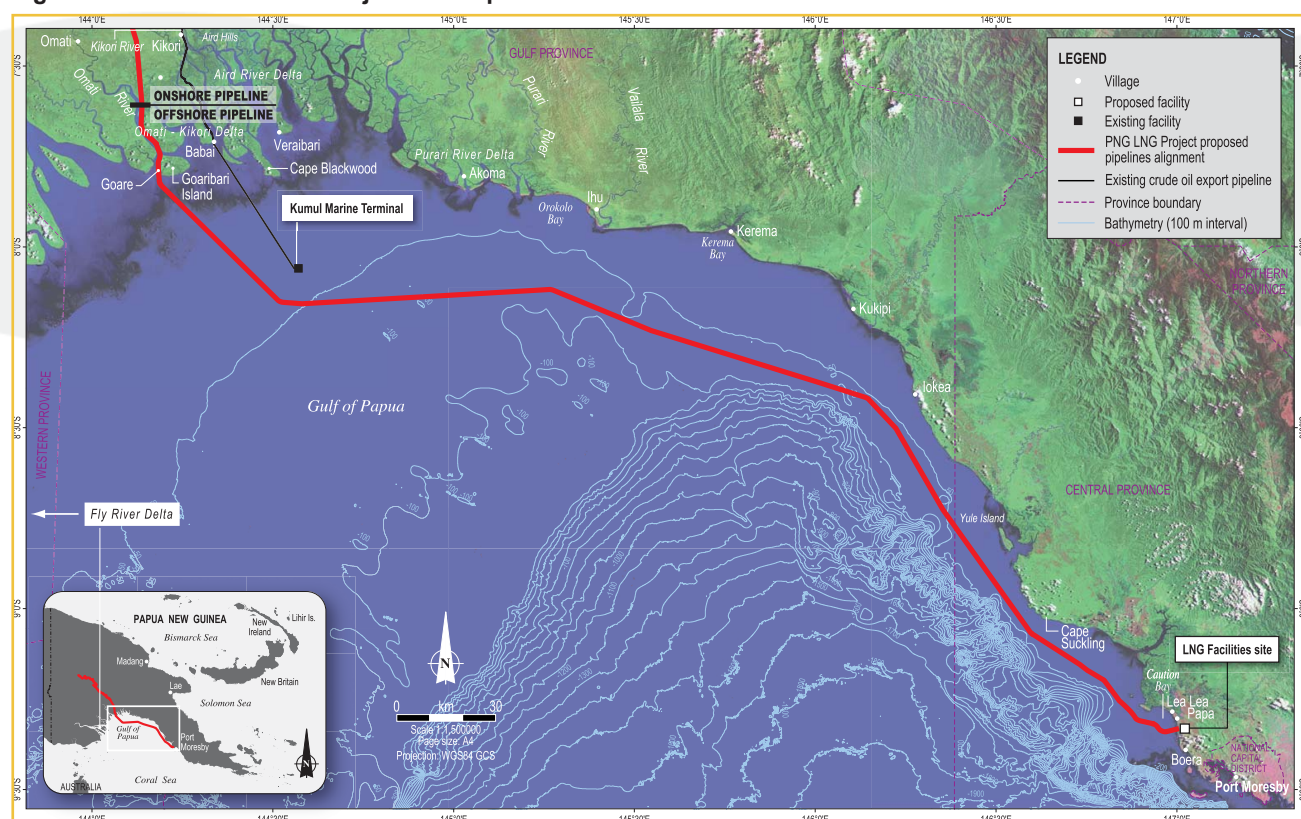


Caution Bay is a shallow coastal basin. The four main marine habitats along the nearshore marine environment of Caution Bay adjacent to the proposed nearshore marine components of the LNG Facilities are small areas of coral reef, seagrass and sandy seafloor (submerged and intertidal). The majority of nearshore coral reefs within Caution Bay are degraded, with low coral and fish abundance, and a veneer of sediment, dominated by sediment-tolerant corals. The degradation has most likely been caused by heavy fishing use and resuspension of sedimentation during periods of strong winds and waves, particularly during the season of the southeast trade winds. Discussions with local fishers indicated that dynamite was sometimes used for fishing. No fresh evidence of this was apparent during surveys, but the degraded condition of the reef does not justify particular consideration in this Biodiversity Strategy.

Figure 2.3 below sets out the routing of the offshore portion of the LNG Project Gas Pipeline and Appendix 1 describes the developments that are planned for this area.

**Figure 2.3: Offshore LNG Project Gas Pipeline route**



The offshore section of the LNG Project Gas Pipeline will be concrete-coated and self-bury in the seafloor for some of the route but installed in a trench in shallow water at both ends.

Six species of sea turtle occur within PNG waters, including the Gulf of Papua<sup>8</sup>, but there are no known nesting beaches in the Gulf of Papua. Marine mammals recorded include the dugong. Whales are not often seen in the Gulf of Papua but several species of dolphins are present<sup>9</sup>.

### 2.3.3 LNG Project Area

The LNG Facilities site on Caution Bay is located approximately 20 kilometers northwest of Port Moresby. Unlike the Upstream Project Area, which has large areas of intact habitat, this site has a long history of agricultural use and is mostly grazing land with only remnant terrestrial mangrove and woodland habitats. There is a complex of relatively intact coastal and subcoastal habitats on the Vaihua River to the southeast of the site. Some areas of supratidal mudflats occur to the landward side of the mangroves. These only receive tidal inundation during extreme spring high tides and are predominantly dry during the dry season. There are small areas of coral reef, mangrove and seagrass in the nearshore parts of Caution Bay adjacent to the proposed facilities.

**Plate 2.4: Grassland and cleared terrain  
(central part of LNG Facilities site)**



The offshore portion of the LNG Project Gas Pipeline will make landfall on the northern part of the site and the gas will then be processed, cooled, stored and loaded onto LNG carriers for export to the international market.

Appendix 1 describes the developments that are planned for this area.

<sup>8</sup> Species such as green, olive ridley and flatback turtles are known from incidental catches in prawn trawlers. However, the National Fisheries Authority now requires trawlers to be fitted with turtle exclusion devices.

<sup>9</sup> There are reports in the Kikori River of the rare and poorly known Irrawaddy dolphin (*Orcaella brevirostris*), a species inhabiting turbid waters within 5 kilometers of the coast in parts of southeast Asia and New Guinea and that can travel up large river systems. Its status is listed as vulnerable by the IUCN Red List of threatened species Version 2010.2. ([www.iucnredlist.org](http://www.iucnredlist.org), accessed in August, 2010).