

This questionnaire has been designed by a work team of the Technological Center CARTIF to obtain information about the wastewater treatment plant in the field of the MEDAWARE project - Development of tools and guidelines for the promotion of the sustainable urban wastewater treatment and reuse in the agricultural production in the Mediterranean countries

1 BASIC DATA OF THE WASTEWATER TREATMENT PLANT

Name:	Victoras Konstantinidis	Position:	Chief Operator
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1. Where is your local wastewater treatment plant located?

Address:	Moni Village		
City:	Limassol	County:	Cyprus
		State:	
Zip:			
Telephone number	25881888	Fax number	25881777
E-mail address	stpvic@cytanet.com.cy		

2. How many stages of treatment does your facility use?

- | | | |
|-----------|-------------------------------------|------------------------------|
| Primary | <input checked="" type="checkbox"/> | preliminary, primary |
| Secondary | <input checked="" type="checkbox"/> | surface aerators, clarifiers |
| Tertiary | <input checked="" type="checkbox"/> | sand filtration |
| Other | <input checked="" type="checkbox"/> | chlorine disinfection |

3. What is the capacity of the treatment plant?

Liters per day (average)	21.990 m ³ /d
Number of People and/or Employees	6
Peak Daily Flow Estimate	20.000 m ³ /d

4. How is the sludge disposed of?

- | | | | |
|------------|-------------------------------------|----------|-------------------------------------|
| Burned | <input type="checkbox"/> | Landfill | <input type="checkbox"/> |
| Fertilizer | <input checked="" type="checkbox"/> | Other | <input checked="" type="checkbox"/> |

Mainly is used as a fertilizer and some quantities are used by the cement factories as substitute of oil.

5. Where does the treated wastewater go after it leaves the plant?

River or Stream
Ocean

Lake
Other

irrigation

6. In what year was the plant built?

1992-1995

7. Have there been any modifications of the plant in recent years?

Install a mechanical drum thickener for the secondary sludge

8. Are there any plans for additional improvements to the plant?

Extension of the plant

9. Wastewater analysis information (influent)

Wastewater BOD	400
Wastewater COD	800
Wastewater Suspended Solids	380

10. Treated water- Local government requirement - If known (effluent)

Wastewater BOD	10
Wastewater COD	40 (not mandatory)
Wastewater Suspended Solids	10
Total Nitrogen	10

2 WASTEWATER TREATMENT INFORMATION

11. Primary Treatment Processes

	Processes	Size (if know)	Main operational problems (if exists)
<input checked="" type="checkbox"/>	Bar or bow screen	1260 m ³ /h	_____
<input checked="" type="checkbox"/>	Grit removal	740 m ³	_____
<input checked="" type="checkbox"/>	Primary sedimentation	2660 m ³	_____
<input type="checkbox"/>	Comminution	_____	_____
<input checked="" type="checkbox"/>	Oil / fat removal	302 m ³	_____
<input type="checkbox"/>	Flow equalisation	_____	_____
<input type="checkbox"/>	pH neutralisation	_____	_____
<input type="checkbox"/>	Imhoff tank	_____	_____
<input type="checkbox"/>	_____	_____	_____
<input type="checkbox"/>	_____	_____	_____

12. Secondary Treatment Processes

	Processes	Size (if know)	Main operational problems (if exists)
<input checked="" type="checkbox"/>	Activated sludge	5300 m ³	_____
<input type="checkbox"/>	Extended aeration	_____	_____
<input type="checkbox"/>	Aerated lagoon	_____	_____
<input type="checkbox"/>	Trickling filter	_____	_____
<input type="checkbox"/>	Rotating bio-discs	_____	_____
<input type="checkbox"/>	Anaerobic treatment/UASB	_____	_____
<input type="checkbox"/>	Anaerobic filter	_____	_____
<input type="checkbox"/>	Stabilisation ponds	_____	_____
<input type="checkbox"/>	Constructed wetlands	_____	_____
<input type="checkbox"/>	Aquaculture	_____	_____

- _____
- _____

13. Tertiary Treatment Processes

	Processes	Size (if know)	Main operational problems (if exists)
<input checked="" type="checkbox"/>	Nitrification	6677 kgO ₂ /d	_____
<input checked="" type="checkbox"/>	Denitrification	- 1268 kgO ₂ /d	_____
<input type="checkbox"/>	Chemical precipitation	_____	_____
<input checked="" type="checkbox"/>	Disinfection	Cl ₂ -gas	_____
<input type="checkbox"/>	(Direct) filtration	_____	_____
<input type="checkbox"/>	Chemical oxidation	_____	_____
<input type="checkbox"/>	Biological P removal	_____	_____
<input type="checkbox"/>	Constructed wetlands	_____	_____
<input type="checkbox"/>	Aquaculture	_____	_____
<input type="checkbox"/>	_____	_____	_____
<input type="checkbox"/>	_____	_____	_____

14. Advanced Treatment Processes

	Processes	Size (if know)	Main operational problems (if exists)
<input type="checkbox"/>	Chemical treatment	_____	_____
<input type="checkbox"/>	Reverse osmosis	_____	_____
<input type="checkbox"/>	Electrodialysis	_____	_____
<input type="checkbox"/>	Carbon adsorption	_____	_____
<input type="checkbox"/>	Selective ion exchange	_____	_____
<input type="checkbox"/>	Hyperfiltration	_____	_____
<input type="checkbox"/>	Oxidation	_____	_____
<input type="checkbox"/>	Detoxification	_____	_____
<input type="checkbox"/>	_____	_____	_____
<input type="checkbox"/>	_____	_____	_____

3 CONTROL AND MONITORING SYSTEMS

15. Which are the most critical process parameters that may affect the efficiency of the wastewater treatment plant?

<i>Parameter</i>	<i>Process</i>	<i>Current Automatic Control?</i>	
<input checked="" type="checkbox"/> Wetwell levels	On-off pumping	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input checked="" type="checkbox"/> Sludge depth	Primary treatment	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Solids Retention Time (SRT)	Conventional activated sludge	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Dissolved oxygen concentration	Conventional activated sludge	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input checked="" type="checkbox"/> Return flowrate from the clarifier	Conventional activated sludge	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> Internal recycle	Biological nutrient removal	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> Methanol feed rate	Biological nutrient removal	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> Air / solids ratio	Dissolved air flotation thickening	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input checked="" type="checkbox"/> Sludge depth	Gravity thickening	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Belt speed	Gravity belt thickening	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Chemical dosage rate	Chemical addition for water-solids separation	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorine dosage rate	Chlorination	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> _____	_____	Yes <input type="checkbox"/>	No <input type="checkbox"/>

_____ Yes No

16. In your opinion, what are the main problems with the control system of the wastewater treatment plant?

No problems

17. In your opinion, what treatment processes / parameters should be monitored / controlled automatically?

All processes/parameters are monitored and controlled automatically.

If you have any questions about this document, please contact us by e-mail at yolnun@cartif.es

Thank you for your collaboration.