



Office
of Sport

Section 75W - Modification of Minister's approval

Section 75W Modification to Southern Highlands Regional Shooting Complex Approval - Major Project No. 06_0232.

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1 INTRODUCTION

The Office of Sport writes to the Department of Planning and Environment (DPE) requesting the initiation amendments to Major Project Approval No. 06_0232 pursuant to Section 75W and Clause 12 of Schedule 6A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The modification to the Project Approval seeks to amend various aspects of the design for the 500m and 50m ranges, along with modifications to conditions of approval numbered

- A2 Development in Accordance with Plans and Documentation;
- A6 Use of the existing 800m range;
- A7 Hours of Use – Outdoor Ranges;
- A9 Firearm Noise Limits;
- A10 Special Events;
- A11 Independent Auditing and Reporting;
- D2 Operational and Environmental Management Plan (OEMP);
- B3(g) Soil, Water and Contamination; and
- Schedule 3 Statement of Commitments.

This application identifies the consent proposed to be modified, describes the proposed modifications and also provides a background and reasoning as to why the proposed modifications are being sought by the Office of Sport. This application is accompanied by:

- NSW EPA, Target Shooting Ranges: Application Note for Assessing Noise Compliance;
- 500m and 800m Range Testing Report by the Acoustic Group dated 4 December 2015;
- 800m Range Testing – Compliance Test Report by the Acoustic Group dated 4 December 2015;
- 500m Range Testing – Compliance Test by the Acoustic Group dated 21 April 2016;
- Water Cycle Management Plan June 2016, updated by ErSed Environmental;
- Soil and Water Management Plan June 2016, updated by ErSed Environmental; and
- Office of Sport Southern Highlands Regional Shooting Complex Community Consultation Report, prepared by KJA dated August 2016.

1.1 Aims of this document

This document seeks to provide not only details of the proposed modification sought by the subject Section 75W application, but also information on works carried out to date at the SHRSC and changes to Government policy and procedures for assessing noise compliance at target shooting ranges.

For quick reference on the modifications sought, Section 6 of this document lists those design changes to the 500m and 50m ranges proposed, along with an explanation as to why each of these modifications is sought. Similarly, Section 6 also outlines those conditions of approval which either necessitate changes as a result of the design modifications sought, or due to changes in policy and procedure.

1.2 Legislative Background

Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act), as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the Act, continues to apply for Part 3A projects, which includes approved projects.

Section 75W(2) of the Act provides that a proponent may request the Minister to modify the approval of a project. The Minister's approval is not required if the project as modified will be consistent with the original approval.

The proposed modification seeks to change the terms of the previous Minister's determination by amending aspects of the SHRSC design, and also conditions of approval. Accordingly, the modification will require approval.

State significant development

State Environmental Planning Policy (State Significant Precincts) 2005 (SSPSEPP) allows the Minister to determine that a site is State significant and to add it to the list of State significant precincts that appear in Schedule 3 of the SSPSEPP.

Under Part 33 of Schedule 3 of the SSPSEPP, the SHRSC site is identified as a significant precinct. Pursuant to clause 7 of the SSPSEPP, the provisions in Schedule 3 relating to the carrying out of development on a State significant precinct have effect.

Of particular note for the proposed modification, Part 33 of Schedule 3 of the SSPSEPP provides that the consent authority for development on land in the SHRSC site, other than development that is a transitional Part 3A project, is the Council.

1.3 Appropriate Regulatory Authority

In reading the subject Section 75W application, an important consideration is the decision made by the Office of Sport to take over responsibility for the ongoing management of the SHRSC, rather than leaving the responsibility to the shooting clubs utilising the SHRSC.

The PAC report for Modification 4 to MP06_0232 detailed how Wingecarribee Shire Council considered it difficult to monitor, enforce or verify breaches of noise limits given the technical nature of noise controls, lack of appropriate monitoring equipment and lack of technical expertise. Additionally, Council expressed a need for funds and equipment to enable appropriate monitoring of the SHRSC if the application were to be approved as recommended by the DPE.

These points were reiterated by Wingecarribee Shire Council in a briefing meeting on the subject Section 75W application on 29 March 2016.

It is acknowledged that the NSW Environmental Protection Authority (EPA) document titled *Target Shooting Ranges: Application Note for Assessing Noise Compliance* (EPA Note) does not include details on the appropriate regulatory authority with regard to investigation of noise limit breaches at shooting ranges. However, given the Office of Sport is classified as a public authority, it is noted the provisions of the *Protection of the Environment Operations Act 1997* (POEO Act) stipulate the local council (in this case Wingecarribee Shire Council) is not the appropriate regulatory authority, but rather the NSW Environmental Protection Authority (EPA).

In this regard, it will be the responsibility of the EPA to undertake investigations of any breaches to the prescribed noise limits, and not Council. Additionally, the EPA can demand access at any time to the SHRSC and undertake audits for any other pollution issues.

At the aforementioned meeting held with WIngecarribee Shire Council, the Office of Sport advised of their intention to take over the management of the SHRSC, and hence the EPA becoming the appropriate regulatory authority rather than Council.

2 CONSENT PROPOSED TO BE MODIFIED

Project Approval MP06_0232 was granted by the Minister for Planning on the 1 March 2010 for the carrying out of the following works for the purposes of the Southern Highlands Regional Shooting Complex (SHRSC):

- Retention of the existing rifle range (800m), clubhouse, amenities block and access roads;
- An additional rifle range (500m x 100m);
- A new pistol range (50m x 140m);
- A new combined range for rifle and pistol shooting (200m x 85m);
- A new shotgun range;
- A new indoor air range (21m x 17m x 6.5m); and
- New supporting facilities and infrastructure including:
 - Clubhouse and toilet facilities;
 - Access roads connecting Wattle Ridge Road to the clubhouse and shooting ranges;
 - Diesel generator, solar panels, water supply tanks and septic system;
 - Sealed parking areas for approximately 180 cars; and
 - Ponds for water quality control and fire fighting purposes.

Since gaining project approval in March 2010, works on the approved SHRSC have substantially commenced, and a number of components of the proposal have been completed. Evidence of the components of the proposal completed and/or substantially commenced are outlined in the site photographs provided overleaf.

The significant timeframe which has lapsed since the Project Approval was issued, as well as the progression of the SHRSC project have provided the impetus for a number of minor modifications to the approval, as it currently stands.

This application seeks consent to modify the Project Approval MP06_0232, the modifications outlined within this submission are of a nature that is generally consistent with the Project Approval and are described in detail in Section 6.0 of this submission.

Photographs 1 – 6 overleaf provide evidence of the works undertaken to date for the new ranges at the SHRSC.



Photograph 1 – Additional range 500m x 100m Stop butt in distance

Source: Office of Sport site inspection dated 26.11.2015



Photograph 2 - Additional range 500m x 100m firing point

Source: Office of Sport site inspection dated 26.11.2015



Photograph 3 - Additional range 500m x 100m water supply tanks and diesel generator

Source: Office of Sport site inspection dated 26.11.2015



Photograph 4 – New range 50m x 140m and stopbutt

Source: Office of Sport site inspection dated 26.11.2015



Photograph 5 – Access road connecting Wattle Ridge Road to the ranges

Source: Office of Sport site inspection dated 26.11.2015



Photograph 6 – Detention Basin No. 5

Source: Office of Sport site inspection dated 26.11.2015

3 PREVIOUS MODIFICATIONS TO THE PROJECT APPROVAL

As stated, the progression of the SHRSC over time has provided the impetus for a number of minor modifications to the Project Approval. Five (5) previous modification applications have been made for MP06_0232, of these, one was withdrawn, three have been approved, and one refused by the Planning Assessment Commission (PAC). These are briefly outlined below:

MP06_0232 MOD 1 (Withdrawn) – On 26 May 2009 the then NSW Sport and Recreation sought approval to modify conditions of the subject Part 3A approval to permit the following:

- Bring forward the commencement of use of the 800m range, for 4 days per week;
- Allow use of all ranges between 9am -10am (up to 75dB(L) peak hold), for 4 days per week;
- Vary the location and design of sedimentation ponds;
- Vary the staging of vegetation clearance;
- Allow storage of firearms/ammunition on-site overnight during special events.

This modification was withdrawn prior to a determination being made by the Department of Planning and Environment (DPE).

MP06_0232 MOD 1 – On 20 October 2010 the then NSW Sport and Recreation sought modification of the project approval to amend the location of the 500m rifle range and 200m combined rifle and pistol range, and the sedimentation ponds associated with the ranges approximately 100m further north towards Wattle Ridge Road.

The relocation of the abovementioned range sought to reduce the area of vegetation clearing and reduce the volume of fill required, thus introducing a more balanced approach to cut and fill for the range.

This modification was approved on 23 October 2010.

MP06_0232 MOD 2 – On 15 November 2010 the then NSW Sport and Recreation made application to modify the project approval to correct an error in plan 21-17850-C003 approved under MP 06-0232 Mod 1, relating to the location of the 50m pistol range.

This modification was approved on 15 December 2010.

MP06_0232 MOD 3 – On 11 January 2011 the then Communities NSW (Sport and Recreation) made an application to modify the project approval to provide two (2) sign in booths for the 500m rifle range and 50m pistol range.

This modification was approved on 16 February 2011.

MP06_0232 MOD 4 – On 13 May 2011 the then Communities NSW (Sport and Recreation) made an application to modify the following components of MP06_0232:

- Modify Condition A9 regarding noise limits;
- Modify Condition A6 to increase the time period for the noise compliance testing report, from 7 days to 30 days;
- Delete the requirement for an acoustic shelter at the 800m range.

The requested modifications to condition of approval A9 - *Firearm Noise Limits* was on the basis that Sport and Recreation considered there to be flaws in the initial noise testing and assessment by GHD and Norman Disney Young as part of the Environmental Assessment undertaken for the original project application. The result of this was claimed to have led to unintended consequences through application of a maximum noise limit of 75dB (L) peak hold to any shot, rather than an averaging method for a number of shots. Modification 4 to MP06_0232 included a detailed proposal prepared with the assistance of acoustic engineering consultant, Steven Cooper - The Acoustic Group, that sought to apply an arithmetic average for measuring firearm noise limits.

The proposed modifications to condition of approval A9 also sought to permit the noise measurement locations to occur in equivalent positions when access to the property is not available.

Thirdly, the proposed modifications to condition of approval A9 sought to permit noise assessments to occur under still wind or light wind conditions so as to avoid the sound level meters recording wind as a dB(lin) peak hold rather than noise from the ranges.

The original EPA noise guideline presented different noise limits for existing ranges to that for new ranges. The 800m range was an existing range at the time of the application for the new regional shooting complex.

The original EPA guidelines provided limits based upon a logarithmic average that was changed by the EPA in 1993 to an arithmetic average. The averaging method was not identified in the application leading to the specified limit and was subject to different interpretations.

As such, the requested modification to condition of approval A9 was as suggested by Sport and Recreation (to agree with the EPA guidelines) as follows:

The noise from firearms on the existing 800 metre range or use of the site must not exceed 85dB (L) peak hold at the boundary to any existing or private property with a residential dwelling, or where this is more than 30 metres from a dwelling, at the most affected location within 30 metres of the dwelling or an equivalent position when access to the property is not available. The assessment will apply an arithmetic average measure and is to occur under still wind or light wind conditions so as to avoid the sound level meters recording wind rather than noise from the ranges.

The noise from firearms on the future ranges or use of the site must not exceed 75dB (L) peak hold at the boundary to any existing or private property with a residential dwelling, or where this is more than 30 metres from a dwelling, at the most affected location within 30 metres of the dwelling or an equivalent position when access to the property is not available. The assessment will apply an arithmetic average measure and is to occur under still wind or light wind conditions so as to avoid the sound level meters recording wind rather than noise from the ranges.

The Planning Assessment Report undertaken by the then Department of Planning and Infrastructure, now DPE, recommended that the PAC, by way of delegation from the Minister for Planning and Infrastructure, approve the proposed modification under Section 75W of the EP&A Act.

However despite DPE's recommendation, the PAC refused Modification 4 to MP06_0232 on 7 May 2012.

The requested modifications to condition of approval A9 were not supported due to the following:

- The proposal to set the firearm noise limit to 85dB(L) peak hold for the existing 800m range, and for this to be calculated on an arithmetic average basis, was claimed by PAC to allow a substantially greater level of noise impact on residents than that allowed by the existing consent. It was also outlined that the potential magnitude of this increase in impact had not been quantified or adequately assessed.

Further it was claimed by PAC that this would establish two different limits for firearm noise emanating from a single site on the same day making regulatory surveillance and enforcement virtually impossible.

- The proposal to change the existing 75dB(L) peak hold limit for ranges other than the 800m to a 75dB(L) peak hold limit calculated as an arithmetic average, was not supported on the basis that it would likely result in an unquantified increase in the current allowable noise impact at residential premises.

For the same reasons, the PAC did not support the proposal to delete the requirement for measurements under prevailing weather conditions and replace it with a requirement for measurement under still wind or light wind conditions.

It is also noted that the PAC determination report outlined the standard approach to noise management in NSW is to undertake compliance testing of noise limits during prevailing weather conditions since conditions may significantly affect the noise impacts at sensitive receivers. For this reason, and given a lack of argument to support the proposed change in approach, PAC was unable provide support to the requested modification.

The PAC identified within their determination report for Modification 4 that there was substantial uncertainty about an acceptable and recognised method to measure and assess noise from shooting ranges. In handing down their determination, PAC also sought to identify some of the complex technical factors that would need to be addressed in any subsequent proposals concerning the SHRSC or other shooting ranges. This included an acknowledgement that any advancement in methodology for measuring noise from shooting ranges would reduce complexity and would validate the submission of future applications.

Since determination of Modification 4 to MP06_0232 by the PAC in 2012, advancements in the methodology used for the assessment of noise compliance for target shooting ranges has occurred, and as such provide further impetus for the lodgement of the subject modification application. This principally has related to the publication of the *Target Shooting Ranges: Application Note for Assessing Noise Compliance* by the NSW Environmental Protection Authority (EPA). The details of this publication are discussed further in Section 4.0 of this submission.

4 WORKS UNDERTAKEN SINCE REFUSAL OF MODIFICATION 4 TO MP06_0232

The report by PAC for Modification 4 to MP06_0232 acknowledged that action may be required by the SHRSC to mitigate its impacts in the event noise levels from the shooting complex exceeded the consent limits. Further PAC indicated that such actions are precisely those that a regulator would expect to see implemented as a first step in dealing with non-compliance in such circumstances.

In addition to the above, it is noted the Statement of Commitments contained in Schedule 3 of the major project approval for MP06_0232 state:

“Measurement results may trigger additional measures such as:

- ***Altering the acoustic design at the ranges;***
- *Restriction of firearms used on the site; and*
- *Restriction of the use of certain firearms to specific ranges.”*

Note: The above is in bold for emphasis.

Since the PAC determination in May 2012 to refuse Modification 4 to MP06_0232, the Office of Sport has responded to the above by completing noise mitigation measures to the existing 800m range to bring the range into compliance with the conditions of approval.

In 2013 the then NSW Sport and Recreation obtained development consent from Wingecarribee Shire Council under Land Use Application number LUA12/0923 for the construction of acoustic attenuation structures and associated works at the existing 800m rifle range. The approval for these acoustic attenuation structures included the following:

100m Firing Point

- At the existing 100m firing point of the existing 800m rifle range the erection of an acoustic attenuation structure comprising of six (6) shipping containers stacked two high adjacent to the line of fire.
- This structure is approximately 5.2m high and extends 18.18m in length.

400m Firing Point

- At the existing 400m firing point of the existing 800m rifle range the erection an acoustic attenuation structure comprising of Hebel panels affixed to steel beams adjacent to the line of fire.
- This structure is 6m high and extends 24m in length.

800m Firing Point

- At the existing 800m firing point the erection an acoustic attenuation shelter over the existing firing mound. The shelter is approximately 2.7m high and extends for a length of approximately 20m. The shelter is 9m deep.
- At either end of the abovementioned structure, acoustic attenuation structures were approved to be erected. These are constructed of Hebel panel affixed to steal beams. At the eastern end of the approved shelter the acoustic attenuation structure is 3m high and extends 6m in length. At the western end of the shelter the acoustic attenuation structure is 2m high and extends 6m in length.

- Also at the 800m firing point some minor stormwater and drainage works were approved.

Other Firing Points

- At these existing firing points of the existing 800m rifle range the installation of slots to hold portable acoustic attenuation walls comprising of wood-text panels within an aluminium frame; located adjacent to the line of fire (see photograph 8).
- These walls are approximately 1.5m high and 1.5m wide and are moved to the Firing Point in use.

In May 2014, the construction works on the approved acoustic attenuation works outlined above were completed by the Office of Sport, as shown in Photographs 7 to 12 in the section below.

Subsequent to this, noise compliance testing was undertaken on 8 August 2014 with the new acoustic attenuation measures in place. In Table 2 of the September 2014 noise report prepared by The Acoustic Group, the noise testing results show an absolute maximum peak hold level of 75dB, therefore demonstrating that the new acoustic attenuation measures have succeeded in bringing the existing 800m range into compliance.

Further noise compliance testing undertaken in October 2015 shows the absolute maximum peak hold level from the operation of firing from the 800m range did not exceed 73dB. Again, this confirms that the new acoustic attenuation measures have succeeded in bringing the existing 800m range into compliance.

It is noted that noise compliance testing was also undertaken in October 2015 for the new 500m range at the SHRSC. The compliance noise testing results revealed the noise level of shots to be less than the noise target of 75dB.



Photograph 7 – Timber Clad Containers at 100m Firing Point on 800m Range
Source: Office of Sport



Photograph 8 – Portable Acoustic Wall 800m Range
Source: Office of Sport



Photograph 9 – Acoustic Shelter at East End of 800m Firing Point
Source: Office of Sport



Photograph 10 – Acoustic Shelter at West End of 800m Firing Point
Source: Office of Sport



Photograph 11 – Acoustic Hebel Wall at 400m Firing Point on 800m Range
Source: Office of Sport



Photograph 12 – Rear of Acoustic Hebel Wall at 400m Firing Point on 800m Range
Source: Office of Sport

5 TARGET SHOOTING RANGES: APPLICATION NOTE FOR ASSESSING NOISE COMPLIANCE

In July 2015, the NSW Environmental Protection Authority (EPA) released the document titled *Target Shooting Ranges: Application Note for Assessing Noise Compliance* (EPA Note) to make the assessment of compliance with noise limits for shooting ranges more transparent and consistent, as well as improve certainty for the community, regulators and range operators.

As outlined by the EPA on their webpage for the EPA Note, the EPA Note does not introduce new policy, or change noise limits for existing or future shooting ranges, but rather consolidates and clarifies the EPA's current guidance and makes it more readily available.

Prior to the application note, the EPA's guidance on noise limits for shooting ranges was captured in a variety of documents. The EPA Note collates relevant information into one area and adds further technical detail for measuring and determining compliance at shooting ranges

Of importance to the proposed modification, the EPA Note clarifies why the EPA doesn't set limits based on the absolute maximum of any single shot. The reasoning for this is explained by the EPA as follows:

The noise of a gunshot is measured as a linear peak level (LZpeak), which is susceptible to being increased by wind or noise other than the shot. The measured level of a single gunshot can never be less than the actual LZpeak, but it can be higher if the measurement is influenced by wind or noise other than from the shot. Averaging the levels of a sufficient number of shots reduces the potential for a compliant shooting range to be incorrectly found non-compliant.

The EPA Note also provides the following as to why compliance testing should not be assessed under windy conditions:

The LZpeak noise measurement is sensitive to gunshot noise but is also highly susceptible to influence from wind gusts and environmental conditions need to be suitable to determine compliance with noise requirements.

The publication of the EPA's Application Note, along with the Office of Sport's obligations to comply with inter government agency guidelines and acceptable industry best practice, has provided the impetus for Office of Sport's review of the conditions of approval under MP06_0232, and subsequent modification application. This is discussed in further detail in Section 6 of this submission below.

6 PROPOSED MODIFICATIONS TO CONSENT

The following outlines each of the requested modifications to the major project approval under MP06_0232, along with the reasoning as to why the proposed modifications are being sought. This includes both physical modifications to the ranges, along with modifications to various conditions of approval that are necessary as a result of the proposed physical changes. In a number of instances modifications are also being sought as a result of the recently introduced EPA Note and other changes which have taken place since MP06_0232 was approved in 2010.

6.1 Modifications to the 500m and 50m ranges

6.1.1 Why is the proposed modification being sought

A suite of modifications is proposed to the 500m and 50m ranges at the SHRSC to improve the lead management, remediate design and maintenance methods at the ranges, and also to lower firearm noise propagation. These modifications are proposed to bring the ranges in line with current best practices, and also respond to community concerns relating to firearm noise from the SHRSC.

In relation to lead management, site remediation and maintenance, the Australian Government's Department of Defence acknowledges there is currently no available Australian best practice management documentation with respect to stop butts/rifle ranges. In this regard the Department of Defence refer to the United States Environmental Protection Agency's Best Practices for Lead at Outdoor Shooting Ranges as being the document which should be applied for best practice methods for general maintenance of shooting ranges.

The physical modifications proposed will change the lead management, site remediation design and maintenance methods at the 500m and 50m ranges to be closer aligned with the US EPA's guideline which recommends ranges employ a system that allows for the maximum containment of lead on the site.

The new design depicted on the Section 75W plans provides the best institutionally engineered approach to lead management, site remediation and maintenance at the site to facilitate containment of lead on-site and periodic removal.

A detailed description of the physical range modifications sought to improve lead management practices, and also lower firearm noise propagation are outlined below.

Modifications to better lead management, remediation and maintenance

Works at the 500m and 50m ranges aimed at improving the lead management and remediation design and maintenance method include:

- redesign of the stop butts and intermediate bullet catchers and bunds in line with best practice design;
- re-grading of the range floor to improve stormwater drainage;
- provision of lime treatment pits in new and existing subsoil drainage lines;
- de-silting of existing sediment basins;
- management of the soil pH in the active range to reduce any chance of leaching outside the active range. The US EPA Guidelines best practice standard stipulate the ideal soil pH value for shooting ranges is between 6.5 and 8.5. No modification or management of pH is proposed for areas outside the active range;
- improvement of fencing around active ranges;
- full risk assessment of the proposed remediation methods and sampling process.

- Areas of the range where contamination is expected will be as far as practical be physically isolated from wildlife (all sedimentation ponds to be fenced);
- implementation of a managed program for tracking and removal of lead;
- controlled access to limit any exposure to lead for human health and safety;
- the model sampling plan will be audited by the EPA as the regulatory authority; and
- reports that will be subject to third party peer review.

Modifications to lower firearm noise propagation

Works at the 500m range aimed at lowering firearm noise propagation generally includes the following:

- Lowering the height of the firing line by 2.84m (i.e. from RL608.84 to RL606) so as to position the firing line closer to the range floor;
- Provision of a new noise shelter over the firing lines;
- Provide noise mound/baffle to eastern edge of the 500m range up to 3.6m high.

Works at the 50m range aimed at lowering firearm noise propagation generally includes the following:

- Colorbond steel roof to be included over the approved structure of the firing line;
- Reshaping of the existing earth stockpile along the eastern edge of the 50m range to 4.15m in height to act as a noise mound/baffle.

Ancillary modifications at the 500m and 50m ranges

A number of ancillary modifications are proposed at both the 500m and 50m ranges to accommodate the changes proposed to lower firearm noise propagation, plus improve lead management, remediation and maintenance, of the ranges. It is noted that all of the proposed modification works will take place within the site areas that have already been cleared of vegetation.

Ancillary modifications to the project approval at the 500m range includes:

- The control room is proposed to be relocated from its approved location at the eastern end of the firing line to a central location along the firing line.
- Solar panels are to be added to the roof of the acoustic shelter above the firing line.
- A new workshop and solar room is proposed to be located behind the firing line, adjacent to the relocated control room.
- The Ecomax sewerage and waste water treatment system is to be relocated to the eastern end of the firing line.
- The septic tank is proposed to be relocated between the firing line and the existing generator room.
- A spectator area is proposed to be added adjoining and immediately behind the firing line.
- Additional sixteen (16) car parking spaces are to be provided within the existing parking area that currently include parking for twenty-two (22) vehicles. The new parking spaces are to the south-west of the existing parking spaces, and will also include a new bitumen area to aid in vehicle manoeuvrability.
- The floor of the 500m range is proposed to be re-graded to address weathering that has taken place and aid in the management of lead at the range.
- The angle of the stop butt located at the southern end of the range is to be amended to comply with minimum requirements for shot capture.

Ancillary modifications to the project approval at the 50m range includes:

- The control room is proposed to be relocated from its approved location at the eastern end of the firing line to a central location along the firing line.
- Solar panels are to be added to the *Colorbond* metal roof of the acoustic shelter above the firing line.

- An *Ecomax* sewerage and waste water treatment system is to be located at the western end of the firing line adjacent to the end of the car parking area.
- The septic tank is proposed to be located behind the firing line and adjacent to the new control point.
- A spectator area is proposed to be added adjoining and immediately behind the firing line. A balustrade is to be located along the spectator area.
- The existing levels of the car park are to be adjusted for the car parking spaces, and wheel stops to all parking spaces are to be provided.
- A new fire hydrant and concrete pad is to be provided at the eastern end of the car park area.
- The floor of the 50m range is proposed to be re-graded to address weathering that has taken place and aid in the management of lead at the range.
- The angle of the stop butt located at the southern end of the range is to be amended to comply with minimum requirements for shot capture.

The above modifications are demonstrated on revised architectural and civil drawings submitted as part of the subject Section 75W application. The architectural drawings have been prepared by DStudio, while the civil drawings have been prepared by Arcadis. The drawings submitted are outlined in the table below:

Drawing Name	Drawing Number	Rev	Date	Prepared by
<i>SHRSC Legend & Notes</i>	<i>A001</i>	<i>G</i>	<i>June 2016</i>	<i>DStudio</i>
<i>SHRSC Site Plan</i>	<i>A101</i>	<i>I</i>	<i>June 2016</i>	<i>DStudio</i>
<i>500 Metre Range: Asset Protection Zone</i>	<i>A102</i>	<i>D</i>	<i>May 2016</i>	<i>DStudio</i>
<i>50 Metre Range: Asset Protection Zone</i>	<i>A103</i>	<i>D</i>	<i>May 2016</i>	<i>DStudio</i>
<i>500 Metre Range: Cross Section</i>	<i>A104</i>	<i>A</i>	<i>June 2016</i>	<i>DStudio</i>
<i>50 Metre Range: Cross Section</i>	<i>A105</i>	<i>A</i>	<i>June 2016</i>	<i>DStudio</i>
<i>500 Metre Range: Site Plan</i>	<i>A201</i>	<i>N</i>	<i>June 2016</i>	<i>DStudio</i>
<i>500 Metre Range: Roof Plan</i>	<i>A202</i>	<i>L</i>	<i>June 2016</i>	<i>DStudio</i>
<i>500 Metre Range: Elevation</i>	<i>A205</i>	<i>J</i>	<i>June 2016</i>	<i>DStudio</i>
<i>50 Metre Range: Site Plan</i>	<i>A301</i>	<i>P</i>	<i>June 2016</i>	<i>DStudio</i>
<i>50 Metre Range: Roof Plan</i>	<i>A302</i>	<i>O</i>	<i>June 2016</i>	<i>DStudio</i>
<i>50 Metre Range: Sections</i>	<i>A307</i>	<i>J</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Typical Control Point: Elevations & Sections</i>	<i>A402</i>	<i>E</i>	<i>June 2016</i>	<i>DStudio</i>
<i>SHRSC Landscape Site Plan</i>	<i>A801</i>	<i>E</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Landscape Plan: Access Road</i>	<i>A802</i>	<i>D</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Landscape Plan: 50 Metre Range</i>	<i>A803</i>	<i>E</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Landscape Plan: 500 Metre Range 1</i>	<i>A804</i>	<i>E</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Landscape Plan: 500 Metre Range 2</i>	<i>A805</i>	<i>E</i>	<i>June 2016</i>	<i>DStudio</i>
<i>Earthworks Plan - Sheet 1</i>	<i>C-SC-101</i>	<i>05</i>	<i>27 May 2016</i>	<i>Arcadis</i>
<i>Civil Works Plan - Sheet 1</i>	<i>C-SC-201</i>	<i>09</i>	<i>09 June 2016</i>	<i>Arcadis</i>
<i>Civil Works Plan - Sheet 2</i>	<i>C-SC-202</i>	<i>07</i>	<i>31 May 2016</i>	<i>Arcadis</i>

<i>Civil Works Plan - Sheet 3</i>	C-SC-203	09	09 June 2016	Arcadis
<i>500m Range Bullet Projections</i>	C-SC-231	04	24 March 2016	Arcadis
<i>Siteworks Details - Sheet 1</i>	C-SC-251	08	09 June 2016	Arcadis
<i>Siteworks Details - Sheet 2</i>	C-SC-252	08	09 June 2016	Arcadis
<i>Safety Template</i>	C-SC-301	04	24 March 2016	Arcadis
<i>Acoustic Impact - 50m and 500m</i>	C-SC-401	01	13 May 2016	Arcadis

6.1.2 Proposed modification

The physical modifications to the 500m and 50m ranges demonstrated on the submitted plans under this Section 75W application will necessitate some amendments to condition of approval 'A2 Development in Accordance with Plans and Documentation'. These amendments are reflected in the suggested additions to condition of approval A2 below.

A2 Development in Accordance with Plans and Documentation

The development shall be generally in accordance with the NSW Sport and Recreation Southern Highlands Regional Shooting Complex Environmental Assessment dated February 2008 prepared by GHD and all Appendices, except where varied by the Preferred Project Report NSW Sport and Recreation Southern Highlands Regional Shooting Complex Submissions Report prepared by GHD dated July 2008, including the revised Statement of Commitments dated and all Appendices, and as amended by the modification application prepared by Communities NSW – Sport and Recreation dated 19 October 2010, including the following drawings for the 500m rifle range and 200m combined rifle and pistol shooting range:

Drawing Number	Rev	Date	Prepared by
21-17850-C004	1	11 October 2010	GHD
21-17850-C010	1	11 October 2010	GHD
21-17850-C003	2	11 October 2010	GHD

The application is further amended by the modification application prepared by Communities NSW – Sport and Recreation dated 21 December 2010, and supplementary details on the septic systems provided by GHD on 31 January 2011, including the following drawings for the 2 sign-on control booths.

Drawing Number	Rev	Date	Prepared by
21-17850-SH06	A	17 December 2010	GHD
21-17850-SH07	A	17 December 2010	GHD
21-17850-SH07	A	17 December 2010	GHD
21-17850-SH08	A	17 December 2010	GHD
21-17850-SH09	A	17 December 2010	GHD
21-17850-SH10	A	17 December 2010	GHD
21-17850-SH11	A	17 December 2010	GHD

The application is further amended by the modification application prepared by Office of Sport dated 19 July 2016 including the following drawings:

Drawing Number	Rev	Date	Prepared by
A001	G	June 2016	DStudio
A101	I	June 2016	DStudio
A102	D	May 2016	DStudio
A103	D	May 2016	DStudio
A104	A	June 2016	DStudio
A105	A	June 2016	DStudio
A201	N	June 2016	DStudio
A202	L	June 2016	DStudio
A205	J	June 2016	DStudio
A301	P	June 2016	DStudio
A302	O	June 2016	DStudio
A307	J	June 2016	DStudio
A402	E	June 2016	DStudio
A801	E	June 2016	DStudio
A802	D	June 2016	DStudio
A803	E	June 2016	DStudio
A804	E	June 2016	DStudio
A805	E	June 2016	DStudio
C-SC-101	05	27 May 2016	Arcadis
C-SC-201	09	09 June 2016	Arcadis
C-SC-202	07	31 May 2016	Arcadis
C-SC-203	09	09 June 2016	Arcadis
C-SC-231	04	24 March 2016	Arcadis
C-SC-251	08	09 June 2016	Arcadis
C-SC-252	08	09 June 2016	Arcadis
C-SC-301	04	24 March 2016	Arcadis
C-SC-401	01	13 May 2016	Arcadis

The Statement of Commitments contained in Schedule 3 be replaced with the revised Statement of Commitments prepared by Office of Sport included within the modification application dated 19 July 2016.

6.2 Range usage – number of days

6.2.1 Why is the proposed modification being sought

Table A1, contained in Appendix A of the EPA Note provides the recommended number of days and nights for which a target shooting range can be used based on the shooting noise level. An extract of Table A1 is copied below:

Table A1: Recommended number of days and nights of range usage corresponding to shooting noise level.

	Residential level (linear peak hold, decibels)										
	60	65	70	75	80	85	90	95	100	105	over 105
	Maximum usage days (nights) per week										
Existing range daytime use	7	7	7	7	7	7	5	4	3	2	1
Existing range night-time use	3	3	2	2	2	1	-	-	-	-	-
Future range daytime use	7	5	5	4	3	2	1				
Future range night-time use	3	2	1	-	-	-	-	-	-	-	-

The Office of Sport seek to operate the SHRSC consistent with the EPA Note as this is taken to represent established best practice, and current guidance from the NSW Government agency charged with the responsibility of protecting the environment. The current approval for MP06_0232 includes a number of conditions which define the number of days and nights that the ranges at the SHRSC can be used.

This includes condition A6 which specifies the existing 800m range may be used up to 4 days per week only, condition A7 which specifies all outdoor ranges shall not operate more than 4 days in any week and not outside of the hours of 10am to 5pm, and condition D2 which outlines that the operational days of the shooting complex, and maximum number of shooters each day on the range is to reflect the usage figures in the Preferred Project Report.

These conditions result in range usage at the SHRSC being inconsistent with the recommended number of days prescribed by the EPA Note.

Accordingly, the subject modification to the major project approval seeks to permit usage of the SHRSC consistent with the recommended number of days and nights outlined within the EPA Note.

For interpretation of Table A1, the EPA Note acknowledges a concession has been made in the case of existing ranges. Additionally the EPA Note outlines that alteration to existing ranges should incorporate a movement towards 'future' range figures whenever possible.

When seeking to apply the recommendations contained in Table A1 of the EPA Note, it is first important to establish the classification of ranges at the SHRSC, i.e. whether these constitute 'existing' or 'future' ranges.

Direction on this point is taken from the PAC report for Modification 4 to MP06_0232 which concurs with the view then held by DPE that the 'future' range criteria should be applied to the 800m range at the SHRSC. It is acknowledged the ENCM guideline at the time stated existing ranges should transition to future use criteria, particularly where alterations to their use is proposed. This statement within the ENCM guideline is consistent with the new EPA Note which also recommends existing ranges transition to future range criteria – see Attachment A of the EPA Note. On this basis, the Office of Sport now accept the future range criteria should be adopted for all ranges at the SHRSC to ensure consistency with the EPA Note's best practices.

With this in mind, the Office of Sport understands the only way to increase the number of days or nights for which the ranges at the SHRSC can be used is to reduce firearm noise propagated from the site in line with the target levels specified in Table A1 above.

This direction by the Office of Sport is consistent with the Statement of Commitments for MP06_0232 which stipulates the noise impact of any proposal to increase site usage would be subject to detailed investigation. The Statement of Commitments outlines this would involve noise measurements, at the nearest sensitive receivers, the results of which may trigger additional measures such as:

- **Altering the acoustic design at the ranges;**
- Restriction of firearms used on the site; and
- Restriction of the use of certain firearms to specific ranges.

Since the PAC determination on Modification 4 in 2012, a significant level of firearm noise testing and detailed investigation work has been undertaken by the Office of Sport at the SHRSC. This has led to the introduction of new acoustic design measures to lower firearm noise propagation at the existing 800m range, and proposals for further acoustic design measures at both the 500m and 800m ranges under the subject Section 75W application.

800m Range

As outlined within Section 3 of this submission, the Office of Sport has improved the acoustic design of the existing 800m range to deliver better environmental noise performance. The effectiveness of these measures is demonstrated with noise testing undertaken before and after installation of the acoustic attenuation measures at the existing 800m range.

In May 2014, the construction works on the approved acoustic attenuation works were completed. Subsequent to this, noise compliance testing was undertaken on 8 August 2014 with the new acoustic attenuation measures in place. In Table 2 of the September 2014 noise report prepared by The Acoustic Group, the noise testing results show an absolute maximum peak hold level of 75dB, therefore demonstrating that the new acoustic attenuation measures have succeeded in bringing the existing 800m range into compliance.

Further noise compliance testing undertaken in October 2015 of the acoustic attenuation measures shows the absolute maximum peak hold level from the operation of firing from the 800m range did not exceed 73dB.

500m Range

Noise testing was undertaken in October 2015 at the new 500m range at the SHRSC. The noise testing results revealed the noise level of shots to be less than the noise target of 75dB indicating that the Office of Sport has considered the impact of the new range on residential amenity.

In an effort to reduce firearm noise from the 500m range, and therefore permit additional usage of the range, the Office of Sport has undertaken detailed investigations and noise testing to arrive at a suite of acoustic design modifications for the range. The proposed modifications to the 500m range are outlined within Section 6.1.1 of this submission, and includes the following key features:

- Lowering the height of the firing line at the 500m range by 2.84m (i.e. from RL608.84 to RL606) so as to position the firing line closer to the range floor;
- Provision of a new noise shelter over the firing lines;
- Provide noise mound/baffle to eastern edge of the 500m range.

Noise testing carried on 11 March 2016 by The Acoustic Group sought to identify the level of compliance achieved by mimicking the lowered firing position proposed at the 500m range. The methodology adopted by The Acoustic Group in their testing and subsequent report dated 21 April 2016 was consistent with the EPA Note.

The lowered firing position was identified as being approximately 1.3m above the existing ground level in front of the current firing line.

To achieve the revised firing position in the noise testing, the shooter was firing whilst standing on the flatbed of a truck which was 1.3 metres above the natural ground level. Additionally a temporary acoustic shelter was placed above the shooter to mimic the new noise shelter to be constructed over the lowered firing line.

Concluding remarks within The Acoustic Group report suggest that after removal of the bulk structure (the as-built firing station) behind the revised firing position and the construction of a noise barrier on the eastern side of the revised firing position, it is expected that the peak hold levels would be even lower.

Proposed modification

With respect to the above, conditions of approval A6, A7, A10 and D2 are to be amended as follows. Those changes to the conditions are underlined for ease in identification of the modifications being sought.

A6 Use of the existing 800m range

The existing 800m range is permitted to be used on Saturdays and Sundays between 10am and 5pm, as per Schedule 4 of this approval, until such time as the range is used in accordance with the future range daytime use recommendations contained within Table A1 of the NSW Environmental Protection Authority's Target Shooting Ranges: Application Note for Assessing Noise Compliance.

The existing 800m range may be used in accordance with the future range use recommendations contained within Table A1 of the Target Shooting Ranges: Application Note for Assessing Noise Compliance, and prior to the satisfaction of the Part B, C and D conditions of this approval, subject to an Interim Operational Management Plan being submitted to, and approved by the Department of Planning and Environment.

The Interim Operational Management Plan is to include:

- (a) Operational days and nights of the shooting complex, and maximum number of shooters each day at the 800m range based on the shooting noise level at the residences, as measured in the most recent compliance monitoring results for the 800m range.*
- (b) Measures to manage any military use at the 800m range.*
- (c) Attended noise monitoring to be undertaken within six (6) months of each of the new ranges commencing operations to confirm noise levels from firearms measured at residences comply with appropriate limits. The monitoring must include that of the known noisiest firearms being used on the 800m range.*
- (d) Compliance monitoring results for the shooting complex to be posted within 7 days on a website and submitted to the Department of Planning and Environment and to Council to allow for public access to this information.*

- (e) Bushfire sub-plan and emergency and evacuation procedure plan including days when no shooting is permitted.
- (f) Methods to encourage the use of non-lead based ammunition.
- (g) Management of range including clean-up of spent cartridges.
- (h) Details of the location of warning signage on the site boundary for bushwalkers.

A7 Hours of Use – Outdoor Ranges

- (a) All outdoor ranges shall not operate for more than the maximum usage days recommended for the future range use recommendations contained in Table A1 of the NSW Environmental Protection Authority's Target Shooting Ranges: Application Note for Assessing Noise Compliance. The daytime hours of use for the ranges on these days shall be between 10am and 5pm each day. The night-time hours of use for the ranges on these days shall be between 5pm and 10pm each day.
- (b) Shooting on public holidays is not permitted except for Special Events (refer to Condition A10).
- (c) To cater for the Special Events, the Environmental Protection Authority may consider an extension of the times on both nights in one weekend provided such events occur no more than three times a year.

Having regard to the proposed range usage amendments, and also the commissioning compliance assessment and operational compliance assessment provisions within the EPA Note (refer to discussion in Section 6.6.2 below), condition A11 is proposed to be amended as follows. For ease in identifying the amendments, the edited components of condition A11 are underlined.

A10 Special Events

Up to 12 regional, state or national competitions, also known as Special Events, can be staged at the shooting complex each year. 3 Special events may be held on public holidays. A written schedule of the events to be held over the 12 month period is to be provided to the Department of Planning and Environment.

Variations to other conditions of this approval may be considered for these special events subject to the approval of a management plan by the Director General of the Department of Planning and Environment. The management plan shall include details of the events schedule, number of competitors and any additional mitigation measures required to address noise, traffic or other amenity impacts.

A11 Independent Auditing and Reporting

- (a) A report shall be prepared each year for the first 3 years of operation, and thereafter as required by the Environmental Protection Authority, by an independent auditor chosen by the Department of Planning and Environment to demonstrate compliance with this project approval and conditions, except those relating to firearm noise limits. A copy of the report shall be posted on a website and be submitted to the Department of Planning and Environment and Council.
- (b) Copies of all other reports required by this project approval shall be posted on a website and submitted to the Department of Planning and Environment and Council.
- (c) Upon 12 months of the operation of the shooting complex, the independent review referred to in Condition A11(a) above, shall be carried out by a suitably qualified person selected by the Department of Planning and Environment. This review is to include a operational compliance assessment in accordance with the NSW Environmental Protection Authority's Target Shooting Ranges: Application Note for Assessing Noise Compliance. The review shall address the shooting complex's compliance with all conditions of approval during its operation and make a recommendation to the Department as to the appropriate operating hours for the continued operation of the complex based on Table A1 of Attachment A of the NSW Environmental Protection Authority's Target Shooting Ranges: Application Note for Assessing Noise Compliance.

D2 Operational and Environmental Management Plan (OEMP)

An Operational and Environmental Management Plan should be prepared in consultation with DECCW and shall be prepared and submitted to the Department of Planning and Environment for approval prior to the commencement of use of the new ranges.

The OEMP is to include, but not be limited to the following requirements:

- (a) Operational days of the shooting complex, and maximum number of shooters each day on each range, to reflect the usage figures in the Preferred Project Report and the recommendations contained within Table A1 of the NSW Environmental Protection Authority's Target Shooting Ranges: Application Note for Assessing Noise Compliance.*
- (b) Attended noise monitoring to be undertaken within six (6) months of each of the new ranges commencing operations to confirm noise levels from firearms measured at residences comply with appropriate limits. The monitoring must include that of the known noisiest firearms being used on the 800m range.*
- (c) Compliance monitoring results for the shooting complex to be posted within 7 days on a website and submitted to the Department of Planning and Environment and to Council to allow for public access to this information.*
- (d) Bushfire sub-plan and emergency and evacuation procedure plan including days when no shooting is permitted.*
- (e) Design of ranges and management practices in accordance with the US EPA Best Management Practices for Lead at Outdoor Shooting Ranges as well as regular clean-up of spent bullets and target fragments.*
- (f) Erosion, sediment and stormwater controls.*
- (g) Methods to encourage the use of non-lead based ammunition.*
- (h) The proposed fencing and range danger areas approved by the NSW Firearms Registry.*
- (i) Ongoing environmental auditing and reporting.*
- (j) Trees along the embankment of the existing dam on the site, located adjacent to the proposed new clubhouse, are to be removed and that trees be kept clear from the embankments of all the sedimentation ponds, to minimise the possibility of trees damaging the dam.*

6.3 Firearm Noise Limits

6.3.1 Why is the proposed modification being sought

The DPE's *Compliance Policy* dated September 2010 provides the platform for DPE to undertake its compliance work. The Compliance Policy also helps the community and stakeholders understand how DPE goes about its compliance work.

As outlined within the Compliance Policy, DPE is responsible for ensuring conditions of the Minister's approvals are relevant, reasonable, achievable, clearly articulated and enforceable. Further it is specified that:

Where conditions of approval require environmental monitoring, the commissioning of environmental audits, or other kinds of compliance monitoring and reporting, proponents are obliged to conduct such activities to relevant standards and acceptable industry practice.

Since issue of the EPA's Note in July 2015, it is considered that the project approval MP06_0232 is no longer consistent with DPE's Compliance Policy with regard to environmental noise monitoring. The reason for this is that certain conditions within MP06_0232 are inconsistent with relevant standards and established industry practice. The identified inconsistencies with the conditions of approval are outlined below:

Firearm Noise Levels and Characterisation

Condition of approval A9 specifies that noise from firearms or use of the site must not exceed 75dB(L) peak hold at the boundary to any existing private property.

The EPA Note released in July 2015 outlines how an arithmetic average of a sufficient number of audible shots should be used to reduce the potential for a compliant shooting range to be incorrectly found non-compliant.

As touched on earlier, this is because the noise of a gunshot is measured as a linear peak level (LZpeak), which is susceptible to being increased by wind or noise other than the shot. The example given by the EPA is the measured level of a single gunshot can never be less than the actual LZpeak, but it can be higher if the measurement is influenced by wind or noise other than from the shot.

Accordingly, the PAC recommendation of a maximum allowable level of 75dB(L) for enforcement purposes is considered to be inconsistent with the industry practice guidelines outlined in the EPA's Note which recommends an arithmetic average of a sufficient number audible shots.

Noise Measurement Location

Condition of approval A9 specifies that firearms noise limits are measured at the boundary to any existing private property with a residential dwelling, or where the dwelling is more than 30m from a dwelling, at the most affected location within 30 metres of the dwelling.

It is noted that the EPA's note provides a similar direction on noise measurement locations, stating the following:

Noise should be measured on or within the assessment location boundary closest to the shooting range or, if this more than 30 metres from a receiving residence, within 30 metres of the residence in the direction of the shooting range.

However inconsistent with condition of approval A9, the EPA's Note proceeds to specify the following:

Alternative locations can be used as directed by the consent or regulatory authority or by mutual agreement between the range operator and the occupier of the assessment location. Noise cannot be measured at an assessment location if permission for access is denied by the property owner or occupier.

Accordingly, by not allowing alternative locations to be negotiated, condition of approval A9 is considered to be limiting and inconsistent with the industry practice guidelines covered under the EPA's Note.

In September 2015 the EPA released its *new draft Industrial Noise Guideline* to clarify and modernise the existing Industrial Noise Policy. The draft guidelines are principally used in relation to industrial noise, but as outlined within the draft guidelines, may also be used by land-use planners (such as a local council and the DPE) with confirmation the material contained in the Industrial Noise Policy is to ensure that both strategic and statutory planning functions appropriately consider noise impacts.

Section 7.1.1 of the draft guidelines outlines options for noise monitoring. Specifically it outlines the following in relation to measurements at alternative or intermediate location/s:

Where direct measurement of noise at a compliance location is not practical because of poor signal to noise ratios (i.e. extraneous noise is louder than the noise under investigation), or where access to the location has been denied or is unavailable, measurements at intermediate locations between the source and the receiver location, where signal to noise ratios are higher, may be a viable option. For this approach to be effective there needs to be well established theoretical and/or empirical relationships between the intermediate location and the receiver location in terms of noise exposure. Noise modelling may be one option to establish this relationship.

The above extract is considered to present further evidence that by not allowing alternative locations to be considered, condition of approval A9 is inconsistent with the existing Industrial Noise Policy and new industry practice guidelines covered under the EPA's *draft Industrial Noise Guideline*.

Effect of wind and extraneous noise on firearm noise measurements

Condition of approval A9 sets that the noise from firearms or use of the site must not exceed the prescribed limits 'during prevailing weather conditions'. However Section 3.6 of the EPA's Note indicates that environmental conditions need to be suitable for a compliance to be assessed. The following extract has been excised from the EPA's Note:

LZpeak noise levels are highly sensitive to wind gusts. In windy conditions, depending on the noise limit and the wind speed, noise compliance may not be practicably assessed even when shots are audible. In addition, extraneous noise such as from traffic, aircraft, machinery, birds, insects and animals may invalidate a reading.

Forecasts of wind strength should be considered when planning a compliance assessment. The prevailing ambient LZpeak levels should be measured before commencing an assessment to ensure that levels are lower than the noise limit for the range, otherwise the assessment may need to be postponed.

Given the above, it is evident that the current condition of approval under A9 is inconsistent with the industry practice guideline outlined within the EPA's Note with regard to the effect of weather/wind and extraneous noise.

6.3.2 Proposed modification

With respect to the above, condition of approval A9 is to be amended as follows:

A9 Firearm Noise Limits

The arithmetic average of audible and measureable events as a result of the use of firearms must not exceed LZpeak 75dB.

The assessment of noise compliance from the Southern Highlands Regional Shooting Complex shall be undertaken in accordance with the NSW Environmental Protection Authority's current best practice guidelines for assessing noise compliance of target shooting ranges.

6.4 Soil, Water and Contamination

6.4.1 Why is the proposed modification being sought

The United States Environmental Protection Agency's Best Practices for Lead at Outdoor Shooting Ranges is acknowledged by the Australian Government's Department of Defence as being the document which would be applied for best practice methods for general maintenance of shooting ranges given there is currently no available Australian best practice management documentation with respect to stop butts/outdoor target shooting ranges.

The US EPA's document focuses on design and management of ranges that allows for maximum containment of lead on-site.

The physical modifications proposed will change the lead management, site remediation and maintenance methods at the 500m and 50m ranges. The new design depicted on the Section 75W plans provides the best institutionally engineered approach to lead management, remediation and maintenance at the site to facilitate containment of lead on-site and periodic removal. The proposed design modifications will include:

- redesign of the stop butts and intermediate bullet catchers and bunds in line with best practice design;
- re-grading of the range floor to improve stormwater drainage;
- provision of lime treatment pits in new and existing subsoil drainage lines;
- de-silting of existing sediment basins;
- management of soil pH in the active range to reduce any chance of leaching outside the active range. The US EPA Guidelines best practice standard stipulate the ideal soil pH value for shooting ranges is between 6.5 and 8.5. No modification or management of pH is proposed for areas outside the active range;
- improvement of fencing around active ranges;
- full risk assessment of the proposed remediation methods and sampling process.
- Areas of the range where contamination is expected will be as far as practical be physically isolated from wildlife (sedimentation ponds to be fenced);
- controlled access to limit any exposure to lead for human health and safety;
- implementation of a managed program of tracking and removal of lead;
- the model sampling plan will be audited by the EPA as the regulatory authority; and
- reports that will be subject to NSW Auditor scrutiny.

It is also noted that the SHRSC sits on the top of a spurline that runs from north to south, the natural fall is from the centre of the spurline to the east and to the west into steep gullies. The gullies drop from the level of Rocky Waterholes Creek Road down to Rocky Waterholes Creek, a fall of approximately 100m with access only via a number of steep cliff faces. Additionally, Rocky Waterholes Creek is frequently observed to be dry, therefore making creek water collection difficult.

It is noted the same movement toward best practice standards for lead management at the existing 800m range are currently being investigated by the Office of Sport. It is the intention of the Office of Sport that the necessary amendments to the design of the 800m range to accommodate these best practice standards will be made via a separate application at a future date.

6.4.2 Proposed Modification

Having regard to changes to lead management, remediation design and maintenance methods which aim to contain and manage contaminants within the site, condition B3(g) is proposed to be amended so as to require water quality testing takes place within the SHRSC and its accessible proximity and regulated by the EPA.

B3(g) Soil, Water and Contamination

Ongoing monitoring plan, including monitoring of vegetation health, solid within and around all ranges, stop butt material, sedimentation ponds, groundwater monitoring, rainwater and pre and post construction water quality at the site for the key contaminants associated with the development. This plan must incorporate exception reporting as well as annual reporting of outcomes to the Sydney Catchment Authority, with the reporting identifying appropriate mechanisms to modify management practices and procedure where deleterious impacts on vegetation and water quality are demonstrated.

6.5 Statement of Commitments

6.5.1 Why is the proposed modification being sought

A number of modifications sought as part of this Section 75W application will result in inconsistencies with the Statement of Commitments contained in Schedule 3 of the major project approval for MP06_0232. This includes the following:

- ***Water catchment, hydrology and water management***

Stopbutts and target mounds would be designed to reduce erosion, including the construction of a 2:1 slope to improve stability, to promote low-velocity flow, and to assist with vegetation establishment.

Comment: A stop butt is an earth mound or concrete/masonry wall constructed to reduce or eliminate the ricochet danger area of a firing range.

The Firearms Registry (NSW Police) Range Users Guide outlines that optimally a stop butt should be constructed so that there is a maximum angle of 35 degrees on the front, which is perpendicular to the shooters. By adopting these angles and appropriate material coverings, the likelihood of erosion can be minimised as the slope of the surfaces has a direct effect on the velocity and therefore upon the erosive potential.

As outlined above, the Statement of Commitments specifies the stop butts are to have a 2:1 (50%) slope. At this angle, incidences of ricochet are not appropriately reduced or eliminated.

For this reason, the subject Section 75W application seeks to modify the angle of the stop butt located at the southern end of both the 500m and 50m ranges. The front slope of the modified stop butts is 1:1.4 (35 degrees), and the rear slope of the stop butt is 1:3 (18.4 degrees), therefore being consistent with the Firearms Registry (NSW Police) Range Users Guide.

Accordingly, the aforementioned commitment is proposed to be reworded as follows:

- The stop butts should be designed in accordance with the Firearms Registry (NSW Police) Range Users Guide, Version 9 dated April 2013.

Undertake monitoring program as detailed in Appendix E of the Environmental Assessment

Comment: A key component of the subject Section 75W application is the design modifications to the 500m and 50m ranges to improve lead management, remediate design and maintenance methods. These changes will support best practice standards to contain lead contaminants within the ranges. Due to these design modifications, the existing commitment italicised above will need to be updated to reflect the new Water Cycle Management Plan (which includes a Soil and Water Management Plan) dated June 2016 prepared by ErSed Environmental.

Accordingly, the aforementioned commitment is proposed to be reworded as follows:

- Undertake monitoring program as detailed in the Water Cycle Management Plan 2016 prepared by ErSed Environmental.

- **Noise**

Noise monitoring would be undertaken in different climatic conditions to confirm allowable operational usage in accordance with Chapter 164 of the DECC's Environmental Noise Control Manual.

Undertaking noise monitoring annually to confirm compliance with Chapter 164 of the DECC's Environmental Noise Control Manual.

Comment: As previously outlined, the release of the EPA Note in 2015 has made the assessment of compliance with noise limits for shooting ranges more transparent and consistent, as well as improve certainty for the community, regulators and range operators, The EPA's Note does not introduce new policy, but rather consolidates and clarifies the EPA's current guidance to the application of the guideline.

The EPA Note also provides the following as to why compliance testing should not be assessed under windy conditions:

The LZpeak noise measurement is sensitive to gunshot noise but is also highly susceptible to influence from wind gusts and environmental conditions need to be suitable to determine compliance with noise requirements.

Given the current Statement of Commitments outlines noise monitoring would be undertaken in different climatic conditions, there is an apparent contradiction in the methodology for compliance testing. In this regard the aforementioned commitments are proposed to be reworded as follows to eliminate any contradictions and appropriately reference the EPA Note:

- Noise Monitoring would be undertaken in accordance with the NSW Environmental Protection Authority's 'Target Shooting Ranges: Application Note for Assessing Noise Compliance' dated July 2015 to confirm compliance with Chapter 164 of the DECC's Environmental Noise Control Manual.

In addition to the above, the commitment for annual noise monitoring has been modified to require a commissioning compliance assessment of any new range at the SHRSC within six (6) months of the range commencing operations, and operational compliance assessment being undertaken when required by the regulatory authority, whether announced or unannounced.

These changes will reduce the significant cost burden associated with regular compliance testing of ranges at the SHRSC which have already been determined compliant against the firearm noise limits set by condition of approval A9 – refer to Section 6.3 of this submission which references compliance reporting undertaken by The Acoustic Group for the ranges at the SHRSC. This modified compliance testing will also now be consistent with the EPA Note which specifies commissioning compliance assessments to be undertaken within six (6) months of the range becoming operational, and as required by the regulatory authority thereafter for operational compliance assessment.

In this regard, the revised Statement of Commitments will be updated to include the following:

- A commissioning compliance assessment shall be undertaken within six (6) months of each of the new ranges commencing operations to demonstrate that noise will not exceed the specified firearm noise limit.

- Monitoring may also be undertaken at the SHRSC by the operator or the regulatory authority for assessing compliance during ongoing operations. Such an assessment may be announced (with the knowledge of the shooting range operator) or unannounced by the regulatory authority.

- **Management of SHRSC**

A new lease would be signed with the Southern Highlands Regional Shooting Complex Inc for management of approximately 136 hectares of land.

As outlined within Section 1.3, the Office of Sport intends to take over the management of the SHRSC. Accordingly, with the support of the resident shooting clubs, the commitment for the Southern Highlands Regional Shooting Complex Inc to sign a new lease for management of the land is proposed to be deleted.

6.5.2 Proposed modification

The following table represents the revised Statement of Commitments which are intended to substitute the current Statement of Commitments contained within Schedule 3 of the approval for M06_0232.

Statement of Commitments

Management Measures

Draft statement of commitments

Mitigation / management measures	Timing
<i>General management plans</i>	
Implementation of a construction environmental management plan as outlined in the environmental assessment.	During construction.
Implementation of an operational management plan as outlined in the environmental assessment.	During operation.
<i>Ecology</i>	
Hollow bearing trees and stags along roads within the car park site will be retained.	Detailed design.
To reduce the amount of vegetation clearance required, the routes for the access roads have been located so as to follow existing tracks wherever possible.	Detailed design.
Partial clearance of vegetation within the shotgun range where the firing would occur over the line of the canopy trees.	Detailed design.

<p>An offset package, involving:</p> <ul style="list-style-type: none"> • Addition of 552 hectares of the Yengo National Park; • Addition of 1,956 hectares to the Bargo State Conservation Area; and • Subject to the further development of the proposal, creation of the Dharawal State Conservation Area (323 hectares). 	<p>Completed in February 2007. Completed in February 2007.</p>
<p>Undertake vegetation clearance and tree-felling outside the critical Spring/Summer (November – May) nesting/breeding period for a wide range of fauna including a number of threatened fauna species.</p>	<p>During construction.</p>
<p>Undertake targeted supplementary spring surveys.</p>	<p>Spring 2008</p>
<p>Undertake vegetation clearance and tree-felling outside breeding periods for the Yellow-bellied Glider, which breeds November to May.</p>	<p>During construction.</p>
<p><i>Indigenous heritage</i></p>	
<p>Where practicable, impact to the identified Aboriginal site Hill 1 be avoided.</p>	<p>Detail design.</p>
<p>If impact to the Aboriginal site Hill 1 cannot be avoided then the artefact be collected or relocated away from the area of impact.</p>	<p>Before construction.</p>
<p>Continued consultation occur within Northern Illawarra Aboriginal Collective and the Illawarra Local Aboriginal Land Council.</p>	<p>Before and during construction.</p>
<p><i>Traffic</i></p>	
<p>The Office of Sport commits to contribute to an appropriate level of funding to support regular maintenance needs for Wattle Ridge Road. In this respect, the agency will liaise with the WIngecarribee Shire Council to determine an appropriate level of financial support for this cause.</p>	<p>Before and during construction.</p>
<p><i>Bush fire risks</i></p>	
<p>The asset protection zone for the proposed new clubhouse location be incorporated as part of the design.</p>	<p>Detailed design.</p>
<p>Level 1 construction standard under AS 3959-1999 would be used for the proposed clubhouse.</p>	<p>Detailed design.</p>
<p>Water supply would incorporate the following:</p> <ul style="list-style-type: none"> • A minimum of 10,000 litres dedicated water supply (concrete or underground tanks) would be provided for protection of the clubhouse; • 200mm access holes if underground tanks are installed and a hardened ground surface for track access within 4 metres of the access hole; • A 65 mm Storz outlet with Gate or Ball valve located within the inner protection area and connected to the static water supply; • Metal pipework and taps; and • Shielded pump/s (if installed). 	<p>Detailed design.</p>

The property access roads from Wattle Ridge Road to the buildings would comply with the 'Acceptable Solutions' for Special Fire Protection Purpose developments contained in PBP 2006 (NSWRFS 2006 p.35).	Detailed design.
<i>Contamination</i>	
Remediation of the existing stopbutt and immediate surrounds, in accordance with DECC requirements so that it meets health and ecological investigation levels suitable for recreational open spaces.	During construction.
A qualified site assessor will assess the existing stopbutt and prepare a site audit. A Site Audit Statement will be prepared by a qualified site auditor to assess the existing stopbutt and confirm the existing stopbutt has been remediated and is suitable for its intended use.	During construction.
<i>Water catchment, hydrology and water management</i>	
Sediment control ponds would be established at the commencement of construction. A minimum of 6 ponds, with a combined storage volume of 3,620m ³ would be provided and would be retained for operation of the proposal.	During detailed design, construction and operation.
The stop butts should be designed in accordance with the Firearms Registry (NSW Police) Range Users Guide, Version 9 dated April 2013.	During detailed design.
Stopbutts would be constructed from suitable clean site soils or imported clean fill and all rocks and other debris removed to minimise the potential for ricochet.	During construction.
The stopbutt would be designed to minimise contact between water and projectiles to reduce the rate of shot deterioration and metal leaching.	During detailed design.
Undertake monitoring program as detailed in the Water Cycle Management Plan 2016 prepared by DStudio.	During operation
<i>Noise</i>	
Noise Monitoring would be undertaken in accordance with the NSW Environmental Protection Authority's 'Target Shooting Ranges: Application Note for Assessing Noise Compliance' dated July 2015 to confirm compliance with Chapter 164 of the DECC's Environmental Noise Control Manual.	During operation.
The noise impacts, including traffic noise, of any proposal to increase site usage would be subject to detailed investigation once the new ranges have been built. This would involve noise measurements, at the nearest sensitive receivers, of all firearms (recreational and military) used and fired in their respective ranges. Measurement results may trigger additional measures such as: <ul style="list-style-type: none"> ▪ Altering the acoustic design of the ranges; ▪ Restriction of firearms used on the site; and 	During operation.

▪ Restriction of the use of certain firearms to specific ranges.	
A commissioning compliance assessment shall be undertaken within six (6) months of each of the new ranges commencing operations to demonstrate that noise will not exceed the specified firearm noise limit.	
Monitoring may also be undertaken at the SHRSC by the operator or the regulatory authority for assessing compliance during ongoing operations. Such an assessment may be announced (with the knowledge of the shooting range operator) or unannounced by the regulatory authority.	
Social	
The Office of Sport and members of the environmental assessment team will be available to response to questions received.	During Public Exhibition.

7 IMPACTS OF THE PROPOSED MODIFICATIONS

The proposed modifications to the above conditions are not considered to compromise the merits of the MP06_0232 approval, or provide any additional environmental impacts. This is because the proposed modification is not intended to facilitate any additional environmental noise impacts, but rather bring compliance noise testing procedures within MP06_0232 into line with the recently published EPA Note and acceptable industry practice.

Following the determination of Modification 4 to MP06_0232 the Office of Sport has actively sought to mitigate the impacts of noise levels from the SHRSC by implementing noise attenuation measures at the site (refer to Section 3.0 of this submission). Repeated noise compliance testing since introduction of the acoustic attenuation structures at the 800m range in 2014 has proven the structures to be effective in achieving compliance with the existing firearm noise limits prescribed under condition of approval A9.

Nothing in the proposed modification to MP06_0232 seeks to absolve the Office of Sport of the responsibility to undertake independent auditing and reporting consistent with the prescribed firearm noise limits contained in the approval for MP06_0232. Furthermore, to ensure such auditing and report is conducted in a transparent, comprehensive and compliant manner, it is now the intention of the Office of Sport to bear responsibility for the ongoing management of the SHRSC rather than the shooting clubs utilising the SHRSC.

This means that the Office of Sport will be responsible for ensuring compliance with the conditions of approval under MP06_0232, including but not limited to preparation of operational management plans, facilitating independent auditing and reporting, and ensuring compliance with relevant legislation and Australian Standards.

7.1 Appropriate Regulatory Authority

The PAC report for Modification 4 to MP06_0232 details how Wingecarribee Shire Council considered it difficult to monitor, enforce or verify breaches of noise limits given the technical nature of noise controls, lack of appropriate monitoring equipment and lack of technical expertise. Additionally, Council expressed a need for funds and equipment to enable appropriate monitoring of the SHRSC if the application were to be approved as recommended by the DPE.

These points were reiterated by Wingecarribee Shire Council in a briefing meeting on the subject Section 75W application on 29 March 2016.

It is acknowledged that the EPA Note does not include details on the appropriate regulatory authority with regard to investigation of noise limit breaches at shooting ranges. However, given the Office of Sport is classified as a public authority, it is noted the provisions of the *Protection of the Environment Operations Act 1997* (POEO Act) stipulate the local council (in this case Wingecarribee Shire Council) is not the appropriate regulatory authority, but rather the NSW Environmental Protection Authority (EPA).

In this regard, it will be the responsibility of the EPA to undertake investigations of any breaches to the prescribed noise limits, and not Council. Additionally, the EPA can demand access at any time to the SHRSC and undertake audits for any other pollution issues.

At the aforementioned meeting held with Wingecarribee Shire Council, the Office of Sport advised of their intention to take over the management of the SHRSC, and hence the EPA becoming the appropriate regulatory authority rather than Council.

8 COMMUNITY CONSULTATION

Between 2012 and 2016, the Office of Sport engaged in targeted consultation with key stakeholders, members of the community and technical experts to prepare an application that would both address community concerns and deliver best practice operation of the SHRSC.

As part of this engagement program the Office of Sport engaged KJA to develop and deliver an open Community Information Session for the Hill Top community, which was held on Monday 1 August from 3:00pm to 7:30pm at the Hill Top Community Centre. This Information Session focused on discussing the key elements of the proposed application with the local community and receiving feedback prior to the submission of the modification application.

The objectives of the Community Information Session included;

- informing the community about the detail in the application
- capturing a broader community view of the application
- increasing community awareness of the application
- gaining an understanding of key community issues and opportunities to be addressed in the application
- providing an opportunity for community members questions about the complex and/or application to be addressed directly by members of the project team

There were a number of tools used to deliver the objectives including;

- | | |
|---------------------------|---------------------------------|
| ▪ newspaper advertisement | ▪ website information |
| ▪ letter box drop | ▪ Community Information Session |
| ▪ flyer | ▪ feedback form |
| ▪ letter invitation | ▪ fact sheet |

The key findings of the community consultation process include the following:

- 26% of people made specific comment in support of the proposed modifications to the SHRSC;
- 4% made specific comment opposed to the SHRSC and the proposed modification;
- Traffic was the most commonly raised issue of those who participated in the consultation process.;
- Noise related matters were the second most commonly raised topic by participants;
- Other issues were raised by 53% of participants, and included topics such as operation and activities of the SHRSC, membership, competitions, and amenities available.

Note that 57 people participated in the community consultation process and 1,113 letters were posted to individual residential addresses in Hill Top.

With regard to traffic impacts, the Office of Sport assured community members that it would continue to work closely with Wingecarribee Shire Council to address any traffic impacts and confirmed the existing commitment in the planning consent for the Office of Sport to contribute to the maintenance and grading of the unsealed section of Wattle Ridge Road to the SHRSC.

The Office of Sport also informed residents that an independent traffic management report would be undertaken after 12 months of operation. This report would identify changes to traffic conditions and assess whether additional works were required to reduce impacts on the community.

With regard to community concern regarding firearm noise, the community was informed of the noise mitigation measures introduced to the existing 800m range in May 2014 (see Section 4 of this report) and also the proposed

acoustic attenuation measures included as part of the subject modification application, i.e. lowering the firing points of the new ranges and installation of noise mounds/ buffers (refer Section 6 of this report).

A detailed community consultation report has been prepared by KJA, and is included as part of the subject modification application. This report should be referred to for further information on the objectives, methodology, feedback, results and conclusions of the community consultation process.

8.1 Response to Community Consultation

As outlined above, the most commonly raised issues by participants related to traffic and noise impacts, followed by environmental impacts. These are explored further below with a response from OoS.

When reading the responses below, it is important to remember the proposed modification seeks not to increase the size or number of shooting ranges, nor does it propose any changes in the orientation of the ranges. The modification will see very little physical works at the site over that already approved under MP06_0232. The works will generally be limited to the lowering of the firing point at the 500m range, remodelling of the stop butts and range floor at the 500m and 50m ranges, and the construction of earth mounds to serve as noise attenuation buffers at the 500m range and 50m ranges.

Spoil needed to carry out the above activities will be sourced on-site through the remodelling of the range floor and stop butts, along with shifting existing spoil stockpiled on the site to form the earth mounds.

It is acknowledged there will be select deliveries to the site of blue stone and other like material utilised in reconstruction of the stop butts, but this will be very limited in terms of truck movements, and also very limited in the timeframes at which this will occur.

Given the above, it is important to consider there is already an existing approval and consent conditions in place to mitigate construction related impacts associated with the SHRSC. It is the intention of OoS that conditions will continued to be adhered to for works associated with the subject modification. In this regard, continued compliance with the Construction and Environmental Management Plan, Ecological Management Plan, and Soil and Water Contamination Plan will be delivered.

Traffic

Of the residents and non-residents who participated, 40% (or 23 people) raised traffic matters during the engagement process. The issues raised in relation to traffic were concerns on children bike riding, road maintenance, and safety entry and egress to Hill Top along Wilson Drive. Other concerns included the need for additional road signage, reduced speed zones, and the current poor road conditions including which authority will pay for road improvements and maintenance.

Questions raised by participants have been bullet pointed below followed by a response from OoS:

- Wilson Drive is in poor disrepair and increased traffic will worsen its condition
- There needs to be more signage on all surrounding roads to reduce speed
- The main road into town needs to be widened to reduce the risk of accidents
- The power poles are too close to the road which poses a fire threat in the event of an accident
- The road surface on Wattle Ridge Road needs to be resurfaced
- Maintenance on sealed Council roads is poor
- There needs to be a speed assessment study conducted and speed zones aligned to reflect the results
- Line marking is not completed on the main roads

Response: OoS has taken on board the comments raised by participants in relation to the repair and maintenance of the roads and has agreed to pass this information onto the relevant roads authority, which for this case is Wingecarribee Shire Council (WSC).

WSC is responsible for Wilson Drive as the main road into Hill Top, and as such is responsible for the resurfacing of this sealed section of Wattle Ridge Road. To this effect WSC has been provided with a copy of the Stakeholder Report prepared by KJA.

The December 2015 Traffix report confirmed that the SHRSC site currently generates a weekday peak of nine vehicles per day and 38 vehicles at weekends, which equates to a weekly average of 11 vehicles per day. This level of vehicular movement is not considered to be significant enough to place undue stress on the existing road infrastructure in the local area.

OoS has completed some of the Road Safety Improvements as required by the consent conditions for MP No.06_023 to provide warning signs at the railway crossing and line marking along West Street. OoS has also commissioned a recent traffic study by Traffix dated December 2015. Negotiations are in progress with WSC for an agreement to contribute to the maintenance of the unsealed section of Wattle Ridge Road.

- Increased traffic could have dangerous impacts on safety especially on children and dogs
- Increased traffic during construction will damage the roads
- Wilson Drive is a dangerous road that has many bad accidents as it is, without the increased traffic expected
- Who is going to pay for upgrading and maintaining the roads due to increased traffic? It should not be up to the local residents to foot the bill
- Traffic needs to be monitored and roads upgraded accordingly
- There should be a peer review of the next Traffic Management Study undertaken
- The cycling network should be considered as part of the next Traffic Management Study as Wattle Ridge Road forms an important link
- Concerns the area is a link to a cycle network and increased traffic will pose a threat to cyclists
- Concerns that Coates Road (dirt road) will be used as a short-cut
- There should be an alternate access to the site

Response: The proposal will not introduce any new uses to the site, nor is it proposed to enlarge or increase capacity of any of the existing ranges.

An independent traffic impact assessment prepared in response to a request from Wingecarribee Shire Council (refer to Traffix Report Dec 2015) assessed the net increase of hourly traffic resulting from the proposed development at 3 trips per hour on weekdays and 20 trips per hour at weekends. The additional traffic is expected to arrive after the morning peak hour traffic exiting the Hill Top village as the SHRSC is open from 10am to 5pm. Accordingly, the capacity demands on the existing road network is considered to be unchanged.

The increased traffic during construction is not considered to be any greater than provided by the original planning consent. There will be no significant increase to heavy truck movements as the bulk earthwork movements will be within the SHRSC site. There will be no movement of spoil off-site as existing stockpiles will be re-used to construct the proposed earth mounds as noise barriers.

The OoS does not support the use of Coates Road for either general or construction traffic. The next traffic study by the OoS will consider the cycle network and impacts on cyclist safety, plus it will be peer reviewed.

Noise

Of the residents and non-residents who participated, 32% (or 18 people) raised noise matters during the engagement process. The session highlighted the desire for more detail and a greater level of understanding about the proposed modifications, and any resultant noise impact for local residents, including noise levels, noise testing, monitoring and compliance.

To assist participants with more detail and a greater level of understanding on matters relating to noise, Experienced Project Team members were available at the session to discuss the proposed modifications with the community and answer any of their questions. This included project team members from OoS and also an expert from the Sydney International Shooting Centre.

Questions raised by participants have been bullet pointed below followed by a response from OoS:

- Permanent monitors should be installed on all adjoining properties
- There should be a live feed on noise levels available on the internet

Response: OoS is committed to undertaking operational noise compliance assessments in accordance with the best practices established by the NSW EPA. In particular, ensuring a consistent approach to that outlined within the EPA's Note by either the range operator, or the regulatory authority (i.e. EPA), whether that be announced or unannounced.

The permanent monitors with live noise feeds are considered impracticable, and inconsistent with the methodologies set out in the EPA Note. The impracticalities of such an arrangement stem from the nature of firearm noise monitoring, which generally requires attended monitoring to register when a shot has been fired so as not to confuse an audible shot with extraneous noise such as off-road motorcycles which are known to frequently utilise surrounding roads.

- Hotline to report noise breaches to stop shooting

Response: A Noise Management Plan is to be prepared by OoS which will include regular noise monitoring and direct responses from residents. Given the NSW EPA will be the regulatory authority for the SHRSC, complaints in relation to operational noise can also be directed to the EPA's hotline.

- The averaging of shots should be eliminated from noise testing
- If averaging of shots continues to be used for purposes of noise testing the average should be lower than 75dB so that it is not exceeded
- Noise levels should not exceed 75dB on any occasion

Response: The NSW EPA has published responses to frequently asked questions in relation to compliance noise testing for target shooting ranges. The response in relation to the use of averaging is provided below:

The noise of a gunshot is measured as a linear peak level (LZpeak), which is susceptible to being increased by wind or noise other than the shot. The measured level of a single gunshot can never be less than the actual LZpeak, but it can be higher if the measurement is influenced by wind or noise other than from the shot. Averaging the levels of a sufficient number of shots reduces the potential for a compliant shooting range to be incorrectly found non-compliant.

The objection to averaging of the noise tests refers to the recommendation made by the Planning Assessment Commission in 2012 for the use of an absolute limit to enable Wingecarribee Shire Council to regulate noise from the SHRSC. The usual practice for noise measurement is to record numerous test results over a set period of time and then average all the results. The reason for averaging is that test results are difficult to record accurately and false results are common. The use of an absolute limit could

mean that one false noise record could mean the whole facility fails compliance. The current modification confirms that the OoS will manage the ranges and the regulatory authority will not be Wingecarribee Shire Council but the EPA. The OoS accepts the EPA position on noise regulation and will comply with it.

The original shooting range (800m) at Hill Top was approved by Wingecarribee Shire Council to operate for two days per week in 1986. Using the EPA table of days/shooting noise level, this equates to a noise limit of 105dB(L). The Office of Sport has continually reduced noise levels from the existing range, firstly to 85dB(L) and recently to comply with the 75dB(L). This demonstrates an ongoing commitment to improving residential amenity.

The subject modification demonstrates OoS's commitment to undertaking operational noise compliance assessments in accordance with the best practices established by the NSW EPA.

- Off-road motorbikes on Coates Road cause more noise than the shooting range

Response: This comment is taken to be positive feedback, and also reflects the results of the compliance noise testing undertaken at the SHRSC which indicates firearm noise levels complying with the current provisions of condition A9 of MP06_232.

Environment

Environment related issues were raised by 11% of people who participated in the consultation process. Participants were seeking more information on impacts onto wildlife and access to the Starlight Walkway Trail. Details of the safety and security measures were also requested. Some of the specific comments from the consultation report are copied in the dot points below.

- Concerns the noise will drive away wildlife from the area especially birds.
- Concerns the community are losing access to the National Park.
- Concerns about safety bushwalkers on the Starlight Walkway Trail nearby.

Response: As previously outlined, the proposal does not seek to increase the size, shape or modify the orientation of the existing ranges at the SHRSC. The works to be undertaken are a conscious effort by OoS to improve the environmental performance of the SHRSC by reducing noise emitted from the operation of the ranges, as well as moving toward best practice guidelines for lead contamination management at the SHRSC.

The existing approval and consent conditions in place to mitigate construction related impacts associated with the SHRS will continue to be adhered to for works associated with the subject modification. In this regard, continued compliance with the Construction and Environmental Management Plan, Ecological Management Plan, and Soil and Water Contamination Plan will be delivered.

Furthermore, the proposal seeks not to step away from the appropriate environmental management of the ranges from an operational perspective. The ongoing use of the ranges will continue to be consistent with the Operational and Environmental Management Plan, as well as the Statement of Commitments – as amended by the subject modification.

With regard to the particular issues raised in the submissions, the OoS has signed a Conservation Agreement with the National Parks and Wildlife Services (NPWS) and carries out annual surveys on the health of the conservation area. The surveys are reported to NPWS and include details of the flora and fauna data. The OoS works in partnership with NPWS to protect the conservation areas of the SHRSC.

Access to the National Parks is managed by NPWS and the SHRSC is not part of the National Parks system. An offset agreement transferred 2500 hectares of land to NPWS for the Yengo National Park and the Bargo State Conservation Area in 2007 to offset the land excised for the SHRSC.

The Starlight Walkway Trail starts at the end of Wattle Ridge Road from the car park that is roughly 4 kilometres from the SHRSC. The walk is along the Nattai Road fire trail through the Nattai National Park into the Nattai Valley. The trail forms part of the Greater Blue Mountains trail network between Mittagong and Katoomba, it does not cross into or share any boundaries with the SHRSC site. More details are here:

<http://www.nationalparks.nsw.gov.au/things-to-do/Walking-tracks/Starlights-trail>

Expert staff from OoS explained during the consultation session of the tight controls around gun ownership, licence requirements and storage and handling of firearms. The OoS manages the Sydney International Shooting Centre and has expertise and knowledge of all the Firearms Regulation requirements set by NSW Police.

8.1 Consultation Summary

Once again it is reiterated that the proposed modification seeks not to increase the size or number of shooting ranges, nor does it propose any changes in the orientation of the ranges. The modification will see very little physical works at the site over that already approved under MP06_0232.

OoS are committed to the existing conditions of approval for MP06_0232, which cover both construction and operational conditions for the SHRSC.

The OoS has engaged with targeted stakeholders and held an open Community Information session on 1 August 2016. The targeted stakeholders and technical experts provided information for the modification application to address community concerns expressed during the previous modification application. Overall the proposed application to modify the planning consent received broad support from those people who attended the Community Information Session as 26% made specific comment in support of the complex or application. In comparison only 4% made specific comment to oppose the complex or application.

During the consultation process 'other issues' were raised by 53% of participants, these included interest in the operation and activities at the SHRSC plus details on the amenities, club memberships and competitions. The KJA Report comments that "The Community Information Session and feedback process would be considered a success with 57 people participating in the process, many of them local residents. The session allowed meaningful and engaging dialogue to take place between interested community members and project team members who were able to address key areas of interest."

Another key area of interest was the impact of traffic and the OoS assured community members that it will continue to work closely with Wingecarribee Shire Council to manage any traffic impacts and confirmed the existing commitment to fund part of the maintenance of the unsealed part of Wattle Ridge Road to the SHRSC and to carry out future traffic studies to measure traffic and any safety impacts.

The OoS will continue to engage with the Hill Top Community and updated information will be published on the OoS website on the progress of the project.

9 CONCLUSION

The proposed amendments to the SHRSC Major Project Approval (MP06_0232), as addressed within this application, are a result of three key matters. The first is the significant timeframe which has lapsed since the Project Approval was issued and the subsequent updates to acceptable industry practice for assessing noise compliance of target shooting ranges. The second is a response to comments by PAC following refusal of Modification 4 to MP06_0232 which acknowledged action may be required to mitigate noise impacts from the SHRSC. Thirdly the proposed amendments will improve the safety and environmental performance of the 500m and 50m ranges.

The modified approval will mean the SHRSC can operate consistent with the recently established industry practices, and the DPE can carry out its compliance functions in accordance with DPE's Compliancy Policy.

The modification is considered to be generally consistent with that of the Major Project Approval 06-0232 and is intended to use best practice mitigation and management methods to monitor and control environmental impacts in regard to the operation of the SHRSC.

In light of the above significant merits, we therefore recommend that the proposed modification is supported. We trust that this information is sufficient to enable a prompt assessment of the proposed modification.

9.1 Contact

Should DPE have any queries in relation to the matters raised within this Section 75W application, contact should be made with Ms Vicki Haddock, Project Director - Asset Management at the Office of Sport on (02) 8754 7932 or vicki.haddock@sport.nsw.gov.au