

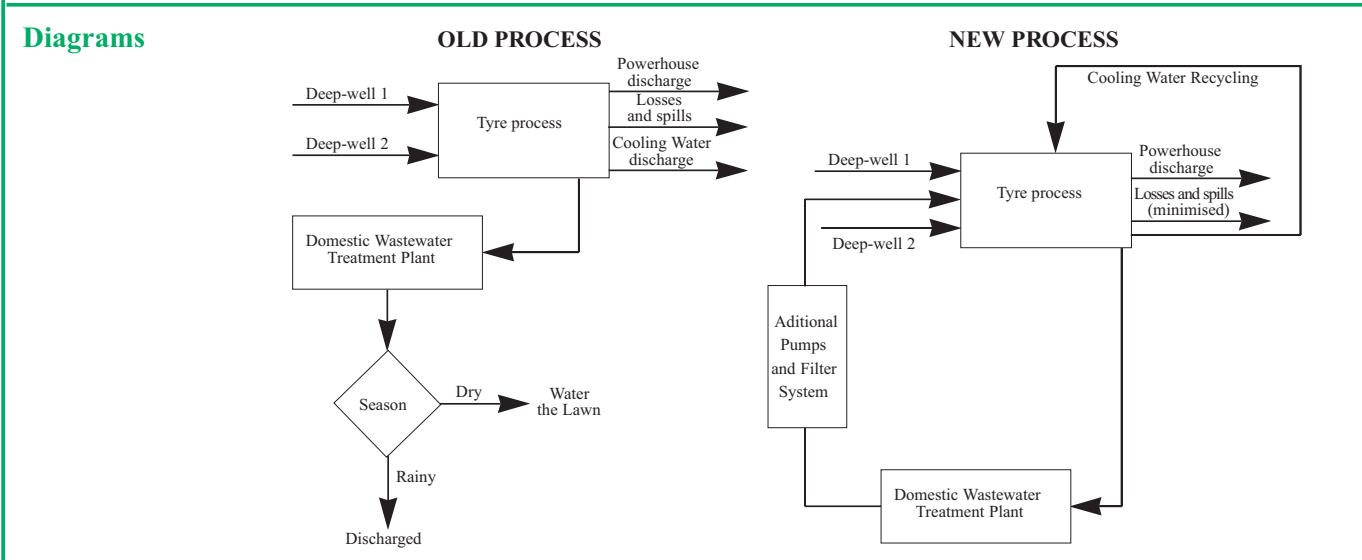
# Med *Clean* *Propre* *Limpio* *Mediterranean*



## No. 4 Pollution prevention case studies

### Reduction of water consumption by means of an assessment

<b>Company</b>	Goodyear Lastikleri T.A.S. Izmit - Turkey.
<b>Industrial sector</b>	Tyre Production (Rubber).
<b>Environmental considerations</b>	There are important pollution problems and potential risk of groundwater depletion in East Izmit Region. In order to reduce it, Kocaeli University carried out a study of possible causes and solutions to this problem. One of the most important conclusions reached was the need to reduce water consumption and discharges of the companies of this region.
<b>Background</b>	<p>The amount of water used by this company daily before the implementation of the project for steam production and other several process purposes, together with drinking water and water used in the coffee house were not known. Domestic treated wastewater was used for watering the lawn in dry seasons and was discharged otherwise.</p> <p>An assessment has been carried out by Kocaeli University aiming to decrease water consumption and discharges by the company. There was an added factor besides this environmental factor: to eliminate or reduce the cost of discharging this effluent into the municipal system</p>
<b>Summary of actions</b>	The daily water consumption was established at be 900,000 litres. The cooling water system was changed to a closed-cycle system, additional pumps and filters have been installed in the activated sludge treatment unit system, and leaks in the fire water line were shifted to right.



## Balances

	Old Process	New Process
Water Consumption	900,000 l/day	250,000 l/day (by the end of last quarter of 1996)
Investment		USD50,000
Payback period		2 years

## Conclusions

By closing the cooling water system and installing additional pumps and filters, 650,000 litres of water were saved on a daily basis. It means approximately 214 million litres of water are saved per year.

The results of this project were spreading to other surrounding companies and some of them have begun similar actions.

Potential risk of groundwater depletion in the Region has been reduced.

**NOTE: This case study seeks only to illustrate a pollution prevention example and should not be taken as a general recommendation.**



Regional Activity Centre  
for Cleaner Production

Dr. Roux, 80  
08017 Barcelona (Spain)  
Tel. (+34) 93 553 87 90  
Fax. (+34) 93 553 87 95  
e-mail: [cleanpro@cprac.org](mailto:cleanpro@cprac.org)  
<http://www.cprac.org>