

H.E. Ahmad Amer Mohamed Al-Hemaidi, Minister of Environment gave a ground-breaking opening speech at "WATER SUSTAINABILITY IN CONSTRUCTION CONFERENCE 2015".

With the support of the Ministry of Environment and under the official patronage of KAHRAMAA, an organizing committee including QEERI, UNIQUIP-HOELSCHER LLC and HYDER CONSTULTING / ARCADIS addressed threats of polluted construction water that comes along with heavy construction leading up to the Qatar 2022 world championship.

DOHA – Leading figures from Qatar’s public and private sector gathered on at The Grand Hyatt Doha Hotel to discuss the threat a contaminated groundwater poses to major infrastructure projects. Hosted by Qatar Environment & Energy Research Institute (QEERI), UNIQUIP-HOELSCHER LLC and HYDER CONSTULTING / ARCADIS, the conference featured prominent speakers such as H.E. Ahmad Amer Mohamed Al-Hemaidi, Minister of Environment, H.E. Hans-Udo Muzel, German Ambassador to Qatar and Eng. Ali Saif Al Malki, President’s Advisor for Water Affairs, Qatar General Electricity & Water Corporation – KAHRAMAA.

The main aim of the conference was to discuss technologies and legal regulations on how to best protect Qatar’s most precious resource: water.

In his opening speech H.E. Ahmad Amer Mohamed Al-Hemaidi, Minister of Environment stressed, that it is a necessity to clean water on construction sites that carries dangerous biological and technical contaminants. "To keep the job sites dry, safe and operating became a serious challenge", the Minister said. "Construction sites must be dewatered. In addition to dewatering the site, contractors in Qatar are obliged to make sure that dangerous biological contaminants, toxic chemicals and other materials from the construction process do not pollute the community’s groundwater or reach the sea."

"The Government of Qatar is fully aware of the issue that water is a scarce and therefore very valuable if not the most valuable resource", the Minister Al-Hemaidi said. He added that "traditional, old approaches to just pumping, straining sediments and treating construction water at a low level are simply not enough to avoid health risks and to meet environmental standards of modern, large-scale infrastructure projects. It is a necessity to use state-of-the art solutions to technically treat construction water, that then might be reused - for example in construction, irrigation or even for daily usage."

The Ministry of Environment has tightened up the discharge criteria for construction water in Qatar. The new criteria from 2014 are mandatory for all main constructors, which are obliged to comply with the new standards. Al-Hemaidi: "In cooperation with Asghal, we control the quality of construction water before it gets discharged on land, in the sea or in the Ashghal canalization system. Fortunately there are best of proven

foreign technologies combined with local know-how, which guarantee state-of-the-art dewatering, ground water management and water treatment solutions in Qatar to comply with our new standards.”

The new German Ambassador to Qatar **H.E. Hans-Udo Muzel**, appreciated the efforts of the Qatari Government to actively approach the problem of polluted construction water in Qatar and offered to intensify the good cooperation between Germany and Qatar in the field of green building technology and sustainable water treatment solutions. The Ambassador highlighted the flagship Joint Venture Uniquip-Hoelscher LLC, which combines state-of-the-art German dewatering and water treatment technology with decades of local Qatari market experience. He also said that he would like to see more of this fruitful cooperation between Qatari and German companies.

Heinz Hölscher, CEO of Hoelscher Wasserbau - the mother company of the Qatari Uniquip-Hoelscher LLC. said: “We design, build and operate water treatment plants on the construction site that remove the contaminants and toxins encountered on that particular project.”

After showing a 3D animation of how the systems clean-up polluted water and report monitoring levels in real time using online communications systems, Hoelscher invited the audience of governmental experts and industry engineers to see other examples of the company’s green building technologies on their website at www.hoelscher-wasserbau.de.

Eng. Ali Saif Al Malki, President’s Advisor for Water Affairs, Qatar General Electricity & Water Corporation – KAHRAMAA again remembered the almost 200 delegates that Qatar “is an arid region in the middle east with rainfall less than 130 mm and is known for its scarcity of renewable water resources.” He said that “during the last decade, pressure on Qatar water resources has increased significantly.” In his keynote speech Eng. Ali addressed competitive advantages of cities through water such as promoting competition, trade and investment; improving regulation; strengthening demand management for water resources.

According to Eng. Ali enhancing efficiency in the use of water resources to support high standards for better living for current and future generations is key to protect Qatar’s environment, reduce pollution and increase the community health.

He draw the conclusion that the government has a great responsibility to propose policies and strategies relating to water resources, in line with the overall development plans in the state, taking into account the sustainability and preservation of the environment.

Therefore it is important “to coordinate the activities of the relevant authorities to implement a plan of water resources, in order to ensure non-interference in the terms of reference and to amend the legislation relating to the protection, management and development of water resources”, the KAHRAMA–manager said.

The conference was participated by renowned national and international environmental and water sustainability experts who discussed risks to drinking water, fish stocks and public health that result from pollution entering groundwater or being discharged to the sea. The experts evaluated the scientific as well as the economic aspects of ground water management in construction sites. Meanwhile it is common sense that contractors as well as public institutions have to be enabled to use water management technologies, which protect fundamental social assets such as health and the environment.

Dr. Mohammad Khaleel, Executive Director of QEERI explained: "A large amount of groundwater is extracted due to construction of many projects in Qatar. This water has much lower salinity than seawater; therefore, it requires far less energy to de-salt it. The treatment of construction water can save energy and could be reused for agricultural, industrial and domestic purposes." QEERI, Institute of Qatar Foundation was the host of the Conference.

"Large-scale development, leaks from older infrastructure and seawater intrusion have resulted in a rising water table under much of Doha," Khaleel said. "This is an issue that poses technical challenges and greatly increases the risk of polluting the sea and groundwater as construction projects pump water away from sites. This issue has already reached a critical state in some areas."

"As we think about climate change, population growth and continued economic development, it is increasingly clear that water resources will become more and more precious," said Wael Allen, CEO Middle East of ARCADIS/Hyder Consulting. "Technology and innovative solutions will be the key to dealing with this challenge."

Eng. Samir Al Mughanni, Managing Director, United Equipment Group and Chairman of Uniquip-Hoelscher LLC in the closing session pointed out, that only a proper monitoring of the new government criteria for the discharge of construction water will help to change the attitude of most of the main constructors in Qatar. Therefore fines for non-compliance should be introduced.

Addressing the problem in a way that protects human health and the environment is a priority in the National Development Strategy and members of Qatar's Permanent Water Resource Committee are working across government to set standards and regulations.

As a nation built on the heritage of its coastline and entirely dependent on the Arabian Gulf for its source of drinking water and much of its fresh seafood, Qatar has set strict guidelines to ensure that development does not damage one of its most precious resources—water.

The fact that the Minister of Environment addressed the audience showed the utmost importance of the topic.

More information are to be found at the event website
<http://www.constructionweekonline.com/watersustainability>.

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