

CENTRAL POLLUTION CONTROL BOARD
Parivesh Bhawan, East Arjun Nagar
Delhi-110032

Reference: Invitation for Bid-ICB No. HP-II/CPCB-1/ 2011-12

Sub: Extension of Bid validity & Bid security for Supply, Installation, Testing, Training and Commissioning of Real Time Water Quality Monitoring Stations (RTWQMS)

The International Competitive Bids (ICB) for Supply Installation Testing Training and Commissioning of Real Time Water Quality Monitoring Stations (RTWQMS) submitted by firms (M/S SGS Weather & Environmental Systems Pvt Ltd, M/S Elcome Technologies Pvt Ltd, M/S Essel Shyam Technologies Ltd., M/S Trittech Engineering & Testing Singapore Pvt Ltd. and M/S Wintech Engineers Pvt. Ltd.) were opened at CPCB on 31.1.2012 and are under evaluation. The validity of the bid is till 30.05.2012 (120 days from 31.01.2012) & bid security till 27.6.2012(148 days from 31.01.2012). As the evaluation process is likely to take some more time, it is requested that the validity of bid and bid security be extended up to June 30, 2012 & July 28, 2012 respectively. The concurrence for extension of the validity of bid and bid security be submitted to this office positively on or before May 30th, 2012.

Member Secretary

Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar,
Delhi-32

CORRIGENDUM

IFB No: IICB-HP II/CPCB -1 /2001-12 Dated: January 16th, 2012

International Competitive Bidding (ICB) for Supply, Installation, Testing, Training and Commissioning of Real time
Water Quality Monitoring Stations

CPCB invited the procurement of supply, installation, testing, training and commissioning of Real Time Water Quality Monitoring Stations, through Invitation for Bid (IFB) published on 12.09.2011 in Hindustan Times and Times of India as well as on the website of CPCB (www.cpcb.nic.in). Pre bid queries, responses and addendum, as approved by the World Bank, is being intimated to all the bidders who have attended the pre bid meeting held on 14.10.2011 through e-mail and is also posted on the web site of CPCB as well as UNDB.

The revised bidding calendar is indicated below:

Sale of bid document: 12-09-2011 to 30-01-2012

Bid Submission Date: 31-01-2012 at 1100 hrs at CPCB

Bid Opening Date: 31-01-2012 at 1130 hrs at CPCB

Member Secretary

ADDENDUM

CENTRAL POLLUTION CONTROL BOARD

HYDROLOGY PROJECT PHASE-II

ICB No: HP II/CPCB-1 /2011-12

Pre-bid Meeting: 14th October 2011

Procurement of supply, installation, testing, training and commissioning of Real Time Water Quality Monitoring Stations (RTWQMS)

AMENDMENT TO BID DOCUMENT

Amend-ment No.	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Para or Clause after Amendment/ Additional information to be included in Bidding Document	Existing Clause of Bid Document	Revised Clause
1	Page 151 17.1 of GCC	No modification in SCC	Any increase in tax or imposition of a new tax element will be borne by the Purchaser		Kindly refer to clause GCC 31.1
2	Page 95 3.1.1	Data Collection System General Specification ... Keyboard: (2).Resolution (3).Operating Humidity (4). Sampling Rate (to be	On receipt of observations from potential bidders on the technical specification, these were reviewed as some changes made.	(1).Keyboard: To facilitate viewing of data as well as data downloads (2).Resolution- (3).Operating Humidity :5-95% non-condensing.	(1).Key Board or similar device: To facilitate viewing of data as well as data downloads (2).Resolution-A minimum resolution of 16 bit AD conversion is required (3). Operating Humidity : 5-100% non-condensing. (4).Varying Sampling rate

Amendment No.	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Para or Clause after Amendment/ Additional information to be included in Bidding Document	Existing Clause of Bid Document	Revised Clause
		added) (5). Power Consumption (to be added)			not exceeding 15 minutes. (5). Ultra low power-in non active mode
3	Page 96 3.1.5 Enclosures	Enclosures- The material for the enclosure shall be of steel plate or resistant plastic, protection IP 68 (NEMA 4)	IP 65 may be used	The material for the enclosure shall be of steel plate or resistant plastic, of protection IP 68 (NEMA 4) or better with safety lock of good quality	The material for the enclosure shall be of steel plate or resistant plastic, of protection IP 65 (NEMA 4) or better with safety lock of good quality
4	Page 15 ITB/BDS	General: Whether OEM can authorize more than one system Integrator. Please clarify	Refer Section II Bidding Data Sheet (BDS) ITB 19.1 (a)	ITB 19.1 (a) Manufacturer's authorization is: required.	ITB 19.1 (a) Manufacturer's authorization is: required. Manufacturer can authorize one or more system integrator
5	Page 95 3.1 General Specifications	Distance between station and surface of water for all location to estimate total length of cable.		3.1 General Specifications of Water Quality Monitoring Stations: On bridge mounted structures, the structure (or sensor package) will need to be moved laterally up to twice per year to keep the instrument package in the low water channel. All sites will need the capability to move the sensor package vertically to keep the sensor package between 0.5-5 m below the surface of the water	3.1 General Specifications of Water Quality Monitoring Stations: On bridge mounted structures, the structure (or sensor package) will need to be moved laterally up to twice per year to keep the instrument package in the low water channel. All sites will need the capability to move the sensor package vertically to keep the sensor package between 0.5-5 m below the surface of the water . See

Amendment No.	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Para or Clause after Amendment/ Additional information to be included in Bidding Document	Existing Clause of Bid Document	Revised Clause
					Table-A for other particulars of sites.
6	Page 95 Alarm Output		Are these to be broadcast from remote locations?	Alarms based on a single sensor, and/or group of sensors, and/or algorithms calculated by the data acquisition system. Alarms shall be transmitted through the GPRS network.	Alarms based on a single sensor, and/or group of sensors, and/or algorithms calculated by the data acquisition system. Alarms shall be transmitted through the GPRS network. Alarm will trigger from remote station however the display will be at Central Station
7	Page 100 3.2.7 Specification of BOD	Kindly confirm the response time required for BOD sensor.		Response time < =60 seconds	Response time should not be more than 15 minutes
8	Page 100 3.2.8 Specification of COD	Kindly confirm the response time required for COD sensor.		Response time < =60 seconds	Response time should not be more than 2 minutes
9	Section IV Page 107 4.2.6 UPS	"power back to HOT REDUNDANT servers	Section IV-Refer 4.2.6 Replace hot redundant server to data collection and Data Base server	The UPS shall provide 2 hours Power back to Hot redundant servers, web servers and data processing computer.	The UPS of sufficient capacity shall provide power back of two hours to data collection and database server, web servers and data processing work station computer. Bidder shall give computation of the capacity of UPS proposed.

Amendment No.	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Para or Clause after Amendment/ Additional information to be included in Bidding Document	Existing Clause of Bid Document	Revised Clause
10	Page 108 4.2.10	42 inch LED display	Required for display of Real Time Data	One 42" widescreen LED 1080p HDTV to be integrated for display of multiple simultaneous products	One 42" widescreen LED 1080p HDTV to be integrated for display of real type data.
11	Page 108 Visualisation of data	Enquiry of picture of remote data station	Image of the site and Data in various forms	Enquiry of picture of remote data station	Image of site and data in various forms.
12	Page 118 A 0.4 and A 0.5	Brochure and Photo of RTWQMS			Brochures for individual items as in Table
13	Page 25 Post qualification Requirements (ITB 38.2) (b) Experience and Technical Capability		The bidder must provide evidence of maintaining services for the type of equipment specified in this document from at least one centre in India/abroad for over one year.	(iii)The bidder must provide evidence of maintaining services for the type of equipment specified in this document from at least one centre in India for over one year. In case the bidder is unable to provide this, a detailed plan must be included in the bid documentation for the provision of the after sales service and annual comprehensive maintenance needed in this contract, along with evidence that the bidder has maintained instruments using similar technology (a sensor coupled to a data logger) with at least similar coverage and amounting to at	(iii)The bidder must provide evidence of maintaining services for the type of WQ equipment specified in this document from at least one centre in India/abroad for over one year. In case the bidder is unable to provide this, a detailed plan must be included in the bid documentation for the provision of the after sales service and annual comprehensive maintenance needed in this contract, along with evidence that the bidder has maintained instruments using similar technology (a sensor coupled to a data logger) with at least similar coverage and amounting to at

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				least 90% of the value of after-sales services in the current bid in any of the last 3 years.	least 90% of the value of after-sales services in the current bid in any of the last 3 years.
14	Page 98 3.2.1	Specification for PH:- Accuracy: ≤ 0.01 units of pH	In view of river water quality monitoring consider accuracy as ≤ 0.2 units	3.2 Specification for sensors on water Quality Platform 3.2.1 Specification for PH:- Accuracy: ≤ 0.01 units of pH	3.2 Specification for sensors on water Quality Platform 3.2.1 Specification for PH:- Accuracy: ≤ 0.1 units of pH
15	Page 98 3.2.3	Specification for Conductivity:- Accuracy: $\pm 0.1\%$ of full scale	To accommodate better competition/specification as $\pm 2\%$ of reading	3.2 Specification for sensors on water Quality Platform 3.2.3 Specification for Conductivity:- Accuracy: $\pm 0.1\%$ of full scale	3.2 Specification for sensors on water Quality Platform 3.2.3 Specification for Conductivity:- Accuracy: $\pm 0.5\%$ of full scale
16	Page 100 3.2.6	Specification for Dissolved Ammonia:- Accuracy: $\leq 3\%$ of full scale	For better participation you may consider accuracy as $< 5\%$ of reading	3.2 Specification for sensors on water Quality Platform 3.2.6 Specification for Dissolved Ammonia:- Accuracy: $\leq 3\%$ of full scale	3.2 Specification for sensors on water Quality Platform 3.2.6 Specification for Dissolved Ammonia:- Accuracy: $\leq 5\%$ of full scale
17	Page 101 3.2.9	Specification for Nitrates:- Accuracy: $\pm 2\% + 0.5$ mg/l of certified reference standard	For better participation you may please consider accuracy as $\pm 5\%$ of reading	3.2 Specification for sensors on water Quality Platform 3.2.9 Specification for Nitrates:- Accuracy: $\pm 2\% + 0.5$ mg/l of certified reference standard	3.2 Specification for sensors on water Quality Platform 3.2.9 Specification for Nitrates:- Accuracy: $\pm 5\% + 0.5$ mg/l of certified reference standard

Table A: Background Information of RTWQ Monitoring Sites

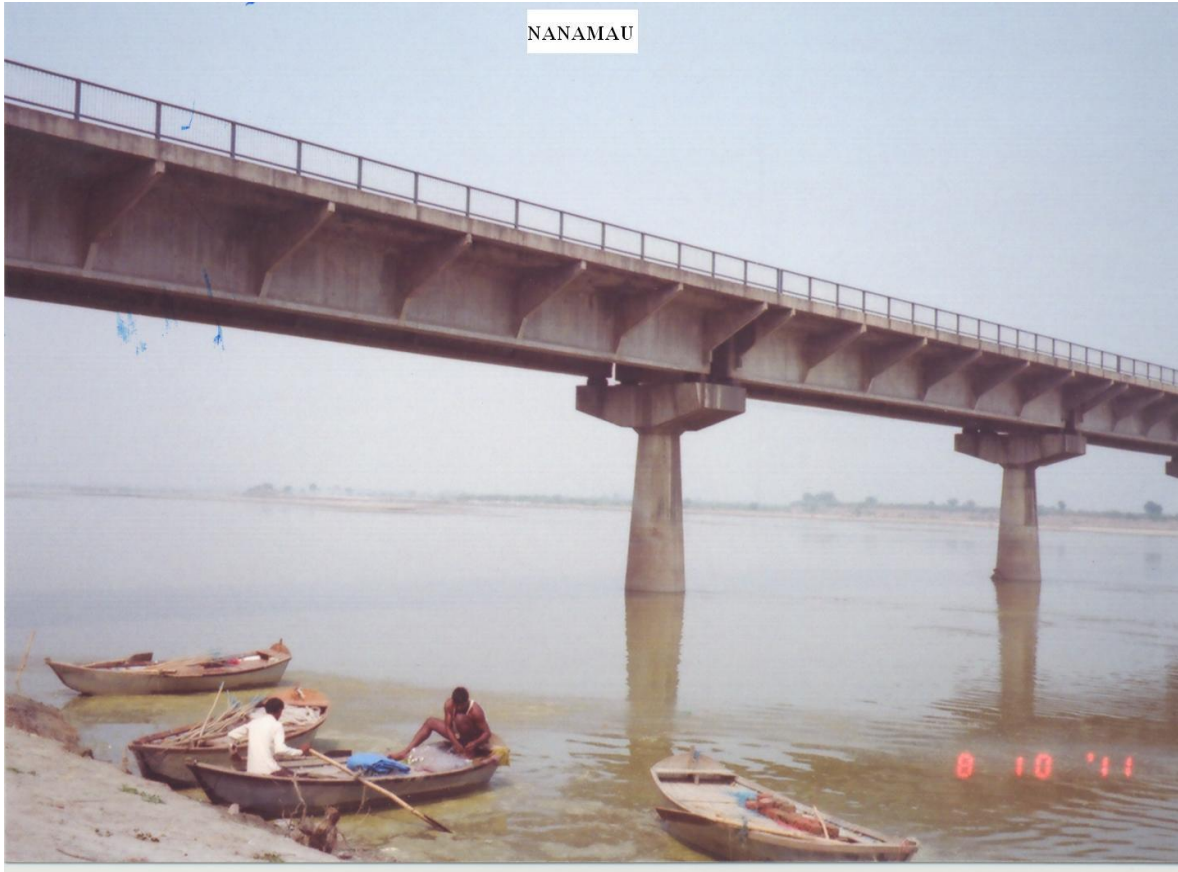
(Photographs of sites are reproduced below in addition – and also a Flow and Distance Diagram to provide additional understanding of the whole scheme)

S. No.	RTWQ Monitoring Sites	Distance between the Stations(Approx)	Depth during Lean Season (in Meters)	Depth during Flood (in Meters)	Availability of AC Power
RIVER GANGA					
10	Upper Ganga Bhimgoda Barrage, Haridwar, Uttarakhand	0 Km Haridwar	6 Meter	8 Meter	YES
9	Downstream Of Kannauj (Nanamau Bridge-Bilhour-Bangarmou-Lucknow Road) ,Uttar Pradesh	500 Km from Haridwar	2 Meter	5 Meter	NO
8	Kanpur Downstream (Jajmau Bridge –Lucknow-Kanpur Road), Uttar Pradesh	600 Km from Haridwar	2 Meter	5 Meter	NO
7	Allahabad Downstream Shashtri Bridge (Before Sangam) National Highway No.2 ,, Uttar Pradesh	800 Km from Haridwar	1 Meter	5 Meter	YES
6	Varanasi Upstream State Highway 98 Bridge, Uttar Pradesh	900 Km from Haridwar	2.5 Meters	6 Meter	NO
5	Varanasi Downstream High Tension Transmission Line Pillar, Uttar Pradesh	910 Km from Haridwar	2.5 Meters	6 Meter	NO
4	Gandhi Ghat (Bhagirathi Vihar Floating Restaurant Behind Nit College) Ashok Rajpath Patna,Patna	1200 Km from Haridwar	3 Meters	6 Meter	YES
3	Kolkata Municipal Corporation Old Jetty CESC Compound (Circular Garden Reach Road About 15 Km From Kolkata, Kolkata,West Bengal	1800 Km from Haridwar	3 Meters	3.5 Meter	YES
RIVER YAMUNA					
1	Wazirabad Barrage in Northern Part of Delhi (Water intake point of NCT of Delhi, under the jurisdiction of Delhi Jal Board), Delhi	0 Km from Delhi	3 Meters	4 Meter	YES
2	Okhla Barrage downstream of Delhi connecting Southern Delhi to NOIDA (off take point of Agra Canal and Gurgaon Canal and in the vicinity of Kalindi Kunj,maintained by Uttar Pradesh Irrigation Department) ,Delhi	25 Km from Wazirabad	3 Meters	4 Meter	YES

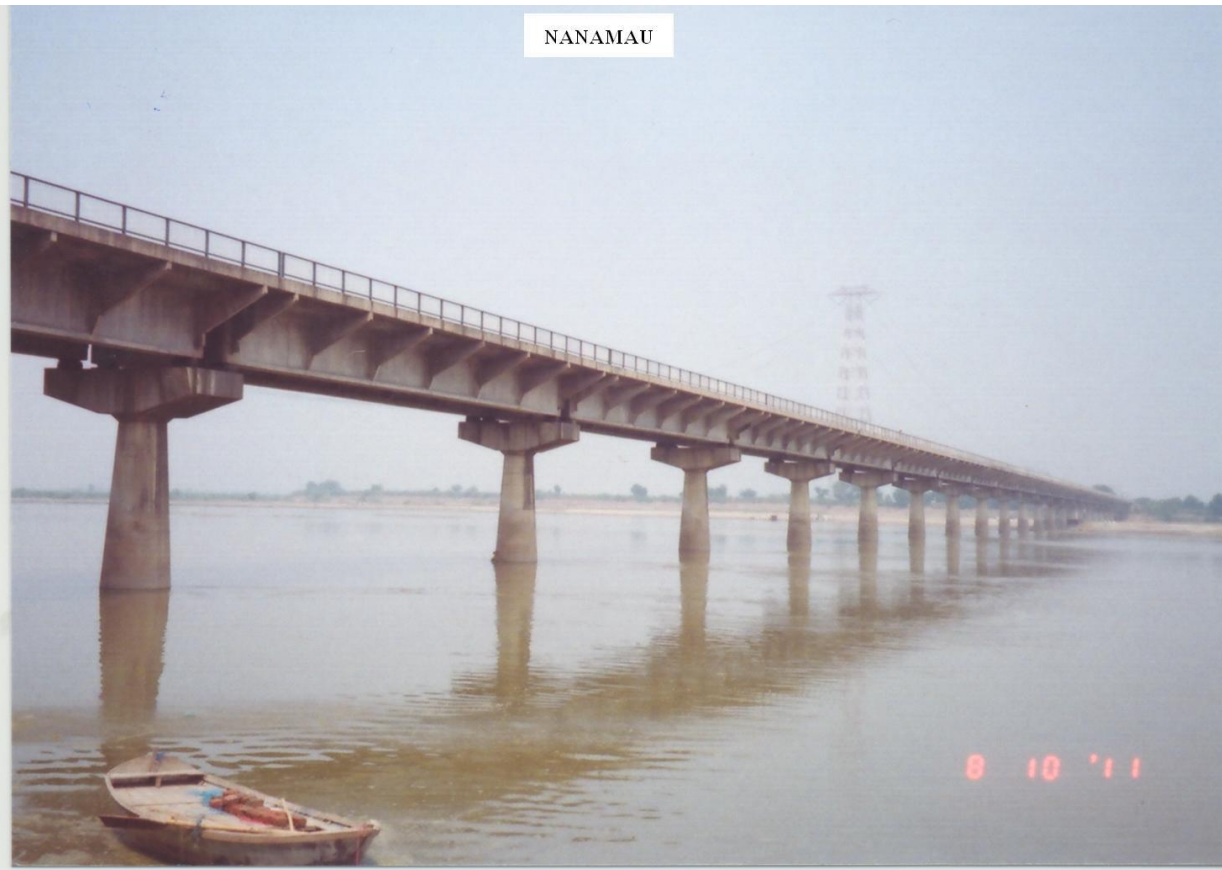
BHIMGODA BARRAGE



NANAMAU



NANAMAU

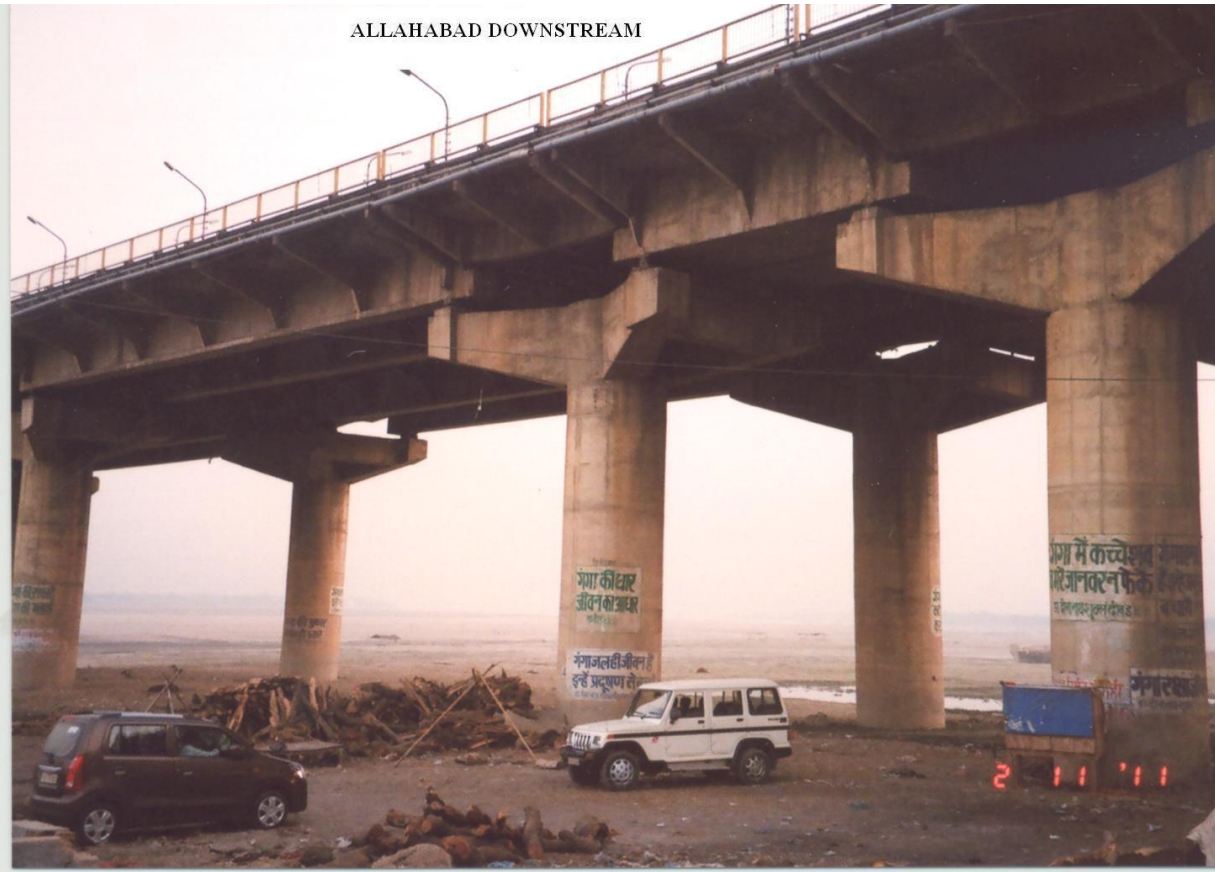




JAJMAU



ALLAHABAD DOWNSTREAM

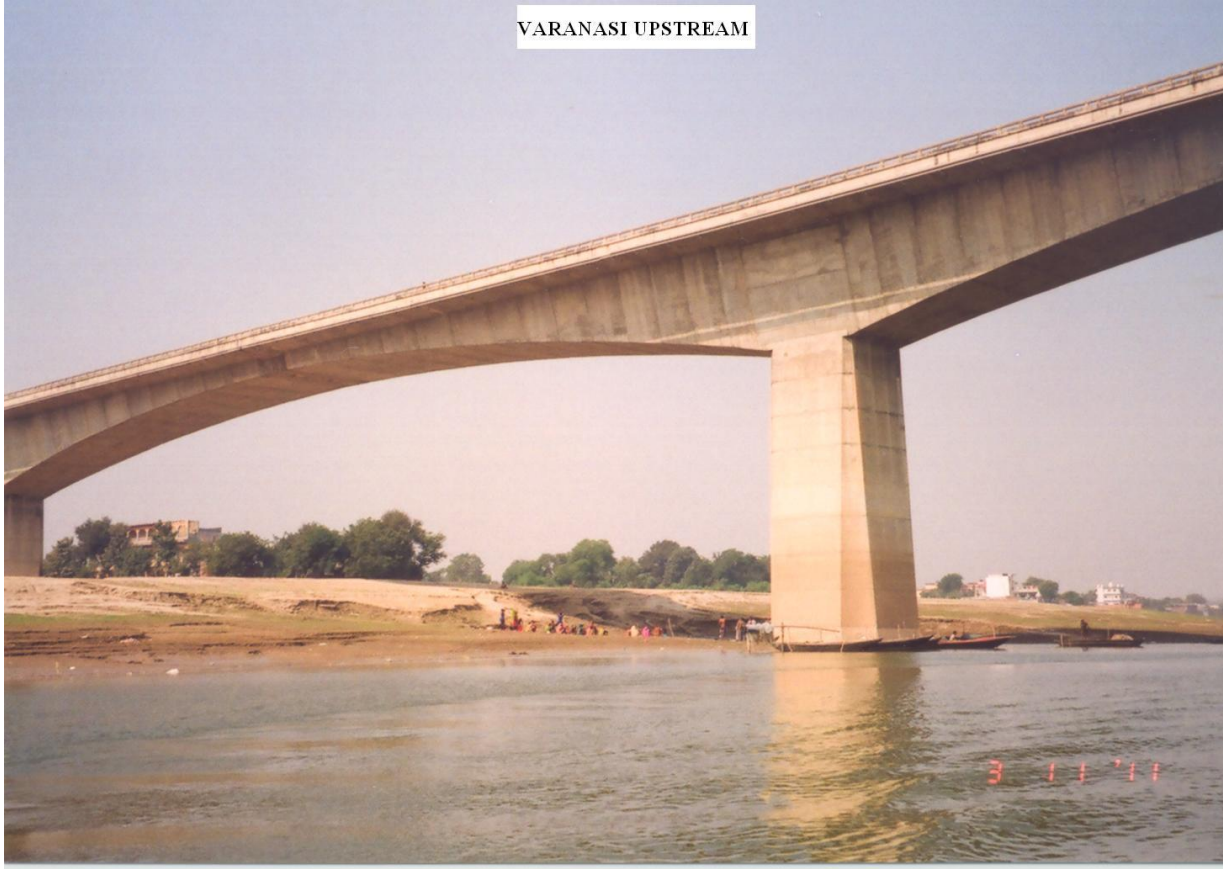


ALLHABAD DOWNSTREAM

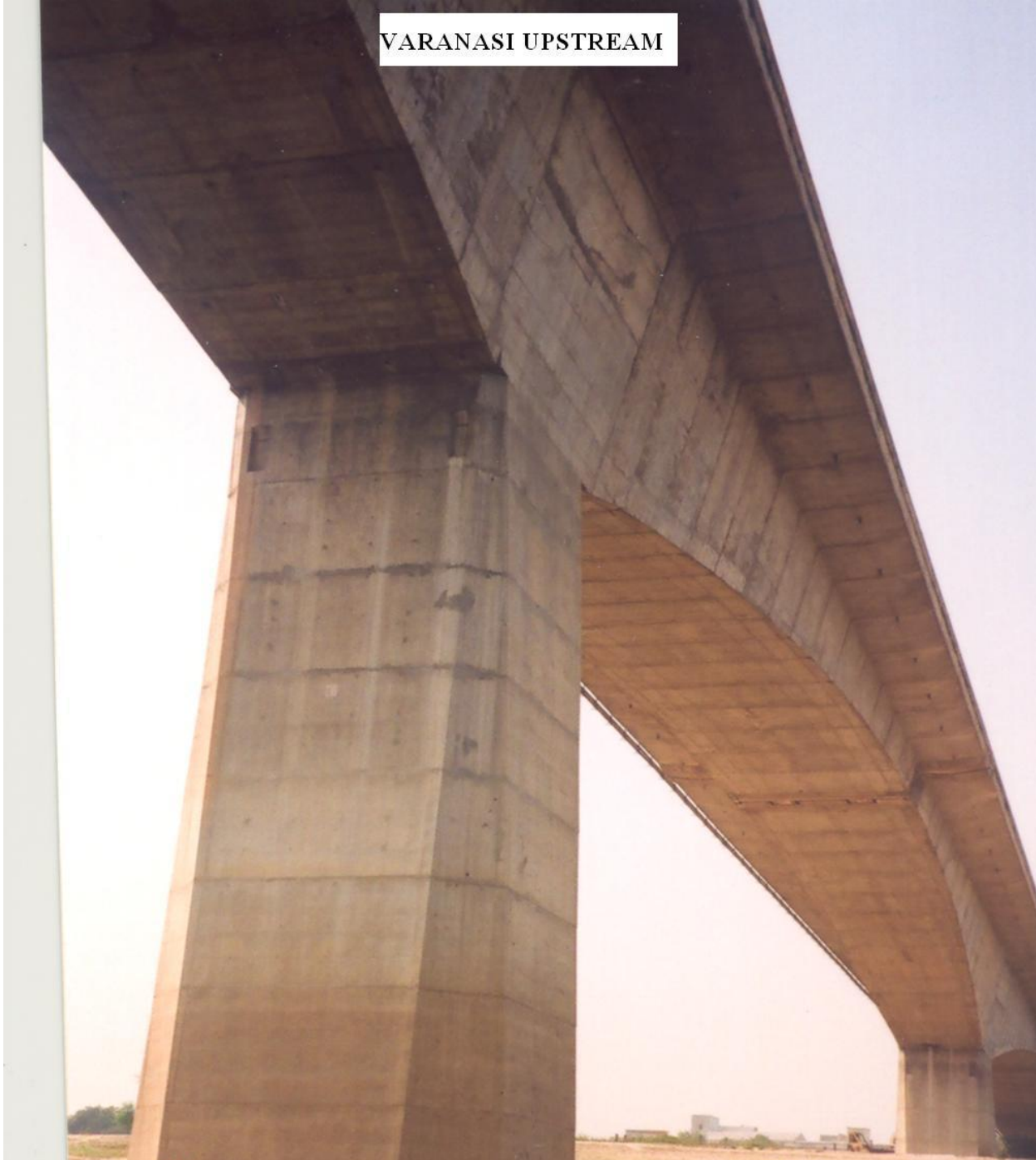




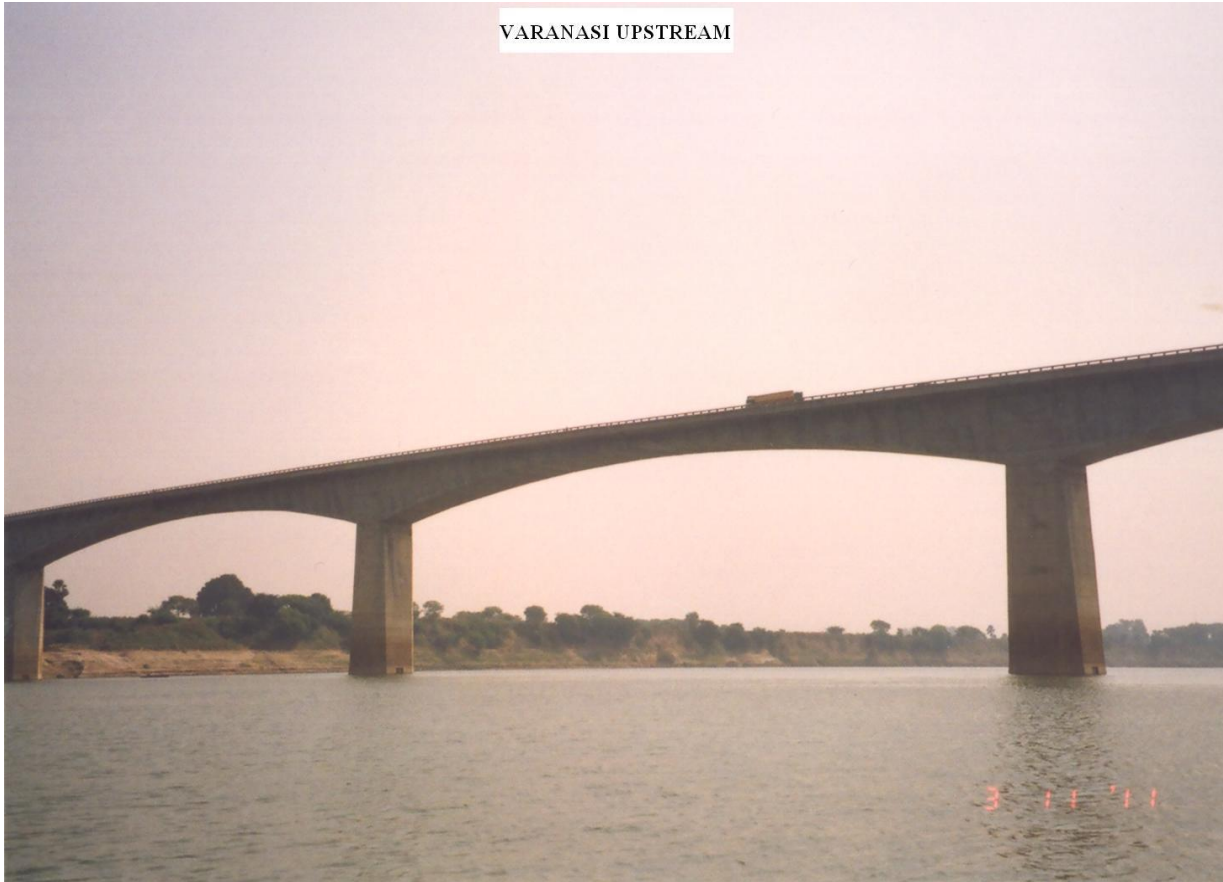
VARANASI UPSTREAM



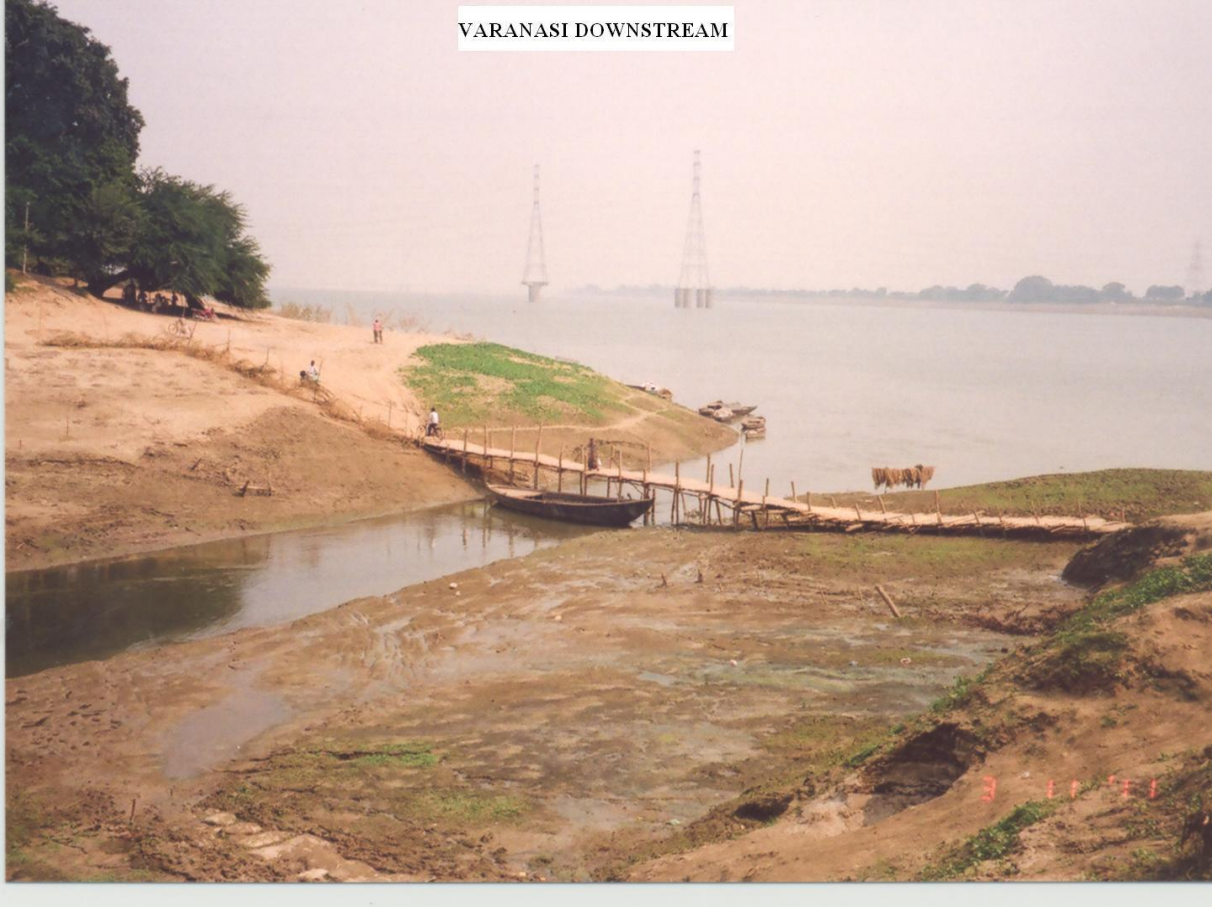
VARANASI UPSTREAM



VARANASI UPSTREAM



VARANASI DOWNSTREAM



VARANASI DOWNSTREAM



FLOATING RESTAURANT GANDHIGHAT



FLOATING RESTAURANT GANDHIGHAT



FLOATING RESTAURANT GANDHIGHAT



FLOATING RESTAURANT GANDHIGHAT



FLOATING RESTAURANT GANDHIGHAT



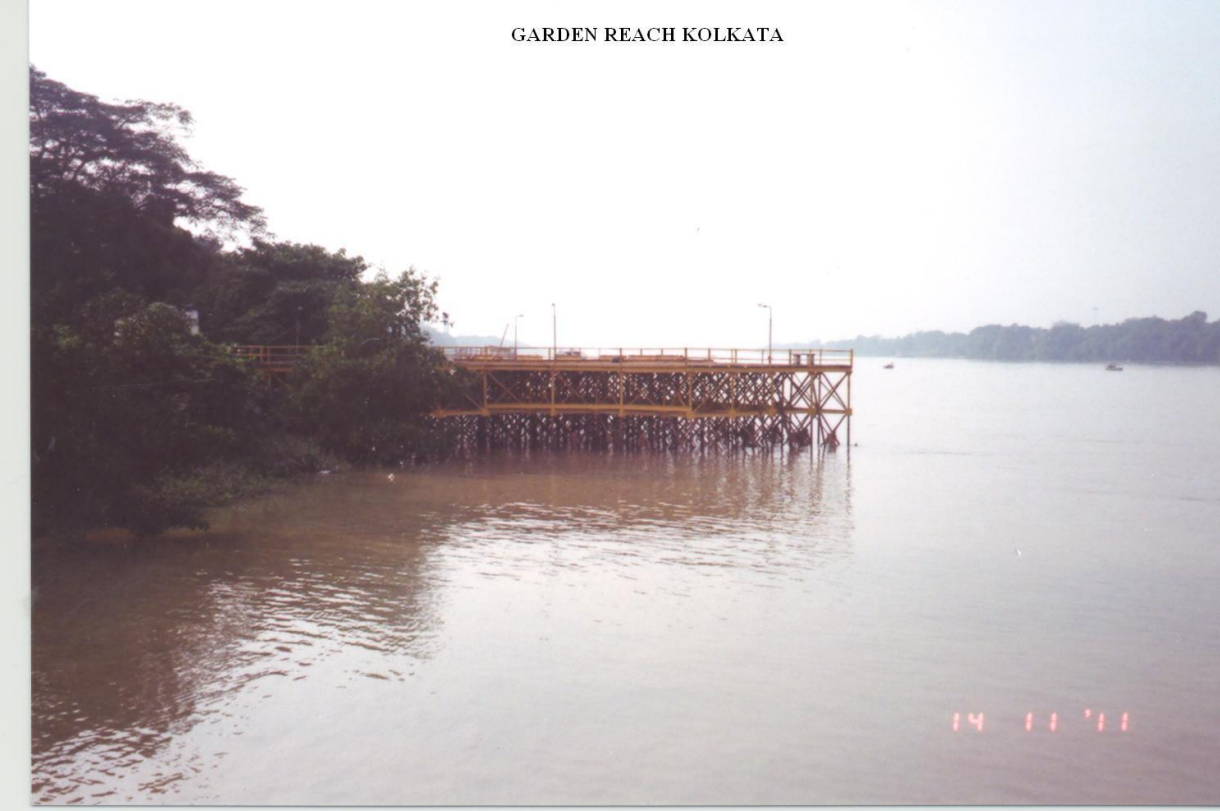
GARDEN REACH KOLKATA



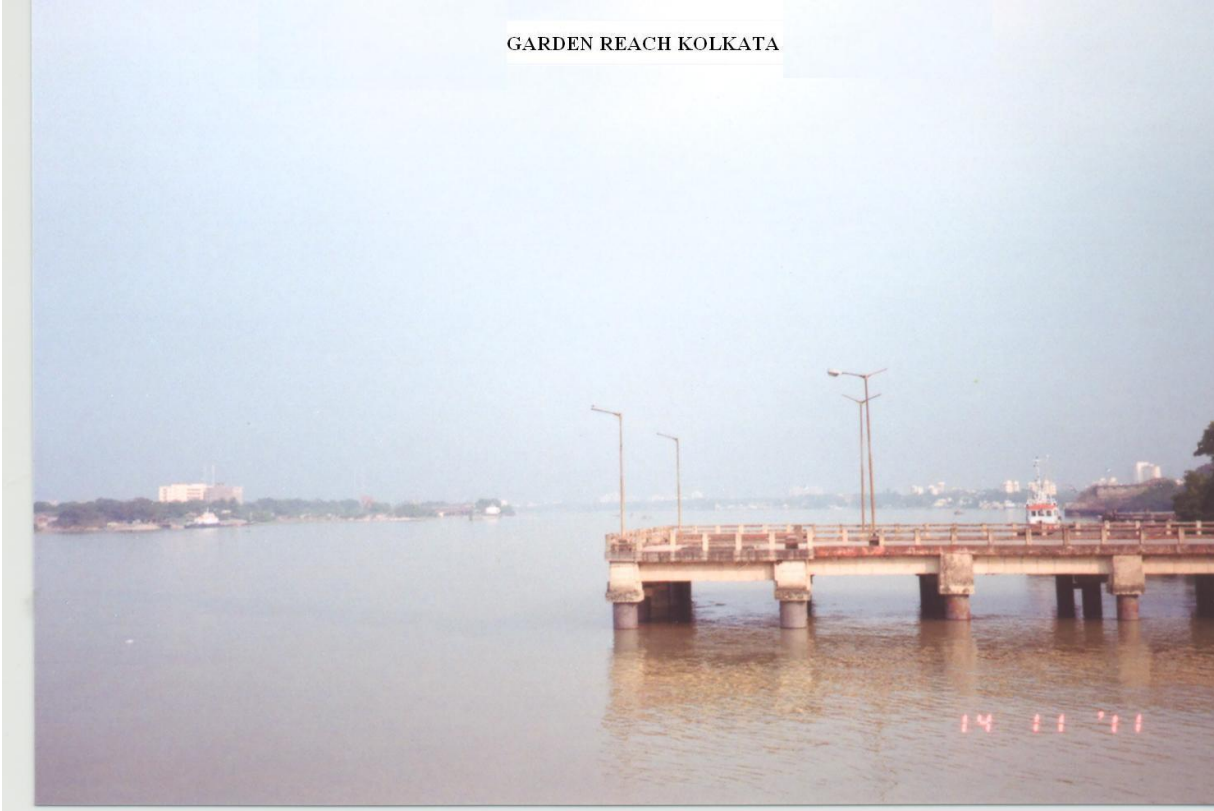
GARDEN REACH KOLKATA



GARDEN REACH KOLKATA



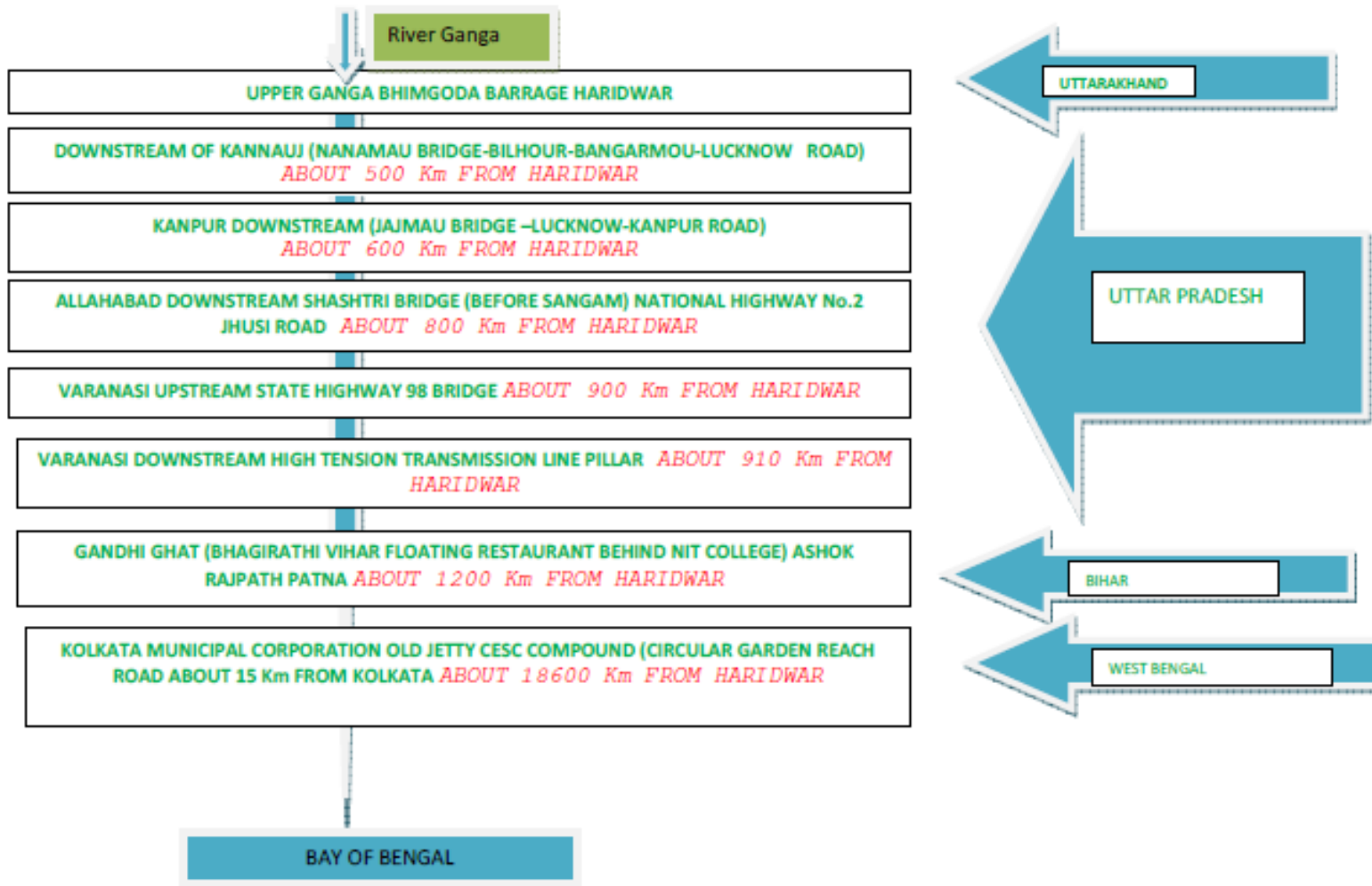
GARDEN REACH KOLKATA



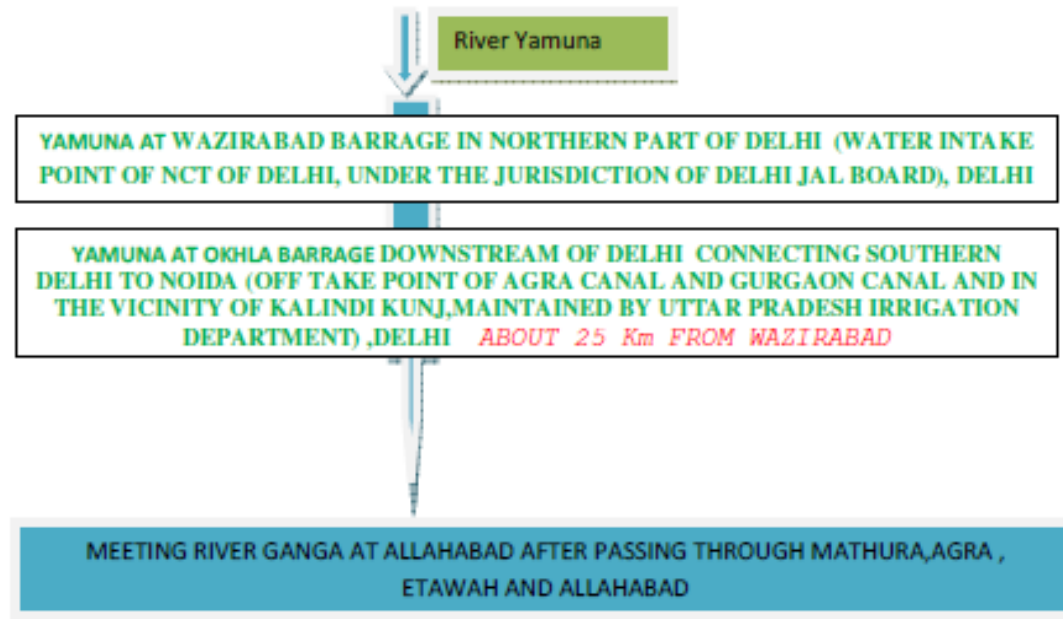


GARDEN REACH KOLKATA

RIVER GANGA FLOW DIAGRAM AND TENTATIVE SITES FOR REAL TIME WATER QUALITY MONITORING STATIONS



RIVER GANGA FLOW DIAGRAM AND TENTATIVE SITES FOR REAL TIME WATER QUALITY MONITORING STATIONS



**CENTRAL POLLUTION CONTROL BOARD
HYDROLOGY PROJECT PHASE-II
ICB No: HP II/CPCB-1 /2011-12
Pre-bid Meeting : 14th October 2011**

PRE BID QUERIES AND REPLIES

**Procurement of supply, installation, testing, training and commissioning of Real Time
Water Quality Monitoring Stations (RTWQMS)**

In compliance to invitation for bid, pre-bid meeting convened on 14.10.2011 in Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-32. Pre-bid meeting was attended by 35 participants. The register of bidders/ participants is provided in Annex-I. The list of CPCB officers attended the pre-bid opening is given at Annex-II.

Present were:

Representatives of Bidders:

S.N	Name of Bidder	Place of registration	Name of representative	Phone No.	Email id
1.	Tritech Group Ltd. Singapore	Singapore	Sathvik Rao	+6583443679	sathvik.rao@syseng.com.sg
2.	Techspan engineering	Bangalore	Mayank Parekh	9845049371	mayank.parekh@techspaneng.com
3.	Wipro Ltd.	Bangalore	Devesh Mathur	9560692316	devesh.mathur@wipro.com
		Gurgaon	Akhilesh Sahi	9871502221	akhilesh.sahi@wipro.com
		Gurgaon	Baalesh Mathur	8800392457	baalesh.mathur@wipro.com
		Gurgaon	Gaurav Batra	9311501729	
4.	Essel Shyam Technologies Ltd.	Noida	Kapil Watts	9711009204	kapilw@esselshyam.net
			Ankit Mathur	9711098964	ankitm@esselshyam.net
5.	Orbit Tehnologies	Delhi	K.S.Rao V.K.Verma	9393759805, 09393259809 9350504942	ksrao@orbitindia.com verma.delhi@orbitindia.com
6.	Toshniwal	Delhi	Anil Paliwal Abhishek Toshniwal	09829087017	abmshell@toshcon.com
7.	SGS Weather	Delhi	A.K.Singh	9958830445	Singh.ak@weather-india
8.	NCMSL	Delhi	Ujjawal Jha	9503019555	Ujjwal.j@ncmsl.com
		Hyderabad	Manjeet Singh		Manjeet.s@ncmsl.com
9.	HACH	Delhi	Praveen Gupta	9810847322	pgupta@hach.com
		Hyderabad	G.B.Diwakar	9000013176	diwakar@hach.com
10.	OTT Hydromet	Delhi	Somesh kumar	+91-9958883120	someshkumar@hach.com

11.	Horiba India Pvt. Ltd. Horiba Japan Inter	Delhi	Ashwani Kantroo	+91-9560199910	ashwani.kantroo@horiba.com
		Japan	Tomo Enokibori	+91-9561089731	tomo.enokibori@horiba.com
12.	Swan Enviro Engineers Pvt. Ltd.	Hyderabad	Ch. Jagdeesh	+91-9642225220	jagadeesh@swanenviron.com
			Dr. M.C.Datta		
13.	Mahabal Enviro Engineers Pvt. Ltd.	Thane	Anagha Mahabal Raghunath Mahabal	9324242225 9323951573	Anagha.mahabal@gmail.com raghunath@mahabal.com
14.	YSI INC YSI INC	Gurgaon UK	Sham Chandhari Ian Thompson	9891220639	sham@ysi.com ithompson@ysi.com
15.	KLG SYSTEL LTD.	Gurgaon	Sumit Goel Yogesh Kapoor	9811305468 9971029922	sumit@klgssystem.com yogeshk@klgssystem.com
16.	Austrian Embassy	N Delhi	Amrit P Singh	9811171819	newdelhi@advantageaustria.org
17.	AAXIS /S::CAN	Kaushambi Delhi	Sanjeev Gogia	9216745369	info@aaxisnano.com
		Vienna, Austria	Robert Wurm	++43 2197393.36	rwurm@s-can.at
18.	GIZ	Delhi	Juergen Bishoff Chaman	08527100722	
				8527300433	Chaman.lal.Dhand@giz.de
19.	Sutron Hydromet Systems Pvt. Ltd.	Delhi	N.S.Sameer	09971692657	sameer@sutron.com
20.	Envirotech Institute(p) Ltd.	Delhi	S.K.Gupta	98114-65395	skgenvirotech@gmail.com
21.	Forbes Marshall	Delhi	A.S.Sandhu	9810110794	asandhu@forbesmarshall.com

Representatives of Purchaser:

Dr.D.D.Basu,Sc.E

Mr.R.M.Bhardwaj,Sc.D

Ms.Suniti Parashar,SSA

Mr.R.P.Gupta,ACO

Mr.Vergheese,AO (Material)

Points raised at the meeting and in writing are presented with responses below. The page numbers are as per the printed hard copy for sale.

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
113	9(a) of Tech. Specification	Penalty for WARRANTY, MAINTENCANCE, AND OPERATION - The maximum limit of the total penalty in a year on this account shall be limited to 50% of the value of maintenance contract for corresponding year	Request for limiting the penalty to 5% of the value of maintenance contract for corresponding year.	No change envisaged
115	9.6 of Tech. Specification	Acceptance- As per Bid	Request for the following addition-Any equipment supplied or services provided by bidder shall be deemed to have been accepted by Customer if Customer puts such equipment, services to use in its business or does not communicate its disapproval of the same together with reasons for such disapproval within 15 days from the date of receipt of such equipment or delivery of the services	No change envisaged
151	16.3	Terms of Payment - Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the supplier, and after the Purchaser has accepted it.	Payments shall be made promptly by the Purchaser, but in no case later than fifteen (15) days after submission of an invoice or request for payment by the supplier, and after the Purchaser has accepted it.	No change envisaged
151	17.1 of GCC	Taxes- As per RFP	Any increase in tax or imposition of a new tax element will be borne by the customer	See Amendment No 1
153	20.5 of GCC	Confidentiality- The provisions of GCC clause 20 shall survive completion or termination, for whatever reason, of the contract	Confidentiality obligations should be limited to 3 years or 5 years after termination.	No change envisaged
158	30.1 of GCC	Limitation of Liability- Except in cases of criminal negligence or willful misconduct,	Except in cases of criminal negligence or willful misconduct, (a)the Supplier either party shall not be liable to the Purchaser	No change envisaged

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
		<p>(a)the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss or use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and</p> <p>(b)the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement.</p>	<p>other, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss or use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and</p> <p>(b)the aggregate liability of the both the parties Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation <u>shall not apply to any obligation of the supplier to indemnify the purchaser with respect to patent infringement.</u></p>	
161	GCC 35.3	Termination for convenience- As per RFP	Notice of 60 days to be provided for termination of convenience.	No change envisaged
169	SCC for GCC 27.1	The maximum amount of liquidated damages shall be: Ten percent (10%) of contract amount	The maximum amount of liquidated damages shall be: five percent (5%) of undelivered portion of contract amount	No change envisaged
	General	End User License Agreement	Since bidder is acting as a reseller of completed products, bidder shall “pass-through” any and all warranties and indemnities received from the manufacturer or licensor of the products and, to the extent, granted by such manufacturer or licensor, the Customer shall be the beneficiary of such manufacturer’s or licensor’s warranties and indemnities. Customer is required to sign the EULA, if any with the OEMs/manufacturer.	No change envisaged.

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
		Transfer of title	CONTRACTOR assumes that ownership of the goods supplied under this contract is passed onto Customer on delivery of the material at the Customer location	No change envisaged
		Disclaimer of Warranty- Clause of to be added	1) Bidder EXCLUDES AND DISCLAIMS ALL WARRANTIES, CONDITIONS OR STATEMENTS, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE.	No change envisaged
		SNR- Clause of to be added	Customer hereby agrees to make the site ready as per the agreed specifications, within the agreed timeliness. Customer agrees that bidder shall not be in any manner be liable for any delay arising out of Customer's failure to make the site ready within the stipulated period, including but not limited to levy of liquidated damages for any delay in performance of Services under the terms of this Agreement.	No change envisaged
		Savings Clause- Clause of to be added	Notwithstanding anything contained herein, Bidder's failure to perform its contractual responsibilities, to perform the services, or to meet agreed service levels shall be excused if and to the extent Bidder' non-performance is caused by Company's or any third parties omission to act, delay, wrongful action, failure to provide Inputs, or failure to perform its obligation under this Agreement.	No change envisaged
		Transfer of Title: Clause of to be added	"CONTRACTOR assumes that the title of ownership of the goods supplied under this Contract is passed onto Customer on delivery of the material from warehouse or handling over the material to an independent freight forwarder for delivering the material to the Customer".	No change envisaged
		Termination- Clause to be added	In the event of termination of the Contract, Company shall pay Bidder : (1) all fees as specified in the Contract and expenses up	No change envisaged

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
			to the effective date of the termination, including work in progress, plus fees for the applicable notice period irrespective of whether Company requires Bidder services during such period; and (2) any termination charges agreed by the parties.	
		FORCE MAJEURE- Clause to be added	If either Party is unable to perform any of its obligations under this Agreement because of circumstances beyond the reasonable control of the Party, such as an act of God, fire, casualty, flood, war, terrorist act, failure of public utilities, injunction or any act, exercise, labor or civic unrest, assertion or requirement of any governmental authority, epidemic, or destruction or production facilities (a "Force Majeure Event"), the Party who has been so affected shall immediately give notice to the other party and shall do everything reasonably practicable to resume performance, except in any event from timely meeting its payment obligation. Upon receipt of such notice, all obligations under this Agreement shall be immediately suspended for the period of such Force Majeure Event. If the period of nonperformance exceeds sixty (60) days from the receipt of notice of the Force Majeure Event, the Party whose ability to perform has not been so affected may give written notice to terminate this Agreement.	No change envisaged
		Subcontracting- Clause of to be added	Notwithstanding the above, Bidder's use of its franchise and retainer resources shall not be construed as subcontracting for the purposes of this Agreement.	No change envisaged
		Data Collection System General Specification		
95		Integrated GPS: On-board GPS to provide precise location and elevation of the station. This information will be recorded	RTWQMS is fixed station at known locations where the location & elevation is fixed i.e. it is not variable parameter. Whereas Longitudes & Latitudes of each locations are already mentioned	No change envisaged

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
		by the data collection platform with the option of transmitting the parameters.	in tender document. Thus it may not be very necessary. Hence, can we offer without Integrated GPS	
96	3.1.5	Enclosures- The material for the enclosure shall be of steel plate or resistant plastic, protection IP 68 (NEMA 4)	As the enclosure is not submerged in water, there is no need of Enclosures with IP68 protection. Please note that the equivalent of NEMA4 may be IP65. Please clarify	Requirement changed to minimum of IP 65. See Amendment No 3
98	3.2.1	Specification for PH:- Accuracy: ≤ 0.01 units of pH	The application for RTWQMS is for river water quality monitoring. Hence, pH sensor with 0.2 pH may be sufficient for required application. Please confirm	See Amendment No 14
98	3.2.3	Specification for Conductivity:- Accuracy: $\pm 0.1\%$ of full scale	For river water quality monitoring, Conductivity sensor with accuracy 0.5% of reading may be better due to low value of conductivity in fresh water. Please confirm	See Amendment No 15
99	3.2.6	Specification for Dissolved Ammonia:- Accuracy: $\leq 3\%$ of full scale	The required accuracy may not be good for lower concentration of Ammonia in river water i.e. there will always be uncertainty of Reading ± 3 mg/l (3% of 100 mg/l). Therefore, we are offering Ammonia sensor with accuracy of 5% of reading that may be better. Please confirm.	See Amendment No 16
101	3.2.9	Specification for Nitrates:- Accuracy: $\pm 2\% + 0.5$ mg/l of certified reference standard	From the given specs it seems accuracy is mentioned against standard solution in lab. Whereas the accuracy of our offered Nitrate sensor is 5% of reading in river water. Please clarify and confirmed.	See Amendment No 17
			General: Whether OEM can authorize more than one system Integrator. Please clarify	Manufacturer can authorize more than one bidder. See Amendment No 4
96	3.1.5	Enclosure	Requirement of enclosure is only nine. How can we achieve the result for tenth station without enclosure?	Tenth is floating installation. See Section 3.1.5.
96	3.1.4	Photo-Voltaic	Can we have AC supply for battery charging option because we cannot use solar panel during night time & cloudy rainy	No change envisaged

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			conditions	
		General Specifications	Please kindly let us know the distance between station and surface of water for all location to estimate total length of cable.	See Table A in Addendum
95	3.1	General specifications	Please explain more about a rapid deploy floating platform/buoy type water quality monitoring station. For example, can we use the space of floating restaurant mentioned in the page 135 to put station.	Floating Platform/Buoy can be anchored
137		Photograph 8	What is the meaning of portable bridge mount installation located at Kanpur	Existing bridge structure will be use for mounting
97		Enclosure, Security	Please kindly take care about security of the WQMS from your side.	No change envisaged
98-101		Specification	Please let us know the exact meaning of Precision for the difference parameters	It is the degree to which repeated measurements under unchanged conditions show the same results.
98-101		Specification	Please let us know elaborate what is meant by self cleaning (automatic) in the specification.	Cleaning without Manual intervention
100-101		Specification	Please kindly explain what is meant by certified reference standard for accuracy for COD and NO3	Certified reference standards are used to check the quality and traceability of data for COD and NO3.
102	4.1	Data management and quality check	Please elaborate what is meant by Data validation procedures?	process that determines the technical usability of the analytical data subjected to a comparison with a set of acceptance criteria
128		Annexure-1	Do we need to provide both security guards & one more staff	No change envisaged

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			member permanently at the station?	
			Do you want display on the station or only data logging is OK?	No change envisaged
	3.2.3	Specification for conductivity- Accuracy= 0.1% of full scale	To accommodate better competition/specification as $\pm 2\%$ of reading	See Amendment No 15
	3.2.6	Specification of Ammonia - Accuracy= <3% of full scale	For better participation you may consider accuracy as < 5% of reading	See Amendment No 16
	3.2.9	Specification for Nitrates- Accuracy $\pm 2\%$ + 0.5 mg/l certificated reference standard	For better participation you may please consider accuracy as $\pm 5\%$ of reading	See Amendment No 17
			<p>Is there a provision for bidders to take insurance of the project if CPCB holds the ownership will co-operate with bidder to obtain such insurance?</p> <p>In spite of all security arrangement it is quite possible to have some damage due to vandalism and bidder should have means to recover this cost by means of such insurance.</p> <p>Are bidder expected to design and supply a system that will pump sample to the shore that will make measurement in-site?</p> <p>Is main power available at site?</p> <p>The accuracy of pH sensor stated is 0.01 pH.</p> <p>Please provide Highest Flood Level (HFL) for each site to design the system that can be raised and lowered vertically as asked in the tender</p>	<p>There are options of insurance in two names</p> <p>No pumping</p> <p>Refer Table A in Addendum</p> <p>See Amendment No 14 Refer Table A in Addendum</p>
		COD and BOD sensor specification	What is the method/technique/principal of operation	One of the method is UV-Oxidising sensor counts the electrons that are liberated to provide measurement of

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			<p>Should it be sensor type which will be submersed in water</p> <p>For cross checking the results/accuracy and what is the reference/standard</p> <p>Is these methods should be of validated, if yes which reference/standard to take.</p> <p>Self cleaning of the sensors as most of the suppliers do not have this facility</p> <p>Only customs duty exemption or can bidder/awarder will get sales tax exemptions also?</p>	<p>COD and BOD Yes</p> <p>Accuracy of measurement of online sensors compared to standardized reference methods in the laboratory by using standardized methods.</p> <p>No change envisaged</p> <p>Only customs duty exemption no other exemptions.</p>
95	3.1.1	Alarm Output	Are these alarms to be broadcast from Remote station or can be broadcast from Central Station. Kindly clarify	From Central Station only. No change to bid document.
98	3.2.1	Specification of pH	Kindly confirm the accuracy required	Refer to Bid Document. No change envisaged
98-101		Cleaning	Is Automatic Self cleaning required in each and every sensor?	Yes
100	3.2.7	Specification of BOD	Kindly confirm the response time required for BOD sensor.	See Amendment No 7
100	3.2.8	Specification of COD	Kindly confirm the response time required for COD sensor.	See Amendment No 8
			The description mentions "power back to HOT REDUNDANT servers" but bill of material does not mention any redundant servers. Kindly clarify.	See Amendment No 9

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107	4.2.6	UPS	Can we quote 3 separate UPS with 40 minutes backup for each server instead of 1 UPS with 2 hour back up for the 3 servers?	No Change envisaged
	4.2.10	42 inch LED display	Kindly elaborate the purpose of the display. Will it be used for display of real time data or just products?	See Amendment No 10
		Visualisation of data	Refer to "Enquiry of picture of remote data station". Does this means a live photo or a stored photo of the remote station? No specification of camera is mentioned in tender document.	See Amendment No 11
		Brochures and photo of RTWQMS	This refers to display of data logger or 42 inch display. Kindly clarify.	See Amendment no 12
	3.1.1	Data Collection System	<p>a) The data collection system resolution has not been mentioned. It is a important parameter for accuracy and reliability of data collection from the sensors. A minimum resolution of 20 bit AD conversion is required. This may be added.</p> <p>b) As data collection system is an outdoor unit and contains sensitive electronic circuits and is a heart of the remote system, it is necessary that it is protected with a separate enclosure so that it is fully safeguarded from humidity, water seepage. If it is put in the common enclosure it is likely to have corrosion due to battery fumes even though the battery is SMF type. It should be enclosed in to lockable IP65 qualified Enclosure. The Tempering alarm is possible if it is not kept in separate enclosure.</p> <p>c) As the system is solar power based, the power consumption of data logger system should be Ultra Low Power. In non active mode (sleep mode) Sleep Mode: ~5 mA or lower.</p> <p>d) The data logger sampling rate has not been mentioned. It should be 1 second to 60 minutes (The sampling rate should be programmable independently for each channel with in sampling range)</p>	<p>See Amendment No 2</p> <p>See Amendment No 3</p> <p>See Amendment No 2</p> <p>See Amendment No 2</p>

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			e) Humidity Range- Should be 0-100% (none condensing) instead of 5% to 95%. 100% humidity is normal during rainy season and as the system are located near river so system will always be exposed to high humidity	See Amendment No 2
	3.1.2	Data Communication	a) Telemetry As GSM/GPRS is the part of data acquisition module, it is our experience high gain external antenna is necessary as systems are located near river belts, the GPRS signal may be week. If high gain antenna is not placed, the 24 X 7 communication cannot be assured. Therefore, a high gain GSM GPRS Omni Directional at least 5 dBi antenna should require.	No Change envisaged
			b) Humidity Range- Should be 0-100% (non condensing) instead of 5% to 95%. 100% humidity is normal during rainy season and as the system are located near river so system will always be exposed to high humidity	See Amendment No 2
	3.1.3	Sealed Maintenance Free Battery	a) It has been seen that three days cloudy condition are very frequent during Monsoon season. Therefore 48 hours back up will not be enough. At least 5 days power back up should be included.	No Change envisaged
	4.2.1.	Data Collection and Data Base server	As this server is the heart of the Central Receive station, dual hot redundant servers with redundant power supply should be taken. In case of failure of primary server, the secondary server will continue to work with in millisecond, which will assure 24 X 7 X 365 days operation. Thus this server should be replaced as dual hot redundant servers (2 servers).	Refer amendment No: 9
		Price Schedule 4-Related Services Point 4	Cost of GSM/GPRS Data Transmission during installation, testing & calibration and warranty period please clarify that it includes the cost of Leased line with Static IP in Central Receive Station and also the recurring cost GPRS communication for field station to Central station for a period of two years warranty	No Change envisaged

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		Price Schedule 5: Post Warranty related Services Point 3.2	3.2 Cost of GSM/GPRS Data Transmission during installation, testing & calibration and warranty period Please clarify that it includes the cost of Leased line with Static IP in Central Receive Station and also the recurring cost GPRS communication for field station to Central station for a period of each year of Post warranty period.	This refers to AMC for 3 years after two years of warranty.
		Post qualification Requirements (ITB 38.2) (b) Experience and Technical Capability	The bidder must provide evidence of maintaining services for the type of equipment specified in this document from at least one centre in India for over one year. In case the bidder is unable to provide this, a detailed plan must be included in the bid documentation for the provision of the after sales service and annual comprehensive maintenance needed in this contract, along with evidence that the bidder has maintained instruments using similar technology (a sensor coupled to a data logger) with at least similar coverage and amounting to at least 90% of the value of after-sales services in the current bid in any of the last 3 years. As above statement contradict with itself, please clarify can we submit after sales service and annual comprehensive maintenance plan along with the evidence of maintenance of such systems by our manufacturer to meet the eligibility criteria.	Yes the Bidder (Manufacturer/System Integrator) can submit after sales service and annual comprehensive maintenance plan to meet the eligibility criteria See Amendment No 13
			Please confirm the rating of UPS to be provided?	UPS to be provided and maintained by bidder to meet the conditions of bid-document. Accordingly UPS rating may be decided by the bidder.
37	Section III	Post qualification requirement (ITB 38.2)	(i) Capacity to have a cash flow -The bidder must provide a letter	Yes

Page	Reference to Section and Para/Clause of Bidding Document	Original Para or Clause in Bidding Document issued	Query	Response
			from a reputed bank stating the availability of liquid assets and/or credit facilities exclusively for this contract only, of no less than INR 35 Million. As per our discussion with bankers it is difficult to get the certificate issued against availability of liquid assets exclusively for one particular project before the order is awarded. Can we submit Bank Solvency Certificate for Capability Certificate issued from bank for the same, please confirm	
		Central Receiving Station	How many individual technicians/engineers will be required to work on the data at the Central Receiving Station at the same time? i.e. how many licenses of the software will be required? Are shared licenses an option- i.e. more than one person using the same license but not at the same time?	Central Receiving Station (CRS) will be used by only one official.
		Zonal Offices and State Pollution Control Boards	Will the technicians/engineers in the Zonal Offices and State Pollution Control Boards be required to work on the data (analysis and their own reports on the data, how many software licenses at each location will be required, and at how many locations?	Data validation and data storage is required at Central receiving Stations
			Please elaborate on the sites Why did you pick these specific sites? Please provide reasons, environment industries which are closed.	The sites are identified as per the CPCB protocol
			IP68 is specified for the enclosures -why?(IP 68 means arithmetically)	IP68 is purpose built underwater enclosures for specific requirements.
			Will you publish all questions placed in the pre bid meeting to all participants?	Yes
			If more locations, how should we do not know in advance?	Deviation of 20% sites would be finalized at the

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				time of Contract as per ITB/BDS 41.1