

MAHARASHTRA JEEVAN PRADHIKARAN WORKS DIVISION, NANDED.

EXISTING WATER SUPPLY SCHEMES

I. First Water Supply Scheme prepared by Hyderabad State Govt. and completed in year 1936. The scheme designed for population 50000 souls and capacity was 9.00 MID. This scheme includes following sub-works.

- Head work at old Dunkin upstream of Goverdhan Ghat of Godavari River Jack Well 5 m dia. & trench gallery 90 m length.
- Pumping Machinery
 - a) 125 BHP V.T. Pumps 2 sets total discharge 4,09,400 liters/hour
 - b) 100 BHP V.T. Pumps 2 sets
- Rising Main up to killa W.T.P. 450 mm dia. & 375 mm dia. total length 3.31 km
- Filter plant at killa, Type Candy Filter 9.00 MLD
- R.C.C. E.S.R. capacity 6.80 lakh liters at killa & 9.10 lakh liters at Railway Station.
- Distributiion System – 500 mm to 80 mm dia.

Note :- Jack Well & Pump House completely closed.

II. Another scheme was designed and commissioned for population 1,00,000 souls & capacity was 27.00 MLD in the year 1969. The scheme includes following sub works.

- Head Works at upstream of old Dunkin named as new Dunkin
- 250 BHP V.T. pumps 2 sets having discharging capacity 5,76,500 LPH
- Rising main :- From Dunkin new Head Works to ESR at Workshop
- 600 mm dia. C.I. Total length 4.50 km.

- Branch Rising Main from 600 mm dia. of 375 mm dia. of C.I./Hume Steel pipe to ESR at Gandhi Statue and two E.S.Rs. at Railway Station
- 375 mm dia. of Hume Steel pipe is connecting 450 mm dia. CI main to Fort.

III) **Construction of Bandhara on Godavari river near Govardhan Ghat :-**

- Date of Sanction 1.5.1973
- Date of completion 1976
- Details of sub works executed are as below :-

Length	235.50 m
River bed level	341.28 m
Level of Bandhara	343.59 m
Total length of gate	152.50 m
Size of gate	4.5 x 2.4 m – 24 Nos.

IV) **Additional Distribution System for Nanded Town.**

- Date of Sanction 2.10.1972
- Date of completion May, 1977.

The scheme includes 450 mm dia. to 80 mm dia. C.I. distribution system for various part of the Town.

Construction of RCC ESR at Chouphala :-

- Date of Sanction 26.8.1975
- Date of completion July, 1979
- Capacity 22.70 lakh liters

V) **Improvement to Nanded Water Supply Scheme**

The Improvement to Nanded Water Supply Scheme is executed and commissioned by Maharashtra Jeevan Pradhikaran in two parts, details are as below :-

Part-A

- Date of Sanction 8.6.1983
- Date of completion December, 1985
- Sub Works completed as below :-
 - Raw Water Pumping Machinery 250 BHP VT pumps 2 sets, discharge
11,25,000 LPH
 - W.T.P. 27 MLD at Dunkin
 - Pure Water Sump capacity 5,62,500 liters (for 30 minutes)
 - Pump House 7.20 m x 12.0 m x 5.50 m
 - Pure Water Pumping Machinery 180 BHP Centrifugal 2 sets discharge
5,62,500 LPH
 - RCC ESR
 - RCC ESR at Railway Station capacity 6.80 lakh liters
 - Distribution System – 300 mm to 80 mm dia. C.I. pipe Length 4.00 km.

Part-B

- Date of Sanction 17.11.1987
- Date of Revised Sanction 4.3.1994
- Date of completion 24.9.1997
- Sub Works completed as below :-
 - Head Works – 9 m dia. Jack Well 2 Nos. (Twin) and pump house at
Kotitirth in submergence of Vishnupuri Project on Godavari river.
 - Raw Water Pumping Machinery 250 BHP VT pumps 4 sets, discharge
25,00,000 LPH
 - Raw Water Rising Main – 1118 mm dia. M.S. pipe length 9 km.
 - W.T.P. at Kabra Nagar Capacity 60.00 MLD

- Pure Water Pumping Machinery 185 BHP Centrifugal pumps 3 sets, discharge 25,00,000 LPH
- Pure Water Rising Main – 965 mm dia. M.S. pipe length 2.08 km.

VI) There is an existing water supply scheme for CIDCO & HUDCO area with source as Vishnupuri Lift Irrigation Project. The scheme was administratively approved for Rs.1,46,25,000/- net and Rs.1,66,00,000/- gross with 13.5% ETP charges vide Govt. UDD Resolution No.MSB/1085/922/CR-57/85/UD-16 dt.18.12.85.

The scheme was technically sanctioned vide MWSSB Ir.no.WST/1985/2490/CR- -5 dt.13.11.86. The scheme was completed and commissioned on 4.5.89. This is the Pradhikaran's water supply scheme.

CIDCO Water Supply Scheme is handed over to Nanded Waghala Municipal Corporation Nanded in the year 2005 for day to day maintenance. Now the scheme is maintained by Nanded Waghala Municipal Corporation Nanded.

VII) Water Supply Scheme for Khudwai Nagar area was executed through C.M. Fund

- Date of Sanction 4.4.1998
- Sanctioned cost Rs.542.88 lakh gross
- Date of commission March, 2000
- Date of completion 30.4.2000
- Sub Works completed as below :-
 - Pure Water Rising Main –
 - i) From NTC Mills to Anuradha Palace – 400 mm dia. D.I.K-9
Length=1288 m.
 - ii) Anuradha Palace to Shakti Nagar 600 mm dia. D.I.K-9 Length=705 m.

iii) Shakti Nagar to Khudwai Nagar ESR 500 mm dia. D.I.K-9

Length=1662 m.

- E.S.R. capacity 20.00 lakh liters
- Distribution System Khudwai Nagar area 600 mm to 80 mm dia. Length 9125 m

VIII) Holy City Development Programme for Nanded city :-

Date of sanction 4.5.1999

Sanctioned cost Rs.99.15 lakh (gross)

Works completed under the scheme as follows :-

- Tapping Rising Main 300 mm dia. D.I.K-9 Length=425 m
- RCC ESR capacity 10 lakh liters at Yatri Nivas.
- Distribution System 200 mm to 80 mm dia. Length 640 m

IX) Nanded Distribution System & 6 Village WSS

Original Proposal

Estimate sanctioned for Rs. 5840 .00 Lakh on 17/04/98.

The work included following items.

- Construction of RCC ESR of various capacities –13 Nos.
- Construction of MBR 2 Nos.
- Lowering, laying, rising main –4230 mtr
- Gravity main :- of various dia from 200mm to 700mm –14259mtr.
- Distribution System from 500mm to 80mm dia 164100 mtr.

The scheme is designed for supplying water to the Nanded city @ 135

liters/day/capita & for Rural population @ 100ltrs/day/capita.

Financial Pattern of the scheme as per sanction.

- Sanction cost of scheme Rs.5840.72 lakh .
- Government grant in aid 23.33% Rs.1362.64 lakh.
- L.I.C. loan 1743.50 lakh.
- OMB Rs.2734.58 lakh

As per new modified norms of government financial pattern is as below.

•Sanction cost of the scheme Rs.5840.72 lakh

•Government grant in aid 23.33% Rs.1362.64 lakh.

•P.C. 10% Rs. 584.072 lakh.

•LIC loan – Nil.

•OMB Rs.3894.00 lakh

The original scheme is divided in four parts as per demand of Nanded Waghala Municipal Corporation Nanded as Corporation cannot pay 10% P.C. at once for complete scheme.

- **Stage 1**
- **Stage 2**
- **Stage 3**
- **Stage 4**

STAGE- 1

Work has been completed and scheme is commissioned for Taroda (Bk) & Taroda (Kd) in the month March 2005 and water is supplied to people through the scheme regularly by Nanded Waghala Municipal Corporation, Nanded. And water supply to Jangamwadi area is started from 6.4.2006

Details of the scheme are as below:-

- Villages included in this scheme :-
 1. Taroda(Bk)
 2. Taroda (Kd)
 3. Jangamwadi (Part of NWCMC)
 - 2. Administrative approval :- Government resolution No/2091/150/dt/29-11-01
 - 3. Sanction Cost:- Rs.862.00 lakh.
 - 4. Financial Pattern:-
 - Govt. Grant in aid Rs. 201.10 lakh
 - P.C. 10% Rs. 86.20 lakh
 - LIC loan – Nil
 - OMB (HUDCO) – Rs. 547.00 Lakh
- Total Rs. 862.00 lakh

The expenditure on the scheme is Rs.835.35 lakh

The following work is completed in the scheme.

- 90 BHP 3 pump sets.
- Rising main 400mm dia l=2550mtrs
- MBR 8.20 ltr capacity.
- Gravity main from 600mm dia to 400mm dia length 1177mtr.
- R.C.C. E.S.R.
- For village Taroda(Bk) capacity 9,65000 ltr.
- For village Taroda(Kd) 8,26000 ltr.

- 5) For Jangamwadi capacity 8.25000 ltrs –plastering and inlet outlet work remain due to court case of land.
6. Distribution System
 - For village Taroda(Bk) from dia 350mm to 80mm dia – 17.30 km completed.
 - For village Taroda(Kd) 300mm dia to 80mm dia –16.45 km completed.
 - Jangamwadi 300mm to 80mm dia-11.20 km completed
7. Pump House at Kabra nagar W.T.P. work completed.
8. Pumping Machinery Commissioned.

STAGE-2

- Work of Nanded City included in the scheme .
- Administrative approval :- Govt. resolution No./2901/PRAKRA/15/DT-10-01-2003
- Sanction Cost Rs.1264.00 lakh.
- Financial pattern :-

• Govt. grant in Aid	Rs. 294.80 lakh.
• P.C. 10%	Rs. 126.40 lakh
• LIC loan	Nil
• OMB (HUDCO) –	Rs. 842.80 lakh.
Total	Rs.1264.00 lakh.

The total expenditure incurred on the scheme is Rs.790.00 lakh and the over all work of the scheme completed 60%.

After completion of 60% scheme, funds were not available hence the balance work of above scheme costing Rs.474.00 lakh is proposed under Guru ta Gaddi Programme 2008. The administrative approval to this scheme has been accorded by the Divisional Commissioner, Aurangabad vide letter No. 2006/Niyojan/Gugrasa dt.7.9.2006 and Technical Sanction accorded by the Chief Engineer, Maharashtra Jeevan Pradhikaran Aurangabad Region Aurangabad vide letter No.1858 dt.30.7.2007.

The works included in Stage-II which were completed 60% and further 40% balance work completed under this programme and scheme commissioned.

The particulars of the work completed and commissioned is as below :-

- Sump at Workshop – Work completed.
- Pump House near Sump - Work completed.
- Pumping Machinery 60 BHP Centrifugal Pumpsets – Completed.
- Rising Main 500mm dia DI K-9 pipes 1550 m - Work completed & commissioned.
- R.C.C. E.S.Rs.
 - Sundar Nagar- Capacity 23.90 lakh liters commissioned on 28.2.2008.
 - Degaon Chawl/Khadakpura- Capacity 21.30 lakh liters commissioned on 28.8.2008
 - Killa – Capacity 6.80 lakh liters commissioned on 16.5.2008
- Distribution System :- 500mm to 80mm dia DI and CI pipes total length completed 22505 m covering zone No.1, 2, 5, 7, 8, 9, 10B, 12 and 13 (part) and all distribution zones are commissioned along with E.S.R. work.

- Repairs & Replacements of Pumping Machinery Work completed.
- Now the above scheme is maintained by Nanded Waghala Municipal Corporation Nanded.

STAGE –III

Administrative approval – Govt resolution No./2901/DRAKRA/150/DT.05/12/2003.

Sanctioned Cost:- 1751.00 lakh

Financial Pattern:-

Govt. Grant in aid (23.33%)	Rs. 408.50 lakh.
P.C. 10%	Rs. 175.10 lakh
LIC Loan	Nil.
OMB(HUDCO)	Rs. 1167.40 lakh
Total	Rs. 1751.00 lakh

Following works included in this scheme.

- Rising main – 914mm dia ms length 1000mtrs.
- Gravity main – 1. 914mm dia 2751mtrs
- 864mm dia 170mtr
- MBR capacity 20.00lakh ltr.
- ESR capacity 15.00 lakh ltrs at Nandigram Society.
- ESR capacity 20.00 lakh ltrs at Sneh Nagar.
- Distribution System – from 500mm dia to 80mm dia total length 24161mtr.

This work is taken in hand for execution by NWCMC Nanded under JNNURM Programme in the year 2007.

STAGE-4-A

Additional distribution system for village Taroda(BK) & Taroda (Kd)

Sanction Cost- Rs.398.35 lakh

This scheme is recently sanctioned by Govt. of Maharashtra under Nanded Distribution System and 6 villages Water Supply Scheme and work will be started after receipt of P.C. from Gram Panchayat.

Following works are included in this scheme.

- Taroda(Bk) – Distribution System 80mm dia CI Ia class length 23107 mtr.
- Taroda (Kd)- 100mm dia to 80mm dia C.I. L.A. class distribution system length 22084mtr.

STAGE-4B

Balance cost Rs.1963.76 lakh

In the scheme following works are included

A) Additional Distribution System for village Taroda (Bk) & Taroda (Kd)

Sanction cost Rs.398.34 lakh

The scheme is recently sanctioned by Govt. of Maharashtra under Nanded Distribution System and 6 villages Water Supply Scheme and work will be started after receipt of P.C. from Gram Panchayat.

Following works are included in this scheme.

Taroda (Bk) Distribution Ssystem 80 mm dia. CI LA class length 23107 m

Taroda (Kd) 100 mm dia. to 80 mm dia. CI LA class distribution system length 22084 m

Total distribution length 45191 m

This work is taken in hand for execution by NWCMC Nanded under JNNURM Programme in the year 2007.

NATIONAL RIVER ACTION PLAN (N.R.A.P.)**ABATEMENT OF POLLUTION IN GODAVARI RIVER BY NANDED TOWN**

Government of India has decided to take up National River Action Plan for heavily polluted rivers in addition to The Ganga, Yamuna and other rivers covered under Ganga Action Plan, Phase I and II. The Central Pollution Control Board (CPCB) had conducted surveys and studies of rivers all over the nation. The Board found 19 stretches of 13 major rivers as heavily polluted and 14 comparatively less polluted stretches. The above heavily and less polluted stretches of 11 states were proposed to be taken for abatement of pollution under NRAP.

Maharashtra is one of the 11 states mentioned above. Stretch of Godavari river from Nasik to Nanded including city limits and stretch of Krishna river between Karad and Sangli including city limits were identified as polluted by Ganga Project Directorate vide their note dt.14.9.93. Thus Nasik, Nanded on Godavari river and Karad and Sangli on Krishna river have been selected for pollution abatement programme. This programme is being monitored by National River Conservation Directorate (NRCD) under Ministry of Environment, Govt. of India.

While sampling and surveying, Godavari river water near Nanded town was tested and values of (i) BOD and (ii) suspended solids were found to be 150 mg/lit and 1800 mg/lit respectively as against recommended limits of 20 mg/lit and 30 mg/lit respectively. This is because surface drain water from various nalas flowing through Nanded town is directly going to Godavari.

An underground drainage scheme for Nanded town, having been designed for a population of 1,50,000 and 9.0 mld was installed and commissioned during the years 1969 to 1972. This scheme was mainly confined to South of railway track and some part of North as there was very less development on North side of railway track. The

scheme was handed over to the then Municipal Council for day to day maintenance in Jan, 1977. The scheme comprised of five trunks sewers, two sewage pumping stations (one near Gayatri Mandir and other at Chouphala), sewage treatment plant near village Bondhar. After pretreatment and digestion process, it was designed to produce manure cakes from drying beds and discharge treated effluent for field irrigation via small canal network. The scheme was not effectively maintained for years, new branches/additional sewer lines were added to the main scheme, the city population increased and some other factors led to failure of pumping processes and treatment. The sewage flow directly reaches the Godavari river through a bypass at both pumping stations. Apart from the sewage as above, the surface drains of the city find their way in to the Godavari through 19 small and big nalas.

Once the Govt.of India decided to include Godavari (Nanded) under NRAP, the then MWSSB was appointed as Nodal Agency. The Municipal Council was pursued for their consent for acceptance of the scheme and willingness of maintenance through resolutions. M/s.Task Consultants of Pune were appointed for preparation of (Pre-Feasibility Report) PFR and Final Project Report. All these activities took place from Sept.93 to March-94. Pre-Feasibility Report prepared by Consultant was submitted to Govt. of Maharashtra in March-94. After scrutiny at GOM and GOI level, the PFR was modified and the modified P.F.R. was submitted to GOM in Feb-95 and to GOI in Mar-95. The cost of the project as per PFR was Rs.14.12 crore.

The design aspect was based on the principle to arresting the nala flow, collecting the effluent discharging using pumping and applying necessary treatment and then for irrigation. The city was divided in to two zones (South and North). Most of the pollution contribution is through 19 nallas in the South Zone. North Zone is yet

underdeveloped and the surface flow which is from North to Southward and Eastward has not been considered for the project.

1991 census population of Nanded town was 2.75 lakh. Present (2000) population is approx. 3.25 lakh. The abatement of pollution project has been designed for population 3.41 lakh in year 2000 and 4.62 lakh in year 2011. STP has been designed for earlier stage (26 MLD). All other components have been designed for final stage (31 MLD).

The Detailed Project Report (DPR) was submitted to Govt. of India and was approved in Dec.1998. Govt. of India will share 100% cost excluding cost of land Acquisition and Centage charges. The DPR consists of 3 sub-works based on cost. These are (a) Interception and Diversion works costing Rs.9.66 crore. (b) Treatment works costing Rs.2.53 crore and (c) Land acquisition costing Rs.0.80 crore.

Interception works include – (I) Weirs across all nallas (ii) Intercepting sewers and branch sewers (iii) Common collection point cum pumping station (iv) Pumping upto treatment work, (designed for 31 MLD). The treatment works consist of (I) pre-treatment units and (ii) stabilization ponds, all designed for 26.00 MLD.

Interception & Diversion Works

Administrative Approval :- Original dt.26.3.1999 costing Rs.965.93 lakh

Revised dt.26.4.2005 costing Rs.994.73 lakh

Technical sanction Original dt.28.4.1999

Revised dt.2.6.2005

Sewage Treatment Plant 26.00 MLD capacity

Administrative Approval :- Original dt.21.12.1998 costing Rs.252.43 lakh

Revised dt.7.2.2005 costing Rs.277.21 lakh

Technical sanction Original dt.19.1.1999

Revised dt.22.3.2005

Present Position of Implementation

- (i) I&D works – Works completed and commissioned during the period April-2006 to June-2006.
- (ii) Treatment works – Works completed and commissioned during the period April-2006 to June-2006.
- (iii) Land acquisition – Land is handed over by Nanded Waghala Municipal Corporation.

**Water Supply Scheme for Government Medical College @ Vishnupuri
Nanded (Full Deposit Work)**

GENERAL

Nanded city is located on right & left bank of Godavari river, which is also well known for Gurudwara. The tri-centenary programme of Guru-ta-Gaddi 2008 celebrated in the month of Nov. & Dec.2008.

It is proposed to construct the 288 bedded Government. Hospital with 288 beds for Intensive Care Unit by the Public Works Department Nanded. Also following buildings are to be constructed.

- 1) Operation theater
- 2) Hostel for Residential Doctors
- 3) Nursing Hostel
- 4) Kitchen Hall
- 5) Out door patients Hospital
- 6) Other construction workshops etc.
- 7) Post Mortem Room, Physiotherapy, cloth washing centre, medical store & cloth store.
- 8) Residential quarters, girls' hostel, boys' hostel

- 9) Rental rooms
- 10) Dharmashala
- 11) Main Administrative Building
- 12) Visitors hall
- 13) Swimming tank & play ground
- 14) Library
- 15) Animal ward
- 16) Auditorium
- 17) Canteen etc.

For all the above buildings and components, water supply scheme has been proposed and to be executed.

Administrative approval to the scheme is accorded by the Govt. of Maharashtra Medical Education Department Mantralaya vide Govt.Resolution No.GHN/2006/1204/Prakra 46/061/Administration-1 dt.18.3.2006

Technical sanction is accorded by the Chief Engineer, MJP Aurangabad Region Aurangabad vide letter No.TB-2/436 dt.27.2.2009.

Accordingly, M.B.R. near Asadwan water treatment plant is considered as a source for this scheme. The permission for lifting water from 35 MLD water treatment plant is given by the Executive Engineer, Water Supply Dept., NWCMC Nanded vide letter No.NWMC/WW&D/154 dt.18.5.09 to P.W.D. Nanded. Recently the work order of above works included in Part-I is issued to M/s.Santosh Construction Nanded on 23.6.2009 and details are as below :-

Cost put to Tender	Rs.1,12,12,982/-
Accepted cost (4.93% above on evaluated cost of CSR 2008-09)	Rs.1,30,57,518/-

The execution work of the scheme will be taken in hand immediately.

Considering all the components of the Medical College, the water demand of 39.315 lakh liters per day net and 46.253 lakh liters / day gross has been decided in the meeting held at the chamber of Executive Engineer, Public Works Division, Nanded on 22.12.08. In this meeting, Shri D.B. Joshi, Medical Officer of Government Medical College Nanded was also present and water demand finalized. Also capacity of ESR finalised as 15.50 lakh liters in this meeting.

The Executive Engineer, P.W. Division, Nanded has informed to prepare the estimate for water supply scheme immediately and amount equivalent to cost of the scheme will be deposited with Maharashtra Jeevan Pradhikaran.

Total cost of the scheme as per line estimate prepared comes to Rs.7,23,27,654/-. The details are as below.

For 1st Part following Sub works are included in the scheme :-

Sr. No.	Sub Estimates	Amount
1	Working survey	1,50,000
2	Pure water leading main 30 mm dia. D.I. K.9 mm length L=3500 m	1,46,67,000
3	Storage E.S.R. capacity 15,50,000 liters staging height 20 m	68,74,000
4	Distribution system 300 mm dia. to 100 mm dia. D.I. K.9 & K.7 Total length 2685 m	68,13,900
5	Miscellaneous work	62,400
6	Trial & run	32,000
	Total	2,85,99,300
	Add: Price Escalation	
	a) For 1 st year (60% cost of work) 0%	--
	b) For IInd year (40% cost of work) 7%	8,00,781
	Total Inflation (a + b)	8,00,781
	Net Rs.	2,94,00,081
	Add: 17.5% ETP charges	21,45,014
	Gross Cost Rs.	3,45,45,100

The work is in progress and 40% work completed.

Part-II of the estimate i.e. balance distribution system is yet to be prepared.