

# Noise Management and Monitoring Plan 2019

for the Sydney International Shooting Centre (SISC)

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### 1 Updating table

Whenever this plan is changed, the changes should be noted in the updating table on all copies of the Environmental Management Plan.

<b>Change made to plan</b>	<b>Date</b>	<b>Noted on all copies</b>
Added 3.1, 3.2, 3.3, 3.4,	14.02.2011	
Updated 3, 5, 6, 7	16.02.2011	
Updated as per email DECC 01.03.11 see Environmental file	10.03.2011	In consultation with DECC 15.03.11
Updated 3.1, 3.2	14.03.2012	Number of Resident Clubs
Updated 3.1,3.2	28/02/2018	Number of Resident Clubs

Updated 3.1	11.12.2019	Shotgun Range licenced to OOS
Updated 3.2	11.12.2019	Change from Tuesday to Wednesday nights. Closed Monday for general shooting. Events held
Updated 7.2	11.12.2019	Venue Manager phone number
Reviewed	15.12.2020	No changes
Reviewed	13.12.2021	No changes
Updated	04.08.2022	Clarifying the week for reporting

## 2 Purpose

The purpose of this plan is to provide a systematic noise management and monitoring mechanism to ensure that the performance of the venue continues to meet the noise requirements of the Development Consent and the NSW Department of Environment and Conservation.

## 3 Context of the plan

This is an updated Noise Management and Monitoring Plan for the SISC. It replaces the original plan that was prepared at the time of preparations for the Olympic and Paralympic Games.

The Noise Management and Monitoring Plan is part of the SISC's Environmental Management Plan and is a requirement of the Development Consent for the SISC.

The relevant conditions of the Development Consent are:

*Condition 31. Except as agreed with the EPA, the period during which firearms may be discharged on the site shall be limited to 7 days and 2 nights per week, where the day time operation is defined as being between the hours of 10am and 5pm and the night time operations between the hours of 5pm and 10pm.<sup>1</sup>*

*Condition 32. Prior to the use of the site for the first shooting event following the completion of the redeveloped shotgun ranges, the applicant shall prepare a Noise Management and Monitoring Plan in consultation with the EPA. The Plan shall include details of a monitoring program to cover all shooting events, noise mitigating measures and a procedure for handling complaints and shall be implemented when the shooting facility is operational.*

*Condition 33. For the first 5 years of operation of the SISC, and thereafter as required by the Director-General, the applicant shall prepare an annual report on noise monitoring which shall be made available for public inspection at the Department's offices at Parramatta and Sydney and at Liverpool Council*

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<sup>1</sup> A request was sent to the Department of Infrastructure, Planning and Natural Resources on 8 December 2003 to increase the operating hours of the pistol and rifle ranges to incorporate an 8:00am starting time and to encompass 7 days and 7 nights. See 6.1.

### 3.1 Range of activities / events undertaken at the SISC

The Sydney International Shooting Centre was built for the shooting sports of the 2000 Olympic Games. Nestled in the bushland of the Western Sydney Parklands, the SISC remains as a well maintained internationally accredited facility promoting safe and responsible shooting, archery and modern pentathlon sports.

Major international events such as the World Masters Games, Oceania Championships, World Para Championships and ISSF World Cups have been hosted at the SISC since the Olympics.

The Venue is used regularly by licenced shooters who are members of one of the 24 resident shooting clubs or shooting visitors from local, state or interstate.

The Australian and State Shooting Associations use the Venue to nurture talent through one of many elite training camps and to host Australia Cups, National, State and Zone Championships

The shotgun and indoor ranges are licenced by the NSW Firearms Registry to the Office of Sport under licence #407886723 to shoot:

Air Pistols of a caliber up to .177  
Rimfire pistols of a caliber up to .22  
Centrefire pistols of a caliber up to .45  
Black powder Pistol Cartridge of a calibre up to .45  
Blackpowder M/L Pistol  
Air Rifle of a calibre up to .22  
Air rifle up to a calibre .38/9mm (sighting in only)  
Air Rifle of a caliber up to .177  
Rimfire rifle of a caliber up to .22  
Shotgun up to 12 gauge using not larger than No.6 shot  
Centrefire rifle of a calibre up to .223 (corrective services only)

The SISC is also has activities such as:

- the Pentathlon activities of Fencing, Running and Air Pistol Shooting
- Biathlon shooting and running
- Archery
- The Australian Air Force Cadets shooting .22 Rifle at 25m
- Safety Awareness Training Courses
- Try Shooting for the novice shooter
- Corporate functions
- Lectures
- Accommodation
- Filming

### **3.2 Types, locations, times, duration, and frequency of events held at the SISC, including out of hours events.**

The SISC is open to all licenced shooters 7 days a week. The Venue is generally closed to shooting on Mondays except during major events or pre arranged activities as this is a day for maintenance

As a condition of the Development Consent:

*Condition 31. Except as agreed with the EPA, the period during which firearms may be discharged on the site shall be limited to 7 days and 2 nights per week, where the day time operation is defined as being between the hours of 10am and 5pm and the night time operations between the hours of 5pm and 10pm.<sup>2</sup>*

The SISC indoor ranges are currently open Tuesday to Sunday 9:00am – 5:00pm and Wednesday & Friday Nights 5:00pm to 10:00pm.

The Shotgun outdoor ranges are open Wednesday – Sunday 10am – 5pm, every Friday & Wednesday night to 10pm.

The SISC has had a number of major international events in the past 11 years such as

- 2000 Sydney Olympic Games and Para Olympic Games
- World Cup 2002, 2004, 2007, 2010 & 2011.
- Oceania Championships 1999, 2007, 2009, 2011
- The World Masters Games Sydney 2009
- Youth Olympics 2005, 2007, 2009.
- International Grand Prix 2007, 2008, 2009, 2010, 2011.
- World Para Championships 2015 & 2019

The SISC has a number of yearly Australian matches such as

- AISL Australia Cups and Australia Cup Final
- The Pistol Australia Nationals.
- The Small Bore Association of Australia Nationals
- The SSAA Bench Rest Nationals
- The NSW Pistol Association State Championships
- The NSW Small-bore Association Championships
- The NSW Pentathlon State Championships

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<sup>2</sup> A request was sent to the Department of Infrastructure, Planning and Natural Resources on 8 December 2003 to increase the operating hours of the pistol and rifle ranges to incorporate an 8:00am starting time and to encompass 7 days and 7 nights. See 6.1.

- The Australian Youth Nationals
- The CMPC Championships
- The Australian Air Force Cadet Nationals

The SISC runs two Sydney Cup events for Pistol, Rifle and Shotgun, these form part of the Shooting Australia Performance Series. A number of small club competitions are held from amongst the 24 Resident Clubs.

The SISC has had the SSAA Gun show and a number of Try Shooting Open Days.

The SISC had two conference rooms that are used for lectures by the NSW Police and a number of shooting associations. These rooms are also occasionally used for private functions. The SISC has a cottage on site for accommodation that sleeps 14.

The Australian Air Force cadets shoot approx twice a month.

The 24 Resident Clubs shoot weekly, fortnightly or monthly.

It is unusual to have an event or activity that is conducted out of hours. There are occasional small birthday parties or private functions that are supervised by our evening security personnel.

The Department of Environment and Conservation, and the Department of Planning and Natural Resources has advised the SISC concerning hours of operation in the following correspondence:

- 1 EPA advice, dated 13.8.03 (ref: SRF9264) - *agrees to 8:00am commencing time*
- 2 EPA advice, dated 27.11.03 (ref: SRF98) - *agrees to 7 days & 7 nights weekly operation*
- 3 DIPNR advice, dated 15.3.04 (ref to DA S38/13/97) - *agrees to both of the above.*

### 3.3 The noise impact criteria assigned to events at the SISC

Chapter 164 of the Department of Environment and Climate Change's 'Environmental Noise Control Manual' (ENCM) sets noise guidelines for target shooting ranges as shown in the table below.

Shooting Range	Peak Hold Noise Level at Residences dB(Linear)										
	60	65	70	75	80	85	90	95	100	105	>105
	Maximum Usage – Days / Nights per week										
Daytime	7	7	7	7	7	7	5	4	3	2	1
Night time	3	3	2	2	1	-	-	-	-	-	-

Due to the extensive baffling of the ranges the SISC has been granted approval to operate (7) days and (7) nights per week. From the above table there is no noise limit applicable for this period of operation.

Further to discussions by Renzo Tonin & Associates (2007), with the NSW Department of Planning (DoP), the most stringent criteria presented in chapter 164 of the ENCM (and reproduced in the above table) is considered to be appropriate and will be applicable for the assessment of seven days and seven night operation of the indoor ranges, and 75dB for the outdoor shotgun ranges that are licenced for 7 days and two nights.

Therefore, based on the above table the maximum 'Peak Hold' noise levels from the indoor shooting ranges should be limited to 60-65dB(linear) and the outdoor to 70-75dB(Linear) when measured at neighbouring residences.

The SISC will run its reporting week from 00:01am Saturday to 23:59pm Friday. Should there be a need to run for a later time on Saturday or Sunday do to an event, the SISC will not open on either the Wednesday night or Friday night preceding, or both, to ensure that only two nightly operations occur in a 7 day period.

### **3.4 The noise trigger level criteria assigned to events at the SISC**

The noise trigger levels will be the lesser of the above criteria.

Indoor Ranges 60dB(Linear)

Shotgun Ranges 70bD(Linear)

The trigger levels will be determined by measurement using a Digitech QM – 1589 sound level meter on Government Rd, at the front gate of the SISC. (This point was determined to be the loudest point measured by Renzo Tonin & associates during tests in 2007)

If a trigger level is exceeded the Venue Manager will be notified to immediately investigate the nature of the excessive noise & conduct further testing at the points identified in Part 6 of this plan. If a further trigger level is exceeded at another location the Venue Manager will ensure that the activity is stopped until measures can be put in place such as further baffling to reduce the level. If the level is from a particular shooter or calibre of firearms this shooter will be removed from the firing line and asked to purchase lower velocity ammunition.

### **3.5 Actions required for hours of operation compliance**

The Venue Manager will ensure that the starting and finishing times for practice, competition and recreational shooting are within the times approved (see above) by DEC and DIPNR.

### **3.6 Responsibility for implementation of the plan**

The implementation of this plan is the responsibility of the Venue Manager

## **4 Operational noise sources**

The main sources of noise during operation of the SISC are:

- Shotgun noise from trap and skeet ranges during competition, recreational and training events;

- Firearms noise from indoor ranges during competition, recreational and training events;
- Public address system;
- Transport noise, including both public and private transport.

## 5 Mitigation Measures

Noise monitoring and management undertaken at the SISC has addressed the following:

- The design of the Venue has incorporated wooden timber baffles and acoustic soundproof roofing that has allowed the fire of gunshots from the indoor ranges to be completely inaudible compared to the ambient noise levels of the area.
- Establishment of ambient noise levels;
- Modelling of noise emissions from future shooting activities;
- Maximising use of bulk/common/shared transport for major competition events;
- Preparing and implementing a noise monitoring plan for major shooting events (Olympic and Paralympic Games);
- Controlling noise levels through appropriate construction methods and design, and not altering these structures;
- Effective event scheduling;
- Observing operational time limits for shooting activity.
- PA system volumes are able to be fully controlled by the Venue

The noise management regime for shooting activities at the SISC is:

- The day-to-day operation of the shooting ranges and special competition events must comply with the approvals for noise management and the starting and finishing times required for practice, competition and recreational shooting.

The noise mitigation measures that must be in place for the facility are:

- Maintenance of the elements of the facility's design and operation that contribute to noise mitigation.
- Planners of competition events and the operators of the shooting ranges must be made aware of the noise management requirements and their responsibilities.
- Operational policy's and Range and Firearms licence restrictions must be followed by staff and users of the Venue. The Venue Manager is responsible for ensuring that this is followed.

The actions required for changes to the facility or shooting activities are:

- The noise impact of any changes to the shooting activities beyond those which have been approved must be assessed, and approval sought from the required authorities.

- The noise impacts should be assessed of any proposed changes to the buildings and other structures should be assessed, and approval should be sought from the required authorities.

## 6 Noise Monitoring Program

The Development Consent requires that

*“for the first 5 years of operation of the SISC, and thereafter as required by the Director-General, the applicant shall prepare an annual report on noise monitoring which shall be made available for public inspection at the Department's offices at Parramatta and Sydney and at Liverpool Council.”*

The requirement for annual reporting that was required by the Development Consent was completed in 2003, and hereafter any further annual reports will only be required if they are requested by the Director General of Planning.

### **The information in this following section is included to guide any future requirements for noise monitoring.**

Noise modelling was reported in the Statement of Environmental Effects by Renzo Tonin & Associates Pty Ltd. Measurements of noise levels were made at the worst affected locations and consideration was given to neighbouring vacant land with residential zoning. This specialist consultant has subsequently been engaged as required by SISC for noise monitoring.

The consultants report established the following locations for monitoring:

- North - Boundary of property at 1259 Elizabeth Drive, Mt Vernon, approx, 950 metres north of firearm area;
- West - Comer of Cross Street and Pratten Street, Kemps Creek;
- South West - Comer of Floribunda Road and Grant Close, Kemps Creek; and
- East - Comer of Richard Crescent and Christabel Place, Cecil Hills.

Noise testing has involved both night and daytime testing at these four locations. Measurements were taken to monitor ambient noise levels without firearm noise and firearm noise emissions. Daytime monitoring was undertaken between the hours of 10.00 am and 5.00pm and night time monitoring has been undertaken between 5.00pm and 10.00 pm, in accordance with EPA guidelines.

The following areas are additional areas that were monitored to verify the results of those areas above:

- East - adjacent to new residential estate Cecil Hills;
- West - adjacent to last residence on Exeter Road, Kemps Creek;
- East - corner of Spencer Road and Frederick Road, Cecil Hills; and
- North West - market garden storage/caretakers dwelling next to entrance gates of existing site: approx 400 metres from the proposed 300 metre rifle range.

If, in future monitoring, noise limits were to be exceeded, additional testing should be undertaken during the daytime to enable noise contours to be generated. This



monitoring would involve testing at multiple points in and around the site areas, which should be selected at varying distances from firearms areas. A specialist consultant will be required to advise on design and to carry out this work and provide reporting to the Venue Manager.

Additional noise monitoring will be undertaken when:

- There is a change to a type of ammunition calibre to be approved in the Venue to ensure that it conforms to the required levels.  
Eg: Additional noise testing was carried out in 2007 for the NSW Police use of .40cal ammunition.
- A new activity such as a concert is undertaken.
- A new residence or residential area is built closer than those previously tested.

Noise monitoring will be undertaken by:

- The Venue Manager will arrange for a suitable Environmental & Industrial Acoustic Group to conduct noise testing when required. Renzo Tonin & Associates have the history of the Venue and should be the first point of contact. 02-82180500.

Response to trigger mechanisms:

- The SISC employ a number of Fulltime and Part time Range Officers who are experienced in range activities. It is a procedure of the SISC that if it is thought that a customer was shooting ammunition in excess of the power factor or noise constraints of the Venue that this persons ammunition be tested in the SISC Ballistics test range, and if necessary stop the use of this ammunition.

## **7 Community Consultation Program**

### **7.1 Community notification**

Community notification will be through the SISC website. A full listing and details of all events is constantly updated on the SISC Website.

### **7.2 Procedure for handling complaints**

The procedure for handling noise complaints is as follows:

- 1 The complainant is to be requested to provide details of the complaint according to the noise complaints form.
- 2 Following registration of the complaint the following actions are required:
  - The complaint is to be reported to the person who is / was in charge of the facility at the time referred to by the complaint.
  - The complaint is to be fully investigated and, if found to be substantiated, an assessment made of whether there was a non-compliance with the noise standards for the facility.
  - If non-compliance is found to have occurred, action must be taken to ensure that the situation will not recur.

- The outcome of the investigation and the action taken should be recorded in the Noise Complaints Register, and notified in writing to the complainant.
  - The complainant should be advised that, if they are not satisfied with the outcome, they may wish to contact the Department of Environment and Conservation or the Local Council.
- 3 If a complaint appears to require verification, monitoring will be undertaken at the source of the complaint to measure levels.
  - 4 Complaints for immediate attention can be directed to the Venue Manager Robyn Ginger by calling 02 8782 0101 9am – 5pm or 0434 074 172
  - 5 A message on the SISC answering machine out of hours will direct environmental complaints to Security who will contact the Venue Manager.

### **7.3 Pro-forma for Noise Complaints Register**

The pro-forma at Attachment 1 will be used for the Noise Complaints Register. This will be available on the SISC website.

### **7.4 Community Reporting**

A reporting table will be added to the SISC website. This table will record:

- the number of noise complaints
- How each noise complaint was handled
- What measures were put in place to minimise noise
- Any proposed measures to further mitigate noise.

The noise complaints registered, and the action taken in response to the complaints will be reported annually to Sport and Recreation, and the report will be made available to the Department of Planning Infrastructure and Natural Resources, the Department of Environment and Conservation, and local Councils should those agencies request a copy.

## **8 Review and reporting**

### **8.1 Review**

The Noise Management and Monitoring Plan for the SISC will be reviewed annually by the Venue Manager. The Venue Manager shall sign the “Environmental compliance and management action program” record kept in the SISC Environmental Management Plan manual.

Any changes to the plan that have been identified will be noted in this manual and on the plan table above.

The review will include:

- An assessment of the effectiveness of all noise management measures utilised during the review period;
- An assessment of the effectiveness of the noise monitoring program, including compliance of all events with noise criteria;

- An assessment of the effectiveness of the community consultation program, including real-time responses to complaints; and
- Recommendations and timeframes for improving procedures for future events.

## **8.1 Reporting**

The annual review will be available to the public on the SISC's website

**Attachment 1**

**PROFORMA FOR NOISE COMPLAINTS REGISTER**

Procedure for dealing with complaints - see this Plan, section 6.1

<b>Complaint register number</b>			
<b>Date and Time:</b>			
<b>Type of communication:</b>		Phone	Letter
		Email	In person
<b>Complainant's Name:</b>			
<b>Telephone number / other contacts for complainant</b>	<b>Address of complainant (for follow-up contact purposes)</b>		
<b>Officer recording complaint</b>	-----		
<b>ISSUES / NATURE OF COMPLAINT:</b>			
<b>Location of complaint (from where was the noise heard?)</b> .....			
<b>Description of noise and duration / time of noise</b> .....			
<b>Other details</b> ..... ..... .....			
<b>Address:</b> .....			
<b>Phone:</b>			
<b>Complaint Received By:</b>			
<b>Action Taken by recording officer:</b> ..... .....			

<p>.....</p> <p>.....</p>		
Complaint notified to Venue Manager or acting venue manager		[Date / time]
<b>Signed:</b>		
<b>Dated:</b>		
<p><b>Notes:</b></p> <p>.....</p> <p>.....</p>		
<b>Venue Manager</b>	Action taken to investigate / mitigate problem	[Summarise]
	Outcome of investigation: Complaint substantiated?	[Report might need to be attached or referenced.]
	Did there appear to have been a non-compliance with noise standards?	
	Action taken to prevent the situation recurring	
	Complainant advised in writing of action taken and the outcome, and advised that, if they are not satisfied with the outcome, they may wish to contact the Department of Environment and Conservation or the Local Council	Date / file reference
	Monitoring required? Note action taken if required.	

	Outcomes of monitoring	
	Monitoring results notified to complainant	Date / file reference
	Any further action required?	

This complaint has now been dealt with to the satisfaction of the Venue Manager and there is no incomplete or outstanding action required.

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**Signed / dated (Venue Manager)**