



**The First Annual
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on
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Wastewater Management in Jenin

By

Abdel-Fattah R. Al-Mallah
Head of Water Studies Section

Aim of this presentation:

**to provide an overview about the
wastewater management in Jenin**

Contents:

- General Description of Jenin District**
- Organisation responsible for WW in
Jenin City**
- Water Supply and Sewerage**
- Existing Situation**
- Future plans**

General Description of Jenin

- **Location: North of West bank, consists of 97 residential assembly**

- **Population, area and altitudes.**

Item	Jenin City	Jenin Region
Population	60,000	337,500
Area (km²)	22.5	660
Altitudes (masl)	Max: 285 Min: 95	Max: 750 Min: 90

Economy:

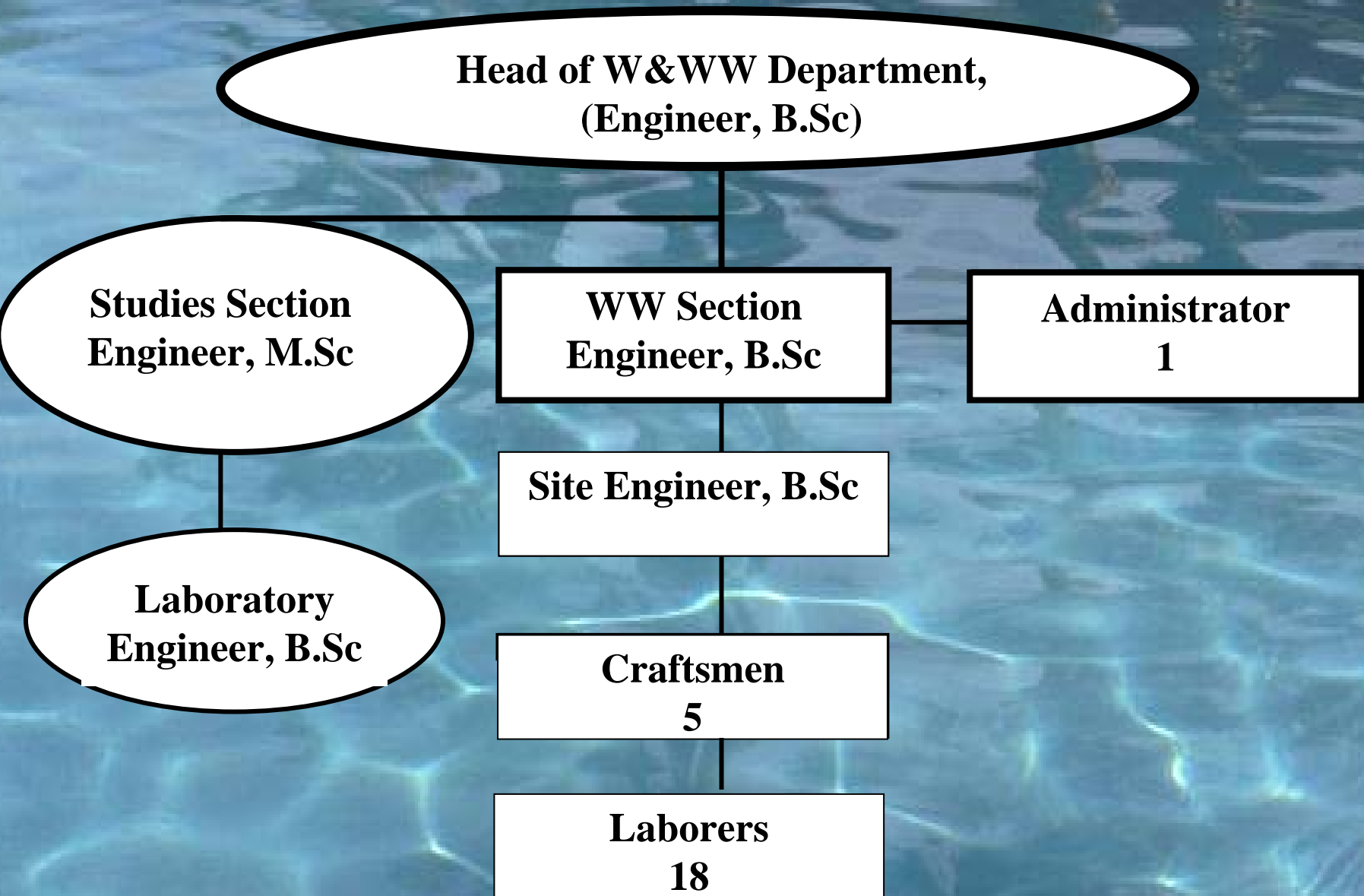
- **The main economic activity is agriculture**
- **Limited Industry: Plastic, food fodder, beverages, concrete blocks, paper and cartoon, quarries and stone cutting, charcoal.**
- **Trade: based on agriculture mainly.**
- **Proposed Industrial Zone o the North of Jenin**

- **Climate: Two seasons,**
 - **Dry summer: May to October**
 - **Winter: November to April**
- **Rainfall**

The mean annual rainfall: 528 mm

- **Min: 286 mm (Raba Station)**
- **Max: 778 mm (Um El Rihan Station)**

Organization (Jenin City)



Water Supply

- **Water resource: groundwater**
 - 2 wells
 - 2 Regional Connections
- **Water Consumption: ?????? 85 l/c.d**
- **City coverage: 95%**
- **Losses: 30-35 %**
- **Network: 140 km (condition, very good)**

Sewerage

- Total length: 44 km (20 Km are very old)
- Total manholes: 3500 (house connections, main and trunk)
- Connection rate: 40 %
- Unconnected people: depend on cesspits.
- Total length needed to serve the whole city: 120 Km

The old network (20 Km) is described as:

- constructed from poor materials**
- executed roughly, No manholes at Junctions, large diameters followed by small diameters.**
- Depending on very small diameters like 4".**

Wastewater Treatment

- Existing Aerated lagoons facility
- Year of construction: 1993
- Number of Inhabitants connected:
18,000 capita
- Waste water collected (estimate):
1200 m³/d.

Wastewater Influent characteristics

No.	Parameter	Value (mg/l)
1	BOD	1,100
2	COD	1,780
3	pH	7.5
4	Total solids	4,159
5	TSS	805
6	TDS	3,390
7	N-Kj	218
8	NH ₃ -N	170
9	Phosphate	13
10	Chloride	833

The present situation of the existing WWTP

- 2- The plant is heavily overloaded**
- 3- The polishing pond is short circuited.**
- 4- The screen unit is not working**
- 5- The plant gives odor nuisance.**
- 6- The disposal of effluents in the nearby wadi is environmental hazardous**

The previously proposed expansion of the Existing WWTP

1- The location is not any more valid.

2- The full capacity is designed to be in 2000, the station will be overloaded again.

3- High land requirement.

4- Sludge removal must be done manually.

5- No space for Automobiles to move inside the plant.

Future Plans for Jenin City

- 1- Cleaning the existing station from solid waste and rehabilitation of the plant. (PWEG, WHO)**
- 2- Preparing Master plan for the city**
- 3- Construction of the new WWTP for Jenin, other 13 villages and the proposed industrial zone.**
- 4- Increasing the connection rate up to 100%.**