

From Camels to Cadillacs: Infrastructural Growth Challenges faced by one of the fastest growing cities in the World; Dubai, UAE

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Abstract

This year it is expected that the UAE's population will reach 5 Million. This will be a twenty fold increase over the last 36 years. In Dubai (the UAEs largest city) population growth was almost 300,000 in 2006 alone. Additionally with approximately 1 Million visitors a year Dubai Municipality is facing huge infrastructural challenges with all its assets.

In a safe and distinctly Western focused Muslim country, tourism is seen by the government as a good alternative to the oil and gas industry. Dubai has therefore developed a fantasy playground in the desert for the rich and famous with the single focus of becoming the most recognised tourism destination in the Middle East. With huge building growth, year round sun and more amazing attractions than most cities the future looks bright for Dubai.

This paper explores the infrastructural growth issues and solutions developed by the Dubai Municipality and the myriad of developers to not only manage this huge growth but also improve the sustainability of the various assets under their control. The approach is a collaborative effort that sees a mix of community assets and privately owned/operated assets. Many solutions are of a temporary nature which are only operated while long term solutions are developed and constructed.

Key Words: Infrastructural Population Growth

Bio

Peter Free (Senior Water and Wastewater Engineer) is well known to the New Zealand local government sector. He has worked for a number of Councils as a staff member and most recently as a consultant. His latest challenge has seen him seconded to MWH's Dubai office in the United Arab Emirates. While there he has project managed concept and outline engineering reports for a number of large infrastructural projects and developments including;

- Al Uqair development; a new tourist destination for 210,000 people in Saudi Arabia
- TSE disposal for stage one of International City (290,000 people) Dubai
- Ain Al Emarat development; a health and wellness focussed development for 190,000 people in the city of Al Ain
- Detailed design for the Dubai Municipalities Nad El Shiba area expansion for a wastewater pump station upgrade (600 l/s) and stormwater retention ponds upgrade
- Water and wastewater concept design for Aqua Dunya, a 90 ha water theme park (part of Dubailand, proposed to be the large theme park in the world)