

IV. MINOR IRRIGATION

Irrigation in Delhi mainly depends upon ground water and partly upon surface water. Irrigation from the ground water is provided through shallow cavity and the deep cavity tube-wells, whereas surface irrigation by way of utilizing treated effluent water from existing sewage treatment plants located at Burari, Okhla and Keshopur. Water from Western Yamuna Canal system under the control of Haryana Government is also utilised for irrigation purposes. At present 4234 Hect. of land is being irrigated by Western Yamuna Canal, 1538 Hect. by utilizing effluent water from existing sewage treatment plants and 240 Hect. from ground water sources i.e. from Tube wells (95 Nos.) functioning under Irrigation & Flood Department. Due to fast urbanization taking place in the rural areas of Delhi, cultivable command area under irrigation is getting reduced day by day. As a result, some of the state tube well installed by Irrigation & Flood Control Department have already become redundant and no new scheme has been proposed. Under this scheme an additional area of about 1457 Hect. is likely to come under irrigation in the 10th Five Year Plan when the scheme will come under full operation. A proposal to provide irrigation facilities to the farmers of N.G. Block through effluent irrigation which will irrigate additional command area of 800 Hect. during 10th Five Year Plan. In addition to this there are proposals for recharging of ground water by way of water harvesting in N.C.T. of Delhi are under consideration. The statement given below shows approved outlay for 9th FYP and approved outlay for 10th FYP and Annual Plan 2002-03.

(Rs. in Lakh)

S.No	Name of the scheme/project	9 th FYP 1997-2002 approved outlay	Approved outlay for 10 th FYP (2002-07)	Approved outlay for Annual Plan 2002-03
1.	Ground Water Exploration	555.10	---	---
2.	Surface water (effluent treatment Plant)	738.00	390.00	4.00
3.	Other schemes (Water harvesting & recharging of Ground Water)	---	606.00	46.00
4.	Charged Expenditure	10.00	4.00	---
	Total	1303.10	1000.00	50.00

1. Extension & Improvement of Effluent Irrigation from Keshopur Treatment Plant- Phase-III.

A scheme for utilizing the enhanced effluent of Keshopur Treatment Plant was framed in January, 1985 and A/A & E/S amounting to Rs. 194.00 Lakh was accorded by Delhi Administration in August, 1985. This scheme was proposed to irrigate an additional area of 1457 Hect. in N.G. Block. This scheme could not make any headway till March, 1985 on account of strong opposition against acquisition of land by the then area MP and other elected representatives along the proposed alignment of additional channel along Nilothi Distributory and Minor constructed under KEIS Phase-II. A new alignment finalized in 1986 and revised scheme amounting to Rs. 1051.00 Lakh was framed in March, 1991 and A/A & E/S of the revised scheme amounting to Rs. 1051.00 Lakh has been issued by Govt. of Delhi in September, 1997. An expenditure of Rs. 1037.25 Lakh has been incurred on the project. The project has been completed.

**2. Extension & Improvement of Effluent Irrigation facility by supplying effluent water in the field of villages of N.G. Block
(Rs. 390.00 Lakh in 10th Plan & Rs. 4.00 Lakh in Annual Plan 2002-03)**

The rural area around Najafgarh town namely agricultural and there is no facility of flow of irrigation in the shape of canal. The sub soil water in this area is brackish and the water level has also gone down considerably. There is growing demand from the farmers to provide irrigation facilities through effluent water. Couple of meetings have also been held with Hon'ble Minister of Development wherein farmers has raised such a demand from time to time. At the behest of Hon'ble Minister it was decided to explore the possibility for providing irrigation facility to Dichauan Kalan, Jharoda Kalan, Chhawla, Tajpur and Goela Villages, etc.

Irrigation & Flood Control Department is formulating a scheme to extend irrigation facility beyond the existing catchment of Keshopur effluent irrigation scheme by taking effluent water across the Mungeshpur Drain. It is proposed to irrigate about 200 Hect of land from the above proposal. A provision of Rs. 390.00 Lakh has been kept for the 10th Plan and Rs. 4.00 Lakh for Annual Plan 2002-2003.

3 Water Conservation, recharge of ground water and creation of water detention basin etc.

(i) On channel storage and re-charge of ground water in NG drain

The acute shortage of water in Delhi has led to serious depletion of the ground water table in the N.C.T. of Delhi in general and the Najafgarh Block in particular. In order to tackle this problem, a techno-feasibility study for on-channel recharge of N.G. Drain was assigned to Indian National Trust for Art & Culture Heritage, New Delhi to study the possibility of modifying and using the N.G. Drain for on-channel storage and recharge of ground water in the reach from Dhansa to Kakraula regulator in a stretch of about 30 km. The demand of water for domestic and irrigation purposes has tremendously increased during the last one decade and will increase further with the development of Dwarka sub-city, without there being any additional raw water supply augmentation from raw water sources. Accordingly, a water conservation scheme for resectioning of Najafgarh drain from Dhansa regulator to Kakraula regulator for harvesting of rain water by on-channel storage in N.G. Drain for recharge of ground water as well as for surface water uses has been framed by Irrigation & Flood Control Department, Govt. of Delhi. The estimated cost of the scheme is Rs. 35.70 crores. This scheme envisages storage of storm water run-off from the catchment area of Najafgarh drain in Haryana as well as Delhi in the reach from Dhansa Regulator to Kakraula Regulator because this reach of Najafgarh Drain is comparatively less polluted. The existing drain is proposed to be desilted/deepened by about 1.75m in order to increase its storage capacity. It is also proposed to trap the dry weather flow of the drains, outfalling into Najafgarh drain in this reach by construction of catch water drains on both sides of the Najafgarh drain so that the dry weather discharge of these outfalling drains, which is highly polluted, is not allowed to outfall in this reach and can be discharged into Najafgarh drain downstream of Kakraula Regulator. Since Najafgarh drain does not have a right bank in a length of about 6 Kms. in the Jheel portion in Haryana territory, presently it is proposed to store water only up to such a level which will not cause any inundation in Haryana area. With this level, it is proposed to provide a storage capacity to the extent of 9.26 million cubic metres in the drain which will not only help in recharge of ground water but will also provide drinking water supply to the adjoining areas like Dwarka. Presently Delhi is dependent upon the adjoining states for supply of raw water to meet its drinking

water requirements. However, due to consistent increase in the demand of drinking water and reluctance of the adjoining states to provide additional raw water, Delhi is left with no alternative but to find out ways and means of harvesting rain water which flows down the river un-utilised. For this purpose Govt. of Delhi is also actively considering a number of water conservation schemes for harvesting the rain water by developing the existing water bodies such as Horse Shoe lake near Bhalswa and also by creating new water storage reservoirs adjacent to the available sources of water near villages Jhatikra, Shikarpur, Nizampur and Kanjhawla, etc. which will not only assist in recharging the depleting ground water table but will also help in meeting the ever increasing drinking water demands of Delhi.

This scheme has been cleared in the 13th meeting of Joint Technical Advisory Committee held on 23.01.98 and approved by the Flood Control Board in its meeting held on 10th March, 1998 under the chairmanship of Hon'ble Chief Minister, Delhi. The scheme has been being forwarded to Central Water Commission for the techno-economic appraisal and the work on the scheme shall be taken up after the receipt of A/A & E/S of the competent authority. A provision of Rs. 300.00 Lakh was approved in the 9th Five Year Plan 1997-2002 against which no expenditure has been incurred upto 31.3.2002 as the scheme is yet to be cleared by Central Ground Water Board. Proposal has been dropped.

3(ii) Development of Water body in a defunct portion of Bawana Escape between RME and Burari Hiranki Road for recharging of ground water (Rs. 6.00 Lakh for Annual Plan 2002-03)

As per the decision taken in a meeting held on 27.5.99 under the Chairmanship of Hon'ble Lt. Governor, Delhi, flood water are to be diverted and stored in defunct portion of Bawana Escape and other existing drains/channels. For this, revival of defunct portion of Bawana Escape is required. A scheme to revive 1.3 km length of defunct portion in average width of 20m and depth of 3.5m to 5.0m for storage of rain water proposed to be prepared from river Yamuna during flood season. As such a storage to store about million cubic meter will be developed. This scheme has been cleared by TAC in its 15th meeting & FCB in its meeting on 13.10.1999 and the A/A & E/S has also been accorded. A provision of Rs. 65.00 Lakh has been kept in the annual Plan 2001-02 under the Head "Water conservation and Re-charge of groundwater and creation of water detention basin

in Delhi". An expenditure of Rs. 28.92 Lakh has already been incurred against this scheme. An outlay of Rs. 6.00 lakhs has been approved against this scheme.

3(iii) Development of ponds in village Kanjhawla in Kanjhawla Block.

On account of development of large scale boring of tubewells in the NCT of Delhi during the last decade, the ground water resources are depleting steadily in agriculture areas. The water level in the wells have gone down considerably. Thus, putting the cultivators and local people to face a great hardship in tapping the ground water resources. In order to recharge the ground water resources it is proposed to deepen the existing depressions, drains and tanks in rural areas of NCT of Delhi to meet the irrigation requirement and also help in recharging of ground water level. A scheme amounting to Rs. 49.25 Lakh has been prepared and cleared by TAC and FCB in 1999-2000 and A/A & E/S has also been issued. An expenditure of Rs. 2.25 Lakh has already been incurred. But the above scheme could not be implemented due to non-availability of sites. However, a search is on to ascertain new sites. Hence no provision has been kept in the 10th FYP against this scheme.

4 Construction of Sokage Bunds/Tanks

(i) Creation of pondage in land acquired for supplementary drain along Mungeshpur Drain from RD 0m to RD 1575m and RD 16000m to 3660m (Rs. 100.00 Lakh for 10th Plan)

On account of development of large scale boring of tube wells in the NCT of Delhi during the last decade, the ground water resources are depleting steadily in the agriculture areas. The water level in the wells have gone considerably down. Thus, putting the cultivators and the local people to a great hardship in tapping the ground water resources, it is proposed to utilize the existing depression, drains and tanks in rural areas, for storage of storm water. These storage works in rural areas of NCT of Delhi would meet the irrigation requirements of local adjoining cultivators by way of pumping water and would also help recouping the ground water level.

The work of construction of tanks is proposed to be taken up in Najafgarh and Kanjhawla Blocks, where water table has substantially gone down and water from lower

aquifers is brackish and unfit for irrigation purpose. An outlay Rs. 100.00 Lakh has been approved for the 10th Five Year Plan

5 Water harvesting & recharging of ground water in Delhi(Rs. 500.00 Lakh for 10th Five year Plan and Rs. 40 Lakh for A.P. 2002-2003)

Due to uncontrolled exploitation of ground water resources and inadequate ground water re-charge measures, the ground water in Delhi has been continuously depleting over the last several years. The groundwater situation in Mehrauli and Najafgarh Blocks has already become extremely critical. In order to reverse this trend, Irrigation & Flood Control Department of Govt. of NCT of Delhi has taken up number of water harvesting schemes such as deepening of drains bed, village pond, construction of check dams, etc. An outlay of Rs. 500.00 Lakh has been approved for 10th Five Year Plan and Rs. 40.00 lakh for Annual Plan 2002-03.

6 Charged expenditure (Rs. 4.00 Lakh for 10th Five Year Plan)

A budgetary head for meeting liabilities for the completed schemes has been permitted in order to ensure that a scheme/project completed in the previous year are not reflected in the plan documents to cater the spill over liabilities. However, no expenditure has been incurred against this head in the 9th Plan Period. An outlay of Rs. 4.00 Lakh has been approved for the 10th Five Year Plan 2002-2007.