

WATER SUPPLY & SANITATION

Schemes providing water supply and sewerage facilities, anti flood works and storm water drainage, desilting of nallahs and sewers in Delhi are included under this sector. The Delhi Jal Board of Govt. of Delhi is entrusted with the responsibility of production and distribution of water and treatment and disposal of sewage in Delhi. It provides water in bulk to NDMC and Cantonment Board for redistribution in their respective areas. Similarly the sewage is received in bulk from these two authorities for final, conveyance and disposal by Delhi Jal Board. In the areas under the jurisdiction of MCD, Delhi Jal Board is responsible for distribution of water and collection and disposal of sewage.

NDMC is implementing water supply & sewerage, anti flood work and covering of Nallah Schemes in its area.

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.

Although Delhi is situated on the banks of the river Yamuna, it is unable to draw water from the river as their entire flow is diverted into the Canals upstream of Tajewala for Uttar Pradesh and Haryana. To finalize Delhi's share in the Yamuna waters an MOU was signed on 12.5.1994 between the basin states of Haryana, Uttar Pradesh, Himachal, Rajasthan and Delhi. The allocation for Delhi has not been sufficient to meet the raw water requirements.

Raw Water Availability and Augmentation/Modernization of Water Treatment

- i. The installed capacity of water production at the end of Annual Plan 2006-07 was only 720 MGD.
- ii. For bringing raw water for Okhla Water Treatment plant from Western Yamuna Canal, it has been decided to lay 2000 mm dia water main in a length of 11 km from Wazirabad to Haiderpur .

Scheme wise details for Annual Plan 2007-08 are given below:-

A. WATER SUPPLY SCHEME

1. Providing water supply in unauthorized colonies: (Rs.5000.00 lakh)

There are 1071 un-authorized colonies. Piped water supply exists in 408 unauthorized colonies, and to provide drinking water in these colonies, where piped water supply does not exists, besides departmental tankers, additional mounted tankers and trucks are hired making fleet of average 1000 vehicles during the year to provide water.

During the year these Nos. will be reduced after the un-authorized colonies are provided piped water supply in phased manner.

An outlay of Rs. 5000.00 lakh has been approved for Annual Plan 2007-08.

2. Replacement of old distribution system and strengthening of Trunks Transmission Network: - (Rs. 10000.00 lakh)

For equitable distribution of water, underground reservoirs and booster pumping stations are being constructed in phases. Besides this, the existing transmission system is also strengthened and old distribution system of length of about 200 Kms is proposed to be replaced in 2007-08.

An outlay of Rs. 10000.00 lakh has been approved for the Annual Plan 2007-08.

3. Improvement of Existing water works. (Rs. 3000.00 lakh)

- i. During the year 2007-08, 90 Kms. new water lines are proposed to be laid.
- ii. Construction of small Under Ground Reservoir and Booster Pumping Stations at various places have been proposed to rationalized and improve water pressure.
- iii. Recycling Plants totaling 45 MGD are proposed to be constructed at four existing plants namely Wazirabad, Haiderpur Bhagidari and Chandrawal. Process waste water will be collected and further treated to required standard.
- iv. Renovation of Chandrawal Water Works-I which is the oldest Water Treatment Plant of Delhi is also included in the scheme.
- v. The work of replacement of Bulk Meters for which work order has already been placed and also the meters to be procured under phase-II for distribution network. Partial provision has also been kept.
- vi. Renovation of existing equipments at various Water Treatment Plants namely clarifiers, rewinding of motors, renovation of transformers, HT/LT switch gears, procurement of rotating assemblies, chlorinators are also included in the Budget Estimate.
- vii. Procurement of Laboratory equipments for various Las at plants including Central Laboratory at Wazirabad.
- viii. Refurbishment of Ozonization and Nitrification Plant at Okhla Water Treatment Plant is also included in the Budget Estimate.

An Outlay of Rs. 3000.00 lakh has been approved for the Annual Plan 2007-08.

4. Ranney wells and Tube wells. (Rs. 2000. lakh)

New tube wells/allied works are proposed to be constructed and re boring of tube wells in the year 2007-08 subject to feasibility of potable ground water and approval of Central Water Ground Water Board.

Repair Maintenance & Operation of more than 450 T/Wells will continue to be undertaken by the E&M Wing working under this Office.

An outlay of Rs. 2000.00 lakh has been approved for the Annual Plan 2007-08.

5. Staff quarters and office accommodation: (Rs. 500.00 lakh)

The following works will be taken up during the year 2007-08.

1. Ancillary works of 10 Nos. Type V quarters at Jal Vihar are in progress. These are targeted to be completed by 2007-08.
2. In addition to above the works of construction of training center of DJB and administrative building at Haiderpur are to be taken up.
3. Construction of staff quarters at Haiderpur:
4. C/o Community centers at Haiderpur and Keshopur Staff Qtr.
5. C/o office Building at Andrewganj i/c allied works.
6. C/o Staff Qtrs at Bawana.
7. Improvement works at various staff quarters at Plants.

An outlay of Rs 500.00 lakh has been approved for the Annual Plan 2007-08.

6. Laying of water mains in regularized/unauthorized colonies (Rs. 1000.00 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 to these colonies. Achievements under this head are dependent on the public responsible to deposit the development charges.

Unauthorized / regularized colonies and 1071 unauthorized colonies which are under the consideration for regularization will also be provided water supply in phased manner.

During the year 2007-08 water mains are to be laid in left out portions/lanes in regularized/unauthorized colonies.

An outlay of Rs 1000.00 lakh has been approved for the Annual Plan 2007-08.

7. Raw water arrangement for addl. Needs (Rs. 39500.00 lakh)

The following works will be taken up during the year 2007-08.

1. The work of construction of parallel lined canal from Munak to Haiderpur which is in progress.
The Haryana Irrigation department is carrying out this work for the DJB as a deposit work.
2. The work of construction of RCC conduit from Murad Nagar to Sonia Vihar has been completed. However, provision has been kept for final adjustment of accounts with UP govt.
3. Also the work of 2000 mm dia raw water main has been initiated and will also be taken during the year 2007-08.
4. Payments with regard to proportionate cost towards construction of Tehri Dam, Renuka Dam etc., are to be made.

An outlay of Rs 39500.00 lakh has been approved for the Annual Plan 2007-08.

8. Rural Water supply (Rs.600.00 lakh)

Delhi Jal Board is providing potable drinking water to 219 rural villages. However these villages are extended vertically as well as horizontally thereby creating additional demand of water every year. Under the special component plan, 413 Harijan Basties have also been covered. Under this scheme water supply is also provided to land less laborers (House sites) allotted by Delhi Administration and to extended abadies under M.N.P. Under 20 Point progress, 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 village. Provision has been made for improving, stabilizing and strengthening the rural water supply distribution system besides providing more filtered water in Kanjhawala and Najafgarh Blocks where ground water is increasingly becoming saline.

To overcome the problem of low voltage at tube wells, voltage stabilizer and transformers are propose to be provided,

An outlay of Rs 600.00 lakh has been approved for the Annual Plan 2007-08.

9. Distribution mains and reservoirs for IInd 100 MGD WTP Haiderpur [Rs. 2000.00 lakh]

The following works will be taken up during the year 2007-08.

- i. Lying of peripheral water main for command tank one and construction of underground reservoir and feeders main for reservoirs.

- ii. C/o 5.3 ml capacity UGR & BPS at Ujhwa. Physical Achievement is 75% E&M shall start their work after finalization the tenders by them
- iii. C/o 20.9 ML UGR & BPS at Kirti Ngr. i/c P/L/J transmission system of Kirti Ngr UGR & BPS. Land allotted by D.DA.
- iv. C/o 4.2 ML capacity UGR & BPS at P-Block Mohan Garden.
- v. P/L/J CI/MS peripheral water main for reservoir CT-I Dawarka Phase-I
- vi. P/L/J 900-700-600-500-200 mm dia DI/MS peripheral Water supply mains for built-up area in the command of reservoir CT-2 Dawarka Ph-I (Balance work)
- vii. P/L/J 900-600-500-250 mm dia DI/MS peripheral water supply mains for built-up area in the command of reservoir CT-2 Phase-II Dawarka.
- viii. P/L/J 800-600 mm dia water main from Najafgarh to Ujhwa.
- ix. Const. of R.R Stone masonry B/wall for 5.3 capacity UGR & BPS at Ujhwa.
- x. Rain water harvesting & drainage system at UGR & BPS at Ujhwa.
- xi. Land for C/o 5.2 ml capacity UGR & BPS at daulatpur. Land has been allotted by Gram Sabha .
- xii. P/L/J 600 mm dia W/M from Kharkhari rd. to Daulatpur reservoir.
- xiii. C/o 21.4 ml capacity UGR & BPS at Pitampura.
- xiv. P/L/J 1200 mm dia W/M for Pitampura Reservoir.
- xv. C/o 20 ML capacity UGR & BPS at Awantika.
- xvi. P/L/J 1000 mm dia W/M for 20 ml Capacity UGR & BPS at Awantika.
- xvii. C/o 15.5 ML capacity UGR & BPS at Janakpuri.
- xviii. P/L/J 800 mm dia W/M for UGR & BPS at Janakpuri.
- xix. P/L/J 600 mm dia Water incoming main for UGR & BPS at Mohan Garden.

An outlay of Rs 2000.00 lakh has been approved for the Annual Plan 2007-08.

10. 140 MGD WTP at Sonia Vihar (Rs. 1000.00 lakh)

The following works will be taken up during the year 2007-08.

- i. For consultancy services of Addl. UGRs in TYA.
- ii. For Construction of 8 Nos. UGR in Trans Yamuna Area.

- iii. For 24.3 ML UGR at Vishwakarma Park.
- iv. For 800 mm dia inlet main for Vishwakarma Park.
- v. For balance works of Transmission mains from SVWTP in Phase-I, II, and III.
- vi. For 9 no. UGRs/BPS in South Delhi.
- vii. Balance work of Sonia Vihar W.T.P.
- viii. Construction of additional UGRs in TYA and South Delhi including inlet mains for these UGRs and also for the UGRs being executed at present.

The work of construction of 9 UGRs/BPSs in South Delhi and eight UGRs in Trans Yamuna Area is in progress, will be completed.

An outlay of Rs 1000.00 lakh has been approved for the Annual Plan 2007-08.

11. Const. of 40 MGD WTP at Nangloi (Rs. 200.00 lakh)

The 40-MGD Water Treatment Plant at Nangloi has been completed and commissioned. Provision has been made for arbitration awards and improvement works during the year 2007-08.

Presently the plant is treating to 25 MGD water due to raw water constraints. In the Budget Estimate provision has been made for renovation of the plant, desilting of nullahs so as to utilize the same for its full treated capacity of 40 MGD WTP Nangloi. Provision has been made for peripheral mains at Nangloi, Mundka staff quarters.

An outlay of Rs 200.00 lakh has been approved for the Annual Plan 2007-08.

12. Const. of 20 MGD WTP at Bawana. (Rs. 100.00 lakh)

The plant is almost ready but awaiting raw water, provision has been kept in the Budget Estimate 2007-08 for balance payment to the firm who has constructed the plant, The budget proposal also includes some provision for renovation of Raw Water Pump House at Bawana which caters the raw water requirement of 40 MGD, Nangloi Water Treatment Plant. Provision has also been made for the construction of staff quarters, peripheral services for the 32 villages.

An outlay of Rs 100.00 lakh has been approved for the Annual Plan 2007-08.

13. Construction of 40 MGD Plant at Bakarwala (Dwarka) (Rs.1000.00 lakh)

The preparatory works like design, tendering etc. are being taken up but actual work at field shall be taken up only after confirmation of availability of raw water. Provision of Rs.1000.00 lakh has been made for construction of 40 MGD water treatment plants raw water booster pumping stations etc. during the year 2007-08.

14. Construction of 20 MGD Water Treatment Plant at Okhla (Rs.1000.00 lakh)

Provision of Rs.1000.00 lakh has been made for the construction of 20 MGD Water Treatment Plant at Okhala during the year 2007-08. The Scheme is yet to be cleared by CEPEEO technically. The plant is yet to be taken up out of raw water saving after completion of Parallel Lined Channel.

15. Interlinking of conveyance system for various plants [Rs.300.00 lakh]

For providing linkages between the conveyance mains from various treatment plants it is proposed to lay water mains and make various interconnections.

An outlay of Rs.300.00 lakh has been approved for the Annual Plan 2007-08.

16. Hydraulic mapping & study of water supply system [Rs.100.00 lakh]

To strengthen the leak detection cell by providing new specialized instruments in place of old and obsolete existing equipment, vehicles and modern means of communication for stepping up activities of leak detection work are proposed to be procured. A study for assessing the leakages and plugging shall be carried out for managing the leakages and thus increasing the availability to the consumers. Projects in the water section will be related to unaccounted for water rationalization of distribution of water rehabilitation of existing water works and rising mains.

An outlay of Rs. 100.00 lakh has been approved for 2007-08.

17. Large Scale Testing of water samples (Rs.355.00 lakh)

The Delhi Jal Board is at present having 6 well equipped and modern laboratories having facilities to test physical, chemical and bacteriological parameters. Samples are also being lifted by junior Engineers of DJB who have provided with test kits to determine on the start presence of residual chlorine.

An outlay of Rs.355.00 lakh has been approved for Annual Plan 2007-08 for testing of water samples.

18. Captive Power Plants at Water Treatment Plants (Rs.400.00 lakh)

The underground reservoirs and booster pumping stations are being maintained by DJB where problem of low voltage/electric failure is chronic, diesel generators are being provided.

An outlay of Rs.400.00 lakh has been approved for Annual Plan 2007-08.

19. Construction of additional Barrage at Wazirabad (Rs.1500.00 lakh)

The present storage capacity of raw water is hardly for 7 days. To increase the storage capacity, it is proposed to construct additional Barrage down stream of existing Barrage at Wazairabad. Preliminary investigation/feasibility report and appointment of Consultants shall be taken up shortly.

A presentation by East Delhi MP was given before the Board moving an idea of making raw water storage during flood in the land between the Hindon and Yamuna rivers. Suggrdion shall be explored to implement during Annual Plan 2007-08.

An outlay of Rs.1500.00 lakh has been approved for Annual Plan 2007-08.

20. Augmentation of water supply for Urban Villages. (Rs. 500.00 lakh)

Delhi Jal Board is providing water supply in 135 Urban Villages. These villages are expending 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 Reservoir, Booster Pumping Station are being done.

DJB is supplying water in all the urban villages situated within the Delhi jurisdiction. These villages are expending, industrial as well as commercial activity is also taking place which also causes extra burden on the W/Supply. Their water demand in these villages is being met through piped W/S wherever available, sinking of T/Wells, DBHPs and construction of underground reservoirs etc.

An outlay of Rs 500.00 lakh has been approved for the Annual Plan 2007-08.

21. Augmentation of water supply in Resettlement Colonies: (Rs. 500.00 lakh)

Delhi Jal Board is providing water in 44 Resettlement Colonies. These colonies are expending vertically as well as horizontally. For augmentation of water supply system in Resettlement Colonies, more tube wells, Under Ground Tank, Booster Pumping Station, Deep Bore Hand Pumps and water mains are to be provided.

DJB is providing water in all the 44 re-settlement colonies. These colonies are expending vertically as well as horizontally. For the augmentation of W/S in the RSC T/Wells, underground tank,BPS,DBHPs are being provided in the year 2007-08.

An outlay of Rs 500.00 lakh. has been approved for the Annual Plan 2007-08.

22. Augmentation of water supply for J.J.Clusters [Rs. 800.00 lakh]

The water supply services in J.J.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.

Since the population in these clusters is increasing day by day, these areas are increasing in height and area. Re-allocation of many J.J.Clusters is being done. Besides maintenance of existing water supply system to meet the increasing demand Delhi Jal Board is carrying out augmentation works like providing additional tube wells, deep bore hand pumps and public Water Hydrants in these clusters and is also supplying 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 800.00 lakh. has been approved for the Annual Plan 2007-08.

23. IT Infrastructure / Capacity Building (Rs. 160.00 lakh)

An outlay of Rs.160.00 lakh has been approved for the Annual Plan 2007-08. Detail modalities of the scheme is being worked out by DJB.

24. Trans Yamuna Area Development board (Rs. 1500.00 lakh)

The works is to be carried out on the recommendation of TYADB.

5 nos. UGRs/BPSs namely Mandawali, Nandnagri, Shastri Park, Gazipur and Surajmal Vihar are commissioned during 2006-07 and balance payment shall be releases in the Budget proposal of 2007-08.

Budget estimate also includes provision for making payment for obtaining electric connections for the BPSs/UGRs.

An outlay of Rs 1500.00 lakh, has been approved for the Annual Plan 2007-08.

25. Special scheme for Grant-in-aid for Development of Sewerage and Water Supply in Assembly Constituencies [Rs.3500.00 lakh]

Under this scheme each MLA can suggest works for Water Supply and Sewerage improvements to the extent of Rs.50.00 lakh in his Assembly Constituency.

An outlay of Rs.3500.00 lakh is approved for Annual Plan 2007-08.

26. Commonwealth Games [Rs.2000.00 lakh]

Construction of water treatment plant and upgradation of water supply system for Commonwealth Games, an outlay of Rs.2000.00 lakh has been provided for Annual Plan 2007-08.

27. Construction of 31 MGD Iron Removal Plant at Palla (Rs.1000.00 lakh)

Construction of WTP is to be taken up for treatment of raw water extracted through high yield tube wells constructed in the floor plain areas of river Yamuna in Palla area. The ground water is having excessive iron contents, which are not acceptable for direct consumption. Besides the water treatment plant, UGRs along with its feeder and peripheral mains are to be constructed .

An outlay of Rs. 1000.00 lakh has been approved for Annual Plan 2007-08.

28. Providing Dual Water Supply (Rs.500.00 lakh)

To conserve water, it is proposed to have dual pipe system in the new colonies as well as planned colonies.

An outlay of Rs.500.00 lakh has been approved for Annual Plan 2007-08.

B. SEWERAGE AND DRAINAGE SCHEMES

1. The Delhi Water Board is responsible for providing sewerage facilities in the areas under the command of MCD. In the areas under the command of NDMC, Cantonment Board and DDA Development areas, internal, peripheral and outfall sewers are provided by the respective agencies. However, the Board provides trunk sewers and sewage treatment plants for the entire area of Delhi. The Board has constructed sewage treatment plants at Okhla, Keshopur, Coronation Pillar, Kondli, Rithala, Vasant Kunj, Yamuna Vihar, Ghitorni, Narela, Pappan Kalan, Najafgarh, Delhi gate nallah, Sen Nursing Home nallah, Rohini, Nilothi, Mehrauli Oxidation ponds have also been made at Timarpur.
2. Delhi is not only a metropolitan city but also National Capital. It must have a proper sewerage system for collection, pumping, treatment and disposal of domestic effluent to check environmental pollution. Supply of drinking water is being augmented to meet the increasing demand due to rise in population. It is therefore necessary that sewerage facilities also keep pace with the water supply arrangements.

3. WATER & WASTE WATER GENERATION

3.1 The installed capacity for water treatment in Delhi is 790 MGD. At present, the water supply in Delhi is being maintained at around 720 MGD, according to DJB's statistics. Sonia Vihar Water Treatment Plant (140 MGD) was commissioned in August, 2006 raising the water supply potential in Delhi to 815 MGD. DJB is also constructing water Treatment Plants at Bawana (20 MGD), Dwarka (40 MGD) and Okhla (20 MGD) which would utilize water saved by lining of the carrier channel which brings raw water to the Water Treatment Plants in Delhi from Munak. Hence by 2008, DJB expects to have installed Water Treatment Capacity of 900 MGD. Actual production would, however, depend upon the Irrigation Department of Govt. of Haryana, which is currently lining the channel on behalf of DJB, completing its job on schedule (June, 2007), so that the water saved from the current losses, could be utilized at the new plants.

3.2 According to the CPHEEO "Manual of Sewerage and Sewage Treatment" about 80% of water supply can be expected to reach the sewers unless there is data available to the contrary. The sewage generated in Delhi is thus approx. 576 MGD (80% of 720MGD). 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 676 MGD. The report of NEERI estimates industrial waste water generated in Delhi to be approx. 40 MGD, taking the total sewage generation to 716 MGD.

4. UNAUTHORIZED/REGULARIZED COLONIES:-

All the 567 colonies are targeted to be provided with sewerage facilities. Out of these sewer lines had been laid in 517 colonies. The sewerage systems in 5 unauthorised/regularized colonies are likely to be laid by the end of Annual Plan 2007-08.

5. Regarding Urban Villages there was a proposal to complete sewer lines in all the 135 Urban Villages. 107 Urban Villages have been seweraged so far. Sewer lines are likely to be laid in another 2 villages by March, 2008. Sewerage facilities in all the remaining Urbanized villages are to be provided in a phased manner except where it is not technically feasible to lay sewer lines.

6. Out of 44 Resettlement Colonies, sewer lines have been laid in all 44 Colonies.

1. TRUNK SEWERS (Rs. 5000.00 lakh)

a. Desilting & Rehabilitation of existing Trunk Sewers

The existing sewerage conveyance system is a large network of branch, peripheral and trunk sewers of around 6260 Kms. in length.

The trunk sewers sizes ranging from 700mm dia to 2400mm dia with a total length of about 150 KM. The balance length of the sewerage conveyance system comprises 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 sewers varies between 30-70%. It is estimated that about 101 kms. of the trunk sewers need desilting and rehabilitation including repair of settlement. The work for desilting/rehabilitation in 50 km length has already been completed and is in progress in 12 km length, which is likely to be completed by June, 2008.

b. 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, East Punjabi Bagh. Work for Dabri Trunk Sewer and Sagarpur Trunk Sewer and peripheral sewer is in progress.

An outlay of Rs 5000.00 lakh has been approved for the Annual Plan 2007-08.

2. SEWAGE TREATMENT PLANTS AND ANCILLIARY WORKS : (Rs. 5000.00 lakh)

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 consultant. Sewage Pumping Stations proposed to be set up at Yamuna Vihar (50 MGD), 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. One of the Gravity Ducts does not function in full capacity. It is planned to take improvement works and also fencing to avoid encroachment of land.

An outlay of Rs 5000.00 lakh. has been approved for the Annual Plan 2007-08

3. RESIDENTIAL ACCOMMODATION , STORES, LAB , GO DOWN ,ETC. [Rs. 400.00 Lakh]

Many staff quarters are quite old and require rehabilitation and renovation besides construction of new offices, go-downs, stores & laboratories at the plants.

An outlay of Rs 400.00 lakh has been approved for the Annual Plan 2007-08.

4. STORM WATER DRAINAGE & ANTI FLOOD WORKS [Rs. 200.00 lakh]

In the 9th Five Year Plan the work of construction of major drains was with the Delhi Jal Board. But the works of storm water drains have been transferred to MCD (General Wing).

An outlay of Rs 200.00 lakh has been approved for the Annual Plan 2007-08 for pending works.

5. RENOVATION OF EXISTING PLANTS AND PUMPING STATIONS : [Rs. 1500.00 lakh]

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

An outlay of Rs 1500.00 lakh has been approved for the Annual Plan 2007-08.

6. LAYING OF INTERNAL SEWERS IN UNAUTHORIZED/ REGULARIZED COLONIES (BRANCH SEWERS) [Rs.6000.00 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 517 colonies upto March-2007. It is proposed to lay the sewerage system in 5 unauthorized / regularized colonies in year 2007-08 and for balance unauthorized / regularized colonies sewerage system shall be laid in a phased manner subject to technical feasibility.

An outlay of Rs 6000.00 lakh has been approved for the Annual Plan 2007-08..

7. NON-CONVENTIONAL SOURCE OF ENERGY (UTILIZATION OF GAS AT VARIOUS PLANTS) [Rs.110.00 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. Thereafter, the Bio-Gas engines for generation of electricity at various Plants would be taken up. The tenders for appointing Consultant have been invited and the same is under scrutiny. It is proposed to award the schemes of power generation on build, own & operate basis. The DJB will also explore the possibility of utilization of Bio gas produced at our various treatment plant for captive power generation which would result into generation of Revenue from such power plant by way of sale of Bio gas and viz-a-viz purchase of electricity from the DVB.

An outlay of Rs 110.00 lakh has been approved for the Annual Plan 2007-08.

8. 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 107 urban villages. It is not technically feasible to lay sewer lines in 32 Urban villages and laying of sewer lines in the remaining 2 urban villages is being implemented by DJB in a phased manner by March 2008. In case of village where it is not technically feasible to lay sewer lines, decentralized system such as Mini STPs, bio-digesters are proposed to be provided.

An Outlay of Rs.600.00 lakh has been approved for the Annual Plan 2007-08.

9. SEWERAGE FACILITIES IN RESETTLEMENT COLONIES [Rs.400.00 lakh]

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

An outlay of Rs 400.00 lakh has been approved for the Annual Plan 2007-08.

10. TRANS YAMUNA DEVELOPMENT AREA BOARD (TYDAB) [Rs. 800.00 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 taken up with the approval of the TYADB.

An outlay of Rs 800.00 lakh has been approved for the Annual Plan 2007-08.

11. INFORMATION TECHNOLOGY INFRASTRUCTURE / CAPACITY BUILDING [Rs. 100.00 lakh]

An outlay of Rs.100.00 lakh has been approved for the implementation of the Plan Scheme for Annual Plan 2007-08. Detail modalities are being worked out by DJB.

12. YAMUNA ACTION PLAN-II (YAP-II) (Rs. 3200.00 lakh)

As a centrally sponsored scheme of YAP-I D.J.B had taken up & completed 2.2 MGD STPs each at Delhi Gate Nalla and Dr. Sen Nursing 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:-

- i. Rehabilitation of Ring Road Trunk Sewer.-90.07 Crores
- ii. Rehabilitation/replacement of Bela Road Trunk Sewer – Rs.17.47 Crores.
- iii. Laying of Noth of Wazirabad Trunk Sewer – Rs.64.20crores.
- iv. Renovation of 72 MGD Keshopur STP – Rs.66.36 crores
- v. Construction of 30 MGD Okhla STP – Rs.85.27 Crores.

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

An outlay of Rs.3200.00 lakh has been approved for Annual Plan 2007-08.

13. COMMONWEALTH GAMES (Rs.700.00 lakh)

Construction of STP and upgradation of sewerage facility for Commonwealth Games, an outlay of Rs.700.00 lakh has been approved for Annual Plan 2007-08.

14. SEWERAGE FACILITY IN RURAL VILLAGES (RS.1500.00 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 consultants will complete the work of submission of tendered documents for laying of sewerage system and its treatment.

An outlay of Rs.1500.00 lakh has been approved for Annual Plan 2007-08.

15. ABATMENT OF POLLUTION OF RIVER YAMUNA (Rs.4000.00 lakh)

For this possible solution which has been put up before the Govt. of National Capital Territory of 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 its 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 thereupon 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 utilised. The total estimated cost of the laying interceptor sewers along three drains in a length of 115 kms. and construction of STP/SPS of appropriate capacity will be around 3215 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 final implementation of the concept will be made on the report of the Consultant.

An outlay of Rs.4000.00 lakh has been approved for Annual Plan 2007-08.

16. SEWERAGE FACILITY IN UNAUTHORISED COLONIES (Rs. 14700.00 LAKH)

Sewerage system will be provided in unauthorised colonies after the clearance/approval of the Project.

An outlay of Rs.14700.00 lakh has been approved for Annual Plan 2007-08.

NDMC

The Drainage system of New Delhi Municipal Council's 42.78 Sq. km area is managed through 14 segments/systems divided with respect to the catchment area of each system and trunk drainage from system in each case carry the rain water discharge and all of sewer line through auxiliary drains up to the out fall through five outlets in MCD area for final disposal to the River Yamuna. The passing criteria for drainage system in New Delhi Municipal Council area is based on the recommendation contained in Reddy Committee's Report approved by the Govt. of India and quite substantial amount to this (upto 80%) and drainage have been augmented/covered. Therefore, a systematic programme to desilt; augmentation and improvement the SWD drains in New Delhi Municipal Council area is required to be taken up for which area pockets have been identified and are to be taken up in the Annual Plan 2007-08 detailed below: -

A. WATER SUPPLY

Improvement of water supply in NDMC Area (Rs.1000.00 lakh)

For the improvement and augmentation of water supply in NDMC area, an outlay of Rs.1000.00 lakh has been approved for Annual Plan 2007-08.

B. SEWERAGE SCHEME

Augmentation of sewerage system in NDMC area (Rs.1300 lakh)

To augment the sewerage system in NDMC area, an outlay of Rs.1300.00 lakh has been approved for Annual Plan 2007-08.

C. Covering of Nallahs and Anti Flood Works

1. Aug. the capacity of SWD System No. 1 & 6 to 11 & Covering Khushak Nallahs [Rs.10.00 lakh]

The work of Ecological Improvement of Khushak Nallah from SP Marg to Satya Sadan (Phase-II), Rain Water Harvesting at Shanti Path D-I, II, III Satya Sadan, Golf Link, Imp. to Drainage System at roundabouts in NDMC area. Rehabilitation of covering of nallah at Sarojini Nagar are likely to be taken up in the year 2007-08.

Aug. the capacity & Imp. to roadside drains in NDMC area along Safdarjung Railway Station at CPWD Store Chanakyapuri. Providing GT/bell mouths and repair/replacement of chocked barrel and GT in NDMC area, i.e. Lodhi Road, Talkatora Garden, Jor bagh, Kaka Nagar. Imp. to drainage in Fire Brigade lane in Barakhamba Lane and surrounding area and providing covers to open drains at Moti Bagh, Netaji Nagar, Sarojini Nagar, Laxmi Bai Nagar, Kidwai Nagar, D-II, I, III Satya Sadan, Newzealand Embassy including Thailand Embassy and China Embassy are likely to be taken up. The work of covering of open drain by RCC slab at Moti Bagh, Netaji Nagar, Laxmi Bai Nagar, Rehabilitation of covering nallah at Sarojini Nagar are also likely to be taken up.

Imp. to drainage system in NDMC colonies at Sarojini Nagar, Middle Circle, Connaught Place, DIZ area Sector I, II III, at Pandara Road and Ravindra Nagar are also likely to be taken up.

Rehabilitation of SWD brick arch barrel between Q Point and Laxmi Bai Nagar and Survey of SWD System in NDMC area shall be taken up.

An outlay of 10.00 lakh is approved for Annual Plan 2007-08.

2. Augmenting the capacity and Improvement to road-side drains in NDMC area [Rs. 40.00 lakh]

The work of repair/renovation of the existing open drain and provision of SFRC removable slabs over (all easily removable) in the area of Moti Bagh, Vinay Marg, Netaji Nagar, Kidwai Nagar, Sarojini Nagar, Jor Bagh etc. The work is likely to be taken up in Gole market, Metropolitan City Central area i.e. Sansad Marg, Ashoka Road, B.K.S Road, S.B.S. road, Talkatora Road, North Avenue, Willingdon Crescent and roundabouts of Chanakya puri, Fire Brigade lane, Barakhamba Lane and its surrounding area, alongwith Safdarjung area, Barakhamba road, Outer Circle from Connaught Place to Tolstoy Marg,

Mandir Marg, Shanker Road, Peshwa Road, Moti Bagh, Netaji Nagar, Sarojini Nagar, Laxmi Bai Nagar. The work of Improvement to SWD System and roadside drains will also be taken up with changing of old SWD pipes filled with silt in phases in the NDMC area.

An outlay of 40.00 lakh is approved for Annual Plan 2007-08.

3. Improvement to drainage system in NDMC Colonies (Rs. 50.00 lakh)

The work of Improvement to Drainage System in NDMC area at Tolstoy Marg between Janpath and K.G.Marg, Improvement to SWD Bhagat Singh market and Bangla Sahib Road, Harijan Basti, Mandir Marg, Aug. and Imp. to drainage system in Sector-I, II, III and IV DIZ area, Jor Bagh, Safdarjung Lane, Tuglak Crescent, Akbar Lane, Krishna Menon Marg, K.Kamraj Lane, Pandara Road, Sarojini Nagar, Netaji Nagar, Laxmi Bai Nagar, East Kidwai Nagar, Moti Bagh, Netaji Nagar, Nauroji Nagar and Open Surface drain at Moti Bagh etc. will also be taken up

An outlay of Rs 50.00 lakh is approved for Annual Plan 2007-08.

4. Technical Repair and Desilting of SWD System in NDMC area. (Rs. 100.00 lakh)

Desilting and Cleaning of NDMC area (System no.1&6 to 11 & 14) in phases is likely to be taken up. Old barrels which have been broken/damaged at 3 places in between Q-Point and Lodhi Road from DI-50 to DI-60, CPWD Nursery, Water Boosting Station, Bharti Nagar are to be restored. Further the work of restoration of barrels from Q-Point to Dayal Singh College to Lodhi Road will be taken up.

An outlay of Rs 100.00 lakh is approved for Annual Plan 2007-08.

URBAN DEVELOPMENT DEPARTMENT

1. SETTING UP OF WATER MISSION AND USE OF NEW TECHNOLOGIES FOR CONSERVATION HARVESTING AND RECYCLING OF WATER (Rs. 65.00 LAKH).

- i. Although Delhi is situated on the banks of river Yamuna the availability of potables water is insufficient to meet growing requirements of Delhi. Delhi's water share is based on an agreement entered to in 1993 amongst the five basin States of Delhi, Haryana, Himachal Pradesh, Rajasthan and Uttar Pradesh.
- ii. To augment the water supply the U.P.govt. have been approached for release of additional water from the Upper Ganga Canal by savings in situated through relining and re-furbishing of the existing line channel. The Govt. of Delhi is also working in consultation with the Govt. of Himachal Pradesh to get Renuka Dam Project cleared by the Govt. of India. So as to ensure additional raw water supply for Delhi. Besides this the Lakhvar Vyasi and Khesau Dam Projects are also under consideration of the Govt. of Delhi for bridging the gap between demand and supply of water.

- iii. Thus over the next 5-6 years, no addition in water availability is envisaged. This leaves water harvesting and water conservation as the only options for increasing the water supply. This is why the Govt. of Delhi has been attaching importance to water harvesting and water conservation measures.

Rainfall in Delhi is approximately 670.5mm per year. The ground level is depleting due to over utilisation in some areas, thereby affecting the whole of Delhi, there is an urgent need for rainwater harvesting and promoting water conservation in a big way.

- iv. The local bodies have been asked to adopt water harvesting through storage of rainwater run off. In Delhi rainwater harvesting structures have been made mandatory for new buildings having area above 100 sq. metres by amending the Building Bye-Laws. It has also been made mandatory for all non-residential buildings having discharge of 10,000 litres per day to incorporate a wastewater recycling system. The recycled wastewater can be used for horticultural purpose.
- v. Since water harvesting and water conservation is the only option to bridge the gap between demand and supply, Govt. of Delhi give incentives/grants to Institutes/agencies/NGOs/RWAs/Group Housing Society for adopting the above measures as also for conducting research studies adopting new technologies for conservation of water and so on.
- vi. Technical Assistance-Delhi Jal Board has been identified as the nodal agency to impart all technical assistance needed for water harvesting structures in consultation with Central Ground Water Board.
- vii. Besides this, the Govt. of Delhi also proposes to publicise the importance of water conservation, arrange for wide publicity through pamphlets and electronic media campaigns. School/college students are proposed to be enlisted for inculcating and spreading the message of water conservation. Incentives may also be given to the best achiever in the zone.
- viii.a. Grant will be given to Institutes/agencies/and incentive to house-owners for adopting water harvesting measures and or incentives will be given for conducting research studies in the filed of water harvesting and water conservation.

In the first phase the RWAs/Coop Group Housing Societies of South and South-West Districts, being the worst affected areas, are being taken up. In the IInd phase, it is proposed to extend the scheme covering RWAs/ Coop Group Housing Societies of West Delhi Districts and all (aided/unaided) school buildings. Interested RWAs/ CGHS/Schools with design plan duly approved by CGWA will apply to concerned zonal officer of DJB. The applications so received would be examined by a Committee comprising of officers from U.D.Dept., Finance Dept., C.M.Office, Delhi Jal Board and CGWB (Officer-incharge Delhi Unit) under Member (WS), DJB. The Committee shall also undertake site inspection for ascertaining the feasibility/applicability of the scheme.

The financial assistance in the shape of grant to be given to the RWAs/CGHS/Schools, would be the 50% of the total cost of the project subject to a maximum of Rs.1.00 lakh. The financial assistance would be given to the RWAs/CGHS/School only after the completion of the project and to the satisfaction of the committee. The rainwater harvesting structures so constructed would be maintained by the respective RWAs/CGHS/Schools. The RWAs/CGHS/Schools before getting the financial assistance would have to enter into an agreement with the Govt. that the proper maintenance would be ensured by them at all time. If at any stage any RWA/CGHS/School is found wanting in this, other benefits would not be provided to them by the Government.

- b. Financial incentives to best achiever in the field of water conservation from amongst school children of class VI onwards may be worked out at various levels depending upon the coverage e.g. zone-wise, Distt.-wise and state-wise.
- c. Funds can also be utilised for publicity including the conduct of seminars, workshops, distribution of pamphlets, press advertisements etc.

An outlay of Rs. 65.00 lakh is approved for the Annual Plan 2007-08.

2. Yamuna River Authority (Rs.10.00 lakh)

It is proposed to set up a Yamuna River Authority, which could take care of development of river beds, reduce pollution in Yamuna, develop river banks as tourist spots etc. The draft legislation on Yamuna River Authority is yet to be prepared. It has been decided that a Consultant may be appointed preferably from CWC or WAPCOS whose terms and conditions may be finalized.

An outlay of Rs.10.00 lakh has been approved for Annual plan 2007-08 for the implementation / formulation of the scheme.