

Balinga Water Works Kolhapur

UNIT PROFILE:

Kolhapur Municipal Corporation was established in the year 1972 without extending the limits of city. The Corporation has 72 electoral wards and the whole city of Kolhapur is sub-divided into five wards namely A,B, C, D & E. The Kolhapur Municipal Corporation is governed by the Bombay Provincial Municipalities Act, 1949. The Commissioner is the administrative head of the Municipal Corporation who is appointed by the State Government.

City Water Supply Division is a department of Kolhapur Municipal Corporation Since 1.1.1992 when the Kolhapur City water supply scheme was handed over to Corporation by the State Govt. as a policy matter. Kolhapur city gets water supply mainly from following 4 water works:

Name of water works	Source of water	Installed capacity in MLD(20 Hours)	Remarks
Balinga Water works	Bhogavati river	41.0	
Bawada Water works	Panchganga river	(36.0)	Partly working
Kalamba water works	Kalamba dam	8.0	
Puikhadi water works	Panchganga river	50.0	
	Daily supply in MLD	99.0	

Balinga water works was constructed in the year 1949 with capacity of 18.0 MLD which was augmented from time to time as below:

1. Year 1978 : 9.0 MLD
2. Year 1993 : 14.0 MLD

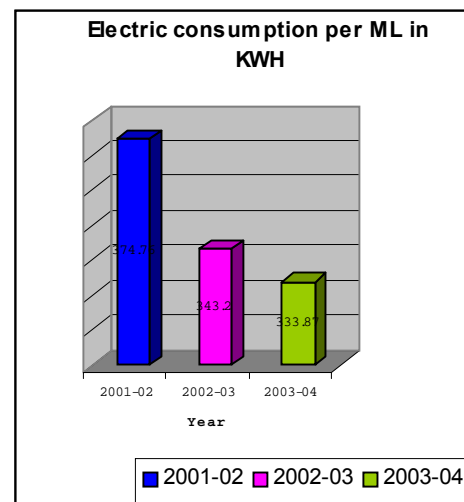
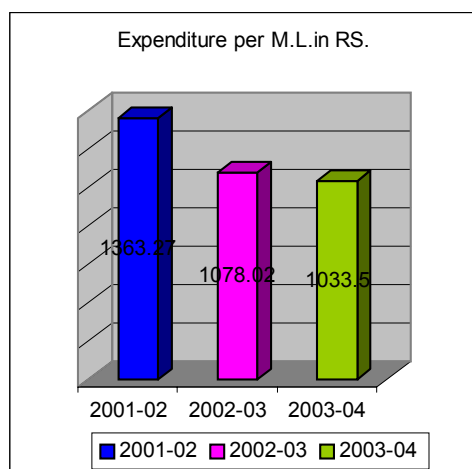
Balinga water works can be broadly divided into following facilities as shown in the figure No 1 below:

1. Raw water pumping station at Balinga Jackwell with low level pump house and at Nagdevwadi Jackwell
2. Water treatment plant cap.41.0 MLD
3. Pure water pumping station at Balinga water works
4. Padmaraje Reservoir and feeding distribution outlets

ii)ENERGY CONSUMPTION:

There has been a reduction in the electrical energy consumption per M.L.of water, which is shown below:

DESCRIPTION	UNIT	2001-02	2002-03	2003-04
Annual Potable water production	M.L.	20314.35	23048.72	24822.52
Total electric energy consumption p.a.	Lakhs KWH	76.13	79.10	82.87
Energy consumption per M.L.	KWH	374.76	343.20	333.87
Expenditure incurred per ML	Rs.	1363.27	1078.02	1033.50



iii)Energy Conservation Commitment, Policy & Set up:

Since drinking water is precious and it is a natural source, Kolhapur Municipal Corporation is bound to conserve the scarce water supply to its maximum possible extent. To look upon this, an energy saving program was undertaken in the year 2000 with the passive aid from USAID FIRE Institution, New Delhi. The effects can be seen from the above charts and table. Since electric bill constitutes huge part of revenue expenditure incurred on running the water supply scheme, Kolhapur Municipal Corporation has taken steps to cut down the electric bill to the minimum possible by adopting necessary measures. A Dy. Hydraulic Engineer is heading the department of Mechanical and Electrical sections where in he 1 Junior Engineer (Elec.) assists.

iv)Energy Conservation Achievements:

At the Balinga water works, an amount of Rs.107.13 Lakhs was saved due to adoption of following measures:

1. KVA demand reduction by load shedding
2. cleaning of pump strainers from time to time
3. desilting of jackwell sump house
4. maintaining high water level in sump house
5. working of good combination of pumps
6. dismantling of most energy consumable pump set No.2 of P.W. pumping station
7. replacement of existing raw water 150 H.P. pump by new one in July-Aug.2002
8. dismantling of existing high head and most energy consumable 175 H.P. pump set No.6 at Raw water
9. replacement of existing non-return valve by high energy efficient HGC type Normax valve
10. Maintaining sufficient water level in riverbed for stopping of low level pumping machinery with the help of Shingnapur K.T.weir.
11. Stopping of leakage's in the filter bed of plant no.1

v)Energy Conservation Plans and targets:

1. Recycling of filter wash water and leakage water
2. taking trials of consumption of electric energy by increasing and decreasing in power factor
3. Reduction in expenditure per ML in RS. from Rs.1033.50 to RS. 975 and electric consumption in kWh per ML from 333.87 to 300 or below

vi)Environment and Safety:

Kolhapur Municipal Corporation is committed to safeguard the environment by prevention of pollution and continuous improvement in the environmental performance.

FIGURE NO 1 - BALINGA W.W. SCHEMATIC DIGRAME

