

Appendix 5: Potential Effects

The proposed method of farming is expected to have a less detrimental effect on the environment when compared to other methods already used widely in Whangaroa Harbour.

Unlike traditional rack and rail shellfish farming systems which require treated timber posts in the seafloor every ~10m, this system will use a floating backbone line system which only needs anchoring at either end, by either pole or screw anchor.

Furthermore, unlike current farming methods, if there is ever the need to remove structures this is much easier as there are far fewer anchor points to remove.

This system is more robust than current oyster farming systems meaning it needs less maintenance and replacement of parts and growing gear is much less likely to break free, preventing the build-up of materials on local coastlines or floating to sea.

A quick synopsis of the proposed AMS System to be used for the project is provided in the YouTube link below:

<https://www.youtube.com/watch?v=ZCp1t6OxgyE>

From a statutory perspective, the effects are likely to be associated with the following matters:

- Erection or placement of the structures in, on, under or over any foreshore or seabed, any incidental disturbance of the foreshore or seabed, and any incidental deposition of substances onto the foreshore or seabed (s12(1) of the Resource Management Act 1991).
- Occupation of the common marine and coastal area with aquaculture activities (s12(2) Resource Management Act 1991).
- Discharge of contaminants (including feed) or water to water associated with the aquaculture activities (s15(1) Resource Management Act 1991).
- Aquaculture decision request – s 114(4)(c)(ii) of the Resource Management Act 1991.

To delve further, we would expect that effects of relevance would be associated with:

- Landscape, seascape and visual amenity;
- Hydrological and hydrodynamic effects [including climate change and hazards];
- Ecology and biodiversity [marine and benthic ecology];
- Recreational use and navigational safety;
- Discharges in the coastal environment and effects of such discharges.

There would also be positive effects associated with the proposal. This would include:

- Increased economic output and employment for the Northland Region and the Kahukuraariki Trust.

There are no effects from on-shore servicing to be considered under the Fast Track proposal as these are outside of scope of the request.

As a decision under Part 9A of the Fisheries Act 1996 is also required, there will be consideration of the activity against recreational, customary, and commercial fishing sectors.

The images below shown the evolution of Oyster Farming from the traditional rack and rail approach, through to Flip Farming and to what is being proposed through this project [AMS]. This shows the ongoing and progressive light touch of aquaculture in the 21st century



Figure 1 - Traditional Rack and Rail System



Figure 2 - Flip Farm System



Figure 3 - AMS Farm System



Figure 4 - AMS Farm System