

IRRIGATION AND FLOOD CONTROL

INTRODUCTION

Irrigation & Flood Control Department is entrusted with the responsibility of providing irrigation facilities to the farmers of rural villages of Delhi through Effluent received from Sewage Treatment Plant as well as through a Network of State tube-wells available in the rural areas, maintaining the embankments constructed on both sides of river Yamuna in the jurisdiction of Govt. of NCT of Delhi, maintenance of 63 nos. of major storm water drains e.g. Supplementary drain, Najafgarh Drain, Trunk Drain No. I & Trunk Drain No. II, Gazipur drain, Pankha Road Drain, Palam Drain, Nasirpur Drain, Mungeshpur Drain, Nangloi Drain etc., including construction of bridges over these drains. Besides this, Irrigation & Flood Control Department is also equipped with machinery such as draglines, bulldozers, dredger and heavy duty electrical and diesel pump sets which are utilized for removal of drainage congestion during monsoon from low lying areas.

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 tube-wells, whereas surface irrigation by way of utilizing treated effluent water in North, South and West Districts from the existing sewage treatment plants located at Burari (Coronation Pillar), Okhla and Keshopur. Western Yamuna canal system under the control of Haryana Government is also being utilized for irrigation purposes in North-West District.

FLOOD CONTROL:

The National Capital Territory of Delhi has experienced floods in the past, mainly from Sahibi Nadi (Passing through Najafgarh Drain in Delhi) and Yamuna River. Local Drainage system has also been found inadequate to meet the requirement when there is heavy rain fall in the catchments of these drains or during inflow of flood water from adjoining states through Yamuna River in Delhi. Several flood mitigating measures like raising and strengthening of Yamuna marginal embankments, remodeling and lining of various drains have been taken up over the years to avoid repetition of flood.

Revised Outlay & Expenditure of Annual Plan 2012-13, Approved Outlay & Revised outlay of Annual plan 2013-14 and Outlay for Annual Plan 2014-15 for Minor Irrigation & Flood Control Sector are as under:

Sector	Annual Plan 2012-13		Annual Plan 2013-14		Annual Plan 2014-15
	Revised Outlay	Expenditure	Approved Outlay	Revised Outlay	
I & FC	74.63	74.00	80.00	70.00	82.00

(₹ in crore)

MINOR IRRIGATION:**Ground Water Recharge & Water Conservation****Plan Outlay**

Annual Plan 2014-15 : ₹ 5 Lakh (Under Capital Head)

Due to uncontrolled exploitation of ground water resources and inadequate ground water re-charge measure, the ground water in Delhi has been continuously depleting over the last several years. The groundwater situation in Mehrauli and Najafgarh Block and Alipur Block are critical. In order to reverse this trend, the Dept. has taken-up number of water harvesting schemes such as creating pondage in the bed of N.G. Drain, making recharging pits/trenches in Mungeshpur Drain, Bawana Escape, Mundella Bund etc.

FLOOD CONTROL:

1. Embankment schemes including Access Roads & Bridges, Anti Erosion Works and Beautification works

Plan Outlay

Annual Plan 2014-15 : ₹ 5100 Lakh (Under Capital Head)

The embankment schemes envisage construction, strengthening and beautifications of embankments of river/drains under the jurisdiction of I&FC Deptt.

1.1 EMBANKMENT SCHEMES

**1.1.1 Construction of Sump Well for Toe Drain and Link Drain No.-II
(Estimated Cost of ₹ 99.66 lakh)**

E/S has been issued in the year 2011-12. The work is in progress and to be completed in the current financial year.

**1.1.2 Construction of out fall structure cum regulator for Link Drain No. II out falling into Supplementary drain has been completed.
(Estimated Cost of ₹ 63.78 lakh)**

1.1.3 Construction of Toe Drain along Supplementary Drain from old RME to Link Drain No.-2 (Estimated Cost of ₹ 64.24 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in the current financial year.

- 1.1.4 Improvement of existing pitching/lining of Jahangirpuri Drain between RD 1135m and RD 600m (Estimated Cost of ₹ 80 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in the current financial year.

- 1.1.5 Construction of retaining wall along both banks of Shahdra outfall drain downstream of Chilla regulator RD 5900m.
(Estimated Cost of ₹ 125.07 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in the current financial year.

New Schemes

- 1.1.6 Raising & strengthening of bank of Mungeshpur drain between RD 37550m to RD 15850m.
(Estimated Cost of ₹ 157 lakh)

- 1.1.7 Improvement & strengthening side slopes and bank by providing pointing on pitching between RD 19750m to RD 16436 of Supplementary drain.

- 1.1.8 Construction of RCC retaining wall along left bank of Supplementary Drain from RD 23635m (Foot Bridge) to RD 23218m (Jawalapuri Bridge) for widening of approach road to the bridge at RD 23800m.
(Estimated Cost of ₹ 137 lakh)

- 1.1.9 Construction of retaining wall on right bank of river Yamuna between boat club & Kudesia Ghat to protect heavy inhabitation area of Tibtean Market.
(Estimated Cost of ₹ 1061 lakh)

1.2 REVAMPING OF DRAINS

The major drains which are falling into River Yamuna should be protected from garbage by way of construction of boundary wall on both side and additional measures taken on bridges by strengthened existing railing and erecting wire mesh fencing/netting. It was decided to take up work on Najafgarh Drain, Supplementary Drain and others Drains of I&FC Department which have not been covered under phase-I programme. Accordingly, separate schemes have now been taken up.

- 1.2.1 Construction of sump well for village Wazirabad near Supplementary Drain.
(Estimated Cost of ₹ 153.40 lakh)

E/S has been issued in the year 2012-13. The work is in progress and Likely to be completed and the current financial year.

New Schemes:

- 1.2.2 Construction of wall on right/left bank from RD 8660m to 11270 of TD No.1 between MCD dustbins at RD 8660m to Arterial Highway Bridge RD 1033m.

- 1.2.3 Revamping of left bank of new drain from RD 1260m to 5400m.
E/S yet to be issued, however, the scheme has been cleared by TAC as well as FCB. The work will be taken up after expenditure sanction is received. The work will likely to spill over to next financial year.
- 1.2.4 Providing plinth protection and drainage shaft on inner side slope of left and right side banks and wheel guards on outer side of N.G. drain from Amberahi Bridge to Kakraula Bridge.
- 1.2.5 Raising of existing boundary wall along left bank of Supplementary Drain from RD 12418m to RD 13800m.

1.3 REMODELING/IMPROVEMENT OF EXISTING DRAINS

- 1.3.1 Remodeling of Kirari Suleman Nagar Drain from RD 3700 M to RD 6100 M (By constructing RCC through section at RD 3700 m to RD 6090 m)
(Estimated Cost of ₹ 525.21 lakh).
E/S has been issued in the year 2007-08. The work is in progress and Likely to be completed in 2014-15.
- 1.3.2 Remodeling of drain No. 6 from RD 0m to RD 14725m (5 bridges)
(Estimated Cost of ₹ 744 lakh)

E/S has been issued in the year 2007-08. 55% work has been completed and to be completed in 2014-15.
- 1.3.3 Remodeling of Mundka peripheral Drain by constructing R.C.C. through section
(Estimated Cost of ₹ 341.23 lakh)

Revised E/S has been issued in the year 2003-14. The work is in progress and likely to be completed in 2014-15.
- 1.3.4 Remodeling of Kirari Suleman Nagar Drain by constructing RCC through section from RD 3700 m to RD 2445 m
(Revised Estimated Cost of ₹ 584 lakh)

E/S has been issued in the year 2007-08. The work is in progress and to be completed in 2014-15.

1.4 OTHER SMALL DRAINAGE IMPROVEMENT SCHEMES

- 1.4.1 Construction of balance portion of Bakarwala outfall drain near Keshopur-Nilothei Irrigation Channels at village Bakarwala.
(Estimated Cost of ₹ 76.21 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in 2014-15.

- 1.4.2 Improvement of Trunk Drain No. I from RD 6265 m to RD 5900 m and RD 6690m to RD 6345m
(Estimated Cost of ₹ 398 lakh)

E/S has been issued in the year 2013-14. The work is in progress and likely to be completed in 2014-15.

- 1.4.3 Construction of retaining wall on left bank of Ghazipur drain from RD 0m to RD 391m to reclaim land for movement of machines for desilting of drains/ inspection vehicles.
(Estimated Cost of ₹ 398 lakh)

E/S yet to be issued, hence the work will spill over to next financial year.

- 1.4.4 Covering of Irrigation Channel from Okhla Treatment Plant to main road of village Jasola in Okhla Constituency.
(Estimated Cost of ₹ 250 lakh)

Open Irrigation Channel carrying treated effluent available from of Okhla Treatment Plant, passing through Abadi area of village Jasola creates unhygienic insanitary condition, foul smell and has become place for mosquito breeding and health hazards to the local residents. The covering of channel is being carried out to use this space as internal road by residents of the area. The A/A & E/S is yet to be issued and work will spill over to next financial year.

- 1.4.5 Providing and laying dry stone pitching on bank of Trunk Drain No. 1 from RD 20m to RD 480m.
(Estimated Cost: ₹ 98 lakh)

E/S has been issued in the year 2013-14. The work is in progress and likely to be completed in 2014-15.

New Schemes:

- 1.4.6 Construction of RCC trough section from RD 0m to RD 865m of Khera Kalan drain in Alipur Block.
(Estimated Cost: ₹ 166 lakh)

E/S yet to be issued and the work will spill over to next financial year.

- 1.4.7 Construction of Toe drain along L/S land boundary of Supplementary Drain between RD 1700m to RD 1050m.
(Estimated Cost: ₹ 116 lakh)

E/S yet to be issued and the work will spill over to next financial year.

- 1.4.8 Restoration of damaged lining portion between RD 0 m to RD 1135m to and 3250m to 1600m of Jahangirpuri Drain (Both Side).
(Estimated Cost: ₹ 85 lakh)

E/S yet to be issued the work will spill over to next financial year.

- 1.4.9 Extension of Nasirpur drain on DDA land upto Railway line (off take point)
(Estimated Cost: ₹ 40.25 lakh)

E/S issued in the year 2013-14 and work is likely to be completed in 2014-15.

- 1.4.10 Development of two Parks one on right bank of Najafgarh Drain between RD 30450m to RD 31970m and another at downstream of Kakraula Regulator Opp. Vipin Garden.

E/S issued in the year 2013-14. The work is in progress and likely to be completed in 2014-15.

- 1.4.11 Improvement of existing pitching/lining of Jahangirpuri drain between RD 500m to RD 0m (Both side).
(Estimated Cost: ₹ 120 lakh)

E/S issued in the year 2013-14. The work is in progress and likely to be completed in 2014-15.

1.5 **ACCESS ROADS & BRIDGES**

- 1.5.1 Improvement of road on left bank of Supplementary Drain between Wazirabad and New drain
(Estimated Cost of ₹ 321 lakh)

E/S has been issued in the year 2008-09. The work is in progress and to be completed in 2014-15.

- 1.5.2 Dismantling and reconstruction of two lane bridge at RD 21000m of Supplementary drain
(Estimated Cost of ₹ 191 lakh)

E/S has been issued in the year 2009-10. The work cannot be taken up as the bridge at RD 21260m of Supplementary drain is to be rehabilitated before taking up this work.

- 1.5.3 Restoration of left bank of BC drain from RD 0m to RD 8550m
(Estimated Cost of ₹ 358 lakh)

The B.C. Drain i.e. RD 8550 m in length from Delhi Haryana Border to its outfall point including Mungeshpur drain was constructed in year 1987. The condition of the left bank of B.C. Drain is in deteriorating condition, it is necessary to restore the bank upto design level. Construction of W.B.M. road on left bank of B.C.Drain to facilitate the movement of men and material during any emergency. Total length of this drain is RD 8550m out of which the drain from RD 2736m to RD 6280m falls in Haryana Territory.

E/S issued in the year 2011-12. The work could not be taken up due to permission not granted by Haryana Govt. Irrigation Deptt. for cutting of trees, since some portions of the drain passes through Haryana Govt. land. The work is in progress and likely to be completed in 2014-15.

- 1.5.4 Demolition and Re-construction of Bridge at RD 4165m of Bawana Escape
(Estimated Cost of ₹ 84.74 lakh)

E/S has been issued in the year 2008-09. 50% work has been completed. The work is in progress and likely to be completed in 2014-15.

- 1.5.5 Upgradation of existing left bank of Najafgarh Drain from Amberahi Bridge to Kakraula Regulator (RD 22435 M to 30106 M)
(Estimated Cost of ₹ 181.52 lakh)

E/S has been issued in the year 2009-10. The work is in progress and likely to be completed in 2014-15.

- 1.5.6 Demolishing of Single lane culverts and Re-construction of double lane bridges at RD 4450 M, RD 4580 M, RD 4756 M, RD 4957 M, RD 5300 M, RD 5690 M of Kirari Suleman Nagar drain.
(Estimated Cost of ₹ 77.72 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in 2014-15.

- 1.5.7 Construction of RCC road culvert at outfalling point of Mundka peripheral drain at RD 2345m across Hirankudna road
(Estimated Cost of ₹ 22.00 lakh)

E/S has been issued in the year 2011-12. The work will be taken up after completion of remodeling work of Mundka peripheral drain and the work is in progress and likely to be completed in 2014-15.

- 1.5.8 Demolishing and reconstruction of culvert at RD 1722m of Kirari Suleman Nagar Drain (Nangloi-Najafgarh Road)
(Estimated Cost of ₹ 94.61 lakh)

E/S has been issued in the year 2011-12. The work at planning stage and likely to spill over to next financial year.

- 1.5.9 Construction of inspection path right side of Kirari Suleman Nagar drain by constructing RCC wall from RD 6090m to RD 7850m.
(Estimated Cost of ₹ 262.00 lakh)

E/S has been issued in the year 2010-11. The work is in progress and likely to be completed in 2014-15.

- 1.5.10 Construction of two lane RCC bridges at RD 2117m (Sarangpur) on N.G. Drain

(Estimated Cost of ₹ 674 lakh)

The existing single lane bridge at RD 2117m across Najafgarh drain was constructed in mid eighties as a village road bridge which has now to cater for a very heavy traffic from other side coming towards Najafgarh area. Heavy traffic has resulted in settling down of the approach slab. Reinforcement of the main deck slab is also seen to be exposed, making it risky, even for the lightest vehicle to ply over it.

As such, it is proposed to demolish the existing bridge and re-construct a new two lane Bridge with 7.50m carriage way with 1.50m wide foot paths on the either side, adjoining this old bridge which is proposed to be dismantled

- 1.5.11 Construction of two lane RCC Bridge across NG Drain at RD 44060m to connect Shivaji Enclave & Road No. 33 West of Punjabi Bagh

E/S has been issued in the year 2013-14. The work is in progress and likely to be spill over in 2014-15.

- 1.5.12 Demolishing of Single lane bridge and Re-construction of double lane bridge at RD 17220m, RD 18928m, RD 24115m, RD 30849m and RD 31204m at Mungeshpur Drain.

E/S has been issued in the year 2013-14. The work is in progress and likely to be spill over in the current financial year.

- 1.5.13 Widening of existing bridge at RD-1940m across T.D. No.1 at Karkari More.
(Estimated Cost of ₹ 411.51 lakh)

E/S has been issued in the year 2011-12. The work is in progress and likely to be completed in the current financial year.

- 1.5.14 Demolition of existing pipe culverts and reconstruction of RCC box culverts at RD 1181m, 1266m, 1337m, 1419m & 1478m of Burari Creeks.
(Estimated Cost of ₹ 192.93 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.15 Improvement of road from outer ring road bride to Raghubir Nagar Bridge i.e. 40680m to RD 42895m right bank at N.G. drain.
(Estimated Cost of ₹ 94.90 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.16 Construction of a double lane RCC bridge at RD 12740m of Supplementary drain.

E/S is yet to be issued and the work will be taken up receiving the same.

- 1.5.17 Construction of RCC double lane bridge at RD 23800m, U/S of existing foot Bridge, across Supplementary Drain.
(Estimated Cost of ₹ 316.50 lakh)

E/S has been issued in the year 2013-14. Work is in progress and spill over to next financial year.

- 1.5.18 Construction of two no. steel truss foot bridge on NG drain upstream and downstream of Bharat Nagar at RD 57232m.
(Estimated Cost of ₹ 133.70 lakh)

E/S has been issued in the year 2012-13. The work will spill over to next financial year.

- 1.5.19 Construction of steel truss bridge for crossing of 450mm & 300mm M.s. water pipe line of Delhi Jal board at RD 21260m of Supplementary drain.
(Estimated Cost of ₹ 96.02 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.20 Construction of approach road on the Right Bank of K.S.N. drain between RD 150m (feeder channel) to RD 1430m (Nilothe Distributory).
(Estimated Cost of ₹ 75 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.21 Construction of inspection road on right embankment of river Yamuna from U/S of Nizamuddin Railway Bridge to Nallah No. 12 A, behind Inderprastha Power Station. (Work Completed)
(Estimated Cost of ₹ 69 lakh)

- 1.5.22 Demolition of existing pipe culverts and reconstruction of RCC culverts at RD 610m, 1866m, 2910m, 3510m & 3700m of Bankner Link Drain in Alipur Block.
(Estimated Cost of ₹134.07 lakh)

E/S has been issued in the year 2012-13. The work is in progress and will spill over to in the next financial year.

- 1.5.23 Construction of R.C.C. bridge at RD 4800 M of New Drain.
(Estimated Cost of ₹ 328 lakh)

E/S issued in the year 2012-13. The work could not be taken up as the proposed location of this bridge is comes under the jurisdiction of PWD Delhi. However, both the departments are engaged to short out the issue, thereafter, the work will be taken up.

- 1.5.24 Demolition of pipe culverts and reconstruction of RCC box culverts at RD 1508 M, RD 1534 M, RD 1662 M, RD 1788 M and RD 1872 M of Burari Creek.
(Estimated Cost of Rs 150 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.25 Demolishing & re-construction of bridge at RD 1230 M of Drain No. 6 connecting Mukhmelpur village.
(Estimated Cost of ₹ 182 lakh)

E/S has been issued in the year 2012-13. The work is in progress and will spill over to in the next financial year.

- 1.5.26 "Resurfacing of road and construction of Protection wall on both banks inner edges on Mungeshpur drain from RD 0m to RD 2740m".
(Estimated Cost of ₹ 453 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.27 Construction of inspection road from RD 9024m to 10362m and re-surfacing of existing road from RD 4610m to RD 9024m including protection wall on the (left side) inner edge of Mungeshpur Drain from RD 4610m to RD 10362m"
(Estimated Cost of ₹ 315 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.5.28 Resurfacing of existing road of Mundella bund from RD 0 m to 6320. (Work completed)
(Estimated Cost of ₹ 99.89 lakh)

New Schemes:

- 1 Demolition and reconstruction of RCC bridge at RD 1260m of new drain.
- 2 Demolition and reconstruction of RCC bridge at RD 14190m of Bawana escape.
- 3 Demolition and reconstruction of Bridge at RD 670m, 890m, 7285m and 8690m at Bawana Drain.
- 4 Construction of bridge downstream of G.T. Road Bridge near RD 19550m of Bawana Escape.
- 5 Resurfacing of existing inspection path on left bank from RD 22471m to RD 23218 and 23635m to 24300m of Supplementary drain.

- 6 Construction of additional RCC double lane bridge across Supplementary Drain (U/S of existing bridge at RD 23218m)
- 7 Construction of Bridge on downstream of G.T. Road Bridge near RD 4950m of drain No.-6.
- 8 Construction of Double Lane RCC Bridge on upstream of existing jagatpur Bridge at RD 1670m of Supplementary Drain.
- 9 Resurfacing road/inspection path on the left bank of supplementary drain from RD 25075m (Sayed Nangloi Bridge) to RD 28080 (Vikaspuri Bridge)
- 10 Restoration of road and construction of brick masonry guard wall on left bank of Supplementary drain from RD 14100m to 16436m
- 11 Demolishing of single lane bridge and reconstruction of double lane bridge at RD 34849m of Mungeshpur Drain.
- 12 Construction of guard wall from RD 3250m to RD 1135m including restoration of inspection path constructed on R/B of Jahangirpuri Drain.
- 13 Construction of RCC box culvert at RD 1865m of Relief drain to connect Shree Ram Colony and Rajiv Vihar
- 14 Protection and other allied works around skew bridge connecting Budh Vihar and Vijay Vihar at RD 18750M of Supplementary Drain
- 15 Improvement of existing Road on L/B from RD 17700M to RD 19362M and R/B from RD 16436m to RD 17700m of Supplementary Drain.
- 16 Construction of road & guide wall along drain side on right bank of Supplementary drain from Sultanpur Majra village bridge RD 21750m to Railway line bridge at RD 22100m.
- 17 Construction of WBM inspection path on left bank of Bawana Escape drain from RD 15570m to RD 16635m.
- 18 Construction of single lane RCC bridges at RD 20360m and 20690m of Supplementary Drain (U/s and downstream of adjoining existing foot bridges)
- 19 Construction of steel girder bridge D/S of Rifle Range Bridge at RD 55516m of N.G. Drain.
- 20 Construction of guard wall on left and right inner side of bank from RD 54346m to RD 54946m and pitching work along with laying of bitumastic sheet on left bank from RD 54346 to RD 56704m on N.G. Drain.
- 21 Construction of inspection path on the right bank of N.G. Drain from RD 48315m (Rohtak Road Bridge) to RD 46870m.

- 22 Construction of inspection road on left bank of drain No. 6 between RD 2600m to RD 5000m from village Mukhmelpur to G.T. road, Palla more in Alipur Block.
- 23 Construction of RCC retaining wall from RD 21450m to RD 21660m of Supplementary drain.
- 24 Construction of Double Lane Steel Girder Bridge D/S of Existing Mughal Bridge Across old Course of Najafgarh Drain.
- 25 Providing and laying cement concrete tiles for lining on both sides slopes of Supplementary drain between RD 25100m to RD 25325. (Curved portion)

1.6 ANTI EROSION WORK IN RIVER YAMUNA

- 1.6.1 Restoration of existing bed bars on D/S of ITO Barrage on right bank of River Yamuna. (Work completed)
(Estimated cost of ₹ 216.00 lakh)
- 1.6.2 Providing and Laying stone filled wire crates along left bank of River Yamuna on U/S of super No. 18 for protection of L.M. Bund.
(Estimated cost of ₹ 87.44 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.6.3 Providing and laying stone filled wing (rates along left bank of river yamuna between super No. 17 & 18 for protection of L.M Bund.
(Estimated cost of ₹ 96.47 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.6.4 Providing & laying stone filled wire crates along the bank to check erosion of river Yamuna between RD 1300m and RD 1650m of L.F. Bund including restoration of nose point of bed bar at RD 1530m by stone dumping and laying stone filled wire crates for protection of L.F. Bund. (Work completed)
(Estimated cost of ₹ 394.00 lakh)

- 1.6.5 Providing and laying stone filled wire crates along left Bank of river Yamuna, D/S I.T.O. Bridge and U/S of Metro Bridge, to check further land erosion.
(Estimated cost of ₹ 192.79 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in current financial year.

- 1.6.6 Construction of retaining wall along both banks of Shahdara Outfall drain, D/s of Chilla Regulator (RD 5900m).
(Estimated cost: ₹ 125.07 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.6.7 Providing and laying dry stone pitching on the banks of Trunk Drain No. I from RD 20 m to 480 m.
(Estimated cost: ₹ 98 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in the current financial year.

- 1.6.8 Construction of 6 Nos. Ballie Screens between RD 2000 to 4000 m & between RD 13100m to 13300 of RME.
(Estimated Cost of ₹ 303 lakh)

E/S yet to be issued, the work will be taken up thereafter. The work likely to be completed in the current financial year

- 1.6.9 Strengthening / Restoration of ramp no. 2 of Jagat pur Bund at RD 14500.
(Estimated Cost of ₹ 92 lakh)

E/S yet to be issued, the work will be taken up thereafter. The work likely to be completed in the current financial year.

1.7 Protection of Government Land:

Construction of drains with proper embankments and space for movement, land had been acquired by Irrigation & Flood Control Department for construction of a large number of major and minor drains. As such it has become essential to protect the Government land belonging to Irrigation & Flood Control Department from encroachment by suitable measures viz. constructing walls, fencing along the boundaries of drains wherever required and feasible.

- 1.7.1 Demolishing and reconstruction of boundary wall on the left bank of N.G. Drain between RD 48314m (i.e. Rohtak Road Bridge) to RD 49450m (i.e. Road No.37)
(Estimated Cost of ₹ 71 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in current financial year.

- 1.7.2 Construction of boundary wall at left bank of Shahdra outfall drain between RD 1850 to RD 2625 (between PWD bridge to Atta bridge and downstream of Okhla barrage to RD 900m)
(Estimated Cost of ₹ 57 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in current financial year.

- 1.7.3 Construction of boundary wall along both sides of Mundela Bund from RD 0m to 6320m.
(Estimated Cost of ₹ 257 lakh)

E/S has been issued in the year 2012-13. The work is in progress and likely to be completed in current financial year.

- 1.7.4 Raising and repairing of boundary wall (R/S & L/S) with providing and fixing concertina coil fencing at TD No.- II between RD 0m to 4580m.

(Estimated Cost of ₹ 54 lakh)

E/S yet to be issued and work is likely to be completed in the current financial year.

- 1.7.5 Construction of boundary wall on both side of land boundary of Mungeshpur drain from RD 7440m to RD 10362m of Najafgarh drain.
(Estimate Cost of ₹ 289 lakh)

E/S issued in the year 2008-09. The work is in progress and likely to be completed in the current financial year.

- 1.7.6 Demolition of damaged RR masonry wall and construction of one meter high brick wall on river side, on top edge of left forward bund between RD 0m to RD 5750m.
(Estimate Cost of ₹ 128 lakh)

E/S has been issued in the year 2012-13 and work is in progress. The work is likely to be completed in the current financial year.

- 1.7.7 Construction of boundary wall on right marginal embankment from RD 0m to RD 3000m.
(Estimate Cost of ₹ 225 lakh)

E/S yet to be issued and work is likely to be completed in the current financial year.

2. MAJOR DRAINAGE SCHEME

Plan Outlay

Annual Plan 2014-15 : ₹ 1550 Lakh (Under Capital Head)

1.2 Construction/ Drainage Work

1.3 Procurement of Machinery/ equipments

- 1.3.1 **Procurement of Heavy Machinery such as Bulldozers, Hydraulic Excavators, Dredger, Draglines, Pump Sets, Gen. Sets etc.**

Procurement of Machines for desilting & maintenance of Drains

S. No.	Name of the Machinery	Quantity (No.)	Cost (₹ in crore)
1	(a) Big size dredger	4	21.00
	(b) Amphibious Excavator	4	
2	Hydraulic Excavator with Extended Boom	10	6.00
3	Hydra Crane (16 Tonne)	2	0.49
4	J.C.B Machine	3	0.62
			28.11

1.3.2 Procurement of 3 Nos. Big Size Dredgers & 6 Nos. 12 Cum (18 MT) Hopper Barges for Najafgarh Drain

1.3.3 Strengthening of existing testing laboratory of I&FC Deptt
(Estimated Cost of ₹ 85 lakh)

E/S was issued in the financial year 2012-13. Out of which few equipments/machines for testing of material has been procured and installed. However, the balance machineries are under process of purchasing and thereafter installation will take place. This scheme likely to be completed in 2014-15.

3. Charged Expenditure

Plan Outlay

Annual Plan 2014-15 : ₹ 3 Lakh (Under Capital Head)

Expenditure attributed to the directive of force of law will be met under this head.

4. Survey Model Studies/ Preparation of Master Plan for Drainage & flood Control/ Water Development Schemes

Plan Outlay

Annual Plan 2014-15 : ₹ 42 Lakh (Under Revenue Head)

- 4.1 Survey, Model Study and Hydrological Data Collection & Investigation for new Schemes (Covering of Drains/Nallahs)
- 4.2 Preparation of Master Plan for Drainage for N.C.T. of Delhi. The Department of Civil Engineering, IIT, Delhi has been appointed as consultant for preparation of Master Plan for Drainage 2021 and work is in progress.
- 4.3 Establishment of Quality Control and Material Testing Laboratory

5. TRANS YAMUNA AREA DEVELOPMENT BOARD (TYADB)

Plan Outlay

Annual Plan 2014-15 : ₹ 1500 Lakh (Under Capital Head)

In order to accelerate the development process in Trans Yamuna Area, a board has been set up. After identifying the issue connected with planned growth of the area with a view to reducing wide disparity in the existing infrastructure are enumerated & guidelines issued by the Board for bringing about improvement in the area. I&FC is also an executing agency for TYADB works recommended by the board.

Under the scheme work like construction of drains, roads, small bridges cremation grounds, community centers etc. has executed by the I & FC Department.