

## Terms of Reference

### Selection of Firm

#### Pilot Study using eco friendly practices for removing of water Hyacinth .

(Removal of water Hyacinth and weeds from 1 KM upstream of Kodiyalam anicut to Kodiyalam anicut using Eco- Friendly Practices ).

#### **Background:**

Pennaiyar river experiencing all sorts of Industrial effluents and sewage sludges of entire Bangalore city. The river is extensively dammed for irrigation, especially in Tamil Nadu. The Pennaiyar drains an area of 16,019 Sq km out of which nearly 77 percent lies in Tamil Nadu. The river originates in the Nandi Hills in the Chikkaballapur district of Karnataka and flows through Tamil Nadu before entering into the Bay of Bengal. Kelavarapalli dam is built across this river near Hosur. The Krishnagiri dam and Sathanur Dam are also built across this river. Moreover this water flow raises the water table throughout the river basin and feeds numerous reservoirs/tanks. Some of the Bangalore's sewage mixes with this river via Varthur Lake and other channels. Pennaiyar river enters Tamil Nadu near KodiyalamAnicut at Sokkarasampalli village by carrying the sewage water of some areas of the Bangalore city and the same water without any treatment is stored in Kelavarapalli reservoir and used for various purposes like irrigation, drinking, industrial use, etc.,

Kelavarapalli Reservoir has been constructed in 1993 across the Pennaiyar at about 19 km downstream of Tamil Nadu border of the river. It irrigates about 3240 ha. It is an Earthen Dam. The Capacity of Reservoir is 13.22 Mcum. Its Catchment Area is 2442 sqkm. Its water spread area is 3.50 sqkm. Therefore, the Government of Tamil Nadu has issued an order (G.O (MS.) No. 91 PW (WR.1)

Department dated 21.04.2017) for studying of Kelavarapalli Reservoir to find out the solution for issues related to treatment and safe disposal of sewage being let out by the Bangalore City Corporation into the Kelavarapalli Reservoir.

Hence, it is better to remove water Hyacinth and weeds from the upstream of Kodiyalam anicut to Kodiyalam anicut using Eco- Friendly Practices.

### **Scope of Work:**

The scope of work includes removal of water Hyacinth and weeds from 1KM upstream of Kodiyalam anicut to Kodiyalam anicut using Eco- Friendly Practices.

The Quality of work done will be monitored by the Engineer in - charge and or by the consultant appointed by the client at required interval as decided by the client at the site and by collection of samples randomly.

### **Duration of Job:**

The task has to be completed within 2 months from the date of awarding the work and reported within 30 days in the form of a detailed report stating all the works carried out, dosages of materials used and the test results to the concerned Kelavarapalli section officer of Environmental Cell Sub Division, WRD. Any extension of time would be possible with mutual consent under exigencies that are beyond the control of the firm.

### **Qualification:**


The firm must have relevant professional experience in removing water hyacinth in waterbodies by using eco friendly practices. The Firm must have served atleast 3 projects of similar nature

### Terms and Conditions:

1. Permission to access the working site will be arranged by the Section officer.
2. Firm shall make its own arrangement for supplying materials at site.
3. The firm should submit a certificate from the competent authority that would not have any ill effect both on aquatic life and human.
4. Firm shall employ labours in sufficient numbers either directly or through sub-contractors to maintain the daily progress and quality to ensure workmanship to the satisfaction of the Engineer-In-Charge.
5. The firm has to submit organisation chart of their set up for this work.
6. Power etc required for this removal shall be arranged by the Firm.
7. The Firm has to carry out the work without affecting the environment.
8. No work is done without the presence of firm's representative at the work spot.
9. The water hyacinth removed from the river shall not be dumped in the banks of the river and should be dumped in the locations as per the instructions of the Engineer in charge.
10. The Firm shall strictly adhere to various labour laws in force.
11. The selected firm would enter into contract with the WRD as per the government norms.

### Payment:

No advance payment will be made and 75 % of contract value will be paid on completion of work after satisfaction of the Engineer in charge. After inspection of the Executive Engineer, Environmental Cell Division, Chennai, the balance 25% will be paid after deducting the security deposits as per the norms in force. In case the performance is not satisfactory, no payment will be made for this work of waterhyacinth removal.

  
Executive Engineer, WRD,  
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