



MARLAY PARK CONCERTS AND LONGITUDE FESTIVAL 2024

DRAFT WATER SAFETY PLAN

Appendix 4

Version 1

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WATER CONTRACTOR

A competent and experienced contractor will be appointed as the onsite water contractor for the Marlay Park Events.

A Water Supply Manual (plumbers manual) will form part of the contract between us and the provider. This manual will outline the minimum standards and procedures that we require during the installation and maintenance of the water system. This manual is available on request.

WATER DISTRIBUTION NETWORK

The infrastructure and management of the water supply including water storage tanks will be installed, maintained and managed in accordance with the Water Supply Manual. The manual is designed to ensure that the water supply is wholesome, and the hygiene of the distribution network is maintained for the period of supply.

There will be a minimum of 1 drinking water tap per 1000 people onsite, as per the Code of Practice for Safety at Outdoor Pop Concerts and Other Musical Events, 1996. Therefore at least 40 drinking water taps will be provided. The public water points are located in close proximity to the toilet blocks, as drawn on the site plan.

Designated water points will also be provided for use by traders. These will have non-return valves.

Water Storage Capacity on Site (Emergency Back Up)

There will be one 1,000L storage tank, and one 25,000L storage tank located onsite. The 1,000L storage tank will be located behind crew catering, and the 25,000L storage tank will be located in the Production area Stage Left of the Main Stage. These tanks are used throughout the show and are continuously refilled. They are connected to the mains water supply, using the water hydrants onsite and are filled using a ball cock system. These tanks, pipe work and connections will all be super chlorinated and flushed prior to use.

Contingency Water Plan

In the event that the mains water supply becomes contaminated, the use of that source will be suspended, and the contingency supply implemented. The contractor will have a 25,000L potable water tanker on standby. The filling location will be nominated following consultation with Dun Laoghaire-Rathdown County Council and Irish Water and will be verified as potable prior to use.

In addition to the tanker noted above, Newsrail Ltd, our onsite concessions management company, will have access to additional supplies of bottled water.

WATER SOURCES

The water supply will come from the Main public water supply via the fire hydrants. There will be a number of distribution systems feeding off these. A water distribution map will be drawn up prior to the event.

Non-return valves will also be fitted where any connections are made. Non-return valves will be fitted to all tap locations as shown in the water supply manual.

STERILISATION, CLEANING AND INSTALLATION

Superchlorination

This will be carried out in accordance with procedures outlined in the Festival Republic water supply installation manual to ensure that contact times between chlorinated water and infrastructure surfaces are not less than those outlined. Superchlorination of the system will take place and the system will be flushed prior to use. A log of this will be recorded at Appendix B.

Installation and connection of water points and water system

All taps will be fit for purpose. 6 separate contingency taps will be superchlorinated and kept in sealed sterile bags. Should a failure result be received from a tap, this will be swapped over by the water contractor for a contingency tap.

Stagnancy

To prevent stagnancy in the system during the build and prior to the full system being used trickle drains will be implemented at appropriate points to ensure satisfactory flow around the system. This measure should also prevent water temperatures increasing unacceptably. This will be closely managed to reduce water wastage, so far as reasonably practicable.

MAINTENANCE OF WATER POINTS

Monitoring

For the duration of the event, whilst the public have access to the water points, the system will be monitored by both the water contractor and the Event Safety Team: -

- To ensure the water points are kept clean and free from litter
- To clean the taps on a regular basis
- To report any leaks, blockages etc.
- To ensure that safe ground conditions are maintained around the water points

Litter bins will be placed by water points to encourage concert attendees to not put litter in the water points. The water contractor and the Event Safety Team will check that the water points are functional and will check for leaks, dirty sinks, ground conditions, dirty taps etc.

Maintenance and remedial works

The maintenance of the system and any remedial works taken will be logged by the water contractor. Any serious incidents such as a serious leak would be passed to Event Control immediately and the incident would be logged.

WATER SAMPLING PROCEDURES

The sampling technique will be as follows:

Prior to sampling the bottles shall be pre-labelled to identify the sample point and with space to fill in the time the sample was taken.

The sampler will ensure that the best possible disinfection of the sample point is achieved having regard to the high transient use of tap nozzles on tap boards and the greater potential for environmental contamination. A chlorine-based disinfection method will be used for tap sterilisation. The chlorine solution shall be a 10000mg/ or 1% (w/v) chlorine solution applied using a spray bottle and /or angled nozzle wash bottle to ensure that the chlorine solution is applied to external and internal tap surfaces.

The application bottles containing the chlorine solution should be labelled 'chlorine solution' giving the dilution, stating the date of preparation and include an appropriate warning label.

WARNING: The chlorine solution used in this procedure is corrosive and should be handled with care and stored appropriately when transporting. Both gloves and eye protection should be worn when handling this solution. If the solution comes into contact with skin or clothing, the area should be immediately washed with copious amounts of water.

Run the tap for 30 seconds.

Clean the outside of the tap and as much of the nozzle as possible to remove any deposits of grease or dirt, with an alcohol wipe or paper towel moistened with 1% (w/v) or 10000mg/l chlorine solution or other approved anti-bacterial wipes. Where the tap has an open nozzle (no nozzle filter gauze) additional cleaning can be achieved with a clean pipe cleaner style brush which can be used to clean up the nozzle to remove debris

Run the Tap for 90 Seconds

Using the bottle containing chlorine, spray the outside of the tap and inject the inside of the tap spout (Tap nozzles on tap boards should be comprehensively sprayed to ensure that the solution gets inside the outer metal sheath). The sampler should then **wait for approximately 2 minutes** to allow enough contact time for the chlorine to work.

Run for a further 120 seconds.

The sampler must ensure that when the lid is removed from the sample bottle the lid is kept with the internal thread facing down to minimise environmental contamination of the sample. The bottle lid shall be kept in the hand and should not be placed on the floor or other non-sterile surface such as tap boards where environmental contamination is possible. The sample should be taken from a uniform flow rate of water from the tap ensuring that an air gap is left in the bottle and the lid replaced as soon the sample is taken.

The sample bottle will be placed into the clean sterilised cool box immediately. During sampling care should be taken to ensure that dirt and environmental contamination does not get into the cool box.

It is important to ensure that the sampling bottles are kept in the cool box with the lid on until it is needed for filling. The cool box must be taken to the sample point. The lid should be removed to take the bottle out when required and immediately replaced. Following bottle filling the bottle should be replaced in the cool box immediately.

If a bottle is dropped or accidentally contaminated it should be discarded and a replacement bottle used. If a sealed bottle is dropped and cleaned it should be noted in the log.

When the samples have been taken, they will be taken directly to the lab with the filled in sample submission sheet. Samples should be transported in the cool boxes with ice packs to keep the temperature low will be driven immediately to the laboratory for testing.

The Water Tests and Results

The samples taken will be tested for the following

- E. Coli / total coliforms
- Enterococci

SAMPLING

Sampling of sources

Sampling will be carried out of the water from the water mains to confirm that the water from that source is wholesome at delivery. A sample will be taken on Tuesday 28th May, which is at least 14 days before the first event. In addition, we will also take another sample on Tuesday 18th June. The frequency of sampling would be increased if an unsatisfactory result is received.

Sampling of drinking water points and distribution system

Water samples will be collected once the water distribution system has been flushed. This will be a representative set of results covering the site, to demonstrate that wholesome water is being supplied at the point of use.

Chlorine Testing

Chlorine samples will be taken throughout the day, at the point of use locations around the site to indicate that chlorine is reaching all areas of the site.

The water contractor will be doing the chlorine testing as part of the management of the system. The results will be logged.

Actionable Chlorine Readings

Actionable chlorine readings would be below 0.2 parts per million or above 1 part per million at the end user point at which point the chlorine dose would be upped or reduced respectively. The aim is for 0.5 parts per million and the Event Control will be alerted if readings are between 0 and 0.3 parts per million or above 1.0 parts per million. Chlorine results that are recorded at actionable levels will be communicated immediately.

If the chlorine levels need to be upped or reduced this would be done immediately. Tests would then be retaken at the sites where the previous readings had been actionable.

Chlorine Sample Log

A Chlorine Sample Log will be maintained by the water contractor. Any actions taken due to the results of chlorine sampling shall also be noted in the waterlog. The Chlorine test logs will be submitted following the event and 24 hours prior to the event.

APPENDIX A - CHLORINE TEST LOG

Date _____

Taken by _____

Sample Location	Site Map Grid Reference	Date & Time	Notes	Target result (mg/l) Aiming for 0.5 (mg/l)
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1
				0.2 – 1

				0.2 – 1
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NOTE: *WE ARE AIMING FOR AT LEAST 0.5 PARTS PER MILLION. ANY TESTS RESULTS OF 0 – 0.3 OR GREATER THAN 1 MUST BE REPORTED IMMEDIATELY**

NB: this sheet is an example sheet for use on site. Alternative record sheets are acceptable providing the required information is recorded.

APPENDIX B - CHLORINATION LOG

Date / Time	Location of chlorination	Notes

APPENDIX C - GUIDE TO BACTERIAL RESULTS

Bacterial Indicator parameters	Sample Results	Action to be taken
<i>Escherichia coli</i> (E. coli)	>0	<p>Immediate investigation and contingency action based on results of all samples. Local Authority to be informed of investigation and incident logged in the Water Safety Log (WSL).</p> <p>Supply should be restricted at affected locations if contamination of the water supply is suspected.</p>
Enterococci	>0	<p>Immediate investigation and contingency action based on results of all samples. Local Authority to be informed of investigation and incident logged in the WSL.</p> <p>Supply should be restricted at affected locations if contamination of the water supply is suspected.</p>
Total Coliforms (T. Coli)	1-20	No significant health risks. Likely to be sample contamination. Inform samplers and remind them of sample procedure in WSP. If multiple supply points show results in this range, the water contractor and the Event Organiser will decide whether further investigation is necessary.
Total Coliforms (T. Coli)	20-100	No significant health risks. Disinfect location, inspect distribution route to supply point check chlorine levels at point of distribution, Actions taken where identified as necessary. Actions to be logged in the WSL
Total Coliforms (T. Coli)	>100	<p>Investigation into potential causes carried out. Supply point deep cleansed and disinfected. Distribution route to the supply points inspected. Chlorine levels checked and adjusted where necessary, actions decided based on results of all samples. Local Authority notified and actions recorded in the WSL</p> <p>If the water contractor and the Event Organiser are satisfied the supply is not a risk to health, it shall remain in use following cleaning.</p>