

Assessment of Environmental Impact of Rain Water and Industrial Water Leakage in the Libyan Iron and Steel Company in the Sea Water

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Abstract : Rainwater is considered an essential water resource, as it contributes to filling the deficit in water resources, especially in countries that suffer from a scarcity of natural water sources. One of the important issues facing the Water and Gas Services Department at the Libyan Iron and Steel Company is the large loss of quantities of industrial water, both direct and indirect cooling water (DCW, ICW), produced within the company due to leaks in the cooling systems of the factories of the Libyan Iron and Steel Company. These amounts of polluted industrial water leakage are mixed with rainwater collected by stormwater stations (6 stations) in LISCO, which is pumped to the sea through pumps with a very high flow rate, and thus, this will carry a lot of waste, heavy metals, and oils to the sea, which negatively affects marine environmental resources. This paper assesses the environmental impact of the quantities of rainwater and mixed industrial water in stormwater stations in the Libyan Iron and Steel Company and methods of mitigation, treating pollutants and reusing them as industrial water in the production processes of the steel industry.

Keywords : rainwater, mitigation, impact, sewage, heavy metals, assessment, pollution, environment, natural resources, industrial water.

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