;*

  Assessment Officer Comment: The original assessment report presented at the Ordinary Meeting of Council on 10 February 2015 undertook a detailed assessment that took into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita.

ITEM 2 (continued)

This assessment determined that the visual impact associated with the proposal was not beyond that of other foreshore development in Sydney Harbour, and considered to be within acceptable levels when looking at the bulk and scale of the structures and the illumination effects of the lighting.

Given the additional information submitted to Council proposed no change to the lighting structures, their level of illumination, or use, it is considered the original assessment remains valid, along with the above conclusions.

- *development is to avoid substantial impact on the landscape qualities of the foreshore and minimise the removal of natural foreshore vegetation, radical alteration of natural ground levels, the dominance of structures protruding from rock walls or ledges or the erection of sea walls, retaining walls or terraces;*

  Assessment Officer Comment: Refer above, whilst it is noted that no vegetation is proposed to be removed it is considered that the proposed sports field lighting will have an acceptable impact on the visual landscape qualities of the Morrison Bay foreshore, and adjacent waterways during the hours of operation.

- *landscaping is carried out between buildings to soften the built environment; and existing ridgeline vegetation and its dominance as the backdrop to the waterway, is retained.*

  Assessment Officer Comment: The proposed sports field lighting will not impact on existing ridgeline vegetation, as noted above no vegetation is proposed to be removed.

Morrison Bay Park Plan of Management 2009

4.4 Management Objectives

4.4.1 Recreation Objectives

- Maintain the use of the Park as a District level sporting facility.
- To design and plan the future of the Park as a valued recreational asset for the local community.
- To ensure future sporting uses are compatible with existing uses, carrying capacity of facilities and settings and provides equitable access for both mens and womens sporting groups.
- To minimise intensification of use which has impacts on park users and the local community.
- Encourage and facilitate recreational pursuits for the local community as well as visitors to the area.

ITEM 2 (continued)

- Provide for passive recreation activities and for the casual playing of games for individuals and groups.
- Manage the recreational activities in the Park and ensure minimal impact on the local residential population.

Assessment Officer Comment: Whilst it is noted that the proposed sports field lighting maintains the use of the park as a district level sporting facility it is noted that the objectives require the future sporting uses to be compatible with existing uses and carrying capacity of facilities. In addition it is noted that the objectives specifically state to minimise intensification of use where this has impacts on park users and the local community and to manage the recreational activities to ensure minimal impact on the local residential population.

The additional information that has been submitted to Council now demonstrates that the proposed sports field lighting will have a much smaller acoustic amenity impact than that originally predicted. This is discussed at length within the ***Built Environment*** section of this report. Accordingly it is considered that the proposed sports field lighting is consistent with the above recreational objectives contained in the Morrison Bay Park Plan of Management.

4.4.2 Open Space and Landscape Objectives

- Define parkland boundary with suitable landscape or paving treatments.
- Reinforce the visibility of the major Park entrances through landscape and signage.
- Protect and where possible enhance viewing opportunities within the Park and towards Parramatta River.
- Provide opportunities for socialising and picnicking.
- Improve park lighting to accommodate evening walking and informal use of the Park.
- Review placement and upgrade furniture and fixtures throughout the Park to coincide with the City of Ryde open space furniture palette.
- Review placement and upgrade furniture and fixtures throughout the Park to improve spectator and player amenity.
- Provide opportunities to experience peace and quiet in the Park.

Assessment Officer Comment: It is considered that the majority of the above objectives are not impacted upon by the proposed sports field lighting.

4.4.3 Environmental Objectives

- Increase awareness and understanding of natural area significance.
- Ensure the protection of natural areas through the use of fences and barriers.
- Ensure the maintenance of the sporting surfaces does not have any detrimental impact on the surrounding natural areas.

ITEM 2 (continued)

- Provide visual and physical access to the River.
- Develop areas to enjoy the River and parks settings.
- Conserve biodiversity and ecosystem functioning for the areas contributing to the biodiversity of the River environment.

Assessment Officer Comment: The proposed sports field lighting has been assessed as having an acceptable visual impact on the Sydney Harbour/Parramatta River foreshore. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

No changes to this arrangement are proposed within the additional information submitted.

4.4.4 Cultural Objectives

- Provide a range of opportunities for social and cultural activities for all age groups in a variety of settings.
- Indigenous and non-indigenous heritage to be identified, conserved and interpreted as appropriate.
- Provide for a range of sporting opportunities that respond to the social and cultural needs of a multicultural society.

Assessment Officer Comment: It is not considered that the proposed sports field lighting hinders the achievements of these objectives. This is because the proposed sports field lighting will enable the continuation of the existing sporting cultural activities and social gathering of people at Morrison Bay Park, and as such reinforce the importance of the park and associated sports fields as a regional asset to the community.

No changes to this arrangement are proposed within the additional information submitted.

4.4.5 Access and Linkage Objectives

- Provide adequate parking for vehicles associated with organised sports while maintaining the amenity of the local area for residents.
- Ensure equitable and easy access to and within Morrison Bay Park for all ages and abilities through a review of all entrances and paths within the Park.
- Manage access to the Park by private vehicles through improvement to vehicle parking areas.
- Improved pedestrian safety.

ITEM 2 (continued)

- Enhance connection to public transport to the Park and reduce the dependency on private vehicles to access Morrison Bay Park.
- Establish links with other surrounding foreshore parks, recreation areas, residential areas and shopping areas.
- Upgrade paths and create a path hierarchy within the Park.
- Continue the implementation of the Ryde River Walk Masterplan.
- Improve facilities for bicycles.

Assessment Officer Comment: The prolonged use of the sports fields at Morrison Bay Park will result in additional vehicular activity in the surrounding streets and car parks. The Traffic Impact Assessment Report prepared by Bitzios Consulting submitted with the subject DA has concluded that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly, the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by traffic monitoring.

As has been discussed within the response to the objector's acoustic concerns, additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area. The original acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

Given no change to the proposed development is included within the additional information submitted, the proposal is considered to remain satisfactory with regard to impacts on access and linkages to Morrison Bay Park.

10. Likely impacts of the Development

(a) Built Environment

The original assessment report for the subject DA that was presented at the Ordinary Meeting on 10 February 2015 includes a comprehensive assessment of the envisaged impacts of the proposal on aspects of the built and natural environment. Where necessary the following updates this assessment by taking into consideration the additional information that has been submitted to Council, namely the following:

- An Acoustic Report prepared by Marshall Day Acoustics, dated 6 July 2015
- An updated Ecological Assessment prepared by NGH Environmental, dated 27 May 2015;
- An Acid Sulphate Soil Management Plan prepared by NGH Environmental, dated 8 May 2015.

ITEM 2 (continued)

Built Environment

Light Spillage

A comprehensive assessment of the proposed lighting, both from a light spillage and visual impact perspective, was undertaken as part of the original assessment report prepared earlier this year. This assessment considered the impacts not only on adjoining residents, but also the wider area that falls within the visual catchment of Morrison Bay Park.

The assessment identified that with a maximum level of 7.56 Lux at the property boundary of the nearby residential development, the proposed development results in less than the maximum standard outlined in AS4282-1997 for the obtrusive effects of outdoor lighting given the lighting will be restricted to 9:30pm Monday to Thursday during the winter season, and until 9pm during the summer season. In addition it was noted from the first round of additional information sought from light spill consultant that this maximum level of lux could be further reduced by the installation of glare shields that can further reduce Lux levels between 2-3 Lux.

As such the following conditions were recommended:

> **Glare Shields** – *Glare shields are to be installed on all proposed light poles to help minimise the light spill associated with the proposal at neighbouring residential property boundaries.*
>
> **Curfew switches** - *Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition below*

The detailed assessment on the visual impact of the proposal also considered the existing visual outlook to park at night, and the visual qualities of Sydney Harbour/Parramatta River are satisfactorily protected in accordance with the Sydney Harbour Foreshores SREP.

The additional information submitted to Council following Council's Ordinary Meeting on 10 February 2015 does not result in any changes to the location, specifications or use of the proposed lighting, and as such, the conclusions of the earlier lighting assessment are considered to remain valid.

For this reason, the proposal remains supportable from a light impact perspective, subject to the imposition of the recommended conditions.

ITEM 2 (continued)

Acoustic Impacts

The original acoustic report[4] submitted with the DA predicted the noise levels at 84% of the measurement locations will exceed the noise assessment objective of background plus 10dB. In particular, the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park which are closest to the sports fields were predicted to be between 12dB(A) and 14dB(A) over the noise assessment objective.

Based on the noise level predictions contained within the originally submitted acoustic report, it considered that the acoustic impacts associated with the proposal would have a significant and direct impact on the amenity of those residential areas surrounding Morrison Bay Park.

However, the original planning assessment also had concerns over the adequacy of the originally submitted acoustic report. These concerns can be summarised as follows:

- The relevance of the background noise measurements taken as part of the original acoustic report, specifically the suitability of background noise levels measured during the summer months when the sports fields were operational for summer sport activity, and not the winter months when the proposed lighting is principally to occur; and
- Concerns were raised regarding the lack of adequate measurements undertaken to identify the noise generated from a variety of age groups and ability levels that are likely to use the illuminated sports fields. For example, worst case scenario measurements of those games and training activities known to be louder, i.e. full sized men's training and games with 22 persons on the field.

As covered in the ***Background*** section of this report, at its Ordinary Meeting of 10 February 2015, Council resolved to defer consideration of the proposal pending submission and consideration of a revised acoustic report which better addresses actual park operations associated with the proposed lighting to reflect the arrangements for the use of both fields.

As such, a new acoustic report[5] prepared by a different acoustic consultant has been submitted to Council for consideration.

[4] The original acoustic report submitted with the DA was titled *Noise Assessment – Proposed Floodlighting* and was prepared by Acoustic Consulting Engineers dated June 2014.
[5] The new acoustic report submitted as part of the latest round of additional information is titled Morrison Bay Park, Lighting Development Application and has been prepared by Marshall Day Acoustics and is dated 6 July 2015.

ITEM 2 (continued)

In response to the above concerns, the new acoustic report has undertaken the following as part of their assessment:

- Conducted new background noise measurements at three locations around the park deemed to be representative for a majority of adjoining residential receivers at a period of the year (20 May 2015 to 30 May 2015) more representative of winter usage when the proposed sports field lighting is to operate (i.e. April to August). Further, only the evening period has been presented in the new acoustic report as this is the time of day relevant to the operation of the floodlights in winter.
- Conducted measurements of training sessions at Meadowbank Park's sporting grounds that have existing floodlights and established evening soccer activities extending to 9:30pm. As part of the new acoustic report, the consultant visited Meadowbank Park on two occasions, being 14 April 2015 between 6pm and 9.30pm, and also 20 May 2015 between 6pm and 9.45pm. Measurements were made of a variety of activities, age groups and ability levels.
- The measurements focused on a worst case scenario of 22 men playing competitively with louder and more frequent shouting and the increased number of players. Measurements were taken at two positions 5m and 10m from the field's sideline.
- Observations made by the consultant confirmed that men's training generally constituted the loudest sessions.
- Coaching staff on-site at Meadowbank Park confirmed that the training sessions were well attended and constituted their larger and busier nights.

Having regard to the above, it is considered that the new acoustic report has addressed the above-mentioned concerns raised over the adequacy of the originally submitted acoustic report.

Through a more detailed and representative assessment, the new acoustic report demonstrates that the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park which are closest to the sports fields are much lower, and only up to 4dB(A) over the noise assessment objective[6] in worst case match conditions (full 11 men per side game – i.e. 22 men on the field). During moderate training activities the proposal has been predicted to be within the noise assessment objective.

Compared to the original acoustic assessment which predicted noise between 12dB(A) and 14dB(A) over the noise assessment objective, it is clear the proposal has a much lower noise impact than originally predicted.

[6] The noise assessment objective under the original acoustic assessment report was background plus 10dB. The noise objective under the new acoustic assessment report is outlined as 47-50dbA $L_{Aeq, 15min}$. This represents background plus 10db also.

ITEM 2 (continued)

Nevertheless, it is still acknowledged that in worst case scenarios, the proposal will exceed the noise assessment objective by 4dB(A). The new acoustic report outlines that the likelihood of this worst case scenario occurring is remote. This is because it is claimed that training on the fields will predominantly be of a moderate nature with different activities occurring on each field.

Given the proposal has been identified as exceeding the noise assessment objective by 4dB(A) in worst case scenarios, it is considered important to look more closely at this exceedance. Reference is therefore made to the Environment Protection Authority's Noise Guide for Local Government (Noise Guide), and in particular an assessment of what can be considered as 'offensive noise'. 'Offensive noise' is defined under the Protection of the Environment Operations Act 1997 as:

'Offensive noise' is defined in the dictionary of the POEO Act as noise:

(a) that, by reason of its level, nature, character or quality, or the time at which it is made, or any other circumstances:
  (i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or
  (ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or

(b) that is of a level, nature, character or quality prescribed by the regulations or that is made at a time, or in other circumstances, prescribed by the regulations.

Section 2.1.4 of the Noise Guide outlines how testing can be undertaken for offensive noise, in particular, it is necessary to consider a range of factors to determine whether the noise if offensive, including the following:

- the loudness of the noise, especially compared with other noise in the area
- the character of the noise
- the time and duration of the noise
- whether the noise is typical for the area
- how often the noise occurs
- the number of people affected by the noise.

The following looks at each of the above considerations in relation to the proposed development, and provides a comment based on the evidence outlined within the new acoustic report.

ITEM 2 (continued)

- Loudness of the noise

  Assessment Officer Comment: The new acoustic report outlines that the loudness of the noise associated with the proposed development is 4dB(A) over the noise assessment objective, however this only occurs in worst case scenarios where full 11 per side men's games are taking place on a the field nearest the residential areas on the eastern side of Morrison Bay Park. For other moderate training activities which are considered to be the predominant use of the fields, the new acoustic report demonstrates that compliance with the noise assessment objective can be met.

- Character of the noise

  Assessment Officer Comment: Given the recommended consent conditions will include a prohibition of all public address systems, amplified music and the like, it is considered that character of the noise will be mostly limited human voices, noise from kicking of the ball, and refer whistle blowing. This noise is already occurring at the park due to existing sporting activities and is considered to be prolonged as part of the proposed development, rather than increased.

  Given this noise is an existing characteristic of Morrison Bay Park, it is considered the noise is not out of character with the local area. For example, the noise is consistent with that from existing sports activities undertaken at the park, and not the introduction of a new foreign noise source to the area, such as industrial noise etc.

- Time and duration of the noise

  Assessment Officer Comment: The times of the noise are all to occur within the evening hours, and not extend into the night time period as covered under the Industrial Noise Policy.

  As outlined above, only the worst case scenario of full 11 per side men's games are predicted to exceed the noise management objective of background plus 10dB. The new acoustic report acknowledges that this is considered to be an infrequent occurrence as the principal purpose of the sports field use will be for training purposes, and also accommodate younger age groups which are claimed to be quieter. The new acoustic report indicates that in most scenarios the moderate level of activity on the site will mean that the noise assessment objective can be complied with.

ITEM 2 (continued)

- Is the noise typical for the area.

  Assessment Officer Comment: As covered above, the proposal is not expected to introduce any new noise sources to the area, but rather prolong the existing use of the sports fields. In this regard, it is considered that noise associated with sports training and social sport is characteristic of the area.

- How often does the noise occur.

  Assessment Officer Comment: Reference is made to description of the proposal earlier in this report for the proposed sports field usage times.

  However, only the worst case scenarios of full 11 per side men's games are predicted to exceed the noise management objective of background plus 10dB. The new acoustic report acknowledges that this is considered to be an infrequent occurrence as the principal purpose of the sports field use will be for training purposes of other age groups and also females which are claimed to be quieter than men's training/social sport games.

- Number of people affected by the noise.

  Assessment Officer Comment: As evidenced in the new acoustic report submitted as additional information, those people that will be most impacted upon by the proposed development are located in residences on the north-eastern side of Morrison Bay Park, and to a lesser extent the western side of Morrison Bay Park between Frances Road and Philip Road. These residences are within low density residential area, and primarily consist of single dwelling houses.

Given the above, it is considered that the proposed development will not necessarily result in offensive noise being generated from the prolonged use of the sports fields. This is primarily because the new acoustic report demonstrates that the loudness of the noise only exceeds the noise assessment objectives in worst case scenarios, which are to be infrequency, and not inconsistent with the existing noise that is typical for the area given the existing use of the sports fields.

However, further to the above comments it is considered that additional noise mitigation measures not considered within the new acoustic assessment could be utilised to further reduce potential noise to those nearest adjoining residential area. These are outlined below:

ITEM 2 (continued)

- Establishment of a roped off spectator exclusion zone around the eastern half of Field 2 and western half of Field 1 during full 11 per side men's soccer games/matches in the winter weekday season (refer to the air photo on the following page).
- Men's soccer games/matches to be prohibited in the additional training area to the west of Field 1.

Note: The above help ensure that potential spectator noise would be confined to those the half of each field that is furthest away from adjoining residential areas.

- Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
- Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
- A plan to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

In this regard, the following conditions of consent are recommended:

- **Noise Management Policy.** A noise management policy is to be prepared for all sporting organisations utilising the illuminated sports fields at Morrison Bay Park to adopt. The objective of this noise management policy is to minimise sounds emitted from the illuminated sports fields at Morrison Bay Park and minimise any adverse impacts on surrounding residents.

  The completed Noise Management Policy is to be submitted to Council's Group Manager Environment & Planning for approval prior to the illuminated use of the sports field, and shall incorporate the following matters.

  (a) Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
  (b) Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

ITEM 2 (continued)

- **Spectator exclusion zone.** Establishment of a roped off spectator exclusion zone from goalpost to goalpost around the eastern half of the sports field No.1 and western half of sports field No.2 during night soccer games/matches during the winter weekday season (refer ***Figure 4***)

- **Use of Additional Training Area.** Men's soccer games/matches are prohibited in the additional training area to the west of Field 1.

- **Prohibition on public address systems.** Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes.

Through incorporation of the above noise mitigation measures, along with those mitigation measures contained within the new acoustic report, it is considered that noise from the sports field use can be satisfactorily limited to acceptable levels consistent with other noise generated from recently approved illuminated sports fields at Waterloo Park and Magdala Park.

Figure 4 - Suggested spectator exclusion zones during soccer games/matches to be held in the winter season under lights during the week. Also noted is the 'Additional Training Area' to the west of Field 1 which is recommended for prohibition of men's soccer games/matches.
Traffic and Parking

ITEM 2 (continued)

A detailed assessment of the traffic and parking implications of the proposed development was undertaken as part of the original DA assessment report. Reference should be made to this report for details.

It is noted that the additional information submitted with the subject DA proposes no change to the nature of the proposal. Accordingly the originally submitted Traffic Impact Assessment (TIA) prepared by Bitzios Consulting dated 2 May 2013 is still relied upon.

The TIA acknowledges that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by their traffic monitoring.

Given the above, the proposal is considered to remain satisfactory with regard to traffic and parking implications.

Park Amenity

A detailed assessment of the implications to the amenity of Morrison Bay Park as a result of the proposed development was undertaken as part of the original DA assessment report. Reference should be made to this report for details.

However, it is noted that the outcome of this assessment was that the potential park amenity impacts are considered balanced between those active and passive users of the park.

This is essentially because active users of the park will be able to take advantage of the extended use of sports fields for training and social sport games, whilst passive uses are not considered to be interrupted as the proposal only relates to a portion of the park in the night-time period when this part of the park may not have been utilised otherwise. Additionally the proposed development does not include any changes to the existing picnic areas, cycling, walking, playground, fitness and BBQ areas of the park that may still be used by passive users.

ITEM 2 (continued)

(b) Natural Environment

Ecological Assessment

As part of the original notification of the proposal, a number of concerns were raised by objectors relating to the adequacy of the Ecological Assessment, particularly considering the protection status given to Migratory Wetland Birds under the Commonwealth Government's Environmental Protection and Biodiversity Conservation Act 1999 which were observed at Morrison Bay Park.

As such, at its Ordinary Meeting on 10 February 2015, Council resolved that an updated Ecological Assessment be prepared. This updated Ecological Assessment was to consider the issues raised by the objectors, particularly those relating to any impacts on Migratory Wetland Birds.

A revised Ecological Assessment prepared by NGH Environmental and dated 27 May 2015 has been submitted for assessment. As part of the revised report, the consultant undertook an additional site inspection at low tide on 26 May 2015 for the purpose of assessing migratory wading birds, and for identifying any habitat available for other threatened fauna species such as the Grey-headed Flying-foxes and Powerful Owls.

The revised Ecological Assessment outlines that some species of migratory wading birds, as well as Grey-headed Flying-foxes and Powerful Owls utilise the site. However the assessment concludes that no significant impacts on these identified species are considered likely to occur due to:

- The small number of individuals that are likely to utilise available habitat;
- The absence of any impact on diurnal wading bird foraging habitat;
- The small area of foraging or roosting habitat present in the park and surrounds; and
- The temporal scale of any potential ongoing disturbance due to light spill.

A number of recommendations have been made in the revised Ecological Assessment to both reduce the potential for any impacts on the identified species, and maintain or improve all the biodiversity values currently present in Morrison Bay Park. These recommendations have been reviewed, and are considered appropriate. For this reason, it is considered the Ecological Assessment should form part of the consent, if approved.

ITEM 2 (continued)

Acid Sulphate Soils

It is noted that the proposed development is on land identified as Class 2 Acid Sulphate Soils. As part of the originally submitted DA package an Acid Sulphate Soil Management Plan was not submitted, despite this being a statutory requirement pursuant to clause 6.1 of Ryde LEP 2010.

At the Ordinary Meeting on 10 February 2015, Council resolved to defer determination of the DA until which time a range of additional information had been submitted to Council, including an Acid Sulphate Soil Management Plan.

An Acid Sulphate Soil Management Plan (the Plan) has been prepared by NGH Environmental and submitted to Council for consideration. The Plan has been prepared in accordance with the NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC – P04). In this regard it is generally considered to be satisfactory.

However, it is acknowledged that the Plan submitted remains unsigned and in draft format. In this regard, it is considered appropriate that the following condition of consent be imposed to ensure the Plan is both signed and finalised prior to the issue of construction certificate:

> **Acid Sulphate Soil Management Plan.** *The Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental and dated 8 May 2015 is to be finalised and submitted to the principal certifying authority for approval prior to the issue of* ***Construction Certificate***.

11. Suitability of the site for the development

The proposed development is for the illumination of an existing sports field within Morrison Bay Park to enable the continued and expanded use of this existing facility primarily for sports training purposes.

As a result of the additional information which has now been submitted, the impacts of the proposed development are now better understood in terms of their influence on both aspects of the built and natural environment.

The revised assessment of the proposed development within this report demonstrates that the proposal can now satisfactorily comply with the relevant environmental planning instruments applying to the land, as well that of the objectives of site's RE1 zoning under both Ryde LEP 2010, and now Ryde LEP 2014.

Having regard to the above, it is considered that the subject site is suitable for the proposed development.

ITEM 2 (continued)

12. The Public Interest

As has been demonstrated within this report, the proposal development is now considered to be satisfactory with regard to its impacts on aspects of the natural and built environment.

Subject to conditions of consent that have been recommended in this report, the negative impacts of the proposal can be further mitigated so as to reduce their impact on the natural and built environment.

Given this, the social, economic and community benefits of the proposed development are considered strong enough to outweigh the negative impacts of the proposal.

The proposal is now considered to be satisfactorily with regard to the objectives of site's RE1 zoning under both Ryde LEP 2010, and now Ryde LEP 2014.

Given this, and the significant number of submissions received by Council in support of the DA, it is considered the proposal is in the public interest.

13. Consultation – Internal and External

Internal Referrals

Environmental Health Officers

The additional information was not referred to Council's Environmental Health Officer (EHO) as part of the updated assessment of the proposal.

This was because EHO generally found that the originally submitted proposal was satisfactory, subject to conditions of consent (which are included in the recommendation and summarised below):

- ***Hours of Operation*** *- The hours of operation are to be from 4.00 p.m. till 9.30 p.m. Monday to Thursday during the winter season (April to August) and the operating hours for the summer season (September to March) are to be 6.00 p.m. – 9.00 p.m. Monday to Thursday for social sport and training purposes only.*

- ***Curfew switches.*** *Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition below.*

ITEM 2 (continued)

- ***Light Spill*** *– The light spill at the adjoining residential boundaries to comply with the requirements of AS 4282 – Control of the obtrusive effects of outdoor lighting.*

- ***Light Spill*** *– An appropriately qualified and experienced lighting consultant to certify the installation of the proposed lighting design complies with the appropriate Australian Standards.*

- ***No public address system*** *- No amplification equipment (e.g. PA systems) to be used after 6.00 p.m. any night of the week.*

- ***Offensive noise*** *- The use of the premises must not cause the emission of 'offensive noise' as defined in the Protection of the Environment Operations Act 1997.*

- ***Noise from users*** *– Adequate signage is erected in the vehicles car parking area to encouraged spectators and participants to leave the premises quickly and quietly after training/games to mitigate possible nuisance noise.*

External Referrals

There have been no comments received from any external bodies.

14. Critical Dates

There are no critical dates or deadlines to be met.

15. Financial Impact

Adoption of the recommendations outlined in this report will have a financial impact for Council, however this is in accordance with previous resolutions including budget allocation for the sports field lighting that is the subject of this report.

16. Other Options

The proposal is now recommended for approval for the reasons discussed at length throughout this report.

If Council were still concerned over the impact of the proposal on adjoining residential areas, an alternative to adopting this recommendation for approval may be a recommendation to reduce the scope of the proposal to limit sports field lighting to Field 1 only. This would help reduce noise exposure to the adjacent dwellings on the eastern side of Morrison Bay Park that are closest to the sports fields.

ITEM 2 (continued)

The only other realistic alternative to the above options is refusal of the DA if the Council were concerned that the negative environmental impacts of the proposed development outweighed the benefits that will be delivered from the expanded use of the existing sports fields into the evening hours during the winter months, and to a lesser extend the summer season.

Draft Conditions for approval of the DA have been provided at **ATTACHED**.

17. Conclusion

It has been acknowledged throughout this assessment that the original assessment report undertaken earlier this year recommended that the DA be refused. This recommendation was based on the significant acoustic impact to the adjoining residential areas on the eastern side of Morrison Bay Park as a result of the prolonged sports field usage.

However, it was also acknowledged that the originally submitted acoustic report being relied upon did not accurately represent the true operational nature of the proposal.

In this regard, at its Ordinary Meeting on 10 February 2015, Council resolved to defer the determination of the DA until which time a new acoustic report could be prepared to more accurately assess the acoustic impact on the proposal.

The new acoustic report has undertaken a more representative assessment, and as such it is now evident the acoustic/noise impact from the prolonged usage of the sports fields is significantly less than originally predicted.

As a result, the proposal is now considered to be acceptable from an acoustic/noise impact perspective, subject to conditions.

Also at its Ordinary Meeting on 10 February 2015, Council resolved that an updated Ecological Assessment be prepared and submitted for consideration, along with an Acid Sulphate Soils Management Plan.

The updated Ecological Assessment was required to address community concern regarding impacts of the proposal of migratory birds. It is considered the updated report has now satisfactorily demonstrated that the proposal will have no significant impact on the identified species considered likely to occur on the site, subject to the adoption of the recommendations contained within this report.

An Acid Sulphate Soils Management Plan has been prepared by NGH Environmental and submitted to Council. The Plan has been prepared in accordance with the NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC – P04). In this regard it is generally considered to be satisfactory.

ITEM 2 (continued)

In this regard, the proposal and additional information has now been assessed against the heads of consideration of Section 79C of the Environmental Planning and Assessment Act 1979 and is considered to be acceptable for the reasons discussed throughout this report.

ITEM 2 (continued) **ATTACHMENT 1**

DRAFT CONDITIONS OF CONSENT.
142 MORRISON ROAD, PUTNEY (MORRISON BAY PARK)
LDA2014/289

GENERAL

The following conditions of consent included in this Part identify the requirements, terms and limitations imposed on this development.

1. **Approved Plans/Documents.** Except where otherwise provided in this consent, the development is to be carried out strictly in accordance with the following plans (stamped approved by Council) and support documents:

Document Description	Date	Plan No/Reference
Lighting Plan - Plan Showing Location of Proposed Light Poles	Undated	City of Ryde – Morrison Bay Park – Proposed Sports Field Lighting
Elevations – Light Pole A&C and Light Pole B&D.	Undated	City of Ryde – Morrison Bay Park – Proposed Sports Field Lighting
Ecological Assessment prepared by NGH Environmental	27 May 2015	Final Version 4, Project No. 5700
Morrison Bay Park Lighting Traffic Impact Assessment prepared by Bitzos Consulting	5 May 2014	Version 1, Project No. P1649
Acoustic Report - Morrison Bay Park, Lighting Development Application prepared by Marshall Day Acoustics and is dated.	6 July 2015	Rp001 r01 2015158SY
Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental	8 May 2015	Unreferenced

2. **Hours of operation.** The hours of operation for the Sports Field Lighting at Morrison Bay Park is to be restricted to:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) or social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training.

ITEM 2 (continued) **ATTACHMENT 1**

3. **Curfew switches -** Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition 2 above.

4. **Building Code of Australia.** All building works approved by this consent must be carried out in accordance with the requirements of the Building Code of Australia.

5. **Glare Shields –** Glare shields are to be installed on all proposed light poles to help minimise the light spill associated with the proposal at neighbouring residential property boundaries.

6. **Structural Certification.** The applicant must engage a qualified practising structural engineer to provide structural certification in accordance with relevant BCA requirements prior to the release of the **Construction Certificate**.

   This includes Certification by a Structural Engineer that the proposed method of anchorage of the light poles is structurally adequate having regard to their size, type and location.

Protection of Adjoining and Public Land

7. **Hours of work.** Building activities (including demolition) may only be carried out between 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No building activities are to be carried out at any time on a Sunday or a public holiday.

8. **Hoardings.**
   (a) A hoarding or fence must be erected between the work site and any adjoining public place.

   (b) Any hoarding, fence or awning erected pursuant this consent is to be removed when the work has been completed.

9. **Illumination of public place.** Any public place affected by works must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place.

10. **Development to be within site boundaries.** The development must be constructed wholly within the boundaries of the premises. No portion of the proposed structure shall encroach onto the adjoining properties. Gates must be installed so they do not open onto any footpath.

ITEM 2 (continued) **ATTACHMENT 1**

11. **Public space.** The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances, without prior approval from Council.

Works on Public Road

12. **Public Utilities.** Compliance with the requirements (including financial costs) of any relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RTA, Council etc) in relation to any connections, works, repairs, relocation, replacements and/or adjustments to public infrastructure or services affected by the development.

13. **Roads Act.** Any works performed in, on or over a public road pursuant to this consent must be carried out in accordance with this consent and with the Road Opening Permit issued by Council as required under section 139 of the Roads Act 1993.

PRIOR TO CONSTRUCTION CERTIFICATE

14. **Acid Sulphate Soil Management Plan.** The Draft Acid Sulphate Soil Management Plan prepared by NGH Environmental and dated 8 May 2015 is to be finalised and submitted to the principal certifying authority for approval prior to the issue of **Construction Certificate**.

15. **Compliance with Australian Standards.** The development is required to be carried out in accordance with all relevant Australian Standards. Details demonstrating compliance with the relevant Australian Standard are to be submitted to the Principal Certifying Authority prior to the issue of the **Construction Certificate**.

16. **Structural Certification.** The applicant must engage a qualified practising structural engineer to provide structural certification in accordance with relevant BCA requirements prior to the release of the **Construction Certificate**.

17. **Fees.** The following fees must be paid to Council in accordance with Council's Management Plan prior to the release of the **Construction Certificate**:

    (a) Enforcement Levy

18. **Alignment Levels.** The applicant is to apply to Council, pay the required fee, and have issued site specific alignment levels by Council prior to the issue of the **Construction Certificate.**

ITEM 2 (continued) **ATTACHMENT 1**

19. **Long Service Levy.** Documentary evidence of payment of the Long Service Levy under Section 34 of the Building and Construction Industry Long Service Payments Act 1986 is to be submitted to the Principal Certifying Authority prior to the issuing of the **Construction Certificate**.

PRIOR TO COMMENCEMENT OF CONSTRUCTION

Prior to the commencement of any demolition, excavation, or building work the following conditions in this Part of the Consent must be satisfied, and all relevant requirements complied with at all times during the operation of this consent.

20. **Site Sign**
    (a) A sign must be erected in a prominent position on site, prior to the commencement of construction:
        (i) showing the name, address and telephone number of the Principal Certifying Authority for the work,
        (ii) showing the name of the principal contractor (if any) or the person responsible for the works and a telephone number on which that person may be contacted outside working hours, and
        (iii) stating that unauthorised entry to the work site is prohibited.

    (b) Any such sign must be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

21. **Safety fencing.** The site must be fenced prior to the commencement of construction, and throughout demolition and/or excavation and must comply with WorkCover New South Wales requirements and be a minimum of 1.8m in height.

DURING CONSTRUCTION

Unless otherwise specified, the following conditions in this Part of the consent must be complied with at all times during the construction period. Where applicable, the requirements under previous Parts of the consent must be implemented and maintained at all times during the construction period.

22. **Critical stage inspections.** The person having the benefit of this consent is required to notify the Principal Certifying Authority during construction to ensure that the critical stage inspections are undertaken, as required under clause 162A(4) of the *Environmental Planning and Assessment Regulation 2000.*

23. **Construction materials.** All materials associated with construction must be retained within the site.

ITEM 2 (continued) **ATTACHMENT 1**

24. **Site Facilities**
The following facilities must be provided on the site:
(a) toilet facilities in accordance with WorkCover NSW requirements, at a ratio of one toilet per every 20 employees, and
(b) a garbage receptacle for food scraps and papers, with a tight fitting lid.

25. **Site maintenance**
The applicant must ensure that:
(a) approved sediment and erosion control measures are installed and maintained during the construction period;
(b) building materials and equipment are stored wholly within the work site unless an approval to store them elsewhere is held;
(c) the site is clear of waste and debris at the completion of the works.

26. **Work within public road.** At all times work is being undertaken within a public road, adequate precautions shall be taken to warn, instruct and guide road users safely around the work site. Traffic control devices shall satisfy the minimum standards outlined in Australian Standard No. AS1742.3-1996 "Traffic Control Devices for Work on Roads".

27. **Recommendations of Ecological Report.** During construction of the approved development, all recommendations of the Ecological Report submitted with the development application (prepared by NGH Environmental dated 27 May 2015) shall be adopted where appropriate.

PRIOR TO OCCUPATION CERTIFICATE

An Occupation Certificate must be obtained from a Principal Certifying Authority prior to commencement of occupation of any part of the development, or prior to the commencement of a change of use of a building.

Prior to issue, the Principal Certifying Authority must ensure that all works are completed in compliance with the approved construction certificate plans and all conditions of this Development Consent.

Unless an alternative approval authority is specified (eg Council or government agency), the Principal Certifying Authority is responsible for determining compliance with conditions in this Part of the consent. Details to demonstrate compliance with all conditions, including plans, documentation, or other written evidence must be submitted to the Principal Certifying Authority.

ITEM 2 (continued) **ATTACHMENT 1**

28. **Road opening permit – compliance document.** The submission of documentary evidence to Council of compliance with all matters that are required by the Road Opening Permit issued by Council under Section 139 of the *Roads Act 1993* in relation to works approved by this consent, prior to the issue of the **Occupation Certificate**.

29. **Public domain – work-as-executed plan.** A works as executed plan for works carried out in the public domain must be provided to and endorsed by Council prior to the issue of the **Occupation Certificate**.

OPERATIONAL CONDITIONS

The conditions in this Part of the consent relate to the on-going operation of the development and shall be complied with at all times.

30. **Light Spill** – The light spill at the adjoining residential boundaries to comply with the requirements of *AS 4282 – Control of the obtrusive effects of outdoor lighting*.

31. **Light Spill** – An appropriately qualified and experienced lighting consultant to certify the installation of the proposed lighting design complies with the appropriate Australian Standards.

32. **Noise from users** – Adequate signage is erected in the vehicles car parking area to encouraged spectators and participants to leave the premises quickly and quietly after training/games to mitigate possible nuisance noise.

33. **Noise Management Policy.** A noise management policy is to be prepared for all sporting organisations utilising the illuminated sports field at Morrison Bay Park to adopt. The objective of this noise management policy is to minimise sounds emitted from the illuminated sports field at Morrison Bay Park and minimise any adverse impacts on surrounding residents.

    The completed Noise Management Policy is to be submitted to Council's Group Manager Environment & Planning for approval prior to the illuminated use of the sports field, and shall incorporate the following matters.

    (a) Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and

ITEM 2 (continued) **ATTACHMENT 1**

(b) Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

34. **Spectator exclusion zone.** Establishment of a roped off spectator exclusion zone is to be created from goalpost to goalpost around the eastern half of the sports field No.1 and western half of sports field No.2 during night soccer games/matches during the winter weekday season.

35. **Use of Additional Training Area.** Men's soccer games/matches are prohibited in the additional training area to the west of Field 1.

36. **Prohibition on public address systems.** Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes.

37. **Light Spill.** The light spill at the adjoining residential boundaries to comply with the requirements of *AS 4282 – Control of the obtrusive effects of outdoor lighting*. A report from an appropriately qualified and experienced lighting consultant to confirm that the proposed lighting design complies with the appropriate Australian Standards shall be submitted prior to the issuing of any **Occupation Certificate**.

    If required to ensure compliance with AS4282, after initial testing but before the issuing of any **Occupation Certificate**, the approved lighting shall incorporate suitably designed light shields. Any such light shields that may be required shall be installed prior to the issuing of any **Occupation Certificate**.

38. **Offensive noise**. The use of the premises must not cause the emission of 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997*.

39. **Noise from users.** All spectators and participants to be encouraged to leave the premises quickly and quietly after training/games to mitigate possible nuisance noise.

40. **Provision of contact details to neighbours.** Residents within a 100m radius of the site are to be provided with contact details in writing (eg via a "letterbox drop") of a designated contact person for each participant sporting club (including a current mobile telephone number), and Council's Customer Service Centre, who can be contacted in the event of any noise disturbances arising from weeknight use of the Morrison Bay Park sports fields.

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MARSHALL DAY Acoustics

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Project: **MORRISON BAY PARK**

Prepared for: **City of Ryde**
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Attention: **Jeff Kerr**

Report No.: **Rp 001 r01 2015158SY**

Document Control

Status:	Rev:	Comments	Date:	Author:	Reviewer:
Draft		For client brief	29/06/15	A Stoker	M Ottley
Final	r01	Includes revised lighting	06/07/2015	A Stoker	M Ottley

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MARSHALL DAY Acoustics

EXECUTIVE SUMMARY

Marshall Day Acoustics Pty Ltd has been engaged to assess the noise impacts associated with evening time sporting activities following the installation of proposed floodlights to Morrison Bay Park, Frances Rd, Putney, NSW.

Background noise monitoring was conducted between 20 May 2015 and 30 May 2015.

In the absence of noise criteria relating to community sporting activities, site specific assessment guidelines have been derived with reference to New South Wales EPA *Industrial Noise Policy* (INP), and existing criteria contained in Camden Council's *Environmental Noise Policy*.

Recommendations have been made for noise mitigation management techniques to help control noise intrusions to surrounding residents with the lighting scenarios used for assessment; an Original Lighting Proposal (with 5 pitches lit) and a Reduced/Current Lighting Proposal (with two main pitches lit plus an area to the west of Pitch 4).

For the Original Lighting Proposal with a worst case scenario of simultaneous training matches on all pitches, noise emissions associated with evening time sporting activity are likely to be above the site specific assessment guidelines. It should be noted that this is unlikely to occur and a mix of activities will typically take place on each pitch.

For the more likely scenario of moderate training activity occurring on each pitch for the Original Lighting Proposal, noise emissions are predicted to be within or close to the site specific assessment guidelines.

For the Reduced/Current Lighting Proposal, noise emissions are predicted to be marginally above the site specific assessment guidelines for worst case practise match activities and below the assessment guidelines for moderate training activity.

It should be noted that in the absence of a specifically applicable noise policy the ultimate decision regarding acoustic suitability of the proposal remains with City of Ryde Council.

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1.0 INTRODUCTION

The City of Ryde proposes to install floodlights to Morrison Bay Park, Frances Rd, Putney to enable sporting activities to continue after sunset to approximately 2130hrs.

A previous Development Application has been submitted following which City of Ryde Council has requested the provision of additional information.

Marshall Day Acoustics (MDA) has been engaged to conduct further testing and measurements and produce a new acoustic report to address the requirements of City of Ryde Council. This new acoustic report has been prepared to be incorporated into a Statement of Environmental Effects to accompany a revised Development Application.

This report addresses the potential noise impacts associated with the extended use of the playing fields occurring with the installation and operation of the proposed floodlights and is based on calculations and measurements carried out by MDA, in addition to:

- City of Ryde Statement of Environmental Effects, received 09 March 2015
- City of Ryde Planning and Environment Committee Report, received 09 March 2015
- Pitch layouts for Morrison Bay Park and Meadowbank Park downloaded from City of Ryde website.

Acoustic terminology used throughout this report is defined in Appendix A.

2.0 DEVELOPMENT DESCRIPTION

Morrison Bay Park is one of the City of Ryde's main sporting and recreation venues and is bounded by the Parramatta River to the South, residential premises along Bayview Street to the East, Morrison Road to the North, and Frances Road and associated residences to the East.

The park's location is shown in Figure 1 below.

Figure 1: Site and Noise Monitoring Locations

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The main uses of the park are recreation and fitness, especially soccer and cricket with games and training typically extending up to 2000hrs in the summer months and to sunset during winter months. Additional facilities include a fitness circuit for cycling and running, children's play area, picnic areas, and BBQs.

The arrangement of soccer pitches at the venue is shown in Figure 2 with Field No 5 constituting two smaller mini pitches.

Figure 2: Soccer pitch layout

City of Ryde originally proposed a lighting option consisting of:

- Original Lighting Proposal: *installation of floodlights for all fields (except mini fields)*

This has since been replaced with a reduced lighting option which constitutes the current lighting proposal being sought as part of the Development Application:

- Reduced/Current Lighting Proposal: *installation of floodlights limited to Fields 2 and 4 and an area to the West of Field 4*

Use of the floodlights is proposed to be:

- Monday to Thursday 1600 to 2130hrs during Winter season (April to August) for social sport and training
- Monday to Thursday 1800 to 2100hrs during the Summer season (September to March) for social sport and training

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The park is surrounded by residential dwellings specifically:

- Bayview Street and Teemer Street to the eastern boundary of the park
- Frances Road, Phillip Road, Stanley Street, Jetty Road and Pellisier Road on the western boundary of the park

The park consists of predominantly flat, level ground however a majority of the surrounding residences are at an elevated position relative to the park and sporting fields.

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3.0 ENVIRONMENTAL NOISE SURVEY

It is noted that City of Ryde has previously raised concerns over the relevance of background noise measurements taken as part of the previous acoustic report (Acoustic Consulting Engineers – 130433-1R-DD Rev02), specifically the suitability of background noise levels measured during Summer months. As such MDA has conducted new background noise measurements at three locations around the park deemed representative for a majority of receivers at a period of the year more representative of winter usage.

Due to the size of the survey area, three locations were chosen to best represent a majority of receivers surrounding the park. These are identified as:

- Rear garden area of 7 Bayview Street
- Front yard area of 22 Teemer Street
- Front garden area of 60 Frances Road

Measurement equipment consisted of three ARL EL-316 noise loggers. The calibration of each unit was checked prior to and following the measurement period using a Rion NC-74 Sound Level Calibrator. All units exhibited no significant deviation.

Background noise levels were captured over the period 20 May 2015 to 30 May 2015. Noise levels were measured continuously over this period and logged in 15 minute intervals.

Background noise data acquired by the loggers was analysed and edited, removing data sets affected by poor weather conditions and data exclusion guidelines set out in the EPA's Industrial Noise Policy (INP).

In the Industrial Noise Policy (INP), the background noise level is termed the Rating Background Level (RBL). We have determined the RBL and L_{A90} noise levels for the relevant day and evening periods in accordance with the procedures detailed in the INP.

The survey results for the entire measurement period are summarised in Appendix B. A summary of the logging measurements is shown in Table 1 below. Only the evening period (1800-2200hrs) is presented as this is the period relevant for the operation of the floodlights.

Table 1: Industrial Noise Policy time periods and measured background noise levels for the evening period

Location	L_{Aeq} dB	RBL L_{A90} dB
7 Bayview Street	48	38
22 Teemer Street	49	41
60 Frances Road	53	37

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4.0 ENVIRONMENTAL NOISE CRITERIA

No specific guidelines exist governing the assessment of noise from sporting activities in public parks or recreation spaces. As such, the documents below have been used for guidance.

4.1 Noise from Sport Activities

4.1.1 Industrial Noise Policy

The EPA's Industrial Noise Policy has superseded the Environmental Noise Control Manual utilised for assessment in the previous acoustic assessment (Acoustic Consulting Engineers – 130433-1R-DD Rev02) and is designed for the assessment of noise from commercial or industrial sites and how such noise might affect the amenity of nearby receivers.

The INP guidelines are not designed for assessment of social or community sporting activities, we have however referred to them for guidance on desirable levels of acoustic amenity in the suburban context.

The INP aims to address industrial noise sources with respect to two criteria, firstly to address short term intrusive noise impacts and secondly to maintain noise level amenity for an area.

The INP criteria for short term intrusion impacts are based on a background +5dB assessment, forming the Intrusiveness Criteria. These criteria would generally be considered unreasonable for a community based activity, such as sporting play in a park. A sensible approach in applying relevant aspects of the INP would be to utilise the Amenity Criteria as a guiding reference of acceptable noise levels in the vicinity of the park.

The Amenity Criteria are designed to prevent noise continually increasing above an acceptable level. A review of the noise levels presented in Table 1 indicates that the noise environment is typical of a suburban area with mostly traffic related noise sources with no noticeable contributions from industrial sources. As such, the acceptable and recommended maximum noise levels for receivers in a suburban area can be assumed to comprise partially suitable guidance criteria, bearing in mind they are designed primarily for industrial applications.

The Amenity Criterion for the evening time period is detailed in Table 2 below.

Table 2: Amenity Criterion for the evening time period

Period	Recommended Noise Level, dB L_{Aeq}	
	Acceptable	Recommended Maximum
Evening	45	50

Source: Table 2.1 NSW Industrial Noise Policy

The INP also indicates that multiple other factors should be considered in the determination of a development application including economic considerations, community benefits and social worth of the development. City of Ryde Council might give regard to a criterion situated between the Acceptable and Recommended Maximum noise levels.

4.1.2 Camden Council Environmental Noise Policy

We note that other local councils have existing guidelines relating to noise from sporting events and community sports facilities. We have referenced Camden Council, who are one council that do have a published criteria.

Camden Councils Environmental Noise Policy details Noise Guidelines relating to residential developments proposed on land likely to be impacted by noise from the use of parks. It states:

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6.1 General

Camden Council is responsible for regulating noise emissions from the recreational use of parks (such as Onslow and Kirkham Parks) which are used for sporting events, circuses, and special events.

It is recognised that the use of these parks has the potential to negatively impact on the amenity of surrounding residents with respect to noise. Therefore it is important to consider the level of noise impact when land in the vicinity of such parks is proposed to be rezoned for residential development or similar sensitive land-use.

The following guidelines for any assessment of noise from the use of these Parks have been devised in order to minimise the likelihood of disturbance to the surrounding community. In some instances, however, where an event or activity is determined by Council to be of particular social or cultural benefit, more relaxed criteria may be applied to the use of the site.

Guideline noise levels suggested for the evening (referred to as night –time in the Camden Council document) are provided:

During night-time hours of 1800-2200hrs, the relevant intrusive noise level ($L_{Aeq,\ 15min}$) should not exceed the background (L_{A90}) plus 10dB.

Noise shall be assessed at any proposed residential boundary or, if that boundary is proposed to be more than 30 metres from the residence, at the most affected point within 30 metres of the residence.

Applying the evening time guidance to measured background levels presented in Table 1 gives evening time guidance levels in the range of 47-51 dBA $L_{Aeq,\ 15min}$.

4.1.3 Site Specific Assessment Guideline

Ultimately appropriate criteria will be determined by City of Ryde Council, however given the above information and lack of current applicable Council policy with regard to the assessment of noise from community sporting events noise levels in the order of 47-50 dBA $L_{Aeq,\ 15min}$ may be appropriate for assessment as they would reasonably align with both the INP Amenity Criteria and the guidelines adopted by Camden Council. It is these levels that form our site specific assessment guidelines.

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5.0 NOISE ASSESSMENT

5.1 Noise from Sports activities

Multiple concerns were raised by Council's Planning and Development Committee regarding the relevance of measurements taken of noise levels from sporting activities within Morrison Bay Park as part of the previous acoustic report (Acoustic Consulting Engineers – 130433-1R-DD Rev02).

Specific concerns were raised regarding the lack of adequate measurements of men's training and of full size (11 player) teams as well as the appropriateness of Morrison Bay Park summer months training sessions as being appropriate for assessment.

Based on these comments, MDA has conducted measurements of training sessions at Meadowbank Park, located off Constitution Road West, Ryde, a park and recreational grounds with existing floodlights and established evening soccer activities extending to 2130hrs. A map of pitch arrangement at Meadowbank Park is shown in Figure 3 below. The pitches in use for the training sessions during our visit have been shown.

Figure 3: Pitch layout of Meadowbank Park

MDA visited Meadowbank Park on two occasions, 14 April 2015 between 1800-2130hrs and 20 May 2015 between 1800-2145hrs. Measurements were made of a variety of activities, age groups and ability levels.

As part of City of Ryde Council's Planning and Committee Report it was established that a scenario of 22 men playing competitively constituted a likely worst case noise source due to louder and more frequent shouting and increased number of players. As such this was a focus of our assessment.

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Simultaneous, synchronised 15 minute L_{Aeq} measurements of soccer activities were taken at two positions 5m and 10m from the sideline of Field 2 on 20 May 2015.

Field 2 was selected as it had the largest variety of training activities, age ranges and ability levels throughout the evening including a final competitive training game for open age men's teams of 11-a-side. Such conditions well represent the types of activities and noise levels occurring at training activities at Meadowbank Park and those proposed at Morrison Bay Park for evening training.

Smaller training groups occurred on Fields 3 and 8 however the nature of the activities led them to be lower sources of noise.

Observations made during site inspections confirmed that men's training generally constituted the loudest sessions with noise generated from youth (boys/girls aged 8-15) well controlled as groups were smaller with more control and discipline exercised by coaching staff. Observations made on-site confirmed a men's training session to be the most significant source of noise and supported Council's view of this scenario as being the most appropriate for consideration as worst case scenario.

Coaching staff on-site confirmed the training sessions were well attended and constituted their larger and busier nights.

Figure 4 below shows the arrangement of measurement equipment used for the assessment of noise from pitch activities. For training activities two positions a quarter way up the pitch were selected as the group was split into two squads performing the same activities using half a pitch each. For analysis of a practise match two positions inline with the halfway line was used as both squads were using the full pitch.

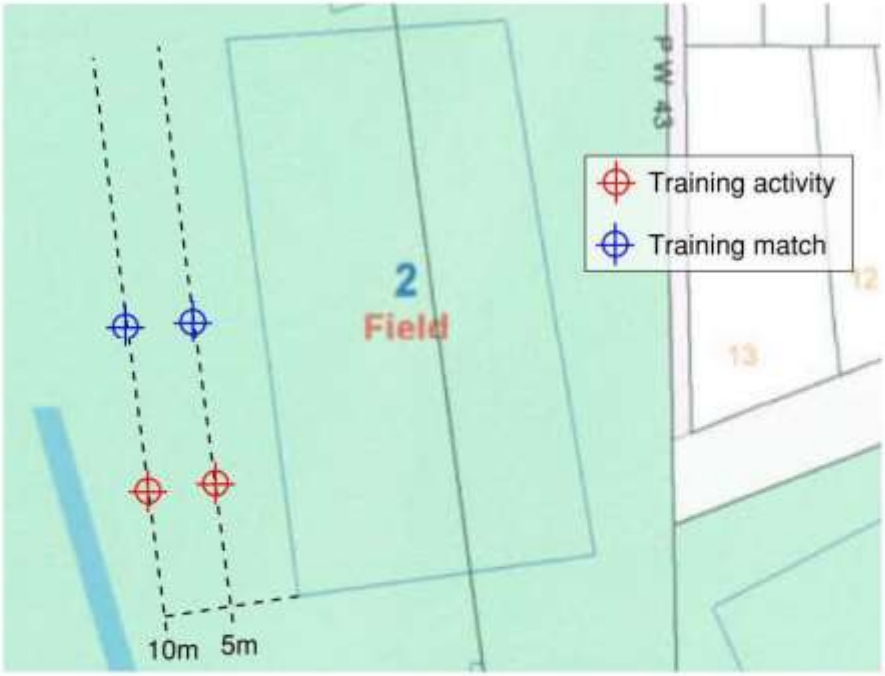

Figure 4: Measurement positions in relation to Field 2 of Meadowbank Park

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Table 3: Measured noise levels from activities on Field 2 on 20 May 2015, dB L_{Aeq}

Measurement	Description of activity	Level @ 5m	Level @ 10m
Measurement 1	Youth team practise match	56	54
	Approx 15 players lower half of pitch		
	Following squad warming up 20m away		
	Excited shouting, kicking noises, encouragement from spectators approx 15m away		
Measurement 2	Senior/open age mens	55	54
	2 squads of 11/13 players (half pitch each)		
	Stretching, running laps, penalty practise		
	General shouting, laughing and encouragement		
Measurement 3	Senior/open age mens	53	52
	2 squads of 11/13 players (half pitch each)		
	Cross drills		
	Generally more concentration and lower noise levels		
Measurement 4	Senior/open age	59	57
	Full pitch practise game		
	22 players with subs behind southern goal practising and talking		
	Shouting and encouragement		

As can be seen from the measured levels presented in Table 3, the men's full pitch practise game constituted the loudest noise source during the training session.

Whilst no specific measurements were taken of 6-a-side soccer games, we would expect noise emissions from such activities to be between that of moderate training and full 22 player matches. This is as more noise from communication will occur than during moderate training, but less players and playing area than for a full match. This could be roughly approximated by Measurement 1 noise levels.

Using the least and most significant noise sources presented in Table 3 (Measurement 3 and Measurement 4), predicted noise levels at distances representing receivers surrounding the fields at Morrison Bay Park have been calculated for both the Original Lighting Proposal and Reduced/Current Lighting Proposal. This demonstrates typical noise levels expected at residences in the vicinity of Morrison Bay Park residences for the range of activities likely to occur during training sessions.

Graphical representations of predicted noise levels at receivers surrounding Morrison Bay Park are shown in Figure 5 and Figure 6 overleaf.

The results of the measurements and predictions show that, depending on receiver locations and training activities, the $L_{Aeq,15min}$ noise levels from field use at Morrison Bay Park range from:

- Original Lighting Proposal: predicted levels range from 55 to 60 dBA for match activities and 50 to 54dBA for moderate training activities. These levels exceed the recommended assessment objectives of 47-50 dBA by up to 13 dBA and 8 dBA respectively.
- Reduced/Current Lighting Proposal: predicted levels range from 50 to 57 dBA for match activities and 44 to 51dBA for moderate training activities. The levels for match activities exceed the recommended assessment objectives of 47-50 dBA by up to 10 dBA. The levels for training activities would be in line with (or marginally above) the recommended assessment objectives of 47-50 dBA.

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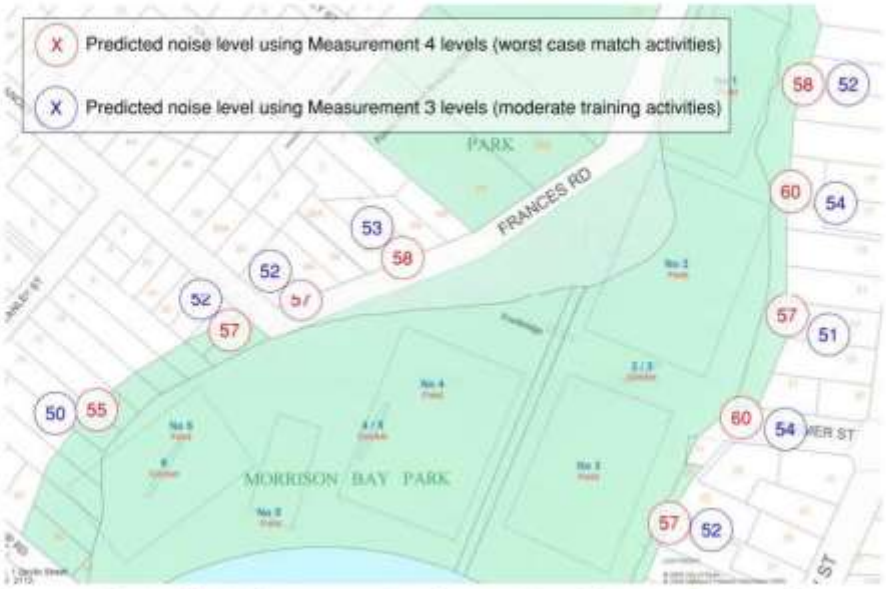

Figure 5: Predicted noise levels for worst case and moderate training activities at Morrison Bay Park for Original Lighting Proposal

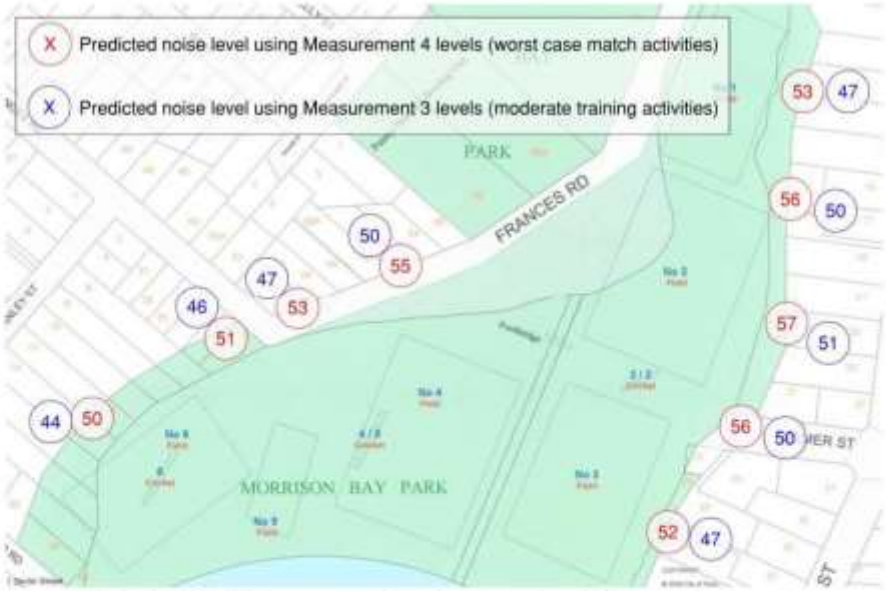

Figure 6: Predicted noise levels for worst case and moderate training activities at Morrison Bay Park for Reduced/Current Lighting Proposal

It can be seen that noise levels for both the Original and Reduced/Current Lighting Proposals have the potential to exceed the recommended assessment objectives with the predicted results lower for the Reduced/Current Lighting Proposal due to the reduced number of pitches in use. Additionally noise levels range by as much as 6dB depending on the type of training activity occurring.

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The highest predicted noise levels are along Bayview Street and Teemer Street. It was noted during site visits that a majority of these receivers have solid fences to their boundaries. These fences are may provide between 5 to 8dB attenuation of sound generated in the park. Taking into account the performance of the boundary fencing, noise levels at Bayview Street receivers may still exceed site specific assessment guidelines for a worst case training session.

It should be noted that the calculations assume the same activity to be occurring on all subject pitches simultaneously. In practise this may not be likely and noise levels could be in the order of the 3dB lower than predicted at certain receivers.

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6.0 MITIGATION MEASURES

There are limited mitigation options open to the development due to the elevated nature of surrounding receivers and limitations on barrier installation options. Noise control measures will largely rely on management practises undertaken by the facility users.

Instructions to limit the use of loud hailers/amplified speech devices and the positioning of spectators to the centre of the park space will contribute towards reducing noise impacts on residential receivers.

Scheduling of activities will play a large part in managing noise; trying to avoid several practise matches occurring simultaneously, good control and discipline of training sessions to avoid excessive noise generation and the placement of noisier activities on fields a greater distance from residential receivers.

Under certain circumstances and with the above management techniques, reductions in noise levels in the order of 3dB or more may be achievable.

Applying a reduction of 3dB to account for the above mitigation the following noise levels would be predicted at the residential receivers (note this does not include any allowance for fence attenuation).

Table 4: Noise levels at residential receivers incorporating mitigation measures

	Original Lighting Proposal	Reduced/Current Lighting Proposal
Moderate Training Activity	47-51	41-48
Worst Case Match Activity	52-57	47-54

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7.0 CONCLUSION

Marshall Day Acoustics has completed an assessment of noise impacts associated with the installation of floodlights at Morrison Bay Park, Ryde, NSW.

In lieu of specific guidelines relating to community sporting events and associated noise, guidelines and criteria contained in the EPA's Industrial Noise Policy and Camden Council's Environmental Noise Policy have been used to form a site specific assessment guideline of 47-50 dBA for receivers surrounding the park. We note however that this is provided for guidance and ultimately the criteria applied is up to Council.

Noise levels associated with floodlit park use may be able to be mitigated by up to 3 dB through proper management by facility users. In practice further attenuation of noise levels is likely to be provided by where residents have a solid boundary fence.

A worst case scenario of all subject pitches in the Original Lighting Proposal (5 pitches) having simultaneous men's training matches of 22 players occurring has been assessed. Taking into account proposed mitigation measures, predicted noise levels indicate exceedance of the site specific assessment guidelines by up to 10dB.

It should be noted that the likelihood of this worst case scenario occurring is remote. Training on the pitches will predominantly be of a moderate nature with different activities occurring on each pitch. Predictions based on moderate training levels for the Original Lighting Proposal indicate levels of 47-51 dBA, comparable to the site specific assessment guidelines.

Noise levels at residences are in the range of 3-6dB lower for the Reduced/Current Lighting Proposal due to reduced number of pitches in use. Exceedance of the site specific assessment guidelines for this lighting option is up to 4 dBA for worst case match conditions and within the site specific assessment guidelines for moderate training activities.

As various sporting activities already occur in the park, the nature and character of noise impacts as well as their occurrence in the evening period is already experienced at surrounding residences as late as 2000hrs in summer and 1700hrs in winter. Whilst no new noise sources would be introduced by the proposed application, there would be an increase in the number of months they occur during the year and extension of the evening timeframe residents would be exposed to such sources.

Given the lack of specific legislation relating to noise generation from park activities, documents providing comparative guidelines have been used to form the site specific assessment guideline. In considering the appropriateness of this proposal Council will need to consider the impact of noise against the community benefit of the facilities.

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APPENDIX A GLOSSARY OF TERMINOLOGY

SPL or L_p	Sound Pressure Level A logarithmic ratio of a sound pressure measured at distance, relative to the threshold of hearing (20 µPa RMS) and expressed in decibels.
SWL or L_W	Sound Power Level A logarithmic ratio of the acoustic power output of a source relative to 10^{-12} watts and expressed in decibels. Sound power level is calculated from measured sound pressure levels and represents the level of total sound power radiated by a sound source.
dB	Decibel The unit of sound level. Expressed as a logarithmic ratio of sound pressure P relative to a reference pressure of Pr=20 µPa i.e. dB = 20 x log(P/Pr)
dBA	The unit of sound level which has its frequency characteristics modified by a filter (A-weighted) so as to more closely approximate the frequency bias of the human ear.
A-weighting	The process by which noise levels are corrected to account for the non-linear frequency response of the human ear.
$L_{Aeq\,(t)}$	The equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
$L_{A90\,(t)}$	The A-weighted noise level equalled or exceeded for 90% of the measurement period. This is commonly referred to as the background noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
SEL or L_{AE}	Sound Exposure Level The sound level of one second duration which has the same amount of energy as the actual noise event measured. Usually used to measure the sound energy of a particular event, such as a train pass-by or an aircraft flyover

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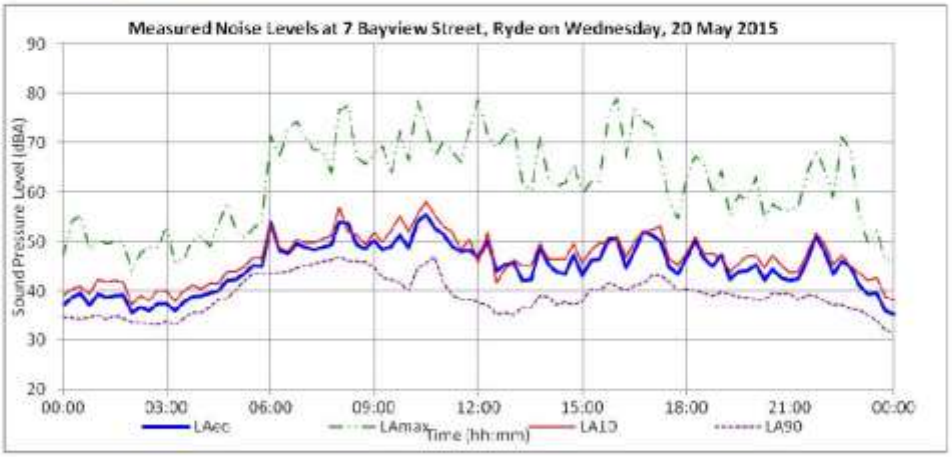
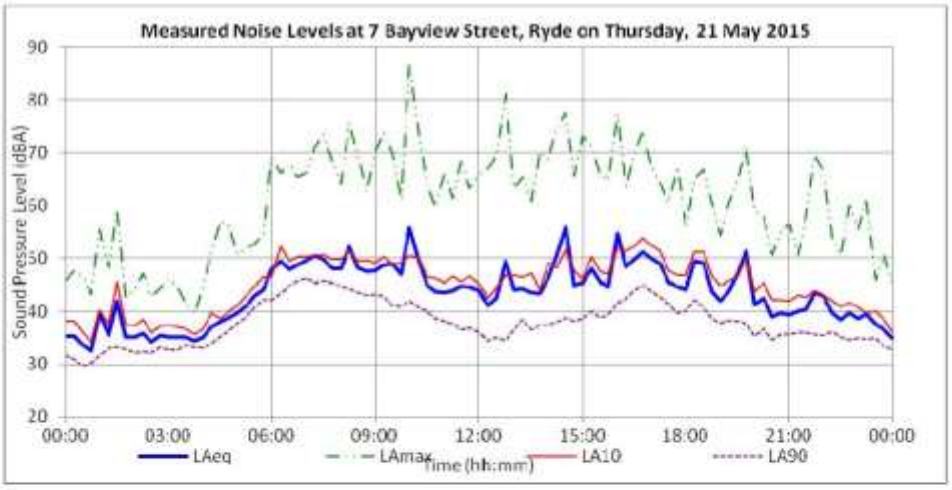
APPENDIX B BACKGROUND NOISE SURVEY DATA

B1 7 Bayview Street





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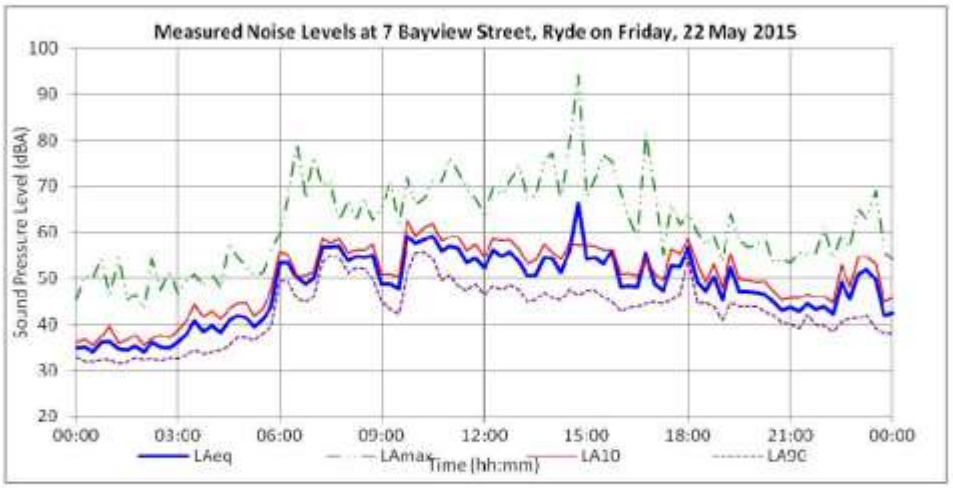

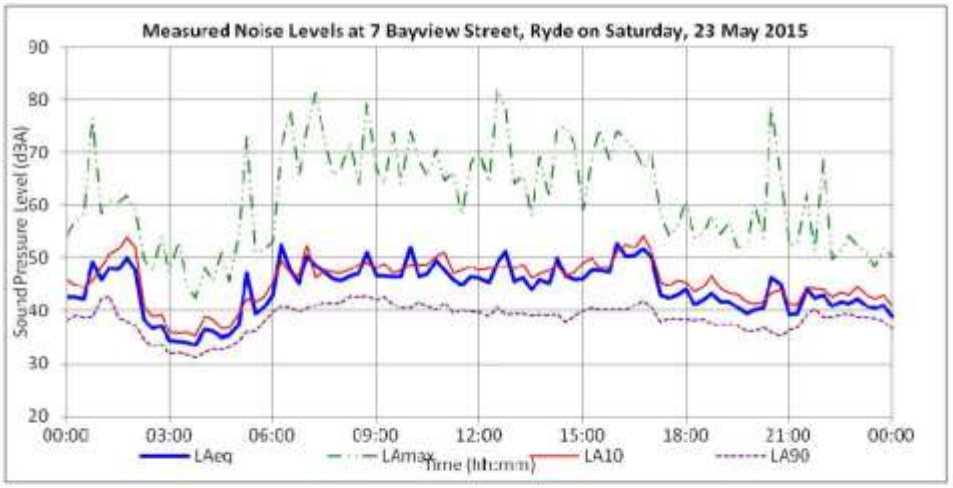

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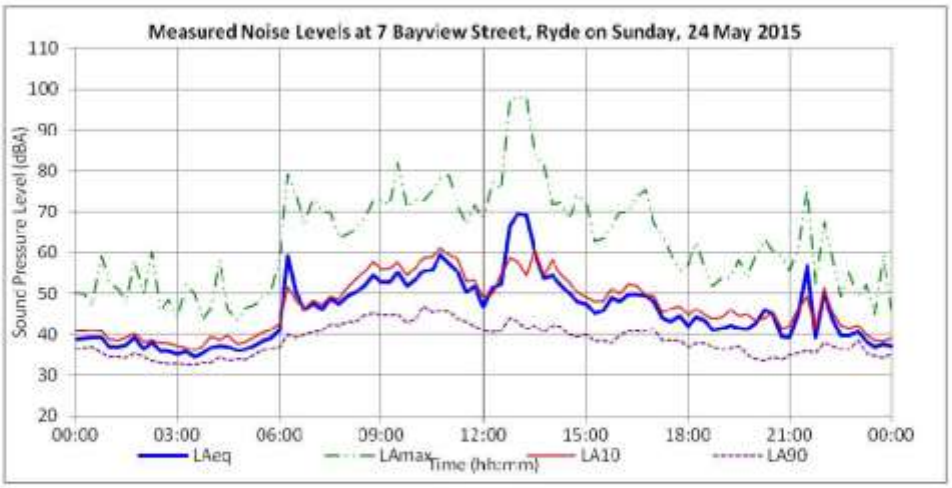

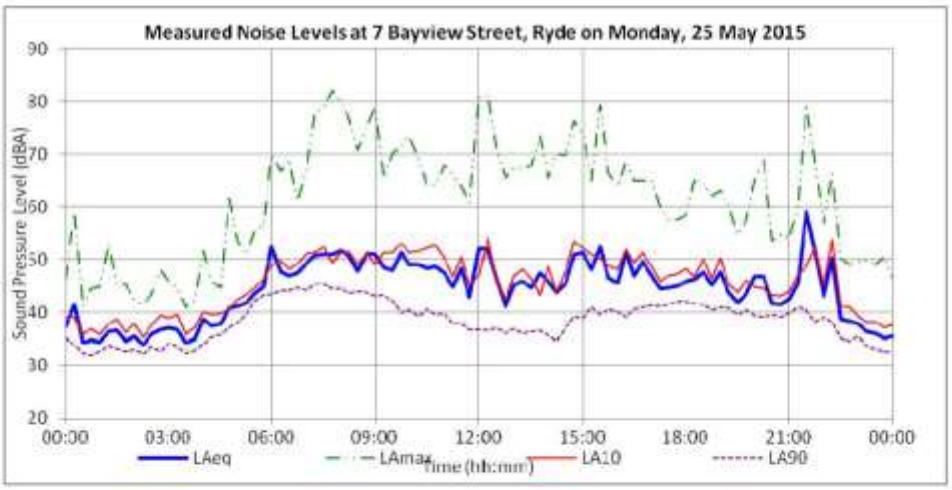

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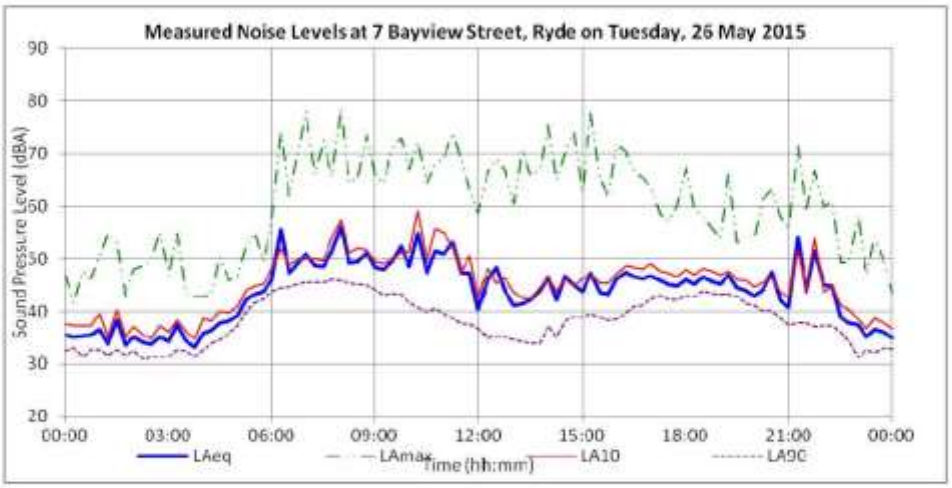

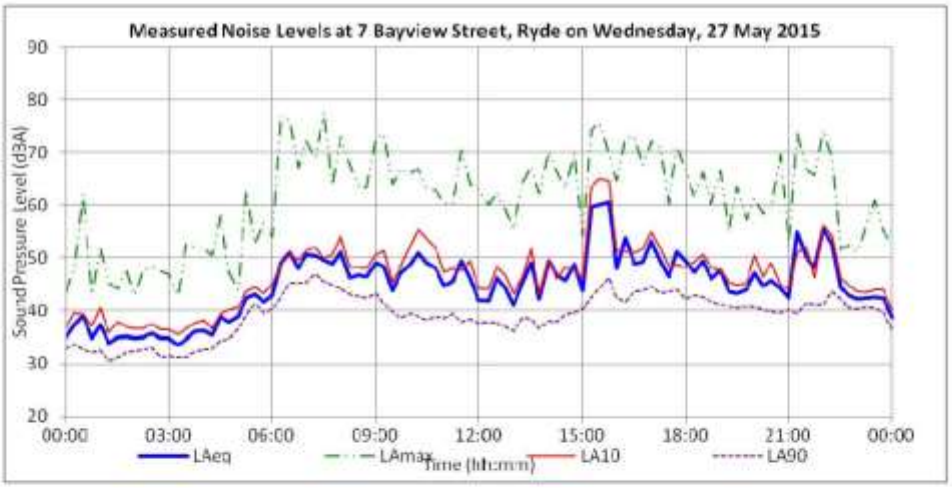

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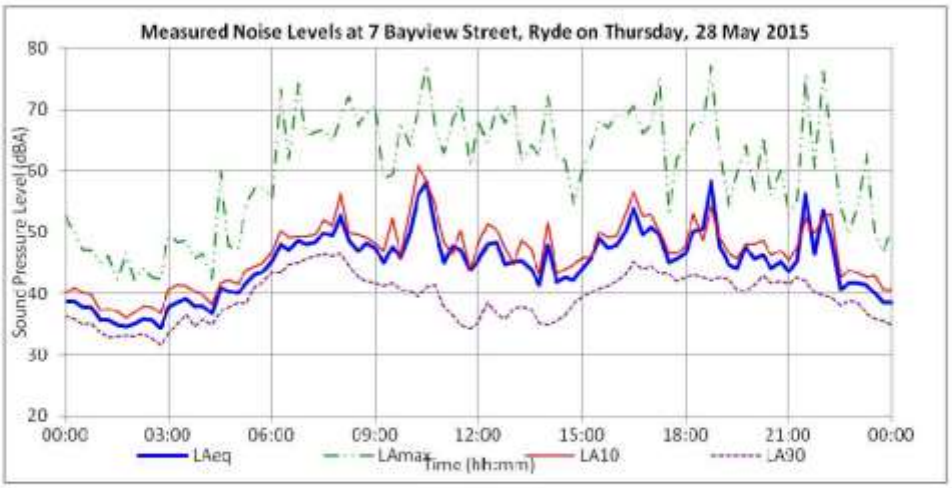
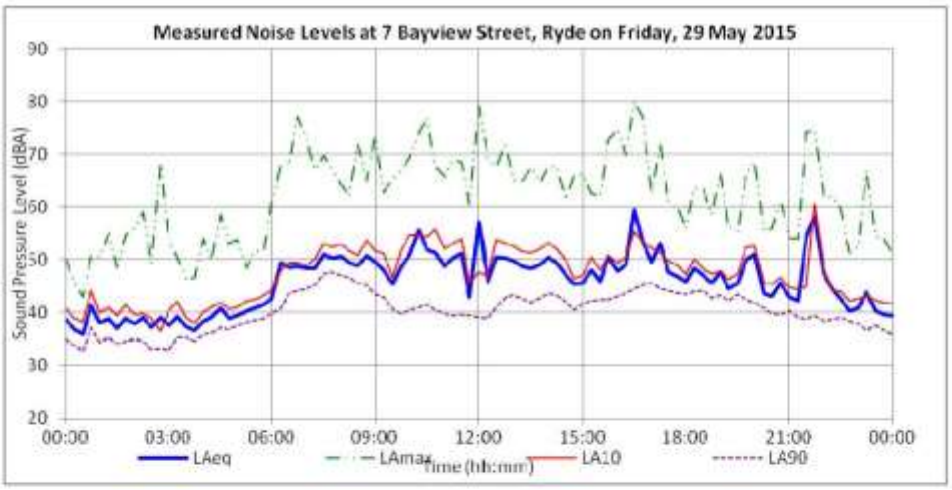
MARSHALL DAY Acoustics





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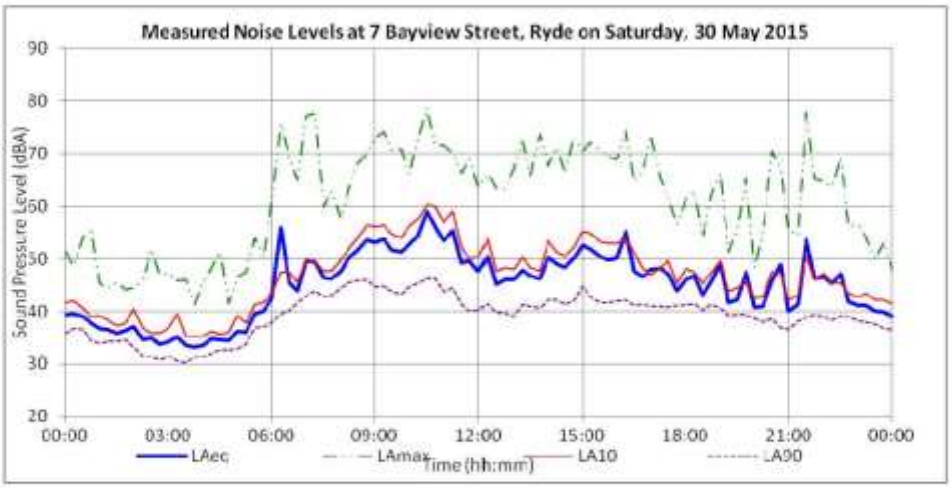

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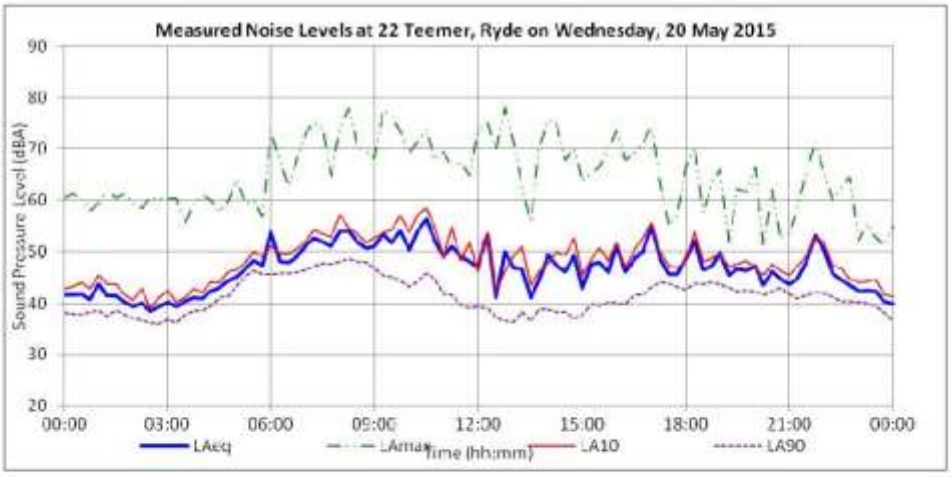

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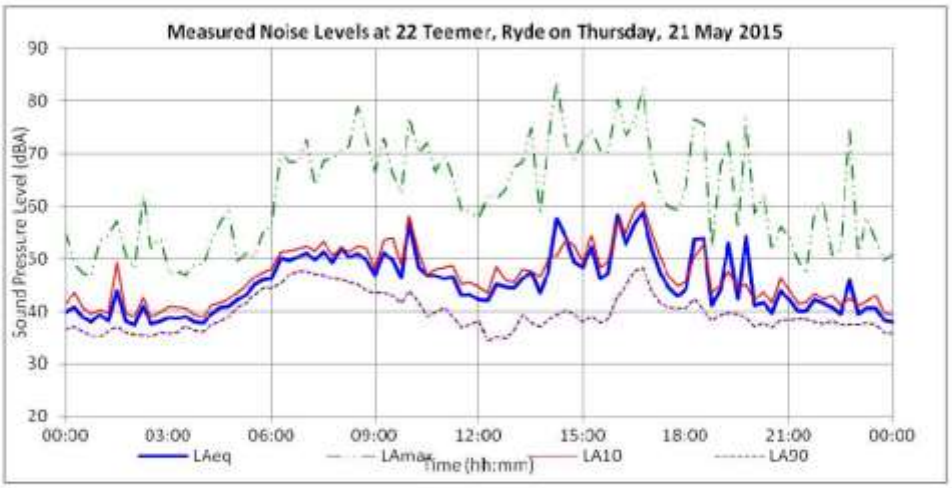

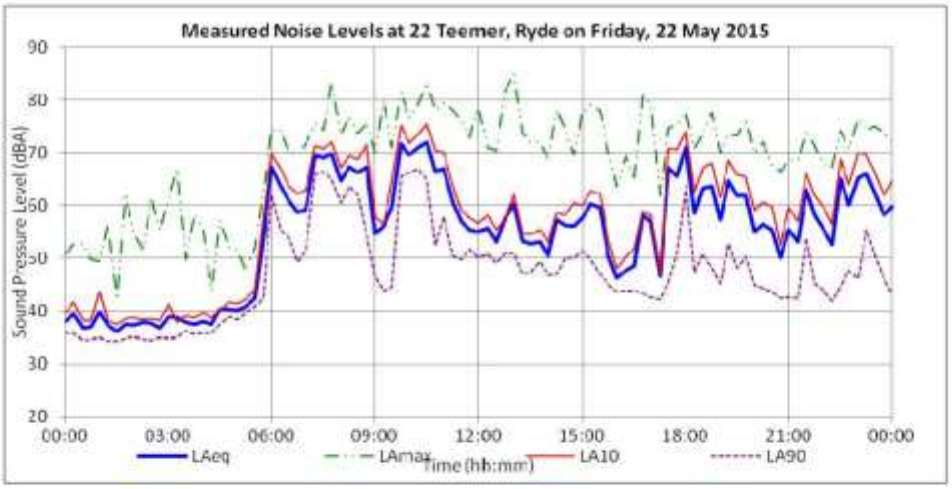

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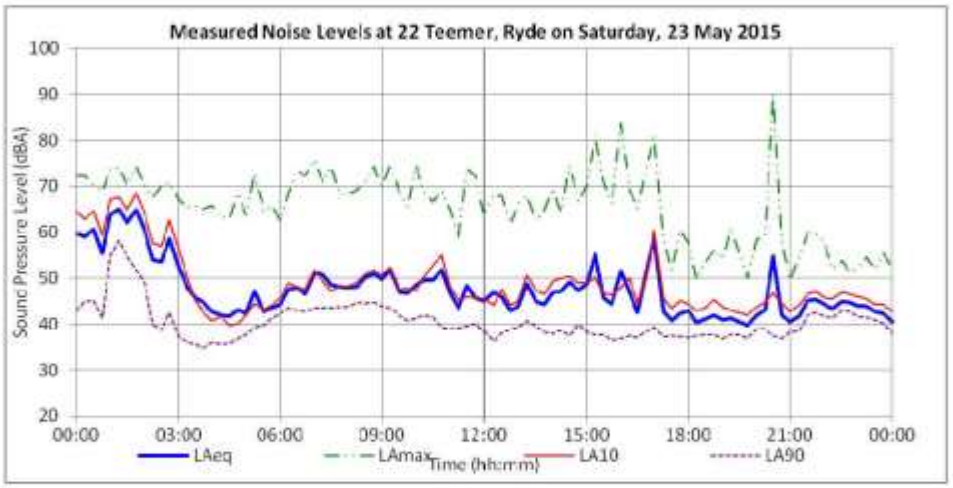

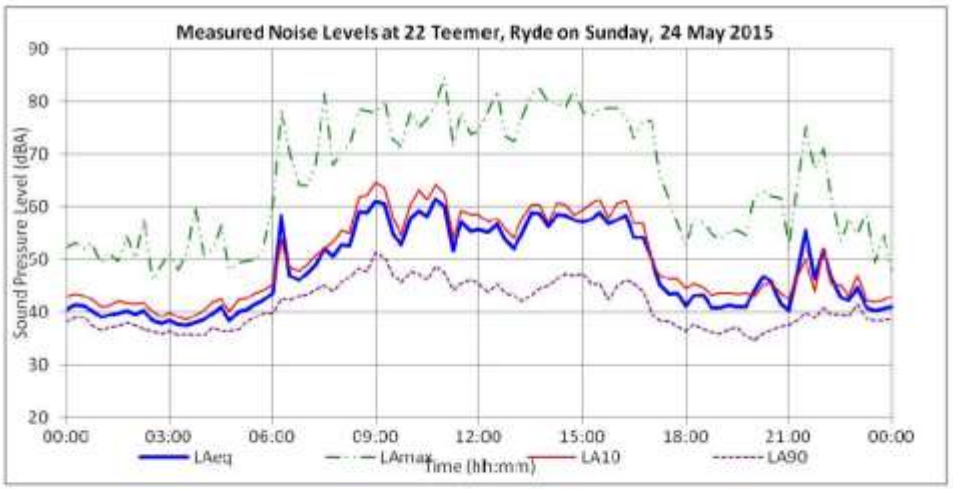

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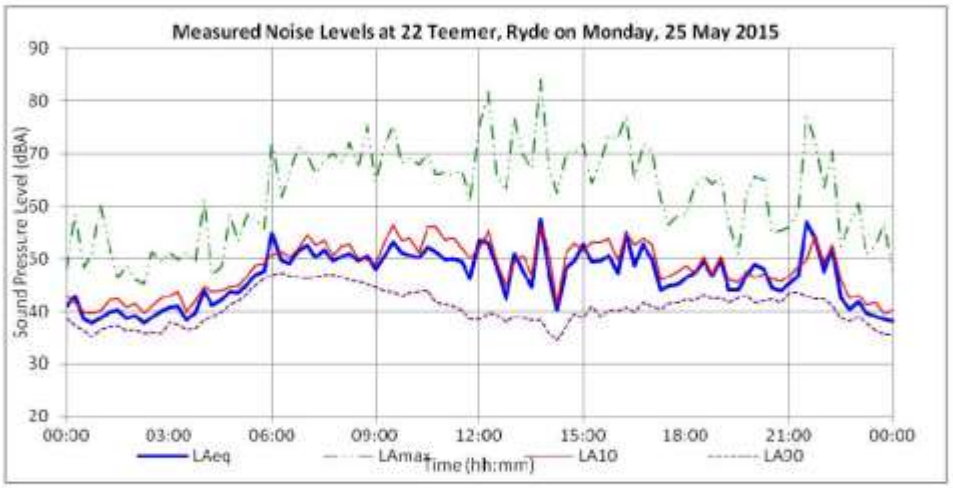

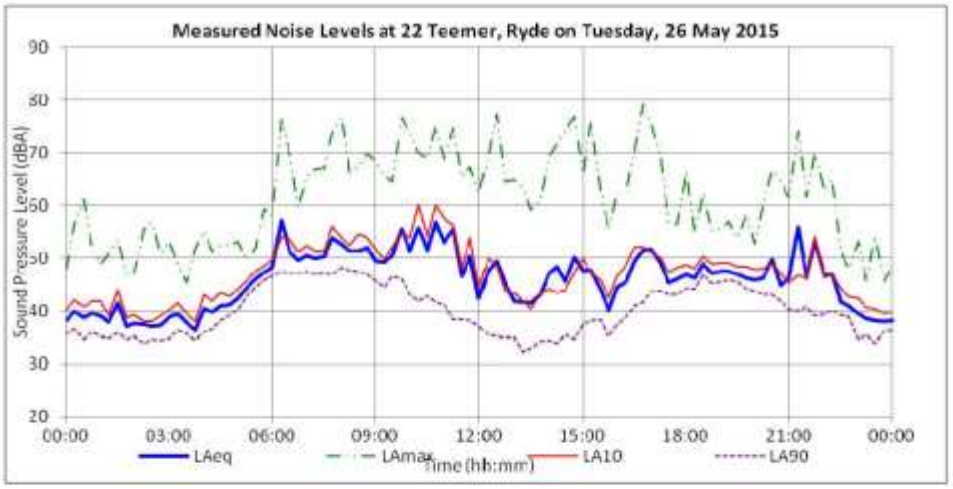

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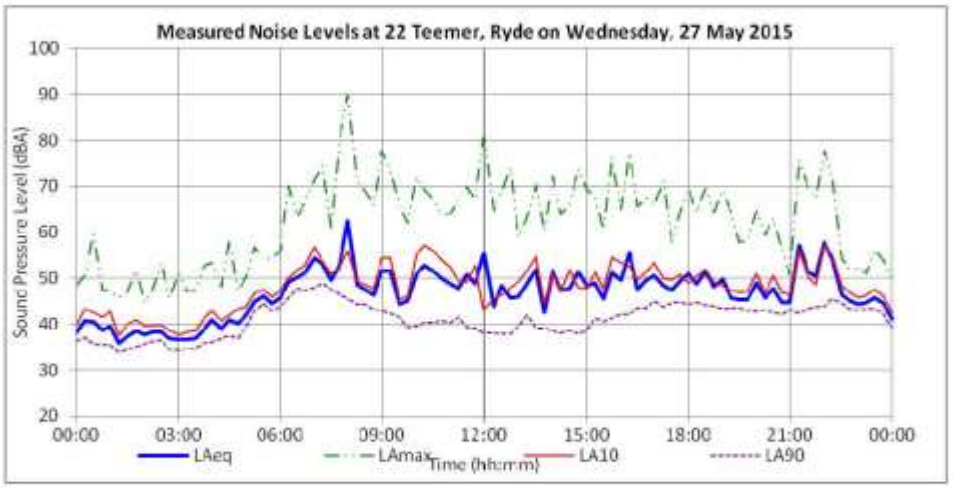

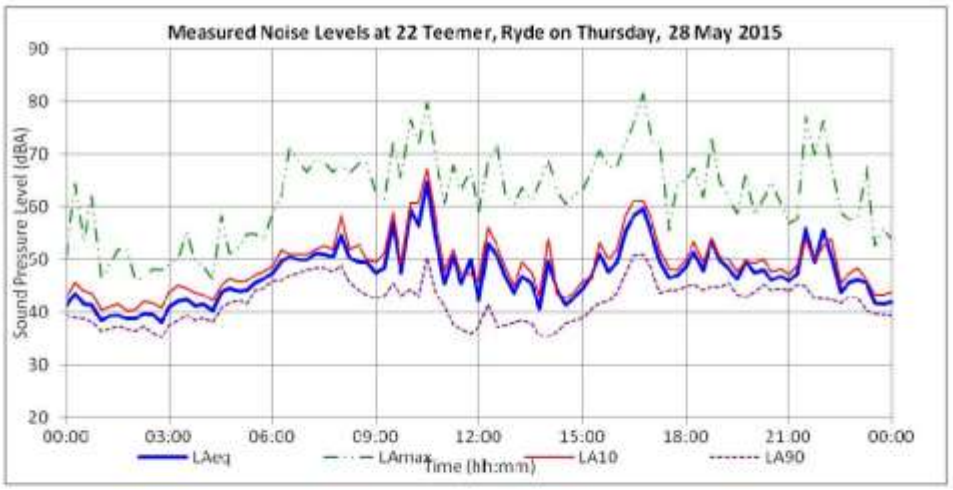

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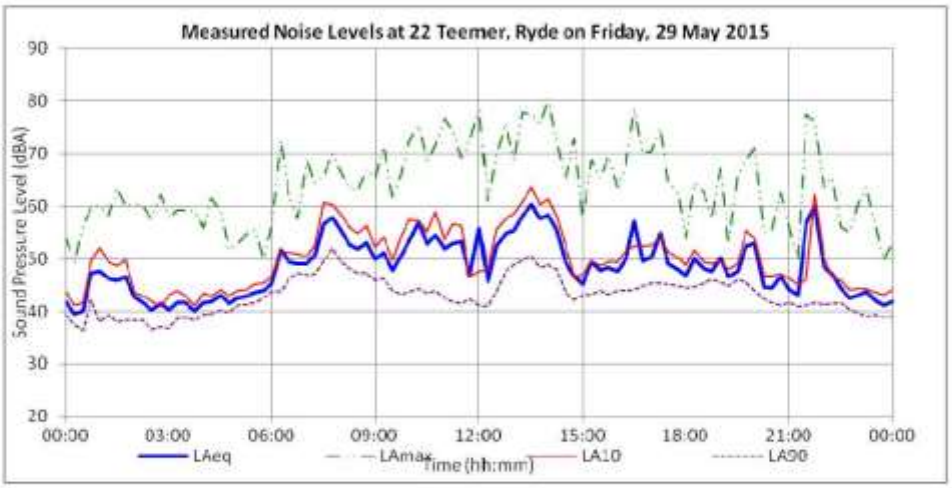

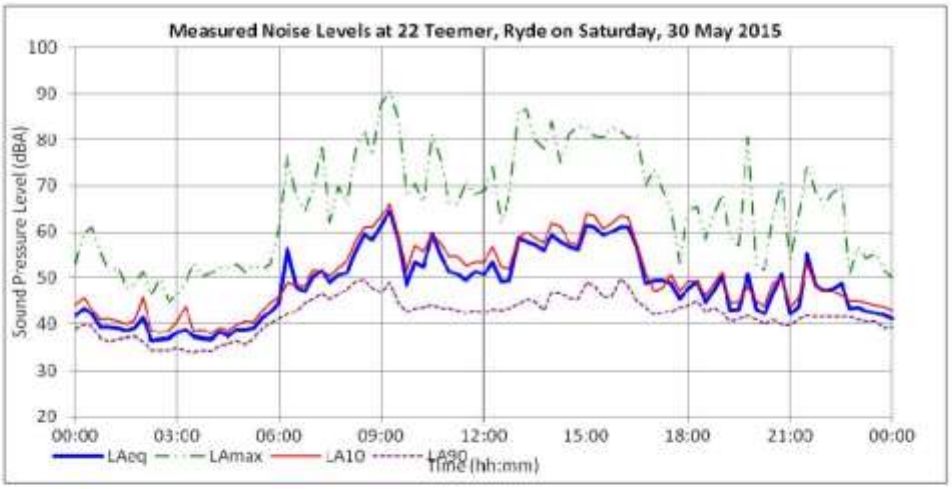

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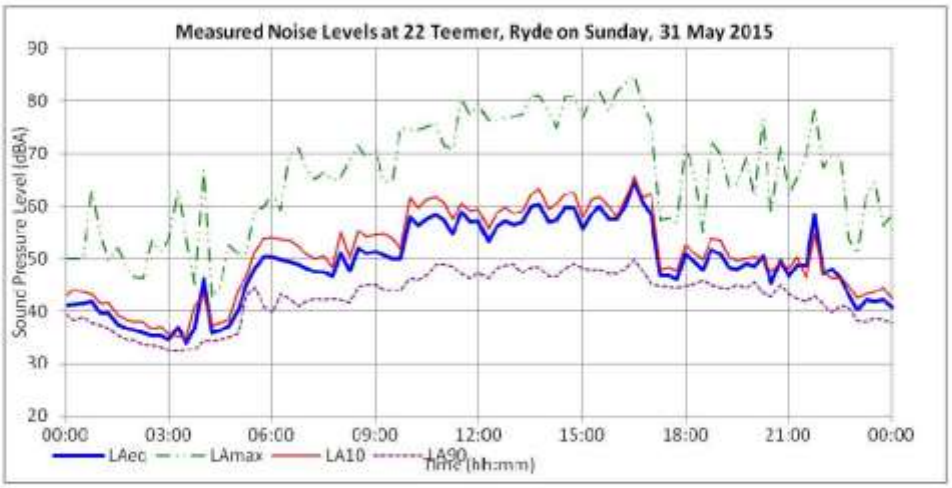

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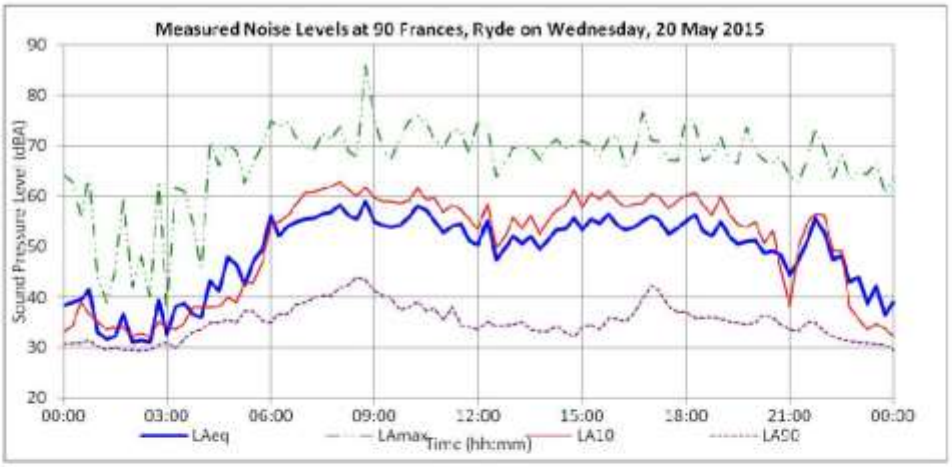

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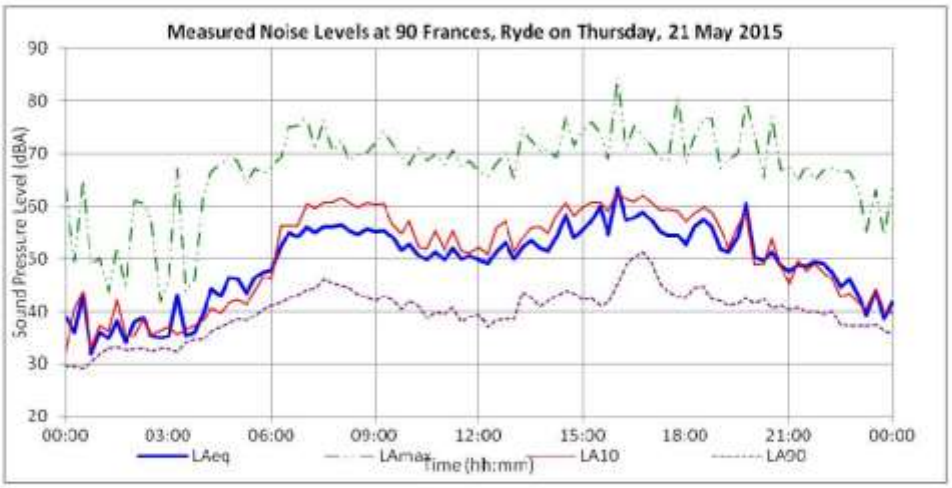

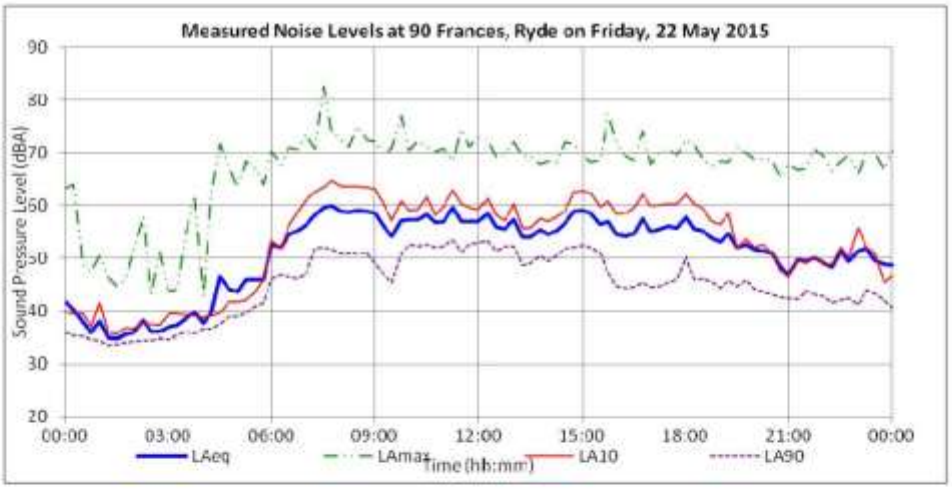

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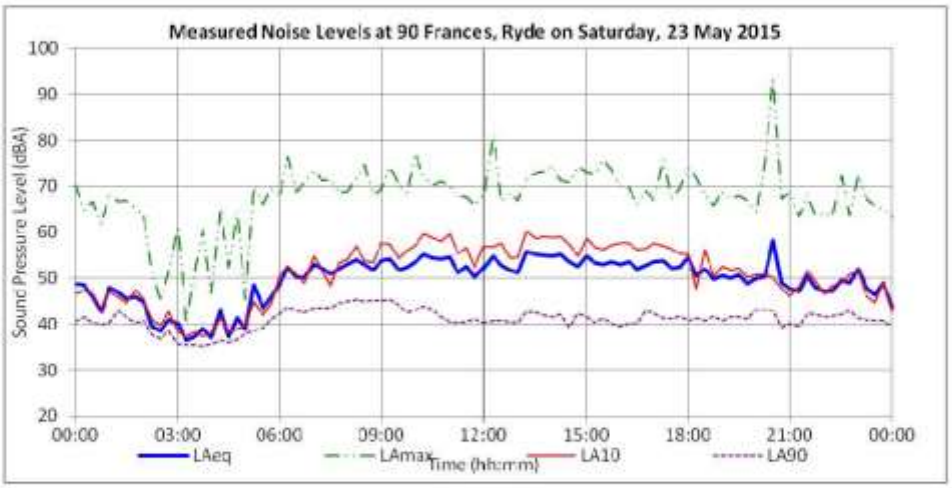

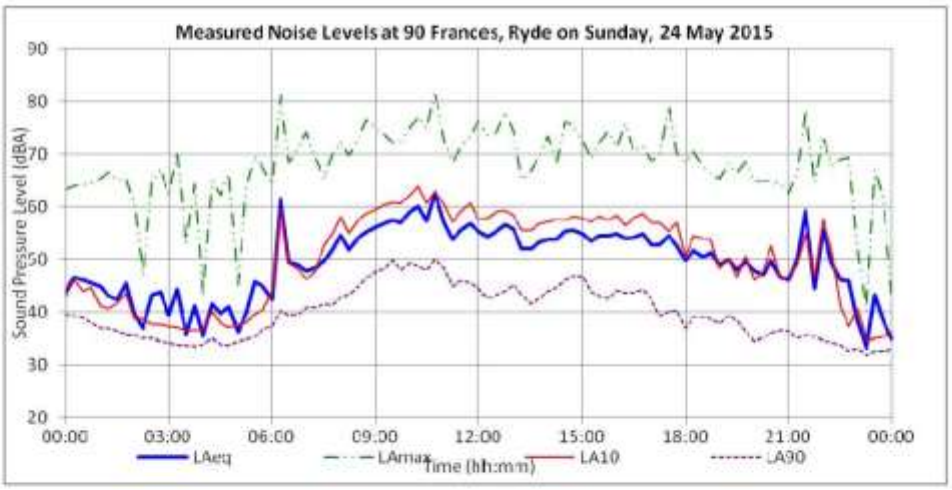

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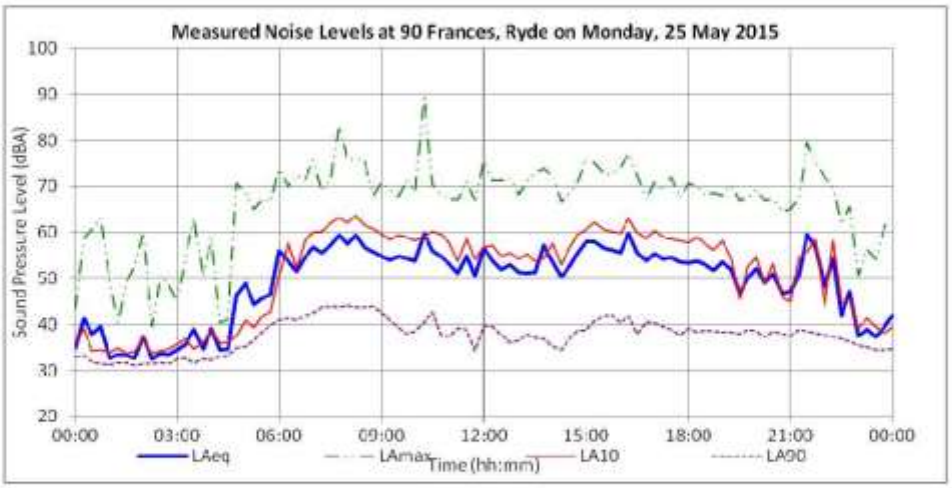

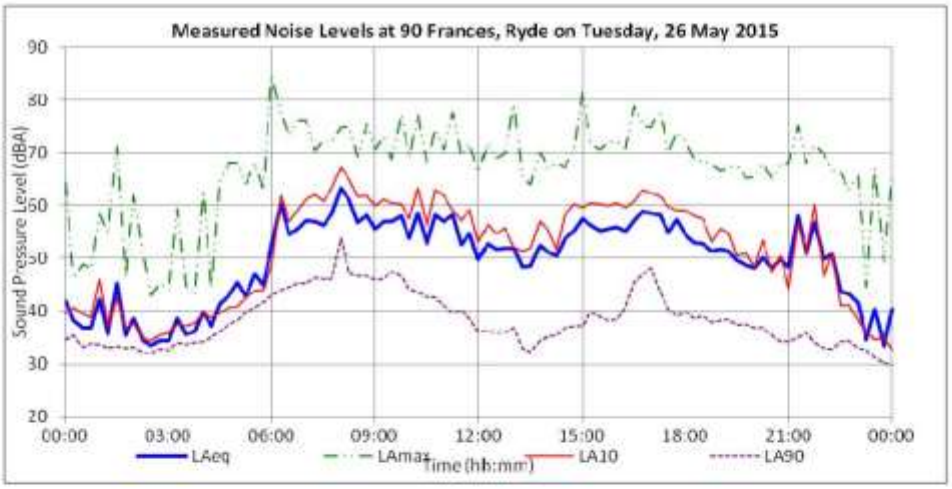

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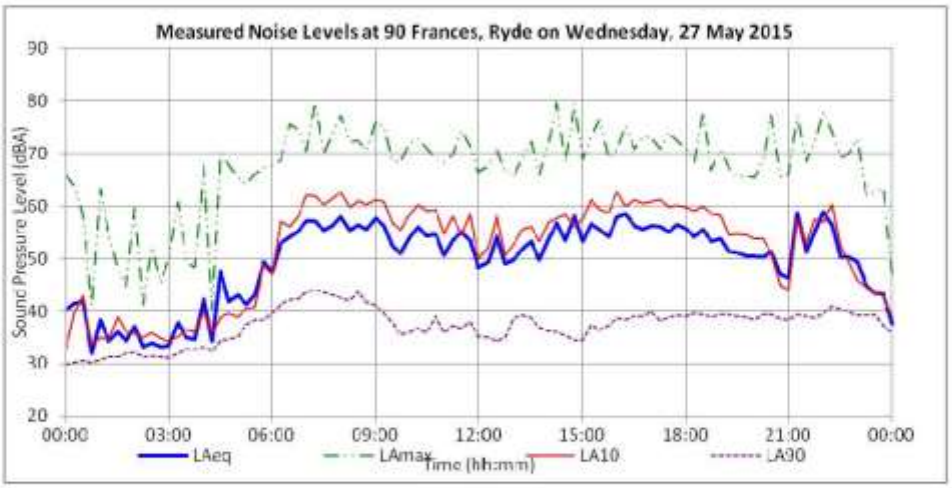

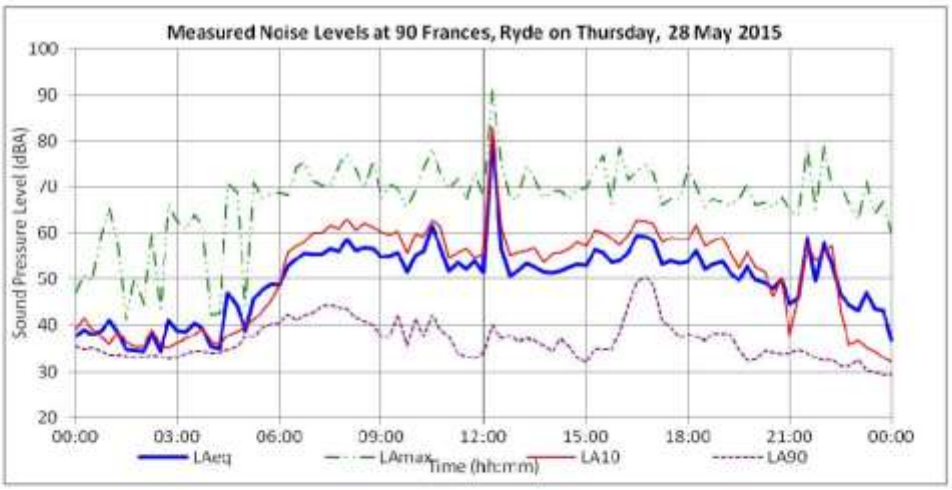

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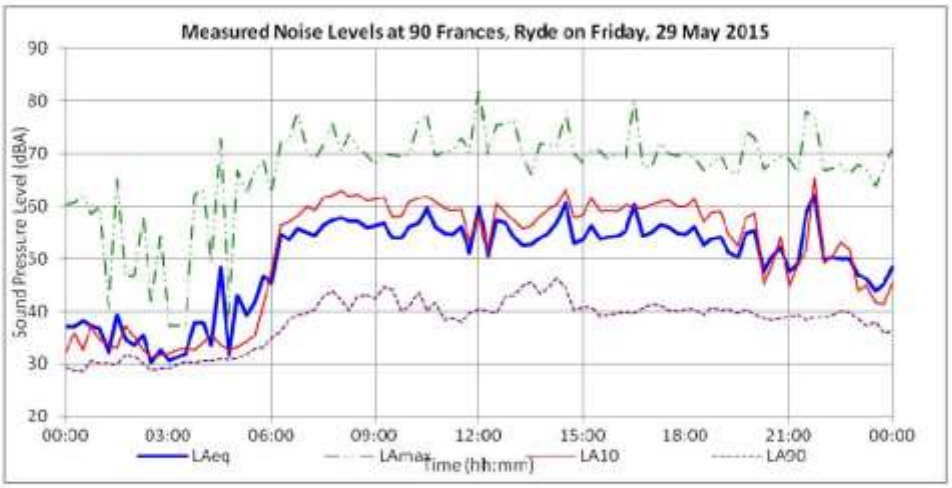

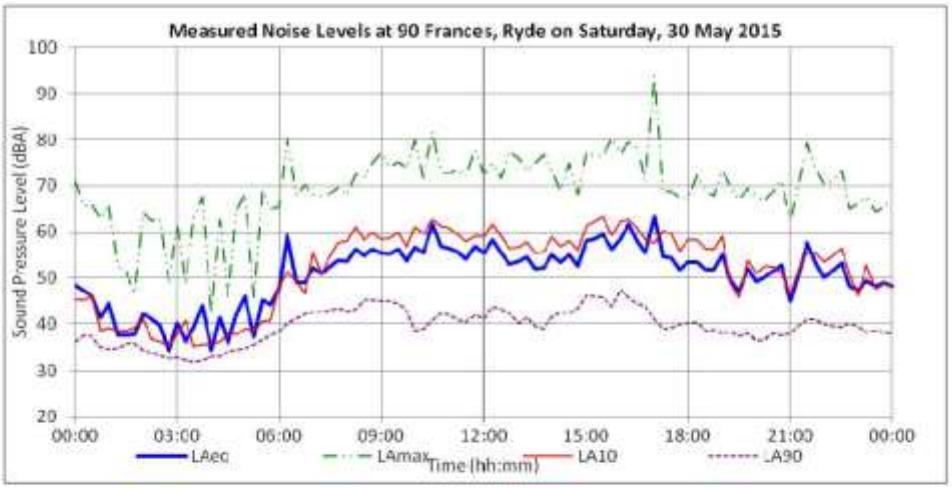

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Morrison Bay Park

Acid Sulphate Soil Management Strategy

Draft V1.0

City of Ryde

ngh environmental

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Document control

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Report name	City of Ryde – Morrison Bay Park: Acid Sulphate Soil Management Strategy
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Council PM	Contractor PM	

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1	Project Manager	
2	Environmental Representative	
3	Construction Manager	
4		
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APPENDICES

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1 INTRODUCTION

This Management Strategy has been prepared to minimise the risk of environmental damage caused by acid leachate. The Management Strategy applies to all construction activities and has been prepared in accordance with NSW Acid Sulphate Soil Manual (ASSMAC, 1998) and RTA Policy (RTA Procedure DEC - P04).

Morrison Bay Park is scheduled to have electrical and lighting services upgraded for sporting facilities. Scope of works includes placement of 8 new power poles and excavation for conduit cabling to 600mm depth. The placement of new poles is expected to be to bedrock and will likely enter the watertable which is shallow within Morrison Bay Park area. See Appendix B for details of Construction Layout.

Soil mapping of the area (SCS, 1989) shows that the proposed site is described as disturbed terrain which is likely to contain fill material underlain by potential acid sulphate soil (ASS) as mapped in Ryde Local Environment Plan Mapping (2011) – See Appendix A. The ASS mapping shows that Morrison Bay Park has the potential for class 2 ASS. As such any excavation works needs to be carefully managed to ensure potential ASS are adequately dealt with and local environmental sensitive areas are protected.

This management strategy is to provide an approach with the management of potential acid sulphate soils. Once adequate soil testing of the site is undertaken by a qualified specialist, a more detailed management plan can be developed which includes site specific details of mitigation measures which address construction and operational phases to minimise impacts from:

a) The disturbance (including excavation or changes in surface or subsurface water systems)
b) Any excavated soils (including storage, treatment or use)
c) Any acid leachate produced (including storage, treatment, discharge or use)

A monitoring program for soils, subsurface and surface water quality can be established for the site once initial investigation is undertaken. This will determine monitoring parameters, locations, frequency and analysis to be undertaken.

The management strategy addresses the following:

- Identification of Acid Sulphate Soils (RTA Procedure DEC - P01)
- Assessment of the likely impacts of acid sulphate soils (RTA Procedure DEC - P02)
- Selection of treatments for acid sulphate soils (RTA Procedure DEC - P03)

Acid Sulphate Soils are the common name given to soils which contain iron sulfides. The process of acidification of the iron sulfides gives rise to two potentially environmentally damaging soil types:

1.1 Potential Acid Sulphate Soils (PASS)

The iron sulfides are contained in a layer of waterlogged soil. This layer can be clay, loam or sand, and is usually dark grey and soft. The water prevents oxygen in the air reacting with the iron sulfides. This layer has the potential to oxidise to sulfuric acid once exposed to air.

1.2 Actual Acid Sulphate Soils (AASS)

When the iron sulfides are exposed to air and produce sulfuric acid, they are known as actual acid sulphate soils.

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While soil itself can neutralise some of the sulfuric acid, the remaining acid moves through the soil, acidifying soil water, groundwater and surface waters.

Drainage of water and excavation can expose PASS to the air, causing AASS. Therefore, it is important to quickly identify and control both PASS and AASS to prevent potential for significant environmental damage. If you are working in an area of PASS please become familiar with the testing and associated mitigation measures.

2 POTENTIAL IMPACTS

2.1 Causes

The following are a list of possible causes of impacts of construction on sediments containing PASS materials.

1. Excavation of PASS material. Oxidation of this material can result in acid leachate.
2. Discharge of sub-surface water as a result of settlement producing acid leachate where it flows through oxidised AASS.
3. Embankment settlement will depress the underlying material with respect to the water table. In some circumstances heave at the toe of the embankment by displacement may raise PASS material above the water table.
4. Oxidation of pyrite in imported fill material.

2.2 Effects

Should any of the above causes eventuate, the following impacts may result:

- toxifying nearby soil by stripping essential elements and/or dissolving heavy metals
- reducing farm productivity and altering natural vegetation communities
- damage to infrastructure
- death or stunted growth of aquatic flora and fauna
- large scale fish kills and fish disease
- impact on aquaculture
- mass mortalities of microscopic organisms
- increased light penetration due to water clarity
- loss of acid-sensitive crustaceans
- destruction of fish eggs
- loss of habitat
- persistent iron coatings
- alterations to water plant communities
- invasion by acid-tolerant water plants
- reduced spawning success due to stress
- chemical migration barriers
- reduced food resources
- dominance of acid-tolerant plankton species

- changes in food chain and web
- reduced recruitment
- higher water temperatures due to increased light penetration
- increased availability of toxic elements
- reduced availability of nutrients

3 IDENTIFICATION OF ACID SULPHATE SOILS

The following procedures have been developed to determine whether the soils contain pyrite (FeS_2) to levels where they could be classed as acid sulphate soil, thus requiring treatment. It has been developed based on information provided in the NSW ASSMAC guidelines (1998), and the draft Identification and Investigation of Acid Sulphate Soils guideline (2006) prepared by the WA Department of Environment. Use the following flow chart to assist in the identification process.

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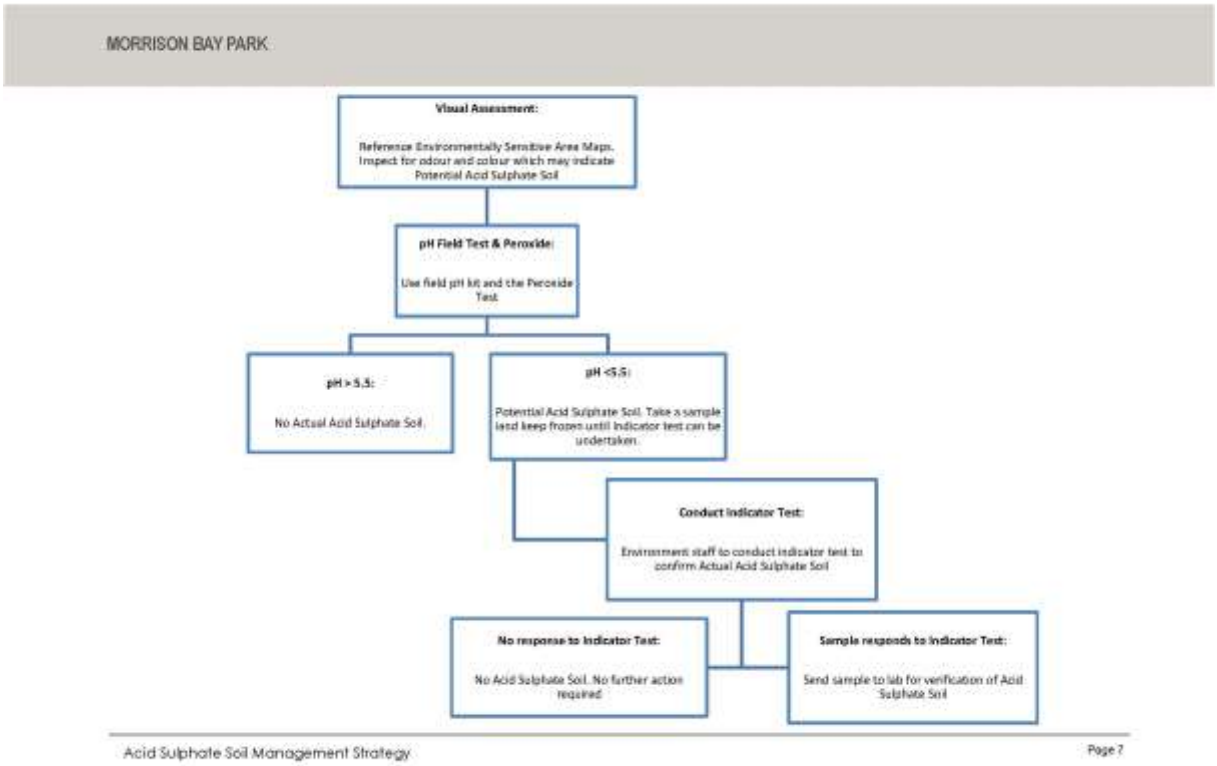

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3.1 Step One: Visual Assessment

Visual assessment of PASS or AASS begins using the Environmentally Sensitive Area Maps, which identify all areas of PASS. If working in an area of PASS vigilant visual monitoring should be undertaken during all stockpiling and excavation activities.

It is also important to be able to recognise indicators of actual acid sulphate soils to prevent further acidification of land and waterways. These indicators include:

- cloudy green-blue water
- excessively clear water
- iron stains
- poor pasture
- scalded soil
- yellow jarosite
- 'rotten egg' smell
- waterlogged soil
- corrosion of concrete and/or steel structures
- oily-looking surface iron bacterial scum
- dark grey soils

3.2 Step Two: pH Field Test

1. Place a small amount of soil (approx. 5-15 grams) in a beaker
2. Add distilled water to make up a soil :water paste
3. Use either a soil pH test kit or pH meter to ascertain pH value.

Field pH readings of 4 or less, indicate that actual acid sulphate soils are present with sulfides having been oxidised in the past, resulting in acid soils and acidic soil pore water. Readings greater than 4 but less than 5.5 are acid and may be the result of some previous or limited oxidation of sulfides, but is not confirmatory of actual acid sulphate soils; therefore an indicator test is required.

It should be noted that substantial exchangeable/soluble aluminium and hydrogen ions usually exist at these pH values. Other factors such as excessive fertilizer use, organic acids or strong leaching can cause pH values greater than 4 but less than 5.5.

3.3 Step Three: Indicator Test

The Indicator Test measures the existing acidity of a soil/water paste, and is therefore used to help identify AASS.

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3.3.1 Taking the sample

1. Visually assess the soil for colour, texture, vegetation, porosity etc. Write down the description along with the soil location, depth, date, time and sample number onto results sheet, and onto the sampling container.

2. If you see a yellow jarosite component aim for that in your sample, otherwise, take a representative samples either in an airtight plastic bag or soil jar.

***Note**; freezing the sample prevents oxidisation but it is best to use samples which have been thawed; therefore if testing is not to be undertaken immediately, freeze samples.*

3.3.2 Equipment Set Up

1. Clean the probe with Methylated Spirits or if it has been left for a long time, clean initially with weak hydrochloric acid (HCl) before repeating with Methylated Spirits.

***Note**: the equipment used for this test may vary, please follow calibration and maintenance instructions recommended by the equipment manufacturer.*

2. Calibrate the temperature probe using a standard thermometer.
3. 'Wash' the pH probe with pH 4 wash solution then immerse in pH 4 to calibrate.
4. To calibrate the probe; press CAL button, "not ready" should start flashing, when this stops flashing press CFM button to adjust calibration to pH 4.
5. Follow the previous 2 steps using pH 7 buffer, to calibrate to pH 7.

3.3.3 The Indicator Test

1. Place a small amount of soil (approx. 15 grams) in two heat resistant beakers (one shall be used as a control)

***Note**: The control and test samples should be subsets of the same sample and be as similar in constitution as possible.*

2. Cover the Control sample in distilled water and the Test sample with 50% hydrogen peroxide (H2O2) and observe the reactions, make notes on reaction intensity, speed and temperature changes. To increase reaction, place test sample in the sun/near heat.
   Note: Please undertake this in a very well ventilated area.
3. The reaction should be observed and rated. Continue to observe the reaction until it is complete; from 20 mins to 24 hours. Greater reaction indicates that the soil sample was more likely to have a lower pH, i.e.; super foamy reaction expects a pH of about 2.

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4. While the Test sample is reacting, take the pH reading for the Control sample.
5. When reaction of test sample is complete, take pH of the solution. If required add distilled water to increase volume of solution in order to cover the pH probe.

***Note**: The handling and storage of H2O2 is an OH&S issue and must be managed in accordance with relevant regulations and the MSDS. Conduct this test is a well ventilated area*

3.3.4 Finalising the results

1. Write all observations and results onto Results Sheet (see Appendix 1).

All soil samples taken shall be recorded on the Results Sheet irrelevant of level of testing undertaken and left with the Environment Team staff for reporting purposes.

Potentially positive reactions include one or more of the following:

- change in colour of the soil from grey tones to brown tones;
- the release of sulphurous odours;
- a substantial depression in pH below that of "actual" acid sulphate soils (pH 4 or less); and
- pH of less than 3.

The strength of the reaction is a useful indicator. The test is most useful and reliable with clays and loams containing low levels of organic matter. It is least useful on coffee rock, sands, or gravels, particularly dredged sands with low levels of sulfidic material (<0.05 percent S). With soils containing high organic matter (e.g. surface soils, peat, mangrove/estuarine mud and marine clays), care must be taken when interpreting the reaction as high levels of organic matter and other soil constituents particularly manganese oxides can also cause a reaction.

The following table provides information for interpretation of Control pH results:

pH value	Result	Comments
pH Control ≤4	Actual acid sulphate soils (AASS) indicating oxidation of sulfides	This is generally not conclusive because highly organic soils such as peats and occasionally heavily fertilised soils may also give pHF ≤4.
pH Control ≤3.7	Expected if jarosite exists in the sample	This is also an AASS. Jarosite needs a pH of at least 3.7 to form. Horizons containing some jarosite and some other mottling (iron, grey) may have a pH >3.7 if the sample contains a mixture of jarosite and higher pH soil. This depends on the level of oxidation and the ability of the soil to 'hold' the acid.

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pH Control >7	Expected in waterlogged, unoxidised, or poorly drained soils	Marine muds commonly have a pH >7 and this reflects seawater (pH 8.2) influence. May be a PASS after oxidation with H_2O_2.
4 < pH Control ≤5.5	An acid soil	Investigate further for possible ASS link, e.g. AASS with shell presence.

A combination of the following three factors is considered in arriving at a 'positive' identification of AASS:

a) A reaction with hydrogen peroxide - the strength of the reaction with peroxide is a useful indicator but cannot be used alone. Organic matter, coffee rock and other soil constituents such as manganese oxides can also cause a reaction. Care should be exercised in interpreting a reaction on surface soils and high organic matter soils such as peat and coffee rock, and some mangrove/estuarine mud and marine clays. This reaction should be rated, e.g.

L = Low reaction,

M = Medium reaction,

H = High reaction,

V = volcanic reaction,

X = Extreme reaction (very vigorous, gas evolution and heat generation)

b) The actual value of pHFOX (i.e. Hydrogen peroxide/soil solution in the Test sample after the reaction has finalised). If pHFOX <3, and a significant reaction occurred, then it strongly indicates a PASS. The more the pHFOX drops below 3, the more positive the presence of inorganic sulfides.

c) A much lower pHFOX than Control sample pH - The lower the final pHFOX value and the greater the difference between the pHFOX compared to the Control pH, the more indicative the presence of PASS. This difference may not be as great if starting with an already very acid pH (close to 4), but if the starting pH is neutral or alkaline then a larger change in pH should be expected. Where fine shell, coral or carbonate is present the change in pH may not be as large due to buffering. The 'fizz test' (effervescence with 1 M HCl) should be used to test for carbonates and shell.

Of these three factors, the final pHFOX value is the most conclusive indicator, and the lower the final pHFOX, the more confident one can be that PASS may be present.

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2. Send off all samples with a significant pH drop between control and test samples, a very low pH, or a very strong/fast reaction with the Hydrogen peroxide.

All soil samples must remain frozen until Indicator Test, and if required subsequent lab analysis, is performed.

3. Keep probe moist when not in use, store in its cap with a touch of HCl.

***Note**: follow manufacturer's maintenance instructions for the equipment you are using.*

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4 TREATMENT

Estimate the potential amount of soil that may be disturbed and determine a treatment area large enough to contain all excavated PASS or AASS. Treatment areas shall meet the following requirements:

a) Be located at least 50m from waterways
b) Be constructed with impervious clay bunds to prevent leachate runoff.
c) Be lined with agricultural lime on the floor of the treatment area.

The treatment area will require a settlement pond or sump to collect any runoff. The pond or sump must be designed to capture the PASS treatment area runoff a 1 in 10 year (1 hour) storm event.

4.1 Treatment methodology one:

Soil shall be laid in 300mm layers and treated with lime. The soil shall be turned over/ mixed to ensure adequate mixing. Surface applications of lime shall be applied to the treatment area at a rate capable of neutralising all acid waters that might infiltrate through PASS/AASS, prior to placing PASS/AASS in the treatment areas. The minimum application rate should be equivalent to no less than 50t of fine agricultural lime/ha (or 5kg fine agricultural lime/m2, or 20kg/m3). This application may need to be increased depending on stockpile height and actual and potential acidity of the AASS.

***Note**: Refer to laboratory results and recommendations for final dosing rates.*

4.2 Treatment methodology two:

Where the rate required is below 2kg/m3 the material will not be treated but will be stockpiled for later use as topsoil for the works.

Where the dose rates are between 2kg/m3 and 10kg/m3, agricultural lime will spread over the area at the required rate and tyned in prior to excavation and stockpiling of the material. The base of the stockpile site will be lined with lime at 0.5kg/m2 to neutralise any water that may seep into the ground water. A sump hole will be excavated near the stockpile to enable runoff to be captured and tested to confirm the water quality leaving the material. The topsoil material will then be used in topsoiling the works.

Where the dose rates are above 10kg/m3, the material to be excavated will be separated based on its acid potential and stockpiled in a bunded area on a bed of lime at 1.0 kg/m2. This material will then be tested to confirm the appropriate dose rate and treated accordingly. A sump will be provided within the bunded area to allow the runoff to be checked for conformance. This material shall remain bunded until test results available. The stockpile will then have the additional lime added if

MORRISON BAY PARK

required. After treatment, this material can then be placed in mounds for landscaping purposes compacted and covered with a minimum of 500mm of non PASS material or used to backfill piles and pile caps.

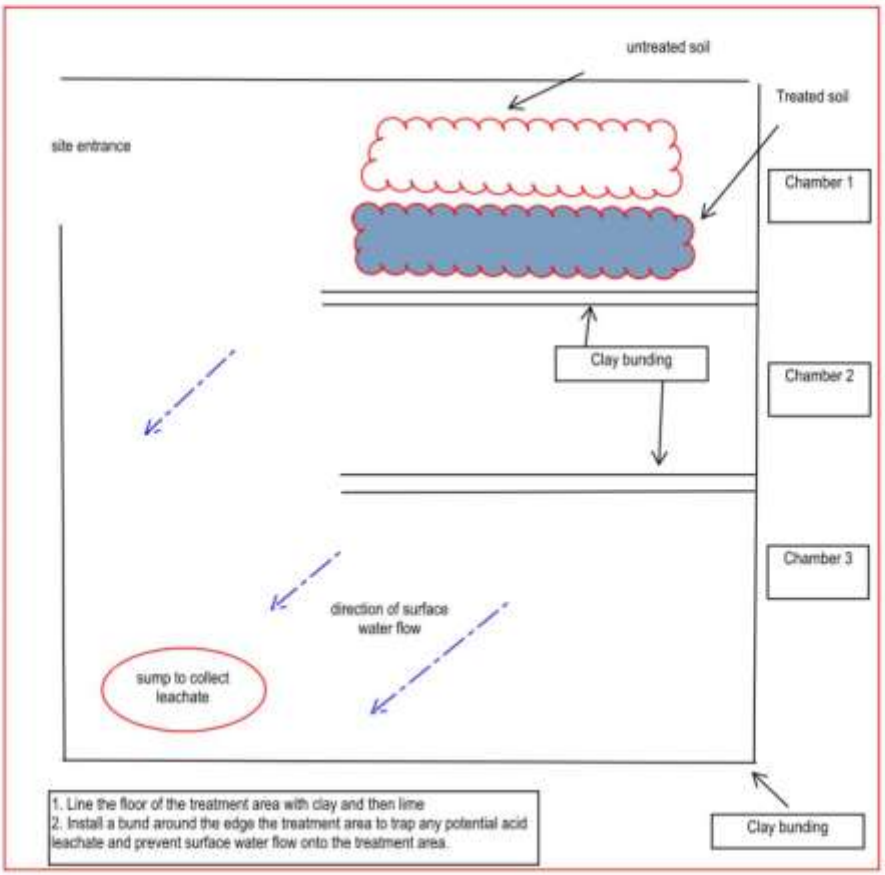


FIGURE 4-1 EXAMPLE OF AN ACTUAL ACID SULPHATE TREATMENT AREA

ITEM 2 (continued) **ATTACHMENT 3**

5 MONITORING

Where surface water and/or leachate collects within the bunded treatment area, the water shall be tested for pH, turbidity and TSS values prior to discharge or pumped directly to a sedimentation basin (or similar). Should pH results be lower than 5, further treatment may be required.

Any runoff or fines collected in the settlement pond/sump will require assessment prior to decommissioning of the stockpile area.

Regular visual monitoring of PASS/AASS areas and surrounds shall be undertaken to identify signs of ASS oxidation. This monitoring should include detecting:

- Unexplained scalding, degradation or death of surrounding vegetation;
- Unexplained death or disease in aquatic organisms
- Formation of the mineral jarosite and other acidic salts in exposed or excavated soils
- Areas of green-blue water or extremely clear water indicating high concentrations of aluminium
- Rust coloured deposits on plants and on the banks of drains, water bodies and watercourses indicating iron precipitates
- Black to very coloured waters indicating de-oxygenation

Final validation sampling of treated soils will be conducted at the completion of treatment to determine if the neutralisation process has been successful. Validation sampling will be conducted in accordance with the Acid Sulphate Soil Manual (ASSMAC, 1998).

6 CONTINGENCY PROCEDURES

If PASS is suspected, appropriate actions must be taken to ensure the PASS is not able to oxidise in the field. For example:

- If PASS is shown to occur in the vicinity of your work area, choose a construction method that avoids the need to disturb PASS.
- If avoidance of PASS is not possible, notify environment staff of upcoming works at least 5 days prior to commencement of activities.

Any material that does not conform to the expected or tested levels and exhibits a high PASS will be either left in place, or if already excavated will be isolated and a suitable treatment method devised. Although experience has shown that any potential pollution does take time to develop close monitoring will be carried out until suitably treated. If a serious situation does develop in the interim immediate treatment with lime will be carried out. If PASS is suspected, appropriate actions must be taken to ensure the PASS is not able to oxidise in the field.

ITEM 2 (continued) **ATTACHMENT 3**

MORRISON BAY PARK

7 DISPOSAL

Once treatment has occurred, onsite re-use and/or disposal of the treated soil shall be undertaken. Testing of soil pH shall be carried out by the Environment Team prior to reuse onsite. This material can be placed in mounds, extended batters or for landscaping purposes, compacted and covered with a minimum of 500mm of non PASS material or used to backfill piles and pile caps.

If off-site disposal is required, procedures outlined within the document Waste Classification Guidelines, Part 4: Acid Sulphate Soils (DECCW 2008) shall be implemented.

This includes the following:

- Keep potential ASS wet at all times during excavation and subsequent handling, transport and storage until they can be disposed of safely.
- ASS must be received at the proposed disposal point within 16 hours of being dug up.
- Potential ASS may be disposed of in water below the permanent water table, provided:
  - this occurs before they have had a chance to oxidise, i.e. within 24 hours of excavation
  - they meet the definition of 'virgin excavated natural material' (VENM) under the Protection of the Environment Operations Act 1997, even though they contain sulfidicores or soils.
- Landfills shall be licensed
- OEH's Environment Line has details on facilities able to accept this waste: phone 131 555.
- Potential ASS must be disposed of within 8 hours of their receipt at a landfill and kept wet at all times until their burial at least 2 metres below the lowest historical level of the water table at the disposal site.
- Documentation must be provided to the occupier of the landfill for each truckload of potential ASS received, indicating that the soil's excavation, transport and handling have been in accordance with the Acid Sulphate Soil Manual, thus preventing the generation of acid.
- The disposal site's licence will outline what documentation needs to be kept and for how long.
- Soil that has dried out, undergone any oxidation of its sulfidic minerals, or which has a pH of less than 5.5 must be treated by neutralisation and disposed of at a landfill that can lawfully accept it (see 'Disposal of actual acid sulphate soils' below).

ITEM 2 (continued) **ATTACHMENT 3**

MORRISON BAY PARK

7.1 Disposal of potential acid sulphate soils above the water table

- Where potential ASS cannot be classified as VENM or a suitable underwater disposal site at a landfill is not available, the soil must be treated in accordance with the neutralising techniques in the Acid Sulphate Soil Manual. After treatment the soil should be chemically assessed in accordance with Step 5 in Part 1 of the Waste Classification Guidelines, available at www.environment.nsw.gov.au/waste/envguidlns. This will determine whether any other contaminants are present in the material. When the classification has been established, the soil should be disposed of to a landfill that can lawfully accept that class of waste.
- Actual ASS contain highly acidic soil horizons or layers resulting from the aeration of soil materials that are rich in iron sulfides, primarily sulfide. This oxidation produces more hydrogen ions than the sediment is able to neutralise, resulting in soils with a pH of 5.5 or less when measured in dry season conditions. These soils can usually be identified by the presence of pale yellow mottles and coatings of jarosite.

7.2 Treatment of actual acid sulphate soils prior to disposal

- Actual ASS must be treated by the generator of the waste before they can be considered for disposal. Treatment should be in accordance with the neutralising techniques outlined in the Acid Sulphate Soil Manual.
- Following neutralisation, the generator of the waste must chemically assess the soil in accordance with Step 5 of the Waste Classification Guidelines: Part 1 – Classifying waste
- (available at www.environment.nsw.gov.au/waste/envguidlns). This will determine whether there are any other contaminants that may affect how the waste is classified for disposal.
- Once classified, the waste must be taken to a landfill licensed to accept that class of waste.
- Prior arrangements should be made with the occupier of the landfill to ensure that it is licensed to accept the waste. The landfill should be informed that the actual ASS has been treated in accordance with the neutralising techniques outlined in the Acid Sulphate Soil Manual and that the waste has also been classified in accordance with Part 1 of the Waste Classification Guidelines.

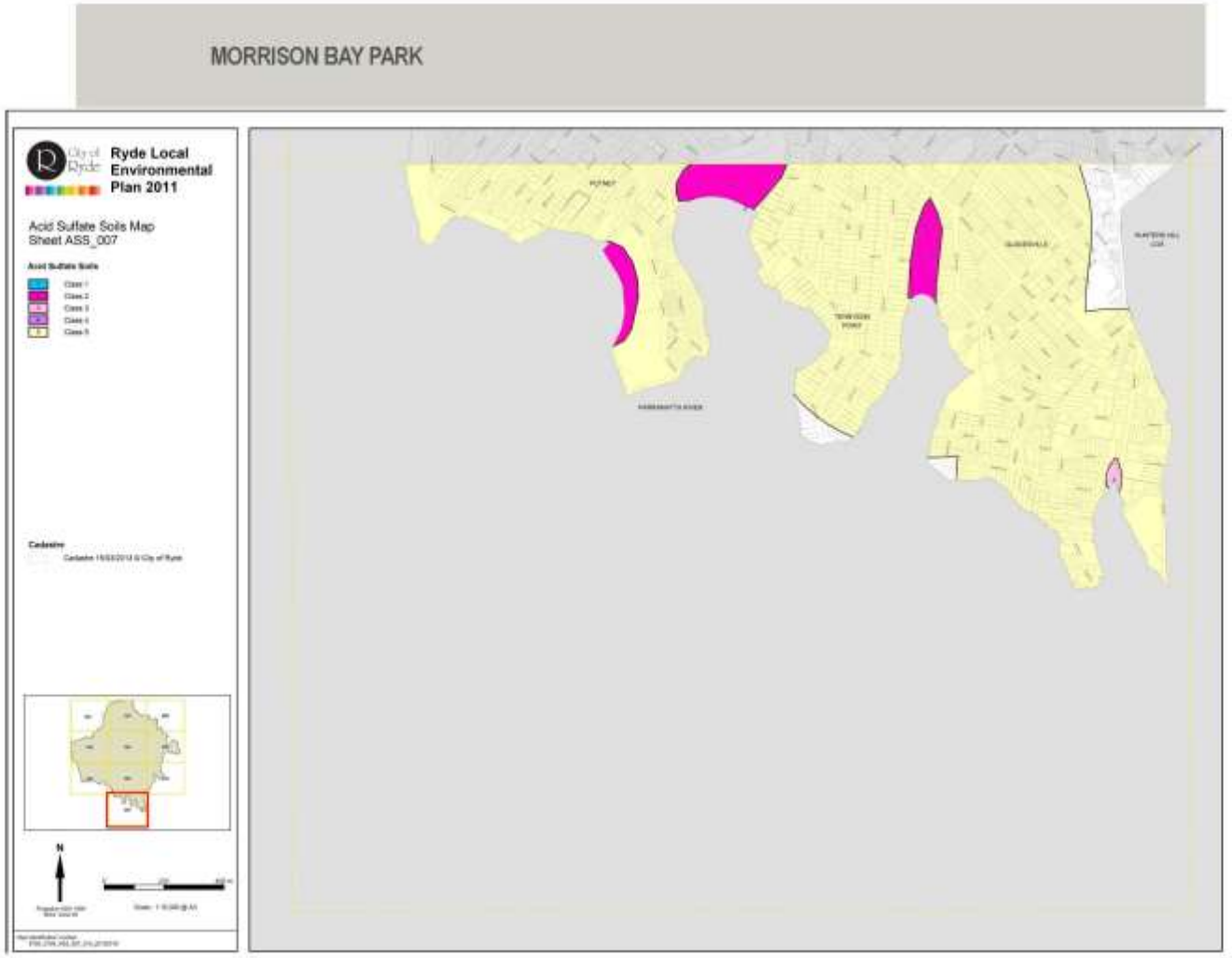
(Source Document: Waste Classification Guidelines, Part 4: Acid Sulphate Soils (DECCW 2008)

ITEM 2 (continued) **ATTACHMENT 3**

MORRISON BAY PARK

Appendix A – Local Environment Plan Mapping – Acid Sulphate Soils (2011)

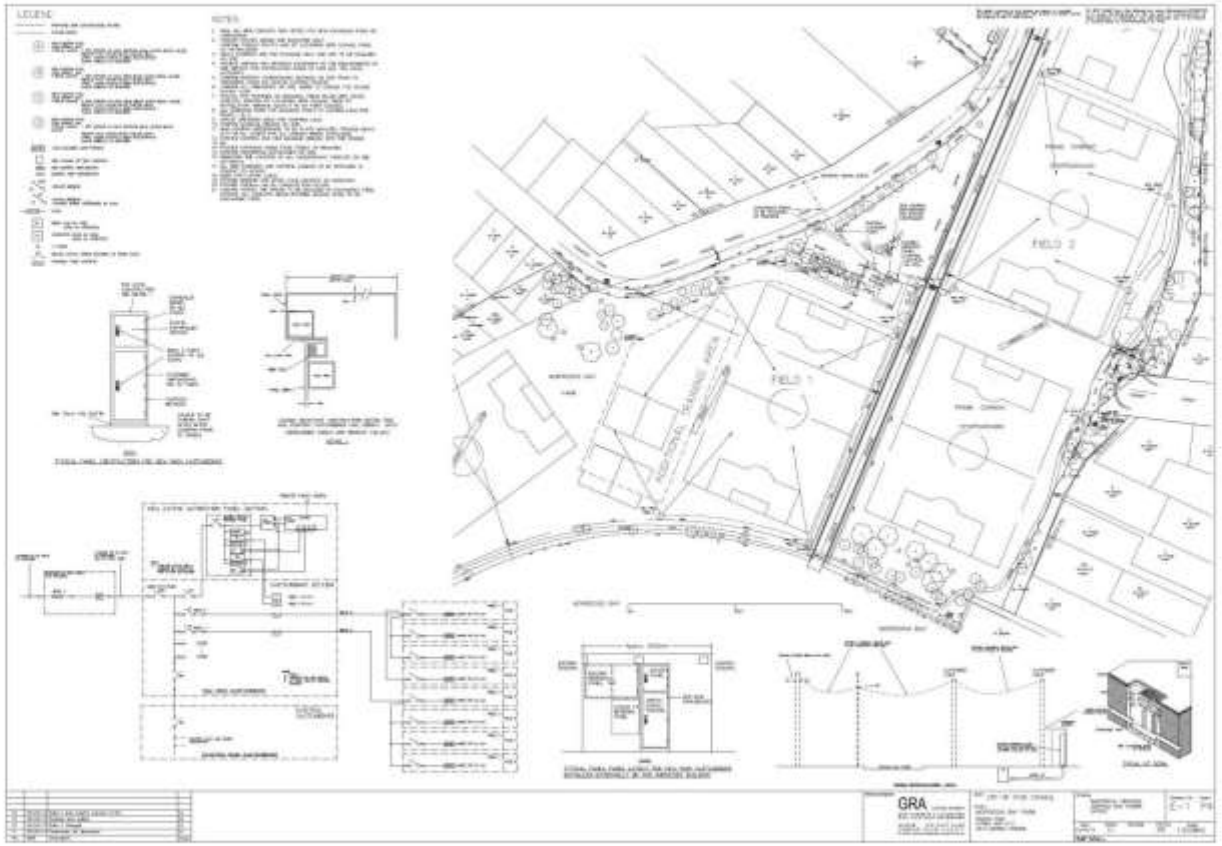
ITEM 2 (continued) **ATTACHMENT 3**



ITEM 2 (continued) **ATTACHMENT 3**

MORRISON BAY PARK

Appendix B – Construction Plan



ITEM 2 (continued) **ATTACHMENT 3**

MORRISON BAY PARK

Appendix C - PASS/AASS Sample Sheet

Combined field description and ASS data							
Sample ID	Soil Description (e.g. clay, silt, sand, colour)	pH Control pH units	pH Test pH units	pH Control - pH Test pH units	Reaction Rate L,M,H,X,V	Temp. °C	Sent for testing YES/NO
#This reaction should be rated, e.g. L = Low reaction, M = Medium reaction, H = High reaction, X = Extreme reaction, V = volcanic reaction.							

ITEM 2 (continued) **ATTACHMENT 4**

City of Ryde

Ecological Assessment

MORRISON BAY PARK

MAY 2015

ngh environmental

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ITEM 2 (continued) **ATTACHMENT 4**

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1 INTRODUCTION AND BACKGROUND

The City of Ryde is considering the installation of sportsfield lighting at Morrison Bay Park, an 8.8 ha area of foreshore open space, dedicated to recreation, located in Putney. Morrison Bay Park contains a significant stormwater canal, which drains the slope that runs down from the ridge along which Victoria Road is located.

The proposed sportsfield lighting will be up to 50 Lux for all areas, and will be initiated from the time that natural light deteriorates up to 9.30 pm in the winter period (April to August) and 9.00 pm in the summer period (September to March). Lighting will potentially be used four days per week, from Monday to Thursday.

To determine whether a detailed ecological assessment was needed for the proposed development, a desktop assessment was undertaken in May 2014 to identify any threatened entities that may be likely to occur in Morrison Bay Park and be adversely impacted. The assessment concluded that the installation of lighting in the park may potentially impact migratory wading birds (e.g. Black-tailed Godwits *Limosa limosa*) and Grey-headed Flying-foxes (*Pteropus poliocephalus*) (GGHFs). To determine the likelihood of such species using the park, clarify potential impacts, and conduct a habitat assessment, a site inspection was undertaken on the 5th June 2014. This report details the methodology, results and recommendations that have resulted from the observations taken during the site inspection.

2 LEGISLATIVE FRAMEWORK

2.1 RELEVANT LEGISLATION AND POLICIES

***Threatened Species Conservation Act 1995* (TSC Act)**

An assessment of the potential impacts of the proposal on threatened species, populations, ecological communities and critical habitat listed on the TSC Act must be undertaken in accordance with section 5A of the EP&A Act (7 part test). Refer to Section 3 for a summary of background research results and Section 4 and 5 for a detailed assessment.

***Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**

Approval by the environment minister is required if an action is likely to have a significant impact on a matter of national environmental significance or if it is listed as a matter of national significance. Refer to Section 3 for a summary of background research results.

2.2 CONFIRMATION OF STATUTORY POSITION

The City of Ryde Council is the determining authority for the proposed works. This assessment of significance fulfils the City of Ryde's obligation as the proponent under Section 5a of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed works would be undertaken under Part 4 of the EP&A Act.

3 METHODOLOGY

Database searches, a desktop assessment, and two site inspections were used to develop an understanding of the ecological factors at play in Morrison Bay Park.

3.1 DATABASE SEARCHES

Database searches undertaken for the purposes of this assessment included state and Commonwealth records as listed in Table 3-1. The results of the database searches are discussed in Section 4.

Table 3-1 Database searches undertaken on the 14th May 2014.

Resource	Target	Search area
OEH Wildlife Atlas Database	Threatened flora and fauna and populations	10 km radius of study area
EPBC Act Protected Matters Search Tool	Threatened flora and fauna, endangered populations and ecological communities and migratory species	5 km radius of study area
DPI Fish Database	Threatened fish populations	Ryde LGA
Atlas of Groundwater Dependent Ecosystems	Ecosystems reliant on surface and sub-surface groundwater	5 km radius of study area

3.2 DESKTOP ASSESSMENT

The search results of the threatened species databases were analysed by mapping the locations of species records (Figure 4-1) and using the distribution and number of records of each species to determine which species were most likely to occur at Morrison Bay Park. Each of these species was then assessed using habitat-specific characteristics to determine whether it is likely that they would be present in the modified and urbanised environment of Morrison Bay Park.

Literature and personnel relevant to the biodiversity values at Morrison Bay Park was also reviewed, including the *Morrison Bay Park Draft Plan of Management* (City of Ryde 2009) and any relevant public records (e.g. Eremaea eBird).

3.3 SITE INSPECTION – JUNE 2014

A brief biodiversity survey of Morrison Bay Park was carried out on the morning of 5th June 2014, to assess the site's value as threatened species habitat and confirm conclusions made during the desktop assessment. The aims of the inspection included:

- Checking the presence and extent of exposed mud flats suitable as foraging or roosting habitat for migratory wading birds.
- Checking the presence and abundance of eucalypts and fig trees that may provide foraging habitat for volant species such as the GHFF and threatened birds.
- Checking for the presence of mangroves, which are designated as protected marine vegetation under Part 7, Section 205 of the *Fisheries Management Act 1994* (FM Act).

The vegetated areas of Morrison Bay Park were traversed twice between 7.30 am and 9.15 am to collect data relating to the above factors. This time of day was chosen for two reasons; (1) the tide was at its lowest, increasing the likelihood of mudflats being exposed, and (2) many birds are most active during the early morning, thus maximising the ability to detect species. Notes taken include species observed and their abundances, and interactions between the anthropogenic and natural environments that may influence the utilisation of available habitat by threatened species.

3.4 SITE INSPECTION – MAY 2015

An additional site inspection was undertaken at low tide on 26 May 2015. The site was again assessed for migratory wading birds, and for habitat available for other threatened fauna species such as Grey-headed Flying-foxes and Powerful Owls.

3.5 NOMENCLATURE

Field guides and standard texts used as a reference are provided in the reference list. The naming of species recorded or known for the region follows the nomenclature present in these texts. The conservation significance of fauna and flora species is made with reference to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Threatened Species Conservation Act 1995* (TSC Act).

Botanical nomenclature follows Harden (1990-2002), with recent name changes provided by the Australian Plant Name Index of the Australian National Herbarium. Flora and fauna species are referred to by both their common and scientific name in the first instance, and their common name only when subsequent references are made.

4 RESULTS

4.1 OEH WILDLIFE ATLAS DATABASE

A search of the OEH Atlas of NSW Wildlife (BioNet), returned 12,903 records of 59 threatened species, of which 91% are records of Green and Golden Bell Frogs (*Litoria aurea*) from Olympic Park, located a short distance upstream and on the opposite side of the Parramatta River. Another 414 (3.2%) of the records are White-fronted Chats (*Epthianura albifrons*) also recorded from Olympic Park. Excluding these species, which have not been recorded on the northern side of the Parramatta River in this region, results in 740 records of 57 species. Almost half of these, with 346 records from both sides of the Parramatta River, are Curlew Sandpipers (*Calidris ferruginea*), a species that feeds in intertidal mudflats. Of the remaining 56 species, nine have more than 10 records in the search area. These nine species are: Red-crowned Toadlet (*Pseudophryne australis*), the Black-tailed Godwit, the Powerful Owl (*Ninox strenua*), the Grey-headed Flying Fox (*Pteropus poliocephalus*), the Eastern Bentwing-bat (*Miniopterus orianae* [=*schreibersii*] *oceanensis*), the Narrow-leafed Wilsonia (*Wilsonia backhousei*), *Epacris purpurascens* var. *purpurascens*, the Downy Wattle (*Acacia pubescens*), and *Darwinia biflora*.

The Bionet search also returned the potential occurrence of 21 threatened ecological communities, of which one is vulnerable, 17 are endangered, and three are critically endangered (Appendix A). Location of database records is displayed in Figure 4-1.

4.2 EPBC ACT PROTECTED MATTERS SEARCH TOOL

The EPBC Act Protected Matters Search Tool returned three threatened ecological communities, 54 threatened species, and 51 migratory species (Appendix A). Excluding the 15 species of albatross and giant-petrels, which are largely marine, pelagic and aerial, as well as the sea-turtles and sharks, results in 30 threatened species and 31 listed migratory bird species. Threatened entities include three species of frogs, six bird species, seven mammal species, one reptile species, one fish species, and 14 plant species. Migratory birds include terrestrial species (e.g. Egrets, Rufous Fantail, Painted Snipe), predominantly aerial birds (e.g. Swifts), and wading birds (e.g. Knots, Plovers, Sandpipers).

4.3 DPI FISH DATABASE RECORDS VIEWER

No records of threatened and protected species were found for the Ryde Local Government Area. However, the EPBC Act Protected Matters Search Tool highlighted the Black Rockcod (*Epinephelus daemelii*), the juveniles of which are often found in estuary systems.

4.4 HABITAT CORRIDOR

The site is part of the River to River Wildlife Corridors Project that was undertaken over a period of three years (2010-2012). It was a grant funded project which aimed to assist small native birds and other fauna in the City of Ryde and Hunters Hill corridor areas through improvement of habitat areas. Morrison Bay Park was identified in the Parramatta River Catchment Native Habitats and Fauna Report (Applied Ecology 2014) as part of a medium to high priority corridor, linking the foreshore at Settlers Park to Tyagarah Park. This corridor is a combination of habitats in mostly poor condition. Morrison Bay Park was identified as being in 'poor condition' with 'high density weed infestation, little or no native flora diversity retained, some structural diversity of vegetation, some habitat resources available, with existing low to medium faunal diversity'.

As such, Morrison Bay Park is a fairly limited habitat corridor for terrestrial and less mobile species, however the Parramatta River acts as a natural corridor for aquatic fauna and mobile species such as birds and bats.

4.5 LITERATURE REVIEW - FAUNA

A review of surveys over a three year period by Insight Ecology as part of the River to River Corridors Project revealed a diversity of common indigenous species and introduced species, able to exploit the open parkland habitat of Morrison Bay Park. Commonly encountered species included Spotted Dove, Rock Dove, Crested Pigeon, Galah, Sulphur-crested Cockatoo, Little Corella, Long-billed Corella, Australian Magpie, Magpie-lark, Willie Wagtail, Masked Lapwing, Noisy Miner, Red Wattlebird, Rainbow Lorikeet, Common Myna (introduced), Grey Butcherbird, Australian Raven, Australian White Ibis, Pied Currawong, Common Starling (introduced), Silvereye, Black-faced Cuckoo-shrike, Welcome Swallow, Laughing Kookaburra, Silver Gull, Red-whiskered Bulbul (introduced), and White-faced Heron (Insight Ecology 2011a,b,d, 2012). Other common fauna species are also likely to be present such as possums.

4.6 ATLAS OF GROUNDWATER DEPENDENT ECOSYSTEMS

No surface reliant groundwater dependent ecosystems are known from the area, however it is likely that Morrison Bay Park has an associated local or intermediate groundwater flow system.

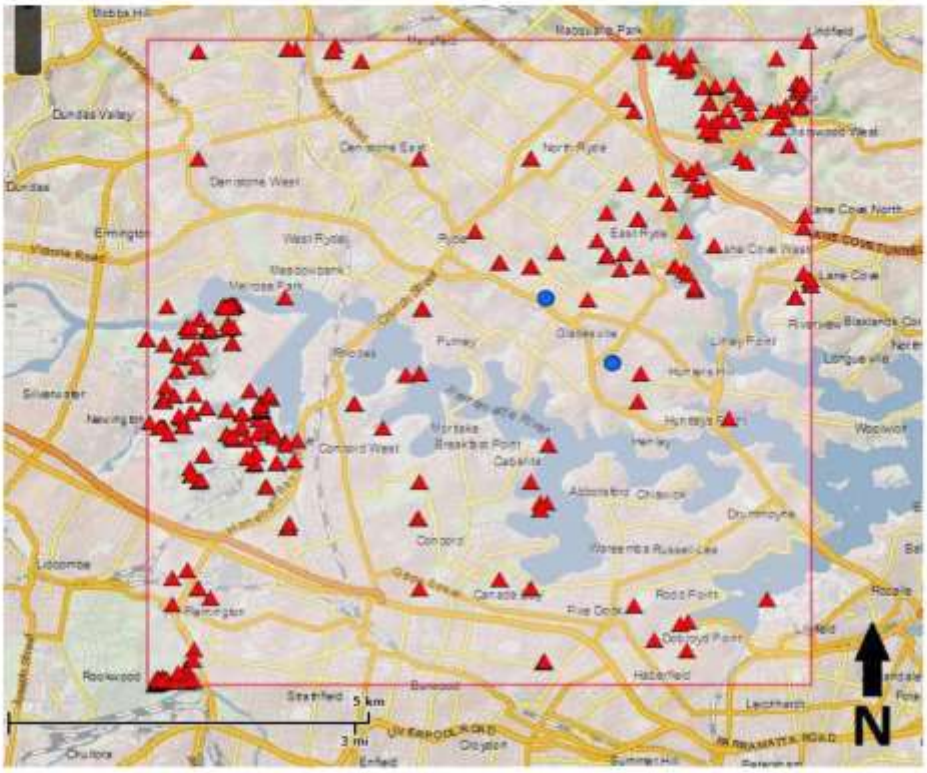

Figure 4-1 Results of a 10 km radius search of the NSW OEH Wildlife Atlas Database (BioNet), centred on Morrison Bay Park. The blue dots are inexact locations of Bauer's Midge Orchids (a sensitive species), and the red triangles represent all other threatened species records.

4.7 SITE INSPECTION – MAY 2014

Weather during the site inspection was considered suitable to meet the aims listed in Section 2.3, with an overcast sky and patchy light showers.

4.7.1 *Migratory Wading Birds*

The tide was at its lowest at approximately 8.30 am, exposing a mudflat upon or around which a number of waterbirds were observed foraging. Species observed here included Australian White Ibis (*Threskiornis molucca*), Silver Gull (*Chroicocephalus novaehollandiae*), Pacific Black Duck (*Anas superciliosa*), Little Black Cormorant (*Phalacrocorax sulcirostris*), Masked Lapwing (*Vanellus miles*), and Black-winged Stilt (*Himantopus himantopus*). A White-faced Heron (*Egretta novaehollandiae*) was also observed foraging on the grass of a playing field. At one point two domestic dogs were observed to run out onto the mudflat and chase away the foraging birds; a scenario that is likely to be frequently repeated throughout the year. Such instances may discourage birds from utilising the available habitat, but are unlikely to completely prevent foraging activities. It is thus considered likely that migratory wading birds such as the

Bar-tailed Godwit (*Limosa lapponica*), Curlew Sandpiper (*Calidris ferruginea*), Sharp-tailed Sandpiper (*Calidris acuminata*), and the Red-necked Stint (*Calidris ruficollis*) will regularly or irregularly utilise this mudflat for foraging purposes. An Australian birdwatching website (formerly *Eremaea* and now *Eremaea eBird*) contains one record of a Bar-tailed Godwit being present in the Morrison Bay mudflat, recorded in March 2014. This suggests that other waders may also use the available foraging habitat at some times of year.

4.7.2 Habitat trees

Vegetation surrounding the playing fields at Morrison Bay Park consists mainly of planted trees with scattered patches of remnant estuarine and coastal vegetation overstorey trees. Common species observed included Swamp Oak (*Casuarina glauca*), Turpentine Gum (*Syncarpia glomulifera*), Port Jackson Fig (*Ficus rubiginosa*), Sweet Pittosporum (*Pittosporum undulatum*), Queensland Brush Box (*Lophostemon confertus*), Coral Tree (*Erythrina x sykesii*), Jacaranda (*Jacaranda mimosifolia*), and Lemon-scented Gum (*Corymbia citriodora*). A small number of flowering Swamp Mahogany (*Eucalyptus robusta*), Red Bloodwood (*Corymbia gummifera*), and Broad-leaved Paperbark (*Melaleuca quinquenervia*) trees were also observed. Winter-flowering eucalypts such as the Swamp Mahogany are important food trees for GHFFs, particularly in the Sydney region where remnant coastal winter-flowering eucalypts have largely been cleared for development (DEWHA 2009). The presence of this species, as well as Broad-leaved Paperbarks and a number of fruiting Port Jackson Figs, suggests that the park will be utilised by GHFFs for foraging during the winter, and possibly at other times of the year (depending on the presence or absence of flowering eucalypts). GHFFs are listed as vulnerable under both the TSC Act and EPBC Act.

4.7.3 Mangroves

No mature or regenerating mangroves were observed during the site inspection. This suggests that either (1) they are not present in the area, or (2) they are at very low densities in the area.

4.8 SITE INSPECTION – MAY 2015

Weather conditions during the site inspection were fine and sunny.

4.8.1 Waterbirds and Migratory Waders

Species observed foraging on the mudflats at low tide included the Silver Gull, Australian White Ibis, Black-winged Stilt, and White-faced Heron. Other waterbirds included the Little Pied Cormorant and the Intermediate Egret, both utilising the stormwater drain. Other common species recorded included the Masked Lapwing, Welcome Swallow, Short-billed Corella, Sulphur-crested Cockatoo, Grey Butcherbird, Magpie-lark, Domestic Geese, Australian Raven, Crested Pigeon, Australian Wood Duck, Willie Wagtail, Noisy Miner, and Rainbow Lorikeet. None of these species are listed as threatened under the TSC Act or EPBC Act, and none are listed as migratory under the EPBC Act. However, as discussed previously, the mudflats (when exposed at low tide) do provide potential foraging habitat for migratory waders such as Bar-tailed Godwit, Black-tailed Godwit, Curlew Sandpiper, Sharp-tailed Sandpiper, and Red-necked Stint. The lack of mangroves and/or any other fringing aquatic habitat in the immediate vicinity of Morrison Bay Park indicates that the site does not provide suitable roosting or nesting habitat for any waterbirds or waders. They are likely to only visit the site for foraging purposes, at low tide.

4.8.2 Habitat trees

As discussed in Section 4.7.2, the presence of winter-flowering eucalypts, Broad-leaved Paperbarks and Port Jackson Figs are likely to provide foraging habitat for the Grey-headed Flying-fox (GHFF). Roosting camps can be found in a range of vegetation types, usually close to water in an area with a dense understorey .There are a number of permanent camps for this wide-ranging species across Sydney. The closest camps are at Gladesville (approximately 2.3 km to the south-east), and Duck Creek in Grandville (approximately 8.6 km to the west). Neither of these have been identified as nationally important camps (DoE 2014). Flying-foxes are highly mobile and will commute daily to foraging areas, usually within 15 km of the day roost site (DoE 2015). This species has been further discussed in Section 5.3.1

The scattered trees at the site, as well as the potential presence of GHFFs at certain times of the year, is likely to provide potential foraging habitat for the Powerful Owl. The site does not provide this species with suitable roosting or nesting habitat, however, like the GHFF, it is a highly mobile species that may visit the site on occasion. This species has been further discussed in Section 5.3.2.

5 IMPACT ASSESSMENT

The highly disturbed and maintained habitat that is present at Morrison Bay Park does not provide optimal habitat for resident threatened fauna species. Field surveys at the site indicate that no threatened flora species are likely to be present. Species with the highest likelihood of occurring in the area, i.e. those that are either (1) highly mobile or (2) have been recorded nearby, are discussed below. Some species, such as the Green and Golden Bell Frog, the Narrow-leafed Wilsonia and the Downy Wattle, have been excluded as they are essentially restricted to the southern side of the Parramatta River in this region. Other species, such as the Red-crowned Toadlet, have no records within five kilometres of Morrison Bay Park, and are restricted to particular habitat types, which do not occur on the site.

5.1 THREATENED ECOLOGICAL COMMUNITIES AND PROTECTED VEGETATION

No threatened ecological communities were observed during the site inspection, or were considered likely to occur within the Morrison Bay Park area based on desktop analysis.

Mangroves are designated as protected marine vegetation under Part 7, Section 205 of the FM Act. A person must not harm any such marine vegetation in a protected area, except under the authority of a permit issued by the Minister under Part 7.

A review of aerial photography suggested that mangroves do not occur on the Morrison Bay Park Foreshore, although the Morrison Bay Park Draft Plan of Management notes that regenerating mangroves are present. No mangroves or mangrove regeneration was observed during the site inspection. If mangroves are present, they are not at a level that is significant to the ecology of the park. Furthermore, the installation of lighting on the sports fields is unlikely to cause harm to mangroves, should any be present on the foreshore.

5.2 FLORA SPECIES

5.2.1 *Epacris purpurascens* var. *purpurascens*

There are 11 records of this species within 10 km of Morrison Bay Park, most of which are located within the Field of Mars Reserve and adjacent remnant vegetation patches. It is unlikely that any individuals are located within the Morrison Bay parklands, as a result of the high level of historical disturbance and almost entirely absent understory at the site.

5.2.2 *Darwinia biflora*

All of the 49 records of *Darwinia biflora* within 10 km are located within Lane Cove National Park and the Riverside Corporate Park. It is unlikely that any individuals are located within the Morrison Bay parklands, as a result of the high level of historical disturbance and almost entirely absent understory at the site.

5.3 FAUNA

Light spillage could impact on nocturnal fauna by changing the way that they use the area. Some animals may avoid lit areas and others may be attracted to them. For example, insectivorous species such as bats may utilise the area more if there is an increase in insects as a result of the lights. Alternatively, arboreal fauna such as owls may be impacted while hunting as light spillage would decrease their concealment. Diurnal species, such as the common birds observed during the site inspections, are unlikely to be impacted by the proposed lighting. Living in an urban environment, these species are familiar with urban structures such as poles, therefore the proposal is unlikely to have any significant impact on their health or survival. Overall, the site is an open parkland that currently provides limited habitat for fauna, therefore, the installation of sportslighting in an already developed area is unlikely to have a significant impact on any fauna species.

5.3.1 Grey-headed Flying Fox

The Grey-headed Flying-fox is listed as Vulnerable under the TSC Act and EPBC Act. This species has been recorded 41 times from within 10 km of Morrison Bay Park, most records being from parklands or reserves (e.g. Field of Mars Reserve, Pidding Park, Burrows Park, Lane Cove National Park). This species is likely to fly over Morrison Bay Park irregularly throughout the year, and may alight in Fig, eucalypt, and Broad-leaved Paperbark trees to feed, particularly during the winter months. Due to the nocturnal presence of this species during the winter months, Assessments of Significance (AoS) was carried out (Appendix B). The AoS concluded that the installation and operation of the sportsfield lighting up to 9.30 pm on four nights during the week is unlikely to significantly impact the GHFF, as the lighting will be switched off for most of the night, and flying-foxes are known to forage in trees near well-lit areas (such as at Manly Cove, and City Road at the University of Sydney).

5.3.2 Powerful Owl

Powerful Owls *(Ninox strenua)* have been recorded 30 times within 10 km of Morrison Bay Park, most of which are from Lane Cove National Park and in the vicinity of the Edna Hunt Sanctuary in Epping. A permanent roosting site for Powerful Owls was detected in in the Field of Mars Reserve by Biosphere Consultants in 2006. The Field of Mars Reserve is approximately 1.8 km to the north-east of Morrison Bay

Park. There are also scattered records from private properties, mostly in areas near dense riparian vegetation, where Powerful Owls often roost during the day. This species is unlikely to utilise Morrison Bay Park for roosting or nesting requirements due to the lack of suitable habitat, however there is the potential for this species to forage in the area. As such, an AoS under the TSC Act has been conducted and is included in Appendix B. The AoS concluded due to the adaptability of the Powerful Owl to foraging in the urban environment around Sydney, the installation of sportsfield lighting at Morrison Bay Park is considered unlikely to significantly impact upon the utilisation of the available foraging habitat by the Powerful Owl. The impacts to potential foraging habitat would be minor and would not disrupt this species activity to any great extent. The life cycle of the Powerful Owl would not be interrupted such that the local population is affected.

5.3.3 Wading Birds

The Black-tailed Godwit, Curlew Sandpiper, and other migratory wading bird species may occasionally utilise exposed mud or sand at low tides for foraging. This is evident from the fact that a Bar-tailed Godwit has been observed on the mudflats (in 2008 and 2014). There are also records of these migratory waders from both sides of the Parramatta River in surrounding suburbs and bays (e.g. Kissing Point Bay). The high frequency of domestic dog interactions with the waterbirds at low tide may prevent large numbers of migratory waders from spending much time foraging in Morrison Bay, but does not rule their occurrence out entirely. Morrison Bay Park does not provide suitable roosting or nesting habitat for any wading birds due to the absence of mangroves and fringing aquatic vegetation. Due to the diurnal and/or nocturnal presence of these species during the winter months, an Assessment of Significance (AoS) under the EPBC Act was carried out (Appendix B). The AoS concluded that the installation and operation of the sportsfield lighting up to 9.30 pm on four nights during the week is unlikely to significantly impact wading birds due to (1) the small number of individuals that are likely to utilise the area, (2) the absence of any impact on diurnal foraging habitat, and (3) the temporal scale of any potential ongoing disturbance due to light spill.

5.3.4 Other migratory birds

There is potential for a number of listed migratory species to occur within Morrison Bay Park on occasion. They include the Fork-tailed Swift (*Apus pacificus*), Great Egret (*Ardea alba*), Cattle Egret (*Area ibis*), White-bellied Sea-Eagle (*Haliaeetus leucogaster*), White-throated Needletail (*Hirundapus caudacutus*), Rufous Fantail (*Myiagra cyanoleuca*), and Rainbow Bee-eater (*Merops ornatus*).

When the schedules of the EPBC Act were drafted, they adopted the schedules of a number of international migratory bird agreements and the Bonn Convention (Convention on Migratory Species - CMS). This means that many species listed as migratory on the EPBC Act are not migratory as defined in Article 1 of the Convention[1].

In the case of the Rainbow Bee-eater – it is widespread and secure. It is migratory only in the sense that southern birds move north to breed. White-throated Needletails are a non-breeding migrant to Australia and spend most of their time in the air, although they have been recorded as landing in trees to roost. The Fork-tailed Swift is a non-breeding migrant to Australia, which never settles voluntarily on the ground and spends most of its life in the air, feeding on airborne insects. Both species of Egret are common and

[1] *"the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries."*

widespread, and utilise a range of habitats for foraging purposes. White-bellied Sea-eagles may be observed soaring above the Morrison Bay Park occasionally, particularly as there is a known breeding pair in the Newington Armoury at Sydney Olympic Park. This species is unlikely to utilise the park for any foraging, roosting or breeding requirements. Rufous Fantails are summer migrants to south-eastern Australia, and are often observed in moist, dense riverside vegetation. They are unlikely to use the vegetation in Morrison Bay Park for breeding or foraging purposes, but may occasionally be seen passing through the area.

5.3.5 Black Rockcod

This species may utilise the Parramatta River in the vicinity of the study area, but as it is not terrestrial it is considered largely irrelevant to the proposed development of Morrison Bay Park.

6 RECOMMENDATIONS

The proposal should follow these safeguards (Table 6-1) as a guideline to assist with minimising the impacts on biodiversity during construction and maintenance work.

Table 6-1 Safeguards and management measures to minimise environmental damage during the proposed work.

Impact	Environmental safeguards	Responsibility	Timing
Vegetation removal	• Any vegetation to be removed would be cleared in such a way as not to cause damage to surrounding vegetation. • Vegetation will be cleared in a manner that minimises the mixing of debris with topsoil.	Contractor	Pre-construction & Construction
Damage to native vegetation outside of impact zone	• Stockpiling of materials and equipment and parking vehicles within the dripline (extent of foliage cover) of any trees would not occur.	Contractor	Construction
Introduction and spread of noxious weeds	• Construction machinery (bulldozers, excavators, trucks, loaders and graders) would be cleaned using a high-pressure washer (or other suitable device) prior to entering and exiting the work site. • Weed-free fill would be used for any on-site earthworks.	Contractor	Construction & post-construction
Introduction or spread of pathogens	• Follow hygiene protocols in the Best Practice Management Guidelines (listed in references) for Phytophthora.	Contractor	Pre-construction & Construction
Removal and replacement of native vegetation	• Revegetation of any bare soil or disturbed areas with locally-occurring native flora species typical of the original habitat will improve habitat for both native and threatened species that have the potential to occur in the area.	Contractor	Post-construction

ITEM 2 (continued) **ATTACHMENT 4**

7 CONCLUSION

The ecological assessment for the installation of sportsfield lighting at Morrison Bay Park has shown that the most likely species of legislative significance to utilise the site will be migratory wading birds (including the Bar-tailed Godwit [*Limosa lapponica*], Curlew Sandpiper [*Calidris ferruginea*], Sharp-tailed Sandpiper [*Calidris acuminata*], and the Red-necked Stint [*Calidris ruficollis*]). Grey-headed Flying-foxes and Powerful Owls may also use the site as foraging habitat. Wading birds are more likely to be present during the summer months (when they migrate to south-eastern Australia), whereas Grey-headed Flying-foxes are more likely to be present during the winter months (when winter-flowering tree species provide valuable foraging habitat). No significant impacts on these species are considered likely to occur, due to (1) the small number of individuals that are likely to utilise available habitat, (2) the absence of any impact on diurnal wading bird foraging habitat, (3) the small area of foraging or roosting habitat present in the park and surrounds, and (4) the temporal scale of any potential ongoing disturbance due to light spill. A number of recommendations have been made to both reduce the potential for any impacts on these species, and maintain or improve all the biodiversity values currently present in Morrison Bay Park.

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APPENDIX A DATABASE SEARCH RESULTS

OEH Bionet Wildlife Atlas: Lists records of threatened species from the schedules of the TSC Act within 10 km of the study area.

EPBC Protected Matters Search tool: Lists items/species on the Schedules of the EPBC Act with the potential to occur within 5 km of the study area.

Some marine/aquatic species (i.e. whales, fur-seals, freshwater fish, sea turtles, sharks, and birds that forage over open water and do not breed on the Australian mainland) have been excluded from the lists.

ACRONYMS

EPBC: Environment Protection and Biodiversity Conservation Act

FM: Fisheries Management Act

TSC: Threatened Species Conservation Act

E: Endangered

V: Vulnerable

CE: Critically Endangered

EC: Ecological Community

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
Amphibians				
Heleioporus australiacus	Giant Burrowing Frog	0		EPBC-V
Litoria aurea	Green and Golden Bell Frog	11749	TSC-E	EPBC-V
Mixophyes balbus	Stuttering Frog	0		EPBC-V
Pseudophryne australis	Red-crowned Toadlet	16	TSC-V	
Birds				
Anthochaera phrygia	Regent Honeyeater	1	TSC-CE	EPBC-E
Botaurus poiciloptilus	Australasian Bittern	4	TSC-E	EPBC-E
Burhinus grallarius	Bush Stone-curlew	3	TSC-E	
Calidris ferruginea	Curlew Sandpiper	346	TSC-E	
Calidris tenuirostris	Great Knot	1	TSC-V	
Charadrius leschenaultii	Greater Sand-plover	1	TSC-V	
Circus assimilis	Spotted Harrier	2	TSC-V	
Daphoenositta chrysoptera	Varied Sittella	1	TSC-V	

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
Dasyornis brachypterus	Eastern Bristlebird	0		EPBC-E
Ephippiorhynchus asiaticus	Black-necked Stork	1	TSC-E	
Epthianura albifrons	White-fronted Chat population in the Sydney Metropolitan Catchment Management Area	207	TSC-E	
Falco subniger	Black Falcon	1	TSC-V	
Glossopsitta pusilla	Little Lorikeet	4	TSC-V	
Hieraaetus morphnoides	Little Eagle	3	TSC-V	
Ixobrychus flavicollis	Black Bittern	2	TSC-V	
Lathamus discolor	Swift Parrot	1	TSC-E	EPBC-E
Limicola falcinellus	Broad-billed Sandpiper	1	TSC-V	
Limosa limosa	Black-tailed Godwit	13	TSC-V	
Nettapus coromandelianus	Cotton Pygmy-Goose	4	TSC-E	
Ninox connivens	Barking Owl	3	TSC-V	
Ninox strenua	Powerful Owl	30	TSC-V	
Pandion cristatus	Eastern Osprey	2	TSC-V	
Ptilinopus superbus	Superb Fruit-Dove	2	TSC-V	
Rostratula australis	Australian Painted Snipe	0		EPBC-E
Sternula albifrons	Little Tern	3	TSC-E	
Sternula nereis nereis	Australian Fairy Tern	0		EPBC-V
Stictonetta naevosa	Freckled Duck	1	TSC-V	
Tyto longimembris	Eastern Grass Owl	1	TSC-V	
Xenus cinereus	Terek Sandpiper	1	TSC-V	
Mammals				
Cercartetus nanus	Eastern Pygmy-possum	1	TSC-V	
Chalinolobus dwyeri	Large-eared Pied-bat	0	TSC-V	
Dasyurus maculatus maculatus	Spotted-tail Quoll	0		EPBC-E
Dasyurus viverrinus	Eastern Quoll	1	TSC-E	
Falsistrellus tasmaniensis	Eastern False Pipistrelle	1	TSC-V	
Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	0		EPBC-E
Miniopterus orianae	Eastern Bentwing-bat	19	TSC-V	

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
[=schreibersii] oceanensis				
Mormopterus norfolkensis	Eastern Freetail-bat	2	TSC-V	
Perameles nasuta	Long-nosed Bandicoot population in inner western Sydney	3	TSC-E	
Petaurus australis	Yellow-bellied Glider	1	TSC-V	
Petrogale penicillata	Brush-tailed Rock-wallaby	0		EPBC-V
Phascolarctos cinereus	Koala	0		EPBC-V
Potorous tridactylus tridactylus	Long-nosed Potoroo (SE mainland)	0		EPBC-V
Pseudomys novaehollandiae	New Holland Mouse	0		EPBC-V
Pteropus poliocephalus	Grey-headed Flying-fox	41	TSC-V	EPBC-V
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	2	TSC-V	
Reptiles				
Hoplocephalus bungaroides	Broad-headed Snake	0		EPBC-V
Fishes				
Epinephelus daemelii	Black Rockcod	0		EPBC-V
Migratory Bird Species				
Apus pacificus	Fork-tailed Swift			Species or species habitat likely to occur
Ardea alba	Great Egret			Species or species habitat known to occur
Ardea ibis	Cattle Egret			Species or species habitat likely to occur
Arenaria interpres	Ruddy Turnstone			Foraging, feeding or related behaviour known to occur
Calidris acuminata	Sharp-tailed Sandpiper			Foraging, feeding or related behaviour known to occur

ITEM 2 (continued) **ATTACHMENT 4**

Scientific Name	Common Name	No. of OEH Wildlife Atlas Records 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
Calidris canutus	Red Knot		Foraging, feeding or related behaviour known to occur
Calidris ferruginea	Curlew Sandpiper		Foraging, feeding or related behaviour known to occur
Calidris ruficollis	Red-necked Stint		Foraging, feeding or related behaviour known to occur
Calidris tenuirostris	Great Knot		Foraging, feeding or related behaviour known to occur
Charadrius bicinctus	Double-banded Plover		Foraging, feeding or related behaviour known to occur
Charadrius leschenaultii	Greater Sand Plover		Foraging, feeding or related behaviour known to occur
Charadrius mongolus	Lesser Sand Plover		Foraging, feeding or related behaviour known to occur
Gallinago hardwickii	Latham's Snipe, Japanese Snipe		Species or species habitat may occur
Haliaeetus leucogaster	White-bellied Sea-Eagle		Breeding known to occur (Olympic Park)
Heteroscelus brevipes	Grey-tailed Tattler		Foraging, feeding or related behaviour known to occur
Hirundapus caudacutus	White-throated Needletail		Species or species habitat known to occur
Lathamus discolor	Swift Parrot		Species or species habitat likely to occur
Limosa lapponica	Bar-tailed Godwit		Foraging, feeding

ITEM 2 (continued) **ATTACHMENT 4**

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
				or related behaviour known to occur
Limosa limosa	Black-tailed Godwit			Foraging, feeding or related behaviour known to occur
Merops ornatus	Rainbow Bee-eater			Species or species habitat may occur
Monarcha melanopsis	Black-faced Monarch			Species or species habitat known to occur
Monarcha trivirgatus	Spectacled Monarch			Species or species habitat may occur
Myiagra cyanoleuca	Satin Flycatcher			Species or species habitat known to occur
Numenius madagascariensis	Eastern Curlew			Foraging, feeding or related behaviour known to occur
Numenius minutus	Little Curlew			Foraging, feeding or related behaviour known to occur
Numenius phaeopus	Whimbrel			Foraging, feeding or related behaviour known to occur
Pandion haliaetus	Osprey			Species or species habitat known to occur
Pluvialis fulver	Pacific Golden Plover			Foraging, feeding or related behaviour known to occur
Rhipidura rufifrons	Rufous Fantail			Species or species habitat known to occur
Rostratula benghalensis (sensu lato)	Painted Snipe			Species or species habitat may occur
Tringa stagnatilis	Marsh Sandpiper			Foraging, feeding or related behaviour known

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
				to occur
FLORA				
Acacia pubescens	Downy Wattle	36	TSC-V	EPBC-V
Asterolasia elegans		0		EPBC-E
Allocasuarina glareicola		0		EPBC-E
Caladenia tessellata	Thick-lipped Spider Orchid	0		EPBC-V
Callistemon linearifolius	Netted Bottle Brush	4	TSC-V	
Cryptostylis hunteriana	Leafless Tongue-orchid			EPBC-V
Darwinia biflora		49	TSC-V	EPBC-V
Dillwynia tenuifolia		1	TSC-V	
Epacris purpurascens var. purpurascens		11	TSC-V	
Eucalyptus camfieldii	Camfield's Stringybark	2	TSC-V	
Eucalyptus nicholii	Narrow-leaved Black Peppermint	1	TSC-V	
Genoplesium baueri	Bauer's Midge Orchid	8	TSC-E	EPBC-E
Hypsela sessiliflora		1	TSC-E	
Leptospermum deanei		1	TSC-V	
Melaleuca biconvexa	Biconvex Paperbark	0		EPBC-V
Melaleuca deanei	Deane's Paperbark	2	TSC-V	
Pelargonium sp. Striatellum (G. W. Carr 10345)	Omeo Stork's-bill	0		EPBC-E
Persoonia hirsuta	Hairy Geebung	1	TSC-E	
Pimelea curviflora var. curviflora	Curved Rice-flower	5	TSC-V	EPBC-V
Pimelea spicata	Spiked Rice-flower	0		EPBC-E
Pomaderris prunifolia	P. prunifolia in the Parramatta, Auburn, Strathfield and Bankstown Local Government Areas	8	TSC-E	
Prostanthera marifolia	Seaforth Mintbush	2	TSC-CE	EPBC-CE
Pterostylis saxicola	Sydney Plains Greenhood	0		EPBC-E
Streblus brunonianus	Siah's Backbone	0		EPBC-E
Syzygium paniculatum	Magenta Lilly Pilly	1	TSC-E	
Tetratheca glandulosa		1	TSC-V	

ITEM 2 (continued) **ATTACHMENT 4**

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
Tetratheca juncea	Black-eyed Susan	2	TSC-V	
Wahlenbergia multicaulis	Tadgell's Bluebell in the local government areas of Auburn, Bankstown, Baulkham Hills, Canterbury, Hornsby, Parramatta and Strathfield	4	TSC-E	
Wilsonia backhousei	Narrow-leafed Wilsonia	77	TSC-V	
Zannichellia palustris		4	TSC-E	
Endangered Ecological Communities (EECs)				
Blue Gum High Forest in the Sydney Basin Bioregion			TSC-CEEC	
Castlereagh Scribbly Gum Woodland in the Sydney Basin Bioregion			TSC-VEC	
Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Coastal Upland Swamp in the Sydney Basin Bioregion			TSC-EEC	
Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion			TSC-EEC	
Cumberland Plain Woodland in the Sydney Basin Bioregion			TSC-CEEC	
Duffys Forest Ecological Community in the Sydney Basin Bioregion			TSC-EEC	
Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion			TSC-EEC	
Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Hygrocybeae Community of Lane Cove Bushland Park in the Sydney Basin Bioregion			TSC-CEEC	
Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Moist Shale Woodland in the Sydney Basin Bioregion			TSC-EEC	
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Shale gravel Transition Forest in the Sydney Basin Bioregion			TSC-EEC	
Shale/Sandstone Transition Forest			TSC-EEC	

ITEM 2 (continued) **ATTACHMENT 4**

Scientific Name	Common Name	No. of Wildlife Atlas Records	OEH Wildlife Atlas 10 km search (14/05/14)	EPBC Protected Matters 5 km search (14/05/14)
Southern Sydney sheltered forest on transitional sandstone soils in the Sydney Basin Bioregion			TSC-EEC	
Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Subtropical and Temperate Coastal Saltmarsh				EPBC-V
Sydney Freshwater Wetlands in the Sydney Basin Bioregion			TSC-EEC	
Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions			TSC-EEC	
Turpentine-Ironbark Forest in the Sydney Basin Bioregion			TSC-EEC	EPBC-CEEC
Western Sydney Dry Rainforest and Moist Woodland on Shale				EPBC-CEEC

APPENDIX B ASSESSMENTS OF SIGNIFICANCE

B.1 NEW SOUTH WALES

The *Threatened Species Conservation Act 1995* (TSC Act) specifies a set of seven factors which must be considered by decision makers in assessing the effect of a proposed development or activity on threatened species, populations or ecological communities, or their habitats. These factors are collectively referred to as the 'seven part test'. One seven-part test was carried out for the purposes of this assessment, on the Grey-headed Flying-fox (*Pteropus poliocephalus*) which is likely to use the proposal site as foraging habitat during the winter months.

Grey-headed Flying-fox (Pteropus poliocephalus)

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

The "local population" of GHFFs in Putney may consist of individuals from a number of flying-fox camps around Sydney. The species is highly mobile and Morrison Bay Park is not a roost site for the species, so individuals foraging at the site are likely to be present only during the winter months when the Swamp Mahogany and Broad-leaved Paperbark trees are flowering, and the fig trees are fruiting. The installation and operation of sportsfield lighting at the park is unlikely to adversely affect the life cycle of any of the individuals or populations that utilise the available habitat due to (1) the locality of the trees in an already disturbed urban patch of trees, (2) the ability of the species to forage in highly disturbed locations, and (3) the relatively short length of (up to 9.30, four nights per week) of time that the lights will be operating at night.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii) Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term

survival of the species, population or ecological community in the locality.

i. No habitat will be directly removed as a result of the proposed works. It is possible that some areas of habitat will become less appealing to foraging bats due to the presence of sportsfield lighting. This is considered unlikely due to the fact that GHFFs can be observed feeding in low, exposed trees in many parts of Sydney, despite street lighting and other light sources often being present. For example, Manly Cove often has GHFFs foraging in the fig trees despite being adjacent to both busy streets and the ferry terminal. City Road near the University of Sydney is a known foraging spot for GHFFs despite trees being rather small, isolated and located on the side of a major arterial road.

ii. No area of habitat is likely to become fragmented of isolated from other areas of habitat as a result of the proposed action.

iii. The habitat to be removed or modified is not considered important to the long-term survival of the species in the locality, due to the small area to be removed or disturbed.

e) Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).

There are no areas of declared critical habitat within the project area or greater locality.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.

Thirteen objectives are listed in the Draft National Recovery Plan (2009) for the GHFF. Of these 13 objectives, number 2 is potentially not being met by the proposed development. This objective aims to "protect and increase the extent of key winter and spring foraging habitat" of GHFFs. Key winter foraging habitat includes the Swamp Mahoganies and Broad-leaved Paperbark trees that are found near the water's edge at Morrison Bay Park, as these species are favoured winter-flowering feed trees for the GHFF in the Sydney Region. The installation and operation of sportsfield lighting may potentially reduce the likelihood of GHFFs foraging in the available habitat when the lights are in use.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposal is unlikely to constitute or contribute to any key threatening processes for the GHFF.

Conclusion

Due to the adaptability of the GHFF to foraging in the urban environment around Sydney, including locations where high levels of traffic and lighting are present, the installation of sportsfield lighting at Morrison Bay Park is considered unlikely to significantly impact upon the utilisation of the available habitat by GHFFs.

Powerful Owl

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

A permanent roosting site for Powerful Owls was discovered in the Field of Mars Reserve in 2006 (Biosphere Consultants, 2006), approximately 1.8 km from Morrison Bay Park.

There is vegetation within Morrison Bay Park that is suitable foraging habitat for this species, however there is a lack of suitable roosting and/or nesting habitat. "The Powerful Owl inhabits a range of

vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. The species breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats. It roosts by day in dense vegetation comprising species such as Turpentine *Syncarpia glomulifera,* Black She-oak *Allocasuarina littoralis,* Blackwood *Acacia melanoxylon,* Rough-barked Apple *Angorphora floribunda,* Cherry Balla rt *Exocorpus cupressiformis* and a number of eucalypt species (OEH, 2014)."The Powerful Owl prefers hollows for nesting that are greater than 45 cm in diameter and greater than 1 m deep in trees that are at least 80 cm diameter breast height (dbh) depending on elements of old-growth forest (OEH, 2014). A pair is generally faithful to a hollow but may sometimes use alternative hollows nearby (OEH, 2014)). It is unlikely that the site is used for nesting as the vegetation is not old enough for hollows and is unlikely to have trees with an 80cm dbh or more. The pair of Powerful Owls known to inhabit the area are faithful to a site within the Field of Mars (Biosphere Consultants, 2006). No impacts to nesting are anticipated.

Potential impacts to the Powerful Owl could occur from altering the light regime in nearby vegetation which this species could use for foraging. Light spillage into vegetation at Morrison Bay Park could impact on the ability of this species to remain concealed when hunting and therefore they may avoid using this area. Light spillage is likely to be minor. Lights would be mounted at a maximum height of 22 m and would be directed toward the playing fields. The lights would be operational until 9.30 pm four days per week. The operation of the lights would cut into only a few hours of the night during winter when hours of darkness are longest.

The size of the Powerful Owl's home range is suggested to be from 300 ha to 1500 ha (OEH, 2014) and within Victoria it has been recorded as large as 3000 ha (Hollands, 2008) and 4800ha (Soderquist and Gibbons, 2007). Foraging range length may be between approximately six and nine kilometres, with 5-12% of home range used in a single night (Soderquist and Gibbons, 2007). Given the ability of this species to forage widely and the short operational hours of the lighting it is assessed that the proposal would be unlikely to have an adverse effect on the life cycle of the Powerful Owl such that species numbers would decline or a viable local population of the species would be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii) Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

i. No habitat will be directly removed as a result of the proposed works. It is possible that some areas of habitat will become less appealing to foraging owls due to the presence of sportsfield lighting.

ii. No area of habitat is likely to become fragmented of isolated from other areas of habitat as a result of the proposed action. There is no requirement for vegetation removal.

iii. The habitat to be modified is not considered important to the long-term survival of the species in the locality. The habitat at the proposal site would only be used as foraging habitat on occasion, but is unlikely to provide Powerful Owls with nesting and/or roosting habitat due to a lack of suitable features (dense vegetation, old growth trees).

e) Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).

There are no areas of declared critical habitat within the project area or greater locality.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.

A recovery plan has been prepared for the large forest owls of NSW (Powerful, Masked and Sooty Owls). The objective of this recovery plan is to ensure that viable populations of the three species continue in the wild in NSW in each region where they presently occur. Other relevant objectives include:

- Ensure the impacts on large forest owls and their habitats are adequately assessed during planning and environmental assessment processes
- Minimise further loss and fragmentation of habitat by protection and more informed management of significant owl habitat (including protection of individual nest sites)
- To raise awareness of the conservation requirements of the three large forest owls amongst the broader community, to involve the community in owl conservation efforts and in so doing increase the information base about owl habitats and biology

This assessment is designed to adequately assess the impact of the proposal on the Powerful Owl.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposal is unlikely to constitute or contribute to any key threatening processes for the Powerful Owl.

Conclusion

Due to the adaptability of the Powerful Owl to foraging in the urban environment around Sydney, the installation of sportsfield lighting at Morrison Bay Park is considered unlikely to significantly impact upon the utilisation of the available foraging habitat by the Powerful Owl. The impacts to potential foraging habitat would be minor and would not disrupt this species activity to any great extent. The life cycle of the Powerful Owl would not be interrupted such that the local population is affected.

B.2 COMMONWEALTH

The following species listed under the EPBC Act have been assessed in accordance with *EPBC Policy Statement 1.1, Significant Impact Guidelines.*

- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Migratory Wetland Species:
  - Bar-tailed Godwit (*Limosa lapponica*)
  - Curlew Sandpiper (*Calidris ferruginea*)
  - Sharp-tailed Sandpiper (*Calidris acuminata*)
  - Red-necked Stint (*Calidris ruficollis*)

Grey-headed Flying-fox (*Pteropus poliocephalus*)

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

a) lead to a long-term decrease in the size of an important population of a species

An 'important population' is a population that is necessary for a species' long-term survival and recovery. No important population of GHFFs is likely to experience a long- or short-term decrease as a result of the proposal. The installation and operation of sportsfield lighting is unlikely to reduce the available habitat used by the species for foraging during winter, and any potential impacts are spatially and temporally limited and are likely to be insignificant.

b) reduce the area of occupancy of an important population

No important population will have its area of occupancy reduced as a result of the proposed works.

c) fragment an existing important population into two or more populations

No important population will be fragmented by the proposed works.

d) adversely affect habitat critical to the survival of a species

Habitat critical to the survival of the species (as defined in the Draft National Recovery Plan) is natural foraging habitat that is productive during winter and spring, when food bottlenecks have been identified. The presence of Swamp Mahogany and Broad-leaved Paperbark trees at Morrison Bay Park, which are highly productive winter-flowering species, suggests that the vegetation at the site can be considered habitat critical to the survival of the species. However, the low abundance of these trees at the site suggests that the habitat is relatively unimportant for sustaining any populations, and alternate sites are probably used preferentially.

e) disrupt the breeding cycle of an important population

The proposed works are unlikely to impact any part of the breeding cycle of the GHFF.

f) modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

Impacts on foraging activities of GHFFs are expected to be minimal, with very little or no behavioural modification expected to result from the proposed installation of sportsfield lighting. The lights will be switched off at the latest 9.30 pm, and only used up to 4 nights per week, which will in the worst case

scenario reduce the available foraging time by just 16 hours per week. This is considered unlikely to impact upon the species to the extent that the species is likely to decline, even if some behavioural modifications are produced by the lighting (which is considered unlikely in itself).

g) result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat

No changes to the abundance or distribution of invasive species are considered likely as a result of the proposed works.

h) introduce disease that may cause the species to decline, or

No diseases are expected to be introduced or spread as a result of the proposed works.

i) interfere substantially with the recovery of the species

The recovery of the GHFF is not considered likely to be impacted by the proposed works.

Conclusion

The impact of constructing and operating sportsfield lighting at Morrison Bay Park for four nights per week, up until 9.30 pm is considered unlikely to impact the behaviour or habitat utilisation by the Grey-headed Flying-fox, as a result of (1) the species adaptability to urban environments and (2) the temporal scale of any potential ongoing disturbance due to light spill. No significant impact is thus expected as a result of the proposed works.

Migratory Wetland Birds (including the Black-tailed Godwit, Curlew Sandpiper, Sharp-tailed Sandpiper, and Red-necked Stint)

An action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:

a) substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species

The mudflats of Morrison Bay are considered to be 'important habitat' as per the definition in the Significant Impact Guidelines for the EPBC Act. Important habitat is an area that is utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the species. The proposed sportsfield lighting is not expected to substantially modify, destroy or isolate an area of important habitat, but would rather potentially discourage individuals from foraging or roosting in the area when the lights are being used. As the lights will only be used for up to 16 hours per week, the disturbance is considered relatively minor.

b) result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or

The proposed sportsfield lighting is unlikely to alter the distribution or abundance of any invasive species within Morrison Bay Park.

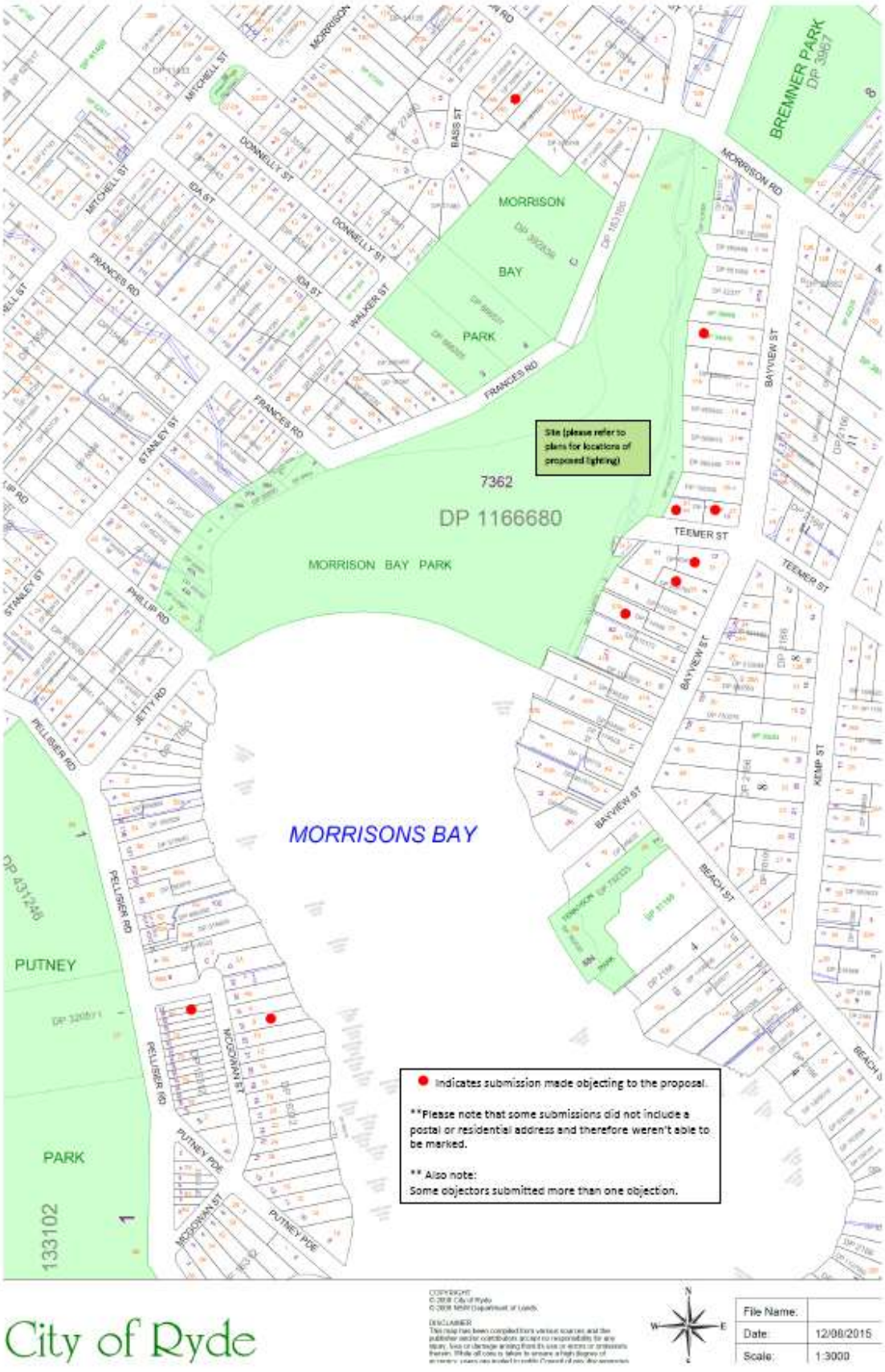
c) seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.

The proposed works have the potential to disrupt the feeding and resting behaviour of migratory wetland birds that utilise Morrison Bay. As the numbers of birds that forage in the bay are not considered to be a "significant proportion of the population", and the disruption is not likely to be serious (light spill will be temporary and only up to four days per week), no significant impact on the population is considered likely to occur.

Conclusion

The impact of constructing and operating sportsfield lighting at Morrison Bay Park for four nights per week, up until 9.30 pm is considered unlikely to have a significant impact on any population of migratory wetland birds, due to (1) the small number of individuals that are likely to utilise the area, (2) the absence of any direct impact on diurnal foraging habitat, and (3) the temporal scale of any potential ongoing disturbance due to light spill.

ITEM 2 (continued) **ATTACHMENT 5**



ITEM 2 (continued) **ATTACHMENT 6**

LIGHTING PLAN

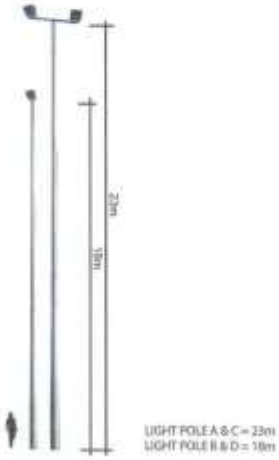
PLAN SHOWING LOCATION OF PROPOSED LIGHT POLES

Morrison Bay Park - Proposed Sports Field Lighting

City of Ryde

ITEM 2 (continued) **ATTACHMENT 6**

REFER LIGHTING PLAN



Morrison Bay Park - Proposed Sports Field Lighting

City of Ryde

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

3 142 MORRISON ROAD, PUTNEY – Lot 7362 – DP1166680. Development Application for Installation of Playing Field Lighting at Morrison Bay Park. LDA2014/0289.

Report prepared by: Creative Planning Solutions; Creative Planning Solutions; Team Leader - Assessment
Report approved by: Manager Assessment; Group Manager Environment and Planning
Report dated: 15/01/2015 **File Number:** GRP/09/5/6/2 - BP15/25

1. Report Summary

Applicant: City of Ryde
Owner: City of Ryde and Crown Land (under care, control and Management of City of Ryde)
Date lodged: 04 July 2014

This report considers a development application (DA) for the erection of eight (8) galvanised steel poles with luminaries (4 x 23m high and 4 x 18m high) to illuminate two (2) playing fields at Morrison Bay Park. The proposed hours of illumination of the playing fields are as follows:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) for social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training.

This DA has been advertised and notified to neighbours, and a total of **52 submissions** were received – 41 objections and 11 letters in support.

The submissions in support of the proposal were mostly on the basis that the Putney, and wider Ryde local government area, does not have adequate illuminated sports fields and there is a demand for illuminated sports fields to accommodate the growing number of people taking part in organised sport and training within not only the local government area, but also the wider region. The letters of objection indicate opposition to the development mostly on the following key grounds:

- Acoustic Impacts;
- Light Spillage;
- Traffic and Parking;
- Loss of Park Amenity; and
- Impact on Park Ecology.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

The assessment has found that the increased usage of the sports fields at Morrison Bay Park as a result of the proposed field lighting will directly impact on the amenity of those residential areas surrounding the park.

The primary cause for the assessed loss of amenity is that of the noise generated by the sports field usage. These noise impacts are considered to be derived from the sporting activities themselves, such as noise from kicking of soccer balls, player shouting, referee whistling, shouting/cheering from families, spectators and companions. To a lesser extent, noise associated with the proposal is also considered to be derived from increased vehicular activity in the surrounding streets and car parks. This includes vehicular movements, car horns, persons picking up and dropping off players, car doors closing, and people generally present in the surrounding streets before and after games/training. The submitted consultant acoustic report indicates the predicted noise levels from sports field usage at the residences on the north-eastern side of Morrison Bay Park are up to 24dB(A) over the existing background noise level, and up to 10dB(A) over the noise objective. The acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

The significant increase in noise levels from sporting activities is expected to negatively impact on the quality of life experienced by adjoining residences, particularly those adjacent to Field 2. This is because the proposal will include the illumination and use of the sports fields up to 9:30pm during the winter season (April to August) and for up to 1.5 hours later into the evening to 9.00pm during the summer season (September to March). These times of the evening are considered to be when dwellings will be occupied, and used for evening respite and sleeping times, particularly for children and some adults, including shift workers and elderly persons.

As such, the envisaged loss of amenity to these surrounding residential areas as a result of the abovementioned noise impacts is considered to negatively affect people's orderly use of living areas and private open space, as well as bedroom areas for sleeping.

It is acknowledged that light spillage impacts are derived from the sports field luminaries are located within 15m of the nearest residential accommodation. The consultant report on light spillage indicates that Lux levels up to 7.56 (vertical) at the residential area boundaries is to be expected. While representing an increase over the existing light levels on the subject site, the proposed vertical Lux levels are below the maximum of 10 Lux for pre-curfew hours as recommended by the relevant Australian Standards.

Having regards to the heads of consideration in Section 79C of the Environmental Planning and Assessment Act 1979, the following has been determined:

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

- When assessed against the relevant environmental planning instruments pertaining to the subject site, including Ryde Local Environmental Plan 2010, now gazetted as the Ryde Local Environmental Plan 2014, the proposal, in its current form, cannot comply with all of the objectives of the RE1 zoning for the site;

- The assessment identified no relevant provisions within the Ryde Development Control Plan 2014 applying to the proposed development;

- The likely noise impacts of the proposed development have been considered and determined to be unsatisfactory when having regard to the noise levels predicted at adjoining residences;

- The subject sports fields at Morrison Bay Park are not considered to be a suitable site for the scale of the currently proposed development. This is because of the noise impacts stemming from the playing field use on adjoining residences, particularly from Field 2, significantly exceed the noise objective criteria established by the consultant acoustic engineer. Furthermore, those mitigation measures recommended by the acoustic engineer have been assessed as impracticable; and

- Overall, when considering submissions both in support and against the proposal, as well as the non-compliances with the applicable planning controls, the proposed development, on balance, is not considered to be in the public interest.

On this basis, the subject DA is recommended for refusal.

Reason for Referral to Planning and Environment Committee: Nature of proposed development; number of submissions received; and proposal is for Council-owned land where Council is also the proponent for the DA.

Public Submissions: 52 submissions received, consisting of:

Original Notification Period: 35 objections; and 11 submissions in support (including one letter from Putney Rangers Football club containing 324 signatures)

Notification of Additional Information: 6 further objections received (no further submissions in support).

Clause 4.6 Ryde LEP 2010 objection required? None required.

Value of works?: $250,000

A full set of the plans is **CIRCULATED UNDER SEPARATE COVER** as additional information provided to Councillors - subject to copyright provisions.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

RECOMMENDATION:

a) That LDA2014/0289 at 142 Morrison Road, Putney being Lot 7362 DP1166680 be refused for the following reasons:

1. The proposal will result in unacceptable acoustic impacts upon neighbouring properties surrounding Morrison Bay Park. This is because the evening use of the sports fields and associated noise generation will negatively impact evening respite and sleeping times, particularly for children and some adults, including shift workers and elderly persons.

2. The proposal cannot comply with all of the objectives of the RE1 – Public Recreation zoning of the property under Ryde LEP 2010 (and now Ryde LEP 2014).

3. Approval of the development is not in the public interest.

b) Should Council consider reducing the scope of the proposal to limit sports field lighting to Field 1 only, it is recommended that this be the subject of a new development application, whereby additional information be provided for assessment, including that relating to an updated Ecological Assessment, new Acoustic Report to reflect the usage arrangements of Field 1, Acid Sulfate Soils Management Plan, and re-notification/advertisement of the revised proposal.

c) That the persons who made submissions be advised of Council's decision.

ATTACHMENTS
1 Map.
2 Draft conditions of consent.
3 A4 plans.
4 A3 plans - CIRCULATED UNDER SEPARATE COVER.

Report Prepared By:
Christophe Charkos Planning Consultant
Creative Planning Solutions

Ben Tesoriero Planning Consultant
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Chris Young
Team Leader - Assessment

Report Approved By:
Liz Coad
Manager Assessment

Dominic Johnson
Group Manager Environment and Planning

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

2. Site *(Refer to attached map overleaf)*

Address	:	142 Morrison Road, Putney Physical Works taking place on Lot 7362 DP1166680 and Lot 1 DP 107801, ancillary use of the park and parking areas etc. on nearby lots including Lot 2 DP 1124578, Lot 1 DP 912044, and Lot 1 DP 1058077.
Site Area	:	8.8ha (from Morrison Bay Park Plan of Management) Deposited Plan 116680 shows Morrison Bay Park to have irregular boundaries that have partial road frontages to Morrison Road to the north and Frances Road to the west. Morrison Bay Canal divides the park running from the north to the south into Morrison's Bay. The remaining boundaries are formed by Morrison Bay to the south and residential properties to the west (along Stanley Street) and to the east (along Bayview Street) with an additional access point from Teemer Street to the east. A smaller portion of Morrison Bay park extends on the western side of Frances Road, although not land subject to this application it is noted that use of the existing car park on the western side of Frances road will intensify as a result of the proposed development.
Topography and Vegetation	:	The topography of the subject site, being the sports field and curtilage area, is relatively level with slight undulations around the periphery of the site. It is noted that the fields gently slope towards the central portion of the site, or the playing field surface itself. The site where the works are to take place is clear of any significant vegetation, while the perimeter of the site includes some strands of continuous vegetation to adjoining residential properties to the east. The remainder of the perimeter contains mainly scattered vegetation.
Existing Buildings	:	Sports field-associated buildings including amenities blocks, cricket nets, bike paths etc.
Planning Controls Zoning	:	RE1 – Public Recreation under Ryde LEP 2010 RE1 – Public Recreation under Ryde LEP 2014.
Other	:	SREP (Sydney Harbour Catchment) 2005 Ryde DCP 2014 Sydney Harbour Foreshores Area DCP Morrison Bay Park – Plan of Management

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

3. Councillor Representations

None.

4. Political Donations or Gifts

None disclosed in applicant's DA submission or in any submission received.

5. Proposal

The following outlines the scope of works proposed as part of the DA activity at 142 Morrison Road, Putney.

- Erection of eight (8) galvanised steel poles with luminaries (4 x 23m high to Field 1 and 4 x 18m high to Field 2) to illuminate the playing fields at Morrison Bay Park. The proposed lights are to be located either side of each playing field as shown in ***Figures 1-2*** and the photographic montages in ***Figures 4-8.***

The proposed hours of operation for the floodlighting are:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) for social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training

Figure 1 – Proposed location of the light poles at Morrison Bay Park sports field.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

Figure 2 - Photograph looking eastward from the western side of Morrison Bay Park near the central canal showing the sports field surface of Field 1, vegetation around the perimeter the field and dwellings beyond.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

Figure 3: Photograph looking west showing the sports Field 2 surface and raised topography on the opposite side of Frances Road adjacent to the Teemer Street access to Morrison Bay Park.

Figure 4 – Photographic montage of the proposed light poles at Morrison Bay Park looking south towards Morrison Bay

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

Figure 5 - Photographic montage of the proposed light poles at Park looking west towards Philip St and Jetty Road

Figure 6 - Photographic montage of the proposed light poles at Morrison Bay Park looking east towards Teemer St and Bayview Street

Figure 7 - Photographic montage of the proposed light poles at Morrison Bay Park looking east towards neighbouring residential properties on Bayview Street.

Figure 8 - Photographic montage of the proposed light poles at Morrison Bay Park looking west towards Philip St and Jetty Road

6. Background

The following is a brief overview of the development history relating to the current proposal.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

History of Council's Consideration of Sports Field Lighting – Morrison Bay Park

The proposal to install field lighting for Morrison Bay Park comes as result of an audit of existing playing field lighting within the City of Ryde. Subsequently, a proposal to upgrade Morrison Bay Park lighting to current Australian Standards was tabled at the Council meeting on 6 February 2009 (Meeting No. 01/09).

In accordance with the Council resolution, community consultation on the proposed playing field lighting upgrade was undertaken between 6 April 2009 and 11 May 2009. This included information relating to the proposal being placed on Council's website, hard copies being made available at the Customer Service Centre and at Ryde libraries, advertisements in the Northern District Times, and information packages being sent to residents within close proximity to all playing fields in Ryde.

Prior to the finalisation of the Morrison Bay Park lighting proposal, the City of Ryde consulted the community with a proposal for the lighting of five (5) fields within the park. The consultation occurred between December 2013 and January 2014.

This community consultation was undertaken by Elton Consulting on behalf of the City of Ryde and encompassed the following:

- Community Notification including
  - Newsletter distributed to neighbouring residents to Morrison Bay Park.
  - An advertisement placed in the Mayor's column of the Northern District Times, on 27 November 2013
  - Representatives from Council and Elton Consulting completed a door knock of adjacent properties to speak to residents about the proposal,

- Two Community Information and Feedback Sessions
  - Held at Council Chambers on Wednesday 4 December and at Morrison Bay Park on Saturday 7 December.

The Elton report submitted as an Appendix to the subject DA noted that

> *"Approximately 31 adults attended the community information session and 28 people signed the register (several on behalf of a couple or family). "*
>
> In addition the report noted that
>
> *"Attendees were given a feedback form to comment further on the proposed sports lighting (see Appendix G). This could be submitted on the day or mailed in the pre-paid envelope supplied."*

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

The Elton report noted that a total of 118 feedback forms were received. Further it is significant to note that of these 118 responses, 64% were not supportive of sporting facilities (Morrison Bay Park) being made available after dark, in addition it is noted that 63% of the respondents identified themselves as a resident/landowner adjacent to Morrison Bay Park.

As a result of the above consultation process, the proposal was amended to be for the lighting of two (2) soccer fields (Field 1 and 2) and a training area adjacent to Field 1.

Subject Development Application – LDA2014/289

The subject DA for the installation of playing field lighting and use of the illuminated playing fields was lodged on 4 July 2014 (LDA2014/0289). A total of eight (8) light towers were proposed with hours of use as follows:

- Monday – Thursday 4.00pm – 9.30pm during the winter season (April to August) for social sport and training.
- Monday – Thursday 6.00pm – 9.00pm during the summer season (September to March) for social sport and training.

The DA was notified in accordance with the then Ryde DCP 2010 (now superceded by Ryde DCP 2014) on 10 July 2014. The application was also advertised in the Ryde City View insert in the Northern District Times on 16 July 2014. A total of **52 submissions** were received – 41 objections and 11 letters in support. These submissions are considered in the Submissions section of this report.

Also submitted with the revised DA was the following information prepared by independent consultants:

- *Assessment and Recommendations Report for New Flood Lighting at Morrison Bay Park* prepared by Gary Roberts and Associates dated 6 June 2013;
- *Morrison Bay Park Sports Lighting – Consultation Outcomes Report* prepared by Elton Consulting and dated January 2014,
- *Ecological Assessment* prepared by NGH Environmental;
- *Morrison Bay Park, Putney – Proposed Floodlighting, Noise Assessment* prepared by Acoustic Consulting Engineers dated June 2014;
- *Morrison Bay Park Lighting Update Traffic Impact Assessment* prepared by Bitzios Consulting dated 2 May 2013.

A preliminary assessment of the DA raised concerns that the submitted Noise Assessment (dated June 2014, prepared by Acoustic Consulting Engineers Pty Ltd) was inadequate. In addition, further information was required in regards to the submitted Lighting Design Report (dated 6 June 2014, prepared by GRA Pty Ltd).

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

A request for additional information was sent to the applicant on 23 August 2014 that raised the following issues.

Acoustic Report Matters

A. *The Acoustic Report has no assessment of how loud men's training is on Field 2 (referred to in the Acoustic Report as Field 1). This is because on each night the consultant acoustic engineer attended Morrison Bay Park there was no men's use of this field.*
B. *The predictions in Table 3 indicate that the noise level at adjoining properties of Field 2 (or Field 1 in the report) is 52-54db, however this is the same as the measured girls training/match level. The Acoustic Engineer makes this observation in the report that men's use is louder than girl/women, so what will the predicted noise level be when men are using Field 2 (or Field 1 in the report).*
C. *The Acoustic Engineer undertook the noise measurements in the summertime period when there were six (6) players in each team. They then say that teams consist of six (6) players for the summer season and eleven (11) players for the winter season. If two teams are plaything against each other in the winter season for training purposes there could be up to 22 players on the field plus coaching staff etc. There seems to be no measurement of such a scenario, and no prediction of what the noise level would be if this were to occur on the fields.*
D. *Also, it mentions that less experienced teams are louder than more experienced teams so this should be a consideration for Field 2 (Field 1 in the report). For example what will the noise level at the boundary of the sensitive receivers be if 22 less experienced men were training on the field?*
E. *It would seem logical that that the Acoustic Engineer would need to visit somewhere where such training was occurring, and then measure what the noise level is at a distance equal to that of the nearest sensitive receivers at Morrison Bay Park and perhaps use this as the prediction?*
F. *Given the above, are the recommendations contained within the Acoustic Report still appropriate or will additional measures need to be included, particularly as the acoustic report and its recommendations will form part of the development consent.*
G. *The Acoustic Report was prepared by a firm called Acoustic Consulting Engineers Pty Limited which appear to be based in Putney. Given the proposed development is to be undertaken in Putney, it is recommended that the Acoustic Report be updated to comment that there is no conflict of interest with the proposed development given the widespread notification that undertaken as part of the proposal.*
H. *Additionally, it is requested that the author of the Acoustic Report be nominated in the report, as has been done with all other specialist consultant reports for this project. This should indicate the authors appropriate qualifications as an acoustic engineer to complete this report.*

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Lighting Design Report

- *The Lighting Design report recommends that 'glare shields' be installed to reduce spill light on residential boundaries to the minimum possible. We would like to know what the maximum Lux levels would be at the residential boundaries with the glare shields installed given that the report only appears to consider the Lux without the glare shields. This is an important consideration in understanding the real impact of the proposed field lighting on the residential boundaries.*

A response was received by Council on 14 October 2014, which included a response from both Acoustic Consulting Engineers Pty Ltd in relation to their Noise Assessment and from GRA Pty Ltd in relation to their Lighting Design Report.

The Additional Information (above) was subsequently re-notified to neighbours for a period from 20 October to 19 November 2014. A further six (6) submissions were received (all of these submitters had previously submitted letters of objection to the proposed development which are summarised in the Submissions section below).

7. Submissions

The DA was notified in accordance with the Ryde DCP 2010 (now Ryde DCP 2014) on 10 July 2014. The application was also advertised in the Ryde City View insert in the Northern District Times on 16 July 2014. As a result, 35 objections and 11 letters in support were received (including one letter from the Putney Rangers Football club containing 324 signatures).

When additional information was received regarding the Noise Assessment and Lighting Design, this was re-notified to neighbours and advertised in the Ryde City View insert in the Northern District Times for a period from 20 October to 19 November 2014. A further six (6) objections were received (no further submissions in support).

The overall total of submissions received for this DA was **52 submissions** – 41 objections and 11 letters in support.

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Figure 9 – Map of the subject site, including annotations of those in the vicinity of the proposed development who have made a submission. Note that those submissions outside the map boundary have not been shown on the map however their submissions have been included in the assessment below.

Submissions of Objection

A. Acoustic Impacts. *Concerns are raised that the proposal will result in unacceptable noise impacts associated with the use of the playing fields for sporting activities in the evening.*

Assessment Officer's Comment: It is considered that the acoustic impacts associated with the proposed development will directly impact on the amenity of those residential areas surrounding Morrison Bay Park. This consideration is based on the following:

- The Noise Assessment (NA) submitted in support of the subject DA and subsequent additional information provided by the consultant acoustic engineer indicates that the predicted noise levels at 84% of the measurement locations will exceed the noise assessment objective of background noise level plus 10dB. In particular, the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park are between 22dB(A) and 24dB(A) over the existing background noise

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level. The noise has been indicated within the NA as being derived from kicking of soccer balls, player shouting, referee whistling, shouting/cheering from families, spectators and companions.

- The majority of recommendations contained within the NA are considered to be either impracticable or unmanageable. For example, it is considered difficult to ensure players remain aware of the need to minimise noise levels, or unrealistic to construct noise walls up to 5m high at property boundaries.

- The background noise levels established within the NA are questioned on the basis of the measurements being somewhat unreflective of the proposed winter season park usage. This is because the background noise measurements were undertaken during daylight savings time when Morrison Bay Park is more highly utilised, compared to that during mid-winter when daylight savings time has ended and there is less usage of the park. Additionally, it has been identified that touch football completion was taking place at Morrison Bay Park during the background noise measurement period, thus further contributing to a somewhat unrepresentative background noise level.

- Concern has been raised by objectors over the impact of vehicular traffic and parking noise on the surrounding area derived from the prolonged vehicular activity in the surrounding streets and car parks. While additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area, the acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

  Also, this assessment questions the accuracy of the predicted vehicular movements and associated parking from the proposal. The reasons for this are discussed later in the submissions section of this report under ***'C'***.

- The significant increase in noise levels from additional sporting activities is expected to negatively impact on the quality of life experienced by adjoining residences. This is because the proposal will include the illumination and use of the sports fields up to 9:30pm during the winter season (April to August) and up to 1.5 hours later into the evening to 9.00pm during the summer season (September to March). These times of the evening are considered to be when dwellings will be occupied, and used for quiet evening respite and sleeping times, particularly for children and some adults, including shift workers and elderly people.

- As such, the envisaged loss of amenity to these surrounding residential areas as a result of the abovementioned noise impacts is considered to negatively affect people's orderly use of living areas and private open space, as well as bedroom areas for sleeping.

Accordingly having regard to the above it is considered that the submissions outlining noise concern with the proposed development are well founded. For this reason, it is considered the acoustic impacts associated with the proposed development, in its current form, are significant enough to warrant refusal of the subject development application.

B. Light Spillage. *Concerns are raised that the proposed lighting will cause loss of amenity to nearby dwellings through high levels of illumination and light spillage, and also on flora and fauna within the area.*

Assessment Officer's Comment: Based on the outcomes of the independently prepared Assessment and Recommendations report for New Floodlighting at Morrison Bay Park by GRA Electrical Engineers dated June 2014, it is considered that there will be illumination impacts with the proposal on the surrounding built and natural environment, most notably to those residential areas on the eastern side of Morrison Bay Park adjacent to Field 2.

The residential areas adjacent to Field 2 are within 15m of the proposed luminaries. The consultant report on light spillage indicates that Lux levels up to 7.56 at the residential area boundaries is to be expected without the inclusion of glare shield. Should glare shields be installed on the light poles, then additional information from the lighting consultant has indicted that this would usually reduce the spill light by 2 – 3 Lux. As such, the consultant states that with glare shields installed, this should reduce the worst case spill light to around 5 Lux.

While the light spillage associated with the proposed development represents an increase over the existing light levels on the subject site, the proposed vertical Lux levels, whether glare shields are installed or not, are below the maximum of 10 Lux for pre-curfew hours as recommended Australian Standard 4282-1997 (Control of the Obtrusive Effects of Outdoor Lighting).

Increased illumination generally has the potential to impact on the amenity of residential areas by affect people's orderly use of living areas, private open space, and bedroom areas for sleeping, however it is also acknowledged that there can be positive outcomes derived from additional illumination including enabling passive surveillance over parks and streetscapes, and acting as a deterrent for anti-social behaviour.

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As such, the proposed light spillage as a result of the illuminated sports fields can be seen to have both positive and some negative outcomes, however on balance these impacts are considered to be neutral, particularly should the proposal be required to install glare shields to reduce the impact on adjoining residential areas.

This assessment has also taken into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita. It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

Accordingly having regard to the above it is considered that light spill impacts associated with the proposed development are not a reason for refusal of the subject development application. This is primarily because the proposal in its current form has the ability to comply with the relevant Australian Standards for the obtrusive effects of outdoor lighting.

Additionally, should the application be approved, a condition of consent has been recommended in this assessment report that the installation of glare shields and curfew switches be installed to ensure that the obtrusive effects of outdoor lighting are further reduced to even more acceptable levels.

C. ***Traffic and Parking.*** *Concerns are raised that the additional hours of park usage created by the proposed lighting will see increased traffic congestion and parking demand.*

Assessment Officer's Comment: The prolonged use of the sports fields at Morrison Bay Park will result in additional vehicular activity in the surrounding streets and car parks. The Traffic Impact Assessment Report prepared by Bitzios Consulting submitted with the subject development application has concluded that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly, the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by traffic monitoring.

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The development assessment has raised some questions with the submitted traffic report. Firstly, the report has not addressed the impact of additional traffic generated within the summer season, and secondly it is considered that the report has perhaps underestimated the number of additional vehicle movements by undertaking their site inspection for assessment purposes on a day when the sports fields where operating a level below that expected once the proposal becomes operational.

It is acknowledged however, that despite whether the traffic movements as a result of the proposal are greater or less than that covered by the traffic report, it is important to note that the proposal will not necessarily increase the demand for parking in the area, but rather extend the operation hours of the existing car park and vehicular movements associated with the use of the park in the surrounding streets.

In this regard, the questions raised in this development assessment with the traffic report do not result in a concern that the existing road network and parking facilities will be able cater to the proposal, but rather it is acknowledged that residents within the surrounding residential areas may potentially experience existing traffic volumes from sporting activities at the park for a prolonged period of time if the proposal proceeds.

As has been discussed within the response to the objector's acoustic concerns, additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area. The acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

Accordingly having regard to the above it is considered that traffic and parking impacts associated with the proposed development are not a reason for refusal of the subject development application.

D. Hours of Operation – *The submissions noted that the proposed hours of operation are excessive, noting that there are families and elderly that live in the area that may suffer impacts on sleep. The submissions also note that the hours will prevent quiet enjoyment of their living areas and private open space.*

Assessment Officer's Comment: Significant concerns have been raised in the submissions in relation to excessive hours of operation.

It is noted that currently the summer soccer competitions finishes at around 7.30 – 7.40pm. The application notes that the lights will be switched off at 9pm in summer. This represents an additional 1.5hrs of sports field use time later in the evening during the summer season.

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In this regard, later finishing of sports field usage for four (4) days per week is not considered to be a significant increase in the overall usage of the park for sporting activities in the summer season.

It is acknowledged though, that the at use of the sports fields through to 9pm in the evening during the summer season will have a prolonged noise impact on adjoining residential areas. As has been discussed earlier, those residences on the eastern side of Morrison Bay Park adjacent to Field 2 are predicted to experience noise levels 22db(A) to 24db(A) over existing background noise levels. This is 12db(A) to 14db(A) over the noise objective outlined in the acoustic report.

The evening period is considered to be when dwellings will be occupied, and used for quiet respite and sleeping times, particularly for children and some adults, including shift workers and elderly people.

As such, despite the 1.5 hours later usage being a seemingly small increase in the operation time of the sports fields, given this 1.5 hours is to occur in the quiet respite times for adjoining dwellings, there is concern that this will unsatisfactorily impact on the amenity of the surrounding residential areas, particularly those adjoining Field 2.

Perhaps more importantly for the subject development application, it is also noted that the proposed hours of operation of the sports field in the winter season will be from 4.00pm to 9.30pm in winter. This is considered a significant change over the current arrangements because civil twilight during the winter season when daylight savings time has ended would ordinarily mean the park would cease primary usage at around 5:20pm in mid-winter.

This four hours additional usage will significantly impact on neighbouring residents, particularly given that the properties adjacent to Field 2 are directly adjacent to the boundary with Morrison Bay Park. The assessment has determined that the noise impacts of the development to these properties will be significant, and in the order of 22db(A) to 24db(A) over existing background noise levels. Again, the evening period for which the sports fields will be in use is considered to be when dwellings will be occupied, and used for quiet respite and sleeping times as discussed above.

Accordingly having regard to the above it is considered that the submissions outlining concerns with the hours of operation to the sports field are closely linked to the associated noise impacts with the development. As such, it is considered the proposed development, in its current form, cannot be supported.

E. Loss of park amenity. *Concerns are raised that by installing lighting to the park exclusive use and privilege will be given to the sporting clubs until late in the evening, leaving little time for nearby residents to use and enjoy the park.*

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Concerns are also raised in relation to damage to the playing field surface and to an increase to anti-social behaviour.

Assessment Officer's Comment: The current use of the sports field in Morrison Bay Park is outlined as follows:

- In summer (September to March)
- Monday - Thursday 5.30pm to 8.00pm for social sport activities (6 a side soccer and touch football)
- Saturdays and some Sundays for senior and junior cricket competition between 8.00am to 6.00pm

- In winter (April to August)
- Saturdays between 8.00am and 6.00pm, by the Gladesville Hornsby Football Association (GHFA)
- Sundays between 8.30am and 5.30pm by the North West Sydney Women's Football Association.

- The park is also used by casual park users for passive recreational purposes and pathway along the river line is popular. There are also cricket practice nets in the park and the park is utilised by personal trainers.

Given the proposed development will extend the use of the sports field within Morrison Bay Park into the mid-evening period, and given the outcome of the proposal will enable the sports field to comply with Australian Standards for ball physical training and local football competition purposes (AS 2560.2.3 – 2007), it is considered that the proposal will significantly enhance the active use of the park in the weekday evenings.

However there is concern that this intensive activation of the park within the evenings will potentially displace those more passive users of the park. For example, the Morrison Bay Park Plan of Management identifies that picnicking, cycling, walking, playground, fitness and BBQ activities also take place in the park alongside sports uses. It is these passive uses which are considered to be impacted upon by the activation of the park.

A number of objections raised the issue of anti-social behaviour that has been experienced at times that the park is in use for organised sport competitions. It is noted that a submission supporting the development by the Putney Rangers Football Club disputes that lights will bring anti – social behaviour, citing that the use of the park will act as a deterrent for such anti-social behaviour.

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This assessment has also noted that the introduction of lighting to parks can have the positive effect of reducing anti-social behaviour due to the increase in not only the active use of the park, but also passive surveillance over the illuminated park area.

On the above basis, it is considered that whilst the lights may be viewed as an amenity upgrade for some, it is considered some passive users of the recreational area may potentially be displaced. In this regard, the outcome of the proposed development is considered to be balanced between the passive and active users of the park.

F. Impact on the Natural Environment - *Concerns have been raised in the submissions on the adequacy of the submitted Ecological Assessment and the impacts of the proposed sports field lighting on bird and animal life in the park. Concerns have also been raised in relation to the disturbance of Acid Sulfate soils and the potential resultant rubbish being washed in to Morrison Bay Canal. In addition it is noted that the submissions raise concerns over the increased use and potential damage to the playing field surfaces.*

Assessment Officer's Comment: As part of the initial assessment of the proposal, it was identified that this objector concern relating to perceived shortcomings of the Ecological Assessment had some merit. This is because the objectors note that the Ecological Assessment did not appropriately consider the Migratory Wetland Birds which are present at Morrison Bay Park at different times of the year, and to a lesser extent the Grey Headed Flying Fox. Submissions from objectors also noted that additional species that have been apparently observed were not assessed in the ecological report.

The objector's concerns relating to the subject Ecological Assessment are considered to have merit, particularly considering the protection status given to Migratory Wetland Birds under the Commonwealth Government's Environmental Protection and Biodiversity Conservation Act 1999. Ordinarily, additional information would be sought from the applicant in the form of a revised Ecological Assessment or addendum. However, given the preliminary assessment of the subject development application had already determined that the noise impact of the proposal on adjoining residential areas were sufficient grounds for refusal of the proposal in its own right, it was considered unnecessary to request such additional information from the applicant. It is noted however, that these concerns raised by objectors should be addressed in any future ecological assessment for sports field lighting at Morrison Bay Park.

In relation to acid sulphate soils, it is acknowledged that provisions within the Ryde Local Environmental Plan 2010 (now Ryde Local Environmental Plan 2014) would require that an acid sulphate soils management plan be included for assessment prior to development consent for the subject development application.

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However, as indicated above, given the preliminary assessment already identified sufficient grounds for refusal of the proposal, it was considered unnecessary to request such additional information from the applicant. Again it is noted, that any future development application for sports field lighting at Morrison Bay Park should be accompanied by an acid sulphate soils management plan.

Concerns have also been raised in the submissions on the potential damage of the playing surface of the sports fields. It is noted that this is covered by the Plan of Management for Morrison Bay Park, and as such it is considered that Council's Public Works Group will continue to be able to manage the upkeep and maintenance of the sports fields according to the Morrison Bay Plan of Management irrespective of the increased use of the fields by the proposed sports field lighting.

Accordingly having regard to the above it is considered that the impacts associated with the proposed development on the natural environment are not a reason for refusal of the subject development application. However, should the subject development application be considered for approval despite this recommendation, it would be appropriate that the Ecological Assessment be upgrades to include the issues raised above, particularly those relating to any impacts on Migratory Wetland Birds.

G. ***Use (training vs social sport) –*** *Concerns have been raised by residents on the use of the park for social sport, how this is defined. Submissions have also questioned the need for facilities given that other fields have lights within the Ryde LGA, however it also noted that submissions in favour of the development state that teams from the local Putney Rangers must travel out of the area to train and compared to other LGA's Ryde has an inadequate number of sports fields with lighting. Concerns have also been raised that the fields will be used by people outside the LGA.*

Assessment Officer's Comment: Investigation into what is considered social sport has been undertaken. It is considered that social sport is mainly team based where players select and arrange their own teams and pay an entry fee to participate in an organised competition. The teams are not considered to be part of a 'sports club' although it is noted that players may be affiliated with sports club or association. Social sport is considered to be open to all skill levels and is inherently 'social' in nature. For the basis of this assessment 'social sport' is not considered to be paid personal training activities, nor is it considered to be a 'group of friends' meeting at a park to play a spontaneous team sport.

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As has been demonstrated within the assessment report, there is a clear need for additional sports field lighting to satisfy the current and future demand for organised sporting activities within the local area and wider region. Council has undertaken audits of its playing fields and determined that such facilities are required. Reference should be made to the comments under 'Submissions in Support' later in this report for further details of the need for such facilities.

It is noted that many of the submissions raise concern of the potential of an increase in 'social sport' within Morrison Bay Park, and the increase in impacts on amenity as a result of this.

While there is no specific objection to social sport itself taking place at the park, the times at which such social sport is proposed has been assessed as having associated noise impact on adjoining residences, whereby noise levels are predicted to be increased by 22db(A) to 24db(A) over existing background noise levels. This is 12db(A) to 14db(A) over the noise objective outlined in the acoustic report.

Reference should be made to objection response ***'A'*** earlier in this report for a detailed assessment on the acoustic impacts of the proposal.

H. Cost to ratepayers and use by people outside of the LGA – *Concerns have been raised on the cost to rate payers of the proposed sports field lighting and the ongoing utility and maintenance costs. In addition some submissions note that the lights may likely be used by persons not living in the Ryde LGA.*

While the cost to ratepayers is not necessarily considered to be a valid planning concern in relation to the assessment of the subject development application, it is noted that Morrison Bay Park is a regional park and public open space which attracts users from areas outside of the Ryde local government area. Morrison Bay Park caters for diverse recreation and leisure needs of the wider community and provides access to the Parramatta River foreshore.

In addition, the park provides sporting facilities for use of organisations not only within the Ryde local government area, but also the wider region.

In this regard, suggestions by objectors that the park, and any associated upgrades are for the use of City of Ryde ratepayers only is not supported.

I. Design *– Concerns have been raised in the submissions in relation to the design of the proposed light poles including their height, overall visual impacts, overshadowing and privacy*

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Assessment Officer's Comment: This assessment has determined that the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale given the large open setting of Morrison Bay Park. Additionally, it has been assessed that the proposed light poles will not cause any unacceptable overshadowing, nor is it considered that the proposed flood lights will impact unnecessarily on the privacy of adjacent residential areas.

As has been outlined above, this assessment has also taken into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita. It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour.

Accordingly having regard to the above it is considered that the design of the light poles, whether it be the structures themselves or the light created by them is not a reason for refusal of the subject development application.

J. Effect on Property Values *– Concern has been raised in the submissions in relation to the impacts on property values as a result of the proposed sports field lighting.*

Assessment Officer's Comment: Whilst it is acknowledged that this may be a concern to residents adjacent to Morrison Bay Park it is noted the concerns regarding effects on property values is not a valid matter for consideration in the assessment of the subject development application. This has been reinforced by decisions in the NSW Land and Environment Court.

K. Cultural and Historical Significance of MBP – *Concern has been raised in the submissions in relation to the impacts on the cultural and historical significance of Morrison Bay Park*

Assessment Officer's Comment: Whilst it is noted that the Morrison Bay Park could have cultural and historical significance as raised in the submissions, it is noted that the site is not identified as a Heritage Item under Ryde LEP 2010 (or now Ryde LEP 2014) and as such it is not considered that the proposed flood lighting will significantly impact on the cultural and historical significance of Morrison Bay Park.

It is considered that the proposed sports field lighting will enable the continuation of the existing sporting cultural activities and social gathering of people at Morrison Bay Park, and as such reinforced the importance of the park and associated sports fields as a regional asset to the community.

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L. Compliance with Planning Controls and Planning Process: *Concerns have been raised in the submissions that the proposed Sports Field Lighting does not comply with the provisions of Section 79C of the Environmental Planning and Assessment Act 1979, SREP Sydney Harbour Catchment Ryde LEP 2010, Ryde DCP 2014, Sydney Harbour Foreshores and DCP and Morrison Bay Park Plan of Management 2009. In addition concern has been raised in the submissions in relation to the process that was undertaken in the preparation and lodgement of the DA including the community consultation both prior to lodgement and the duration of the DA notification period*

Assessment Officer's Comment: The submissions point out that the proposed sports field lighting does not comply with the provisions of Section 79C and other relevant planning controls pertaining to the site including the SREP (Sydney Harbour Catchment) 2005, Ryde Local Environmental Plan 2010, Ryde DCP 2014, The Sydney Harbour DCP and the Morrison Bay Park POM.

All submitted documentation has been subjected to a full assessment against all the relevant planning controls and the provisions of Section 79C of the *Environmental Planning and Assessment Act 1979*. Where non-compliances have been identified they have been assessed and discussed in detail in this report.

In relation to the planning process and community consultation, as noted earlier in this report, in accordance with the Council resolution, community consultation on the proposed playing field lighting upgrade was undertaken as part of the audit of sports field lighting (2009), and also the subject DA was notified to neighbours and advertised on two (2) occasions during the DA process.

Accordingly it is considered that the required statutory process for notification of the subject DA has been undertaken.

In respect of resolving the potential conflict of interest in Council being both the applicant and consent authority, the subject DA has been assessed by an external consultant.

In respect to Council making available all pre and post DA reports in respect to previous similar applications for Pidding Park, Magdala Oval and Waterloo Park it is noted that this information is freely available pursuant to the *Government Information (Public Access) Act 2009.*

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Submissions In Support

M. Lack of adequate night training facilities – *Submissions in support of the proposed sport field lighting have noted that there are not enough night training facilities within the Ryde LGA and note that the local football side (Putney Rangers) must travel out of the suburb to train.*

Submissions for the development have noted that not enough night training facilities are located within the Ryde LGA to satisfy current and future growth of local and regional sporting clubs. Furthermore, various clubs are required to share facilities at other grounds which places pressure on the use of these venues.

In the submissions of support for the proposal, it was acknowledged by clubs that memberships are continuing to grow, and as a result there is a clear need for the augmented use of Morrison Bay Park.

Accordingly, it is clear that such night training facilities as that proposed are required. This is supported by Council's audit of existing playing field lighting within the City of Ryde.

It is also acknowledged that there is a necessity to ensure that existing sports fields are capable of operating at minimum safety levels for ball sports established by Australian Standard AS2560.23.

Figure 10 below illustrates that 12 sports fields currently have flood lighting within the City of Ryde, this does not include the recently approved Waterloo Park which is not shown on the below map.

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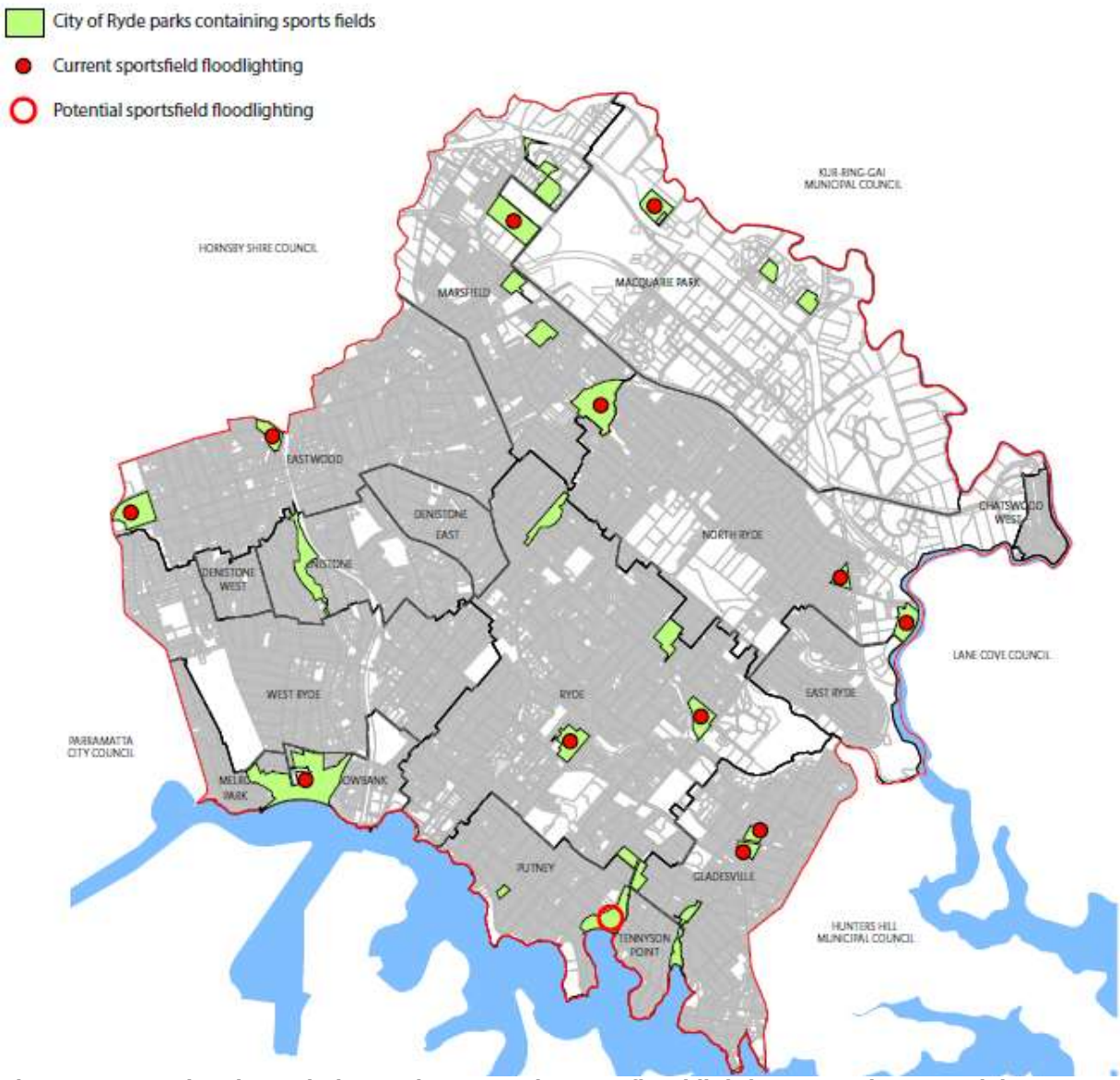

Figure 10 Map showing existing and proposed sports flood lighting. Note the potential sports field lighting is the Subject Site – Morrison Park.

8. Clause 4.6 Ryde LEP 2010 objection required?

None required

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9. Policy Implications

Relevant Provisions of Environmental Planning Instruments etc:

(a) Ryde Local Environmental Plan 2010

Zoning

Under the Ryde LEP 2010 the zoning of the subject site is RE1 – Public Recreation. Within this zoning, the proposed development is permissible with Council's development consent.

Zone Objectives

The objectives of the RE1 zone under the Ryde LEP 2010 set out the purpose of the zone and reflect the strategic land use direction for land. These objectives for the RE1 zone are listed below, followed by an assessment of how the proposed development performs against each of these objectives:

- *To enable land to be used for public open space or recreational purposes.*

  Assessment Officer's Comment: The proposed development will further enable Morrison Bay Park to be used for public open space and recreational purposes by way of increasing its usability into the evening period where previously lack of lighting did not allow for extended use of the park for organised sport. In this regard it can be considered that the proposed development would be consistent with the objective of enabling the land within Morrison Bay Park to be used for recreation purposes, however there is a need also to consider what impacts the extended proposed sports field usage will have on other community users of the park. This is explored further below.

- *To provide a range of recreational settings and activities and compatible land uses.*

  Assessment Officer's Comment: As outlined on the City of Ryde website, and as observed during site visits undertaken both during the day and in the early evening, Morrison Bay Park provides for a range of recreational settings and activities both in a passive and active environment including:

  - Picnic areas
  - BBQ;
  - Playground
  - Sports field
  - Cricket Nets
  - Cycle path
  - Walking track/path
  - Fitness circuit
  - Natural Area

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As the proposed development is limited to the installation of sports field lighting, and subsequent illumination of the sports field in the early-to-mid evening period for certain times, the proposal is not considered to significantly reduce, or negatively impact on the existing range of recreational settings and activities within Morrison Bay Park.

Given the proposed development will effectively enable the extended use of the sports field within Morrison Bay Park into the mid-evening period at certain times, and given the outcome of the proposal will enable the sports field to comply with Australian Standards for ball physical training and local football competition purposes (AS 2560.2.3 – 2007), it is considered that the proposal will enhance the range of activities and recreational uses of Morrison Bay Park

However, having regard to the assessment of the proposed development and its significant impacts on the built environment, more specifically its direct acoustic impacts on surrounding residential properties it is considered that the proposed development does not satisfactorily maintain Morrison Bay Park's compatibility with surrounding residential land uses.

- *To protect and enhance the natural environment for recreational purposes.*

Assessment Officer's Comment:

As part of the initial assessment of the proposal, it was identified that objector concern relating to perceived shortcomings of the Ecological Assessment had some merit. This is because the objectors note that the Ecological Assessment did not appropriately consider the Migratory Wetland Birds which are present at Morrison Bay Park at different times of the year, and to a lesser extent the Grey Headed Flying Fox. Submissions from objectors also noted that additional species that have been apparently observed were not assessed in the ecological report.

Ordinarily, additional information would be sought from the applicant in the form of a revised Ecological Assessment or addendum. However, given the preliminary assessment of the subject development application had already determined that the noise impact of the proposal on adjoining residential areas was sufficient grounds for refusal of the proposal in its own right, it was considered unnecessary to request such additional information from the applicant. It is noted however, that these concerns raised by objectors should be addressed in any future ecological assessment for sports field lighting at Morrison Bay Park.

In relation to acid sulphate soils, it is acknowledged that provisions within the Ryde Local Environmental Plan 2010 (now Ryde Local Environmental Plan 2014) would require that an acid sulphate soils management plan be included for assessment prior to development consent for the subject development application.

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However, as indicated above, given the preliminary assessment already identified sufficient grounds for refusal of the proposal, it was considered unnecessary to request such additional information from the applicant. Again it is noted, that any future development application for sports field lighting at Morrison Bay Park should be accompanied by an acid sulphate soils management plan.

Having regard to the above, it is considered that should the subject development application be considered for approval despite this recommendation, it would be appropriate that the Ecological Assessment be upgrades to include the issues raised above, particularly those relating to any impacts on Migratory Wetland Birds. This is considered necessary to ensure the proposal has the ability to comply with this objective of the RE1 zone.

- *To provide adequate open space areas to meet the existing and future needs of the residents of Ryde.*

  Assessment Officer's Comment: As outlined in the Statement of Environmental Effects (SEE) submitted as part of the DA package of information, the proposed development comes as a result of an audit of existing lighting at local sports fields completed in 2008. The audit identified that many of the existing floodlit sports fields in the City of Ryde currently do not comply with the requirements as set out in the Australian Standard AS2560.23 for the safety of participants and level of visual tasks anticipated.

  Accordingly, there is an identified need for the proposed development to meet the existing and future needs of those persons using the sports field, particularly as demographic information provided on the City of Ryde website indicates that the City of Ryde population forecast for 2013 is 110,157, and is forecast to grow to 135,508 by 2031.

  Given the above population forecast and available details of sports clubs currently utilising the playing fields, it is considered that the proposal will help meet the existing and future needs of not only the residents of Ryde, but the wider region that utilise the facilities at Morrison Bay Park.

- *To protect and enhance the natural bushland in a way that enhances the quality of the bushland and facilitates public enjoyment of the bushland in a way that is compatible with its conservation.*

  Assessment Officer's Comment: As previously mentioned in this section of the report, an independent Ecological Assessment was undertaken as part of the proposed development which notes that the vegetation surrounding the playing fields at Morrison Bay Park consists mainly of planted trees with scattered patches of remnant estuarine and coastal vegetation overstorey trees.

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This can be evidenced on the aerial photograph contained in ***Figure 1*** of this Report, which shows the scattered patches of vegetation around the park boundaries as well as on the opposite side of Frances Road (partly Zoned E2 Environmental Conservation).

Given the small footprint of the proposed works that are confined to existing cleared areas, it is considered that the proposed development is unlikely to significantly impact on areas which constitute natural bushland.

Having regard to the above-listed objectives of the RE1 zone under the Ryde LEP 2010, and the Assessment Officer's Comments, it is considered that despite the proposed development being consistent with most of the objectives of the zone, the adverse impacts of the proposed development on adjacent residential properties means that it is also contrary to other objectives of the RE1 zone which required development to be a compatible land use.

Accordingly it is considered that the proposed development cannot achieve all the strategic land use directions for the zone, and is therefore is not supported in its current form.

Mandatory Requirements

The following mandatory provisions under Ryde LEP 2010 apply to the development:

Clause 5.9 – Preservation of trees or vegetation. The objective of clause 5.9 of the Ryde LEP 2010 is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.

Specifically, this clause states that a person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:

a) development consent, or
b) a permit granted by the Council.

The Part 9.6 Tree Preservation of the Ryde DCP 2010 would apply to trees that form part of Morrison Bay Park and its curtilage areas. Although it is acknowledged that the proposed development does not propose to ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation, it is considered that there is a responsibility to consider the impact of the proposed development on such vegetation given the objectives of this clause.

In this regard, reference is again made to the independent Ecological Assessment submitted as part of the package of information for the subject DA. The Ecological Assessment concludes no significant impacts on (identified species) are considered likely to occur.

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Given the above, it is considered that the proposed development is consistent with the objectives of clause 5.9 of the Ryde LEP 2010, and also in compliances with the provisions of this clause.

Clause 6.1 Acid Sulfate Soils

The objective of this clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

As identified on the Acid Sulfate Soil map, Morrison Bay Park is identified as Class 2. This means that pursuant to Subclause (2)

(2) Development consent is required for the carrying out of works described in the Table to this subclause on land shown on the Acid Sulfate Soils Map as being of the class specified for those works.

Class 2 - Works below the natural ground surface. Works by which the watertable is likely to be lowered

It is noted that Subclause (3) states

(3) Development consent must not be granted under this clause for the carrying out of works unless an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been provided to the consent authority.

Despite the subject development application not including an acid sulphate soils management plan as required by Clause 6.1 above, given the preliminary assessment already identified sufficient grounds for refusal of the proposal, it was considered unnecessary to request such additional information from the applicant. It is noted, that any future development application for sports field lighting at Morrison Bay Park should be accompanied by an acid sulphate soils management plan.

(b) Relevant State Environmental Planning Policies (SEPPs)

State and Sydney Regional Environmental Planning Policies

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005:

The SREP (Sydney Harbour Catchment) applies to the proposed development as it is located on land within the Sydney Harbour Catchment.

The subject site is located within a 'Foreshore and Waterways Area' (as demonstrated in **Figure 11**). The following planning principles (under Part 2 of the SREP) are relevant to the proposed development.

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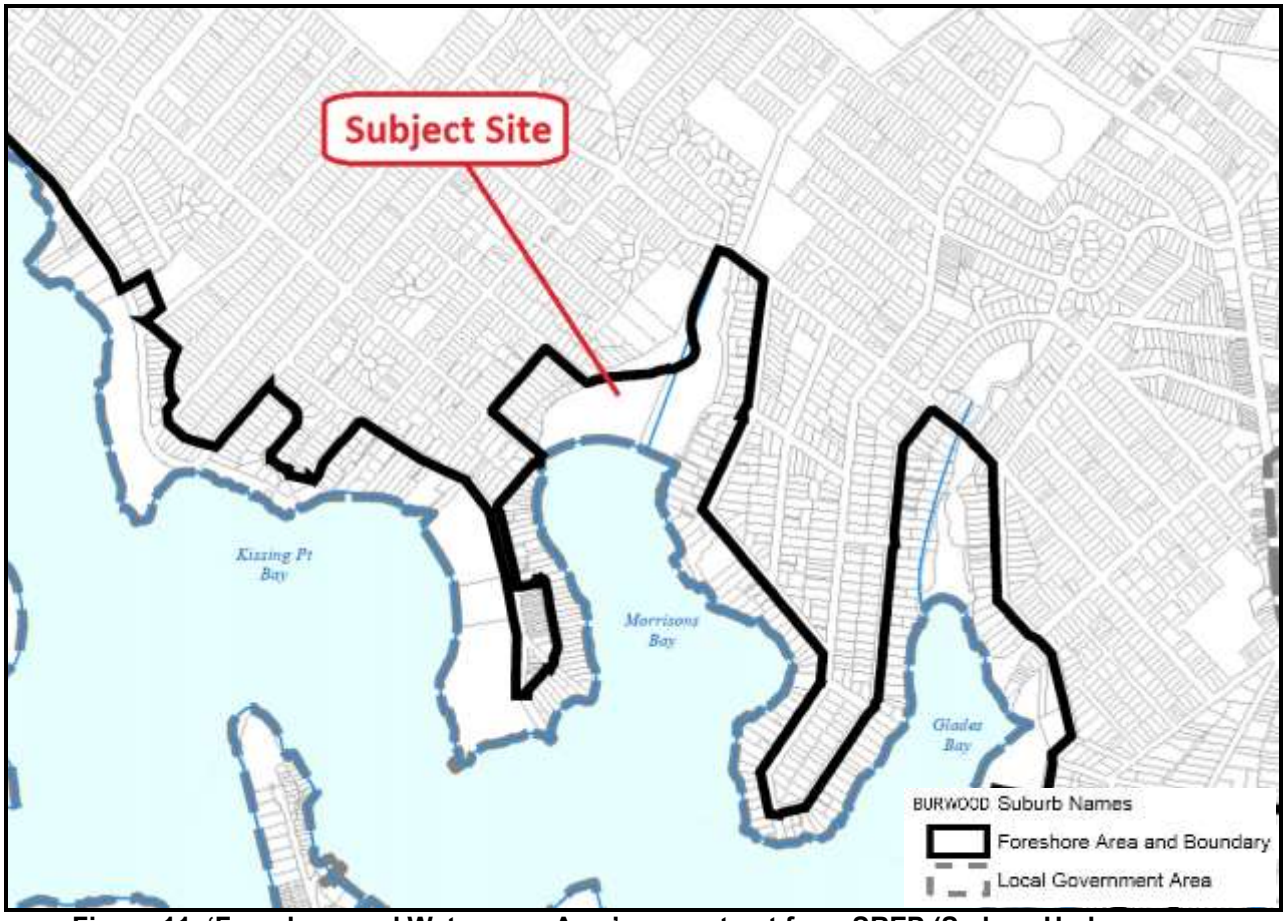

Figure 11: 'Foreshore and Waterways Area' map extract from SREP (Sydney Harbour Catchment) 2005. Subject Site is located within the foreshore area

Planning principles – Foreshores and Waterways Area

- *development should protect, maintain and enhance the natural assets and unique environmental qualities of Sydney Harbour and its islands and foreshores,*

  Assessment Officer's Comment: As covered in the assessment of the proposed development on the Natural Environment later in this report, an independent Ecological Assessment was undertaken as part of the proposed development.

  As part of the notification of the proposal, a number of concerns were raised by objectors relating to the adequacy of the Ecological Assessment, particularly considering the protection status given to Migratory Wetland Birds under the Commonwealth Government's Environmental Protection and Biodiversity Conservation Act 1999 which were observed at Morrison Bay Park.

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Ordinarily, additional information would be sought from the applicant in the form of a revised Ecological Assessment or addendum. However, given the preliminary assessment of the subject development application had already determined that the noise impact of the proposal on adjoining residential areas were sufficient grounds for refusal of the proposal in its own right, it was considered unnecessary to request such additional information from the applicant. It is noted however, that these concerns raised by objectors should be addressed in any future ecological assessment for sports field lighting at Morrison Bay Park.

Accordingly having regard to the above it is considered that the impacts associated with the proposed development on the natural environment are not a reason for refusal of the subject development application. However, should the subject development application be considered for approval despite this recommendation, it would be appropriate that the Ecological Assessment be upgrades to include the issues raised above, particularly those relating to any impacts on Migratory Wetland Birds.

- *public access to and along the foreshore should be increased, maintained and improved, while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,*

  Assessment Officer's Comment: The proposed development is not considered to impact on public access to and along the foreshore. Access to the foreshore is maintained via an existing shared pedestrian and cycle path which connects Morrison Road to Jetty Road. In addition it is noted that although the floodlights will mean access may be restricted at times through Fields 1 and 2, the foreshore will remain accessible from other points within Morrison Bay Park. As no change in access is proposed to the foreshore it is not considered that the existing access arrangements will impact on the watercourse, wetlands, riparian land and remnant vegetation.

- *access to and from the waterways should be increased, maintained and improved for public recreational purposes (such as swimming, fishing and boating), while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,*

  Assessment Officer's Comment: As noted above the proposed development is not considered to impact on public access to and along the foreshore.

- *development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores,*

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Assessment Officer's Comment: This assessment has taken into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita. It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

- *adequate provision should be made for the retention of foreshore land to meet existing and future demand for working harbour uses,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposal is not anticipated to impact on working harbour uses.

  .
- *public access along foreshore land should be provided on land used for industrial or commercial maritime purposes where such access does not interfere with the use of the land for those purposes,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposals is not considered to interfere with industrial or commercial uses.

- *the use of foreshore land adjacent to land used for industrial or commercial maritime purposes should be compatible with those purposes,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposals is not considered to interfere with industrial or commercial uses.

- *water-based public transport (such as ferries) should be encouraged to link with land-based public transport (such as buses and trains) at appropriate public spaces along the waterfront,*

  Assessment Officer's Comment: Not considered applicable to the proposed development as the proposals is not considered to influence public transport.

- *the provision and use of public boating facilities along the waterfront should be encouraged.*

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Assessment Officer's Comment: The proposed development is not likely to impact on the provision and use of existing moorings within Morrison Bay.

(c) Any draft LEP

The Ryde Local Environmental Plan 2014 (Ryde LEP 2014) commenced on 12 September 2014 as the new environmental planning instrument applicable to the City of Ryde. In relation to existing applications un-determined as of 12 September 2014, this instrument contains a Savings Provision (clause 1.8A), which states:

> *If a DA has been made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application must be determined as if this Plan had not commenced.*

The DA was made (lodged) on 4 July 2014, before the commencement of the Ryde LEP 2014, and so it must be determined as if Ryde LEP 2014 had not commenced. What this means is that the now-gazetted Ryde LEP 2014 is treated as a draft instrument.

The details of the proposed development in relation to Ryde LEP 2014 are as follows:

- the subject site remains within the 'RE1 Public Recreation' land use zone;
- the proposed development remains as development which is permitted with consent under the RE1 Public Recreation land use zone;
- the proposed development is not considered to remain consistent with all of the objectives of the RE1 Public Recreation zone, particularly objective 2 relating to the land use compatibility of the development (it is noted that objectives 4 and 5 of the Ryde LEP 2010 are no longer included for the RE1 zone under Ryde LEP 2014 as gazetted);
- the provisions of clause 5.9 – Preservation of Trees or Vegetation of the Ryde LEP 2014 are considered to be consistent with the provisions of clause 5.9 – Preservation of Trees or Vegetation of the Ryde LEP 2010.

(d) The provisions of any development control plan applying to the land

Ryde Development Control Plan (DCP) 2014.

Ryde DCP 2014 does not contain any specific development controls applicable to the proposed development.

Sydney Harbour Foreshores and Waterways Area DCP 2005:

This DCP was made by the State Government to support the provisions of Sydney Regional Environmental Plan (Sydney Harbour Foreshores) 2005, and therefore it applies to the subject proposal

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The following provides an assessment of the proposal against the provisions of the Sydney harbour Foreshores and Waterways Area DCP 2005.

Part 2 Ecological Assessment

A review of the ecological communities and landscape character map at ***Figure 12*** below has revealed that the predominant terrestrial community within Morrison Bay Park to be grassland and the predominant aquatic community to be mudflats.

Grasslands are identified within this DCP as having low conservation value and mudflats are identified to have medium conservation value.

Figure 12: Site Located within Terrestrial Ecological Communities of Low Conservation Value

Morrison Bay Park is identified on the above map to have a predominantly grassland terrestrial ecological community. The statement of intent and performance criteria from the DCP, along with an assessment officer comment is detailed below.

Vegetation Protection *-To conserve and enhance vegetation.*

- *Mature trees containing hollows are preserved where feasible.*
- *Natural watercourses and any special natural features such as cliff faces and rock outcrops are protected.*

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- *The incremental and cumulative effects of development are considered having regard to the above performance criteria.*

Assessment Officer Comment: Although no vegetation is planned to be removed to accommodate the proposed flood lights, an Ecological Assessment has been prepared and submitted with the DA which has determined that the impacts of the proposed development on vegetation is acceptable. Recommendations for safeguards and management measures to minimise environmental damage during the proposed works have been included in the Ecological Assessment.

Reduce Predation Pressure *- To minimise the risk of predation on native fauna species by domestic pets*

- *Fencing to contain domestic pets is provided*

Assessment Officer Comment: Morrison Bay Park is not identified as a specific 'Off Leash Area' on the Ryde Council Website. However, it is noted that the Ecological Assessment reported that during a site inspection that:

> *"at one point, two domestic dogs were observed to run out onto the mudflat and chase away the foraging birds."*

Whilst this incident it noted, signage indicating dogs must be on leads is shown at the commencement of the shared footpath and it is not considered that the proposed development will significantly increase the risk of predation on native fauna species by domestic pets.

Soil Conservation and Pollution Control *- To minimise impacts associated with soil erosion, water siltation and pollution.*

- *Measures to minimise soil erosion and siltation during construction and following completion of development are implemented.*
- *Controls are implemented to prevent pollutants from entering the waterway.*
- *Any pollutants and any increase in suspended solids is temporary and does not exceed the current pollution and range of turbidity.*

Assessment Officer Comment: It is noted that the proposed development is on land identified as Class 2 Acid Sulfate Soils. It is noted however the applicant has not submitted an Acid Sulfate Soil Management Plan pursuant to Clause 6.1 of Ryde LEP 2010.

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Despite the subject development application not including an acid sulfate soils management plan as required, given the preliminary assessment already identified sufficient grounds for refusal of the proposal, it was considered unnecessary to request such additional information from the applicant. It is noted, that any future development application for sports field lighting at Morrison Bay Park should be accompanied by an acid sulphate soils management plan.

Aquatic Ecological Communities of Medium Conservation Value

The waterway adjacent to Morrison Bay Park is identified on the above map to have a predominantly mudflat aquatic ecological community which are identified to have a medium conservation value. The statement of intent and performance criteria along with an assessment officer comment are detailed below.

Shading *To minimise impacts on communities from shading.*

- *Shading of communities is not increased to an extent that would harm flora and fauna.*
- *Food sources for grazing organisms are protected.*
- *Light penetration is not reduced so that algal growth in the intertidal zones is protected.*

Assessment Officer Comment: It is not considered that the proposed light poles will significantly overshadow the adjacent mudflat ecological community during daylight hours. As shown in the images of the proposed development contained earlier in this report, only two (2) of the eight (8) poles are located directly adjacent to the nearby mudflats. These proposed light poles are relatively narrow in structure and thus likely to result in minimal overshadowing.

Reclamation *To minimise the effects from reclamation where it provides the optimum environmental outcome.*

- *Reclamation mitigation measures outlined in the NSW Fisheries Department's Estuarine Habitat Management Guidelines, Section 3.1—Reclamation and Dredging are to be followed and the applicant will need to demonstrate that the proposal will not adversely affect beach formation.*
- *Harmful contaminants will not be disturbed, or only when this will not adversely affect birds, fish and invertebrates.*

Assessment Officer Comment: No reclamation is proposed.

Urban Run-off *To minimise the effects from urban run-off.*

Appropriate on-site control measures are to be implemented to ensure that:

- *pollutants are not transferred into the intertidal zone;*

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- *the proposal will not increase nutrient levels in the intertidal zone; and*
- *any increase in suspended solids (turbidity) is temporary and does not exceed the current range of turbidity.*

Assessment Officer Comment: The increased use of the park as a result of the proposed development may lead to an increase in urban runoff and litter into both Morrison Bay Canal and Morrison Bay. However this is considered to be satisfactorily addressed by Council's Plan of Management for Morrison Bay Park.

Dredging *To minimise the effects from dredging.*

- Mitigation measures outlined in the NSW Fisheries Department's Estuarine Habitat Management Guidelines, Section 3.1—Reclamation and Dredging are to be followed

Assessment Officer Comment: No dredging is proposed.

Landscape Area 14

As shown on the Landscape Character Map at ***Figure 12***, Morrison Bay is identified to be within Landscape Area 14. The performance criteria for Landscape Area 14 are identified below along with an Assessment Officer comment.

iii. Performance Criteria
Any development within these areas is to satisfy the following criteria:

- *consideration is given to the cumulative and incremental effects of further development along the foreshore and to preserving the remaining special features;*

  Assessment Officer Comment: This assessment has taken into consideration the wider visual impacts associated with the change in the night time landscape as a result of the illuminated park when viewed from Morrison Bay, Parramatta River and the southern shore of Parramatta River at Breakfast Point and Cabarita (refer to view catchment diagram at ***Figure 17***).

  It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

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Accordingly having regard to the above it is considered that light spill impacts associated with the proposed development are acceptable when having regard to this aspect of the performance criteria of the DCP.

- *development is to avoid substantial impact on the landscape qualities of the foreshore and minimise the removal of natural foreshore vegetation, radical alteration of natural ground levels, the dominance of structures protruding from rock walls or ledges or the erection of sea walls, retaining walls or terraces;*

  Assessment Officer Comment: Refer above, whilst it is noted that no vegetation is proposed to be removed it is considered that the proposed sports field lighting will have an acceptable impact on the visual landscape qualities of the Morrison Bay foreshore, and adjacent waterways during the hours of operation.

- *landscaping is carried out between buildings to soften the built environment; and existing ridgeline vegetation and its dominance as the backdrop to the waterway, is retained.*

  Assessment Officer Comment: The proposed sports field lighting will not impact on existing ridgeline vegetation, as noted above no vegetation is proposed to be removed.

Morrison Bay Park Plan of Management 2009

4.4 Management Objectives

4.4.1 Recreation Objectives

- Maintain the use of the Park as a District level sporting facility.
- To design and plan the future of the Park as a valued recreational asset for the local community.
- To ensure future sporting uses are compatible with existing uses, carrying capacity of facilities and settings and provides equitable access for both mens and womens sporting groups.
- To minimise intensification of use which has impacts on park users and the local community.
- Encourage and facilitate recreational pursuits for the local community as well as visitors to the area.
- Provide for passive recreation activities and for the casual playing of games for individuals and groups.
- Manage the recreational activities in the Park and ensure minimal impact on the local residential population.

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Assessment Officer Comment: Whilst it is noted that the proposed sports field lighting maintains the use of the park as a district level sporting facility it is noted that the objectives require the future sporting uses to be compatible with existing uses and carrying capacity of facilities. In addition it is noted that the objectives specifically state to minimise intensification of use where this has impacts on park users and the local community and to manage the recreational activities to ensure minimal impact on the local residential population.

The proposed sports field lighting is considered to have a significant acoustic amenity impact on the adjoining residential areas, particularly those residences adjacent to Field 2. As indicted above, these impacts relate primarily to acoustic impacts, but to a lesser extent light spillage impacts. Accordingly it is considered that the proposed sports field lighting, in its current form is not consistent with all of the above recreational objectives contained in the Morrison Bay Park Plan of Management.

4.4.2 Open Space and Landscape Objectives

- Define parkland boundary with suitable landscape or paving treatments.
- Reinforce the visibility of the major Park entrances through landscape and signage.
- Protect and where possible enhance viewing opportunities within the Park and towards Parramatta River.
- Provide opportunities for socialising and picnicking.
- Improve park lighting to accommodate evening walking and informal use of the Park.
- Review placement and upgrade furniture and fixtures throughout the Park to coincide with the City of Ryde open space furniture palette.
- Review placement and upgrade furniture and fixtures throughout the Park to improve spectator and player amenity.
- Provide opportunities to experience peace and quiet in the Park.

Assessment Officer Comment: It is considered that the majority of the above objectives are not impacted upon by the proposed sports field lighting.

4.4.3 Environmental Objectives

- Increase awareness and understanding of natural area significance.
- Ensure the protection of natural areas through the use of fences and barriers.
- Ensure the maintenance of the sporting surfaces does not have any detrimental impact on the surrounding natural areas.
- Provide visual and physical access to the River.
- Develop areas to enjoy the River and parks settings.
- Conserve biodiversity and ecosystem functioning for the areas contributing to the biodiversity of the River environment.

Assessment Officer Comment: The proposed sports field lighting has been assessed as having an acceptable visual impact on the Sydney Harbour/Parramatta River foreshore.

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This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

4.4.4 Cultural Objectives

- Provide a range of opportunities for social and cultural activities for all age groups in a variety of settings.
- Indigenous and non-indigenous heritage to be identified, conserved and interpreted as appropriate.
- Provide for a range of sporting opportunities that respond to the social and cultural needs of a multicultural society.

Assessment Officer Comment: It is not considered that the proposed sports field lighting hinders the achievements of these objectives. This is because the proposed sports field lighting will enable the continuation of the existing sporting cultural activities and social gathering of people at Morrison Bay Park, and as such reinforce the importance of the park and associated sports fields as a regional asset to the community.

4.4.5 Access and Linkage Objectives

- Provide adequate parking for vehicles associated with organised sports while maintaining the amenity of the local area for residents.
- Ensure equitable and easy access to and within Morrison Bay Park for all ages and abilities through a review of all entrances and paths within the Park.
- Manage access to the Park by private vehicles through improvement to vehicle parking areas.
- Improved pedestrian safety.
- Enhance connection to public transport to the Park and reduce the dependency on private vehicles to access Morrison Bay Park.
- Establish links with other surrounding foreshore parks, recreation areas, residential areas and shopping areas.
- Upgrade paths and create a path hierarchy within the Park.
- Continue the implementation of the Ryde River Walk Masterplan.
- Improve facilities for bicycles.

Assessment Officer Comment: The prolonged use of the sports fields at Morrison Bay Park will result in additional vehicular activity in the surrounding streets and car parks. The Traffic Impact Assessment Report prepared by Bitzios Consulting submitted with the subject development application has concluded that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly, the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by traffic monitoring.

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As has been discussed within the response to the objector's acoustic concerns, additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area. The acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

10. Likely impacts of the Development

(a) Built Environment

Built Environment

The proposed development will modify the intensity of the existing lighting arrangements at Morrison Bay Park by introducing new floodlighting to the existing sports field. In this regard it is acknowledged that the illumination will have a modified impact on the built environment over that of the current site arrangements.

Additionally, the proposed development will augment the hours of use of the sports field over that of the current arrangements, and as such must also be considered in terms of its modified impact on the built environment.

Having regard to the above, the potential impacts on the built environment as a result of the additional sports field lighting and usage that need to be assessed has been determined as follows:

- Light Spillage;
- Visual Impacts
- Acoustic Impacts;
- Traffic and Parking; and
- Loss of Park Amenity.

In order to understand the level of impact associated with the proposed development, it is important to assess the amount of additional usage that will be obtained from the sports field as a result of the flood lighting.

In this regard, it is understood the current usage of the sports field is as follows:

- In summer (September to March)
- Monday - Thursday 5.30pm to 8.00pm for social sport activities
- Saturdays and some Sundays for senior and junior cricket competition between 8.00am to 6.00pm.

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- In winter (April to August)
  - Saturdays between 8.00am and 6.00pm, by the Gladesville Hornsby Football Association (GHFA)
  - Sundays between 8.30am and 5.30pm by the North West Sydney Women's Football Association.

- The park is also used by casual park users for passive recreational purposes and pathway along the river line is popular. There are also cricket practice nets in the park and the park is utilised by personal trainers.

The proposed usage of the sports field at Morrison Bay Park once the lighting is installed is as follows:

- Monday to Thursday 4.00pm to 9.30pm during the winter season (April to August) for social sport and training.
- Monday to Thursday 6.00pm to 9.00pm during the summer season (September to March) for social sport and training.

Therefore, operation of the floodlighting to illuminate the sports field at Morrison Bay Park in the summer season (i.e. from September to March) will result in the following additional usage of the sports field:

- Mondays – 30 minutes;
- Tuesdays – 30 minutes;
- Wednesday – 30 minutes;
- Thursday – 30 minutes;
- Friday – Nil;
- Saturday – Nil; and
- Sunday – Nil.

Operation of the floodlighting to illuminate the sports field at Morrison Bay Park in the winter season (i.e. from April to August) will result in the following additional usage of the sports field:

- Mondays – 5.5 hours;
- Tuesdays – 5.5 hours;
- Wednesday – 5.5 hours;
- Thursday – 5.5 hours;
- Friday – Nil;
- Saturday – Nil; and
- Sunday – Nil.

The resultant impact of the proposed floodlighting is that the sports field at Morrison Bay Park will be able to be utilised for an additional 2 hours per week during the summer season and an additional 22 hours per week during the winter season.

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On this usage basis, each of the following potential impacts on the built environment are now assessed:

Light Spillage

Higher illuminating lights have the potential to impact on the built environment in terms of the obtrusive effects of outdoor lighting, particularly on other aspects of the built environment such as residential accommodation. As indicated in ***Figure 13*** below, nearby residential accommodation is approximately 15m from the edge of nearest the illuminated field.

Figure 13: Distance to residential accommodation on the eastern side of Morrison Bay Park from the nearest illuminated field

'Australian Standard AS4282-1997 – Control of the obtrusive effects of outdoor lighting' sets out guidelines for control of the obtrusive effects of outdoor lighting and gives recommended limits for the relevant lighting parameters to contain these effects within tolerable levels. The following is an extract from AS4282-1997 in relation to the effects on residents as a result of bright luminaries:

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Section 2.6.1 Effects on residents Effects on residents generally involve a perceived change in amenity arising from either of the following:

(a) The illumination from spill light being obtrusive, particularly where the light enters rooms of dwelling that are normally dark, e.g. bedrooms. The illuminance on surfaces, particularly vertical surfaces, is an indicator of this effect.
(b) The direct view of bright luminaries from normal viewing directions causing annoyance, distraction or even discomfort. The luminance of a luminaire, in a nominated direction, is an indicator of this effect. However, because of difficulties associated with the measurement of luminance, recommendation in the Standard are expressed in terms on the luminous intensity in specified directions.

Tolerable levels of each of these light technical parameters will be influenced by the ambient lighting existing in that environment. This will be determined largely by the degree and type of the development of the area and by the road lighting in place.

Values of the light technical parameters that are acceptable during the earlier hours of the evening may become intolerable if they persist at later times when residents wish to sleep.

Given the above, it is important to assess the illumination spill on adjoining residential development whilst taking into consideration existing conditions, and that of the proposed development which seeks to illuminate Morrison Bay Park with sports field floodlighting.

Table 2.1 within AS4282-1997 outlines the recommended maximum values of light for the control of obtrusive light both during curfew hours (i.e. after 11pm) and after curfew hours (before 11pm).

Table 2.1 provides that the recommended maximum Lux values at the boundaries of nearby residential properties is 10Lux for light or dark surrounds in pre-curfew hours, while at curfewed hours it is 2Lux in light surrounds and 1Lux in dark surrounds.

For the purposes of this assessment the more stringent dark surrounds criteria have been used. That is, a maximum 10Lux for pre-curfew hours and a maximum of 1Lux for curfewed hours.

Included as part of the package of information submitted with the subject DA is the *Assessment and Recommendations Report for New Flood Lighting at Morrison Bay Park* prepared by independent consultants Gary Roberts and Associates dated 6 June 2014. This report includes measurements of the Lux levels at the boundary of nearby residential accommodation and outlines that the proposed new floodlighting for Morrison Bay Park can provide the lighting levels recommended and also achieve spill light levels below the maximum of 10Lux at the property boundaries recommended by AS4282-1997.

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It is noted that following an initial assessment of the proposal, additional information was sought from the applicant in relation to light spill as follows.

Lighting Design Report

- *The Lighting Design report recommends that 'glare shields' be installed to reduce spill light on residential boundaries to the minimum possible. We would like to know what the maximum Lux levels would be at the residential boundaries with the glare shields installed given that the report only appears to consider the Lux without the glare shields. This is an important consideration in understanding the real impact of the proposed field lighting on the residential boundaries.*

A response was received from the lighting consultant for the applicant as follows

1. *The vertical spill light levels on all residential boundaries are below the maximum of 10 lux recommended by AS 4282. The maximum spill was calculated to be 7.35 lux.*
2. *The report proposes that glare shields be provided to further reduce the spill light. Glare shields usually reduce the spill light by 2 – 3 lux. With glare shields this should reduce the worst case spill light to around 5 lux.*
3. *Photometrics with glare shields installed are not normally available from the light fitting manufacturer as shields can be custom made.*
4. *The extent of glare shields can be determined during night testing and aiming of the floodlights.*

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Figure 14: Light level measurements as a result of the proposed development

As demonstrated in ***Figure 14*** above, with a maximum level of 7.56 Lux at the property boundary of the nearby residential development, the proposed development results in less than the maximum standard and therefore complies with the recommendations outlined in AS4282-1997 for the obtrusive effects of outdoor lighting as the lighting will be restricted to operate until 9:30pm Monday to Thursday during the winter season, and until 9pm during the summer season. In addition it is noted from the additional information that this maximum level of lux can be further reduced by the installation of glare shields that can further reduce Lux levels between 2-3 Lux.

While it has been indicted that the increased illumination generally has the potential to negatively impact on the amenity of residential areas by affect people's orderly use of living areas, private open space, and bedroom areas for sleeping, it is also acknowledged that there can be positive outcomes derived from additional illumination including enabling passive surveillance over parks and streetscapes, and acting as a deterrent for anti-social behaviour.

As such, the proposed light spillage as a result of the illuminated sports fields can be seen to have both positive and some negative outcomes, however on balance these impacts are considered to be neutral, particularly should the proposal be required to install glare shields to reduce the impact on adjoining residential areas.

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It is noted that in the response to the request for additional information the Lighting Consultant indicates that the glare shields are an option for reducing light spill. Accordingly it is considered that should the development be approved, despite this Report to Committee recommending refusal, a condition requiring glare shields be affixed to all light poles so as to reduce Lux levels at neighbouring residential property boundaries be included.

> **Glare Shields –** *Glare shields are to be installed on all proposed light poles to help minimise the light spill associated with the proposal at neighbouring residential property boundaries.*

Again, despite this Report to Committee recommending refusal of the subject DA, should the subject DA be approved by City of Ryde Council, it is recommended that the following condition be imposed to ensure the illumination of the sports fields does not continue past the proposed hours of use.

- **Curfew switches -** *Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition below.*

Accordingly having regard to the above it is considered that light spill impacts associated with the proposed development are not a reason for refusal of the subject development application. This is primarily because the proposal in its current form has the ability to comply with the relevant Australian Standards for the obtrusive effects of outdoor lighting. Additionally, those light spillage impacts imposed on adjoining residents have the capability of being further reduced through imposition of the above recommended conditions on any future consent.

Visual Impacts

Notwithstanding the light spill being below the required Lux levels at nearby by residential properties, it is considered that the proposed sports field lighting will have a visual impact that needs to be assessed when viewed from nearby residential properties, Sydney Harbour/Parramatta River and from Breakfast Point on the opposite shoreline within the Canada Bay Council local government area.

Figure 15 illustrates the approximate expected visual catchment of the proposed sports field lighting, which has been established through extensive site inspections, aerial photographs and online mapping.

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Figure 15: Approximate visual catchment of Morrison Bay Park, and those areas that will likely view the illuminated sports field in the evening.

As part of the assessment, the consultant assessing officer visited the site and surrounds on 2 January 2015 to ascertain the extent to which Morrison Bay Park is visible from surrounding streets, the shoreline of Morrison Bay and the opposite shoreline at Breakfast Point and Cabarita Point. The vantage points are illustrated on the visual catchment map at ***Figure 17*** and photographs at ***Figures 28 to 38***.

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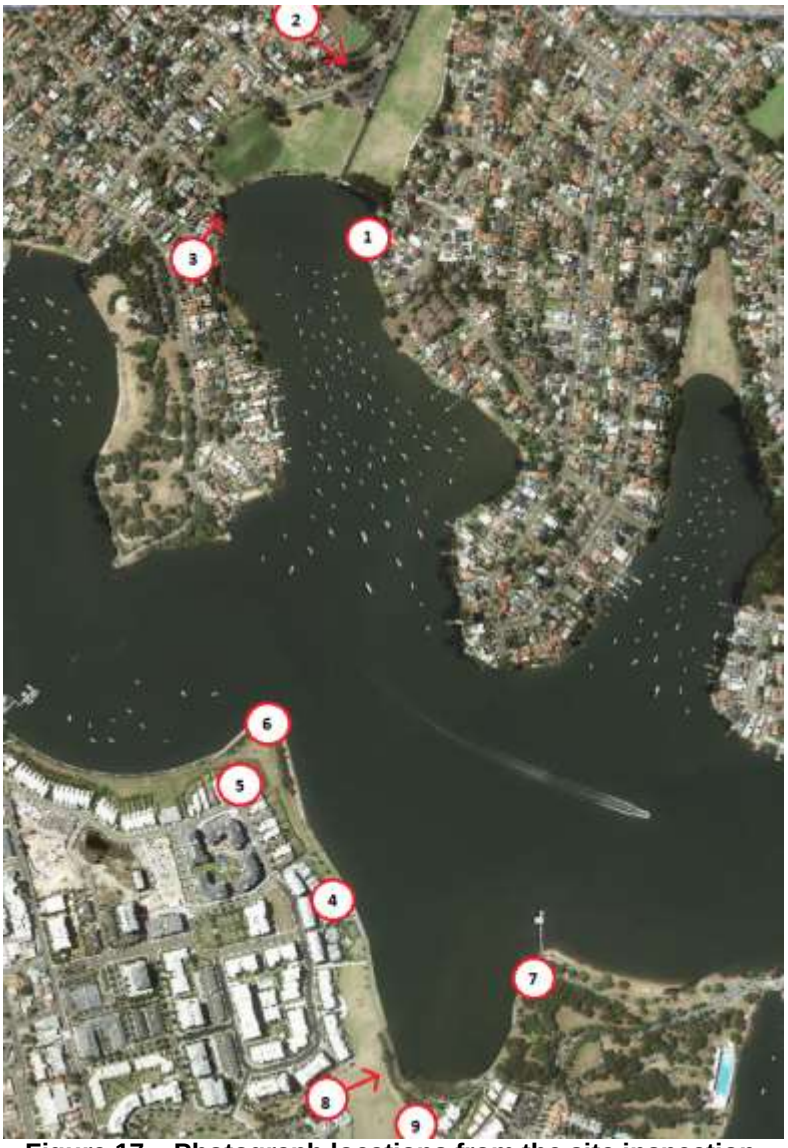

Figure 17 – Photograph locations from the site inspection.

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Figure 18 Photograph vantage point 1 – Foreshore of Morrison Bay adjacent to 55 Bayview Street looking towards Morrison Bay Park

Figure 19 Photograph Vantage Point 2 looking over Morrison Bay Park from corner of Ida Street and Donnelly Street.

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Figure 20 Photograph Vantage Point 3 - Looking towards Morrison Bay Park from corner of Jetty and Pellisier Road.

Figure 21 Photograph Vantage Point 4 – Looking towards Morrison Bay from The foreshore path within Breakfast Point.

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Figure 22 Photograph Vantage Point 4 – Residential dwellings that have an outlook to Parramatta River and Morrison Bay within Breakfast Point.

Figure 23 Photograph Vantage Point 5 – Looking towards Morrison Bay from adjacent to new residential subdivisions and existing dwellings within Breakfast Point opposite the site on Parramatta River.

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Figure 24 Photograph Vantage Point 5 – Residential dwellings that have the direct view as shown in the above photo to Parramatta River and Morrison Bay within Breakfast Point.

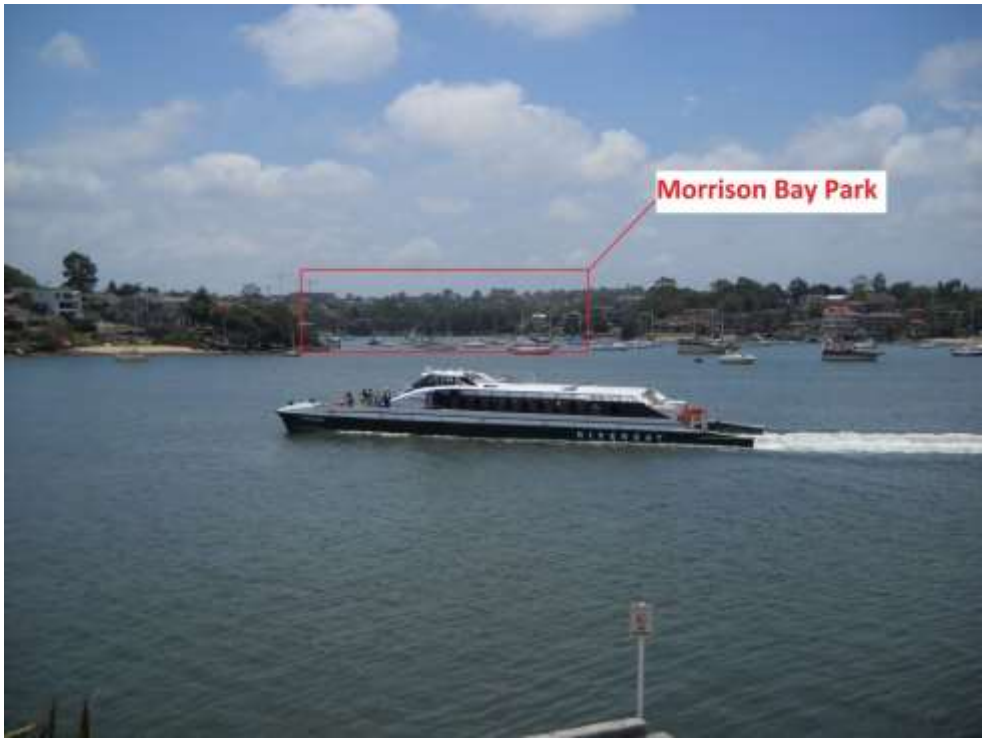

Figure 25 Photograph Vantage Point 6 – Looking towards Morrison Bay from an observation area within Breakfast Point opposite the site on Parramatta River. Also note the potential change in significant view of Morrison Bay Park from the Parramatta Ferry Service.

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Figure 26 Photograph Vantage Point 7 – Looking towards Morrison Bay from Cabarita Ferry Wharf

Figure 27 Photograph Vantage Point 8 – Looking towards Morrison Bay from an elevated view point adjacent to the Breakfast Point Country Club

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Figure 28 Photograph Vantage Point 9 – Looking towards Morrison Bay from dwellings along Admiralty Drive, Breakfast Point

The consultant assessing officer returned to each of the above photograph vantage points in the late evening of 2 January 2015 to observe Morrison Bay Park at night from the different locations. An attempt to photograph the scene viewed from each of the vantage points was made, however due to the distinct darkness that cloaks Morrison Bay Park these photographs taken were poorly representative of the scene and marred by the lens flare from nearby lights in the foreground.

It has been concluded that while the proposed illumination of sports fields at Morrison Bay Park will be noticeable from these areas in the wider view catchment, the visual impact associated with these noticeable changes is not beyond that of other foreshore development in Sydney Harbour. This is because the light poles themselves are considered to be comparably modest structures in terms of their bulk and scale, and the illumination effects of the lighting will be restricted to 9pm in the summer season, and 9.30pm in the winter season. After these times, the visual landscape will largely return to pre lighting conditions at Morrison Bay Park.

Having regard to the above it is considered that in addition to protecting the existing visual outlook to park at night, the visual qualities of Sydney Harbour/Parramatta River are satisfactorily protected in accordance with the Sydney Harbour Foreshores SREP.

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Acoustic Impacts

An acoustic impact report titled, *Noise Assessment – Proposed Floodlighting* (NA) prepared by Acoustic Consulting Engineers dated June 2014 was submitted as part of the package of information for the DA.

The NA covers the acoustic impact for the proposed extension of hours for sporting activities as a result of the installation of the floodlighting for Morrison Bay Park.

The NA outlines that the proposal will not introduce new noise sources, but rather prolonged hours of use of the sports field.

A preliminary assessment of the NA by the Consultant Assessment Officer raised a number of issues with the NA that were subject of an additional information request to the applicant. Council's consultant acoustic engineer provided a written response to the issues raised in a letter dated 9 September 2014. Below is a list of each of the issues raised in the additional information letter, followed by a summary of the applicant's acoustic engineer response, and subsequent comment from Council's assessment officer on how the issue is either resolved or remains unresolved.

A. *The Acoustic Report has no assessment of how loud men's training is on Field 2 (referred to in the Acoustic Report as Field 1). This is because on each night the consultant acoustic engineer attended Morrison Bay Park there was no men's use of this field.*

   Applicant Acoustic Engineer Response: Ryde City Council [acting as applicant] advised the acoustic engineer that activities on the dates of the noise measurements were typical.

   In the event of men's soccer matches and training taking place on Field No. 1 (known as Field 2 in the proposal), the predicted $L_{Aeq,15min}$ noise levels at the nearest residences would be in the order of 5dB high than those predicted.

   Assessment Officer Response: The NA indicates that the predicted noise level from soccer activities to those residents adjacent to Field No. 1 (Field 2 in the proposal) are 52dB(A), 53dB(A), and 54dB(A) depending on the different measurement locations.

   Based on the acoustic engineer's response to the additional information issue above, the predicted noise levels at these locations would be 57dB(A), 58dB(A), and 59dB(A).

   The background noise level for the Teemer Street measurement locations adjacent to this field is stated within the NA as having a background noise level of 35dB(A).

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Given the above, this would mean that the proposal would result in predicted noise levels at these locations between 22dB(A) and 24dB(A) over the existing background noise level, and between 12dB(A) and 14dB(A) over the noise assessment objective outlined within the NA.

B. *The predictions in Table 3 indicate that the noise level at adjoining properties of Field 2 (or Field 1 in the report) is 52-54db, however this is the same as the measured girls training/match level. The Acoustic Engineer makes this observation in the report that men's use is louder than girl/women, so what will the predicted noise level be when men are using Field 2 (or Field 1 in the report).*

Applicant Acoustic Engineer Response: As outlined above, in the event of men's soccer matches and training taking place on Field No. 1 (known as Field 2 in the proposal), the predicted $L_{Aeq,15min}$ noise levels at the nearest residences would be in the order of 5dB high than those predicted.

Assessment Officer Response: The comments above are reiterated, particularly that the proposal would result in predicted noise levels at these locations between 22dB(A) and 24dB(A) over the existing background noise level, and between 12dB(A) and 14dB(A) over the noise assessment objective outlined within the NA.

C. *The Acoustic Engineer undertook the noise measurements in the summertime period when there were six (6) players in each team. They then say that teams consist of six (6) players for the summer season and eleven (11) player for the winter season. If two teams are plaything against each other in the winter season for training purposes there could be up to 22 players on the field plus coaching staff etc. There seems to be no measurement of such a scenario, and no prediction of what the noise level would be is this were to occur on the fields.*

Applicant Acoustic Engineer Response: The noise assessment report was undertaken early in the summer season when winter soccer matches and training did not take place and hence noise from 11 players per team could not be measured.

Observations from the site inspections and measurements revealed that the noise was mainly generated by referee whistling and a number of players (the player in possession of the ball (kicking the ball) and several players calling/shouting for the player to pass the ball). On this basis, noise from summer and winter soccer activities would be similar as the noise is still from the referee whistling and a number of players in possession of the ball/trying to possess the ball.

It was noted that experienced players generally did not call/shout for the player in possession of the ball to pass the ball.

In winter season the players will be spread over the full field and the noise will be distributed over a larger area. Albeit, there will be a number of residences being closer to the noise source compared to the half field uses. The noise predictions and assessment took account of residences being closer to the full field.

Assessment Officer Response: The above comments are noted, however there remains concern that with 22 players on the field there would be more players calling/shouting for the player to pass the ball or dispossess the player of the ball. Such calling and shouting is considered to have a noise impact on adjoining residences.

Additionally, it is noted that the proposal does not specify or propose any measures to limit or arrange the use of the field for more or less experienced players. As such this assessment has taken the proposed use of the field will include players of varying level of experience.

D. *Also, it mentions that less experienced teams are louder than more experienced teams so this should be a consideration for Field 2 (Field 1 in the report). For example what will the noise level at the boundary of the sensitive receivers be if 22 less experienced men were training on the field?*

Applicant Acoustic Engineer Response: As outlined above, in the event of men's soccer matches and training taking place on Field No. 1 (known as Field 2 in the proposal), the predicted $L_{Aeq,15min}$ noise levels at the nearest residences would be in the order of 5dB higher than those predicted. The higher noise level is due to more calling/shouting from less experienced players.

Assessment Officer Response: The comments above are again reiterated, particularly that the proposal would result in predicted noise levels at these locations between 22dB(A) and 24dB(A) over the existing background noise level, and between 12dB(A) and 14dB(A) over the noise assessment objective outlined within the NA.

It is also reiterated that concern remains the 22 players on the field would result in more players calling/shouting for the player to pass the ball or dispossess the player of the ball over that of a 6 players per side completion measured by the acoustic engineer for the NA. Such additional calling and shouting is considered to have a noise impact on adjoining residences.

E. *It would seem logical that that the Acoustic Engineer would need to visit somewhere where such training was occurring, and then measure what the noise level is at a distance equal to that of the nearest sensitive receivers at Morrison Bay Park and perhaps use this as the prediction?*

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

Applicant Acoustic Engineer Response: At the time of the preparation of the noise assessment report, winter soccer matches and training did not take place and hence noise from 11 players per team could not be measured.

The noise was mainly generated by referee whistling and a number of players (the player in possession of the ball (kicking the ball) and several players calling/shouting for the player to pass the ball). On this basis, noise from summer and winter soccer activities would be similar as the noise is still from the referee whistling and a number of players in possession of the ball/trying to possess the ball.

Assessment Officer Response: Concern remains that the noise assessment undertaken of a 6 person per side soccer match with 12 players on the field is not representative of what is being proposed with an 11 person per side soccer match with 22 players on the field.

Furthermore, without any such assessment to demonstrate otherwise, it is reasonably considered that the 22 players on the field would result in more players calling/shouting for the player to pass the ball or dispossess the player of the ball over that of a 6 players per side completion measured by the acoustic engineer for the NA. Such additional calling and shouting is considered to have a noise impact on adjoining residences.

F. *Given the above, are the recommendations contained within the Acoustic Report still appropriate or will additional measures need to be included, particularly as the acoustic report and its recommendations will form part of the development consent.*

Applicant Acoustic Engineer Response: The recommended measurement measures in Acoustic Consulting Engineers' Report No. 130433-01R-DD Rev03 are appropriate to minimise noise from the proposal.

Due to site condition, acoustic barriers along the property boundaries would need to be at least 3m high to be effective. For elevated and double storey residences, the barriers would need to be at least 5m high to be effective.

It is noted that acoustic barriers would create secondary environmental impacts such as loss of views to the park.

Assessment Officer Response: The NA provided is labelled Rev02 on the title page, however it is noted that each subsequent page of the NA is labelled Rev03, including that of the recommendations on page 9 of the NA. In this regard it is considered that the NA utilised for this assessment is consistent with the version referenced by the acoustic engineer above, and the difference on the titling page is simply an updating error by the NA author.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

The recommendations of the NA propose a range of measures that, if adopted, are claimed to reduce noise levels from social sporting activities in the order of 3-5dB.

Taking an average of 4dB, this would still mean that that the proposal would result in predicted noise levels of between 18dB(A) and 20dB(A) over the existing background noise level, and between 8dB(A) and 10dB(A) over the noise assessment objective outlined within the NA for those residences adjoining Field No. 1 (Field 2 in the proposal). For all other residences surrounding Morrison Bay Park, it is noted that 84% of the NA measurement locations indicate that the proposal would fail to achieve the NA noise objective.

The majority of recommendations contained within the NA are considered to be either impracticable or unmanageable. For example, it is considered difficult to ensure players remain aware of the need to minimise noise levels. Additionally, the acoustic engineer's suggestion of constructing acoustic barriers up to 5m in height is not considered feasible given these would significantly impact on the amenity of residences the parkland, and also lead to potential view loss of Morrison Bay and the park area.

Given the above, it is clear that the proposed development would fail to meet the NA objectives by a significant margin, even with the incorporation of the impracticable recommendations within the NA.

G. *The Acoustic Report was prepared by a firm called Acoustic Consulting Engineers Pty Limited which appear to be based in Putney. Given the proposed development is to be undertaken in Putney, it is recommended that the Acoustic Report be updated to comment that there is no conflict of interest with the proposed development given the widespread notification that undertaken as part of the proposal.*

Applicant Acoustic Engineer Response: All reports prepared by Acoustic Consulting Engineers Pty Ltd do not have conflict of interest.

Assessment Officer Response: Noted.

H. *Additionally, it is requested that the author of the Acoustic Report be nominated in the report, as has been done with all other specialist consultant reports for this project. This should indicate the authors appropriate qualifications as an acoustic engineer to complete this report.*

Applicant Acoustic Engineer Response: The noise assessment report was prepared by Dan Dang who is a member of the Australian Acoustics Society and has been practising as an acoustic engineer for more than 20 years.

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Assessment Officer Response: Noted.

Additional Issues with the Acoustic Assessment

The following additional issues are raised with the NA and additional information response from the consultant acoustic engineer.

Existing Noise Environment

The NA indicates that background noise measurements conducted during the monitoring period of 22 October 2013 to 1 November 2013 was prior to the start of the summer soccer season and not influenced by noise from soccer games.

As the background noise measurements were conducted during late October 2013, daylight savings time had commenced. The sunset times in late October were approximately 7:22pm in the evening, with civil twilight ending at approximately 7:48pm – 'Civil twilight' is the limit at which twilight illumination is sufficient, under good weather conditions, for terrestrial objects to be clearly distinguished.

The NA acknowledges that the present use of Morrison Bay Park (aside from soccer training and games), includes cricket training, social football, occasional school sports events and carnivals, personal fitness training and the general public undertaking exercising/playing. During site visits to Morrison Bay Park, the Consultant Assessment Officers have witnessed and can confirm such activities taking place, aside from that of school sports events and carnival which were not observed at the times visiting the park.

Given the above it is reasonable to assume that such activities referred to above would continue at Morrison Bay Park in late October until civil light end – approx. 7:48pm.

During the winter season when daylight savings time has ended, the sunset can be as early as 4:53pm at mid-winter, with civil daylight ending at 5:20pm. This is approximately 2 hours earlier than that when the NA undertook the background noise assessment in late October.

Accordingly, in mid-winter, it is also reasonable to assume that such activities referred to above would cease at civil light end – approx. 5:20pm.

On this basis, it considered that the background noise levels from ordinary use of Morrison Bay Park were likely greater during the background noise assessment period than that during the winter season times for which the proposed lights will enable evening use of the sports field lights until 9:30pm.

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Also contributing to greater noise levels at the time the background noise measurements were taken is that of touch football competitions taking place at Morrison Bay Park. Evidence from the neighbour and community submissions received highlight that touch football completion also takes place at Morrison Bay Park. A review of available online information reveals that the Ryde Eastwood Touch Football Association holds regular men's, women's, mixed and junior competitions at the park.

Of note for the subject proposal and acoustic assessment is that touch completions were held at Morrison Bay Park (according to online completion draws), between 14 October 2013 to the 9 December 2013. The NA indicates on page 4 that background noise measurements conducted during the monitoring period was prior to the start of the summer soccer season and not influenced by noise from soccer games. However, it is evident from the above that touch football completion was taking place at Morrison Bay Park, and as such would likely have influenced that background noise measurements.

As such, the noise from sporting activities utilising the fields is considered to potentially exceed the stated background noise levels by a higher amount that that stated in the NA (and as modified higher again (5dB) by the acoustic engineer's additional information response), by virtue of the background noise measurements being undertaken in day light savings time, and also during sports competition at Morrison Bay Park.

Recommendations

The following is a list of the recommendations contained within the NA:

1. Plant trees/shrubs (lower than the fences) in front of the brick boundary fence of 22 Teemer Street to prevent youths kicking and bouncing on the wall, as observed on Tuesday 5 November 2013;
2. Schedule the youth teams to play early (many players and their companions/families would leave the park after the games) to minimise loud conversations/cheering from companions/family members gathering at areas near the shared pedestrian/bike path on the eastern site boundary;
3. Arrange the youth teams to play at the fields nearer to the stormwater canal so that companions/family members gather at areas near the canal (further away from residences along Bayview Street and Teemer Street);
4. Schedule less experienced teams to play at earlier times. It was observed that the more experienced teams/players shouted less frequent and should be scheduled to play later in the evening to minimise the noise impact;
5. Ensure players/trainers are aware of the need to minimise noise from conversation, shouting and whistling.

As has been outlined earlier, the NA states that with the implementation of the above management measures, reductions in noise levels from social sporting activities in the order of 3-5dB would be expected.

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In relation to recommendation No.1, it is acknowledged that such a measure would help reduce noise associated with balls being kicked against this wall, and congregation of youths adjacent to the property boundary.

Recommendations No.2 and No.4 are simply considered to shift noise impacts to earlier in the evening rather than actually reduce the noise impacts from this activity.

Similarly, recommendation No.3 is considered move noise impacts away from those residences on the eastern side of Morrison Bay Park closer toward those residences on the western side of Morrison Bay Park. Given the residences on the western side of Morrison Bay Park are located further away from Field 1, it is considered that this is potentially a reasonable noise mitigation option for a balanced acoustic impact on adjoining residential areas.

Recommendation 5 is considered to be a possible effective measure in helping to minimise noise, however in practice is it anticipated that this would be difficult apply.

As has been indicated earlier in this report, concern has been raised by objectors over the impact of vehicular traffic and parking noise on the surrounding area derived from the prolonged vehicular activity in the surrounding streets and car parks. While additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area, the acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

Summary on Acoustic Impact

It is considered that the acoustic impacts associated with the proposed development will directly impact on the amenity of those residential areas surrounding Morrison Bay Park. This consideration is based on the following:

- The Noise Assessment (NA) submitted in support of the subject DA and subsequent additional information provided by the consultant acoustic engineer indicates that the predicted noise levels at 84% of the measurement locations will exceed the noise assessment objective of background noise level plus 10dB. In particular, the predicted noise levels at the residences on the north-eastern side of Morrison Bay Park are between 22dB(A) and 24dB(A) over the existing background noise level. The noise has been indicated within the NA as being derived from kicking of soccer balls, player shouting, referee whistling, shouting/cheering from families, spectators and companions.

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- The majority of recommendations contained within the NA are considered to be either impracticable or unmanageable. For example, it is considered difficult to ensure players remain aware of the need to minimise noise levels, or unrealistic to construct noise walls up to 5m high at property boundaries.

- The background noise levels established within the NA are questioned on the basis of the measurements being somewhat unreflective of the proposed winter season park usage. This is because the background noise measurements were undertaken during daylight savings time when Morrison Bay Park is more highly utilised, compared to that during mid-winter when daylight savings time has ended and there is less usage of the park. Additionally, it has been identified that touch football completion was taking place at Morrison Bay Park during the background noise measurement period, thus further contributing to a somewhat unrepresentative background noise level.

- Concern has been raised by objectors over the impact of vehicular traffic and parking noise on the surrounding area derived from the prolonged vehicular activity in the surrounding streets and car parks. While additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area, the acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

- The significant increase in noise levels from additional sporting activities is expected to negatively impact on the quality of life experienced by adjoining residences. This is because the proposal will include the illumination and use of the sports fields up to 9:30pm during the winter season (April to August) and up to 1.5 hours later into the evening to 9.00pm during the summer season (September to March). These times of the evening are considered to be when dwellings will be occupied, and used for quiet evening respite and sleeping times, particularly for children and some adults, including shift workers and elderly people.

- As such, the envisaged loss of amenity to these surrounding residential areas as a result of the abovementioned noise impacts is considered to negatively affect people's orderly use of living areas and private open space, as well as bedroom areas for sleeping.

Accordingly having regard to the above it is considered that the acoustic impacts associated with the proposed development, in its current form, are significant enough to warrant refusal of the subject development application.

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Traffic and Parking

It is acknowledged that in some circumstances the illumination of a sports field, such as that at Morrison Bay Park, may have the potential to impact on the built environment in terms of traffic and parking associated with the park.

In this regard, a traffic and parking report has been prepared by an independent consultant. Traffic Impact Assessment (TIA) by Bitzios Consulting dated 2 May 2013.

A number of questions are raised with the submitted TIA that supports the subject DA. Firstly, the report is considered not to appropriately address the impact of additional traffic generated within the summer season, and secondly it is considered that the report has possibly underestimated the number of additional vehicle movements by undertaking their site inspection for assessment purposes on a day when the sports fields where operating under capacity. These are discussed separately below:

Failure to Undertake Assessment of Additional Summer Season Traffic and Parking

The traffic report comments the following on page 7:

> *"The fields are only to be used for soccer training during winter competition and not to extend the twilight completions in summer. Therefore the only impacts will be during the winter competition. There is adequate parking in the off-street car parks and minimal impact on traffic operations as demonstrated by the traffic modelling."*

However, on page 1 of the traffic report, the following is noted:

> *"The proposed lighting would allow the park to extend its operating hours to 9:30pm in winter and 9:00pm in summer"*

And;

> *"The impact of the proposed lighting would therefore be minimal in summer with just one hour's extension to play."*

Having regard to the above, there is an apparent contradiction within the traffic report as to the nature of the proposed development.

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Underestimation of Peak Vehicle Movements

The traffic report indicates that an on-site observation was undertaken on Tuesday 5th November 2013 for the purposes of the traffic and parking assessment for the proposal. A review of the Gladesville Sharks Summer Soccer Draw 2013/14 indicates that on this day (5 November 2013), three 6-players per side soccer matches were held on three fields each at 6pm, 6:30pm and then 7pm. On this basis, the traffic report calculated a prediction of 72 vehicle movements per hour for the proposed Reduced Lighting Option 2.

It is noted however, that on Thursday evenings during the same summer soccer season, up to five 6-players per side soccer matches are held concurrently at the park when observing the above-mentioned soccer draws. Given the proposed development includes the illumination of two and a half fields until 9pm, this would mean that up to five concurrent 6-player per side soccer matches could continue until 9pm in the summer months.

In this regard it is considered that the traffic report may not have accurately calculated the peak car parking demand or traffic movements associated with the proposed development as the traffic engineering consultant's site observations were taken on a night when Morrison Bay Park was operating a level below that expected once the proposal becomes operational.

Assessment

The prolonged use of the sports fields at Morrison Bay Park will result in additional vehicular activity in the surrounding streets and car parks. The TIA submitted with the subject development application has concluded that the proposal will extend the operation hours of the car park but no additional parking bays are necessary, as the expected hourly peak parking demand remains the same. Similarly, the report also indicated that the estimated additional traffic is unlikely to have an adverse effect on the operation of the existing road network in peak traffic hours, as demonstrated by traffic monitoring.

It is acknowledged however, that despite whether the traffic movements as a result of the proposal are greater or less than that covered by the traffic report, it is important to note that the proposal will not necessarily increase the demand for parking in the area, but rather extend the operation hours of the existing car park and vehicular movements associated with the use of the park in the surrounding streets.

In this regard, the questions raised in this development assessment with the traffic report do not result in a concern that the existing road network and parking facilities will be able cater to the proposal, but rather it is acknowledged that residents within the surrounding residential areas may potentially experience existing traffic volumes from sporting activities at the park for a prolonged period of time if the proposal proceeds.

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As has been discussed within the acoustic assessment, additional vehicular movements associated with the proposed sports field lighting are acknowledged as creating prolonged noise in the area. The acoustic report indicates that the predicted road traffic noise level generated by the sporting activities at the nearest residences would however comply with the recommended assessment objective.

Accordingly having regard to the above it is considered that traffic and parking impacts associated with the proposed development are not a reason for refusal of the subject development application.

Park Amenity

As outlined on the City of Ryde website, and as observed during multiple site visits undertaken both during the day and in the early evening, Morrison Bay Park provides for a range of recreational settings and activities both in a passive and active environment including:

- Picnic areas
- BBQ
- Playground
- Sports field
- Cycle path
- Walking track/path
- Fitness circuit

This is confirmed by the City of Ryde's Plan of Management (POM) for Morrison Bay Park which states Morrison Bay Park is a district level sporting facility and a highly valued area of foreshore open space. The POM states that existing uses of the park include

- Informal recreation including walking and cycling, fitness training, picnic and BBQ, playground, informal active sports.
- Organised activities including cricket, soccer, touch football

An assessment against the management objectives of the POM (earlier in this assessment report. The POM lists the vision for Morrison Bay Park as follows

> *Morrison Bay Park will provide passive and active recreation opportunities for the Ryde Community through the integration of sports fields, parklands and associated facilities, open spaces and walking trails. The Park will cater for diverse recreation and leisure needs of the community while preserving the interrelationship between the Parramatta River foreshore and the parklands.*

Given the proposed development will extended the use of the sports field within Morrison Bay Park into the mid-evening period, and given the outcome of the proposal will enable the sports field to comply with Australian Standards for ball physical training and local football competition purposes (AS 2560.2.3 – 2007), it is considered that the proposal will significantly enhance the active use of the park in the weekday evenings.

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However there is some concern that this intensive activation of the park within the evenings will potentially displace those more passive users of the park. For example, the POM identifies that picnicking, cycling, walking, playground, fitness and BBQ activities also take place in the park alongside sports uses. It is these passive uses which are considered to be impacted upon by the activation of the park, however it is acknowledged that the proposal only will relate to a portion of the park in the night-time period when this part of the part may not have been utilised otherwise.

In this regard, the potential park amenity impacts are considered balanced between those active and passive users of the park.

(b) Natural Environment

As part of the notification of the proposal, a number of concerns were raised by objectors relating to the adequacy of the Ecological Assessment, particularly considering the protection status given to Migratory Wetland Birds under the Commonwealth Government's Environmental Protection and Biodiversity Conservation Act 1999 which were observed at Morrison Bay Park.

Ordinarily, additional information would be sought from the applicant in the form of a revised Ecological Assessment or addendum. However, given the preliminary assessment of the subject development application had already determined that the noise impact of the proposal on adjoining residential areas were sufficient grounds for refusal of the proposal in its own right, it was considered unnecessary to request such additional information from the applicant. It is noted however, that these concerns raised by objectors should be addressed in any future ecological assessment for sports field lighting at Morrison Bay Park.

Accordingly having regard to the above it is considered that the impacts associated with the proposed development on the natural environment are not a reason for refusal of the subject development application. However, should the subject development application be considered for approval despite this recommendation, it would be appropriate that the Ecological Assessment be upgrades to include the issues raised above, particularly those relating to any impacts on Migratory Wetland Birds.

11. Suitability of the site for the development

The proposed development is for the illumination of an existing sports field within Morrison Bay Park to enable the continued and expanded use of this existing facility primarily for sports training purposes.

The assessment of the proposed development, in its current form, within this Report demonstrates that the proposal does not comply with the relevant environmental planning instruments applying to the land, as well that of the objectives of site's RE1 zoning under both the Ryde LEP 2010, and now Ryde LEP 2014.

Furthermore, the impacts of the proposed development have been thoroughly assessed in terms of their influence on both aspects of the built and natural environment. It has been established that the current proposal will have a significant and unacceptable noise impact on adjoining residential areas, particularly those dwellings adjacent to Field 2.

Having regard to the above, it is considered that the subject site is therefore not suitable for the proposed development in its current form.

12. The Public Interest

As has been demonstrated within this Report, the currently proposed development is not considered to be in the public interest as demonstrated by the significant resident opposition to the proposal and the assessed unsatisfactory noise impacts of the development. Given this impact, the benefits to the community of the proposed development are not considered strong enough to outweigh the negative impacts.

It is also noted that it has been demonstrated that proposed development does not comply with Council's current objectives of the relevant environmental planning instruments, and as such cannot be considered to be in the public interest.

13. Consultation – Internal and External

Internal Referrals

Environmental Health Officers

The subject DA was referred to Council's Environmental Health Officer (EHO) as part of the assessment of the proposal. The response from Council's EHO has generally accepted the measurements and assessment undertaken within the submitted acoustic report prepared by Acoustic Consulting Engineers (dated June 2014) submitted with the DA, however Council's EHO has not necessarily agreed that the recommendations of the acoustic report are suitable, and as such has recommended the conditions of consent.

It is noted that the environmental assessment that is the subject of this Report to Committee has found the submitted acoustic report to be inadequate and unrepresentative of the true nature of the proposed development. Additionally, this Report to Committee has found that the proposed development is unsupportable, and as such has recommended refusal. Nevertheless, the following lists each of the suggested conditions from Council's EHO along with comments by the assessing officer on why these conditions are either accepted or rejected for the purposes of a draft consent should the City of Ryde Council decide to approve the subject DA.

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Hours of Operation *- The hours of operation are to be from 4.00 p.m. till 9.30 p.m. Monday to Thursday during the winter season (April to August) and the operating hours for the summer season (September to March) are to be 6.00 p.m. – 9.30 p.m. Monday to Thursday for social sport and training purposes only.*

Assessing Officer Comment: This recommended condition by Council's EHO has been included within the draft consent should the City of Ryde Council approve the subject DA.

No competition games *– No competition games to be held at Morrison Bay Park from 4.00 p.m. to 9.30 p.m. Monday to Thursday during the winter season (April to August) and from 6.00 p.m. to 9.30 p.m. Monday to Thursday for the summer season (September to March) without prior formal approval from Council.*

Assessing Officer Comment: This recommended condition by Council's EHO has not been included within the draft consent. This is because Morrison Bay Park is currently being utilised for evening 6-per-side competition games and also touch football completion games within the summer season. Such a condition would then unfairly limit all existing completion games held during the summer season evenings which is considered to be an unacceptable outcome of the subject DA.

If Council decides to approve this DA, it is considered that this should not come at the expense of existing completion games held during the evenings at Morrison Bay Park.

Automatic light switches *– The light switches to be controlled by a timing device which commences a dimming/switch-off at the prescribed times.*

Assessing Officer Comment: This recommended condition for automatic light switches by Council's EHO has been included within the draft consent in a slightly reworded format (see below) to be consistent with previous conditions for sports field lighting, and may be imposed if Council decides to approve the DA.

Curfew switches - Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use as detailed in the condition below.

Light Spill *– The light spill at the adjoining residential boundaries to comply with the requirements of AS 4282 – Control of the obtrusive effects of outdoor lighting.*

Assessing Officer Comment: This recommended condition by Council's EHO for compliance with the necessary Australian Standards has been included within the draft consent should the City of Ryde Council approve the subject DA.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

Light Spill *– An appropriately qualified and experienced lighting consultant to certify the installation of the proposed lighting design complies with the appropriate Australian Standards.*

> **Assessing Officer Comment:** This additional light spillage condition for certification of the installation by Council's EHO has been included within the draft consent should the City of Ryde Council approve the subject DA.

No public address system *- No amplification equipment (e.g. PA systems) to be used after 6.00 p.m. any night of the week.*

> **Assessing Officer Comment:** This recommended condition by Council's EHO in relation to public address systems has been included within the draft consent should the City of Ryde Council approve the subject DA.

Offensive noise *- The use of the premises must not cause the emission of 'offensive noise' as defined in the Protection of the Environment Operations Act 1997.*

> **Assessing Officer Comment:** This recommended condition in relation to offensive noise by Council's EHO has been included within the draft consent should the City of Ryde Council approve the subject DA. It is noted however that the broad and subjective nature of the term 'offensive noise' within the Protection of the Environment Operations Act 1997 may give rise to submissions from neighbouring residents claiming the proposed development, when operational, breaches this condition.
>
> This is because this environmental assessment has found that the proposed development would fail to achieve the minimum noise objectives of the acoustic report by a significantly greater amount that that stated within the acoustic report.

Noise from users *– Adequate signage is erected in the vehicles car parking area to encouraged spectators and participants to leave the premises quickly and quietly after training/games to mitigate possible nuisance noise.*

> **Assessing Officer Comment:** This recommended condition by Council's EHO for signage encouraging spectators and participants to leave the premises quickly and quietly after training/games has been included within the draft consent should the City of Ryde Council approve the subject DA.

External Referrals

There have been no comments received from any external bodies.

14. Critical Dates

There are no critical dates or deadlines to be met.

ITEM 2 (continued) **PREVIOUS REPORT** **ATTACHMENT 7**

15. Financial Impact

Adoption of the recommendations outlined in this report will have no financial impact.

16. Other Options

The proposal is recommended for refusal, for the reasons discussed at length throughout this report.

What has been demonstrated within this assessment report is that the principal reason for refusal of the subject development application is the acoustic/noise impact resulting from the prolonged usage of Field 2 on the adjoining residential areas on the eastern side of Morrison Bay Park. As such, Council may consider a recommendation to reduce the scope of the proposal to limit sports field lighting to Field 1 only. Should this option be pursued, it is recommended that this be the subject of a new development application, whereby additional information be provided for assessment, including that relating to an updated Ecological Assessment, new Acoustic Report to reflect the usage arrangements of Field 1, Acid Sulfate Soils Management Plan, and re-notification/advertisement of the revised proposal.

The only other realistic alternative to this refusal recommendation would be a recommendation of approval, with conditions of consent to be imposed in an attempt to address the various issues of concern discussed throughout this report. However this is not considered to be an appropriate recommendation given the fundamental issues of concern as discussed at length throughout this report.

Notwithstanding the recommendation, should Council be of a different opinion, Draft Conditions have been provided at **Attachment 2.**

17. Conclusion

The proposal has been assessed against the heads of consideration of Section 79C of the Environmental Planning and Assessment Act 1979 and is considered to be unacceptable for the reasons discussed at length throughout this report.