

## Efficient water solutions – Dubi Segal

### Treating Sewage for Municipal Irrigation

Offers comprehensive solution for local authorities interested in converting to irrigation with treated sewage water

The growth in Israel's urban population has brought a significant increase in the quantity of sewage that must be treated in order to prevent water and soil pollution. The State of Israel supplies a yearly amount of 720 million cubic meters of quality water for domestic and municipal consumption. Approximately 60% of this water (400 million cubic meters) returns in the form of sewage and requires treatment.

#### Treatment of irrigation water

Treated sewage can be utilized for agricultural irrigation or irrigating public grounds (parks, traffic circles and industrial parks) in cases where the city does not have an agricultural infrastructure. Sewage water can also be used to water new scenic greenbelts set up around the city.

Irrigating public grounds using treated sewage must meet the stringent requirements of the Halperin Committee for Water Quality. The water quality standards are higher than the standards for agricultural irrigation since public parks are open to the general public, to children and infants.

The establishment of new cultivated areas allows a separation between irrigation and drinking-water systems and the use of recycled water for irrigation. The majority of existing public grounds use uniformly the same system for irrigation the drinking water.

Two types of treatments can be employed to adapt sewage water for irrigation of public grounds. Water used for irrigation meets 20/30 quality standards.

1. Sewage treatment using sand filtration, and thirty minutes of contact with chlorine. Afterwards the water is conducted, while mixed with 1 mg of chlorine per liter. This method brings the sewage to an irrigation level that requires the use of underground drip irrigation designed to prevent water from rising to the surface and creating puddles.
2. Ultra-filtration: filtration through membranes. This method of treatment allows unlimited quality irrigation and the water can be conducted to existing irrigation systems.

#### Netafim assists local authorities

Dubi Segal that was the leader in Netafim, Israel's largest irrigation company, possesses the know-how, the methods, techniques, systems and products with the potential to solve Israel's water crisis. In order to provide a professional, comprehensive response to local authorities interested in converting from the use of drinking water to sewage water, Netafim has

formed a professional team of experts whose aim is to provide the local authorities with a specific, integrative solution.

The Netafim team of experts will accompany the local authority during the process of diagnosing the water treatment system and in its dealings with the relevant organizations: Health Ministry, Environmental Ministry, Water Commission, Israel Land Administration and the Hydrological Service.

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