The opposite shore of the estuary of the Thames differs widely in its aspect and geological structure from the shores of the peninsula of Shouraki. It presents to the waters of the frith a range of horizontal stratified rocks of a clayey sandstone, which seems to have been softened by the influence of humidity, and is, like the sandstone of Port Jackson, devoid of organic remains. It would be, probably, as hard and available for building purposes, were the climate of New Zealand as dry as that of New South Wales. From these cliffs, which are from fifty to a hundred feet high, there recede, either perfectly level plains, or a gently undulating country, containing many hundred thousand acres of land, seemingly available for the purposes of agriculture. Thus, between the eastern and western shores of the frith there is presented a striking contrast; and at its extremity, where it receives the waters of the Thames and Piako, we find the commencement of a plain, whose average breadth is twenty miles, and which runs nearly due south, between two elevated hill ranges, as far as Tongarido, the great central volcano of the Northern Island, a distance of upwards of one hundred and eighty miles.

The mouth of the Thames is crossed by a bar, with a channel impassable to vessels drawing more than twelve feet; but to small craft, or steamers, it is navigable for thirty miles. Following a winding course, like all those rivers which water alluvial plains, it has an average breadth of a hundred yards, and receives three considerable tributaries from the Arohan hill range. The Piako is the sister stream of the Thames, and although they water the same plain, they are entirely unconnected with each other.