Request for Proposal (RFP) is invited for the work "Development of water bodies / reservoirs in Yamuna flood plain area by retaining excess flood water during the monsoon season".

## **Objective of Assignment:-**

- 1. To Conserve the Monsoon water to recharge the sub-soil ground water table.
- 2. To Conserve the excess flood water and use it for recharging the sub-soil ground water.
- 3. To Conserve the natural ecosystems of the Yamuna river falling in Delhi region.
- 4. To improve the aesthetic appearance of the river Yamuna and to improve the surrounding areas of water bodies / reservoirs.
- 5. To ascertain the feasibility of land in flood plain area with different land owning agencies / private land owner for the purpose.
- 6. Study should also include DDA existing plan for development of flood plain.
- 7. Feasibility of using treated water from nearby STPs for releasing into the flood plain should also be included.

#### Scope of Work:

# (A) Feasibility study and site Assessment:-

- 1. Assessment of dimensions of proposed water bodies / reservoirs in flood plain area of river Yamuna with reference to ground level.
- 2. Assessment of tentative water quality of Storm Water in the water bodies / reservoirs in flood plain area of river Yamuna available nearby.
- 3. Assessment of Hydrogeology including underground water level, Sub- soil Type, Percolation Tests, ground water level movement, Fresh water Saline water interface, nature of aquifers available underground etc.
- 4. Depth upto which the proposed water bodies / reservoirs in flood plain area of river Yamuna can be submerged without causing submergence of nearby residential area or agriculture fields. Data of different level of submergence should be included.
- 5. Assessment of solid waste, green foliage need to be removed to improve percolation.
- 6. Consultancy during 05 years maintenance period after completion of work for operation and maintenance of the structure/systems.

## (B) Conceptual plan for the development.

- 1. Site analysis & study of Existing Situation.
- 2. Conducting all type of surveys including Topographical survey, Catchment analysis, Hydrological analysis, water quality test etc.

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- 3. Interpreting the data of I&FC Deptt. and using the same for designs.
- 4. Preparation of Typical base maps with site pictures & topographical survey.
- 5. Analysis of surrounding development & its impact on project.
- 6. Design of Recharge structure including treatment system to make flood water suitable for recharge.
- 7. Preventive Maintenance schedule required to maintain designed percolation from the recharge structures.
- 8. Mechanism to retain water in the water bodies / reservoirs in flood plain area of river Yamuna by retention well or structure in specific stretches.
- 9. Test Bore to measure increase in ground water levels pre and post recharge.

# (C) Basic Design Criteria

- 1. Identify infrastructure development which will ultimately lead to a Aquifer improvement.
- 2. Landscape plan of the area of development which will help in maintaining Ecological balance of area & its beautification.
- 3. Identify site grading to form water retaining structures at a reasonable cost.
- 4. Identify the structures/infrastructure which may be required to be dismantled or altered to make the concept & proposal implementable to achieve desired results.
- 5. Preparation of elevations & 3D views at various angles for the study area, explaining the proposed scheme.

# (D) Detailed Plan and Detailed Engineering.

- 1. After approval of conceptual plan & block cost, Consultant shall work on detailing of all aspects but not limited to the scope mentioned in above paras.
- 2. Preparation of Detailed Project Report indicating all the necessary details.
- 3. Preparation of detailed drawings of each & every design component where ever required for execution.
- 4. Preparation of detailed plan, sections, elevations etc. of each & every component to facilitate the correct implementation of the project.
- 5. Preparation of detailed project report with detailed cost estimates as per D.S.R.2016 for scheduled items and as per rate analysis on the basis of market rate for non-scheduled items.
- 6. Structural design & drawings of civil work & landscape works (where-ever required) which may be part of proposal.

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# (E) Payment Schedule

- 25 % On approval of Detailed Project Report (DPR) including full engineering details and drawings with plans, sections,
   B.O.Q., cost estimates based on DSR-2016.
- 2. 10 % On physical completion of ¼ of the work.
- 3. 10% On physical completion of  $\frac{1}{2}$  of the work.
- 4. 10 % On physical completion of <sup>3</sup>/<sub>4</sub> of the work.
- 5. 20 % On physical completion of the work and successful commissioning of the project.
- 6. 25% During 05 years maintenance period (@5% per year).

The amount payable to the agency shall be the amount quoted by the agency or 5% of the cost worked out after preparation of Detailed Project Report excluding (labour cess, contingencies and 3rd party quality check) whichever is lower.

- 7. The rate quoted by the agency shall be inclusive of all taxes. No separate claim for reimbursement of any type of tax will be entertained by the deptt. at any stage.
- 8. Time is the essence of this contract. Time allowed for submission for DPR along with detailed estimate, design and drawing is 60 days from the date of issue of award letter.

  0.50% will be deducted from the amount payable to the agency for delay of every 10 (ten) days.

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# (F) Information regarding proposed water bodies / reservoirs

S. No.	Location	Surface Area [Sq.M.]	Averag e Depth [m]	Storage Volume [CM]	Quoted amount for PMC of each water bodies/ reservoir (Rates in Rs. per 100 Sqm. Of surface area)
i	Right Bank, north of Old Bawana Escape [Sheet No. 33]	900,000	1.5	1,350,000	
11	Right Bank, south of Old Bawana Escape [Sheet No. 33]	1,170,000	1.5	1,755,000	
iii	Left Bank, west of Sabapur, [Sheet No. 33]	840,000	1.5	1,260,000	
iv	Left Bank, south of Wazirabad Barrage [Sheet No. 34]	2,500,000	1.5	3,750,000	
V	Left Bank, between Railway Bridge and ITO Bridge [Sheet No. 41]	605,000	1.5	907,500	
vi	Left Bank, opp. Mayur Vihar [Sheet No. 41]	3,120,000	1.5	4,680,000	
vii	Any other site in Yamuna plain area which is more better then proposed site (Reason for choosing other site inspite of proposed site)				

#### FOR APPLICANTS

- 1. Applicants from approved panel of consortia / consultant with I&FC Deptt. may submit their bid with copy of TAN/PAN, GST NO. in the prescribed format "Annexure-A" in sealed cover clearly marked ("RFP/EE/CD-XIV/01/2018-19"), so as to reach office of I&FC, on or before 10.10.2018 upto 15 Hrs. at the following address: The Executive Engineer, Civil Division-XIV, Irrigation & Flood Control Deptt., Govt. of NCT of Delhi, L.M. Bund Office Complex, Shastri Nagar, Delhi 110031.
- 2. The agency shall quote rate for water bodies / reservoir in river Yamuna plain area.

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- 3. Drawing (Sheets) for proposed sites of water bodies / reservoirs can be seen in the office of undersigned during office hours.
- 4. The agency may visit the site physically before submitting their bid.
- 5. Agency may suggest any other sites in Yamuna plain area which is more better than proposed site. Reason for choosing other site inspite of proposed site may also be given.
- 6. Queries related to this document may be sent to Executive Engineer, Civil Division-XIV I&FC deptt. GNCTD.

Executive Engineer, CD-XIV L.M. Bund Office Complex, Shastri Nagar, Delhi-31

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3	(Reason for choosing other site inspite of proposed site)	

Signature & seal of the agency

Mobile No.

E-mail Address

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