



ENGINEERING
EXCELLENCE

Water Transmission Systems



Fujairah Phase 2 WTS, UAE

Water Transmission Systems



Shoaiba WTS Phase 3, SA



Ras Al Khair - Riyadh WTS, SA



AI Ain Water Network, UAE

Fields of Expertise

- Water transmission pipelines
- Pumping stations
- Storage facilities and tank farms
- Treated water and raw water systems

Highlights

- 7,000+ km accumulated length of implemented systems
- 947,000 m³/d, 466 km - the world's largest water transmission system (Ras Al Khair - Riyadh WTS, Saudi Arabia)
- 900+ km - one of the world's longest water transmission systems (Shuqaiq Phase 2 WTS, Saudi Arabia)
- 4,600 m max. difference in elevation of single system (Collahuasi WTS, Chile)
- First implementation of a "closed hydraulic system" design (Riyadh WTS, Line A & B, Saudi Arabia)
- Extensive in-house development of expert software for hydraulic modelling and system optimisation
- All disciplines covered in-house (hydraulic, process, civil, pipeline, electrical, mechanical, environmental engineering, as well as geology, geotechnics, Control/SCADA, etc.)
- 35+ years of international experience

Selected References

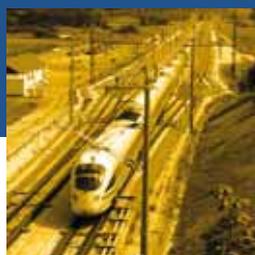
- Ras Al Khair - Riyadh Water Transmission System (466 km, 947,000 m³/d), Saudi Arabia
- Shuqaiq Water Transmission System, Phase 2 (900+ km, 503,500 m³/d), Saudi Arabia
- Shoaiba Water Transmission System, Phase 3 (344 km, 1,707,000 m³/d), Saudi Arabia
- Yanbu - Medina Water Transmission System, Phase 3 (605 km, 710,000 m³/d), Saudi Arabia

- Fujairah Water Transmission System, Phases 1 and 2 (310 km, 1,045,000 m³/d), United Arab Emirates
- Shuweihat Water Transmission System, Phase 2 (237 km, 820,000 m³/d), United Arab Emirates
- Al Ain Water Distribution Network (81 km, 920,000 m³/d), United Arab Emirates
- Ghadames - Zawarah - Az Zawiyah Water Transmission System (600 km, 250,000 m³/d), Libya
- Tasiast Raw Water Pipeline (150 km, 99,000 m³/d), Mauretania

ILF Services

ILF provides all services required for the successful implementation of water transmission systems. These services include:

- Master plan
- Feasibility study
- Conceptual design
- FEED
- Preparation of tender documents
- Detailed design
- Procurement support
- Design vetting, construction supervision and project management services
- Commissioning and start-up of pipeline systems
- Overall system optimisation focusing on technical and economic considerations (pipe diameters and materials, number of pumping stations, pipeline route, etc.)
- Computer simulation of steady-state and transient flow conditions in water transmission systems



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