

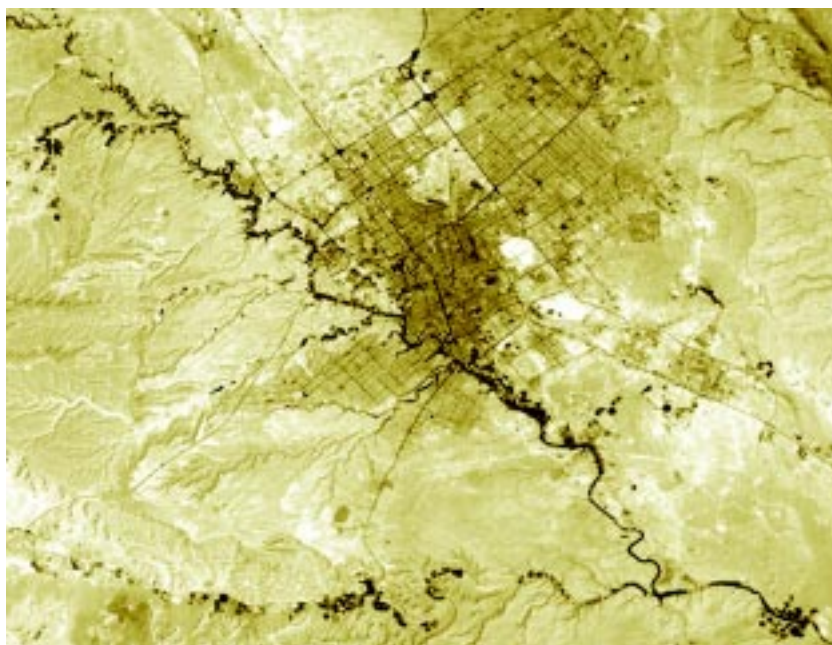
Wadi Hanifah – Paradise Almost Lost but Being Regained

by Graeme Douglas

Some of the more observant of you may have noticed some unusual activity in Wadi Hanifah over the last few months e.g. rubbish collected, earthmoving machines moving about and roads to the Wadi being closed off.

The reason for this activity is that the Arriyadh Development Authority (ADA) has made a bold decision to restore the Wadi Hanifah into something like the paradise it once was.

Wadi Hanifah is approximately 120km long and runs from Al Hayseeyah in the north, through the heart of Riyadh, to Al Hair in the south.



It was once the city's main source of water. However, Riyadh's rapid expansion has resulted in this natural watercourse becoming badly polluted and degraded to such an extent that it is almost a dying oasis.

In 2001 Arriyadh Development Authority commissioned British Consultant, Buro Happold along with their Canadian Landscape Architect partners Moriyama & Teshima, to develop the Wadi Hanifah Comprehensive Development Plan (WHCDP). The plan sets out a 10 year programme of works that aims to restore and develop Wadi Hanifah as an environmental, recreational and tourism resource – not only to restore its natural beauty, but also harness and rehabilitate its water. In addition Buro Happold were also asked to develop guidelines for use as a planning policy document. The lack of such planning controls would seriously undermine the restoration project. An area to be known as the Wadi Hanifah Reserve was defined in which these planning policies will be applied.

The pollution caused by decades of illegal and unrestricted dumping of untreated waste, rubbish and development has resulted in an environment that is injurious to the local environment and the people of Riyadh.



In addition to the pollution aspect, the over reliance on the Wadi's underground water reserve has caused the water table to fall drastically to such an extent that most of the city's (desalinated) water supply is now piped in from the coast 350km away. It is an expensive option and one which is becoming increasingly unsustainable as the city's population continues to grow rapidly. Riyadh's present population of 4.4 million is expected to rise to 10million by the year 2021.

Whilst much of the city is on main drainage, many homes and businesses in Riyadh are not connected to the sewerage network, and this, together with the discharge of sewage treatment plant effluent, has led to the development of a continual flow of water (dry weather flow) in the Wadi and downstream of the city.

At present 400,000 cubic metres of water flow out of the city each day into the Wadi Hanifah and this flow is expected to increase to over 1 million cubic metres by the year 2021. At the moment this water cannot be reused for irrigation, agriculture and non-potable water uses, because of water quality concerns.

Riyadh currently consumes 1.3 million cubic metres of water and this is expected to rise to 3 million cubic metres by the year 2021.

The Wadi Hanifah Comprehensive Development Plan (HCDP) provides the potential for recycling one million cubic metres of water per day by 2021 to meet a third of the city's water demand.

The present construction project is the first component of a 10 year programme of works. This first phase will see the removal of 1.25 million cubic metres of rubble from the Wadi. This has arisen because of the dumping of construction waste as well as other inert and non-inert waste over many years.

When it rains this rubble and illegal building within the Wadi leads to widespread flooding by impeding the flow of water in the Wadi when it rains (as in the recent two floods).