



## Trinity Point Marina and Mixed Use Development

### HELIPAD PROPOSAL

#### FACT SHEET 6

# Helicopter Survey

*Johnson Property Group (JPG) is proposing the inclusion of a limited use helipad at the approved Trinity Point Marina and Mixed Use Development site at Morisset Park. This fact sheet responds to questions about the validity of the helicopter survey, a component of the overall acoustic assessment.*

Our goal is to establish a helipad that supports the approved marina and tourist destination, while minimising the impact of helicopter noise generated on the local community.

#### Where can I find information on helicopters use of the helipad?

Fact Sheet 2 provides community information on how many helicopter movements are proposed, what times they will fly, what types of helicopters will use the helipad and what are the flight paths. It also provides an overview of how noise impacts have been assessed and how noise will be managed.

#### How was noise impacts assessed?

Noise impacts have been assessed by independent noise consultants The Acoustic Group. The assessment identifies the types of helicopters proposed to be used, preferred flight paths, hours and frequency of operation and noise levels, and adopts best practice for measurement and assessment of noise impacts, against acoustic criteria, including a suite of inbuilt conservative calculations.

#### Was the helicopter used in the survey purposely kept lighter to reduce noise results?

It has been suggested that the helicopter survey results are low because the helicopter used during the survey was not at an appropriate weight.

Helicopters, in commercial operations, do not operate at maximum load as such loadings restrict operations. For that reason, the Australian Standard AS2363 that guides helicopter noise surveys does not require operations to be at maximum load, but rather to be “according to usual commercial practice”. This is an important distinction.

For each trip, the pilot needs to ascertain the load of helicopter (people, baggage and fuel). For Trinity Point, helicopters are expected to be well below maximum operating weights when arriving or departing from the helipad– as they do not start or finish their route at Trinity Point and will come from somewhere else. There is no refuelling proposed at Trinity Point.

The testing operations were at the near typical loadings that would occur as advised by pilots, as required by the Australian Standard. Extra fuel was loaded during the test at the requirement of the pilots to replicate usual commercial practice for the movements in the second half of the helicopter survey.

Key elements of the Study were:

- Understanding of existing noise context, including community concerns and environmental issues.
- Discussion and decision making regarding appropriate noise criteria\* (\*Air Services Australia Aircraft Noise Exposure Forecast system (ANEF) was selected as the primary criteria, supplemented by a range of other measures and considerations).
- Identification of preferred flight paths to avoid built up areas and optimise flying predominantly over water.
- Rather than relying on a standard practice of only using a theoretical model, testing of flight paths was carried out for noise impact at different locations for a base helicopter type (not chosen to be either the quietest or noisiest) via a tailored Helicopter Survey (more over page). The survey itself involved an intensive high number of movements (up to 64 movements) in a condensed time (over 3.5hrs), which is not representative of the usual operation and noise associated with the number of movements (maximum 8 in any one day) proposed at Trinity Point. The survey itself is only one part of the acoustic assessment methodology, and is used to inform assessment, including for other helicopter types.
- Analysis and modelling of results, including as directed by relevant standards on measurement and analysis of helicopter noise. This includes use of an accepted 'weighting' method to provide assessment for all helicopter types.

The assessment confirmed that the proposal will comply with noise targets applied to helipads against several different acoustic criteria, including consideration of the existing noise environment, and that the helipad can be introduced without unreasonable or unacceptable acoustic impact to surrounding residential areas, on the basis that definitive management practices are introduced.

## What was the helicopter survey?

The helicopter survey was undertaken on 24 March 2016 for about 3.5 hours from 9.15am – 12.45pm. It was a fine day (18-24 degrees) with a light wind that shifted from the north west to east north east. A calm morning was selected to capture lowest level of ambient (background) noise and allow all flights to be flown on the same day, and as well as meet testing requirements under AS 2363-1999 for required calm weather conditions. Machinery associated with the construction of JPG's adjoining residential subdivision was stood down for the duration of the test.

A helicopter, the Airbus H125 (otherwise known as a "Squirrel") was selected to represent the typical aircraft type anticipated to use the helipad. It is a small turbine helicopter that can accommodate 4 passengers (plus the pilot) or less passengers if includes luggage, with the ability to fly from/to Sydney without the need to refuel. The helicopter used is neither the 'quietest' or 'noisiest' helicopter that might use the helipad.

During the 3.5 hours, there were 64 dedicated movements over multiple flight paths. This included hovering for periods of time over the proposed helipad sites and thrusting to simulate take off, and some overflight and landing/take-off on the adjoining land. Two potential helipad locations were tested and shown over page – with the helipad closest to the Trinity Point site being the selected helipad location within the Environmental Assessment.

This high number of movements, in a condensed time, greatly over-represented the acoustic environment that would arise from the proposed operation of the helipad (which will be limited to 8 movements over a day and no more than 38 movements in any week) but was necessary for accurate and efficient noise testing.

Monitoring was undertaken at seven locations around Bardens Bay (two of these locations were requested by Council). The location, set up and calibration of monitoring equipment was undertaken by consultant engineers, and each measurement location was attended during the test procedure.

A professional pilot with significant flight experience and considerable local knowledge operated the craft, in communication with acousticians. Lake Macquarie Council officers observed the test from the ground and during part of the test, within the helicopter.

Prior to the survey, JPG notified the surrounding local community of the intended test day and high number of movements by publication in the local newspaper and by letter box mail out to over 5100 residences and business. Some residents have advised that they did not receive a notice and for this JPG duly apologises.

A link to a video of one of the movements is included on the Trinity Point Helipad website and has been provided as part of the Environmental Assessment.

The helicopter survey is a critical component of the noise assessment, providing real results in real locations. However, it is not the only component of the noise assessment, which builds on the survey results to provide calculations, results and assessment for various scenarios including for other helicopters.

### **Why is the helicopter survey valid if it only used one helicopter type?**

The helicopter used in the survey was neither the 'quietest' or 'noisiest', the 'smallest' or the 'largest', the 'lightest' or the 'heaviest' that might use the helicopter.

To be clear, the helicopter survey is only one part of the acoustic assessment methodology and is used to inform the noise assessment. The overall noise assessment includes use of an accepted 'weighting' method to provide assessment for all helicopter types that might use the helipad, not just the helicopter used for the survey.

### **Need more information?**

JPG is committed to ensuring accurate and up to date information about the proposed helipad is available to all interested community members. We have established a Community Information web page <http://trinitypoint.com.au/helipad> that has details around the environmental studies and consultation activities, as well as a series of fact sheets including:

- Fact Sheet 1 – Why a Helipad?
- Fact Sheet 2 – Noise, Helicopter Survey and Flight Paths
- Fact Sheet 3 – Helipad Operations
- Fact Sheet 4 – Public Access and Safety
- Fact Sheet 5 – Community Engagement

We welcome your questions and feedback. Please contact JPG on 8023 8888 or visit the above designated webpage and use the feedback form.