

GENERAL DIRECTORATE OF WATER MANAGEMENT



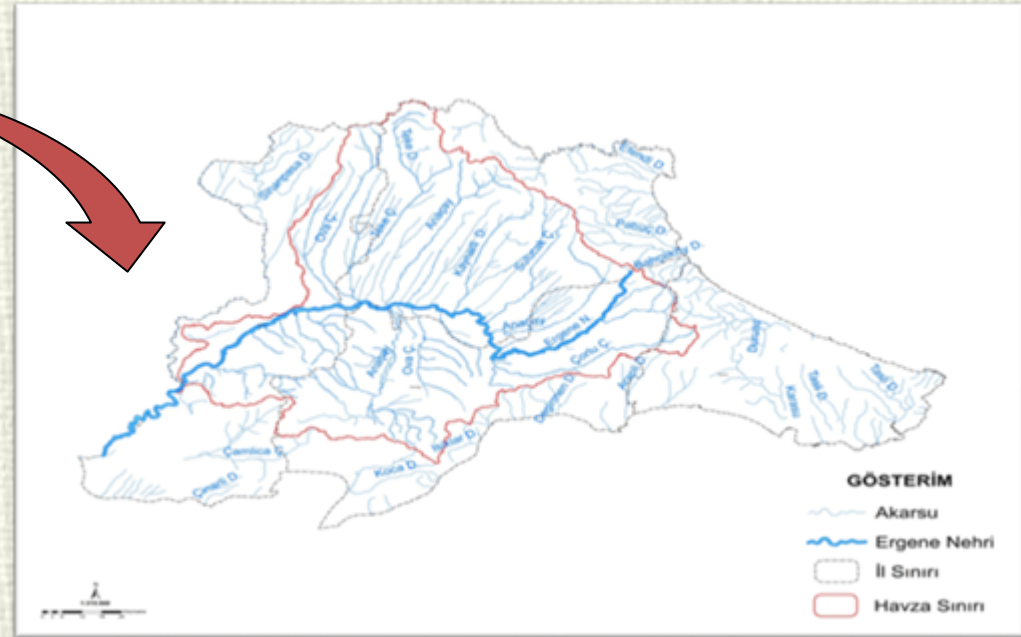
**ERGENE RIVER BASIN PROTECTION ACTION
PLAN**

Burhan Fuat ÇANKAYA
Section Director of Surface Water Quality

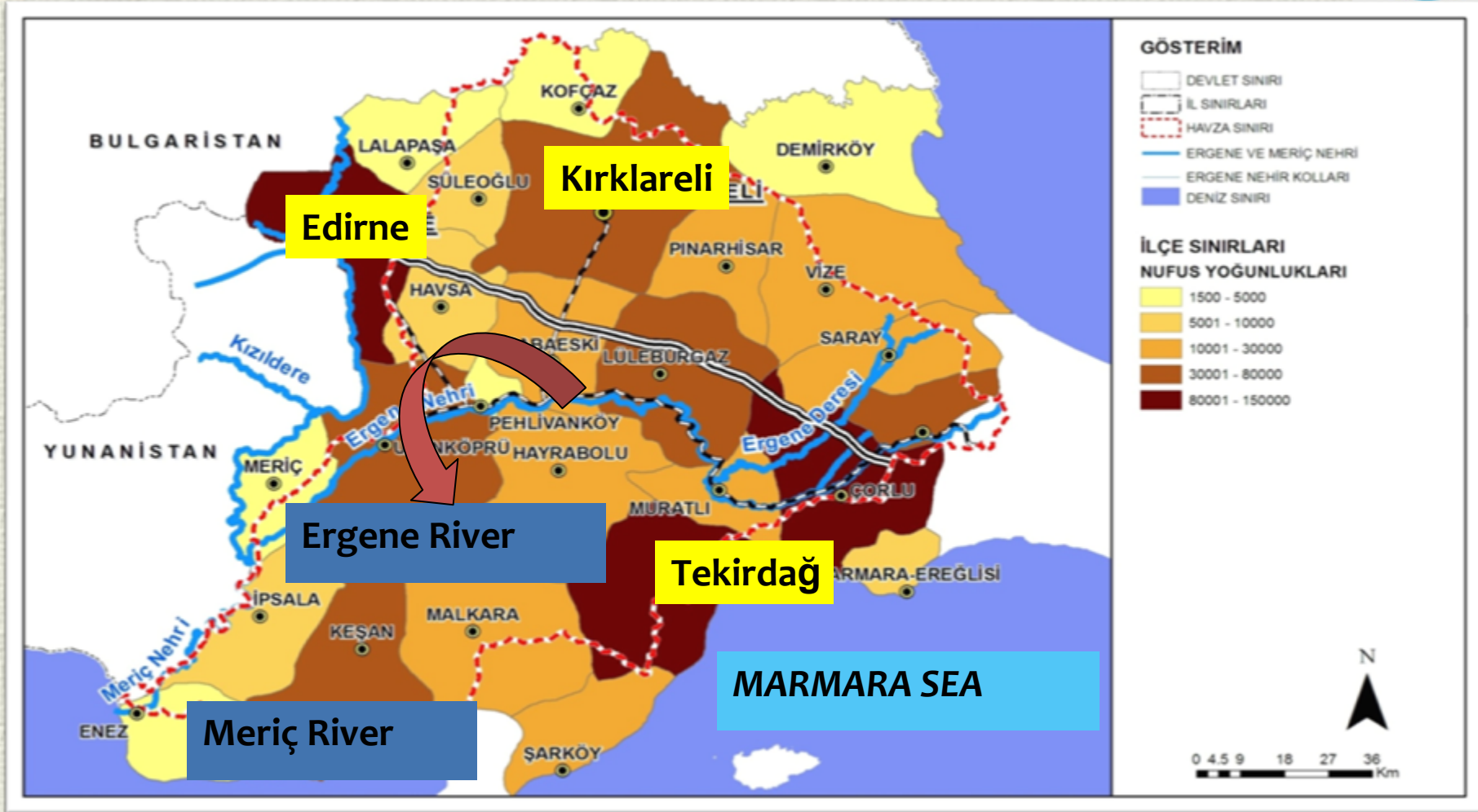
EURO INBO 2012
İstanbul
18.10.2012

ERGENE RIVER BASIN

- ✘ Ergene River springs out from Istranca Mountain in Tekirdağ City.
- ✘ It links with the Meriç River flowing to Saroz Gulf.
- ✘ The whole length of the river is 283 km and it has 11.000 km square of river basin.
- ✘ The water potential of Ergene River is 1,71 billion meter cubes per year.
- ✘ 12% of wheat, 61% of sunflower and 54% of rice productions of Turkey is being produced in the basin.

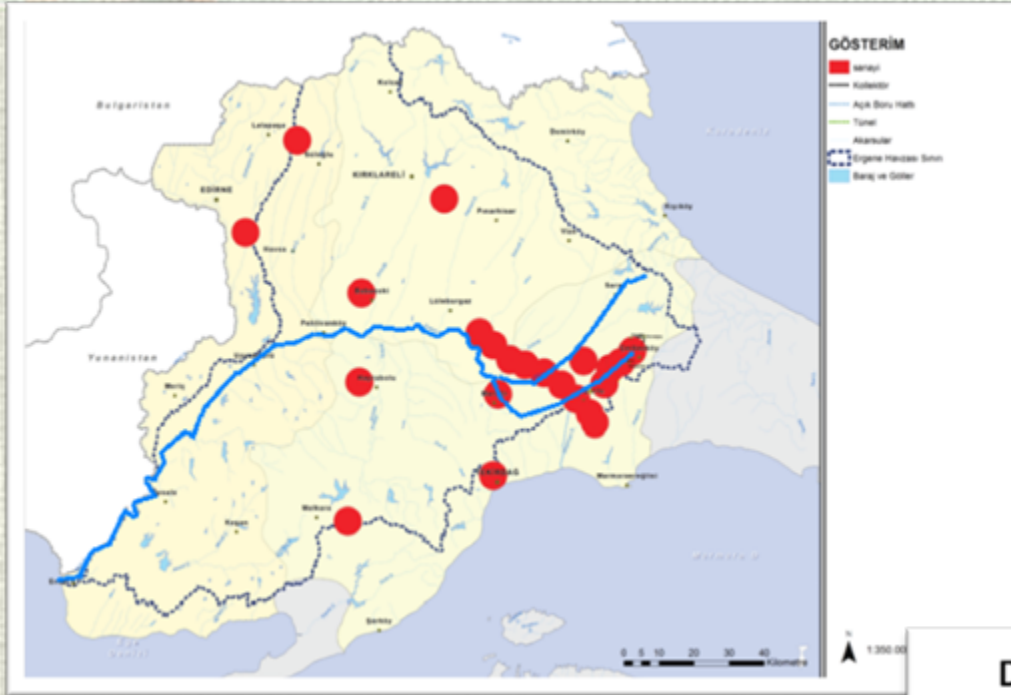


ERGENE RIVER BASIN



✘ There are 53 municipalities, where 1.050.000 people are living.

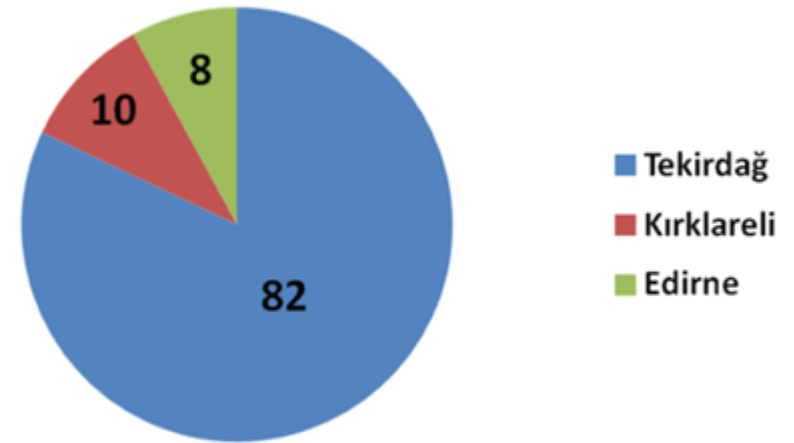
INDUSTRIAL DISTRIBUTION



- ✘ Textile
- ✘ Soap
- ✘ Food
- ✘ Sugar
- ✘ Volatile oils
- ✘ Oils
- ✘ Glass and glassware
- ✘ Beverage
- ✘ Electric appliance
- ✘ Iron and steel

- ✘ There are 2037 industrial plants in Ergene River Basin.

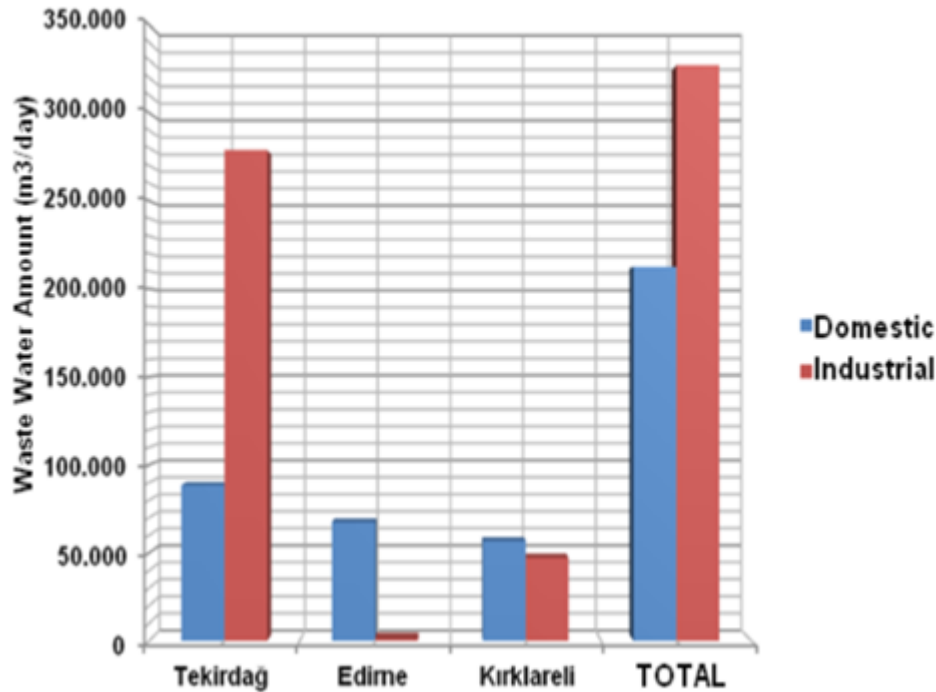
Distribution of Industrial Plants in Basin



WASTE WATER AMOUNT OCCURRING IN ERGENE RIVER BASIN

- ✘ Since considerable amount of water consumption is met from ground water, level of ground water has been decreased to 100 meters.

Distribution of Waste Water Occuring in Provinces



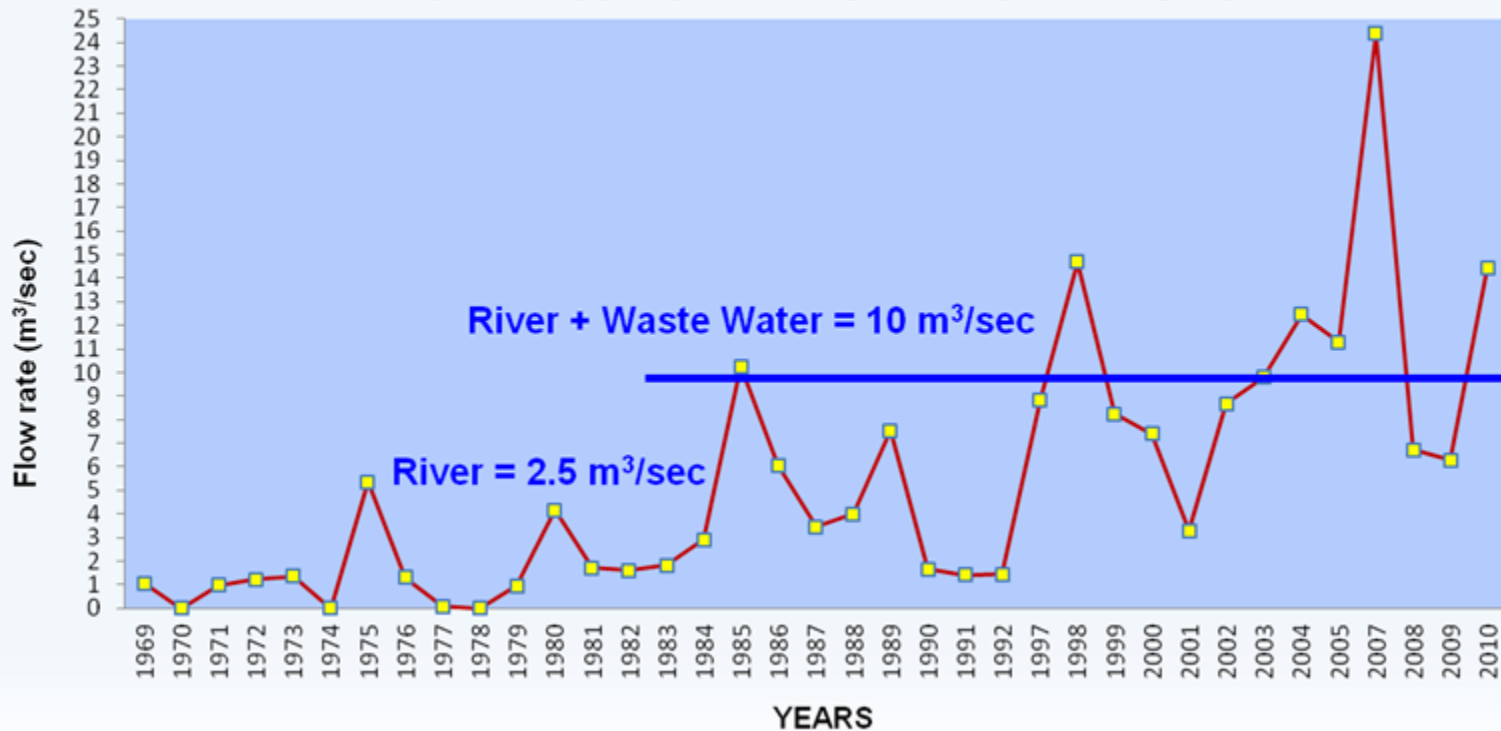
Domestic Waste Water: 230.000 m³/day

Industrial Waste Water: 330.000 m³/day

Recently, in parallel with economic developments amount of waste water has increased to 400.000 m³/day.

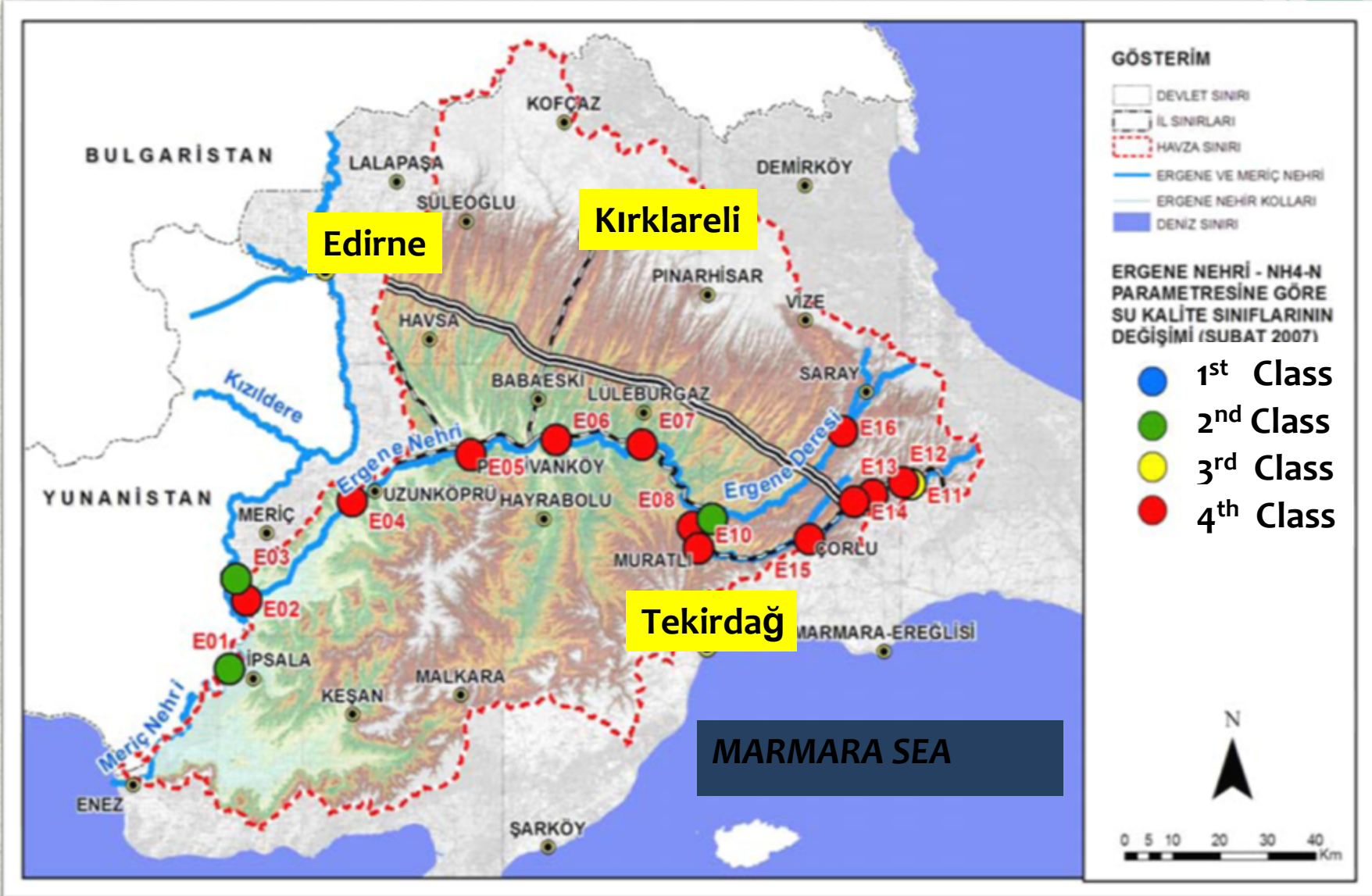
AVERAGE FLOW RATE OF ERGENE RIVER

**Average Flow Rates of Ergene River for August
(DSİ112)(105) Yenicegörece (Uzunköprü)**



- ✘ With discharging waste water, the flow rate of Ergene River has increased to 4 times of its original flow rate.

WATER QUALITY MAP



POLLUTION LOADS

Parameters	Pollution Loads From Domestic Sources (kg/day)	Pollution Loads From Industrial Sources (kg/day)	Pollution Loads From Agricultural Sources (kg/day)	Total Load (kg/day)
COD (Chemical Oxygen Demand)	317,224	209,095	-----	526,319
BOD ₅ (Biological Oxygen Demand)	153,142	72,515	-----	225,658
Total Nitrogen	24,612	8,562	21,721	54,895
Total Phosphorus	5,469	2,708	2,910	11,087

Reference: Meriç-Ergene Basin Industrial Waste Water Main Management Plan (2010)

ACTIONS VIA ERGENE RIVER BASIN ACTION PLAN

Action 1. Works on rehabilitation of stream beds are going on.

Action 2. Municipal waste water treatment plants are being constructed by Directorate General for State Hydraulic Works.

Action 3. Rehabilitation Organized Industrial Zones are established.

Action 4. Advanced joint waste water treatment plants for industry are being constructed.

Action 5. Processing less polluting raw materials and using less water are being started.

Action 6. Works on forestation and combating soil erosion are going on.

Action 7. It is being entered into planned era in Ergene, 1/25.000 plans are being implemented.

2011-2015





ACTIONS VIA ERGENE RIVER BASIN ACTION PLAN



Action 8. Solid and hazardous waste processing, recovery and disposal plants are being established.

Action 9. Pollution from agriculture will be controlled.

Action 10. Ergene River is going to be monitored online continually.

Action 11. Intimate inspections are going on.

Action 12. Practicing environmental friendly production has been started.

Action 13. Early warning system against floods is being established.

Action 14. Ground water consumption is being controlled.

Action 15. Dams, ponds, irrigation facilities are being constructed.



OBJECTIVES FOR ENHANCEMENT OF WATER QUALITY IN ERGENE RIVER

In order to reach good water quality

OBJECTIVE

Short Term (3 years)	COD Conductivity Colour	3 rd Water Quality
Midium Term (5 years)	COD Conductivity Colour	2 nd Water Quality
Long Term (10 years)	All Parameters	2 nd Water Quality



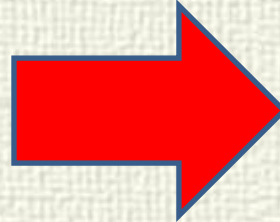
WATER QUALITY : BEFORE & AFTER ?

Parameters	1978 (Oct.)	2009 (Oct.)	2011 (June)	2011 (Oct.)	2012 (March)	2012 (April)	2012 (May)
	Ergene River (İnanlı)	Ergene River (İnanlı)	Ergene River (İnanlı)	Çorlu River (Sağlık district)	Çorlu River (Sağlık district)	Çorlu River (Sağlık district)	Çorlu River (Sağlık district)
Flow Rate (m ³ /sec)	2	9	12	6	7	6,5	6
Temp. (°C)	19,4	23,8	28,2	20,1	17,0	24,6	27,8
Conduct. (µS/cm)	726	5387	4740	5770	4390	5100	5640
Dissolved Oxygen (mg/l)	9	0.5	1,32	0,32	0,56	1,02	1,03

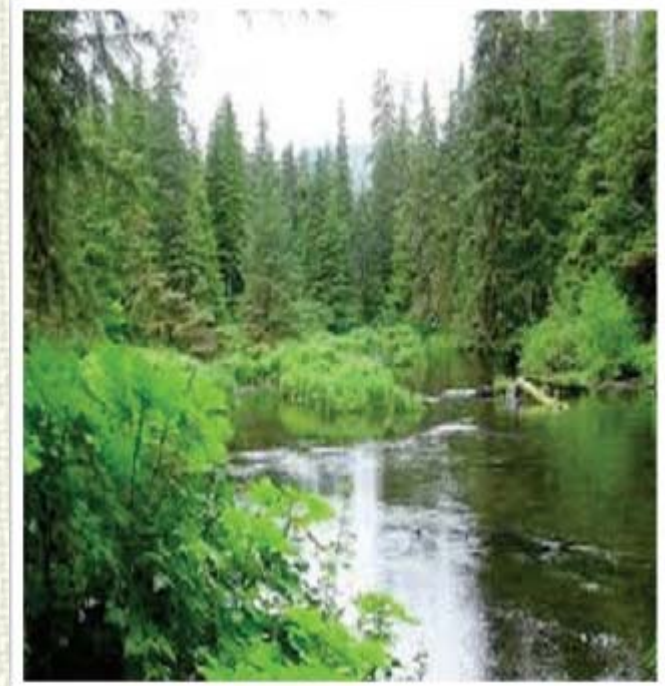


KEY MESSAGE: ERGENE RIVER IS RIVEVING

NOW:



IN FUTURE ...



THANK YOU FOR KIND ATTENTION

More information:

bfcankaya@ormansu.gov.tr