

# UIDSSMT

## **Water Supply Projects: Procedure / Guidelines for preparation and submission of Detailed Project Reports (DPRs)**

The Detailed Project Reports (DPRs) 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 from time-to-time (latest publication in May, 1999) and should include the following with supporting data and based on the guidelines of JNNURM/UIDSSMT

### **A. General:**

Whether this sub-project is contemplated as part of the overall CDP of the city?  
Yes/No.:

If yes, the DPR should contain the following:

- a) Population of the city as per 2001 census, present and future (design) period.
- b) Present condition of the city such as, area and population covered by water supply system.
- c) Details of existing water supply system, such as total production and supply, per capita supply, losses etc. Justification / need for the proposed water supply project,
- d) Area/ population to be covered by water supply system
- e) Soil characteristics, topography, geology of the town etc.
- f) Ground water table in different seasons,
- g) Action plan for disposal of waste water

## **B. Technical:**

### a) Reliability of Water Source(s)

95% dependability and reliability of selected raw-water source(s) must be established by the concerned State Department so as to ensure long term sustainability of the project for the prescribed design period. Supporting evidence in this regard should be included in the DPR. However, *spot sources such as hand-pumps are not permitted* due to inadequate and short term sustainability as compared to piped water supply schemes.

### b) Raw water analysis report and appropriate treatment technologies

Latest raw water sample analysis report of the proposed source during different seasons of the year and appropriate cost effective option for treatment of raw water based on its quality.

### c) Uninterrupted power supply

Uninterrupted electric power supply must be ensured by the State Govt. for the project by providing dedicated High Tension feeder lines in order to operate the system continuously. If required, captive power, viz., Diesel Generator (DG) sets may be provided as standby.

### d) Land acquisition

Land has to be identified for the project and earmarked in the layout plan. Wherever necessary land acquisition process be initiated well in advance to avoid undue delay and litigation in implementation of the scheme after its approval.

### e) Detailed estimate should be prepared based on the following and furnished in the project report:

- (i) The project area should be surveyed in detail and a layout plan to scale may be prepared indicating the existing and proposed components along with RLs .

- (ii) Detailed hydraulic and engineering design and drawings of all the components including index map, key plan, lay out plans of the town with ground levels.
  - (iii) Detailed quantitative and cost estimate of various components of the project such as intake structure/ tube wells, pumping station/ machinery, raw water conveying main, water treatment plant, clear water conveying main, service reservoirs, distribution network etc. based on latest schedule of rates. No lump sum provision should be provided without proper justification.
  - (iv) Design of conveying mains and distribution system should be done using computer software.
- f) In the case of projects based on *Desalination Plants* with Reverse Osmosis Process, the following are required:
- Land required for setting up of Desalination plants has to be provided by ULB/State Govt., for which no central funds would be provided under the scheme.
  - Detailed quantitative and cost estimate of each component such as sea water rising main, sump, high pressure pump, Reverse Osmosis unit, clear water sump, clear water conveying main, service reservoir and distribution network, appropriate treatment facilities for safe disposal of spent water etc. based on latest schedule of rates.
  - Action plan for replacement of membranes at appropriate intervals depending upon the quality of feed water and product water with TDS less than 500 ppm and replacement of pressure pumps after 10-15 years.
  - Ways and means to mobilize funds from the State Govt. as grant-in-aid or to keep part of the tariff as revolving fund for replacement of membranes, pressure pumps etc.
  - Arrangement for assured electric power supply / captive power plant for running the project uninterruptedly.
- g) The DPR should include the following also:

- Approvals/ permissions:
  - ✓ Commitment/ permission /clearance of Ministry of Water Resources for water allocation, availability and its dependability through out the design period in case of surface source from inter-state rivers.
  - ✓ Clearances/ Permission from other Ministries namely Ministry of Environment and Forest, SPBC/CPCB, NHA and Railways, if required, may be furnished.
- Water Conservation:
  - ✓ Water conservation measures taken at present, action plan for roof top rain water harvesting, artificial recharge of ground water and modification/ notification of building byelaws by the ULB may be furnished.
  - ✓ Present level of Unaccounted for Water (UfW) / Non Revenue Water and proposed action plan for leak detection and control of UfW to minimize wastage of treated water may be furnished.
- Tariff, Revenue and O&M
  - ✓ Annual O&M estimate of the scheme.
  - ✓ Present annual O&M expenditure on the existing water supply system and revenue generated in the past 2-3 years along with tariff structure.
  - ✓ Proposed annual O&M expenditure, tariff structure, revenue generation, plan of action for cost recovery of O&M expenditure, repayment of loan and interest,
  - ✓ Notification of State Government and resolution of ULB to implement the designed tariff structure.
- Institution and capacity building

- ✓ Setting up of laboratory at WTP for periodic monitoring of water quality and trained manpower for laboratory
- ✓ Institutional capacity building should be addressed keeping in mind the guidelines given in the Manual on O&M of Water Supply Systems

h) The DPR should also contain the following:

- IRR of the project
- PERT chart for implementation
- Environmental Impact Assessments reports
- Reform Agenda.
- Issues in regard to Public Private Partnership initiatives, capacity building, community involvement etc.