WATER QUALITY MONITORING OF LAKES AND OTHER WATER BODIES

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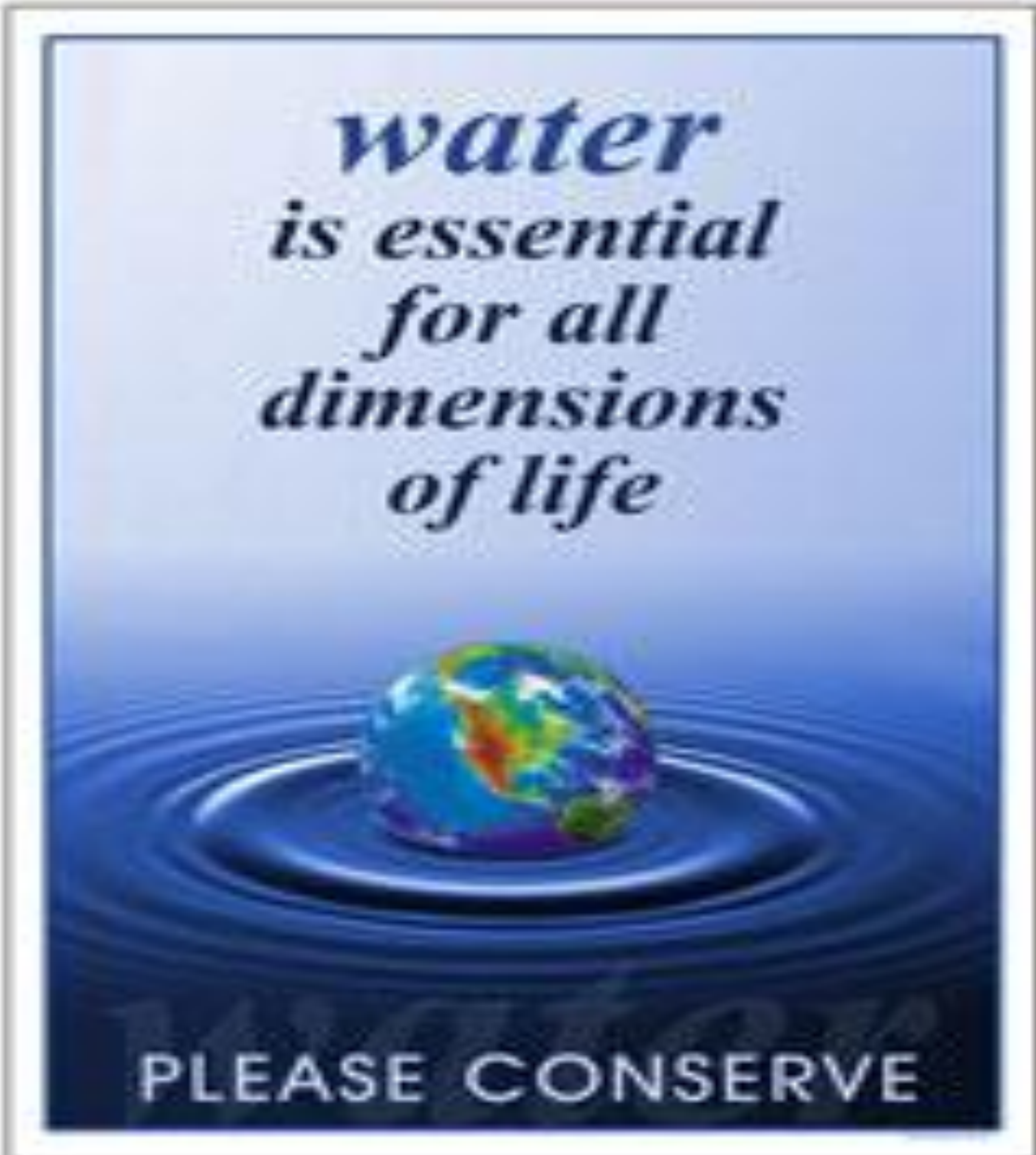
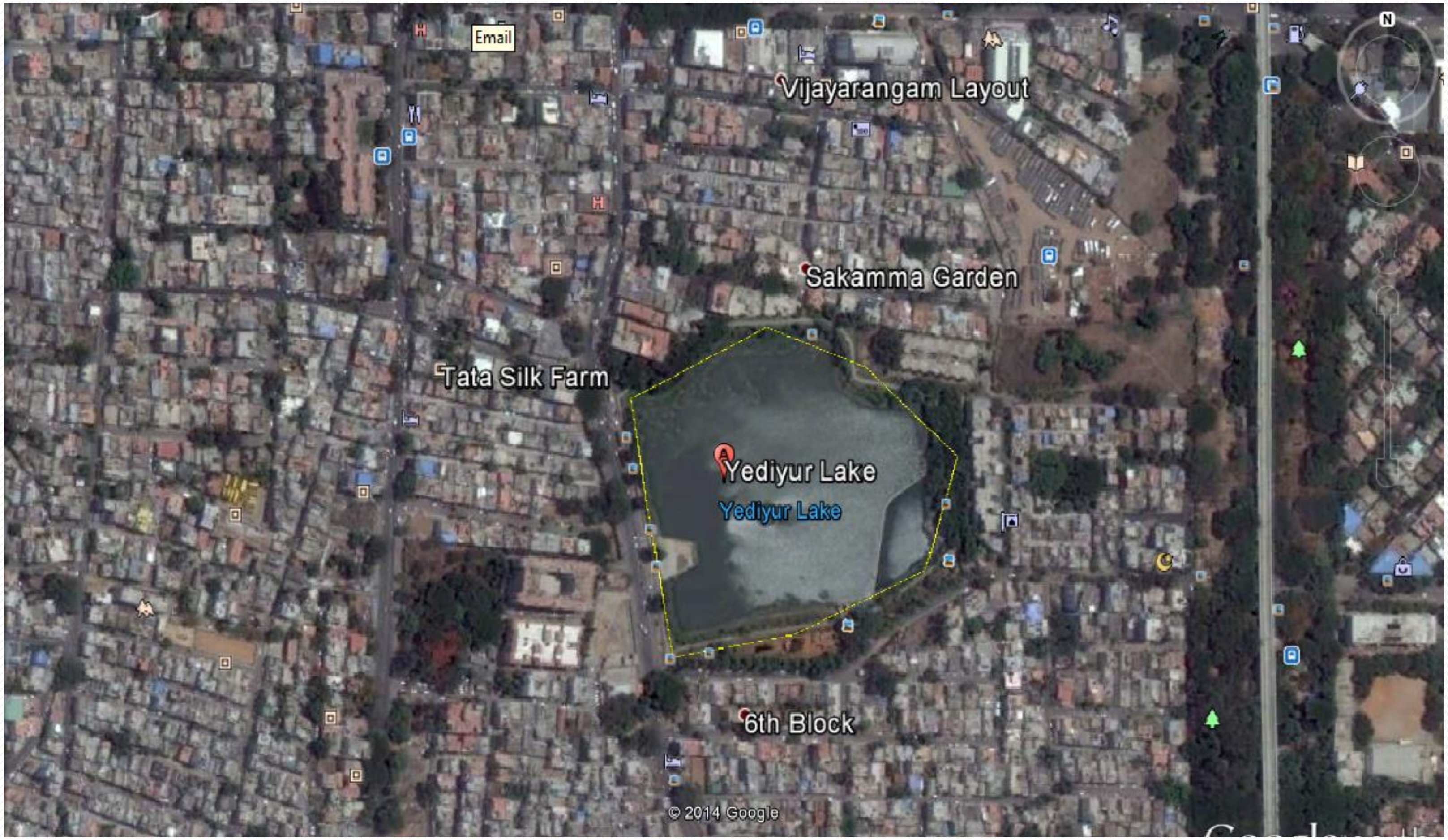

water
is essential
for all
dimensions
of life
PLEASE CONSERVE

PRESENT WATER SCENARIO IN INDIA

WATER ANALYSIS OF 2 LAKES

MADIVALA LAKE

YEDIYUR LAKE



WHY MADIVALA LAKE?

WHY YEDIYUR LAKE

- One of the oldest lake in bangalore.
- It has been encroached and exploited for construction use.
- The lake has been turned to a jogging track.
- People don’t show any awareness and think that the lake is a garbage dump

PARAMETERS	MADIVALA INLET	MADIVALA OUTLET	YEDIYUR INLET	YEDIYUR OUTLET
pH	7.52	7.48	7.36	7.59
TDS	344	347	205	205
TEMPERATURE	25	24.8	25	24.8
EC	620	633	418	422
TURBIDITY	40	45	34	60
TOTAL HARDNESS	162	162	98	98
CALCIUM HARDNESS	44.09	44.09	27.25	24.85
MAGNESIUM HARDNESS	28.65	28.65	17.19	17.78
CHLORIDES	110.76	110.76	68.16	71
NITRATES	0.48	0.560	0.28	0.332
SODIUM	146.4	148.4	84	21.2
POTASSIUM	32.8	31.6	80	22.3
PHOSPHATE	0.24	0.274	0.08	0.113
COD	22	22	30	18

TESTS	MADIVALA LAKE	MADIVALA OUTLET	YEDIYUR INLET	YEDIYUR OUTLET
ALKALINITY	224	244	140	144

PHYSICAL TESTS

TESTS	MADIVALA INLET	MADIVALA OUTLET	YEDIYUR INLET	YEDIYUR OUTLET
COLOUR, VISIBILITY	DARK GREEN, UNCLEAR	DARK GREEN, UNCLEAR	LIGHT GREEN, UNCLEAR	LIGHT GREEN, UNCLEAR
TASTE	AGREEABLE	AGREEABLE	AGREEABLE	OBJECTIVE
ODOUR	AGREEABLE	AGREEABLE	AGREABLE	OBJECTIVE
FEACAL MATTER	+	+	+	+

CONCLUSION

- Yediyur and MADIVALA lake are moderately polluted.
- Its high level of turbidity suggests that aquatic species find it very difficult to live under these circumstances.
- The physical tests indicate that both the lakes would be un-usable to drink directly.
- The yediyur outlet has an objective taste and odour, which indicates that it is polluted and contains harmful material dissolved in it

WAYS TO TREAT FRESHWATER

- BIOLOGICAL TREATMENT
- REMOVAL OF WEEDS
- REMOVAL OF HARMFUL ALGAES
- CULTIVATION OF A FEW ALGAES
- REMOVING EXTRA WASTE MATERIAL
- TO TREAT SEWAGE BEFORE RELEASING IT INTO FRESHWATER LAKES

- CHEMICAL TREATMENT
- SEDIMENTATION
- AERATION
- FILTRATION
- CHLORINATION
- DISINFECTION
- ADSORPTION

WAYS TO CONSERVE FRESHWATER

- RAIN WATER HARVESTING
- DRIP IRRIGATION
- USE OF INFRARED OR FOOT OPERATED TAPS
- OVER HEAD IRRIGATION

TO CONCLUDE…

- WE HAVE TO WORK TOGETHER FOR THE CONSERVATION AND PRESERVATION OF OUR PRECIOUS WATER RESOURCES THAT OUR MOTHER EARTH HAS BESTOWED UPON US.

REFERENCES

- WIKIPEDIA
- IISC
- GOOGLE

THANK YOU