

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010437/24020781/24014701
Fax: 24024068 / 24023516
Website: <http://mpcb.gov.in>
E-mail / ms@mpcb.gov.in



Kalpataru Point, 2nd-4th Floor
Opp. Cine Planet Cinema,
Near Sion Circle, Sion (E)
Mumbai-400 022.

MPCB / JD(WPC) / B - 2046

Date:- 30/05/2014

To
Dr. Prasad Modak
Executive President
Environmental Management Centre LLP
A60, Royal Industrial Estate, 2nd floor,
Naigaon Cross Roads, Wadala,
Mumbai 400031.

Sub : Water Quality Data Analysis of River Godavari.

Ref : 1) Your proposal dated 23.05.2014

Sir,

Your quotation dated 23-05-2014 submitted to MPCB of Rs. 9.50 Lakh plus service tax as applicable (Rs. Nine lakh and fifty thousand plus taxes) regarding Water Quality Data Analysis of River Godavari has been accepted by the Board and the Board is pleased to issue the work order for carrying out data analysis of River Godavari with following Scope and Terms & conditions:

1. Scope of work :

- 1.1 Use water quality data as available at MPCB between 2006 to 2013 on the river basin Godavari.
- 1.2 Compute for each monitoring location and for select water quality parameters— descriptive statistics such as mean, standard deviation, coefficient of variance, frequency distribution. Provide interpretation.
- 1.3 Conduct detection of outliers for each monitoring location and for select water quality parameters. Provide interpretation.
- 1.4 Show data visualization for each monitoring location and for select water quality parameters—using tools such as Box and Whisker Plots, Histograms, Pie-charts for select water quality parameters. Provide interpretation.
- 1.5 Carry out correlation and regression analyses for each monitoring location and for select water quality parameters. Provide interpretation.

- 1.6 Analyze and present water quality data at all monitoring locations in the form of Water Quality Index. Provide interpretation.
- 1.7 Carry out trend detection (direction and statistical power) at all water quality monitoring locations for key water quality parameters and water quality index. Provide interpretation if the data on pollution sources is made available.
- 1.8 Analyze water quality data at all locations for select water quality parameters for time series (moving average, harmonic analysis). Relate the patterns to the variations in river flows if this data is made available.
- 1.9 Based on the results above and associated information such as river flows, pollution sources, prepare info graphics (visuals) and maps that could communicate status on water quality to general public and other stakeholders.
- 1.10 Make recommendations for improving the water quality monitoring network and prioritizing actions for the management of MPCB.
- 1.11 Prepare a report in MS Word and in the form of an **interactive PDF** that will contain all the results above.

2. Time frame

- 2.1 You shall submit draft report on Water Quality Data Analyses of Godavari River Basin in MS Word and in an **interactive PDF format containing info graphics** (soft copy on a CD and 5 hard copies in colour) within a period of six weeks from the date of issuance of this workorder.
- 2.2 The final report on Water Quality Data Analyses of Godavari River Basin in MS Word and in an **interactive PDF format containing info graphics** (soft copy on a CD and 5 hard copies in colour) shall be submitted within fifteen days period from the date of approval to draft report.

3. Terms of payment

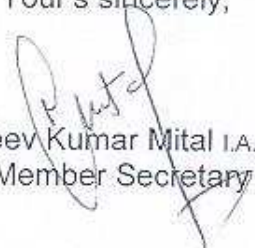
- a. 20% of the total cost of the project will be paid within 15 days of acceptance of the work order.
- b. 50% of the total cost of the project will be paid after submission of draft report.
- c. Remaining 30% of the total cost of the project will be paid after submission of final report.

4. **Other conditions**

- a. MPCB reserves the right to cancel / modify / change the work order if required or your work is not found satisfactory.
- b. In case of any dispute, the decision of the Member Secretary M.P.C. Board will be final and binding.

It is requested to acknowledge the receipt and acceptance of this work order by returning duly signed copy of the same.

Your's sincerely,


(Rajeev Kumar Mital I.A.S.)
Member Secretary

Copy to:

1. Joint Director (WPC), MPC Board, Mumbai – for necessary follow up.
2. CAO, MPC Board, Mumbai – for information and release of payment as stated above plus taxes as applicable.