The analysis of selected parameters was conducted for a period of six months i.e. January 2014 to June 2014. The water samples were collected two times in a month after 15 days, labeled properly and analyzed in the laboratory. Determination of physical parameter-water temperatures, chemical parameters-pH, Total hardness, Dissolved oxygen, Chemical oxygen demand, Biological oxygen demand and Fluoride were carried out to identify the quality of the water of Kal river water.

Key words: Physico-chemical parameters, Kal water, Water pollution.

INTRODUCTION
The Water quality deals with the physical and chemical characteristics in the relation all other hydrological properties. Any characteristics of the water that affects the survival, reproduction, growth and production of aquacultures species, influences management decisions, causes environmental impacts or reduce the product quality and safety can be considered a water quality variable. Other factors being same, aquaculture species will be healthier, production will be more environmental impact will be less quality better in culture systems with good water quality than in those with poor water quality. Kal river water primarily used for domestic needs like drinking, washing, bathing, cooking etc. Water of good quality is required for living organisms. The quality of water described by its physical, chemical and microbiological characteristics. Water quality provides current information about the concentration of varies solute at a given place and time. Water quality parameters provide the basis for judging the suitability of water for its designated uses and to improve existing conditions. The main pollution parameters that have to be considered for surface water quality management, such as water temperature, pH, Dissolved oxygen, BOD, COD, total hardness etc.

Study Area
The study area was Mangaon tehsils of Raigad district of Maharashtra. Mangaon 85 km from new Mumbai. Kal river water is major source of drinking water supply, and other purpose like agricultural, irrigation and industrial etc. the water collection from two sites Upstream as (US) and Downstream as (DS).

RESULT AND DISCUSSION
The variations in the concentration of water quality parameters are given in the table. The variation in temperature was from 24.6°C to 27.8°C at US and 25°C to 27.6°C at DS during the month of January to March 2014 while 28.0°C to 29.10°C at US and 28.9°C to 29.6°C at DS during the month of April.
The recorded water temperature which was ranged from 22.5 to 32.5°C from Kayadhuiriver, near Hingoli during January-December 2004 [6].

The variation in pH was from 7.20 to 7.31 at US and 7.01 to 7.53 at DS during the January to March 2014 while 6.97 to 7.11 at US and 6.79 to 7.74 at DS during the April to June 2014.

The observed high pH 7.66-7.86 and 7.58-7.66 which favoured the growth of algae during his study January 1994 to December 1995 from Panzara dam and river respectively [8].

The total hardness obtained was from 88 mg/L to 90.1mg/L at US and 89.1 mg/L to 98 mg/L at DS during the Month of Jan to Mar 2014 while 77 mg/L to 86.6 mg/L at US and 78.7 mg/L to 87.2 mg/L at DS during the Month of Jan to Mar 2014.

The researchers studied the seasonal variations of the Sulur pond, Tamil Nadu. The total hardness values were found to be maximum 60.80 mg/L during summer 2002 and minimum 30.5mg/L during January 2002 [5].

The variation in dissolved oxygen content was from 5.42 mg/L to 6.11 mg/L at US and 5.67 mg/L to 5.87 mg/L at DS during the Month of Jan to Mar 2014 while 5.43 mg/L to 6.01 mg/L at US and 4.75 mg/L to 6.3 mg/L at DS during the Month of Jan to Mar 2014.

The water of Anjanapura reservoir, Karnataka analyzed during November 2005 to October 2006.

The dissolved oxygen level recorded in the range of 4.71 to 8.28 mg/L. The higher dissolved oxygen in winter season and rainy season at different four sampling stations [9].

The variation in COD content was from 8.0 mg/L to 10 mg/L at US and 9 mg/L to 12 mg/L at DS during the Month of Jan to Mar 2014 while 7.0 mg/L to 10 mg/L at US and 9 mg/L to 13 mg/L at DS the Month of Jan to Mar 2014.

The water quality parameters of Noyyalriver studied at Tirupur, Tamil Nadu. They found the COD values as 2.5, 90 and 620 mg/L source, Mangalam and Kasipalayam respectively, in the rainy season. They found COD amount as 3.0, 21, and 257 mg/L in same water sampling stations in summer season [7].

The water quality parameters of river Godavari studied at Nanded. They carried out the BOD analysis during year 1993 to 1994. They observed the values of BOD highest as 30 mg/L and lowest as 16 mg/L during entire work [2].

The variation in BOD content was from 2.0 mg/L to 3.0 mg/L at US and 3.0 mg/L to 4.5 mg/L at DS during the Month of Jan to Mar 2014 while 2.0 mg/L to 2.5mg/L at US and 2.0 mg/L to 3.0 mg/L at DS during the Month of Apr to Jun 2014.

Influence of Adyar river in the coastal waters of Chennai having variations in BOD values in the low tide from 1.0 to 63.0 mg/L but variationz was not appreciable during high tide. Increased BOD values are due to high organic load and biological activities resulting from sewage and industrial wastewaters etc [10].

**REFERENCES**


<table>
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<tr>
<th>Months</th>
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<th>Dissolved oxygen</th>
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US = Upstream, DS = Downstream

Table: Monthly mean values of water quality parameters (mg/L) from Kal river during Jan 2014 – Jun 2014.

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