The New Mussafah Channel Q&A

Q1 What is the New Mussafah Channel Project?

The New Mussafah Navigation Channel project, which commenced in 2008, is a $US 400 million (AED 1.5 billion) scheme to create a new marine channel just off the south-western shoreline of Hudayriat Island, Abu Dhabi, immediately to the west of the Mussafah Industrial Area, and leading to the open sea of the Arabian Gulf. The new Mussafah Channel will be wider and deeper than the existing channel to enable access by larger commercial vessels.

The Abu Dhabi Urban Planning Council (UPC) is the lead Government Agency behind the project, assuming a strategic role in coordinating the construction and logistics activity between the relevant private and Government entities and supervising the progress of construction work across all phases.

Q2 Why is the New Channel required?

The New Mussafah Channel Project is a major milestone in the Abu Dhabi Vision 2030 implementation process as the Government continues to invest in vital infrastructure enhancement projects, designed to support economic development and significantly improve the lifestyles of people who live, work or visit the UAE Capital. As the population of the Emirate increases, infrastructure projects such as the New Mussafah Navigation Channel will improve vital shipping routes that support Abu Dhabi’s tactical resource requirements and economic growth.

The UPC is ensuring that all development projects and initiatives across the Emirate are strategic and complement each other. As the new bridge between Al Saada Street and Hudayriat Island heads towards completion, the New Mussafah Navigation Channel will prevent the need for height restrictions for the ships and other commercial vessels that access the ports in Mussafah, through the alternative route the new channel creates.

Q3 How will the New Mussafah Channel support Abu Dhabi’s 2030 Economic Vision?

Not only does the New Mussafah Channel signify a major investment in Abu Dhabi’s infrastructure and trading capacity, it also embodies one of the key areas that the Abu Dhabi Economic Vision 2030 has identified as an opportunity for economic diversification for the Emirate – ‘Transportation, Trade & Logistics’.

The new channel will provide greater economic potential for the existing Mussafah Industrial Zone by allowing a significant expansion of operations and penetration into the global markets, which will in turn have a positive impact on Abu Dhabi’s economy.

The new channel will also make a big difference to the competitiveness of industry in Abu Dhabi, facilitating imports and exports, whilst playing a large part in Abu Dhabi’s portfolio of commercial operations.

Q4 How does this fit with the wider development of the Khalifa Port & Industrial Zone (KPIZ), the project due to be located at Al-Taweelah north of Abu Dhabi City?

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As part of the UPC’s strategic role in overseeing the future growth of Abu Dhabi’s urban environments, the UPC has ensured that the Channel will complement KPIZ and indeed the existing Mina Zayed Port on Abu Dhabi Island. The ports will all focus on different sub-sectors of trading and logistics such as light – medium industry, heavy industry, imports and exports to ensure they support rather than compete with one another.

Q5 What was the UPC’s strategic role in the development of the Mussafah Channel?

Representing the Government of Abu Dhabi, the UPC has provided the strategic direction for the project and has managed and coordinated a committee of eight government stakeholders; the Environment Agency - Abu Dhabi (EAD), Mubadala, Zones Corp, Abu Dhabi Ports Company (ADPC), Supreme Petroleum Council (SPC), the General Headquarters of Armed Forces and the Department of Transport (DoT).

It is the intergovernmental collaboration at leadership and technical levels and effective coordination with various agencies for developing that have together delivered an integrated and comprehensive approach to the project and culminated in the project milestones being achieved.

Q6 What were the main objectives for delivering the Mussafah Channel?

While ensuring the UPC’s overarching principles of Plan Capital 2030, the urban structure framework plan developed for Abu Dhabi Metropolitan Area, were embedded within all of the planning decisions made to support this project, the UPC’s main considerations for this project were:

- To provide a safe navigation channel between the Mussafah Industrial Area and the Gulf Sea;
- To provide unlimited air draft with two way movement for large commercial vessels such as Panamax Bulk Carriers, and single way movement for large oil rigs;
- To provide a -9m (Admiralty Chart Datum ACD) channel allowing expansion of the Mussafah Industries maritime capabilities; and
- To minimise the environmental impacts arising from the project.
Q7 And what were the environmental implications of this project? How has the new channel affected the environment?

The ‘environment’ is one of the four pillars of Estidama, the sustainability programme developed and managed by the UPC, which seeks to protect all environments in Abu Dhabi and sustain its biodiversity. Hence environmental considerations were paramount for the project as the channel passes through the Bul Sayeef Marine Protected Area, significant for its seagrass community and thriving marine habitat. An Environmental Impact Assessment was completed for the project in accordance with regulatory requirements. Impacts to valuable habitats, including extensive seagrass beds, were minimised.

Q8 What are the specifications of the New Mussafah Channel?

The new channel required dredging a volume of 65 million cubic metres from the sea bed. The minimum depth is nine metres at lowest astronomical tide, and the minimum width is 200 metres. The channel dimensions allow for two-way vessel traffic of large Panamax type bulk carriers.

The UPC engaged AECOM as the Project Managers and National Marine Dredging Company (NMDC) to undertake the dredging works. NMDC utilised up to seven of their heavy-duty cutter suction dredges (HDCSD) and two trailing suction hopper dredges (TSHD) to meet the high production rates required to complete the works. Additional works included the provision of navigation buoys, various subsea utilities relocation works and provision of a new vessel traffic system.

Q9 How did the development of the New Mussafah Channel compare to other projects around the world?

The New Mussafah Channel is one of the biggest dredging projects in the world. Through the utilisation of the latest dredging machinery, the project team dredged 2,166,667 m$^3$ of material per month over a 30 month period. The average amount of material per month was greater than all of the key current dredging projects around the world, from the Thames Gateway in England through to the Port of Melbourne in Australia.

Q10 What about the old Musaffah Channel? Will it still operate?

The project has now replaced the existing access channel to Mussafah Industrial Area for the large majority of cargo vessels, but smaller ships will still be able to use the channel.

Q11 Who will operate the New Mussafah Channel and when will it be open for use?

The UPC has now handed responsibility for the new channel to Abu Dhabi Ports Company (ADPC) who will ensure optimal day to day management and efficiency. The Channel will start operating in February 2011. (TBC)