

WATER SUPPLY & SANITATION

DELHI JAL BOARD

Delhi Jal Board is responsible for production of water in Delhi and its distribution in the area under the control of Municipal Corporation of Delhi. The Board also supplies water in bulk to N.D.M.C. and Delhi Cantonment. Besides, the Board is responsible for collection, treatment and disposal of sewage in Delhi.

Delhi's share in the Yamuna water was decided and an MOU was signed on 12.5.1994 between the basin states of Haryana, Uttar Pradesh, Himachal Pradesh, Rajasthan and Delhi. The allocation for Delhi is not sufficient to meet the raw water requirements. Delhi has been making efforts for procuring additional raw water to meet the growing requirement. Efforts include arrangement of water from Tehri Dam, pursuing the Government for expediting the process of clearances for construction of Renuka, Kishau and Lakhwar Vyasi Dams on the tributaries of river Yamuna.

To make up the shortage, Delhi Jal Board took recourse to a number of schemes like recycling of waste water at Water Treatment Plants, optimization of water production, exploitation of ground water in the flood plains of the river Yamuna, rain water harvesting and conservation of water etc.

Scheme-wise details for Annual Plan 2009-10 are given below:-

A WATER SUPPLY SCHEMES

(I) Urban Water Supply

1. Providing water supply in unauthorized colonies (Rs.13600.00 lakh)

At present Delhi Govt. has identified 1539 nos. of unauthorized colonies existing in Delhi. DJB being the sole agency responsible to provide drinking water to all citizens is expected to lay necessary infrastructure and distribution network in planned as well as un-planned / unauthorized colonies, where-ever it is technically feasible. DJB will provide water through pipe network and where it is not, water for drinking purposes shall be continued to be supplied by deployment of tankers service. Considering the present scenario and future commitments of supply of raw water from neighboring states, DJB is required to provide the water supply distribution network in unauthorized colonies in the coming years.

An outlay of Rs.13600.00 lakh has been proposed for Annual Plan 2009-10.

2. Replacement of old distribution system and strengthening of trunk transmission networks (Rs.7000.00 lakh)

As per the TCE report, some of the transmission mains are to be replaced. In addition to the replacement of old distribution system, which is being carried out at

an average rate of about 200 Kms per year, about 25 Under Ground Reservoirs / Booster Pumping Stations are being constructed in various parts of Delhi, other than East and South Delhi. Out of these, two UGRs have already commissioned, one UGR / BPS is already complete and ready for commissioning; another 13 UGRs / BPSs are at various stages of construction. The work orders have been issued in respect of another 1 UGR/ BPS. The construction of these UGRs / BPSs shall continue during financial year 2008-09 and the UGRs / BPSs are scheduled to be completed in financial year 2009-10. Tender process is under progress for another 2 UGRs / BPSs. In case of remaining 6 number UGRs / BPSs, land is yet to be allotted.

An outlay of Rs.7000.00 lakh has been proposed in Annual Plan 2009-10.

3. Improvement of existing Water Works (Rs.4500.00 lakh)

It is proposed to take up special works of up-gradation of existing water works during the financial year 2009-10. Also the following recycling plants shall remain under progress during the financial year 2008-09 and next financial year 2009-10.

- a. 11 MGD WTP at Wazirabad is under construction. Raw water for this plant is collected from process waste of existing 3 x 40 MGD treatment plants located in the Wazirabad complex. 94% work has been completed.
- b. Construction of 10 MGD recycling WTP at Bhagirathi Water Works is in advance stage & about 95% completed so far. The work is likely to be completed within financial year 2008-09.
- c) Construction of 8 MGD process waste water recovery plant at Chandrawal WW-I & II is in progress and about 46% work has been completed so far. There is no treatment section in this work as the recovered water will be used in existing WTP. It is expected that work shall be completed within the financial year 2008-09.

d) Renovation of WTP at Chandrawal WW

Work has been awarded and expected to be completed by Feb. 2010.

An outlay of Rs.4500.00 has been proposed for the Annual Plan 2009-10.

4. Rainy wells and Tube wells (Rs.1200.00 lakh)

New Tube wells/allied works are proposed to be constructed and reborings of tube wells in the year 2009-10 subject to feasibility of potable ground water and approval of Central Water Ground Water Board. The work of boring of 20 additional tube wells in Burari and Palla area are to be taken up during 2009-10.

Repair, Maintenance & Operation will continue to be undertaken by the E&M Wing of D.J.B.

An outlay of Rs.1200.00 lakh has been proposed for the Annual Plan 2009-10.

5. **Staff Quarters and Office Accommodation (Rs.550.00 lakh)**

Staff quarters at various places and office accommodation will be constructed during the year 2009-10. Renovation and improvement works at various staff quarters at plants will also be undertaken during the year 2009-10.

An outlay of Rs.550.00 lakh has been proposed for the Annual Plan 2009-10.

6. **Laying of water mains in regularized/unauthorized colonies (Rs.800.00 lakh)**

For providing water supply in regularized/unauthorized colonies, where development charges as per revised policy are to be deposited by the beneficiaries and for works of augmentation of water supply in these colonies shall be taken up.

Unauthorized/regularized colonies and 1539 unauthorized colonies which are under the consideration of regularization will also be provided water supply in phased manner.

During the year 2009-10, water mains are to be laid in left out portions/lanes in regularized unauthorized colonies.

An outlay of Rs.800.00 lakh has been proposed for the Annual Plan 2009-10.

7. **Raw water arrangement for additional needs (Rs.23500.00 lakh)**

i. Funds are required for payment to Haryana Govt. for completing Carrier Lined Channel from Munak to Haiderpur. Against the project cost of Rs. 315.00 crores, Rs. 297.50 crores have already been paid. The Canal is expected to be completed during the financial year 2009-10. About 87% work has been completed.

ii. Payment to Govt. of U.P. as share cost of Tehri Dam is yet to be released. Central Water Commission has worked out the share cost as Rs. 170 crores. U.P. Govt. is not willing to accept the payment in absence of settlement of issue of signing of MOU for supply of drinking water to Sonia Vihar Water Treatment Plant. It is expected that with the intervention of Govt. of India, Ministry of Power, the issue is resolved.

i) Payment to Himachal Pradesh Govt. for Renuka Dam.

ii) Construction of link from Haiderpur to Wazirabad: - Works are already awarded; approximate cost is Rs. 270 crores. Most of the work is likely to be executed in 2009-10.

An outlay of Rs.23500.00 lakh has been proposed for Annual Plan 2009-10.

8. **Distribution mains and reservoirs for IInd 100 MGD WTP at Haiderpur (Rs.14000.00 lakh)**

The following works will be taken up during the year 2009-10:-

- i) Construction of distribution mains and UGRs for all plants and laying of peripheral water main for command tank and de-silting of distribution mains.
- ii) Construction of peripheral water lines for GR&BPS at Sangam Vihar, Sarai Kale Khan and Chhattarpur.
- iii) Construction of GR/BPS at Sarai Kale Khan, Sangam Vihar and Chhattarpur.
- iv) Allied works for above reservoirs in Trans Yamuna Area & South Delhi.

An outlay of Rs.14000.00 lakh has been proposed for the Annual Plan 2009-10.

9. 140 MGD WTP at Sonia Vihar and its distribution mains & reservoirs (Rs.150.00 lakh)

28 UGRs / BPSs were planned to be constructed in East and South Delhi for optimum utilization of water from Bhagirathi and Sonia Vihar WTPs. Total of 20 UGRs / BPSs were completed so far and 3 will be completed during financial year 2008-09 and the remaining 5 UGRs / BPSs will continue be commissioned during the year 2009-10.

An outlay of Rs.150.00 lakh has been proposed for Annual Plan 2009-10.

10. Construction of 50 MGD WTP at Bakarwala Dwarka (Rs.3000.00 lakh)

Work for construction of 50 MGD Dwarka WTP has been initiated in anticipation of getting water from Carrier Lined Channel which is expected to be completed by Jan. 2011. Consultants have been appointed and pre-qualification of bidder has been completed. During financial Year 2008-09, the works of construction of plant and other supporting works like construction of pumping station and laying of transmission main has been started and the work will be continued during the year 2009-10.

An outlay of Rs.3000.00 lakh has been proposed for the Annual Plan 2009-10.

11. Construction of 20 MGD WTP at Okhla (Rs.2000.00 lakh)

A new 20 MGD WTP is proposed at Okhla. The raw water to the plant is to come from the enroute savings after completion of parallel lined canal from Munak to Haiderpur, being constructed by Haryana Irrigation Department as a deposit work of DJB. The canal is expected to be completed during the year 2009-10. The tenders for the WTP have already been invited and it is expected that work will progress during the year 2009-10. For carrying raw water to this plant, work of laying of feeder main from Wazirabad to Okhla is already awarded and is under progress.

An outlay of Rs.2000.00 lakh has been proposed for the Annual Plan 2009-10.

12. Augmentation of water supply in urban villages (Rs.500.00 lakh)

Delhi Jal Board is providing water supply in 135 urban villages. These villages are expanding vertically and also commercialization is taking place, which is causing extra burden on the water supply system. For improvement and strengthening of water supply system in these villages, more tube wells, deep bore hand pumps, laying of water mains and construction of Under Ground Reservoirs, Booster Pumping Stations are being done.

The water demand in these villages is being met through piped water supply wherever available, boring of Tubewells, Deep Bore Hand Pumps and construction of underground reservoirs etc.

An outlay of Rs.500.00 lakh has been proposed for the Annual Plan 2009-10.

13. Augmentation of Water Supply in Resettlement Colonies (Rs.500.00 lakh)

Delhi Jal Board is providing water in 44 resettlement colonies. For augmentation of water supply system in Resettlement Colonies, more tube wells, underground tank, Booster Pumping Station, Deep Bore Hand Pumps and water mains are proposed to be provided in 2009-10.

An outlay of Rs.500.00 lakh has been proposed for the Annual Plan 2009-10.

14. Augmentation of Water Supply in JJ Clusters (Rs.900.00 lakh)

The water supply services in JJ Clusters were handed over to the then Delhi Water Supply & Sewage Disposal undertaking now Delhi Jal Board in June, 1992. Water supply services are being provided in these clusters.

The population in these clusters is increasing day by day. Re-allocation of many JJ clusters is being done. Besides maintenance of existing water supply system to meet the increasing demands, Delhi Jal Board is carrying out augmentation works like providing additional Tubewells, Deep Bore Hand Pumps and Public Water Hydrants in these clusters and also supply water through departmental as well as additional tankers on hire. Purchase of additional trailer tankers is also proposed to be made.

An outlay of Rs.900.00 lakh has been proposed for the Annual Plan 2009-10.

15. Trans Yamuna Area Development Board (Rs.1900.00 lakh)

The maintenance works like replacement of old lines, laying of new lines, boring of tubewells, installation of DBHPs on the recommendation of Trans Yamuna Area Development Board will be taken up in trans Yamuna area during the annual plan 2009-10.

An outlay of Rs.1900.00 lakh has been proposed for the Annual Plan 2009-10.

16. IT Infrastructure/Capacity Building (Rs.120.00 lakh)

Training of officers, staff and skill upgradation and upgradation of I.T. Infrastructure connectivity and digitalization of mapping data etc. are proposed under the scheme.

An outlay of Rs.120.00 lakh has been proposed for the Annual Plan 2009-10.

17. Special Scheme for Grant-in-Aid for Development of Sewerage and Water Supply in Assembly Constituencies (Rs.3500.00 lakh)

Under this scheme, MLAs can suggest works for water supply and sewerage improvements to the extent of Rs.50.00 lakh in their Assembly Constituencies.

An outlay of Rs.3500.00 lakh has been proposed for the Annual Plan 2009-10.

18. Common Wealth Games (Rs.800.00 lakh)

Delhi Jal Board has been entrusted with the work of construction of 1 MGD Water Treatment Plant at Games Village as well as strengthening of peripheral for various stadia where events are to take place. The work has been started during 2008 and completion date is 2010.

An outlay of Rs.800.00 lakh has been proposed for the Annual Plan 2009-10.

19. Construction of 31 MGD Iron Removal Plant at Palla (Rs.100.00 lakh)

Construction of WTP is to be taken up for treatment of raw water extracted through high yield wells constructed in the flood plain areas of river Yamuna at Palla area. The ground water is having excessive iron contents, which are not acceptable for direct consumption. The raw water for this plant is to be collected from Wazirabad Water Treatment Plant. About 94% progress has been achieved.

An outlay of Rs.100.00 lakh has been proposed for the Annual Plan 2009-10.

20. Water Quality Control (Rs.100.00 lakh)

It is proposed to undertake large scale testing of water for ensuring supply of quality water to the resident of Delhi. For this purpose, latest water testing equipments will be purchased and existing laboratory will be renovated.

An outlay of Rs.100.00 lakh has been proposed for the Annual Plan 2009-10.

21. Metering and Leak Management (Rs.800.00 lakh)

With the objective of reducing water losses and increasing revenue of Delhi Jal Board, it is proposed to install 305 bulk meters at underground reservoirs and distribution mains. It is also proposed to install domestic meters on non-metered connections. Leak management will be another priority area for which consultant has been engaged and a survey has been conducted.

An outlay of Rs.800.00 lakh has been proposed for the Annual Plan 2009-10.

22. Construction of Barrage at Palla (Rs.10.00 lakh)

It is proposed to construct a Barrage at Palla to storage of excess water which otherwise goes waste by flowing downstrains of Wazirabad in the absence of any created storage. A provision of Rs.10.00 lakh has been proposed for the Annual Plan 2009-10.

23. Environmental Greenery and Landscaping (Rs. 120.00 lakh)

In order to improve the environmental at existing water treatment plant and pumping station, it is proposed to landscape the area and also plant trees, grass etc. to increase the greenery.

An outlay of Rs.120.00 lakh has been proposed for Annual Plan 2009-10.

II. Rural Water Supply (Rs.1050.00 lakh)

DJB is providing potable drinking water to 219 rural villages. The population of these villages is increasing every year thereby creating additional demand of water. Under the Special Component Plan, 413 Harijan Basties have also been covered. Under this scheme, water supply is also provided to land less labourers to whom (house sites) allotted by Delhi Administration and to extended abadies under Minimum Need Programme under 20 Point Programme, out of 57 such colonies. 20 nos. has been provided with water supply and the remaining are being provided. Water supply is also being extended in the extended Lal Dora of the villages. Provision has been made for improving, stabilizing and strengthening the rural water supply distribution system besides providing more filtered water in Kanjawala and Najafgarh Blocks, where ground water is increasingly becoming saline. The outlay also includes Rs.5.00 crore for execution of works recommended by Rural Area Development Board for providing, improvement of water supply in rural areas. To overcome the problem of low voltage at tube wells, voltage stabilizer and transformers are proposed to be provided.

An outlay of Rs.1050.00 lakh has been proposed for the Annual Plan 2009-10.

B. SEWERAGE AND DRAINAGE

1. WATER AND WASTE WATER GENERATION

The target for installed capacity for water treatment in Delhi is 835 MGD during 2009-10. At present, the water supply in Delhi is being maintained at around 770 MGD.

- 2** According to the CPHEEO "Manual of Sewerage and Sewerage Treatment", about 80% of water supply through pipes can be expected to reach the sewers. The sewage generated in Delhi is thus approx. 616 MGD (80% of 770 MGD). Ground water, extracted by the residents of Delhi through their private Tube wells/ Bore wells, generates approximately 100 MGD of sewage. Hence the total domestic waste water, currently generated in Delhi, is around 716 MGD. The report of NEERI estimates industrial waste water generated in Delhi to be approx. 40 MGD, taking the total sewage generation to 755 MGD.

3 STPS, SPSS and ANCILLARY WORKS

Delhi Jal Board currently has installed capacity to treat 512.4 MGD of domestic waste water at 17 Sewage Treatment Plants. A study conducted by Tata Consulting Engineers Ltd. has estimated waste water generation of 806 MGD by 2011. Another study, conducted by Price Water House Coopers, in association with DHP Consultants, Netherlands and TCE Consulting Engineers, has projected waste water generation of 820 MGD by 2011, reaching 950 MGD by 2021. DJB has examined the reports and after assessing the availability of raw water in Delhi for treatment, it has planned future additions to the sewage treatment capacity.

Delhi Jal Board has proposed to augment the treatment capacity by 100 MGD through construction of 3 STPs at Okhla, Kondli & Yamuna Vihar by Dec. 2009 raising the installed capacity to 612.4 MGD.

Scheme wise details are given below:-

1. TRUNK SEWERS (Rs. 11000.00 lakh)

1.1 Desilting & Rehabilitation of Existing Trunk Sewers:

The existing sewerage conveyance system is a large network of branch, peripheral and trunk sewers of around 6318 kms. in length.

The trunk sewers sizes range from 700 mm dia to 2400 mm dia with a total length of about 154 Km. The balance length of the sewerage conveyance system comprise the peripheral sewers and internal sewers of smaller sizes.

The trunk sewers have been laid over the years at different stages, some of these trunk sewers are as old as 40-60 years, where as other trunk sewers are comparatively new. The condition of the trunk sewers especially the older ones, has

deteriorated as a result of silting and settlements. The level of siltation in these sewer varies between 30—70%.

In view of the above to give relief to local areas substantial quantity of the sewage, which is otherwise required to be conveyed to the respective STPs, is discharged in to the open drains. It is estimated that about 105 kms of trunk sewers need desilting and rehabilitation including repair of settlement. Some of the important trunk sewers in this category are Ring Road, University, North, West Delhi Relieving Trunk Sewer, Punjabi Bagh, Jail Road and Bela Road Sewer. The work for desilting/ rehabilitation in 50 km length has already been completed. The works of rehabilitation of balance 55 Kms. have already been awarded.

1.2 New Trunk Sewers:

New Trunk Sewers are also required to be laid to extend sewerage facilities to new areas (Unauthorized/ Regularized Colonies, Urban Villages etc.) and cope up with the increased waste water generation due to increase in population and water supply. Some of these are Trunk Sewer along Wazirabad Road in East Delhi, Raja Garden, Possangipur etc. Suction – cum – jetting machines and super suckers etc. are being procured for maintaining the trunk sewers silt free.

An outlay of Rs.11000.00 lakh has been proposed for the Annual Plan 2009-10.

2. SEWAGE TREATMENT PLANTS and ANCILLIARY WORKS (Rs.6500.00 lakh)

2.1 Ongoing STPs:

The treatment capacity of various treatment plants including oxidation ponds as on today stays at 512.40 MGD. Present utilization is about 390 MGD. Efforts are being made to increase the capacity utilization. The existing plants have been designed to achieve BOD of 20 mg/l and TSS of 30 mg/l in treated effluent. There is no facility of further coliform reduction.

2.1 New STPs:

The work of construction of 25 MGD STP at Yamuna Vihar, 45 MGD STP at Kondli and 30 MGD STP at Okhla has been awarded and are in progress. Thus, additional capacity of 100 MGD will be created by 2009. Sewage Treatment Plants at Delhi Cantt., Pappan Kalan, Chilla Regulator & Nilothi have been proposed which shall be completed by 2010 increasing additional capacity of 72 MGD. Besides above, disinfection facilities are also to be provided to tackle pollution on account of coliform.

2.2 Ancillary Works:

With the setting up of the new sewage treatment plants of additional capacity of 100 MGD, additional Pumping Stations at various places will also be required to be set up as per the reports of the consultants. Construction of Sewage Pumping Station 50 MGD at Yamuna Vihar, 15.5 MGD at Jeewan Park & 7 MGD at Punjabi Bagh are in progress.. Effluent pumping station at Yamuna Vihar (90 MGD) is in progress. There are 3 nos. of gravity Ducts leading to Okhla STP from Kilokri/ Ring Road Pumping Station. Further, 70 MGD SPS at Kalyanpuri, 11 MGD SPS at Possangipur and 48 MGD SPS at Raja Garden are proposed in 2009-10.

An outlay of Rs.6500.00 lakh has been proposed for the Annual Plan 2009-10.

3. RESIDENTIAL ACCOMMODATION, STORES, LAB, GO-DOWN ETC. (Rs.500.00 lakh)

Many staff quarters are quite old and require rehabilitation and renovation besides construction of new offices, go-downs, store& laboratories at various STPs & SPSs.

An outlay of Rs.500.00 lakh has been proposed for the Annual Plan 2009-10.

4. RENOVATION OF EXISTING PLANTS AND PUMPING STATIONS (Rs.4000.00 lakh)

Sewage Treatment Plants at Keshopur (12, 20 & 40 MGD), Okhla Old (30+12+45+37 MGD), Kondli (10 MGD) and 25 MGD Balance work, Coronation Pillar (10+20 MGD), Rithala (40 MGD) are quiet old. Similarly, the Sewage Pumping Stations at Kilokri, Ring Road, Keshopur, Haiderpur, Jagriti and Preet Vihar etc. are quiet old and require renovation. The buildings of these Sewage Pumping Stations and Sewage Treatment Plants require renovation and refurbishment.

The existing Sewage Treatment Plants of 512.4 MGD capacity also require up-gradation as per the new norms laid by Ministry of Environment and Forests / CPCB / DPCC. The existing plants are designed for achieving treated effluent parameters of BOD 20 mg/l and TSS of 30 mg/l. New norms laid-down by DPCC are BOD 10 mg/l, TSS of 15 mg/l and coliform count of 2500 MPN per 100 ml. The cost of up-gradation of existing STP is of the order of Rs. 80 lac per MGD.

An outlay of Rs. 4000.00 lakh has been proposed for the Annual Plan 2009-10.

5. LAYING OF INTERANAL SEWERS IN UNAUTHORIZED/ REGULARIZED COLONIES (BRANCH SEWERS) (Rs.3950.00 lakh)

The Sewerage services as per present policy are not being provided in unauthorized colonies and JJ Clusters. The present status of sewerage services in unauthorized/ regularized colonies are as under:

Out of 567 unauthorized/ regularized colonies, sewer lines have been laid in 523 colonies. For balance unauthorized/ regularized colonies, sewerage system shall be laid in a phased manner subject to technical feasibility.

An outlay of Rs.3950.00 lakh has been proposed for the Annual Plan 2009-10.

6. SEWERAGE FACILITIES IN URBAN VILLAGES (Rs.600.00 lakh)

There are 135 urban villages and water supply exists in all of them. Sewer lines have been laid in 108 urban villages. Sewerage facilities in another 2 villages will be provided in this financial year. In case of villages where it is not technically feasible to lay sewer lines, appropriate sewage management system will be put.

An outlay of Rs.600.00 lakh has been proposed for the Annual Plan 2009-10.

7. SEWERAGE FACILITIES IN RESETTLEMENT COLONIES (RS.250.00 Lakh)

There are 44 Resettlement Colonies in Delhi and water supply exists in all the colonies. Sewer lines have been laid in all the 44 colonies.

An outlay of Rs.250.00 lakh has been proposed for the Annual Plan 2009-10.

8. TRANS YAMUNA AREA DEVELOPMENT BOARD (TYADB) (Rs.400.00 lakh)

Govt. of NCT of Delhi vide notification dated 4.3.94 constituted Trans Yamuna Area development Board to monitor the progress of work in Trans Yamuna Area. For execution of development works, the works are to taken up with the approval of the TYADB.

An outlay of Rs.400.00 lakh has been proposed for the Annual Plan 2009-10.

9. INFORMATION TECHNOLOGY INFRASTRUCTURE/CAPACITY BUILDING (Rs.100.00 LAKH)

For upgradation of IT infrastructure and training to staff and still upgradation, an outlay of Rs.100.00 lakh has been proposed for the Annual Plan 2009-10.

10. YAMUNA ACTION PLAN Phase-II (YAP-II) (Rs.2500.00 lakh)

As a Centrally sponsored scheme of YAP-I, DJB had taken up & completed 2.2 MGD STPs each at Delhi Gate Nallah and Dr. Sen Nrusing Home Nalla. In extended phase of YAP-I, UV disinfection facility was set up at Dr. Sen Nursing Home STP.

JBIC has now agreed for another phase of Yamuna Action Plan (YAP-II). Following works of DJB are included in the scheme :-

- a. Rehabilitation of Ring Road Trunk Sewer – Rs.90.05 crore
- b. Rehabilitation /replacement of Bela Road Trunk Sewer – Rs.17.47 crore
- c. Laying of North of Wazirabad Trunk Sewer - Rs.64.20 crore
- d. Renovation of 72 MGD Keshopur STP – Rs.66.36 crore
- e. Construction of 30 MGD Okhla STP – Rs.85.27 crore

In addition studies for use of treated effluent for irrigation, horticulture & industrial uses and ground water recharge, STP on Najafgarh drain, decentralized STPs, Nalla STP etc. area also to be taken under YAP-II.

An outlay of Rs.2500.00 lakh has been proposed for the Annual Plan 2009-10.

11. COMMONWEALTH GAMES (Rs.700.00 lakh)

1 MGD Sewage Treatment Plant on MBR Technology has been proposed. An outlay of Rs.700.00 lakh has been proposed for the Annual Plan 2009-10.

12. SEWERAGE FACILITY IN RURAL VILLAGES (Rs.2000.00 lakh)

Delhi Jal Board is conducting a detailed survey for providing sewerage services and its treatment facilities in rural villages for which the work of carrying out techno-economic-feasibility study of 189 villages has been completed. The work has been awarded in 24 villages and is in progress. Tender action is in process in 7 villages.

An outlay of Rs.2000.00 lakh has been proposed for the Annual Plan 2009-10.

13. SEWERAGE FACILITIES IN UNAUTHORISED COLONIES (RS. 3000.00 LAKH)

Govt. of NCT of Delhi has taken a decision to provide basic services like water supply, sewerage, sanitation and road etc. in all unauthorized colonies. There is technical feasibility of providing sewerage facility in 203 colonies. The work has been completed in 23 colonies and is under execution in another 44 colonies.

An outlay of Rs.3000.00 lakh has been proposed for Annual Plan 2009-10.

14. UTILIZATION OF GAS AT VARIOUS PLANTS (Rs.100.00 lakh)

Vaish Committee has recommended for utilization of Bio-Gas at various Sewage Treatment Plants for generation of electricity which can be utilized for operating the STPs. It is proposed to appoint Consultant to prepare feasibility on the subject.

An outlay of Rs.100.00 lakh has been proposed for Annual Plan 2009-10.

15. ENVIRONMENTAL GREENERY and LAND SCAPING (Rs.200.00 LAKH)

In order to improve the environmental at existing sewage plants, it is proposed to landscape the area and also plants trees, grass etc. to increase the greenery.

An Outlay of Rs.200.00 lakh has been proposed for Annual Plan 2009-10.

**16. J.N.N.U.R.M.
(ABATMENT/PREVENTION OF POLLUTION OF RIVER YAMUNA &
OTHER PROJECTS) (Rs.20000.00 lakh)**

For this, the possible solution which has been put up before the Govt. of NCT Delhi, as well as Planning Commission is laying of interceptor sewer along the three major drains i.e. Najafgarh Drain, Supplementary Drain and Shahdara Drain as it contribute 60% of the total BOD load in river Yamuna and 70% of the discharge. The interceptor sewers will be laid along these drains below the bed level of the drains and all the drains from both sides will be trapped in it. The sewage there upon will be taken to the existing sewage treatment plant midway or at the end point. The treatment capacity of existing plant will be augmented once the present capacity is fully utilized. The total estimated cost of the laying interceptor sewers along three drains in a length of around 55 kms. and construction of STP/SPS of appropriate capacity will be around Rs.1500 Crores. The advantage of this will be that treated effluent of the plants will not be retreated and since drains are being trapped in interceptor sewers it will take care of all unsewered areas as well as over flows from the existing system.

The Project Management Consultancy service for implementation of this concept has already been awarded to M/S Engineers India Ltd. (A Govt. of India Enterprises) @ 9% of the project cost. The project will be completed by 2012. Ministry of Urban Development, Govt. of India will be approached for providing funds under JNNURM. One project - construction of 4 new sewage treatment plants costing Rs.285.11 crore has been approved by GOI under J NNURM.

An outlay of Rs.20000.00 lakh has been proposed for Annual Plan 2009-10.

UD DEPARTMENT

1. Water Conservation Mission (Rs.55.00 lakh)

a. The water table in NCT of Delhi has gone down considerably with the result the discharge from tube wells is affected. To recharge ground water table, water harvesting projects have been taken up at various installations of Delhi Jal Board. Besides this, INTACH was commissioned for preparing a report on ground water recharge strategy for Delhi and they have submitted draft final report on the subject.

b. Delhi Jal Board in its efforts to augment and enhance the ground water resources, has implemented rain water harvesting schemes for 190 installations. Govt. of Delhi also initiated a financial assistance scheme for implementing rain water harvesting schemes in South & South-West districts in December 2002 which was extended for other areas in August 2004. In this scheme, grant is given to the registered RWA/CGHS/Institutions to the extent of 50% of the total cost of the Rain Water Harvesting Structures or Rs. 1,00,000/- (with effect from 1.2.2007, earlier Rs. 50,000/-) whichever is less. Under this scheme, 184 cases have been approved and financial assistance has been released in 116 cases, where works are complete as per approved designs of Central Ground Water Board and maintenance agreement have been executed by the perspective beneficiaries. During the 11th plan, more thrust will be given to Rain Water Harvesting and the target would be to cover areas where the situation is critical.

An outlay of Rs. 55.00 lakh has been proposed for Annual Plan 2009-10.

2. YAMUNA RIVER AUTHORITY MEASURES FOR REJUVENATION OF RIVER YAMUNA (Rs.10.00 lakh)

For Rejuvenation and de-vitalization of River Yamuna, a High Power Yamuna River Development Authority under the Chairmanship of Lt. Governor, Delhi has been constituted. The Committee will look into the different aspects of the development of river viz. Hydrology, Ecology and Environment of Pollution, Sustainable use of river front and Develop an operation plan for implementation of the river action programme.

An outlay of Rs.10.00 lakh has been proposed for Annual Plan 2009-10.