

Palm is not sinking, says Nakheel

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Claims that the Palm Jumeirah was sinking by an average of 5mm a year and might flood in the future if ocean levels rose were not true, say its developers. Nicole Hill / The National

The Palm Jumeirah is not sinking into the sea, contrary to speculation in recent days, a Nakheel executive says.

"The proof is in the pudding," said Shaun Lenehan, the head of Nakheel's environment department. "The Palm is intact. If there were subsidence, you would see cracks in the buildings, windows popping out. We have no evidence of that happening."

But the US\$12 billion (Dh44.07) island has settled slightly since it was created, in line with all artificially created land masses, Mr Lenehan and other engineers said.

He was responding to claims from a landscape surveyor speaking at a conference in Qatar, who was quoted as saying that the Palm Jumeirah was sinking by an average of 5mm a year and might flood in the future if ocean levels rose. The engineer cited satellite images of the island taken periodically over the past few years.

Fugro NPA, the satellite mapping company where the surveyor works, yesterday said its findings were taken out of context and that the island was going through a natural process.

"Settlement is a normal occurrence following construction," the company said. "No conclusion can be drawn about the long term."

"The point displacements measured at Palm Island in the first few years following construction [less than 1cm per year] are well within the expected natural settlement range for such a large structure and such settlement would be factored into the engineering design of the island."

Mr Lenehan, of Nakheel, said the actual settlement on Palm Jumeirah would be a maximum of 25mm over the course of 100 years.

The key to preventing an island from sinking further into the sea is in the geo-engineering used to build it, he said. After laying down layers of rocks and sand, construction companies use a process called "vibrocompacting", where a device vibrates the sand until it settles into a more solid state.

"If you take a bucket of tennis balls and shake it, it lowers the level of the top and it becomes more stable," Mr Lenehan said. "As you do this with the island, the ground gets harder and tougher ... the ground on Palm Jumeirah is stronger than mainland Dubai."

Nakheel officials also said the Palm Jumeirah was not at risk of flooding as the world's water levels rise because of climate change, saying that its engineers had factored in a possible sea level rise of 50cm in line with worst-case scenarios.

"We have also factored in king tides, storm surges and high seas, giving us a minimum height of 4m above chart datum," a spokeswoman said. Chart datum refers to the top water level at high tide.