

Memo

To: Aircraft Noise Community Consultative Group

From: Kristina Cooper

Date: 30 May 2021

Subject: Annual Review of Noise Monitor Locations

Noise Monitor Requirements

Auckland Airport is required under Condition 5 of Designation 1100 of the Auckland Unitary Plan to have three permanent noise monitors, located at:

- Prices Road
- The Velodrome
- Puhinui Road

In the future, when the Northern Runway is commissioned, two further permanent noise monitors are also required under the Unitary Plan.

Additional Noise Monitoring Voluntarily Undertaken

In addition, Auckland Airport supplements these mandatory noise monitors with temporary monitors. The Airport's policy in relation to such temporary monitors is to locate these where there is a demonstrated need to:

- Monitor noise under areas of future/proposed approach/departure paths
- Monitor current approaches/departures
- Assess areas where a number of approaches/departures intersect
- For other Airport operational reasons

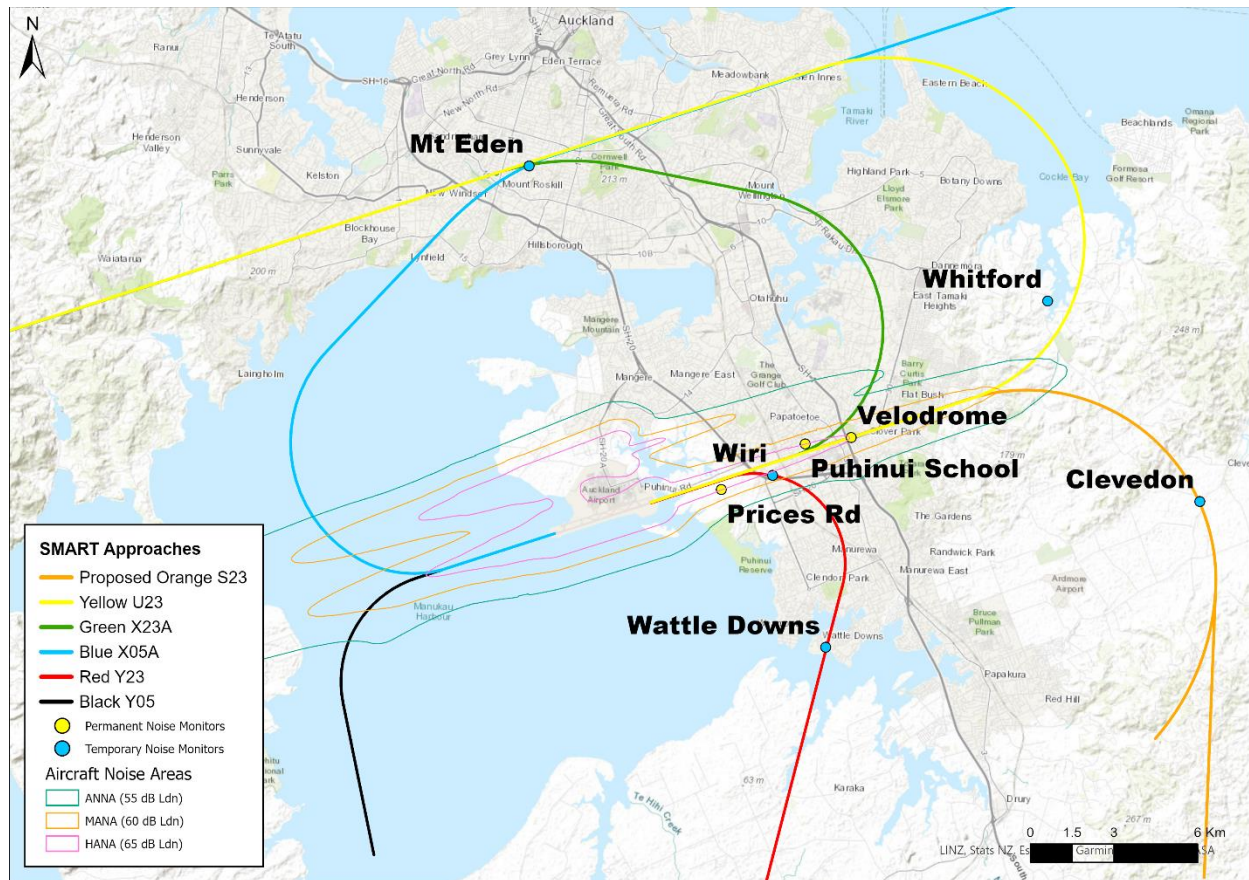
There are currently five of these temporary monitors deployed.

It is important to note that under Designation 1100, Auckland Airport is not required to install any additional monitors over and above the required three for the existing southern runway and two for the northern runway once it is operational. These additional monitors are voluntarily provided by the Airport. All noise monitoring is paid for by Auckland Airport (with costs flowing into the cost base used to determine aircraft landing charges paid by airlines). These noise monitoring costs are not met by the Council or by the Government.

The results of this noise monitoring is available for individual flights on line publicly using the Casper system available at [Auckland - flight tracker \(casper.aero\)](https://casper.aero). Complaints or queries on aircraft noise can also be made using the Casper system. Quarterly reports are prepared for the Aircraft Noise Community Consultative Group (ANCCG) on the noise monitoring, which are also available publicly on Auckland Airport's website.

Summary of Current Noise Monitoring

The locations of current noise monitors are set out in the map below, with Smart Tracks also being shown on the same map for ease of reference.



The table below summarises the installation date, rationalisation for the monitor being installed, and also the noise recorded at each monitor as per the 2021 March Quarterly Noise Report prepared by Marshall Day and presented to the ANCCG.

Location	Installed	Rationale	dB L _{dn} (average)	L _{Amax} (average)	# noise events >70dB (daily average)
Prices Rd	Circa 2000	Designation requirement	61.8		86
Velodrome	Circa 2000	Designation requirement	61.2		130
Puhinui Rd	Circa 2000	Designation requirement	60.0		103
Mt Eden	2015	Installed originally for Green SMART trial. Continued as it captures Yellow/Green/Blue SMART flights as well as conventional arrivals.	39	62	<1
Wiri	2017	Installed as area receives noise above the NZS6805 guidance of 55 Db L _{dn} . Captures Red SMART track flights.	59	75	18
Wattle Downs	2017	Installed to measure noise under the Red SMART track	47	67	13
Clevedon	2018	Installed in anticipation for the Orange Track trial (trial is still in progress)	29	57	<1
Whitford	2019	Installed to measure noise from the modified Yellow SMART track post trial.	43	59	<1

Assessment of Current Noise Monitor Locations

The Prices Road, Velodrome and Puhinui noise monitors are all required under the Designation and need to remain in their current locations.

The Mt Eden monitor sits at the LOSGA way point where three SMART arrival tracks intersect. It is therefore considered a multi-use monitor capturing noise events for a number of flight paths, and a productive use of a noise monitor resource.

The Wiri and Wattle Downs noise monitors both monitor noise primarily associated with flights to and from the South which turn off (or join) the runway over Manurewa. As this is a well used flight path, Auckland Airport considers it is important to continuously monitor aircraft noise in this area. In particular, the Airport wants to ensure that data is able to provide an early indication of whether use might be getting close to permissible noise levels, thus enabling changes to be made to flight routes or times of use so as to ensure breaches of noise contours are prevented from occurring.

The Clevedon monitor continues to measure aircraft noise associated with the Orange SMART Track which is currently being trialed. This trial is scheduled to continue until September 2021.

The Whitford monitor was installed to monitor the impact of the modified Yellow SMART Track route which was adjusted following community consultation on the original Yellow Track trialed. This track is now confirmed and in use, albeit at relatively low levels. As such, Auckland Airport considers that the Whitford monitor is now able to be withdrawn.

For completeness, at its meeting on 8 March the ANCCG approved the noise monitor previously located at Mt Wellington being withdrawn for a period of 15 months and the money saved as a result of its withdrawal repurposed to fund the development of a night-time North American/Pacific arrivals route on the 05 Runway that avoids overflying residential areas of the city. The future use of the monitor previously located at Mt Wellington will be considered in September 2022.

Proposed Noise Monitor Relocation

There is not presently any noise monitor located at the eastern outer boundary of the MANA (where the maximum permissible noise level specified under the Unitary Plan is 60 dB L_{dn}). Given that a property receiving actual noise of 60 dB L_{dn} becomes eligible for the Auckland Airport Noise Mitigation Package, this is a significant noise boundary from the point of view of residents. The absence of a noise monitor within the MANA was an issue raised at the March ANCCG meeting by one of the community nominated noise representatives. It was also a matter raised recently by a resident of Flatbush in a noise query to the Airport via the Casper system.

Auckland Airport agrees that the absence of a noise monitor at the edge of the MANA seems to be a missing element in the current noise monitor strategy. The Airport feels that it would be useful for there to be a publicly available record of the noise experienced at the boundary of the MANA and for changes in noise from aircraft operations at this boundary to be monitored over time.

Auckland Airport therefore proposes relocating the noise monitor currently located at Whitford and moving this to a suitable location near the Eastern most boundary of the MANA (the precise location to be determined by Marshall Day taking into account acoustic requirements).

Feedback Requested

The ANCCG is asked to:

- Note that the Prices Rd, Velodrome and Puhinui Rd noise monitors are required under the Unitary Plan and cannot be changed in location
- Endorse the Mt Eden, Wiri, Wattle Downs and Clevedon monitors continuing to remain in their current locations
- Provide feedback on the proposal to relocate the Whitford Monitor to a suitable location towards the eastern end of the MANA (ie the Flatbush area)