

Project:	<i>Royal Randwick Racecourse Non-Race Day - Flood Risk Assessment</i>
Project ID:	<i>240009</i>
Date:	<i>17th September 2024</i>
To:	<i>Warren Smith Consulting Engineers</i>
Subject:	<i>Australian Turf Club Non-Race Day Events SSDA – Stage 2 Emergency Management Plan (flooding)</i>
Version:	<i>Version 4 (Final – Issued for SSDA)</i>
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RE: Emergency Management Plan for the Royal Randwick Racecourse during a non-raceday event.

A draft emergency management plan (The Plan) has been prepared by GRC Hydro Pty Ltd (GRC Hydro) to accompany a detailed State Significant Development Application (SSDA) for the Australian Turf Club Limited (the applicant) at the Royal Randwick Racecourse (the site). The site is legally described as Lot 2009 in Deposited Plan 1169042 and the purpose of The Plan is to support a SSDA for the use of sections of the site to accommodate a number of non-race day events. The Plan includes relevant details from Version 4 (Final) of the main report in Volumes 1 and 2 (GRC Hydro, 17/9/2024) on flood levels, floor levels, duration of inundation and flood warning time.

The Plan presents recommended procedures for the management of the residual risks identified in Section 5.4 of Volume 1 including:

- Catchment is at risk of flash flooding with minimal warning time once the storm starts. (Section 3.6 and 5.2.3)
- Evacuation from the site is dependent on receiving and communicating risks to attendees during a non-raceday event. These warnings would be from regional storm warnings from the SES, NSW Police, BoM or local radio (Section 5.2.4)
- Warning time would have to be sufficient to allow for attendees who have used public transport to attend an event to seek transportation out of the catchment (5.2.6)
- Any users of the development who remain at the site, or are caught unaware by the onset of a flood inducing storm, are unlikely to find a safe vehicle evacuation route from the site with dangers of being caught in hazardous floodwater (Section 5.2.5)
- The range of potential attendees indicate that communication of warnings must account for potential language barriers, inebriated attendees, children and the elderly (Section 5.2.2)
- Staff may be temporarily employed for an event and not familiar with the emergency procedures of the site.
- Setup and cleanup before and after an event will be occurring and accounted for in the emergency procedures of the site (Section 5.2.2)
- The Infield Precinct does not offer a suitable shelter-in-place venue and is at risk of isolation and inundation during a PMF event (Section 5.2.6)
- The Spectator Precinct is mostly flood free with access from all locations to the Queen Elizabeth II building and WINX buildings which are suitable for a short term (<6 hour) shelter-in-place strategy and some capacity to manage a long term (upto 48 hours) shelter-in-place strategy for the maximum 15,000 expected attendees during a non-raceday event (Section 5.2.6).
- The Officials Stand in the Spectator Precinct is flood liable in the 10% AEP event to the PMF event (Section 5.1).
- If adopting a shelter-in-place strategy in the Queen Elizabeth II building, some food storage is located in the basement which is below the expected PMF level (Section 5.2.6).

- Some parking for events at the Spectator Precinct is located in the Infield Precinct with the only access via an underground pedestrian tunnel which is flood liable in the 1% AEP to PMF events (Section 5.2.6).
- Onsite medical supplies are dependent on event day first aid tents and facilities (Section 5.2.6).
- People are likely to want to evacuate in a flood, if not told the risks associated with doing so (EM01, DPE 2023)
- Even if told of the risk people may still attempt to evacuate if they do not accept the risk (EM01, DPE 2023)

NSW SES were consulted and provided feedback on the Plan on the 27th May 2024 with the following advice:

1. Reiterate that severe weather and flood warnings are to be checked prior to the start of each workday and staff and visitors advised not to attend the site in the event of current warnings.
2. Reiterate that flooding emergency plans should be regularly exercised, similar to building fire evacuation drills. The NSW SES also recommends updating the FERP at regular intervals and whenever additional flood information is available or highlighted during the drills or flood events.
3. Recommend that any proposed refuge location is above the height of the PMF, and aligns with the Red Cross Preferred Sheltering Practices for Emergency Sheltering in Australia, including water supply, waste management, sanitation, food, and shelter and space management.
4. Recommend, where possible, consulting with Transport for NSW on the impacts of flooding on people evacuating the site during or after a flood event.

Items 1, 2 and 3 have been incorporated into the Plan, and it is recommended that when planning the emergency management procedures for an event to incorporate the advice in Item 4.

Yours Sincerely



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1. Emergency Management Plan

The Emergency Management Plan (EMP) detailed here is to provide a recommended procedure to enact in the event of an emergency flood event occurring at the Royal Randwick Racecourse during a planned non-raceday event with the intent to minimise the risk to attendees and staff. It is immediately superseded by advice from emergency combat authorities, which include the NSW Police force and NSW State Emergency Service. The Plan is a draft emergency response plan, which is to be incorporated with existing emergency plans for the site.

Relevant flood, ground and floor levels for the Royal Randwick Racecourse are presented for the Spectator Precinct and Infield Precinct based on the designations in the *'Royal Randwick Spectator Precinct – Temporary Structures Plan, MI Global Partners, Site Plan 2, 10th June 2024'*. Image 1 presents the subject site with the designations of the precincts, relevant onsite buildings and points of access. Flood levels are based on peak flood levels for design events based on the results in the flood risk assessment in Volume 1.

Image 1: Subject Site



Spectator Precinct – Near the Officials Stand

- 1% AEP Flood Level (Peak) = 31.3m AHD
- Probable Maximum Flood Level = 31.7m AHD
- Ground Floor Level = 31.2m AHD

Spectator Precinct – Queen Elizabeth II Building

- 1% AEP Flood Level (Peak) = Not flooded
- Probable Maximum Flood Level = 30.4m AHD
- Ground Floor Level = 31.5m AHD
- Basement Floor Level = 27.5m AHD

Spectator Precinct – WINX Building

- 1% AEP Flood Level (Peak) = Not flooded
- Probable Maximum Flood Level = Not flooded

Infield Precinct Area

- 1% AEP Flood Level (Peak) = 29.3m AHD
- Probable Maximum Flood Level = 29.9m AHD
- Terrain Level = 29.1 to 31.4m AHD

The above levels give an indication of how various magnitudes of floods will impact this site and what level of protection is provided. Most of the Spectator Precinct is flood free for all events except around the Officials Stand. Both the Queen Elizabeth II Building and WINX Building provide protection for all flood events up to and including the Probable Maximum Flood (PMF), which is the largest flood which can conceivably occur. The Infield Precinct is only really flood liable in the PMF but is a high risk due to no potential places of shelter and possible isolation in rare events.

In addition to the above, the predicted warning time and duration of inundation from the flood risk assessment in Volume 1 have been provided below:

- Predicted flood warning time = < 30 minutes from the onset of the storm
- Duration of inundation = < 6 hours for all events up to and including the PMF

1.1 Preparation and Planning

Education of staff of the emergency procedures in the event of a flood should be made available during the induction of staff members and for sub-contractors involved in the preparation and clean-up of an event. It is usually recommended that this be reinforced through regular evacuation drills at a minimum frequency of 12 months, however the event-based nature of the site may benefit from additional evacuation drills before a major event to ensure any temporary staff are familiar with the emergency procedures. NSW SES advise that flooding emergency plans should be regularly exercised, similar to building fire evacuation drills. The NSW SES also recommends updating the Plan at regular intervals and whenever additional flood information is available or highlighted during the drills or flood events.

Staff responsibilities should be clearly decided before an emergency and the responsibilities are provided during the staff or contractor induction. Should the responsibilities be attached to a staff position, such as Warden or Site Manager, numbers for contact should be included.

For each event the expected attendees should be reviewed, and a review of the emergency plan should be conducted to facilitate foreseeable risks. The presence of alcohol, children, the elderly and tourists with language barriers all require planning to ensure that in the event of an emergency the most efficient means of communication and management of the attendees can be implemented. NSW SES

recommend when planning events to incorporate planning for the potential evacuation of people from the site and to consult Transport for NSW during the planning process.

As the Queen Elizabeth II Building and WINX Building have sufficient safety and size to implement a shelter-in-place strategy, it should be ensured that emergency kits are available for up to 15,000 attendees to provide in an emergency situation:

- Bottled water (plan for 4L per person per day)
- Non-perishable food and energy bars
- Light sources (preferably flashlights) with batteries
- Dust mask
- Emergency contact numbers
- Radio to share and recommended frequencies to tune into for more information from emergency combat authorities.

If the emergency kits are stored between non-raceday events, they need to be maintained and checked regularly as a part of a staff members responsibilities. The emergency kits should not be stored in the basement areas below the PMF level. The Officials Stand should not be used for the storage of the emergency kits either, but emergency kits should be available within the Officials Stand should attendees become trapped by floodwater there.

The NSW SES recommend consulting the *“Red Cross Preferred Sheltering Practices for Emergency Sheltering in Australian”* for advice on planning for the provision of sanitation, water supply, space, waste management and food when people are sheltering during an emergency. The outcomes from the flood risk assessment indicate the ‘Immediate Sheltering’ phase is the most appropriate for emergency planning for the site given the expected duration of hazardous floodwater limiting evacuation from the site is less than 6 hours.

It is recommended that flood warning sirens, or means to identify depths of floodwater in the pedestrian tunnel between the Infield and Spectator Precincts, and in the vehicle tunnel between the Infield Precinct and High St be installed to assist in maintaining the safety of attendees during any potential future evacuation.

1.2 Regional weather warnings and preliminary evacuation

It is recommended that a designated staff role be required to sign up for BoM warnings for access to regional severe weather and thunderstorm warnings. Ideally a management position overseeing an event, including the setup or cleanup of an event and located onsite who can coordinate the distribution of warnings and with the authority to manage the staff for a response. The NSW SES have advised that severe weather and flood warnings are to be checked prior to the start of each workday and staff and visitors advised not to attend the site in the event of current warnings.

In the event of a severe weather warning, it would be the responsibility of the designated staff role to see to the following:

- Immediate cancellation of any use of, including the setup or cleanup, planned within the Infield Precinct. The Infield Precinct has a high risk of being isolated by floodwater and no means to minimise risk from flash flooding events.
- All attendees or onsite staff to evacuate the Infield Precinct, with a preference for managing any emergency strategy from the Spectator Precinct.
- Seek further advice from the local NSW SES unit on whether to proceed with an evacuation of the site or cancellation of plans in the Spectator Precinct, noting the current recommendation of staff and visitors advised not to attend the site in the event of current warnings.

Unless the NSW SES advise otherwise, there should be the cancellation of all non-essential work and if sufficient weather warning is given, see that all non-essential staff and visitors return home, or to a safe location. The site is at risk of flash flooding behaviour which limits the capacity of combat authorities to provide sufficient warning, so a preference to cancel any plans and evacuate is preferred over inaction should warnings from emergency combat authorities not be received. Advice from combat authorities to evacuate or shelter in place are to be heeded as a priority and are likely to be communicated through:

- Radio and/or Television;
- Social media, including: Facebook, Twitter (NSW Police, NSW SES, Council);
- Standard Emergency Warning Signal;
- Emergency SMS to all mobile phones within a specific area; and
- Police and Emergency Service door knock.

In the potential event of a storm a NSW SES coordination centre maybe established. Local SES units can be contacted to assist with the decision to evacuate, with the Randwick LGA having its own unit (192 Storey St, Maroubra, NSW, 2035; phone 13 25 00).

1.3 Emergency response strategy

Should people be present at the Royal Randwick Racecourse during the onset of a flood inducing storm, or be unsure of how safe it is to evacuate, the recommended strategy is to evacuate to the Spectator Precinct and adopt a shelter-in-place strategy. The Queen Elizabeth II and WINX buildings are expected to be flood free for events up to and including the PMF, the largest flood that can conceivably occur at the location. Both buildings have been built with accessibility provisions for attendees who may have impaired mobility.

Ideally, as per the recommended initial response when receiving a severe weather warning, the Infield Precinct is not in use during a flood inducing storm. Should anyone still be present it is recommended to evacuate via the pedestrian tunnel to the Spectator Precinct should this be achievable without traversing floodwater. If vehicles are present and the tunnel to High Street is flood free, evacuation for sheltering at the Prince of Wales Hospital can be achieved by travelling east along High St. Under no circumstances should floodwater be traversed. If there is any uncertainty on the safety of the pedestrian tunnel, then move to the established carpark in the Infield Precinct as it is flood free in the PMF and contact emergency services immediately on 000.

As a priority, announcements to move to the Queen Elizabeth II building should be made to the Officials Stand as it is the only flood liable building in the Spectator Precinct. Secondly, any attempts for attendees to move back through the pedestrian tunnel to the Infield Precinct should be redirected to the agreed assembly point within the Spectator Precinct. The tunnel is only to be used to evacuate anyone from the Infield Precinct to the Spectator Precinct. Thirdly the tunnels under the Spectator Precinct, including the basement level of the Queen Elizabeth II building should be evacuated. An agreed approach to move stored food from the basement of the Queen Elizabeth II building to a higher level should be enacted but it should minimise the need for anyone returning to the basement level.

Announcements to evacuate to the Spectator Precinct is to be communicated to attendees onsite in as many ways as possible. The most appropriate measures should be decided on during the preparation phase and account for the type of event. This may include:

- A system announcement through the site wide pa system;
- Showing a pre-prepared message to television and entertainment screens;
- Utilising stage setups for announcements; and

- Bulk text messaging if sufficient contacts are available from event signup.

It is recommended that it be made clear to all attendees that the local floodwater is expected to be too hazardous to evacuate in for both small and large vehicles. Announcements that cars and possessions left in the Infield Precinct or Ascot St parking should be safe from floodwater will minimise attendees trying to access this area and putting themselves under potential risk.

The assembly point for attendees should be at agreed points made during the preparation phase and prioritise the movement of individuals to higher floors to allow sufficient room for all people located on the site. It is not recommended to not use elevators unless the building has an emergency power supply. However, allowances in the proposed assembly approach should include procedures for assisting people with limited mobility or who might be injured.

Once assembled it should be made clear to not leave the building until permission has been granted by the local emergency combat authority. Designated staff should manage each floor and have the means to communicate with their floor. Based on the expected duration of inundation, any shelter-in-place is likely going to be within a timeframe under 6 hours. Access to food, water, bathroom facilities, warmth/cooling and means of communication should be organised once the shelter-in-place decision has been sufficiently communicated and the risks of evacuation made clear.

In summary when a flood warning is issued:

Infield Precinct

Infield Precinct should have been evacuated prior to any flood warning. However, should anyone still be present:

1. Clearly communicate an immediate evacuation to the Spectator Precinct along the pedestrian tunnel through all possible channels and follow the recommended procedures for there.
2. Should floodwater be present in the pedestrian tunnel, do not traverse any floodwater.
3. In the event of floodwater in the pedestrian tunnel, evacuate to the carpark in the Infield Precinct and contact emergency authorities on 000.

Spectator Precinct

1. Prioritise announcements to the Officials Stand to evacuate to the Queen Elizabeth II building through all possible channels.
2. Prioritise establishing means to redirect people attempting to use the pedestrian tunnel from the Spectator Precinct to try access the Infield Precinct.
3. Clearly communicate an order to evacuate the basement levels and tunnels.
4. Staff in the Queen Elizabeth II building located in the basement level to enact a previously agreed on protocol for the movement of supplies to higher levels.
5. Have an authorised staff member liaison with the local SES unit to notify them of the decision to shelter in place, so that they can provide additional advice.
6. Clearly communicate the order for assembly at the emergency assembly point to all attendees through all possible channels.
7. Facilitate the movement of people into the Queen Elizabeth II Building and WINX building, prioritising moving groups to the higher floors. Staff to move to their designated floor of management.
8. Organise the distribution of food, water, bathroom facilities, warmth/cooling, communication and space to each floor including the distribution of emergency kits.

9. Listen to local communication channels, including radio, TV and social media, for updates on the severe weather warning.
10. Call emergency services immediately for life threatening emergencies.
11. Only end the shelter-in-place strategy based on advice from an emergency combat authority (NSW SES, NSW Police)
12. If onsite gas or electrical facilities have been inundated, do not interact until a suitably qualified personal has inspected.

Flood Management Plan

Non-Raceday Events
Royal Randwick Racecourse

Preparedness

- Education of staff and contractors of the emergency procedures in the event of a flood should be made available during the induction of staff members.
- The final Emergency Management Plan should be made available to all new staff and contractors involved in the setup, operation, and cleanup of an event as part of the site induction.
- Emergency kits should be prepared for maximum capacity (15,000), stored above PMF level, and within easy access to the Queen Elizabeth II and WINX buildings.
- The emergency kits to be maintained and checked regularly.
- Clearly decide on staff responsibilities before an emergency and provide these during the staff induction so all users of the site are aware.
- Test and reinforce the plan through regular evacuation drills, at a minimum frequency of every 12 months, with additional drills when taking on staff for events.
- Review the emergency response and tailor to each event.
- Install and maintain flood warning systems in the tunnels.

Response

During a severe weather warning:

1. Immediate cancellation of any use of, including the setup or cleanup, planned within the Infield Precinct.
2. All attendees or onsite staff to evacuate the Infield Precinct, with a preference for managing any emergency strategy from the Spectator Precinct.
3. Seek advice from the local NSW SES unit
4. Proceed with an evacuation of the site or cancellation of planned events in the Spectator Precinct unless the NSW SES advise otherwise.

During a flood or upon receiving a flood warning:

Infield Precinct

Infield Precinct should have been evacuated prior to any flood warning. However, should anyone still be present:

1. Clearly communicate an immediate evacuation to the Spectator Precinct along the pedestrian tunnel through all possible channels and follow the recommended procedures for there.
2. Should floodwater be present in the pedestrian tunnel, do not traverse any floodwater.
3. In the event of floodwater in the pedestrian tunnel, evacuate to the carpark in the Infield Precinct and contact emergency authorities on 000.

Spectator Precinct

1. Prioritise announcements to the Officials Stand to evacuate to the Queen Elizabeth II building through all possible channels.
2. Prioritise establishing means to redirect people attempting to use the pedestrian tunnel from the Spectator Precinct to try access the Infield Precinct.
3. Clearly communicate an order to evacuate the basement levels and tunnels.
4. Staff in the Queen Elizabeth II building located in the basement level to enact a previously agreed on protocol for the movement of supplies to higher levels.
5. Have an authorised staff member liaison with the local SES unit to notify them of the decision to shelter in place, so that they can provide additional advice.
6. Clearly communicate the order for assembly at the emergency assembly point to all attendees through all possible channels.

It has to be made clear to all site attendees that the local floodwater is expected to be too hazardous to evacuate in for both small and large vehicles and to leave any possessions in their cars as most exits from the site are likely to be subject to high hazard flooding on short notice.

7. Facilitate the movement of people into the Queen Elizabeth II and WINX buildings, prioritising groups to the higher floors. Staff to move to their designated floor of management.
8. Organise the distribution of food, water, bathroom facilities, warmth/cooling, communication and space to each floor including the distribution of emergency kits.
9. Listen to local communication channels, including radio, TV and social media, for updates on the severe weather warning.
10. Call emergency services immediately for life threatening emergencies.
11. Only end the shelter-in-place strategy based on advice from an emergency combat authority (NSW SES, NSW Police)

Recovery

1. If electrical or gas services have been inundated do not turn these appliances on until they have been checked by a qualified electrician or gas fitter.
2. Assess the pedestrian tunnel and vehicle tunnel are safe for use. Sitting floodwater above 0.30m is unsafe for vehicles and above 0.50m is unsafe for children and the elderly. Do not traverse any floodwater.
3. Organise evacuation of event attendees from the site, prioritising transport required for access to hospital and medical care.

Important phone numbers

NSW State Emergency Service:	Emergency – 132 500	General enquiries – 4251 6111
Police, Fire, Ambulance	Emergency – 000	
Bureau of Meteorology	Website: http://www.bom.gov.au/nsw/warnings/ , p: 1300 659 218	

