

OFFICE OF SUPERINTENDING ENGINEER  
DRINKING WATER & SANITATION, -----CIRCLE-----

**REQUEST FOR PROPOSAL**

No. /2012-13

The Superintending Engineer D. W. & S. ----- Circle ----- invites sealed offer in two bids system from experienced and resourceful Empanelled Consultants of D. W. & S. D. for preparation of PFR, DPR including preparation of Bid document in EPC / Turnkey / BOOT / BOT/ Item rate mode, etc. evaluation of Bid and Project Management and Construction Supervision Consultancy Services of construction contract of water supply project which is to be prepared by consultant for rural area / Urban area under the District -----, Block ----- and total population to be covered by the proposed scheme as per 2011 census/ projected on 2001 census ----- as per details given in schedule- A of Bid document. The date time and venue for receipt of bid are as detailed below:-

1. Name and Address of officer Inviting Bid:
2. Date, time & venue of Pre bid meeting:
3. Date, time & venue of receipt of bid document:
4. Date, time & venue of opening of technical bid:
5. Date, time & venue of opening of rate bid:
6. Amount of Earnest Money :
7. For eligibility, other terms & condition, information etc. the bid document can be downloaded from website; [daa.jharkhand.gov.in](http://daa.jharkhand.gov.in) or <http://210.212.20.93:8000/dwsd/home.aspx> under DWSD TENDERS. or the same can be obtained from the office of undersigned free of cost.

Superintending Engineer  
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Let. No. -----

Dated-----

1. Copy forwarded to all empanelled consultant of the department with request to participate in the bidding process.
2. Copy forwarded to Regional chief Engineer, D. W & S. D Ranchi/ Dumka / Chief Engineer (CDO), / Chief Engineer (H.Q.) D.W&S.D,/ Engineer in Chief D. W. & S. Department Government of Jharkhand for information and necessary action.

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**GOVERNEMENT OF JARKHAND**  
**DRINKING WATER & SANITATION, DEPARTMENT**  
**D. W. & S, -----Circle, -----.**  
**Request for Proposal**  
**(DRFT) Notes to Consultants**

**[ To be kept in Technical bid envelope after going through from clause 1 to 31 of Notes to consultant and Clause 1 to 31 of ToR carefully and duly signed and stamped on each page by the bidder.]**

This Request for Proposal pertains to appointment/ selection of suitable consultant for preparation of PFR, DPR with PMC or without PMC for group of villages/ urban area as mentioned in Annexure –“I”. The date, time and venue for the receipt of bid together with other relevant information’s shall be as per Request for Proposal which is enclosed here with page 1. The bidders are advised to go through the following instruction (item 1 to 31) carefully and participate in this limited bid accordingly after being satisfied. The quoted rate must be firm and fixed.

**1. The bid will be received in two separate envelopes as explained below. Failure in compliance of the following instructions will be liable for rejection of bid.**

- I. **Envelope I:** - This envelope will only contain earnest money, RFP notice, Notes to consultants, TOR for PFR, DPR, Annexure – I, II & III and document required as per Bid document. No other paper like forwarding paper or else should contain this envelope. This envelop should be superscripted on the top as “Technical bid” including name of the work with reference and on the left, address, Phone No., Fax No., Mobile No. & email id of the bidder. All the certificates must be signed by the bidder and duly stamped. Nothing should be written on those papers except as asked for.
- II. **Envelope – II:** This envelope will only contain the schedule “A” i.e. Rate bid attached with duly offered rates filled in the space provided for it, duly signed and stamped by the bidder. No other papers like forwarding letter or else should contain in this envelope and nothing except as asked for should be written on the bid document. This envelope should be superscripted on the top as “Rate Bid” including name of the work with reference and on the left, address, Phone No., Fax No., Mobile No. & email id of the bidder. Each of the envelopes must be properly sealed.

1.1 The rate bid of only those Consultants will be opened who fulfils the prerequisite qualifications.

**2. ELIGIBILITY: -**

This invitation of RFP is open to only all Empanelled Consultants of the department for the year 20 - . The bidders are required to give their offer and rate/ rates for items, which are mentioned as in schedule - A.

3. **SITE VISIT**:- The Consultants must fully familiarize themselves with local Technical, Geotechnical, Hydrological, Social, etc. conditions and take them into account in preparing their proposals. To obtain first hand information of the Assignment and on the local conditions, consultants must have a visit to the Client before submitting a Proposal, and to attend a pre-bid conference. Attending the pre-bid conference is optional. The Consultants' representative should contact the officials named in the Data Sheet to obtain additional information on the pre bid conference. Consultants should ensure that these officials are advised of the office decorum, to allow them to make appropriate arrangements for them, where ever required.

4. **EARNEST MONEY** :- (Rupees 5 Rs. per capita of base year Population rounded to next 100 or Minimum – Rs.10000, in shape of 4 – (i)/(ii)/(iii) which is refundable)

This amount will be adjusted along with security money of the selected bidder & amount will be refunded to the unsuccessful bidder in due course of time.

The Consultant shall have to deposit earnest money as mentioned in RFP in the following shape-

- i) The earnest money could be in the form of current issues of National Savings Certificates, Post office TD (Issued from Jharkhand State only).
- ii) Pledged Fixed Deposits of a Scheduled Commercial Bank. (all the above mentioned form of earnest money issued within the State of Jharkhand),
- iii) Bank Guarantee issued by any Scheduled Commercial Bank anywhere in India.

Earnest money shall be duly pledged in favour of the Executive Engineer, DW&S Division concerned. The Bank Guarantee / Fixed Deposits must be valid at least for six months from the date of submission of Bid. Bid not accompanied with adequate earnest money as mentioned above will be out rightly rejected.

5. **SECURITY MONEY** :-

Successful bidder shall have to enter into an agreement within one week after receiving firm order. They will have to deposit 5 % of the value of contract as security money duly pledged including amount of earnest money (if it is valid) in shape of -

- i) Current issues of National Saving Certificates, Post office TD. (Issued from Jharkhand State only)
- ii) Fixed Deposits of Schedule Commercial Bank(all the above mentioned form of earnest money issued within the State of Jharkhand),
- iii) Bank Guaranty of schedule Commercial bank.

It should be valid for 3 (three) years from the date of agreement. If required the bidders will have to get the Security Deposit extended for the required period up to six months after the completion of actual execution of work and trail run.

To be kept in Technical Bid envelop

The security money shall be duly pledged in favour of the Executive Engineer, DW&S Division, concerned

Failure in compliance of signing of agreement in time, the earnest money will be forfeited. The security money will be refunded after 6 months after the date of satisfactory completion of assigned job.

Additional 5% of bill value will be deducted from each bill at the time of payment.

On receipt of written application, the earnest money of the unsuccessful bidders shall be refunded to them in due courses.

6. **INCOME TAX** :- Income tax will be deducted from each bill as applicable and certificate to this effect shall be issued in due course in prescribed format.
7. **SERVICE TAX & OTHER TAX** :- The quoted rate should be inclusive of all taxes including service tax & other duties. Service tax may be deducted at source at the time of payment as per government norms and a certificate to this effect shall be issued in due course by the concerned Executive Engineer in prescribed format.
8. **EVALUATION OF BID CAPACITY** :

The bidder should furnish details of similar work executed during previous maximum 5 years and to be attached in technical bid in the following format. The bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:-

$$\text{Assessed Available Bid capacity} = (A * N * 2 - B)$$

Whereas, A = Maximum value of similar nature work executed in any of the last five years (updated to the price level of the year) taking into account the completed as well as works in progress.

N = No. of years prescribed for completion of the works for which bids are invited.

B = Value of balance works (updated to the price level of the year) at the end of contractor including on-going works.

Sl. No.	Name of work with work order reference & brief description	Value of work.	Organization for which work executed.	Remarks.
1	2	3	4	5

Attach attested copies of (i) Work order (ii) Satisfactory completion certificate.

(Attestation should be by gazetted officer/ Notary)

9. **Details of similar works presently at hand (To be attached in technical Bid in following format)**

Sl. No.	Name of work with work order reference & brief description	Value of work	Organization for which work executed	Remarks.
1	2	3	4	5

Attach attested copies of (i) Work orders in hand .

(Attestation should be by gazetted officer/ Notary)

10. **NON ALLOTTMENT OF WORK TO DEFAULTER CONSULTANT:**

The defaulter consultants, who have not completed their work allotted to them after timely issue of work order and not completed their assignment timely will be put under defaulter consultant list and they will not be entitled to participate in the bid and their bid will be out rightly rejected.

11. **DECLARATION BY BIDDERS:**

The bidders shall have to furnish a self-declaration on the footage of information as desired in above clause – 8 & 9. In the words as “***All the allotted and executed work details of similar nature has been truly mentioned there and nothing is wrong, if any information mentioned is found fake the Department may put me in the list of Black Listed Consultant & legal action may be taken for this.***”

12. **VARIATION IN VILLAGE/ HABITATION NO. AND TOTAL POPULATION :-**

Details of Town/ village/Habitations and its populations given in Annexure - I are as per census population 2011/ projected population of last census, while preparing DPR, some habitation/ village through which pipe line is crossing not included in Schedule – A, may be added or from economy points of view some isolated habitations may be included or excluded accordingly, total population may increase or decrease. The undersigned reserves the right to increase or decrease the no of habitation/village and total population for which order already placed and in that case the ordered amount may be increased or decreased on the basis of per capita consultancy cost.

**13. PRICE :-**

Bidders are requested to quote their firm and fixed rates both in words and figures against each items of consultancy work on Schedule-A attached. The rate should be inclusive of all kind of taxes and duties. The consultant will have to submit justification and price break-up of the rate quoted in price bid along with analysis of rate.

**14. INSURANCE :-**

No insurance charge in any shape will be paid by the department. However the consultant may insure their staff and equipment for damage or loss in transit or during the work, at their own cost. Department will not be responsible for any loss for the damage to the equipment or person for any unforeseen reasons.

**15. CORRUPT PRACTICE**

The consultants under contracts observe the highest standard of ethics during the selection and execution of contracts.

In pursuance of this policy, the D. W. & S. D.:

(a) defines, for the purposes of this provision, the terms set forth below as follows :

(i) "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution; and

(ii) "fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Department, and includes collusive practices among consultants (prior to or after submission of proposals) designed to establish prices at artificial, non-competitive levels and to deprive the Department of the benefits of free and open competition.

(b) will reject a proposal for award if it determines that the firm recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question;

(c) will cancel the portion of the payment allocated to the firm's contract if it at any time determines that corrupt or fraudulent practices were engaged in by representatives of the Consultant during the selection process or the execution of that contract, without the Consultant having taken timely and appropriate action satisfactory to the Client to remedy the situation;

(d) will declare a firm ineligible, either indefinitely or for a stated period of time, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract; and

(e) will have the right to inquire that, in contract a provision be included

To be kept in Technical Bid Envelop

requiring consultants to permit the Client to inspect their accounts and records relating to the performance of the contract and to have them audited by auditors appointed by the Client.

15.1. Consultants shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Department in accordance with the above sub Para 15.(d)

**16. CLARIFICATION ON BID DOCUMENTS OR TOR:**

Clarification shall only be asked during pre-bid meeting or through fax/ e-mail up to pre bid meeting due date.

At any time before the submission of proposals, the undersigned may, for any reason, whether at its own initiative or in response to a clarification requested by a invited firm, modify this documents by amendment. Any amendment shall be issued in writing through addenda. Addenda shall be sent by mail, cable, telex, facsimile, or electronic mail to all participating consultants and will be binding on them. The undersigned may at its discretion extend the deadline for the submission of Proposals.

**17. TOR WILL FORM PART OF AGREEMENT:**

The notes to consultant, other terms & conditions and detailed scope of work and TOR shall be part of the Agreement.

**18. TIME SCHEDULE :-**

Sl. No.	Particulars	Activity	Time schedule
a.	Field Study & Data Collection	<ul style="list-style-type: none"><li>• Discussion with field officers.</li><li>• Discussion with local bodies/ PRI &amp; Public opinion should be obtained.</li><li>• Reconnaissance survey of complete project area with local body representative,</li><li>• Meeting with PRI/ VWSC/ AWC, PHC, women group/ Jal Sahia representatives and identification of sustainable source, land for various components of projects, streets and roads for laying of rising and distribution network, power supply source and its availability etc. as per site requirement,</li><li>• Detail surveying should be done through</li></ul>	One month.

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		<p>GIS Software and Total Station &amp; DGPS.</p> <ul style="list-style-type: none"> <li>Detailed survey &amp; investigation of project area &amp; collection of all the data in regard to Hydrological, Metrological, Geological, Geographical, Topographical and selection of sustainable source, identification of land and its nature required for all the components of project, pipeline alignment, resolution of PRI, VWSC etc. regard to land availability of preparation level schedule.</li> </ul>	
b.	Preparation of PFR	<ul style="list-style-type: none"> <li>Preparation of PFR with O&amp;M estimate,</li> <li>Meeting with local body/ PRI, VWSC and obtaining resolution regarding owning of project and taking O&amp;M responsibility by community.</li> <li>Submission of PFR to under signed,</li> <li>Submission of PFR to CDO through proper channel</li> <li>Consideration for provision of Automation &amp; SCADA system – its technical feasibility report</li> <li>Consideration for Solar Energy.</li> </ul>	15 days.
c.	Approval of PFR	<ul style="list-style-type: none"> <li>Vetting of PFR by CDO.</li> <li>Redressal of technical short coming/ errors, Compliance of quarries in presence of field officers within one week from the date of quarries.</li> </ul>	15 days.
d.	Preparation of Draft DPR	<ul style="list-style-type: none"> <li>Preparation and submission of draft DPR through proper channel to CDO.</li> </ul>	One month
e.	Approval of DPR	<ul style="list-style-type: none"> <li>Vetting of draft DPR by CDO, redressal of technical short comings, errors compliance of quarries in presence of field officers &amp; consultant for time bound disposal.</li> </ul>	15 days.
f.	-do-	<ul style="list-style-type: none"> <li>Submission of Final DPR signed by all</li> </ul>	15 days.



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		field officer & local body officer in 10 copies through proper channel.	
g.	Preparation of Bid document	<ul style="list-style-type: none"> <li>The bid document should be submitted in any mode as desired by undersigned.</li> </ul>	15 days.
h.	Assistance in Bid evaluation	<ul style="list-style-type: none"> <li>When called by under signed on specified time and venue.</li> </ul>	One week.
i.	PMC Service	As per details specified in TOR Sl. – 31. project management including inspection of materials, machineries & equipments and supervision of civil, mechanical and electrical construction activities at the site as well as at the office.	It starts from date of agreement & work order and ends after trail run plus six month of O&M. (It will take at least 3 years and extendable if situation warranted)

- For compliance of observations about PFR/ Draft DPR/ DPR the mode of communication will be email/SMS/Fax and the consultant has to act accordingly within a reasonable time limit, maximum within a week.
- Failing to comply this time schedule, a penalty @ 1% (one Percent) of agreement value per 10 day (up to a maximum of 10 %) may be imposed.
- Further non compliance may lead to cancellation of order, forfeiture of security money, and blacklisting of firm. Non Compliance may lead to disallowing in bid process for a given period.
- Conditional bid shall be liable to outright rejection.
- As soon as the Technical Sanitation / Approval is accorded on the DPR by the GOJ. / GOI, the request for preparation for Bid Document will be sent by the E/I. by any of the above mentioned method for preparation of Bid Document in Turk key EPC mode/ PPP mode / BOOT mode/ Item rate contract etc., it should be submitted within 15 days from the date of its requisition on the basis of prevailing schedule of rate along with required design and drawing both in hard and soft copies.
- PMC will start from date of agreement & work order to selected bidder and it will be end after six month of satisfactory O&M excluding trial run period.
- One Nodal person will be designated by the consultant with his/her mobile number. He / She will be responsible for comply any query etc. during the process.

**19. POWER TO REJECT OR ACCEPT THE BID :-**

The lowest bid will not necessarily be accepted. Authority reserve the right to accept or reject any or all the bids received. No explanation can be asked by the bidders for the cause of the rejection of the bids by the concerned authority.

**20. VALIDITY OF BID:-**

The Bid will remain valid for acceptance and placing order for a period of 60 days from the receipt of bid.

**21. ADDRESS :-**

The bidder will have to furnish his full permanent and local address in the bid document along with their Phone No., Fax No., Mobile No. and e-mail address. If any letter is sent at the given address by Fax or email or by post does not reach him or returns undelivered, it will be deemed to have reached to the bidder, once the letter is posted in post office, sent by email or sent through fax.

**22. LIST OF DOCUMENT ATTACHED WITH TECHNICAL BID:**

The bidder should enclose the list of documents as specified in Clause 5, 8, 9 & 11 and its details be given in Annexure II enclosed with this technical bid.

**23. CHIEF ENGINEER (CDO) DECISION TO BE FINAL:-**

If any dispute or difference arises in the interpretation of the specification, schedule of prices or any other matter in connection with the contract, the decision of the Chief Engineer, (C.D.O) Drinking Water & Sanitation, Department Ranchi shall be final and binding upon the parties concerned.

**24. SITE CONDITION:** - The bidder should inspect the location and the sites of project area proposed and satisfy themselves about the conditions prevailing at the site.

**25. SIGNING OF BID DOCUMENT:** - The bidder must sign all pages of the bid document with his full name and address. If the bid is submitted by a firm, it must have signature of the person duly authorized by the firm.

**26. AGREEMENT:** - All the papers which constitute the offers including Bid Document send to the bidder and addendum if any in pre bid meeting shall form part of the agreement and therefore it must be submitted intact duly signed with quoted rates and nothing should be detached. The agreement will be signed on F<sub>2</sub> Form of the department .

**27. PAYMENT CRITERION FOR PFR, DPR & PMC**

Mobilization advance: If demanded by consultant on signing of Agreement, (it may be paid to the consultant on submission of equal value of Bank Guarantee up to 10% of Agreement value, valid for the period of one year) the same will be deducted from each running bill of PFR, DPR preparation cost (excluding PMC) on proportionate basis. It should

be noted that, If DPR is not submitted on time and full recovery of mobilization advance is not made against his bill, then validity of **BG is required to be extended timely by the consultant automatically otherwise it may be forfeited by the E/I.**

**The breakup Schedule for payment of consultancy & PMC services combined shall be as follows:-**

- a) Submission concept note along with site inspection, survey, preparation of pre-feasibility report (PFR) and after its approval by CDO – 10%.
- b) Submission and approval of draft DPR - 30%
- c) Submission and approval of final DPR - 25%
- d) Submission of Tender document & completion of bid evaluation – 10%
- e) Provision for PMC work – 25%

**OR**

**The breakup Schedule for payment of only for consultancy services shall be as follows:-**

- a) Submission concept note along with site inspection, survey, preparation of pre-feasibility report (PFR) and after its approval by CDO – 10%.
- b) Submission and approval of draft DPR - 30%
- c) Submission and approval of final DPR - 45%
- d) Submission of Tender document & completion of bid evaluation – 15%

**Payment criterion of PMC** – PMC consultancy work will start from the date of issue of work order to the selected construction agency and as the agreement for the work is executed.

PMC total cost will be paid in terms of percentage rate of awarded cost of tender. It will be divided as per following Breakup Schedule:-

- i) Checking of working design/ drawings/ layout plans etc./soil bearing capacity certification related to various components of scheme such as ESR, GSR, WTP, PH, Intake Well, Distribution and Rising main, It's Thrust Block, Fire hydrant etc. as per scheme requirement submitted by executing agency. - 15%
- ii) Completion of different components activity of the scheme as determined against its bill certification by consultant and payment made to the contractor. – 65%
- iii) Completion of complete scheme and handing over of completion report and drawing with O&M manual etc. complete job. – 15%
- iv) Submission of report for correction of defect liability – 5%

The consultant will be asked for submission of cost breakup of PMC as mentioned in above item no. i & iv, in various activity of the scheme and it will be approved by competent authority of the department and payment will be made on the basis of percentage of payment made to the contractor for item – ii and in respect to item no – i & iii payment will be made on

the basis of completed activity as approved in breakup schedule duly approved by competent authority.

On every billing 5% security money will be deducted and these will be released only after finalization of work. Payment will be made by Concerned Division only after obtaining necessary fund from the Department and as per norms / guidelines set by the Department. Income tax, Service tax or any other taxes, duties, cess, etc. will be deducted from each bill as per rules.

**28. Consultant will be held responsible for any major variation in DPR due to provision of fictitious data, improper surveying, wrong selection of sites, unsustainable source etc, & punishment may be imposed and cancellation of empanelment/blacklisting may be done.** In case of rejection of the project by the Department, recovery of payment will be made. Apart from this, penalty will be imposed for liquidated damages to the tune of double the cost of the damages; in addition to that security deposit will also be forfeited.

**29. FORCE MAJEURE CLAUSE:-** The D. W. & S. Department will not be responsible for any delay / stoppage of work due to any reasons like force majeure conditions like natural calamities, civil disturbances, stricks, war etc. and losses suffered, if any, by the consultant on this account. The D. W. & S. Department shall not be liable in any way to bear such losses and no compensation of any kind whatsoever will be payable by the D. W & S. Department to the consultant.

**30. All legal matters shall be subject to law of courts of Jharkhand.**

**31. SCOPE OF WORK and Terms of Reference:-** (As per Details on page 13 to 29)

- A. Development of Concept Plan & Preparation of Pre-Feasibility Report.
- B. Preparation of DPR with sustainable source & system with community participation and 5 year O&M work with preparation of BOQ and assisting in bid evaluation till issue of work order.
- C. PMC starts on the date of issue of work order and will end after trail run plus six month of O&M including motivation of community and insuring community participation at all stages of work execution and training to community representative/ selected person for O& M work activity.

**The PFR, DPR and PMC should be according to term of reference as enclosed here with.**

Superintending Engineer  
D W& S ----- Circle, -----

**TERMS OF REFERENCE (ToR)**

The PFR and DPR should be prepared based on the guidelines laid down in the Manual on water supply and treatment, published by CPHEEO, Ministry of Urban development and as amended time to time (latest publication may, 1999) / NRDWP/ UIDSMT guidelines (As applicable).

**A. Concept of plan and PFR**

1. **Necessity & Importance of Scheme:** - Need of the scheme to be assessed with community participation and detailed report, duly resolved by VWSC/ PRI in presence of departmental officer not below the rank of Junior Engineer, preferably Assistant Engineer and their consent to own the scheme and support the scheme in all its activity and take up O&M responsibility after completion of project. [Present status of Drinking Water infrastructure.]
  2. **Sustainability of Source:** - 95% Sustainable source identification, in case of weak source more than one source may be selected. Sustainability of source must be ascertained, including feasibility of construction of check Dam, weir with gate, without gate etc. and initiation for obtaining NOC for utilization of source from competent authority with the help of Executive Engineer concerned from the concerned department and regular persuasion till obtaining NOC. They shall access related data from WRD, Survey of India, CWC, etc.
- Assess availability of surface and ground water sources, estimated demand & supply of Water (Discuss with concerned villagers and Panchayat level Samittee on the water availability both surface and ground, drinking water situation, ascertaining their perceptions on the causes of water crisis and the remedial measures they have in mind. As women are closely associated with water, Focus Group Discussion (FGD) should be held with women Groups. Village Water & Sanitation Committees and PRIs & Water User Groups (if existing) AWC, PHC, etc. could also be involved in discussions. Copy of these meeting proceedings with photograph must be attached with PFR.
  - Resources for the villagers, gap between demand & supply and strategy to fill up the gap with focus on drinking water with a purpose to ensure household drinking water security.

- In case of underground water source exploration, assessment of the ground water availability in the villages/ area based on the data available on Geo hydrological map with the CGWB / other source of the State (with help of Executive Engineer concerned data should be obtained), discuss the situation and remedial measure should be taken for ground water recharging, so as the proposed source can be made sustainable and accordingly provision should be made.
- 3. **Topography and geographical details of the area:** - Preparation of topographical map of village indicating village boundaries, all the streets, roads, Electric Pole, Transformer, Telephone line, drain, sewer line, important Government buildings/ PRI, Schools, Anganwaries, etc. existing water sources such as open wells, tube wells, Hand pumps, OHT, CWR, WTP, Chuan, Ponds, recharging structures etc. including habitation of that village by total station survey / DGPS / GIS Mapping or any suitable method on suitable scale. Marking Latitude and Longitude of all the water bodies & recharging structures of village using hand held Standard GPS (GIS mapping should be prepared) device of desired accuracy on the base map of village with giving all requisite details of these water bodies & structures. If sustainability or creation of water source is required by construction of check dam/ weir, it may be proposed but in this case a separate proposal with the concerned scheme will be required.
- 4. **Arrangements for Prevention of water Body from Pollution:** - Make an assessment of pollution of water bodies, sources of pollution and strategy to keep the sources pollution free. The laboratory test report should be attached.
- 5. **Future Forecast of Population:** - Population and Demand forecast for 15/30 years from the expected year of completion as base year of the project has to be done.
- 6. **Required Land Identifications and Assured availability:** - Availability of land for different structures supported by declaration/ resolution of PRIs./Local bodies should be obtained and its copy be submitted with PFR. In case of GM land proposal shall be submitted separately to EE with its full details so as the land can be got reserved for the purpose. (Details of land such as Plot no., Khata No., type of land and ownership should be clearly mentioned.)
- 7. **Design of Components:** - Optimum hydraulic design of different component including Intake, Infiltration structure, pumping machine, pump house, electrical equipment, rising main, treatment unit, process of treatment, distribution network, residual reservoir etc. should be attached with PFR.
- 8. **Assured Power Availability:** - Availability of Electricity status (Distance of Power Grid/ substation/ transformer, voltage condition, average availability hour should be ascertained.
- 9. Flow diagram of scheme with location of each component and its RL should be prepared and attached with PFR.

10. Necessary drawing of scheme such as Index map, village map and location chart of structures should form the part of PFR. In case of weir, contour map of proposed site should also be enclosed.
11. Population and area to be covered with proposed scheme should be clearly mentioned.
12. Rough cost estimate of the project should be attached in such a manner that there should be minimum variation.
13. Per capita cost of project on base year, intermediate stage and ultimate stage population should be calculated.
14. O & M cost on base year, intermediate stage and ultimate stage population for each house hold should be calculated.

### **B TERMS OF REFERENCE FOR DPR**

The DPR should contain the following:-

DPR should start with executive summary & end with Conclusion and Recommendation.

#### **15. General:**

- i. **Population forecast:** - Population of villages / NAC / Town / City should include all available census population (SC/ST/Minority/General) and logical forecasting of future population for 15/ 30 years from the expected completion year (Taking as base year), and it should be logically justified.
- ii. Present status of existing water supply system in the proposed project area such as source details, total production, per capita supply, losses etc.
- iii. Ground water status in the proposed area and ground water table in different seasons,
- iv. Action plan for disposal of waste water of treatment plant,
- v. Area and population to be covered by proposed scheme,
- vi. Soil characteristics, topography, geology of the proposed scheme area,
- vii. Assessment should be done for No of House service connection in project area, proposal for connection charge, monthly tariff, etc. complete financial aspect with institutional aspect so that the tariff could be collected by VWSC/ Panchayat/ local body,
- viii. Scheme formulated should be approved /consented by VWSC/ PANCHAYAT and house connection charge with monthly tariff should be discussed for taking up the responsibility of O&M by the community, notification of state Government regarding tariff structure should be discussed with beneficiaries and resolution of Panchayat to implement the designed tariff structure should be attached there.
- ix. Present annual O&M expenditure on the existing water supply system (If any system exists) and revenue generated in the past 2-3 years along with tariff structure should also be enclosed with DPR.

- x. Institutional Capacity Building, set up of Laboratory and trained man power should also be addressed keeping in mind the guidelines in the Manual on O&M or as required for piped water supply scheme.
  - xi. Present level of Unaccounted Water (UFW)/None Revenue water and proposed Action plan for leak detection and control of UFW to minimize wastage of treated water may be furnished.
  - xii. The Capacity building programme should also be added in DPR for PRI & VWSC so that they may be able to run the scheme efficiently and able to make it sustainable.
  - xiii. Distribution network design – drawing by Loop version - auto CAD and should be based on actual need and to the scale and approved by the community/ PRI.
- 16. RELIABILITY OF WATER SOURCE:** - Reliability of raw-water source must be established and supporting evidence must be included in DPR. In case of scattered population multiple spot source (HYDT) may be permitted with sustainability structures and location of HYDT must be marked accurately (Latitude & longitude) with the help of Ground water prospect map & GPS correlating with ground features (Ground water prospect maps are available with all Executive Engineer). However surface source would be preferred with weir/ check Dam wherever required. If HYDT is proposed as source, water conservation measures taken at present, action plan for roof top rain water harvesting, artificial recharge of ground water proposal must be included in DPR.
- 17. RAW WATER REPORT AND APPROPRIATE TREATMENT TECHNOLOGY:-**  
Appropriate and cost effective treatment technology based on parameters of latest raw water test report.
- 18. LAND:** - Land has to be identified for the project and earmarked in the lay-out plan and wherever required necessary provision for land should also be made with the consent of user group and land owner (A declaration in presence of user group be taken and enclosed). As far as possible the commitment of the Panchayat / village to provide land for different structures should be there. A Land schedule mentioning area of Land, type of Land, ownership of Land, approximate cost of land etc. should also be enclosed.
- 19. UNINTERRUPTED POWER SUPPLY:-** Uninterrupted electric power supply, 8hr, /16hr /23hr as per need of the scheme must be ensured, if required captive power, viz., Diesel Generator set may be provided as stand by, if electrical power is not available alternate feasible energy source may be considered such as solar power, wind power, water fall energy etc. may be used. However the feasibility and cost economics would be worked out by the consultant. For larger / mega project dedicated power feeder from nearby 133/33 KVA substation to intake & treatment site to be incorporated.



**20. Detailed Estimate:-** The detailed estimate should be prepared based on the following and furnished in the project report: -

- i. Technical investigation, Data Collection, Soil testing & all kinds of survey of Project area should be done & a layout plan to the scale should be prepared indicating the existing & proposed components along with R.L.
- ii. Detailed Hydraulic and Engineering design and drawings of all the components including index map, key plan, lay out plan of the village/ habitation with ground levels.
- iii. Detailed quantitative and cost estimates of various components of the project such as Intake structure/ Tube wells, Pumping station/ Pumping machinery, Raw water conveying main, Water treatment plant, Clear water conveying main, Service reservoir, Distribution network etc. based on latest Jharkhand schedule of rates/MJP should be prepared and no lump sum provisions be made without proper justification.
- iv. Design of conveying rising and distribution mains should be done using computer software. Rising and Distribution mains pipe materials should be selected as per their suitability according to site condition keeping in view it should be most economical not only as per present value but in long run i.e. within its 30 years project life.
- v. Provision of Quality Assurance plan should be made in DPR through established Lab by contractor.
- vi. Provision for mobility, Administrative expenses, TA/DA & honorarium for PRA / Jalsahiya, Contingency for unforeseen expenditure, IEC/HRD, PMC, Labour cess etc. should be made in DPR.
- vii. Provision of G.I.S., Water Security Plan & Water Safety Plan, if desired by EIC / Deptt. Sec., SCADA & Automation should be provided in DPR.
- viii. O&M plan of the project should be made available in DPR.
- ix. Provision of Dedicated Human Resources such as Engineer, Social Worker etc. with their working and mobility charge should be made in DPR.

**21. Design of Weir / Check Dam: -**

- i. Design of weir must ensure sufficient storage of raw water for design period of 50 years as per CPHEEO manual guide lines.
- ii. Selection of site should be made in consultation with PRI/ VWSC and Water resource department (If NOC required).
- iii. Proper coordination with local officials of Water Resource Department must be made with support of Engineer in Charge, so as no problem arises in obtaining NOC.
- iv. Weir should be designed considering all static & dynamic forces including seismic forces and its stability must be ascertained for known HFL/ highest flood discharge, including river training works, it must be aesthetic and good looking also. The data may be obtained from Water Resource Department if available.

- v. Cross section of proposed weir site must be enclosed there along with contour map having contour interval 1 m of upstream up to 1m above submergence level complete area and downstream adequate length.
- vi. Soil Bearing Capacity for proposed Weir site must be obtained. Detailed design should be done after approval of SBC data by the Department.
- vii. Weir may have gate so that it may be de silted time to time. Height of weir should be preferred for non-submergence of adjoining land. If larger height is required for more storage of water, the matter should be brought to the notice of VWSC/PRI and it should be adopted only after their approval in writing.

**22. Clearance from other Ministry and Department:**

- i. Commitment/ permission / clearance of Ministry of Water Resource for water allocation, availability and its dependability throughout the design period in case of surface source from inter-state rivers in case of multi village/ multi Panchayat / multi Block schemes should be furnished with help of departmental officials.
- ii. Clearance / permission from other Ministries such as Ministry of Environment and forest, SPBC (STRATEGIC PLANNING & BUDGET COMMITTEE) / CPBC (Central pollution and control board), NHAI and Railways, if required should be furnished with help of departmental officials.

**23. Tariff, Revenue and O&M**

DPR must include its **Annual O&M estimate**, tariff structure, revenue generation, plan of action for cost recovery of O&M expenditure, repayment of loan and interest, if any. For preparing 1<sup>st</sup> year (Base year) O&M cost (it should be kept in mind that no expenses would be incurred on repair of civil structures & machinery for one year from its date of completion) and after that a formula should be designed for each consecutive year O&M cost according to increasing need and details for period of 5 (Five) years O&M cost be enclosed year wise. Cost Benefit analysis should also be done and enclosed with DPR.

**24. Socio-economic survey:** - In the social survey up to 50 Households, agency has to conduct census survey but in case more than 50 Households sample survey may be utilized and the number of households would be restricted to 50.

**25. Grouping of Village:** - After conducting field survey number of villages can be increased or decreased with the consent of the department. Subsequently, the payment would be made on pro-rata basis considering increase or decrease in population.

In order to provide water supply schemes, the villages should be grouped in clusters and economical design of water supply system should be given. The scheme would be piped water supply as far as possible; however the other scheme or traditional sources would be suggested for the conjunctive use of water for secured and sustained water supply even in dry summer, more than one source may be suggested wherever required.

**26. Implementation of Project:** - The implementation plan for execution of Project should be planned by CPM/ PERT chart, from Tender to completion of project-trial run-community motivation - awareness generation – handing over the project to PRI/VWSC/Local body.

**27. Environmental Impact Assessment Report** must be enclosed with the DPR, Reform Agenda of Gol should also be addressed.

**28. Orientation of Project:-**

- i. Survey for all components such as source identification & its water availability, site selection for weir/ check dam, intake wells, WTP, ESR, GSR etc. and finalizing path for raw water & clear water rising main and surveying of distribution network should be done involving the beneficiaries including the elected members of Gram Panchayat / VWSCs.
- ii. The Site conditions are to be observed and studied carefully as regards their suitability and adequacy and any other specific problems such as land development, foundation etc. Restoration of damages and services while laying and after laying pipelines shall also have to be taken into account. Selection of sites and location of various sub structures should be such that no difficulty should arise in acquiring the lands and no need for shifting to new sites or locations. Due consideration be given to ensure that the land is free from encroachment, if any. Community participation be assured in all the stages of scheme formulation and implementation to have the ownership feeling to the community.
- iii. The Consultant should inform their planning for field survey well in advance so that concerned Department officials could be made available for Coordination.
- iv. The scope of work not mentioned above but required for the project shall also form part of the scope of the project.

**29. Submission of PFR and DPR: -**

- i. The PFR and Draft DPR and DPR should be initially submitted to Executive Engineer for scrutiny. After its due scrutiny; if it is found acceptable, it will be sent to CDO through Superintending Engineer & Regional Chief Engineer for its final acceptance and approval. The consultant may be required to compliance of observation raised at any stage within a reasonable time limit in view of Clause – 18 of notes to consultants.
- ii. Out of five copies of PFR & Draft DPR submitted by the consultant one copy will be retained by EE, SE, RCE & CDO and one approved copy will be given to consultant, on production of the same to EE, the consultant will be entitled for payment.
- iii. Ten (10) sets of DPR to be prepared, of which 5 sets are to be submitted to the CDO and 5 sets to Executive Engineer concerned. Besides, two soft copies in CD containing the entire DPR, one for CDO and one for concerned executive Engineer are to be

submitted. In case of modification in DPR, same numbers of copies (hard and soft) as mentioned above are to be prepared and submitted. After final approval of the project by the Govt., the requisite BOQ/ Tender Document is to be prepared and submitted for Tendering.

- iv. In the estimate in addition to the project components a few new provisions as per type of estimate as classified vide order released by Principal Secretary and communicated by Engineer in chief vide memo NRDWP लेखा-156/2010-639/SWSM dt. 26.08.2011 must be included in line with the guidelines for formulation of schemes under NRDWP (Annexure – III).

- 30. Submission of Bid Document:** After sanction of DPR Preparation of tender document and assistance in its evaluation up to issue of work order to qualified bidder will be required within the time limit as defined in Clause 18 i.e. “Time schedule” of notes to the bidder.

### **C. SCOPE of PROJECT MANAGEMENT & CONSTRUCTION SUPERVISION**

- 31. The project Management & Construction Supervision Consultancy shall be applied for the projects having estimated cost above 5.0 crores only.**

**Scope of PMC will start from the date of Agreement & Work order issued to the bidder and up to the period of completion of project it's testing / trail run and commissioning plus six months of O & M.**

#### **SCOPE OF WORK:**

In the capacity of Consulting Firm, the Consultant shall carry out duties and authorities which include, without being limited to them, the following functions and tasks by phase of work.

- ❖ Assisting department for obtaining land required for the project components, Checking all working design/ drawings/ layout etc. as per contract documents pertaining to all works of the project.
- ❖ To provide sufficient experienced professionals of Civil, Mechanical, Electrical/ Instrumentation (Degree & Diploma holder) and account professional (expert of agreement) along with stenographer, Stenographers cum computer operator cum typist, Social Mobiliser etc. as per site requirement details as given below at his own cost to ensure proper supervision of construction activities of the project including

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ensuring quality of all materials, construction activities, time management, safety management, suggesting modifications/ alterations if required any as per site condition etc.

- ❖ Daily/ Weekly / Fortnightly/ Monthly reporting of progress against expected Physical/ Financial target for the **next one** current month.

The professionals required for PMC work shall be as follows:-

Sl	Key Position	Quantity	Minimum qualification and professional experience desired
<b>A Technical Staff</b>			
1	Project Manger/ Team leader	1	A post graduate in Civil Engineering with 15 years experience in water supply schemes.
2	Senior Engineer	1	A graduate in Civil Engineering with 10 years experience in water supply schemes
3	Site Engineer	1 on each 10 crore	Graduate in Civil Engineering with 5 years experience in water supply schemes.
4	Site Supervisors	1 on each 5 crore or each site (whichever is more)	Diploma in civil Engineering with the experience of 5 years in water supply schemes.
5	Mechanical Engineer	1 Part time	Graduate in Mechanical Engineering with experience of 5 years in water supply schemes.
6	Electrical Engineer	1 Part time	Graduate in Mechanical Engineering with experience of 5 years in water supply schemes.
<b>B Administrative Staff</b>			
7	Accountant	1	Retired accountant/ accounts officer of State/ Central Government/ AG
8	Computer operator/Typist	1	Graduate with relevant experience
9	Social Mobiliser	1	M.S.W. with at least 3 year experience in implementation of water supply scheme.
Note: The above provisions are indicative and it should be discussed in pre bid meeting and may be changed as per site condition and field requirement with approval of competent official of D. W. & S. Department.			

**The consultant shall be responsible for project Management & Construction Supervision and responsibility shall include**

To help and guide the department for initiating action to ensure that site is handed over to the contractor under guidance and control of department.

- i. Planning management: - Assisting Engineer in Charge in acquiring required land and electric power for the project, initiation & persuasion for obtaining permission for Railway/ NH crossing or State Government/ Forest Department clearance or other department or and procuring all old map wherever required, Design management, Schedule managements.
- ii. Reviewing alignment plan of Distribution and Rising system and all other components like Intake well, Weir, Infiltration well, WTP, GSR, ESR, Pump House etc. based on drawing and design prepared by executing agency before actual start of work on site by the contractor, whenever required in consultation with D. W. & S. D officials.
- iii. Checking of all the working drawings (including structural drawing) prepared by executing agency necessary for construction in schedule time frame.
- iv. Within the powers granted to the Consulting Firm, administer the construction contract on behalf of the D.W. & S. D.
- v. Work closely with the D.W. & S. D., to assist him to carry out his obligations under the construction contract in order that the contractor is not hampered in any way in carrying out his duties.
- vi. To approve materials and to ensure that the quality of works are in accordance with contract specification, including testing of raw constituents and its product such as sand, chips, cement, concrete cube, steel bar, depth of pipe line etc. and hydraulic pressure test of pipes be done at site with lab established at site as per terms of work contract.
- vii. To recommend the contractor work programme and source of materials for approval by departmental official.
- viii. Quality assurance of all the materials used in the work according to relevant IS specification and terms of contract, it must be observed whether the materials are 3<sup>rd</sup> party inspected besides dimensional check and physical appearances including quantity verification and report be submitted to E/I,
- ix. Evaluate quality assurance manual submitted by contractor and there afterwards implement the same. Ensuring quality tests of materials as per standard norms and frequency as specified in tender document or as per BIS specifications

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during execution and of completed works, and order the removal of sub-standard materials from work site.

- x. Scrutinizing and recommending the request for advances by contractors to D. W. & S. D.
- xi. Checking all working drawings and designs prepared by implementing agency (including structural design and drawing) such as Weir, River training work, Intake well, Infiltration well, Gang way, Infiltration galleries, Raw water Pump House, WTP, GSR, ESR, Clear water Pump House, Electric Sub Station etc. All necessary approval shall be obtained from D. W. & S. D.
- xii. Quality assurance of work according to relevant specification as per schedule A of bid document, Hydraulic testing of all water retaining structure, all pipe line Rising and Distribution main, Pumps, Motors, Transformer, Starter etc.
- xiii. Monitoring and controlling the progress by using project management tools such as CPM, PERT, Bar Chart, Prima Vera and Ensuring schedule of work progress and for any unavoidable circumstances work is delayed rescheduling of the work to complete it on earliest possible date.
- xiv. Submission of Daily/ weekly / monthly progress report to E/I or as and when required by the E/I.
- xv. Arranging progress review meeting with Assistant Engineer/ Executive Engineer/ higher officials of the department monthly or whenever required by the officials of D.W. & S. D.
- xvi. Safety management, of the entire work site should be ensured.
- xvii. The consultant will be responsible for taking measurements, levels and record the same in shadow measurement book & submit the same in soft and hard copy to the concerned Division. The D.W. & S. D. Engineer will cross check and verify the measurement taken by consultant. If measurements are found wrong & corrections are suggested by D. W. & S. D. officials, the same need to be corrected as required. If it is noticed that there are repeated mistakes/ corrections by the consultants representatives, it would be mandatory for consultant to take appropriate action, and if asked by the D.W. & S.D official to remove the concerned Engineer/ representative from service.
- xviii. The responsibility towards quality and quantity of work will be solely responsibility of the consultant. All bills checklists, measurement should be signed and stamped by Senior Engineer of the consultant. D. W. & S. D. Engineer will coordinate and hold responsible for all issue related to site availability, land availability, utility shifting, other statutory duties as prescribed in relevant government Act etc., which consultant can't address.

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- xix. Consultant will maintain reports, files etc. separately site wise & contractor wise as per requirement.
- xx. All documents related to quality control and register of quality control test shall be maintained and updated timely by quality control Engineer of the consultant.
- xxi. The consultant has to ensure that contractor has established well equipped field lab for testing of materials.
- xxii. Inspect the work during the construction and maintenance period and issue the construction or maintenance certificate. If any issue arises in between completion of project and defect liability period, consultant shall at no extra cost provide all technical support towards sorting the issue.
- xxiii. Advice D.W. & S.D. on all matters related to execution of the works, including processing of contractors claims.
- xxiv. After completion of the works necessary documents/ data/ maps and as built drawing etc. related to contract shall be handed over to D.W. & S.D. along with maintenance manual.
- xxv. Assisting D. W. & S. D officials in preparation of physical & financial reports.
- xxvi. Inspecting the works on its completion and to check any leftover work and ensure that if any defects are found it must be rectified before defects liability period by the agency concerned.
- xxvii. Operation and maintenance manual formulation for the scheme, common structure and in case of multi village scheme, village wise & structure wise O&M manual be prepared separately, with help of Contractor as per terms of the contract(Does and Don't with time schedule),
- xxviii. Assuring cooperation of VWSC & PRI at all stages of construction of project, so as they own the project with help of implementing agency / contractor.
- xxix. Capacity building to VWSC & PRI for O&M of the project related issues like book keeping, accounting, materials stock keeping for proper O&M consumables etc. including training of all related workers of the project with help of agency be ensured.
- xxx. Liaise between the D.W. & S. D. and the contractor to ensure good communication between all parties such that disputes do not arise and that any such disputes are settled reasonably and amicably and assist in any adjudication.
- xxxi. Keep accurate records of all site activities and operations and those required elsewhere for efficient works execution from the contractor and others under the construction contract, including but not restricted to:



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- Correspondence between D.W. & S. D., Consultant and contractor as well as between them and third parties.
  - Minutes of scheduled meetings
  - daily, weekly and monthly report from the Engineer's representative and the site inspectors
  - Instructions, variation orders, approval forms, etc.
  - Level and survey books, including checks on setting out and completed work.
  - Work records, such as measurement, level, dimension, as built-drawings and material delivery notes.
  - progress Reports based on Prima Vera or M.S. Project software
  - charts and drawings
  - test data and laboratory reports
  - plant and labour returns
  - day work records
  - financial records, including interim statements plus supporting particulars and certificates
  - Administrative records concerning leave, sickness, accidents, etc., where applicable as submitted and as corrected, if necessary.
- xxxii. Liaise between the D.W. & S. D and other departments & other State Government such as NHAI & RCD for road cutting permission for laying of pipes, other govt. departments for procurement of land for construction of ESR, GSR & WTP, Jharkhand Electricity Board for taking electric connection, Indian Railway for taking permission for Railway crossing, Forest department for forest clearance etc. as the case may be.
- xxxiii. Consultant should give daily progress report of each work site starting work done, daily labour force employed and machinery available on the day.
- xxxiv. Consultant should assist D.W.&S.D. in making power point presentation, field note and all necessary data and hard copy / soft copy as required during the visit of VIP's/ Senior officials & even all periodical meetings of the Government level. No extra charge will be paid for that. Also the staff will have to remain present at Ranchi Head quarter.
- xxxv. Consultant should assist D.W. & S. D. in providing clarification / explanation/ audit paras made from time to time by Auditors.
- xxxvi. For any legal complication, consultant should assist to prepare document and attending with D.W & S. D. staff if required.

xxxvii. The consultant will scrutinize and recommend interim and final payments to the contractors; Interim monthly payments shall be based on interim payment certificates processed by the consultant following claims filed by the contractor. In processing contractor's payments, the consultant shall evolve a suitable system of checking measurements to the satisfaction of the D.W. & S. D.. Whenever measurements are to be made consultant's engineer will inform the D.W. & S. D. Engineer. The consultant shall issue completion certificate on successful completion of work. The consultant shall ensure that contractor has to submit monthly bills. Contractors' bill submitted by consultant should be in electronic format along with its hard copy.

xxxviii. **Professional staff at site and at various other places:** Professional staff for construction supervision at site and inspection of materials & equipments at various places in the country as well as project contract management shall be provided.

The firm and fixed price bid shall be all inclusive of salaries, social charges, overheads, charges for travel of staff from home to site and field allowances for boarding and lodging, etc. shall also be covered.

xxxix. **Transportation:** The bidding agency shall make adequate transportation facilities including running and maintenance, driver's wages, charges and allowances, consumables and any other accountable and variables. This facility shall be available through out the period of project implementation. Arrangement for necessary transportation during emergencies shall have to be made during day as well as night times. These facilities shall also be considered while quoting firm and fixed price under this project management consultancy services.

xl. **Defects Correction Supervision:**

- Make periodic site visits to ensure that any outstanding work agreed upon with the contractor before the issue of the certificate of substantial completion is properly carried out.
- In the event of any defect and whenever required, visit the site, ensure that repairs are properly carried out.
- On the occasion of site visits as above and / or request of the D.W. & S. D., supervise performance of the operators and report to the D.W. & S. D. in case of shortcomings, including recommending on corrective actions.
- At the end of the defects correction period and when all outstanding

work is completed and all repairs are carried out satisfactorily, issue the defects corrections certificate in accordance with the provisions of the construction contract.

**xli. The principal duties of the consultant's representative shall be as follows:**

Assist & advise D. W. & S. D. in efficient and effective administration and management of the contract including recommending time extension. This function will include.

- The detailed designs scrutiny and recommendation for approval.
- Check the surveys and setting out of works.
- To inspect the performance of the works with regard to workmanship and compliance with the specifications and to order, to supervise or perform test on materials and or work and to approve or disapprove the contractor plants, materials and equipments.
- To order if required the uncovering of completed work and/ or the removal and substitution of improper materials and/ or work.
- Scrutiny and recommendation for approval of the Quality assurance and quality control manuals.
- Review the Program Schedule and recommend approval/ improvement.
- Scrutiny and recommendation for approval for construction drawings as per actual level and field conditions.
- Carry out day-to-day site supervision, maintain daily diary which shall record all events pertaining to the acquisition of the contract and any other information which may at a later date, be of assistance in resolving queries which may arise concerning execution of works and submit daily, weekly and monthly progress reports in prescribed formats to be given by D. W. & S. D.
- Certification of the measurements in the Measurement books, To check contractor bills along with, invoices, and other statement as regards arithmetical error the compliance with the contract and if required to make corrections thereof.
- To supervise the contractor's work in all matters concerning quality, safety and care of the work and issue inspection report.
- Witness the testing and inspection of materials of construction and submit inspection report with his conclusions.

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- Monitor Work program, identify slacks and slippage, and suggest remedial measures.
  - Monitor adequacy of manpower, machinery and other resources to meet the target and suggest improvement if required.
  - Co-ordinate the review meetings & submit his suggestion for improvement.
  - Review and certify milestone payments.
  - Review and verify variations and advise in value engineering.
  - Review and advice on time extensions.
  - Monitor implementation of quality assurance procedures and to conduct testing of all required materials as per norms and frequency and to keep updated record/ maintain updated register of the same with the cost of executing agency.
  - To attend meetings regarding the project as and when called as and when called by State or Central Government as representative of the department and present progress of work and submit report as required.
  - Consultant will work as Engineer-in-Charge in terms of contract.
  - To facilitate D. W. & S. D. Engineer & contractor in giving water connections to the consumers.
  - To carry out such duties under the terms of the contract as may be directed by the Engineer.
  - To attend site during outside officers / third party inspection and give compliance of remarks raised by them.
  - Generate and compile reports for submission to D. W. & S. D. as required under the contract agreement.
  - Review and certify stages of work such as Taking Over, Construction, completion, and starting of Maintenance certificate.
  - Suggest D.W. & S. D. to ensure the Environmental and Social covenants are implemented during construction.
- xlii. Agreement to be signed between D.W&S.D concerned Executive Engineer and consultant: - Prior to issue of work order to consultant an agreement will have to be signed by consultant and D.W. & S. D. concerned Executive Engineer. This agreement will contain the detailed bench marks and service to be provided by the consultant. The consultant needs to bear the expenses of stamp duty required for agreement.

**After Construction and start of O&M**

- Checking of completion map of project showing all locational details and references and handing over same to concerned authority.

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- Assuring water quality,
- Awareness generation of VWSC & PRI for water quality and maintaining the same with the assistance of the executing agency as per contract document,
- Weekly monitoring of O&M work.
- Co-ordination for handing over the scheme to VWSC/PRI, if required.
- Handing over the document and work drawing & O&M manual to E/I and VWSC/PRI after completion of testing of plant plus six month O&M work.
- Package closure – technical and financial.

Superintending Engineer

D W & S ----- Circle,

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**ANNEXURE - I**  
**Details of the proposed town/Panchayat/village/ Habitations**

**Group No.- \_\_\_\_\_ Name of Division-----**

**Brief description of village or group of village:- .....**

Sl No.	District	Block	Panchayat	Village	Habitation	Population			
						Total	SC	ST	Minority
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
Total Population of Group									

Present water supply status of the villages:- ( No. of spot source, water quality problem etc to be filled by the E/I.)

Other information:

- i) Location of villages with route chart from important locations.
- ii) Approximate length of Rising & Distribution main,
- iii) Approximate area of villages
- iv) Nearby river, stream discharge, flow characteristics, Rainfall data,

The details of contact person, who can provide relevant information regarding quarries of bidder are as noted below:-

Name of official with designation:-

Phone No.:-

Fax No.:-

Mobile No.:-

Email id. :-

Superintending Engineer  
D W & S ----- Circle,  
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**ANNEXURE – II**

Sl.	Particulars	Column To be Filled by the Bidder
1	Name of the Consultant / Firm:	
2	Empanelment as Consultant, No. & Date:	
3	Certificates of similar nature of work completed in last 5 financial year: (Attested Photo copy of certificate issued by the officer not below the rank of Executive Engineer, duly signed and stamped by bidder to be enclosed)	Sl.      Years      page No. 1. 2. 3. 4. 5.
4	Amount & Shape of E.M. enclosed :	Rs.
5	Certificates of similar nature of work in hand during in this financial year: (Attested Photo copy of work order issued by the concerned officer, duly signed and stamped by bidder to be enclosed)	Sl.    Let.No./ Date    Issuing Authority
6	Declaration of bidder as specified in Clause - 11 of Notes for consultant duly signed and stamped by the bidder.	

**Note :**

- (i) All attestation must be done by Gazetted Officer/ Notary.
- (ii) No foreign paper other than this page and as asked for in special notes to tenders should be kept in Technical bid envelop.
- (iii) Nothing extra should be written on this page except as asked for.
- (iv) A separate page be attached in regard to declaration as specified in Clause – 6.

Full Name of Consulting Agency/ Firm:

Address of Consultant:

Phone No.: (office)----- (residence)-----

Mobile No.

E mail id.:-

**ANNEXURE - III**

**झारखण्ड सरकार  
पेयजल एवं स्वच्छता विभाग**

**आदेश**

विभागीय योजनाओं के सुचारू सूत्रण एवं निम्नान्वयन एवं परिचालन के प्रावधानों में परिवर्तन करने की आवश्यकता है। विभागीय अभियंताओं के अधीन विभिन्न स्थलों पर विभिन्न प्रकार के कार्यों की जिम्मेवारी है। जहाँ महत्वपूर्ण कार्यों का निम्नान्वयन किया जा रहा है वहाँ लगातार पर्यवेक्षण की दृष्टि से अलग अभियंता एवं समाजिक समन्वयक को तैनात करना कार्य हित में है। साथ ही योजनाओं से सम्बद्ध पदाधिकारियों के द्वारा स्वतः भ्रमण कार्य हित में किये जाने वाले आवश्यक व्यय स्वतंत्र गुणवत्ता अनुश्रवण तथा समाजिक अंकेक्षण के लिए आवश्यक व्यय को प्राक्कलन में सम्मिलित किया जान समयानुकूल है।

केन्द्र सरकार प्रायोजित कार्यों में यथा राष्ट्रीय ग्रामीण स्वस्थ मिशन प्रधान मंत्री ग्राम सड़क योजना एवं सर्व शिक्षा अभियान के दिशा निर्देश में निहित प्रावधानों के अनुरूप उपरोक्त बिन्दुओं के आलोक में भविष्य में जिन प्राक्कलनों का सूत्रण किया जाय उसके लिए निम्नलिखित मदों का समावेश किया जाय

**New Provision in Estimates**

Sl.No.	Estimate Type	Provisions	Remarks
1	All Schemes	Tool kit for maintenance	Tool kit will be used by VWSC for maintenance / repair
2	All PWS	Introductory meeting for scheme implementation in village @ Rs. 100 per village – one time.	
3	All PWS	Gram Sabha Meeting – once in three months @ Rs. 100 each.	
4	All PWS	Cost of PRA and source mapping with WQ-one time each village – Rs.1000.00 each village.	
5	All PWS	School children Training workshop – two times – first at the time of starting of works, second after the scheme starts running – Rs.500.00 each – Rs.1000.00	
6	All PWS	VWSC/ Jal Sahia Training on Record keeping / construction/ Management /Water Quality / O&M Rs. 1500 one time.	
7	All PWS	Jal Sahia honorarium for supervision – Rs.1000 pm up to scheme implementation period.	
8	PWS above Rs.250 lakh	i. One Social Coordinator - Graduate, preferably in Rural Development/ Mass Communication/ Social Welfare /BBA / Psychology / Sociology with working knowledge of computer 15000 pm including conveyance. ii. One Engineering Supervisor Diploma in Civil Engineering with working knowledge of	They will reside in village. They shall be provided a mobile phone. They must know / learn the local language.



To be kept in Technical Bid Envelop

Sl.No.	Estimate Type	Provisions	Remarks
		computer 15000 pm.	
9	PWS above Rs. 500 lakh	One Engineering Manager – Degree in Civil Engineering with working knowledge of Computer – 20000 pm including conveyance. One Social Coordinator - Graduate, preferably in Rural Development/ Mass Communication/ Social Welfare /BBA / Psychology / Sociology with working knowledge of computer 15000 pm including conveyance. One Engineering Supervisor Diploma in Civil Engineering with working knowledge of computer 15000 pm.	They will reside in village. They shall be provided a mobile phone. They must know / learn the local language.
10	All Schemes	Administrative Expenditure – 1%	Paper, Stationary, office consumables, other office expenses, computer consumables, out sourcing of human resources, payment to menial staff, cost of mobile phone set and recharge vouchers, etc.
11	All Schemes	Travel Expenses – 0.5%	Fuel and lubricant expenditure for department vehicles, hire charge of vehicle, reimbursement of bus/ train/ other travelling expenses and TA/DA including of officials etc. including Jal Sahia, Reimbursement of fuel/ lubricant cost in two wheelers used and owned by AE/ JE/ Engineering Manager/ Social coordinator/ Engineering Supervisor/ Jal Sahia TA/ DA/ for travelling on foot/ bicycle.
12	All Schemes	Administrative expenses for State level functionaries (Officials from HQ/ SPMU/CDO) – 0.25%	Payment by EE for stay in hotel/ Lodge/ IB /CH /GH for visiting State officials/ payment for fuel/ lubricant/ hire charge of vehicles during such visits of State officials. The same will be applicable for visits of Central team/ GOI officials/ Field Studies Team/ Evaluation Team/ Documentation team etc.
13	All Schemes	Independent Quality Monitoring / Social Audit – 0.5%	3 <sup>rd</sup> party inspection by competent agency.
14	All Schemes	Contingency for unforeseen expenditure – 1%	

क्रांक 1, 2, 3, 4, 5, 6, 7, 8 एवं 9 के लिए राशि ग्राम जल स्वच्छता मिशन को सौपी जायगी। मद संख्या 10 एवं 12 के लिए व्यय की प्रक्रिया इस प्रकार होगी:

Sl. No.	Item	% of Fund Released
a)	Administrative Expenditure	1%
b)	Travel Expenses	0.5%
c)	Administrative Expenses for State level functionaries (Officials from HQ/SPMU/CDO)	0.25% (Rs.25 lakh Maximum)

कार्यालय मद में प्रमण्डलों के लिए विमुक्त राशि से व्यय की राशि का निर्धारित प्रतिशत का व्यय निर्धारित मापदण्डों के अनुरूप उक्त अवयवों में किया जा सकेगा। इन व्यय का संधारण प्रमण्डल द्वारा अलग से पंजी में किया जायेगा। यद्यपि यह किसी कार्यक्रियोजना का ही अंश होगा तथा उसी के अनुसार मासिक लेखा में संधारित होगा। क्षेत्रीय मुख्य अभियंताक मुख्यालय के पदाधिकारीक विभागीय उच्चाधिकारियों के लिए के द्वारा प्रमण्डल के निरीक्षण के दौरान संबंधित पंजी का भी निरीक्षण करेंगे एवं उस पर टिप्पणी करना भी अनिवार्य होगा। यह व्यय भी लेखा परीक्षा की परिधि में आयेगा।

इन अवयवों का व्यय से संबंधित प्रत्येक तिमाही में प्रस्ताव कार्यपालक अभियंता के द्वारा तैयार कर अधीक्षण अभियंता की स्वीकृति ली जाय। अधीक्षण अभियंता के द्वारा प्रत्येक माह की व्यय सीमा (Expenditure Limit) के अधीन ही व्यय को रखा जाय। अगला प्रस्ताव पर अनुमोदन प्राप्त करने हेतु विगत अनुमोदित प्रस्ताव का उपयोगिता प्रमाण पत्र संलग्न किया जाना आवश्यक है।

मद संख्या 13

कृणवत्ता अनुश्रवण के कार्य के लिए किसी स्वतंत्र एवं तकनीकि रूप से समर्थ संस्थाओं को दायित्व दिया जाय एवं उनकी सेवा के लिए भुगतान किया जाय। इस संबंध में केन्द्र प्रायोजित प्रधान मंत्री ग्राम सड़क योजना अथवा अन्य केन्द्र प्रायोजित योजनाओं के लिए निर्धारित मापदण्ड कप्रणाली अपनायी जा सकती है।

खसामाजिक अंकेक्षण सामाजिक अंकेक्षण के लिए वही प्रक्रिया होगी जो भारत सरकार के ग्रामीण विकास मंत्रालय द्वारा निर्धारित की गयी है।

इसे तत्काल प्रभाव से लागू किया जाता है।

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सुधीर प्रसाद

प्रधान सचिव

ज्ञापांक लेखा NRDWP 156क2010 639 कSWSM दिनांक 26 | 08 | 2011

प्रतिलिपि: सभी अधीक्षण अभियंता यांत्रिक सहित प्रियजल एवं स्वच्छता अंचल झारखण्ड सभी कार्य पालक अभियंता यांत्रिक सहित प्रियजल एवं स्वच्छता प्रमण्डल झारखण्ड को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

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सज्जाद हसन

अभियंता प्रमुख