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Wastewater & Effluents In Israel

Monitoring and Prevention of Water Pollution



Number of closed drinking wells in Israel

disqualification

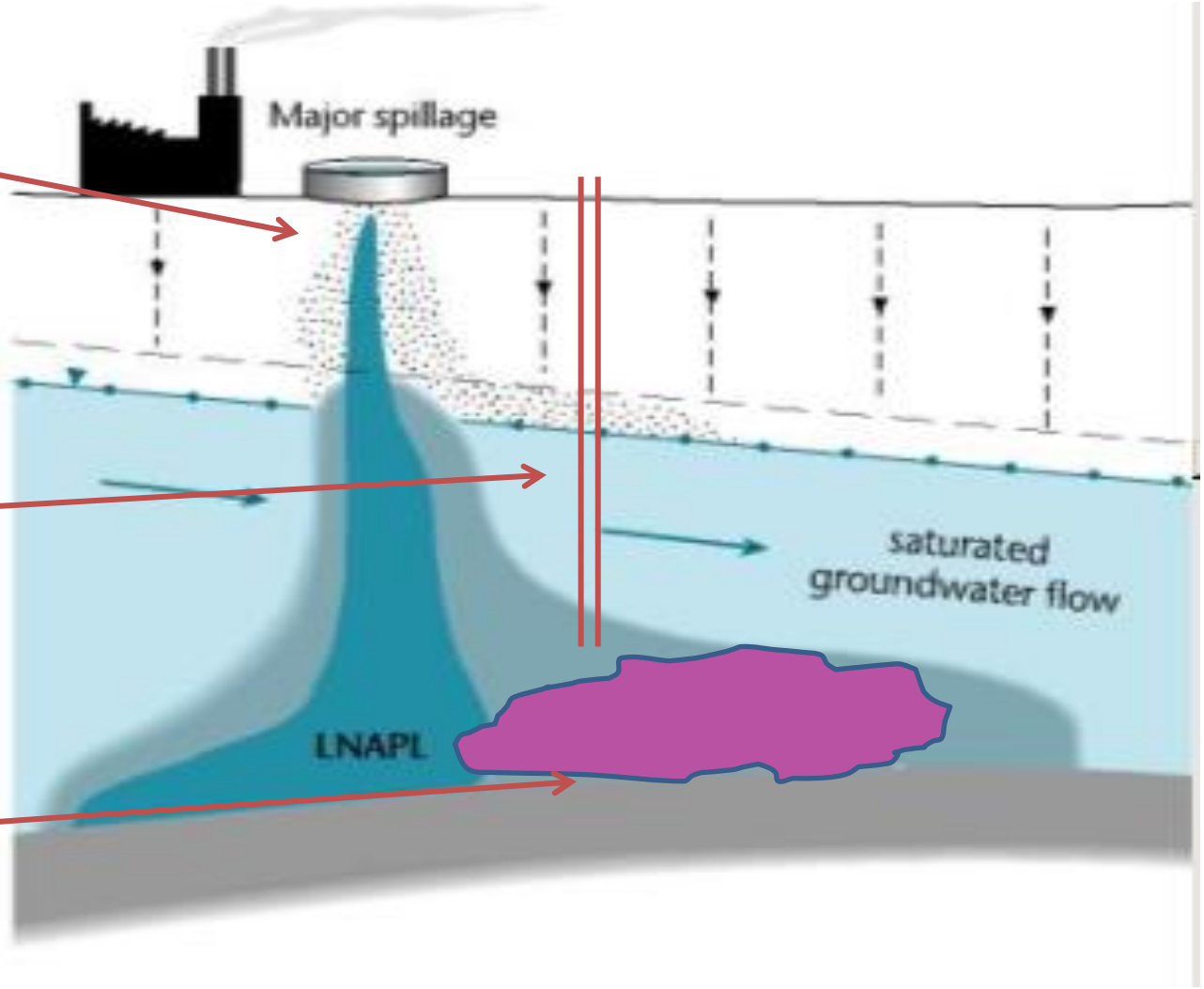
Pollutant	Number of closed well 1998-2014
Nitrate	107
Chloride	24
Microbial	5
Detergents	3
Heavy metal	4
Organic pollutants (VOC)	21
EDB	18
MTBE (fuel)	3
Perchlorate	14
Total	**199**

30% of the wells closed by industrial pollution, almost all of then located on the Coastal aquifer

Water Quality

Stands on 3 pillars:

- ❑ Prevention (enforcement, laws and rules, Treating sewage system)
- ❑ Monitoring
- ❑ Remediation



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Prevention: Industrial Wastewater

Rules define industrial wastewater quality allowed discharging to the sewage system:

- ❑ Protect the sewage system from damage and clogging
- ❑ Protect the biological process in the WWTPs
- ❑ Reduce contaminants from sewage and effluent



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Monitoring:
Drives for monitoring

- Providing objective, reliable and comparable information at a national level
- Define baseline groundwater conditions (status)
- Determining trends in groundwater quality (trends)
- Providing a three dimensional picture of groundwater quality within aquifers (understanding)
- Providing early warning of groundwater pollution.

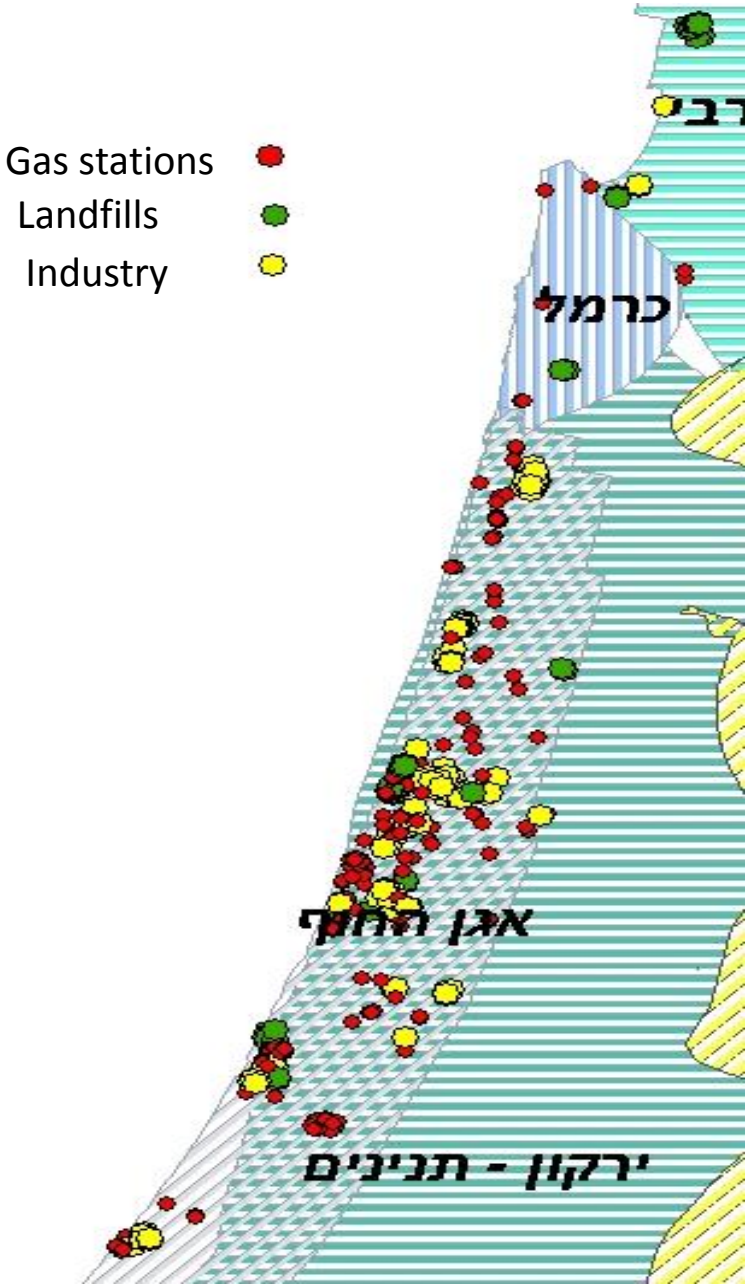
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Monitoring Network

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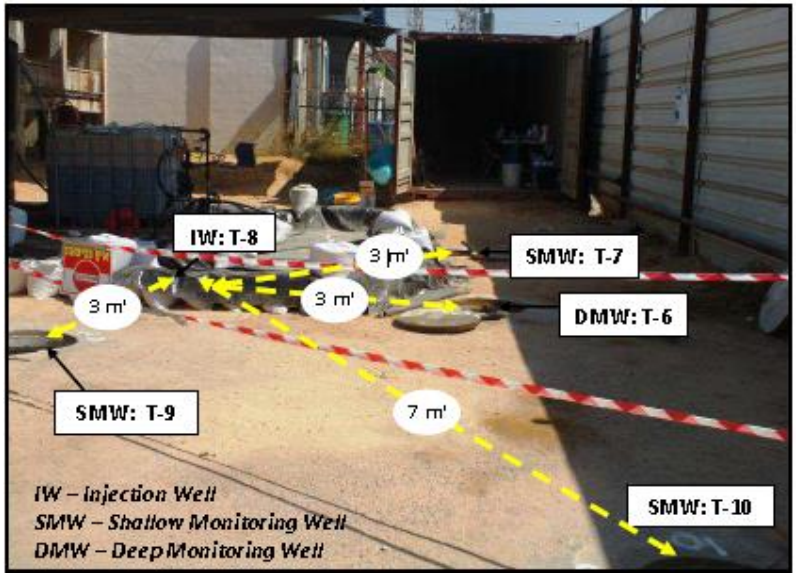
Monitoring network developed to protecting drinking water wells

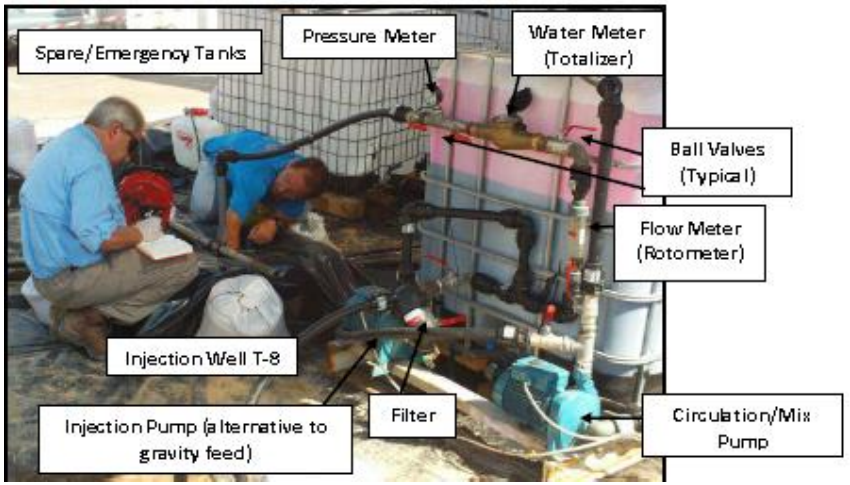
960 monitoring wells were drilled close to gas stations and industrial zones for early warning

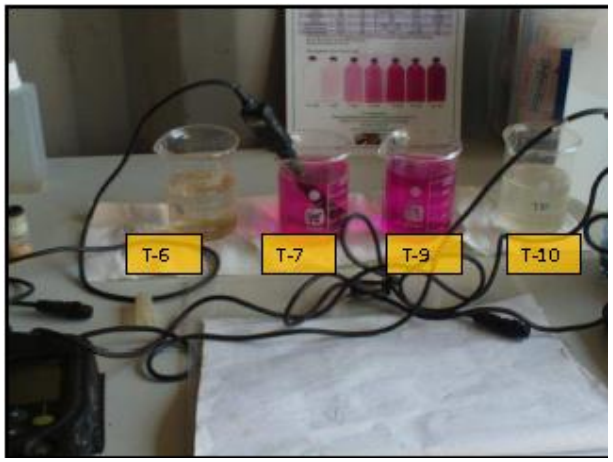


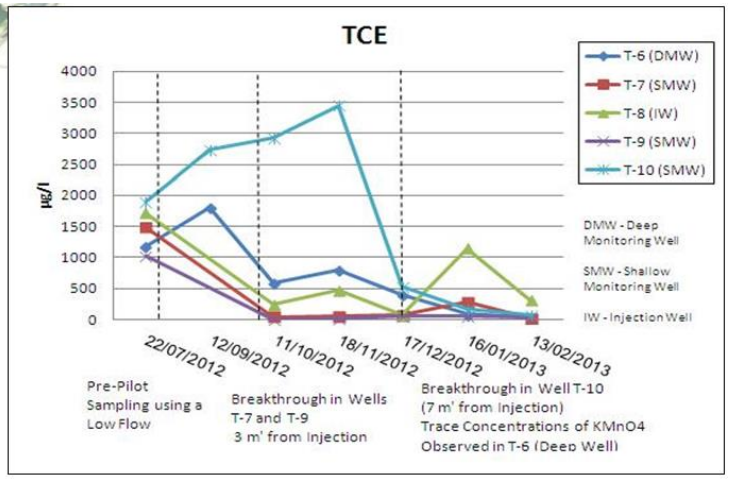
Remediation:

Instructions for treatment and remediation when pollution is found

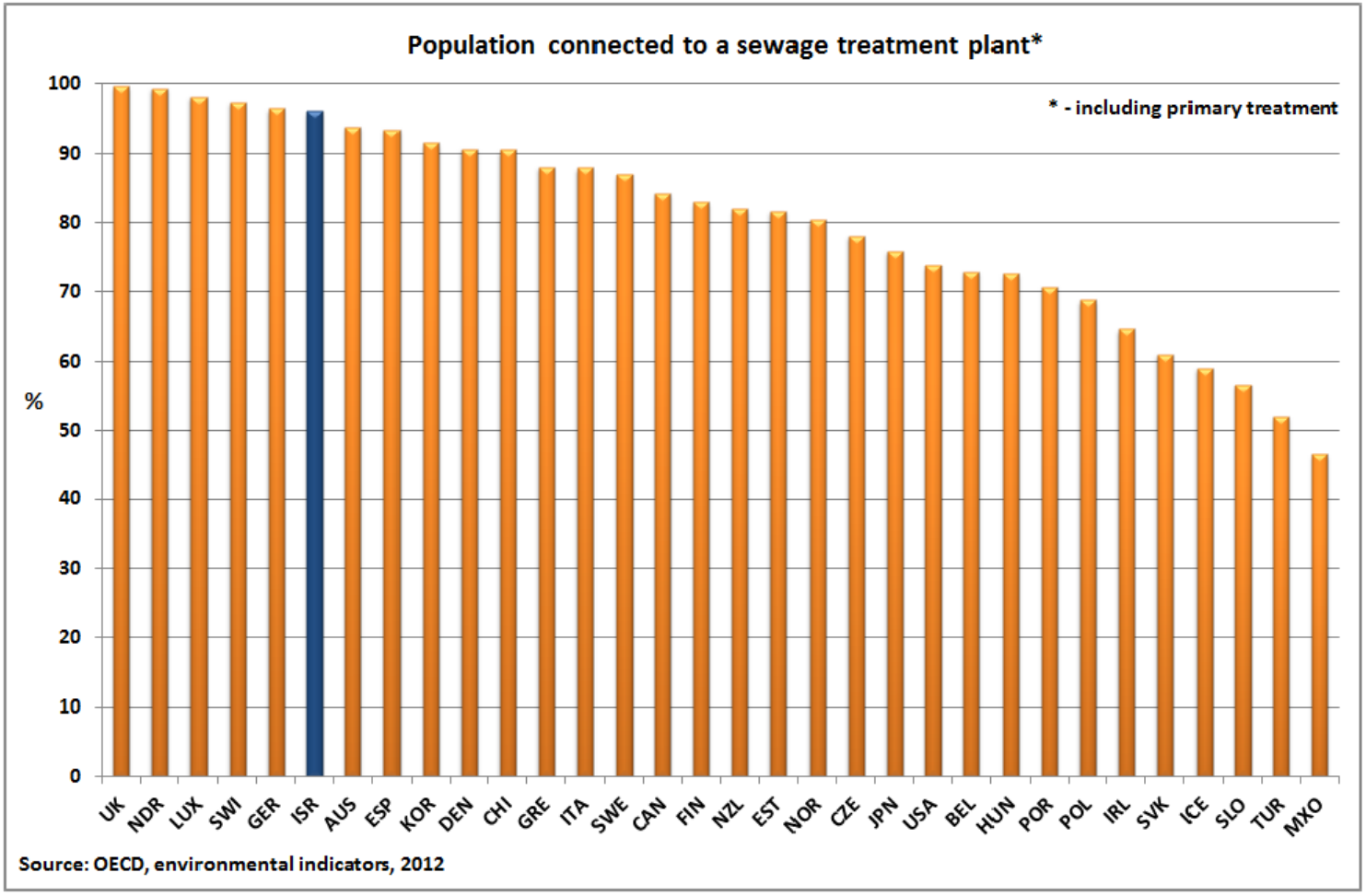








OECD Report: Population Connected to WWTPs



Population
~ 8,000,000



507 MCM/year
Sewage



92.3%

468 MCM/year
Treated in WWTP



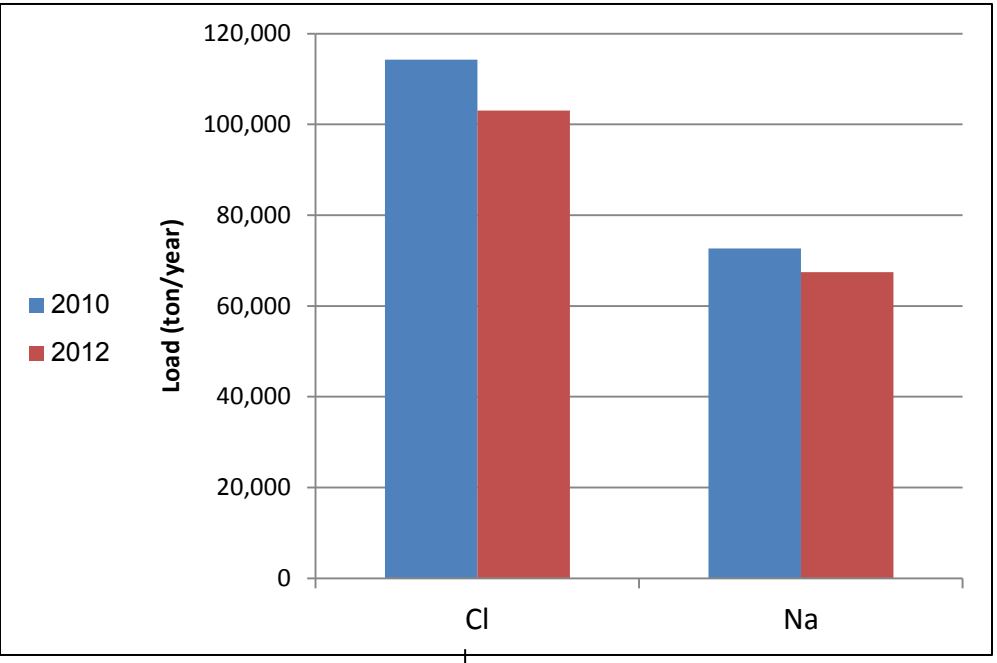
85.4%

400 MCM/year
Reused for
Irrigation

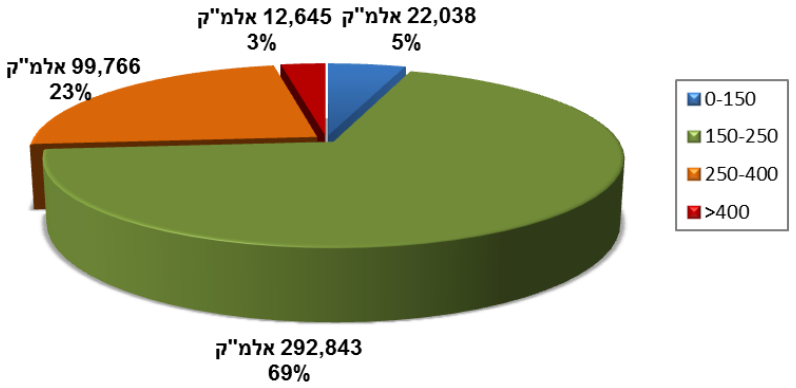
reclaimed effluent usage plants



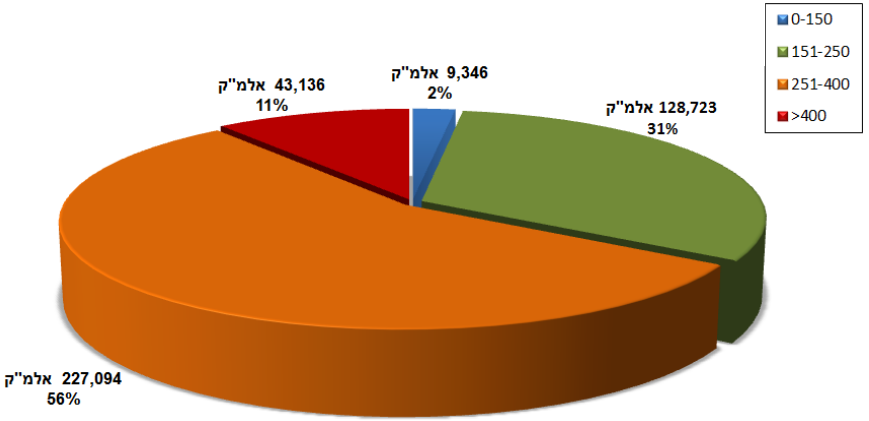
Sodium and Chloride Load and Concentrations in Effluent



Chloride concentration in WWTPs- 2012



Chloride concentration in WWTPs- 2010

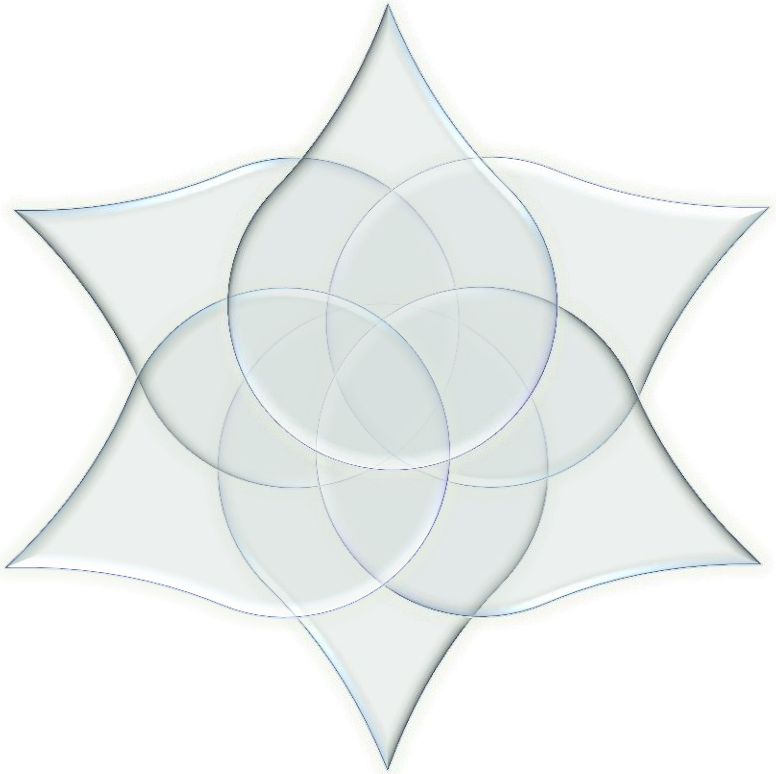


- **Desalination**
- **Reducing salts in the industrial wastewater**

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Always a drop ahead