



**Client:** DHI Water & Environment (S) Pte Ltd

**Project Title:** Floating Fish Farm

**Completion:** February 2021

**Location:** Singapore

**Services:** Dynamic Mooring Analysis

An international fish-farming company plans to develop a floating fish farm off the southern coast of Singapore. The farm will consist of twelve 26m-diameter circular fish cages arranged in two groups of six each, with a centre-to-centre distance of 52m between the cage groups. The cages will be held within a 52m x 52m grid system and kept in place by a mooring system consisting of bridle lines, mooring rings, surface buoys, mooring lines, and anchors.

Paaras Marine Solutions was engaged by the Lead Consultant, DHI, to perform dynamic mooring analysis for the floating fish cages. The objectives of the analysis were to determine the following:

- Location of anchors and arrangement of mooring lines;
- Makeup of mooring lines;
- Maximum tensions in the mooring lines at the mooring ring and anchor locations;
- Maximum tensions in the bridle lines; and
- Maximum tensions in the grid lines connecting the mooring rings.

The mooring analysis was performed using OrcaFlex 11.0, a dynamic analysis software for offshore marine systems.

