

GMR - Key Data:

Phase I

Provide 2 million m³/day along 1,200km pipeline from As-Sarir and Tazerbo to the Ajdabiya reservoir to Benghazi and Sirt

Phase II

Pumping from the south western aquifer (Fezzan) to Tripoli and Jeffara plain

Designed for future expansion in Phase III

Phase III

Expansion of existing Phase 1 system; additional 1.68 million m³/day (increasing total capacity to 3.68 million m³/day); 8 new pumping stations; 700km of new pipeline

Supply 138,000m³/day to Tobruk and the coast; new wellfield at Al Jaghboub; reservoir south of Tobruk; 500km of new pipeline

Phase IV

Extension of distribution network; construction of a pipeline linking the Ajdabiya reservoir to Tobruk

Phase V

Connection of the eastern and western systems into a single network in Sirt

Sarir to Sirt

800km

Tazerbo to Benghazi

783km

Average water flow rate

0.95m/s

Transit time

Around 9 days

Murzuk basin raw water soluble salt content

300ppm

Kufra basin raw water soluble salt content

250ppm

Phase I power demand

65MW

Power lines

Sarir wellfield - 66kV transmission line; Tazerbo wellfield - 220kV national power line, transformed down to 66kV at substation

Project Timeline:

Project initiated

1983

Work commenced

1984

Initial soil resistivity survey

1989

First water received

April 1990

Phase I (Sarir to Benghazi) inaugurated
August 1991
Cathodic protection system implemented
1995
Phase II (Tripoli supply) completed
September 1996
Phase II Jeffara plain
2000
Pumping station contract awarded
October 2001
Pipe production plant O&M contract awarded
2002
Phase III assignment period
January 2002 to June 2005
Pumping station completion (expected)
Summer 2004
Pumping station service and technical support contract initial term
2004-05
Estimated time to final completion
25 years

Cost:

Phase I
\$14 billion
Pipe production plant O&M contract
\$350 million
Water pumping station turnkey construction
\$82 million
Phase III preliminary engineering / design
\$15.5 million
Total cost
\$27 billion (2004 estimate)

Key Players:

Owner
Great Man-made River Authority
Funding
Government of Libya
Original project design
Brown & Root / Price Brothers Cy
Main contractor - initial phases
Dong Ah
Sub-contractors
Enka Construction & Industries; Thyssen Krupp Fördertechnik; Al Nahr Co.
Main contractor - phase III
Nippon Koei and Halcrow
Pipe production plant operation and maintenance

SNC-Lavalin

Concrete

Libyan Cement

Pipeline coating

Thane-Coat; Harkmel

Cathodic protection system

Corrintec

Pumping station construction / service and technical support contract

Frankenthal KSB Fluid Systems Consortium