

REPORT OF THE JOINT COMMITTEE

Constituted by

**Hon'ble National Green Tribunal (NGT) Principal Bench
New Delhi vide Order Dated 27.05.2024 In O.A No.
625/2024**

(News Item titled "जबलपुर : नालों के पक्का करने में पौने चार सौ करोड़ खर्च और वर्क अब भी अधूरा " appearing in Dainik Bhaskar dated 20.05.2024)



Member of the Committee :-

- 1. Smt. Shivangi Joshi, Deputy Collector, Jabalpur**
- 2. Dr.Yogendra Kumar Saxena, Scientist 'C', Central Pollution Control Board, Regional Directorate, Bhopal (M.P.)**
- 3. Shri. Rajasekhar Ratti, Scientist 'E', Ministry of Environment, Forests and Climate Change (MoEF&CC), Regional Office, Bhopal**

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Report of the Joint Committee constituted in the O.A. No. 625 of 2024 w.r.t. (News Item titled “जबलपुर : नालों के पक्का करने में पौने चार सौ करोड़ खर्च और वर्क अब भी अधूरा ” appearing in Dainik Bhaskar dated 20.05.2024) before the Hon’ble National Green Tribunal, Principal Bench, New Delhi.

1. Introduction:

Hon’ble NGT (PB), New Delhi in OA No. 625/2024 vide its order dated 27.05.2024 issued following instructions directed under para 1, 2, 3, 4 & 9 as :-

- 1. “This Original Application is registered suo-moto on the basis of the news item titled “जबलपुर : नालों के पक्का करने में पौने चार सौ करोड़ खर्च और वर्क अब भी अधूरा ” appearing in Dainik Bhaskar dated 20.05.2024.*
- 2. The news item relates to the Storm Water Drainage System Scheme in Jabalpur, Madhya Pradesh built for the drainage of dirty water from inside the city. As per the article the scheme is still incomplete even after 14 years and incurring an expenditure of almost 4 crore rupees. The article highlights that despite spending billions, the city could not get rid of water logging and filth days after the monsoon season. On normal days, due to these open drains and filth, mosquitoes are making life of the residents of the city difficult. Furthermore, in the summer season, the condition of dirt is such that mosquitoes become a problem even in the upper stories of multi- storied buildings.*
- 3. The news item states that due to incomplete drainage systems, the problem of flooding has increased. Water borne diseases are affecting people and even little rain, leads to flooding of about one-fourth of the city. It states that work of about 34 drains is incomplete in the city’s storm water drainage system scheme. Five big drains including Omti, Shah, Khandari, Moti and Urdna and 129 small drains were included in the scheme in the initial phase. The work of not even a single drain has been completed properly and problem of dirt and mosquitoes has not been solved.*
- 4. The news report further reflects that the contract for building the drainage system for a sum of Rs. 374.99 crores was awarded by issuing the tender in 2010*

and as per the tender condition, the work was to be completed within two and a half years but 14 years have passed thereafter, but the work is still incomplete.

9. Having regard to the serious environmental issue raised in the news item, we deem it proper to form a three Member Joint Committee comprising of the representative of the Member Secretary, CPCB; RO, MoEF&CC, Bhopal and District Magistrate, Jabalpur. The District Magistrate, Jabalpur will act as coordinating agency in the Committee. The Joint Committee will visit the sites and ascertain the correct position in respect of the following: -

- i. The status of existing sewage drainage system in the city.
- ii. The status of storm water drains and progress of repair/reconstruction of storm water drain system in the city.
- iii. Daily generation of sewage within the Municipal limits of Jabalpur and existing Sewage Treatment Capacity and gap, if any.
- iv. The status of STP, its capacity and capacity utilization.
- v. The status of funds allotted for the storm water drainage system scheme for which the tender was issued in 2010 and the extent of funds spent till now and the extent of work which has been completed and if work has been done commensurate to funds released.
- vi. The reason for non-completion of the work awarded in pursuance to the tender of the year 2010 till now.
- vii. The Committee will collect the samples from the sources of drinking water supply to the residents of the city, get it analyzed from the laboratory of the CPCB and submit the water analysis report."

2. Constitution of the Joint Committee:

Accordingly, in compliance of the order of Hon'ble NGT OA 625/2024 (PB) dated 27.05.2024, a Joint Committee comprising of following officials from concerned departments has been constituted, the details of which are as under:

S. No	Name of Department	Name of Committee Member
1.	One representative of the District Magistrate, Jabalpur	Smt. Shivangi Joshi Deputy Collector Jabalpur
2.	One representative of the Member Secretary, CPCB	Dr. Yogendra Kumar Saxena Scientist 'C' Central Pollution Control Board Regional Directorate, Bhopal

3.	One representative of the RO, MoEF&CC, Bhopal	Shri Rajasekhar Ratti, Scientist 'E' Ministry of Environment, Forests and Climate Change (MoEF&CC) Regional Office, Bhopal
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Hon'ble NGT (PB), Bhopal in OA No. 625/2024 vide its order dated 27-05-2024 has adjourned the Matter on the request of learned counsel for the respondents and scheduled to be listed on 26.09.2024. (Copy of Hon'ble NGT order dated 19.09.2024 enclosed as **Annexure-1.**)

3. Site inspection by the Joint Committee:

Representative of the District, Magistrate, Jabalpur being the coordinating Agency in this matter, coordinated with the concerned department and fixing the date of site visit. Following officials, namely, Shri Alok Kumar Jain, Regional Officer, MPPCB, Jabalpur, Shri Kamlesh Shrivastava, Executive Engineer, Nagar Nigam Jabalpur and Shri Sanjay Singh Kushwaha, Assistant Engineer, Nagar Nigam, Jabalpur were also present during the site visit. The committee visited the site during dated 28.08.2024 and 29.08.2024.

Before the inspection, the Joint Committee met with Jabalpur's Municipal Commissioner at Manas Bhawan to discuss the current state of the nalas (drains), fund usage, STPs and the project's DPR. They reviewed the contour map and routes of the nalas. The team then visited Moti Nala, Omti Nala, Shah Nala (Lalpur STP), Khandari Nala, and Urda Nala to observe their current condition, noting the area covered and length of each nala. On the second day, The Committee collected the samples from the sources of drinking water supply to the residents of the city, including Water Treatment Plant (WTP) Ranjhi, WTP Bhongadwar, WTP Lalpura-01, WTP Lalpura-02, and WTP Ramnagra.

This inspection aims to ensure compliance with the Hon'ble National Green Tribunal's directives, particularly regarding sewage drains and their treatment and city water treatment plants.

Attendance sheet is attached as **Annexure-2.**

4. Point wise Clarification of Hon'ble NGT Case No 625/2024 (Para 9 – i to vii): -

S.No	As per the Hon'ble NGT in the Order dated 27/05/2024. <i>"The joint Committee will visit the sites and ascertain the correct position in respect of the following": -</i>	Comments/ Views of the Joint Committee
1.	<i>The status of existing sewage drainage system in the city.</i>	<p>There are two types of Sewage Drainage system available in the city. Following information of sewage drainage system in Jabalpur city were provided by Sahaayak Yantree, Nagar Nigam, Jabalpur: -</p> <p>(A) Sewage Outlet directly connected to nearby separate underground sewer lines.</p> <ul style="list-style-type: none"> Separate underground sewer line project was first approved in year 2006 under JNNURM (Jawaharlal Nehru National Urban Renewal Mission) Project. That time the whole city was divided into 05 Zones, having separate sewer network along with separate Sewage Treatment Plant. The Zone 01 work was approved and taken under JNNURM Phase 01, later executed under Project Uday (ADB Loan) & remaining Zone 02, 03, 04 & 05 work was approved and executed under JNNURM Phase 02. Copy of approval is attached as Annexure-3.

- Later on, the balance area sewer network, SBR technology based STPs and house service connection work was approved in year 2017 and execution is in progress under AMRUT phase 01. Copy of approval is attached as **Annexure-4**.
- Overall Progress and Status of above referred (combined) project and some STPs work through other small scheme till now is given below:

S. No.	Work Name	Scope	Executed till now	Balance Work	Expected date of completion
1	Sewer Network	472.93 KM	465.56 KM	7.37 KM	Jun-2025
2	Sewage Treatment Plant	15 Nos, Total Capacity: - 160.38 MLD	13 Nos, Total Capacity: - 154.38 MLD	02 Nos, 01 MLD and 05 MLD	
3	Sewage Pumping Stations	06 Nos	06 Nos	Nil	
4	House Connections; (a) Construction up to houses (b) Connected houses	103942 Nos	(a) 80205 Nos (b) 35000 Nos	(a) 23737 Nos (b) 68942 Nos	

- Zone wise Projected Population as per 2011 census & Sewage Generation

S. No.	Zone Name	As per Year 2011	Projected Base Year 2025	Water Demand (Taking 150 lpcd)	Sewage Generation (Taking 80% of total water demand)	Capacity of Existing STP With sewer network (MLD)	Capacity of STPs after construction of proposed STPs under AMRUT & AMRUT 2.0
1	Zone-1	690380	829996	124.50 MLD	99.60 MLD	50 MLD	110 MLD
2	Zone-2	162293	195113	29.27 MLD	23.41 MLD	32 MLD	32 MLD
3	Zone-3	36292	43631	6.50 MLD	5.20 MLD	None	05 MLD
4	Zone-4	75333	90567	13.59 MLD	10.87 MLD	34 MLD	34 MLD
5	Zone-5	94162	113204	16.98 MLD	13.58 MLD	29 MLD	29 MLD
6	Zone-6	148146	178105	26.72 MLD	21.37 MLD	None	25 MLD
<u>Total</u>		1206606	1450616	217.60 MLD	174 MLD	145 MLD	235 MLD

After completion of this ongoing scheme, the total area of the city, which will be covered through underground sewer network, will only be 35%. For remaining 65% area of the city, a DPR of Rs. 1202 crore is prepared under AMRUT 2.0 Scheme, which includes approx. 1055 KM of sewer network, total 111 MLD capacity STP at 43 different locations and approx. 1.95 Lakh house service connections. The DPR of the said project is prepared and approved by ULB's Mayor-In-Council and District Level Review and Monitoring Committee (DLRMC), and forwarded to state for approval,

which is in under state review process. This work is expected to be completed by December 2029. After AMRUT 2.0, 100% household of the city will be connected through underground sewer network and no sewage will flow openly in Nallahs (Drains), only storm water will flow in these drains. (Copy of approval of MIC & DLRMC is **Annexure- 5**).

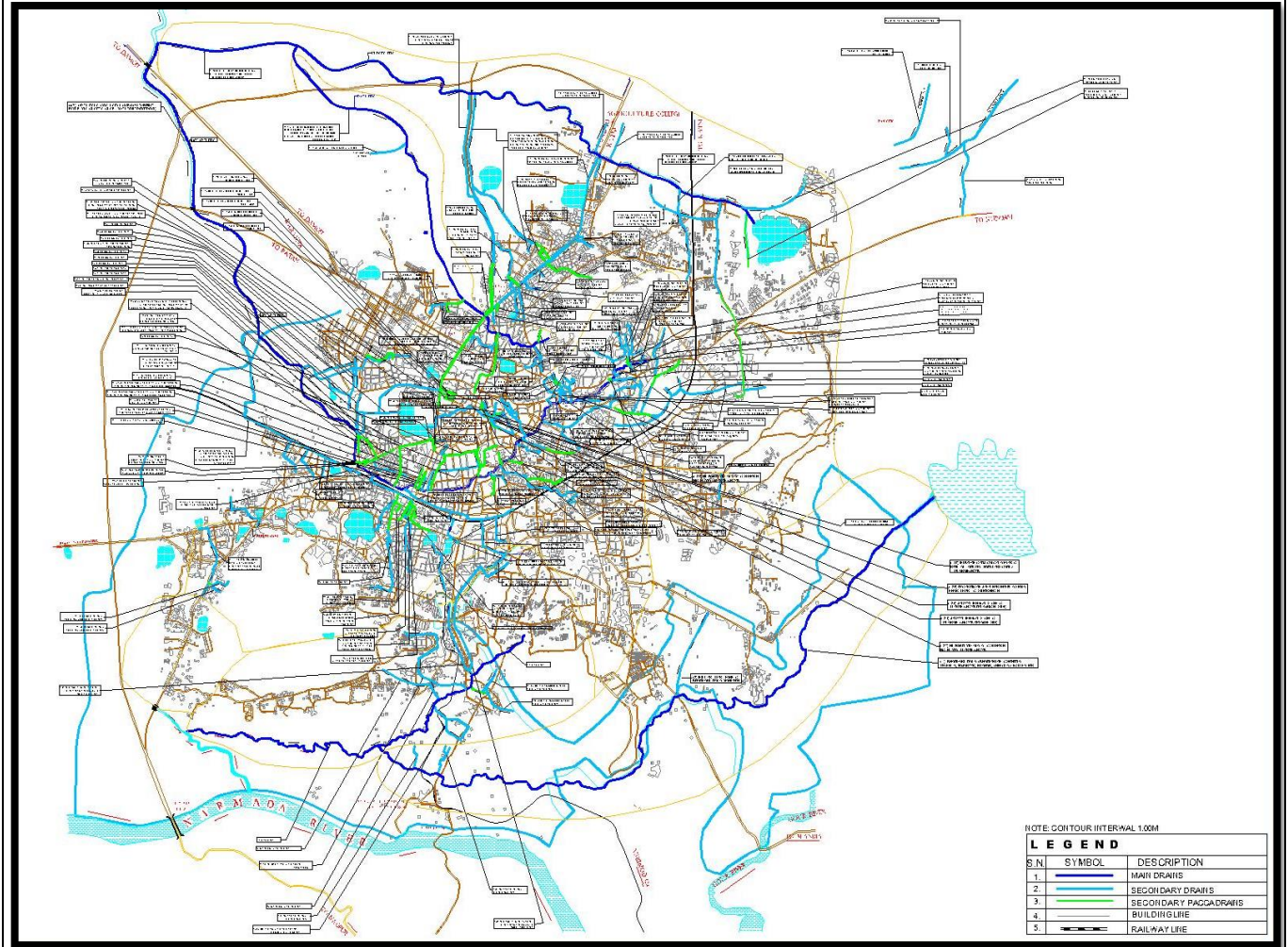
(B) Sewage via individual house hold's septic tanks outlet connected to nearby combined (Storm Water Drainage + Sewage) open/covered storm water drainage (Nallah).

- At present, there is approximated 3.0 Lakh households in the city, with approximated 14.50 Lakh population and out of these approximated 2.57 lakh households are disposing sewage through septic tank into nearby Storm Water Drains.
- Within Jabalpur city, approximately 42,847 households are connected to the sewer line network and approximately 2,57,223 households are not connected to the sewer line network. About 154.33 MLD sewage is being released into nearby drains in Jabalpur city.

Zone wise Sewage being disposed into the Open Drain due to non-connectivity of sewer lines;

S. No.	Zone Name	Projected Base Year 2025	Households (Nos)	Household connected to sewers (Nos)	Household not connected to sewers
1	Zone-1	829996	165999	9000	156999
2	Zone-2	195113	41274	23575	17699
3	Zone-3	43631	6039	None	6039
4	Zone-4	90567	27826	3130	24696
5	Zone-5	113204	28803	7142	21661
6	Zone-6	178105	30129	None	30129
Total		1450616	300070	42847	257223

Proposed Drain Map of the Jabalpur city (Under JNNURM)



Surface Runoff at peak Rainfall data taken under the DPR

DPR DRAINAGE SECTOR
Storm Water Drain

PROJECT NAME :- IMPROVEMENT OF STORM WATER DRAINS OF JABALPUR CITY (M.P.)

ANALYSIS OF FREQUENCY OF STORM

Duration Minutes	Intensity mm/hr	No. of Storms of intensity or more for a period of 25 years												
5	10	15	20	25	30	35	40	45	50	60	75	100	125	
5	331	287	191	124	88	73	53	44	33	25	18	12	4	1
10	285	176	124	75	56	45	29	19	18	11	9	7		
15	258	169	105	72	55	39	27	17	11	11	5	5		
20	243	151	96	67	49	33	21	14	9	9	4	4		
25	218	139	87	56	47	31	19	12	8	8	4	3		
30	197	125	79	51	42	28	17	10	8	8	4	2		
35	167	98	56	39	27	22	14	9	8	6	4	2		
40	136	89	49	34	23	19	11	8	8	5	2	1		
45	121	80	43	28	19	16	9	7	7	4	2			
50	115	69	35	25	16	14	6	5	5	3	1			
55	96	62	29	23	14	12	5	2	2	1	1			
60	88	59	27	21	12	10	4	2	2	1	1			
65	77	46	24	17	12	9	4	2	2	1	1			
70	66	39	22	15	11	8	4	2	1	1				
75	57	32	20	13	10	7	4	1	1					
80	48	28	18	11	8	5	3	1	1					
85	35	26	16	9	7	5	3	1	1					
90	29	26	16	9	6	4	3	1	1					
95	23	18	14	7	5	3	3	1	1					
100	20	16	12	6	3	2	2	1	1					
105	18	15	10	5	3	2	2	1	1					
110	14	12	8	3	2	2	1	1						
115	12	9	6	2	2	1	1							
120	9	7	5	2	2	1								

Note : The stepped line indicates the location of the storm occurring Once in Two years i.e. 13 times in 25 years. The time – intensity values for this frequency are obtained by interpolation and given in following table.

Time Intensity Values of Storms

i (mm/hr)	t (min)
5	112.500
10	108.330
15	97.500
20	75.000
25	57.500
30	52.500
35	38.330
40	22.500
45	13.570
50	9.290
60	7.780

Note : The rain fall data for 25 years has been collected from the office of the Deputy Director, Metrological deptt., Nagpur, Maharashtra.

Municipal Corporation, Jabalpur

Eastern border drain of Jabalpur

Intensity - Duration Curve

PROJECT NAME :- PROJECT NAME :- IMPROVEMENT OF STORM WATER DRAINS OF JABALPUR CITY (M.P.)

INTENSITY - DURATION CURVE
(Once in 2 Years Frequency Storm)
Formula Adopted for Intensity and Duration is

$$i = a / (t)^n$$

where i=intensity of rainfall in mm/hr

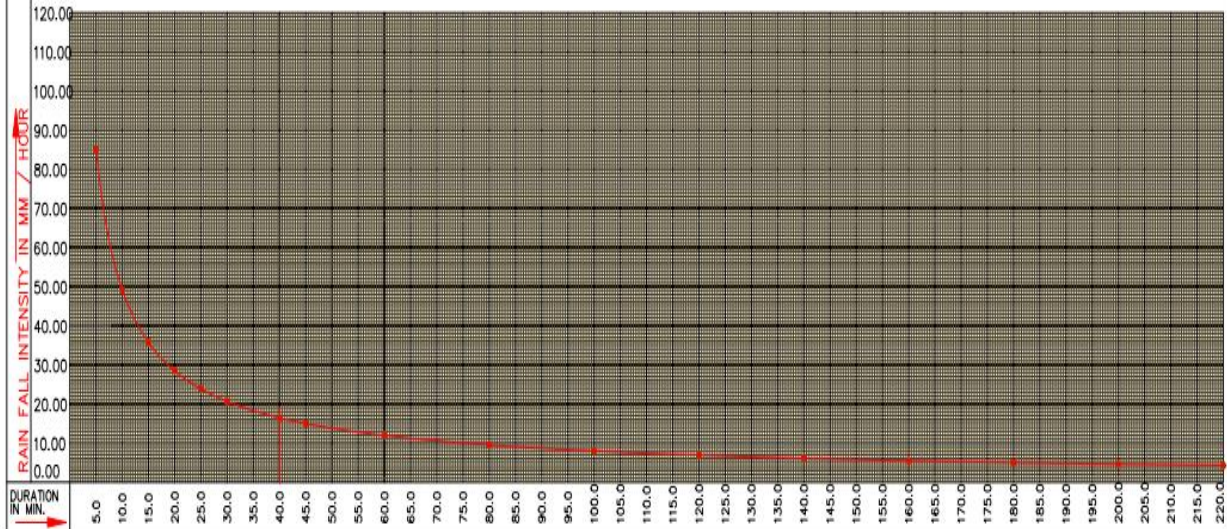
t =Duration in minutes and "a" and "n" are constants

ADOPTED VALUE OF "a" = 303.42 & "n" = 0.79

DPR DRAINAGE SECTOR
Storm Water Drain

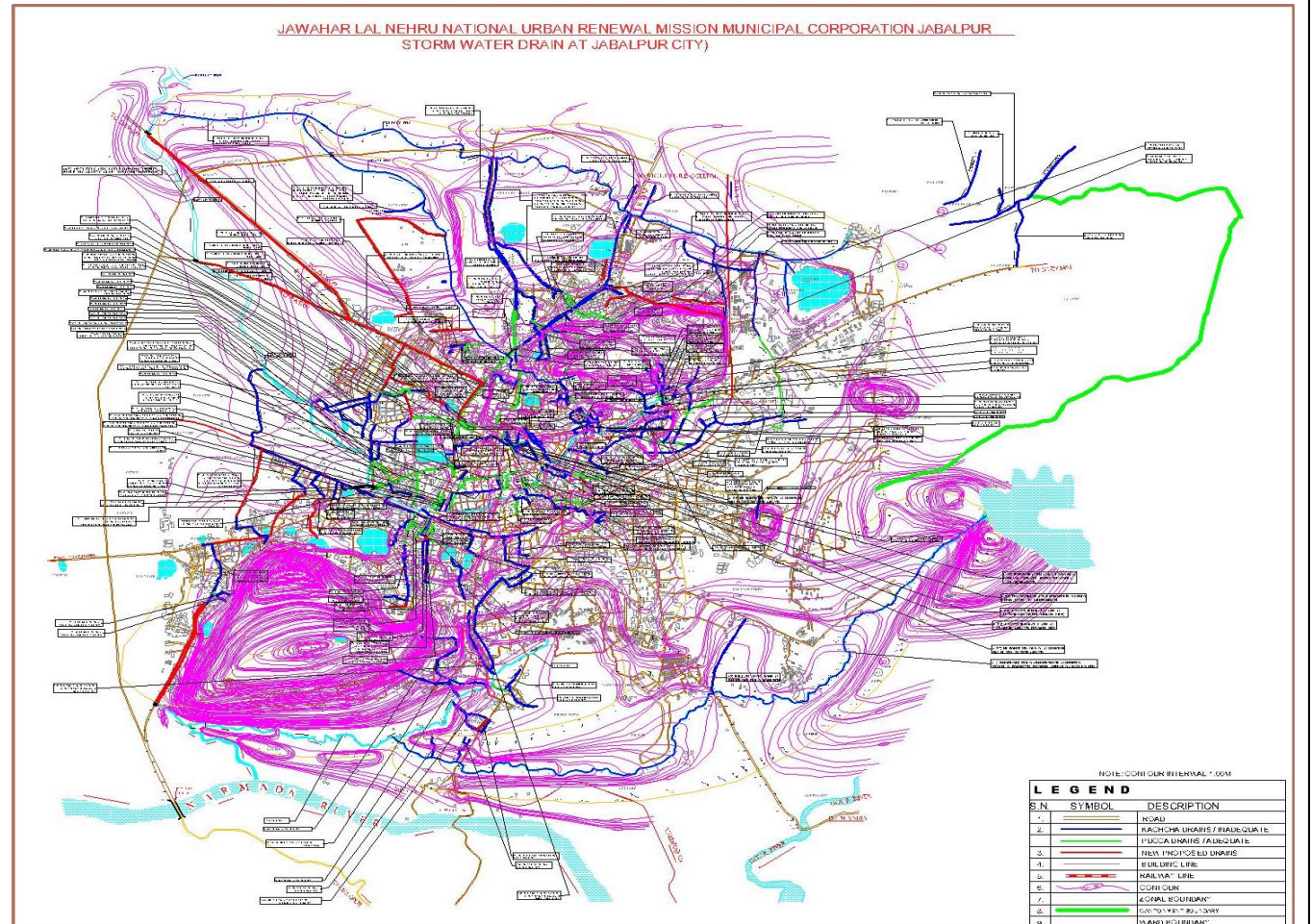
Table for Intensity-Duration Curve for Once in 2 Years Storm

Duration "t" Minutes	10	15	20	25	30	35	40	45	60	80	100	120	140	160	180	200	220		
Intensity i = a/(t) ⁿ	49.21	35.72	28.46	23.86	20.66	18.29	16.46	15.00	11.95	9.52	7.98	6.91	6.12	5.51	5.02	4.62	4.28		

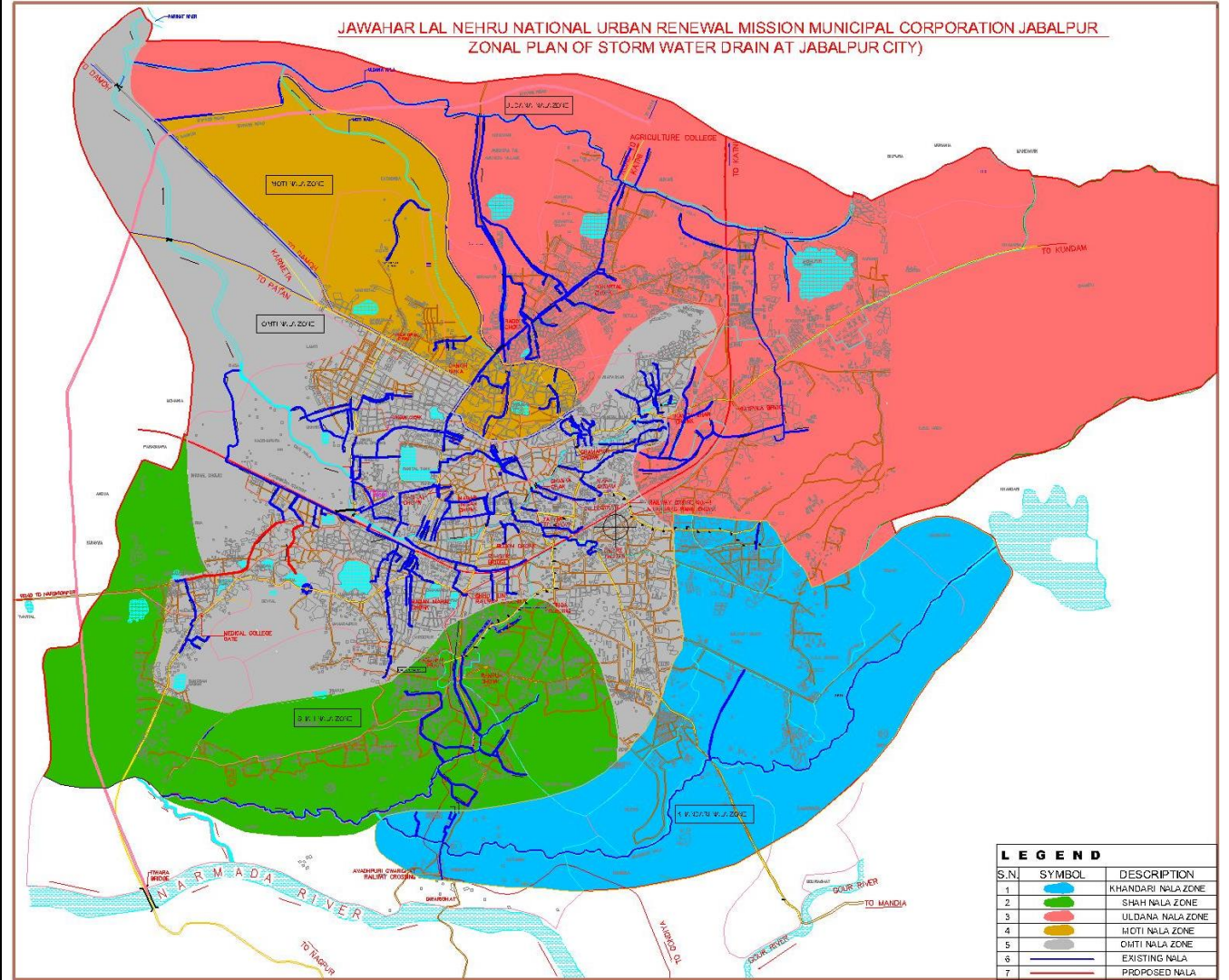


PROJECT IMPROVEMENT OF STORM WATER DRAINS OF JABALPUR CITY (M.P.)	SCALE HORIZONTAL (TIME IN MINUTS) 1 Cm = 5 MINUTS VERTICAL (RAIN FALL INTENSITY mm/ hour 2 Cm= 20 mm/hr)	CLIENT Municipal Commission Municipal Corporation, Jabalpur	CONSULTANTS ISO 9001:2000 CERTIFIED SNOW FOUNTAIN CONSULTANTS 5/259 VIKAS NAGAR LUCKNOW LUCKNOW-226022 PHONE. -2768132 (0) 2768650 (R)
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Landscape Planning in respect of Urban Drainage including buffering water bodies in Urban Bodies data
Contour Map of the City



Catchment of the 05 Major Drains



<p>ii.</p>	<p><i>The status of storm water drains and progress of repair/reconstruction of storm water drain system in the city.</i></p>	<p>Following information of storm water drain system were provided by Sahaayak Yantree, Nagar Nigam, Jabalpur: -</p> <p>Total of 05 Nos Major drains along with it's 130 nos connecting drains with total length of approx. 225.86 KM in the Jabalpur city.</p> <ul style="list-style-type: none"> • DPR of Rs. 326.49 Crore (including Escalation) was approved for the Pucca Construction of the existing drains by CPHEEO on dated 27.10.2009. Copy of approval is attached as Annexure-6. • As per DPR the total of 05 Nos Major drains along with it's 130 Nos connecting drains with total length of approx. 225.86 KM was proposed. • Against the said approved DPR, tender rate of Rs. 374.99 Crore was approved. Work order was given to M/s L&T on 09-09-2010 for the lowest tenderer. Copy of approval is attached as Annexure-7. • After the survey, the total length of 187.56 KM drains was proposed to be constructed. Later on, it was found that, before starting the work, some of drains was already constructed under some other scheme. Such drains of total length of 41.93 KM were deleted from the scope of the contractor. Now the total length of 145.60 KM drains was proposed to be constructed under the scope. Against the scope, the total length of 107.66 KM drain work was completed and approx. 37.90 KM was couldn't executed due to some site hindrances & fund related issue. Copy attached as Annexure-8. • There was a provision for escalation in the contractor's agreement, due to which it was decided in the meeting of the Honourable Mayor's Council dated 18-09-2017 that "further work should not be ordered from L&T because due to the inclusion of
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		<p>escalation amount in the work done by the contractor, the cost of the work is exceeding the prevailing rates at that time, which is not in the interest of the corporation from the financial point of view.” After the aforesaid decision of the Honourable Mayor's Council, the work was terminated by office letter No. NURM/2018-19/25 dated 03/05/2018. (Copy attached as Annexure-9).</p> <ul style="list-style-type: none"> • List of total drain constructed under JNNURM Storm Water Drain Project & Construction and repair work of the new and old drains during last one year by Jabalpur Municipal Corporation are enclosed as Annexure-10. • The Joint Committee was not satisfied with the work of the storm water drainage system of Jabalpur city.
iii.	<p><i>Daily generation of sewage within the Municipal limits of Jabalpur and existing Sewage Treatment Capacity and gap, if any.</i></p>	<p>Jabalpur Nagar Nigam generates about 174 MLD of sewage from the households of city having population of about 14.50 Lakh lacs. Out of 174 MLD, only 58.745 MLD of sewage is being treated in 13 STPs and rest of the untreated sewage is being directly discharged in to the municipal drains which ultimately joins the river Narmada. As per the Nagar Nigam official, Nagar Nigam is working on the sewerage network construction & connection of households to it and construction of sewage treatment plants to fill the gap of collection and treatment. The Joint Committee observed that there are 13 operational STPs (154.38 MLD) and 02 under construction STPs (01 MLD & 05 MLD) are existing in the JMC area for the sewage treatment, however during the visit STPs were not working on their design capacity as there was a lack of sewerage network and connection with households, as a result, very small quantity of domestic wastewater is reaching to these STPs.</p>

During the visit, total capacity of the STPs installed in the city was 154.38 MLD and total utilized capacity of STPs was 58.745 MLD, hence there was gap of 115.255 MLD with respect to collection and treatment, however due to lack of sewerage collection network and house service connection, plants were not operational at their designed capacity.

The detailed status of the operational STPs is given below: -

S. No.	Average Daily Sewage Generation (MLD) (Taking 80% of total water demand)	Capacity		Utilization	
		Existing Sewage Treatment Capacity (MLD)	Gap (MLD) In Treatment Capacity	Present Total Sewage being Treated (MLD)	Gap (MLD) In Collection/ Treatment
1	174 MLD	154.38 MLD	19.62 MLD	58.745 MLD	115.255 MLD

IV. *The status of STP, its capacity and capacity utilization.*

Following information of STPs were provided by Sahaayak Yantree, Nagar Nigam, Jabalpur: -

- 13 STPs are in operational condition in Jabalpur city. The total capacity of all 13 STPs is 154.38 MLD.
- The average utilization capacity of all 13 operational STPs is 58.745 MLD.
- Out of 13 operational STPs of Jabalpur city, 04 STPs are working on the basis of Sequencing Batch Reactor (SBR) technology, one STP based on Waste Stabilization Pond (WSP) technology, one STP based on Activated Sludge Process technology,

06 STPs based on Moving Bed Biofilm Reactor (MBBR) technology and one STP based on Decentralized Wastewater Treatment Systems (DEWATS) technology.

- 1 MLD and 5 MLD STP work has been 10 % completed, the remaining construction work of these STPs is likely to be completed by March 2025 and May 2025 respectively.
- Following is the list of operational STPs and under construction STPs in Jabalpur city: -

Work Completed/Operational of STPs:

S. No.	STPs Work Description/ Technology	Capacity Scope of Work	Status of STPs	Present Utilization (Avg)
1	STP, Lalpur (SBR)	34 MLD	Work complete/Operational	13 MLD
2	STP, Tewar (SBR)	29 MLD	Work complete/Operational	5 MLD
3	STP, Kathonda (SBR)	32 MLD	Work complete/Operational	21 MLD
4	STP, Kathonda (WSP)	50 MLD	Work complete/Operational	12 MLD
5	Stp, Darogaghat-gwarighat (Activated Sludge Process)	550 KLD	Work complete/Operational	300 KLD
6	STP, Gulaua Talab, (MBBR)	500 KLD	Work complete/Operational	450 KLD
7	STP Ranitaal (SBR)	05 MLD	Work complete/Operational	4.5 MLD
8	STP, Kharighat Drain (MBBR)	01 MLD	Work complete/Operational	0.7 MLD
9	STP, Babha Drain (MBBR)	01 MLD	Work complete/Operational	0.8 MLD
10	STP, Jain Gaushala drain (MBBR)	500 KLD	Work complete/Operational	320 KLD
11	STP, Gaur Drain (MBBR)	700 KLD	Work complete/Operational	600 KLD
12	STP, Old tilwara Bridge (MBBR)	30 KLD	Work complete/Operational	20 KLD

		13	STP, Sidhha Ghat (DEWATS)	100 KLD	Work complete/Operational	55 KLD
		<u>Total</u>		154.38 MLD		58.745 MLD
		<u>Under constructions of STPs:</u>				
		S. No.	STP Work Description	Capacity Scope of work	Status of STP	Expected Completion
		1	STP, Durga Nagar Bhatauli	01 MLD	10 % Work complete	March 2025
		2	STP Civil Line	05 MLD	10 % Work complete	May 2025
v.	<i>The status of funds allotted for the storm water drainage system scheme for which the tender was issued in 2010 and the extent of funds spent till now and the extent of work which has been completed and if work has been done commensurate to funds released.</i>	<p>Following information of storm water drainage system were provided by Sahaayak Yantree, Nagar Nigam, Jabalpur: -</p> <ul style="list-style-type: none"> • DPR of Rs. 326.49 Crore (including Escalation) was approved for the said work by CPHEEO on dated 27.10.2009. (Copy attached as Annexure-6). • Against the said approved DPR, tender rate of Rs. 374.99 Crore was approved. Work order was given to M/s L&T on 09-09-2010 for the lowest tenderer. (Copy attached as Annexure-7). • Against which grant of Rs. 205.69 Crore was received from Central and State Government; remaining amount was to be arranged by the Corporation from its own sources. Around 80% work was completed by the contractor. Apart from grant of Rs. 205.69 Crore received from Central and State Government, Municipal Corporation also paid amount of Rs. 158.80 Crore to the contractor from its own sources. The 				

		<p>total amount of Rs. 364.24 Crore (With Escalation) was paid to the contractor against the executed work.</p> <ul style="list-style-type: none"> • The contractor had not done the entire work, the Municipal Corporation had paid only for the work done by the contractor.
VI.	<p><i>The reason for non-completion of the work awarded in pursuance to the tender of the year 2010 till now.</i></p>	<p>Following information of non-completion of the work awarded in pursuance to the tender of the year 2010 till now were provided by Sahaayak Yantree, Nagar Nigam, Jabalpur: -</p> <ul style="list-style-type: none"> • There was a provision for escalation in the contractor's agreement, due to which it was decided in the meeting of the Honourable Mayor's Council dated 18-09-2017 that "further work should not be ordered from L&T because due to the inclusion of escalation amount in the work done by the contractor, the cost of the work is exceeding the prevailing rates at that time, which is not in the interest of the corporation from the financial point of view." After the aforesaid decision of the Honourable Mayor's Council, the work was terminated by office letter No. NURM/2018-19/25 dated 03/05/2018. (Copy attached as Annexure-9). • Due to lack of funds to complete the said work, tender was not issued for the remaining work. <p>NOTE: - The Joint Committee is not satisfied with the work of the storm water drainage system of Jabalpur city. This work is very important from the health and environment point of view of the people of Jabalpur city; hence Jabalpur Municipal Corporation should do this work as soon as possible and properly.</p>

VII.

The Committee will collect the samples from the sources of drinking water supply to the residents of the city, get it analyzed from the laboratory of the CPCB and submit the water analysis report.

Drinking water is supplied to the residents of the Jabalpur city from the following Water Treatment

Plants (WTP): -

S. No	Water Treatment Plant (WTP)	Capacity (MLD)	Present Utilization (MLD)	Over Head Tanks (OHT) is connected (Nos)	Source
1.	WTP, Lalpur-01	42	42	09	Narmada River
2.	WTP, Lalpur-02	55	55	15	Narmada River
3.	Ramnagra WTP	120	120	26	Narmada River
4.	Ranjhi WTP	54	27	08	Pariyat Dam, Right Bank Canal (RBC)
5.	Bhongadwar WTP	27	27	01	Khandari Dam & Gaur River

The drinking water quality of the above five water treatment plants was analyzed in the Central Pollution Control Board Laboratory of Bhopal and Delhi. All water treatment plants samples were preserved under APHA at the point of sampling. Results have been compared to Indian Standard; Drinking Water Specification IS 10500: 2012. Flow diagram of water treatment plant is enclosed as **Annexure-11.**

Analysis results and discussion are as follows:-

Water Treatment Plant (WTP), Jabalpur							
Date – 29.08.2024							
S.No.	Parameters	Indian Standard, Drinking Water Specification IS 10500 : 2012 (Acceptable limit)	Sampling Locations				
			Ranjhi WTP, 54 MLD	Bhongad war WTP, 27 MLD	Lalpur- 02, WTP, 55 MLD	Lalpur- 01, WTP, 42 MLD	Ramnagra WTP, 120 MLD
1.	pH	6.5-8.5	6.74	6.82	6.86	6.72	6.64
2.	Residual chlorine (mg/l)	0.2	0.1	0.5	0.1	0.1	0.2
3.	Total Dissolved Solid (mg/l)	500	137.1	146.7	156.4	143	139
4.	Chloride (mg/l)	250	4.89	11.74	15.6	9.78	11.74
5.	Total Alkalinity (mg/l)	200	60	73	72	69	77
6.	Total Hardness (mg/l)	200	80.36	88.2	82.32	80.36	78.4
7.	Ca Hardness (mg/l)	75	51	60	64	50.36	58
8.	Mg Hardness (mg/l)	30	29.36	28.2	18.32	30	20.4
9.	Turbidity (NTU)	1	4.3	4.1	8.9	13.6	BDL
10	Sulphate (mg/l)	200	39.09	36.41	38.98	35.52	28.37
11	Ammonical Nitrogen (mg/l)	0.5	BDL	0.462	BDL	BDL	BDL
12	Nitrate Nitrogen (mg/l)	45	0.347	BDL	BDL	0.311	0.301

		13	Fluoride (mg/l)	1.0	BDL	BDL	BDL	BDL	BDL
		14	Boron (mg/l)	0.5	BDL	BDL	BDL	BDL	BDL
		15	Total Coliform (MPN/100ml)	Shall not be detectable in any 100 ml sample.	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)
		16	E. Coli (MPN/100ml)	Shall not be detectable in any 100 ml sample.	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)	<1.8 (0.0)
		17	Polynuclear aromatic hydrocarbons (PAH) (mg/l)	0.0001	BDL	BDL	BDL	BDL	BDL
		18	Sulphide (mg/l)	0.05	BDL	BDL	BDL	BDL	BDL
		19	Arsenic (As) (mg/l)	0.01	BDL	BDL	BDL	BDL	BDL
		20	Cadmium (Cd) (mg/l)	0.003	BDL	BDL	BDL	BDL	BDL
		21	Chromium (Cr) (mg/l)	0.05	0.001	BDL	0.002	0.002	0.001
		22	Copper (Cu) (mg/l)	0.05	0.002	0.001	0.002	0.008	BDL
		23	Iron (Fe) (mg/l)	0.3	0.064	0.209	0.215	0.484	0.014
		24	Lead (Pb) (mg/l)	0.01	0.002	0.007	BDL	0.001	0.001
		25	Manganese (Mn) (mg/l)	0.1	0.004	0.172	0.004	0.016	0.004

26	Nickel (Ni) (mg/l)	0.02	BDL	BDL	BDL	BDL	BDL
27	Selenium (Se) (mg/l)	0.01	BDL	BDL	BDL	BDL	BDL
28	Zinc (Zn) (mg/l)	5	0.002	BDL	0.015	0.015	BDL
29	Pesticide ($\mu\text{g/l}$)						
a)	Aldrin/ Dieldrin ($\mu\text{g/l}$)	0.03	BDL	BDL	BDL	BDL	BDL
b)	Alpha HCH ($\mu\text{g/l}$)	0.01	BDL	BDL	BDL	BDL	BDL
c)	Beta HCH ($\mu\text{g/l}$)	0.04	BDL	BDL	BDL	BDL	BDL
d)	Chlorpyriphos($\mu\text{g/l}$)	30	BDL	BDL	BDL	BDL	BDL
e)	DDT (o, p and p, p – Isomers of DDT, DDE and DDD) ($\mu\text{g/l}$)	1	BDL	BDL	BDL	BDL	BDL
f)	Endosulfan (alpha & beta) ($\mu\text{g/l}$)	0.4	BDL	BDL	BDL	BDL	BDL
g)	Ethion ($\mu\text{g/l}$)	3	BDL	BDL	BDL	BDL	BDL
h)	Gamma – HCH (Lindane) ($\mu\text{g/l}$)	2	BDL	BDL	BDL	BDL	BDL
i)	Malathion ($\mu\text{g/l}$)	190	BDL	BDL	BDL	BDL	BDL
j)	Methyl parathion ($\mu\text{g/l}$)	0.3	BDL	BDL	BDL	BDL	BDL
k)	Phorate ($\mu\text{g/l}$)	2	BDL	BDL	BDL	BDL	BDL

BDL – Below Detection Limit written in the analysis results.

Note: - Test analysis results of Water Treatment Plant are enclosed as **Annexure- 12**.

1. Ranjhi, Water Treatment Plant (WTP), 54 MLD :-

29 parameters were analyzed in the sample of Ranjhi, Water Treatment Plant, 54 MLD. As per analysis of result, level of Turbidity 4.3 NTU is exceeding and Residual chlorine 0.1 mg/l is lesser than the prescribed limits of 1 NTU and 0.2 mg/l, respectively as per Indian Standard, Drinking Water Specification IS 10500: 2012.

2. Bhongadwar, Water Treatment Plant (WTP), 27 MLD :-

29 parameters were analyzed in the sample of Bhongadwar, Water Treatment Plant, 27 MLD. As per analysis of result, level of Turbidity 4.1 NTU and Manganese 0.172 mg/l are exceeding than the prescribed limits of 1 NTU and 0.1 mg/l, respectively as per Indian Standard, Drinking Water Specification IS 10500: 2012.

3. Lalpur-02, Water Treatment Plant (WTP), 55 MLD:-

29 parameters were analyzed in the sample of Lalpur-02, Water Treatment Plant, 55 MLD. As per analysis of result, level of Turbidity 8.9 NTU is exceeding and Residual chlorine 0.1 mg/l is lesser than the prescribed limits 1 NTU and 0.2 mg/l, respectively as per Indian Standard, Drinking Water Specification IS 10500: 2012.

4. Lalpur-01, Water Treatment Plant (WTP), 42 MLD:-

29 parameters were analyzed in the sample of Lalpur-01, Water Treatment Plant, 42 MLD. As per analysis of result, level of Turbidity 13.6 NTU, Iron 0.484 mg/l are exceeding and Residual chlorine 0.1 mg/l is lesser than the prescribed limits 1 NTU,

		<p>0.3 mg/l and 0.2 mg/l, respectively as per Indian Standard, Drinking Water Specification IS 10500: 2012.</p> <p>5. <u>Ramnagra, Water Treatment Plant (WTP), 120 MLD:-</u> 29 parameters were analyzed in the sample of Ramnagra, Water Treatment Plant, 120 MLD. As per analysis of result, all values are within the prescribed limits as per Indian Standard, Drinking Water Specification IS 10500: 2012.</p>
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5. Ramnagra, Water Treatment Plant (WTP), 120 MLD:-

29 parameters were analyzed in the sample of Ramnagra, Water Treatment Plant, 120 MLD. As per analysis of result, all values are within the prescribed limits as per Indian Standard, Drinking Water Specification IS 10500: 2012.

5. Observations of the Joint Committee: -

Based on the information made available by the Nagar Nigam Jabalpur and site inspection of drains and drinking water sampling of the Joint Committee, observations of the Joint Committee are furnished below: -

- I. During the inspection, it was found that a lot of solid waste was lying inside the drains. There is a foul smell coming from the drains which is spreading into the surrounding area.
- II. Within Jabalpur city, approximately 42,847 households are connected to the sewer line network and approximately 2,57,223 households are not connected to the sewer line network.
- III. None of the five major drains (nalas) have been properly diverted to sewage treatment plants, leading to direct discharge into the river.
- IV. The Joint Committee was not satisfied with the work of the storm water drainage system of Jabalpur city.
- V. Jabalpur Municipal Corporation has the facilities like Manual Screens, Mechanized Screens, EX 200 Poclain, EX 110 Poclain, EX 70 Poclain, Mini Jetting, Big Jetting cum Suction Machine, Super Sucker Machines and Three-in-One Machines but despite having these facilities, Jabalpur Municipal Corporation is not able to clean and maintain the drains properly.
- VI. There is no complete sewer network in residential areas of Jabalpur city.
- VII. During inspection it is observed that the sewer lines in residential areas are often clogged or poorly maintained, leading to wastewater accumulating within the neighborhoods. This stagnant water becomes a breeding ground for mosquitoes and flies, increasing the risk of waterborne diseases.
- VIII. During the visit, total capacity of the STPs installed in the city was 154.38 MLD, 06 MLD of STPs were under construction and total utilized capacity of STPs was 58.745 MLD, hence there was gap of 115.255 MLD with respect to collection and treatment, however due to lack of sewerage collection network and house service connections, plants were not operational at their designed capacity.
- IX. During the visit of the Joint Committee, it was revealed that parameters like pesticides and PAH are not checked in the water treatment plant of Jabalpur.

6. Recommendations: -

- I. Nagar Nigam Jabalpur should get the drains cleaned properly from time to time and prevent solid waste from going in to the drains.
- II. The storm water drainage system of Jabalpur city is very important from the health and environment point of view for the people of Jabalpur city; hence Jabalpur Municipal Corporation should do this work as soon as possible by revising the drainage plan wherever required based on detailed survey afresh.
- III. There should be complete sewer network in the residential area of Jabalpur city.
- IV. The approx. gap of sewerage collection and treatment facility for 115.255 MLD should be immediately taken up by the Nagar Nigam to expedite the work of laying of sewerage network and household service connections, further to the STPs and shall ensure that the treated waste water is being discharged without mixing with untreated sewage.
- V. Treated effluents shall be utilized to the extent possible and shall be avoided discharging treated waste water in to the downstream of the same nallah where the sewage is being drawn.
- VI. The standard of drinking water supply from the water treatment plant of Jabalpur city should be kept within the prescribed limits as per Indian Standard, Drinking Water Specification IS 10500: 2012 and parameters like Pesticides, Polynuclear Aromatic Hydrocarbons (PAH) should be checked on regular basis.
- VII. Nagar Nigam Jabalpur should install and operate the online continuous effluent monitoring systems (OCEMS) at STPs and the real-time monitored data shall be linked with the servers of MPPCB and CPCB.
- VIII. Operation and maintenance of STPs shall be carried out on regular basis to make STPs work efficiently.

- IX. For the time being, in-situ bioremediation may be adopted for the drains in which sewage of the city is being discharged.



Dr. Yogendra Kumar Saxena
Scientist 'C'
Central Pollution Control
Board,
Regional Directorate, Bhopal



Rajasekhar Ratti
Scientist 'E',
Ministry of Environment,
Forests and Climate Change
(MoEF&CC) Regional
Office, Bhopal



Shivangi Joshi
Deputy Collector
Jabalpur

Photographs taken During Joint Committee Inspection of Jabalpur City



Storm Water Drain



Storm Water Drain

Photographs taken During Joint Committee Inspection of Jabalpur City



Storm Water Drain



Storm Water Drain

**Photographs taken During Joint Committee Inspection of
Jabalpur City**



Storm Water Drain



Storm Water Drain

Photographs taken During Joint Committee Inspection of Jabalpur City



STPs of Jabalpur



STPs of Jabalpur

Photographs taken During Joint Committee Inspection of Jabalpur City



Sampling of Water Treatment Plant

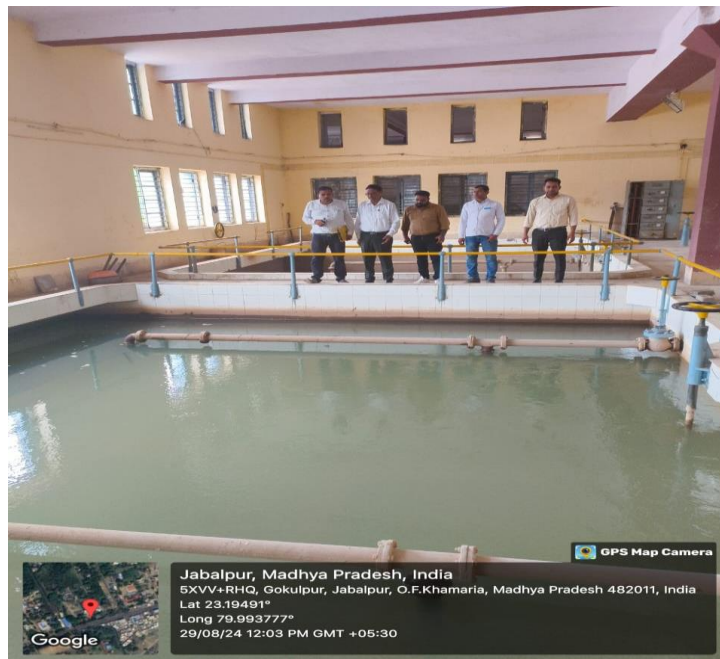


Sampling of Water Treatment Plant

Photographs taken During Joint Committee Inspection of Jabalpur City



Water Treatment Plant



Water Treatment Plant

Photographs taken During Joint Committee Inspection of Jabalpur City



Water Treatment Plant



Water Treatment Plant

Photographs taken During Joint Committee Inspection of Jabalpur City



Laboratory of Water Treatment Plant

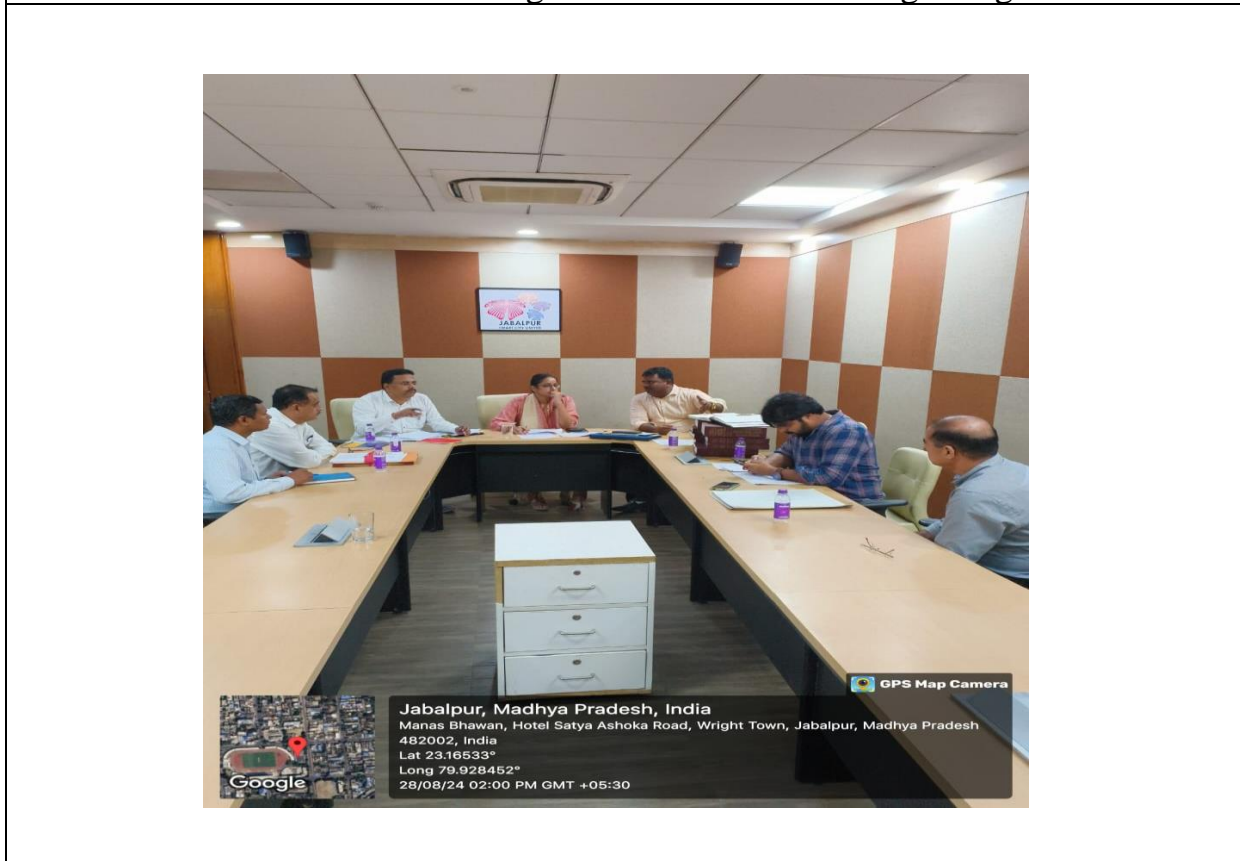


Laboratory of Water Treatment Plant

Photographs taken During Joint Committee Inspection of Jabalpur City



Join committee meeting with Commissioner Nagar Nigam



Join committee meeting with Nagar Nigam official

Item Nos. 24 & 25

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 625/2024

News Item titled "जबलपुर : नालों के पक्का करने में पौने चार सौ करोड़ खर्च और वर्क अब भी अधूरा" appearing in Dainik Bhaskar dated 20.05.2024

WITH

Original Application No. 819/2024

News Item titled "जबलपुर: कठौदा प्लांट में कचरा जलने के बाद दूर-दूर तक फैल रहे धूल के कण " appearing in Bhaskarhindi.com dated 01.07.2024

Date of hearing: 19.09.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondents: Ms. Rukhmini Bobde, Adv. for the State of Madhya Pradesh in OA 625/2024
Mr. Raghav Sharma & Mr. Pranjal Pandey, Advs. for MP PCB
Mr. Gautam Kumar, Adv. for MoEF & CC in OA 819/2024
Mr. Amit Singh Chauhan, Ms. Shikha Chauhan, Mr. Neelmani Guha & Ms. Shaima Masood, Advs. for CPCB (Through VC)

ORDER

1. Learned Counsel for the State of Madhya Pradesh seeks short adjournment to file Vakalatnama and obtain instructions in the matter.
2. Counsel for the State is also directed to ensure virtual presence of Commissioner, Municipal Corporation, Jabalpur for effective assistance.
3. List on 26.09.2024.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

September 19, 2024
dv..

Attendance Sheet

JABALPUR, Date- 28/08/2024

S.No	Name	Department/Designation	Signature
1	RAJA SEKHAR RATTI	Scientist E, MOEF KCC	R. Rajasekh
2	Dr. Yogendra Kumar Sazore	Scientist - C CPCB, RD, Bhopal	Y.K. Sazore
3	Alok Kumar Jain	R.O. MPPCB Jabalpur	Alok Jain
4	Kamlesh Shrivastava	E.E. Nagar Nigan Jabalpur	Kamlesh
5	SANJAY SINGH KUSHWAH	AE, Nagar Nigan Jabalpur	Sanjay
6	Shwangi Joshi	Deputy collector Jabalpur	Shwangi
7			
8			
9			
10			
11.			
12.			

No.Q-12045/13/4(1)/JNNURM/2006-CPHEEO
Government of India
Ministry of Urban Development
(CPHEEO)

Annexure-3

Sub : **Proposal of Detailed Project Report(Modified) of Sewerage and Sewage Treatment Project Phase- I for Jabalpur City at an estimated cost of Rs.122.70 crore – under Jawaharlal Nehru National Urban Renewal Mission - regarding**

FR is the Letter Received from the Jabalpur Municipal corporation dated April 2006 enclosing the Modified Detailed Project Report (DPR) along with the Para wise replies to the Technical remarks communicated by this office.

In this connection it is pertinent to mention that the Municipal Corporation Jabalpur had forwarded in March 2006, through JNNURM Division to this wing of the Ministry a DPR entitled Sewerage and Sewage Treatment Project for Jabalpur city Phase -I in Madhya Pradesh for technical appraisal. The same has been appraised and technical remarks were communicated in March 2006 to JNNURM Division for onward transmission to Jabalpur Municipality for compliance.

Now the Municipal Corporation has forwarded the Modified DPR incorporating all the suggestions/remarks pointed out by the CPHEEO for technical appraisal. The same has been examined and the details are as under:

The same has been examined and the details are as under:-

Salient features of Phase-I :

1.	Design Year	:	2041 A.D.
2.	Design Population	:	
	(i) for the project	:	20,25,000
	(ii) for Phase-I (Zone-1)	:	10,00,000
3.	Area of the city covered	:	
	(i) for the project	:	19707 Ha
	(ii) for Phase-I (Zone-1)	:	11450 Ha
4.	Total discharge for year 2041	:	
	Average	:	170 mld
	Peak	:	270 mld
5.	Size of City Sewers	:	150 mm to 1600 mm dia
6.	Length of City Sewers	:	176.16 Km.
7.	No. of Outfall Sewers	:	3 Nos.
8.	Size of Outfall Sewer	:	500 mm to 1600 mm dia
9.	Total Length of Outfall Sewer	:	8.78 Km.
10.	No. of manholes	:	5743 Nos.
11.	No. of Flushing Tanks	:	50 Nos.
12.	No. of Ventilating Columns	:	327 Nos.
13.	No. of Pumping Stations	:	2 Nos.
14.	Capacity of Sewage Pumping Station (Avg.)	:	84 mld
15.	BHP of Sewage Pumping sets	:	340 BHP to 756 BHP
16.	Total BHP of Sewage Pumping sets	:	2426 BHP
17.	Size of Pumping Mains	:	800 mm dia
18.	Length of Pumping Mains	:	1000 m (approx.)

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19. Characteristics of Influent entering the Sewage Treatment Plant
- (i) Suspended solids : 400 Mg./L
- (ii) Biochemical Oxygen Demand for 5 days at 20° C : 250 Mg./L
20. Sewage Treatment Units :
- (A) Biological Treatment Plants
- (i) Screen & Grit Chamber : 3 units
- (ii) Primary Clarifier : 6 units (each 43 m dia 3 m average depth)
- (iii) Trickling Filter : 5 units (each 56.50 m dia 1.0 m depth)
- (iv) Secondary Clarifier : 6 units (each 30.50 m dia 5.75 m depth)
- (v) Sludge Digestion Tank : 4 units (each 27.25 m dia 12 m depth)
- (vi) Sludge drying beds : 111 Nos. (size 30 m x 6 m)
- (vii) Waste Stabilization Ponds : 6 Primary parallel ponds, 3 nos Secondary ponds and 2 nos of maturation ponds each having area of 6 Hactares
- (viii) Sludge drying beds : 26 Nos. (size 125 m x 240 m)
21. Area of land that could be irrigated : 3350 Ha (Rabi)
With the available Sewage effluent : 4750 Ha (Kharif)
22. Estimated cost of the project Phase I : Rs.12270 lakh
23. Per capita cost of Phase-I of the project
- (i) Present (2001 population) : Rs.1316.91
- (ii) 2041 A.D. : Rs.596.00
24. Annual Maintenance Cost : Rs.193.12 lakh
25. Annual anticipated revenue : Rs.596.00 lakh

The Modified DPR has been prepared for Phase-I based on the field surveys and data collection. DPR has also addressed the institutional plan and project execution plan.

The population projection has been made considering the decadal growth between 1901-2001 with various methods indicated in the Manual on Water Supply & Treatment, namely, Arithmetical progression, Incremental increase, Geometric progression and Graphical increase. Uniform percentage of growth & United Nation's formula Finally the average of all the Methods has been adopted and the population projection has been made as 1.525 million in 2026 and 2.025 million in 2041, which is as per guideline values indicated in the Manual on Water Supply and Treatment published by this Ministry. The projected population has been distributed in the zones and accordingly, the design of sewer network has been carried out.

Jabalpur Municipality has also mentioned that on completion of the on going water supply project the water supply is likely to be about 36.5 gpcd.(165lpcd)

The flow in the pipes have been considered as 0.8 full at peak flows, which is as per guidelines values of the Manual published by this Ministry. The sewerage system has been designed for the minimum velocity of 0.8 metres per second for peak design flow i.e., at ultimate design period, which is as per the guideline value of the Manual.

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The pipe dia is selected by considering the full bore utilization. The corresponding flattest slope is provided so as to achieve the required minimum self cleaning velocity with an aim to minimize the sewerage depth, thus, ensuring the reduced cost.

The sewer system for Jabalpur has been designed considering the minimum size of sewer as 150 mm, which is as per the norms indicated in the Manual. The minimum depth of cover ranges between 1.2 meter to 2.5 meter depth depending upon the topography. The maximum depth of cutting has been considered as 8 meters, also high - may be restricted to 5-6 meters only

The distance between manholes has been considered as per guidelines values given in the Manual on Sewerage and Sewage Treatment.

Wherever it warrants, drop manhole arrangements has been made,

- to convey the sewage to pump all manhole without splashing
- to minimize the scour action
- for safety of the personnel to enter in the manhole.

The estimate has also given provision for vent shaft wherever necessary

Considering the capital cost, the durability and availability of the pipes, RCC pipes, NP-3 / NP-4 as per ISI mark 458, 1988 have been proposed. The concrete pipes are usually laid and jointed by collar joints

It has also been mentioned that Jabalpur Municipal Corporation (JMC) will carry out O&M activities. The O& M Estimate as well as the methodology to recover the cost from the system has been indicated

The PERT Chart and implementation Schedule have also been enclosed

The JMC has informed that 52 hectares land have already been acquired and an amount of Rs 250 lakhs has already been deposited by JMC. to the revenue department .

Jabalpur Municipality has prepared the DPR in detail with all the input datas.

Based on the scrutiny, it is observed that this wing of the Ministry "agrees in principle" from technical angle with the enclosed technical comments and support the proposal at an estimated cost of Rs.70.8128 crore as per the cost estimate with the under-mentioned technical remarks.

Sl.No	Components	COST ESTIMATE		
		As per the Proposed DPR in Lakhs	AS recommended Rs by CPHEEO Rs in Lakhs	
1	Survey Investigation and Design	98.78	59.23	- 38.16
2	Land Cost	529.40	Nil	
3	Sewer Net work	8163.27	4908.79	- 22.96
4	Sewage Treatment Plant, Pumping station ,Pumping Main	1846.36	1746.16	9.16
5	Buildings	237.55	116.29	-
6	Service Roads	47.27	44.56	-
7	Miscellaneous	41.21	Nil	
	Sub Total	10963.84	6875.03	
8	Others Contingencies tools & plants Audit Charges Special Tools and Plants	1302.61	206.25	-
	Grand Total	12266.45	7081.28	

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Technical Remarks

Before commencing the project, minimum water supply and per-capita rate of supply as envisaged should be ensured so as to generate self-cleansing velocity in sewers. Wherever it is not possible to generate self-cleansing velocity, regular flushing system be provided for flushing the sewer lines at regular intervals.

Ground levels for the project area may be rechecked and design of sewer network should also be rechecked, before starting the execution of sewer network to ensure 'self-cleansing velocity' in each and every section of the network.

While laying NP3 / NP4 pipes, every precaution should be taken against the possible settlement of sewers and design of sewer bed should be done as per the guidelines suggested in the Manual on Sewerage and Sewage Treatment.

Before laying deep sewers, soil investigation and test bores should be done at suitable intervals along the alignment of the main and trunk sewers so as to ascertain the type of soil at different depths, status and behaviour of the ground water table and bearing capacity of the soil. The design may be modified if necessary on the basis of the actual ground conditions. The test reports of test bores and soil investigation be furnished to this office for record.

The flushing tanks, ventilating shafts and inspection chambers may be provided at suitable locations along the alignment of main and trunk sewers to ensure minimum flow in the sewers and escape of foul gases and proper inspection for O&M, if necessary

While laying sewers of different sizes and lengths and during construction of man-holes, standard procedure as indicated in the manual on Sewerage and Sewage Treatment should be followed

All electrical and mechanical equipment and machinery and other materials such as pipes, fittings and specials and M.H. cover should conform to BIS Specifications.

The cost of the civil works, service roads, tools and plants and other miscellaneous items should be reduced to the barest minimum as far as possible.

The characteristics of the waste water may be analyzed by taking composite sample on hourly basis for 24 hours and accordingly the design of the sewage treatment plant may be decided so as to get the quality of treated effluent depending upon the mode of disposal of effluent for irrigation.

The ULB may also explore the possibility of various treatment options including the proposed one and cost effective treatment option may be adopted based on the cost economics. The ULB may float tenders accordingly. The State Govt. may explore the possibility of providing cost effective, less power intensive treatment facilities and also recover revenue from the bye product for sustainable O&M.

The ULB should ensure that the treated sewage conforms to the standards prescribed by the State Pollution Control Board/competent authority depending upon the mode of final disposal.

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Structural design of various components of the scheme may be got approved from the competent authority before actual implementation of the scheme.

A suitable laboratory may be set up for analyzing raw and treated sewage samples regularly.

The implementation schedule /PERT chart furnished in the DPR should be strictly adhere to in order to avoid time over run and resultant cost over-runs. The Monitoring report may be furnished by the ULB to this Ministry regularly for perusal and record.

A plan of action for giving sewer connections year wise during the implementation period of the work be prepared and a suitable provision be made in the bye-laws to enforce compulsory sewer charges on the beneficiaries. Sewer connections should be made compulsory by amending the existing bye-laws if necessary.

Suitable Sewage Cess / tariff and sewer connection fee may be imposed on the beneficiaries to recover at least the O&M cost of the project to start with. However, full cost recovery should be achieved at the earliest.

All O&M personnel, should be imparted with adequate training for smooth operation and maintenance of the scheme. Possibility of out sourcing the O&M activity through NGO /CBO also may be explored.

An Action Plan for using the treated sewage for irrigation industrial and other non potable use also may be chalked out and incorporated while implementing the project so as to conserve the fresh water.

The PHED /ULB has furnished the details of the area of land available, area of land required and additional area of land proposed to be acquired for construction of sewage treatment plant at the proposed location. In case, additional land is to be acquired from the private parties, an Action Plan for acquisition of such lands may also be prepared.

Encl : Original DPR and Project Appraisal Report (6 copies)

[Signature]
15/06
(M.S. Narayanan)
Asst. Adviser (PHE)
1.5..2006

~~JA(PHEE)~~ *[Signature]*
15/06

Dir.(NURM)

we may include it in agenda for next meeting

[Signature]
25/06

~~US(NURM)~~

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नगर निगम जबलपुर

Director (NURM)
Dr. C 362-7
Dated: 15.5.2006

Sy No-107D
NURM
Date 02.05.06

No.Q-12045/13/4(2) /JNNURM/2006-CPHEEO
Government of India
Ministry of Urban Development
(CPHEEO)

Sub : Proposal of Detailed Project Report(Modified) of Sewerage and Sewage Treatment Project Phase- II for Jabalpur City at an estimated cost of Rs.119.52 crore – under Jawaharlal Nehru National Urban Renewal Mission - regarding

FR is the Letter Received from the Jabalpur Municipal corporation dated April 2006 enclosing the Modified Detailed Project Report (DPR) along with the Para wise replies to the Technical remarks communicated by this office.

In this connection it is pertinent to mention that the Municipal Corporation Jabalpur had forwarded in March 2006, through JNNURM Division to this wing of the Ministry a DPR entitled Sewerage and Sewage Treatment Project for Jabalpur city Phase -I in Madhya Pradesh for technical appraisal. The same has been appraised and technical remarks were communicated in March 2006 to JNNURM Division for onward transmission to Jabalpur Municipality for compliance.

Now the Municipal Corporation has forwarded the Modified DPR incorporating all the suggestions/remarks pointed out by the CPHEEO for technical appraisal. The same has been examined and the details are as under:

The same has been examined and the details are as under:-

Salient features of Phase-II

- | | | |
|---|---|-----------------------|
| 1. Design Year | : | 2042 A.D. |
| 2. Design Population | : | |
| (i) for the project | : | 20.75,000 |
| (ii) for Phase-II | : | 10.75,000 |
| 3. Area of the city covered | : | |
| (i) for the project | : | 19707 Ha |
| (ii) for Phase-II | : | 8257 Ha |
| 4. Size of City Sewers | : | 150 mm to 1100 mm dia |
| 5. Length of City Sewers | : | 124.25 Km. |
| 6. No. of Outfall Sewers | : | 4 Nos. |
| 7. Size of Outfall Sewer | : | 500 mm to 1100 mm dia |
| 8. Total Length of Outfall Sewer | : | 18.23 Km. |
| 9. No. of manholes | : | 4906 Nos. |
| 10. No. of Flushing Tanks | : | 81 Nos. |
| 11. No. of Lifting Stations | : | 7 Nos. |
| 12. No. of Influent Pumping Stations: | : | 1 No. |
| 13. Total BHP of Sewage Pumping sets: | : | 685 BHP to 1370 BHP |
| 14. Size of Pumping Mains | : | 150 mm to 300 mm dia |
| 15. Length of Pumping Mains | : | 5958 m (approx.) |
| 16. Characteristics of Influent entering the Sewage Treatment Plant | : | |
| (i) Suspended solids | : | 400 Mg./L |
| (ii) Biochemical Oxygen Demand for 5 days at 20° C | : | 250 Mg./L |

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17. Land Requirement
- A. Waste stabilization ponds
- | | | |
|---------------|---|--------|
| Zone II | : | 88 Ha |
| Zone III & IV | : | 100 Ha |
| Zone V | : | 55 Ha |
18. Estimated cost of the project Phase II : 11950 lakh
19. Per capita cost of Phase-I of the project
- | | | |
|----------------|---|-----------|
| (i) Present | : | Rs.927.25 |
| (ii) 2039 A.D. | : | Rs.792.31 |

Comments of CPHEEO :

The Modified DPR has been prepared for Phase-I based on the field surveys and data collection. DPR has also addressed the institutional plan and project execution plan.

The population projection has been made considering the decadal growth between 1901-2001 with various methods indicated in the Manual on Water Supply & Treatment, namely, Arithmetical progression, Incremental increase, Geometric progression and Graphical increase. Uniform percentage of growth & United Nation's formula Finally the average of all the Methods has been adopted and the population projection has been made as 1.525 million in 2026 and 2.025 million in 2041, which is as per guideline values indicated in the Manual on Water Supply and Treatment published by this Ministry. The projected population has been distributed in the zones and accordingly, the design of sewer network has been carried out.

Jabalpur Municipality has also mentioned that on completion of the on going water supply project the water supply is likely to be about 36.5 gpcd.(165lpcd)

The flow in the pipes have been considered as 0.8 full at peak flows, which is as per guidelines values of the Manual published by this Ministry. The sewerage system has been designed for the minimum velocity of 0.8 metres per second for peak design flow i.e., at ultimate design period, which is as per the guideline value of the Manual.

The pipe dia is selected by considering the full bore utilization. The corresponding flattest slope is provided so as to achieve the required minimum self cleaning velocity with an aim to minimize the sewerage depth, thus, ensuring the reduced cost.

The sewer system for Jabalpur has been designed considering the minimum size of sewer as 150 mm, which is as per the norms indicated in the Manual. The minimum depth of cover ranges between 1.2 meter to 2.5 meter depth depending upon the topography. The maximum depth of cutting has been considered as 8 meters, also high - may be restricted to 5-6 meters only

The distance between manholes has been considered as per guidelines values given in the Manual on Sewerage and Sewage Treatment.

Wherever it warrants, drop manhole arrangements has been made,

- to convey the sewage to pump all manhole without splashing
- to minimize the scour action
- for safety of the personnel to enter in the manhole.

The estimate has also given provision for vent shaft wherever necessary

Considering the capital cost, the durability and availability of the pipes, RCC pipes, NP-3 / NP-4 as per ISI mark 458, 1988 have been proposed. The concrete pipes are usually laid and jointed by collar joints

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It has also been mentioned that Jabalpur Municipal Corporation (JMC) will carry out O&M activities. The O& M Estimate as well as the methodology to recover the cost from the system has been indicated

The PERT Chart and implementation Schedule have also been enclosed

The JMC has informed that 52 hectares land have already been acquired and an amount of Rs 250 lakhs has already been deposited by JMC to the revenue department .

Jabalpur Municipality has prepared the DPR in detail with all the input datas.

Based on the scrutiny, this wing of the Ministry "agrees in principle" from technical angle with the enclosed technical comments and support the proposal at an estimated cost of Rs.78.0130 crore as mentioned below:

COST ESTIMATE

Sl.No	Components	As per the Proposed DPR in Rs. Lakhs	As recommended by CPHEEO Rs in Lakhs
1	Survey Investigation and Design	98.78	45.43
2	Land Cost	1425.31	Nil
3	Sewer Net work	7416.23	6102.60
4	Sewage Treatment Plant, Pumping station ,Pumping Main	1195.03	1179.67
5	Buildings	349.06	173.65
6	Service Roads	126.65	64.11
7	Miscellaneous	60.30	8.63
	Sub Total	10671.36	7574.08
8	Others Contingencies tools & plants Audit Charges Special Tools and Plants	1280.56	227.22
	Grand Total	11951.92	7801.30

Technical Remarks

Before commencing the project, minimum water supply and per-capita rate of supply as envisaged should be ensured so as to generate self-cleansing velocity in sewers. Wherever it is not possible to generate self-cleansing velocity, regular flushing system be provided for flushing the sewer lines at regular intervals.

Ground levels for the project area may be rechecked and design of sewer network should also be rechecked, before starting the execution of sewer network to ensure 'self-cleansing velocity' in each and every section of the network.

While laying NP3 / NP4 pipes, every precaution should be taken against the possible settlement of sewers and design of sewer bed should be done as per the guidelines suggested in the Manual on Sewerage and Sewage Treatment.

Before laying deep sewers, soil investigation and test bores should be done at suitable intervals along the alignment of the main and trunk sewers so as to ascertain the type of soil at different depths, status and behaviour of the ground water table and bearing capacity of the soil. The design may be modified if necessary on the basis of the actual ground

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conditions. The test reports of test bores and soil investigation be furnished to this office for record.

The flushing tanks, ventilating shafts and inspection chambers may be provided at suitable locations along the alignment of main and trunk sewers to ensure minimum flow in the sewers and escape of foul gases and proper inspection for O&M, if necessary

While laying sewers of different sizes and lengths and during construction of man-holes, standard procedure as indicated in the manual on Sewerage and Sewage Treatment should be followed

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The cost of the civil works, service roads, tools and plants and other miscellaneous items should be reduced to the barest minimum as far as possible.

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The ULB should ensure that the treated sewage conforms to the standards prescribed by the State Pollution Control Board/competent authority depending upon the mode of final disposal.

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An Action Plan for using the treated sewage for irrigation industrial and other non potable use also may be chalked out and incorporated while implementing the project so as to conserve the fresh water.

The PHED /ULB has furnished the details of the area of land available, area of land required and additional area of land proposed to be acquired for construction of sewage treatment plant at the proposed location. In case, additional land is to be acquired from the private parties, an Action Plan for acquisition of such lands may also be prepared

Encl : Original DPR and Project Appraisal Report (7 books)

[Signature]
1.05.06
(M.S. Narayanan)
Asst. Adviser (PHE)
1.05.2006

JA(PHEE) *[Signature]*
11/5/06.

Dir. (NURM)

We may include it in agenda for next meeting on 10/05/06

US (NURM-IT)

[Signature]
MS

The technical appraisal report may please be perused. It contains several observations having financial implications. A reply to the observations may be warranted alongwith Jmc's commitment to meet the observations. There is a wide gap between the cost proposed by Jmc and that recommended by CPHEEO (more than Rs. 40.00 crore). We need to know as to how Jmc will meet this gap. We may, therefore, convey CPHEEO's comments to Jmc at this stage pl. We also need info. about State/ULB share.

Dist (NURM) JS(UD) may please give necessary instructions

[Signature]
21/5/06

JS(UD) for views pl.
JA(PHE)
Asst Adv (PHE)

[Signature]
21/5/06
[Signature]
21/5/06

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नगर निगम जबलपुर

Director (NURM)
Dy. No. 361-F
Dated 1-5-06

Dy NO/06-D
NURM
Date 2.05.06

मध्यप्रदेश शासन
नगरीय विकास एवं आवास विभाग

Annexure-4

भोपाल, दिनांक 21 / 4 / 2017

कार्यवाही विवरण

आयुक्त सह-सचिव, नगरीय प्रशासन एवं विकास की अध्यक्षता में दिनांक 25.03.2017 को संचालनालय, नगरीय प्रशासन एवं विकास के सभा कक्ष में अटल नवीकरण और शहरी परिवर्तन मिशन (Atal Mission for Rejuvenation and Urban Transformation - AMRUT) के संबंध में राज्य स्तरीय तकनीकी समिति की चौदहवीं बैठक संपन्न हुई जिसमें संलग्न सूची अनुसार समिति के सदस्य उपस्थित रहे।

बैठक में सम्बंधित एजेण्डा के अनुसार समिति के समक्ष निम्नानुसार प्रस्तुतीकरण किया गया:-

- दिनांक 09.03.2017 के कार्यवाही विवरण का अनुमोदन:-

समिति का निर्णय:-विचारोपरांत समिति के द्वारा तेरहवीं बैठक दिनांक 09.03.2017 के कार्यवाही विवरण का अनुमोदन किया गया।

- निम्नलिखित परियोजनाओं के डी.पी.आर. पर विचार -

क्र.	निकाय का नाम	परियोजना
1	नगर पालिक निगम, इंदौर	जल प्रदाय योजना
2	नगर पालिक निगम, इंदौर	सीवरेज परियोजना
3	नगर पालिक निगम, जबलपुर	सीवरेज परियोजना
4	नगर पालिक निगम, इंदौर	हरित क्षेत्र एवं पार्क विकास

- नगर पालिक निगम, इंदौर की जल प्रदाय योजना :-

इंदौर शहर की जलप्रदाय योजना का समिति के समक्ष निम्नानुसार प्रस्तुतीकरण किया गया:-

AMRUT SAAP Fund Allotment for Indore City

Sr. No.	Description (For 2015-16 to 2019-20)	Amount in Rs. Cr. (As per SAAP)	Revised Amount in Rs. Cr.
1	Water Supply	325	630.42
2	Sewerage	550	244.58
3	Drainage	10	10
4	Urban Transport	40	40
5	Parks & Green	25	25
	Total	950	950

Objectives

- 100% coverage and up gradation of distribution pipe lines in old Municipal limit of 134 sq km and 100% coverage by OHTs/Feeder main/distribution lines in new extended limit which is populated.
- House service connections with metering - 100% coverage in water supply areas after implementation of water connection policy
- NRW Reduction less than 15%
- Revenue Collection Efficiency -90%
- Equitable Distribution of water & Bulk Water Monitoring System (SCADA)
- Identification of Infrastructure Gaps & Improvement Plan (2020, 2035)
- Steps towards self sustainable System -Policy & Regulations on Tariff, Connections & Customer services
- Assets shall be increase from the Rs. 900 cr to 1530.42 cr

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2.2 नगर पालिक निगम, इंदौर की सीवरेज योजना :-

नगर पालिक निगम, इंदौर के आयुक्त द्वारा अवगत कराया गया कि शहर के प्रमुख नालो के दोनो ओर अतिक्रमण होने से सीवरेज लाईन मकानो के पीछे से डाला जाना संभव नहीं है एवं मकानो के सामने सड़के अत्यधिक सकरी है ।

समिति का निर्णय:-

समिति द्वारा निर्देशित किया गया कि नालो के दोनो ओर के अतिक्रमण हटाये जाने का प्लान तैयार किया जाये एवं वहां रहने वाले रहवासियों को बी.एस.यू.पी, Ray एवं प्रधानमंत्री आवास योजना मे बनाये गये मकानो में shift किया जाये एवं तदानुसार सीवरेज योजना के डी.पी.आर को अद्यतन करते हुए 15 दिवस मे SLTC की आगामी बैठक मे प्रस्तुत किया जाये ।

2.3 नगर पालिक निगम, जबलपुर की सीवरेज योजना :-

EXISTING STATUS OF SEWERAGE SYSTEM OF JABALPUR

1. The sewerage project of the jabalpur city had been approved in 2006 in phase I and phase II , under JNNURM.
2. The Sewerage Network of Jabalpur City had been Divided in 05 Zones as per the topography of the city

SCOPE OF WORK UNDER PHASE I

SANCTIONED COST – RS. 78.01 CRORE

S.NO.	PARTICULARS	DETAILS
1.	Design Year	2039
2.	Design Population	7,50,000 souls
3.	Area of the city covered	4321.00 Hectare
4.	Length of Sewer Network Under JBP/WW/O2	
	RCC Pipes Trunk Sewer (200-1000 Mm)	33.41 km
	RCC Pipes Out Fall Sewer	5.20 KM
	Property Connection Chamber	1720 NOS.
5.	Length of Sewer Network JBP/WW/O3	
	RCC Pipes Branch sewer (200mm-400mm dia)	160.60 km
	UPVC Pipes Branch sewer (110mm-160 mm dia)	10.00 km
	Property Connection Chamber	7280 NOS.
	TOTAL	209.21KM
6.	Sewerage Treatment Plant at Kathounda	50.00 MLD

LAYOUT PLAN OF PROJECT TAKEN UNDER PHASE 2

SCOPE UNDER OF WORK PHASE II

SANCTIONED COST RS. 70.81 CRORE

S.NO.	PARTICULARS	DETAILS
1.	Design Year	2042
2.	Design Population	10,75,000 souls
3.	Area of the city covered	8257 Hectare
4.	Size of Sewers	150mm to 1100mm diameter
5.	Length of Sewer Network	
	S.W.C. Pipes (150mm-300mm dia)	118.324 Kms

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	R.C.C. Pipes (350mm-1100mm dia)	42.626 Kms
	TOTAL	160.95 Kms
6.	Sewerage Treatment Plant	
	(i) For Zone No. 02 at Kathounda	32.00 MLD
	(ii) For Zone No. 03 & 4 at Lalpur	34.00 MLD
	(iii) For Zone No. 05 at Tawer	29.00 MLD

**Present Status of the Work
Phase I and Phase II (JNNURM)**

<u>Project Details</u>		<u>Project Cost (In Laes)</u>	<u>Funds Received / Utilised (In Laes)</u>
1.	Sewerage Project Phase – I (Provision for Property Connections only 9000)	Sanctioned - 7801.00 Awarded – 8118.00 Payment Made – 5033.00 Work Progress is 55 %	GOI Share - 2535.08(100%) State Share - 1403.53(100%) ULB Share 1755.00(65.14%)
2.	Sewerage Project Phase – II (No Provision for Property Connections)	Sanctioned - 7081.00 Awarded – 14167.00 Payment Made – 6319.00 Work Progress is 63 %	GOI Share - 3186.45(100%) State Share – 1274.43(100%) ULB Share - 2124 (91%)

**Present Status of the Funds
Phase I and Phase II (JNNURM)**

<u>Project Details</u>	<u>GOI Share (50 %) (In Laes)</u>		<u>State Share (20 %) (In Laes)</u>	
	Sanctioned	Received	Sanctioned	Received
Phase – I	3901	2535.08	1560	1403.53
Phase II	3541	3186.45	1446	1274.43
Total	7442	5721.53	2976	2677.96

PROJECT PROPOSAL

The Main Component of Proposed project of Comprehensive sewerage System of Jabalpur City are as following

1. Sewerage System of Left over Area and Property Connection in Zone No 01-05
2. Sewerage Treatment plants in Zone No 02-05

NEED OF PROJECT

1. Jabalpur city has grown fast from year 2006 to year 2015. So many of New Colonies and villages have come up in city area.
2. Approximately 60% of population of Jabalpur city have been covered by project Sanctioned under ADB and JNNURM cell.
3. Households / premises have insufficient sewer network to dispose off sewage.
4. Proper Integrated sewerage network is required as the waste water is flowing openly in the drains, connecting to Narmada River. causing risk for health and hygiene .
5. To provide the integrated sewer network & property connections which was left in Zone -01 to Zone-05 in previous Sanctioned Phases.

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Design Parameters adopted

Description	Design Parameter Taken
Reference Manual	Manual on Sewerage & Sewage Treatment, prepared by Central Public Health and Environmental Engineering Organisation, Govt. of India in 2013
Population Projection Method	1. Arithmetical Method, 2. Geometrical Method 3. Incremental Method, 4. Semi Log Graph Method 5. Simple Graph Method
Population adopted method	Simple Graph Method
Design period	30 Year (2048) from Base Year (2018)
Rate of water supply	135 lpcd (as per Manual on water supply)
Factor of Interception	0.80
Formula adopted for design of sewerage network	$V = (1/n) * (R)^{2/3} * (S)^{1/2}$ V = Velocity in m/sec S = Hydraulic gradient n = Manning's Co-efficient of roughness and depends on the pipe material and age. R = Hydraulic Radius
Roughness Coefficient	n = 0.015 for pipes below 600 mm dia. n = 0.013 for pipes above 600 mm dia. However these days S/S pipe are being used instead. For which the value of 'n' as given in the manual on sewage treatment has been adopted. The value of 'n' adopted is 0.011.

Description	Design Parameter Taken
Peak Factor	Population up to 20000 Peak factor – 3 Above 20,001 to 50,000 Peak factor – 2.5 Above 50,001 to 7,50,000 Peak factor – 2.5 Above 7,50,001 to 15,00,000 Peak factor – 2.25 above 15,00,001 Peak factor – 2.00
Velocity	Minimum velocity - 0.6 m/ sec. Maximum velocity - 2.4 m/sec. Maximum depth of flow in sewer : 150mm to 400 mm - 0.5 full at ultimate peak flow 450 dia to 600 mm dia - 2/3 full at ultimate peak flow.
Pipe type	H.D.P.E. DWC Pipe & R.C.C. Pipe class NP – 3, Minimum size – 170 mm dia

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Infiltration	2000.00 Liter per Km.
Minimum depth of sewer	Not less than 1.0 meter
Timbering	Depth 0.0 – 1.50 meter – Timbering not required Depth 1.50 – 3.0 meter – Open Timbering Below 3.0 meter depth – Closes Timbering
Minimum spacing of Manhole	Dia up to 900 mm spacing - 30.00 meter at every interval Dia from 900 to 1500 mm dia – 90 to 150 mt. may be allowed on straight sewer Dia from 1500 to 2000 mm dia – 150 to 200 mt. may be allowed on straight sewer Dia above 2000 mm – 300.00 mt. may be allowed on straight sewer

* POPULATION

YEAR	POPULATION
Census Population 2011	1054336
Projected Population	
Base Year Population (2018)	11,32,000
Mid Year Population (2033)	13,42,500
Design Year Population(2048)	15,93,000

RATE OF WATER SUPPLY = 135 LPCD
SEWAGE GENERATION
80 % OF WATER SUPPLY + INFILTRATION

ZONE WISE GENERATION OF SEWAGE

SL. No	Zone No.	Projected Population			Rate of Water Supply	Daily Water Supply in KLD			Sewage Contribution IN KLD		
		2018	2033	2048		2018	2033	2048	2018	2033	2048
1	3	4	5	6	7	8	9	10	11	12	13
1	1	396200	469875	557550	135	53487.00	63433.13	353671.39	42789.60	50746.50	282937.11
2	2	249040	295350	350460	135	33620.40	39872.25	139736.29	26896.32	31897.80	111789.03
3	3	90560	107400	127440	135	12225.60	14499.00	18477.53	9780.48	11599.20	14782.02
4	4	169800	201375	238950	135	22923.00	27185.63	64960.05	18338.40	21748.50	51968.04
5	5	226400	268500	318600	135	30564.00	36247.50	115484.54	24451.20	28998.00	92387.63
		1132000	1342500	1593000		152820.00	181237.51	692329.80	122256.00	144990.00	553863.83

n.d. 11/11/11

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PART WISE GENERATION OF SEWAGE

Sewerage Generation from Zone No. 1, 2, 3, 4 and 5

S.No.	Zone No.	Part No.	Projected Population			Rate of water supply lpcd	Daily Water supply in MLD			Sewerage contribution 80% excluding infiltration		
			2018	2033	2048		2018	2033	2048	2018	2033	2048
1	ZONE - 1	Part-1	386759	458677	544262	135.00	52.21	61.92	73.48	41.77	49.54	58.78
		Part-2	9441	11197	13286	135.00	1.27	1.51	1.79	1.02	1.21	1.43
2	ZONE - 2	Part-1	18816	22315	26479	135.00	2.54	3.01	3.57	2.03	2.41	2.86
		Part-2	51685	61296	72734	135.00	6.98	8.27	9.82	5.58	6.62	7.86
		Part-3	64099	76018	90203	135.00	8.65	10.26	12.18	6.92	8.21	9.74
		Part-4	107271	127218	150957	135.00	14.48	17.17	20.38	11.59	13.74	16.30
		Part-5	7169	8502	10089	135.00	0.97	1.15	1.36	0.77	0.92	1.09
3	ZONE - 3	Part-1	51190	60709	72037	135.00	6.91	8.20	9.72	5.53	6.56	7.78
		Part-2	39370	46691	55403	135.00	5.31	6.30	7.48	4.25	5.04	5.98
4	ZONE - 4	Part-1	22832	27078	32130	135.00	3.08	3.66	4.34	2.47	2.92	3.47
		Part-2	146968	174301	206820	135.00	19.84	23.53	27.92	15.87	18.82	22.34
5	ZONE - 5	Part-1	148341	175925	208752	135.00	20.03	23.75	28.18	16.02	19.00	22.55
		Part-2	45681	54175	64284	135.00	6.17	7.31	8.68	4.93	5.85	6.94
		Part-3	32378	38399	45564	135.00	4.37	5.18	6.15	3.50	4.15	4.92
Total			1132000	1342500	1593000		152.82	181.24	215.05	122.26	145.0	172.04

PROPOSED DETAIL OF INTEGRATED SEWERAGE SYSTEM & INTER CONNECTION OF PROPERTIES AT JABALPUR
TOTAL LENGTH OF PROPOSED SEWER LINES 665.832 KM IS SUFFICIENT UP TO ULTIMATE STAGE YEAR 2048.

S. No.	Pipe dia in mm	Zone-Wise Length in meter					Total length in meter
		Zone-1	Zone-2	Zone-3	Zone-4	Zone-5	
1	170 mm dia H.D.P.E. Pipe DWC (Laterals)	459289.00	60423.00	13986.00	36399.00	66170.00	636267.00
2	250 mm dia H.D.P.E. Pipe DWC (Laterals)	9419.00	1936.00	674.00	2030.00	5886.00	19945.00

S. No.	Pipe dia in mm	Zone Wise Length in meter					Total length in meter
		Zone-1	Zone-2	Zone-3	Zone-4	Zone-5	
3	400 mm dia H.D.P.E. Pipe DWC (Branches)	1412.00	2527.00	568.00	1059.00	1330.00	6896.00
4	450 mm dia R.C.C. Pipe Class NP – 3 (Branches)	-	716.00	-	350.00	347.00	1413.00
5	500 R.C.C. Pipe Class NP - 3(Branches)	-	117.00	-	186.00	122.00	425.00
6	600 R.C.C. Pipe Class NP - 3(Branches)	-	-	-	-	886.00	886.00
Total Length		470120.00	65719.00	15228.00	40024.00	74741.00	665832.00

Nos. of Man Hole	28845
Nos. of Inter connection of properties	217000
Rising main	
Rising main (D.I. Pipe class K – 9) for Zone No. 02	Dia – 150 mm, Length – 50.00
Rising main (D.I. Pipe class K – 9) for Zone No. 05	Dia – 300 mm, Length – 50.00
Sewerage Treatment Plants	
Sewerage Treatment Plant at Zone No. 02 at Gokulpur Talab	1.00 MLD
Sewerage Treatment Plant at Zone No. 05 at Ganga Sagar	5.00 MLD
Sewerage Treatment Plant for Zone No. 05 At Tawar	29.00 MLD
Sewerage Treatment Plant for Zone No. 02 kathonda	32.00 MLD
Sewerage Treatment Plant for Zone No. 03 &04 at Lalpur	34.00 MLD

PROJECT DESCRIPTION

- Based on the population data of year 2011, the projection has been done for 30 years. Considering the execution period 3 years the initial year, mid year and ultimate design year is 2018, 2033 and 2048 respectively.
- The proposed sewerage treatment plants has been design for mid stage (2033) as per CPHEEO manual.
- The capacities of proposed STP's are as follows
 Zone- V, Tewar - 29 MLD
 Zone – II, Kathonda - 32 MLD
 Zone – III & IV, Lalpur - 34 MLD


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ECONOMICS OF THE PROJECT

ABSTRACT OF ECONOMIC		IRR – 22.33%		
S. No.	Description	Base Year 2018	Mid Year 2033	Ultimate Year 2048
1	2	3	4	5
1	Population	1132000	1342500	1593000
2	No. of families (Taking 5 person / family)	226400	268500	318600
3	Sewage Generated in KLD	122256.00	144990.00	172044.00
4	Total Estimated Cost of The Scheme in Lacs	59577.80	59577.80	59577.80
5	Per capita cost in Rs.	5263.06	4437.82	3739.97
6	Annual income Rs. In Lacs	3905.00	5638.50	8622.20
7	Annual Expenditure Rs. In Lacs	3537.77	4937.23	6672.94
8	Per capita annual Maintenance Cost in Rs.	312.52	367.76	418.89
9	Annual Maintenance cost Rs. per KL	7.93	9.33	10.63
10.	Annual Profit (+) / Loss (-) in Rs. In Lacs	367.23	701.27	1949.26

ANNUAL INCOME

S. No.	Description	Base Year 2018	Mid Year 2033	Ultimate Year 2048
1	2	3	4	5
1	Population	1132000	1342500	1593000
2	Total Numbers of Families (Taken 5 person per family)	226400.00	268500.00	318600.00
3	Residential connection (Taking 75% of total connection)	169800.00	201375.00	238950.00
4	Commercial connection (Balance 25% of total connection)	56600.00	67125.00	79650.00
5	Annual income from Beneficiaries			
5.1	Annual income from Residential connection (Rs. In Lacs) @ Rs. 125/-month per family in base year 2018, Rs. 150/- month per family in mid year 2033 and Rs. 200/- per month per family in design year 2048.	2547.00	3624.75	5734.80

S. No.	Description	Base Year 2018	Mid Year 2033	Ultimate Year 2048
5.2	Annual income from Commercial connection (Rs. In Lacs) @ Rs. 200/-month per family in base year 2018, Rs. 260/-month per family in mid year 2033 and Rs. 320/- per month per family in design year 2048.	1358.40	2013.75	2867.40
	Total	3905.00	5638.50	8622.20

ANNUAL INCOME AND PROFIT / LOSS

S. No.	Description	Base Year 2018	Mid Year 2033	Ultimate Year 2048
1	2	3	4	5
1	Population	1132000	1342500	1593000
2	Total Expenditure in Rs. In Lacs	3537.77	4937.23	6672.94
3	Annual income from Beneficiaries	3905.00	5638.50	8622.20
4	Annual Profit (+) / Loss (-) in Rs. In Lacs	367.23	701.27	1949.26

5 YEAR RECCURING EXPENDITURE ON OPERATION AND MAINTENACE

S. No.	Description	O & M Cost In lacs in Zone - 01	O & M Cost In lacs in Zone - 02	O & M Cost In lacs in Zone - 03	O & M Cost In lacs in Zone - 04	O & M Cost In lacs in Zone - 05
1	2	3	4	5	6	7
1	Operation and Maintenance Charges 1st Year	950.52	837.22	220.69	720.39	808.95
2	Operation and Maintenance Charges 2nd Year	975.94	859.50	225.46	739.07	831.10
3	Operation and Maintenance Charges 3rd Year	1001.36	881.78	230.22	757.75	853.26
4	Operation and Maintenance Charges 4th Year	1026.78	904.06	234.98	776.43	875.41
5	Operation and Maintenance Charges 5th Year	1052.20	926.34	239.75	795.11	897.56
	Total	5006.81	4408.89	1151.10	3788.75	4266.28

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ANNUAL EXPENDITURE ON OPERATION AND MAINTENANCE

S. No.	Description	Zone No. 01			Zone No. 02			Zone No. 03			Zone No. 04			Zone No. 05		
		Base Year 2018	Mid Year 2033	Ultimate Year 2048	Base Year 2018	Mid Year 2033	Ultimate Year 2048	Base Year 2018	Mid Year 2033	Ultimate Year 2048	Base Year 2018	Mid Year 2033	Ultimate Year 2048	Base Year 2018	Mid Year 2033	Ultimate Year 2048
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Annual Expenditure on Repair and Maintenance Charges in Lacs	103.39	195.18	263.78	32.60	61.07	81.25	12.90	23.91	31.17	21.27	40.20	54.42	37.77	69.07	87.44
2	Annual Expenditure on Maintenance Staff in Lacs	81.36	97.63	122.04	72.24	86.69	108.36	50.28	60.34	75.42	50.28	60.34	75.42	53.64	64.37	80.46
3	Annual Expenditure on Electricity Charges in Lacs	478.79	698.65	995.61	551.98	809.74	1144.61	91.92	130.10	180.05	525.84	754.19	1066.19	553.55	813.34	1152.85
4	Annual Expenditure on STP in Lacs	286.98	340.35	403.86	180.39	213.93	253.85	65.60	77.79	92.31	122.99	145.86	173.08	163.99	194.49	230.78
	Total	950.52	1331.81	1785.29	837.22	1171.43	1588.07	220.69	292.15	378.95	720.39	1000.59	1369.11	808.95	1141.26	1551.52

ZONE WISE PROJECT SUMMARY

S No.	Item Description.	Unit.	Zone - 1		Zone - 2		Zone - 3		Zone - 4		Zone - 5		Total
			Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	
A	Civil Work												
1.	Laying of Sewerage pipe Line of 170 mm up to 400 mm dia H.D.P.E. DWC Pipe and above 450 mm dia to 600 mm dia RCC class NP - 3	Rmt.	476896.00	20158.90	65719.00	2924.83	15228.00	625.38	39928.00	1713.35	80354.00	3887.05	29309.51
2	Construction of Boundary wall, Approach road, Gate and site development	Job.	0	0	1	16.20	0	0	0	0	1	15.23	31.43
3	Screen chamber	Job.	0	0	1	2.15	0	0	0	0	1	2.96	5.11
4	Construction of Sump well with pump House	Job.	0	0	1	20.15	0	0	0	0	1	36.33	56.48

S No.	Item Description.	Unit.	Zone - 1		Zone - 2		Zone - 3		Zone - 4		Zone - 5		Total
			Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	Qty.	Amount in Lacs	
5	Laying of Rising main from 150 mm dia to 300 mm dia of D.I. Pipe class K - 9	Rmt.	0.00	0.00	50.00	1.10	0.00	0.00	0.00	0.00	50.00	2.27	3.37
6	Construction of Sewerage Treatment Plant	MLD	0.00	0.00	33.00	2470.00	0.00	0.00	34.00	2560.00	34.00	3320.00	8350.00
7	Construction of House connection	Nos.	70100.00	7010.00	49720.00	4972.00	18080.00	1808.00	33900.00	3390.00	45200.00	4520.00	21700.00
	Total			27168.90		10406.43		2433.38		7663.35		11783.84	59455.90
B	E & M Work												0.00
8	Electrical and mechanical work	Job.	0	0	1	37.74	0	0	0	0	1	84.16	121.90
	Grand Total			27168.90		10444.17		2433.38		7663.35		11868.00	59577.80

ZONE WISE COST SUMMARY

Sr. No.	Description	Total Cost (Crore)
1	Zone – II, Kathonda	104.44
2	Zone – III & IV, Lalpur	100.97
3	Zone- V, Tewar	118.68
	SubTotal	324.09
4.	Zone I	271.69

PROPOSAL FOR APPROVAL.

- ❖ Zone II, III IV and V @ Cost of Rs. 324.09 Crores are to be taken under AMRUT
- ❖ Zone I @ Cost of Rs.271.69 Crores is to be taken under SMART CITY
- ❖ COMMENTS FROM MOUD
- ❖ Q. The project has been designed as per Ministry's Manual on sewage and sewerage treatment systems, 1993. Therefore, the same shall be revised for Ministry's Manual on sewage and sewerage treatment systems, 2013.
- ❖ The Design is based on CPHEEO Manual 2013
- ❖ Q, The base year has been considered as 2018. Therefore, the same shall be revised by considering the 3 year execution period of the project.
- ❖ Base year for All the AMRUT project is Considered as 2018.



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- ❖ Q. The proposal does not include the plan for recycling the treated sewage. Therefore, the proposal for recycling at least 20% of treated sewage shall be included in the scope of the project.
- ❖ A provision of 5.00 Cr is there in Estimate to use 20 % of Treated Sewage for Horticulture / Fire Fighting use.

REUSE OF TREATED WATER OF STP

Zone II to V

- All the Proposed STP are in the vicinity of agricultural fields
- Treated water will be used for irrigation purpose
- As per crop pattern and water required for irrigation the area to be irrigated are as under :-
- (1) STP of 29 MLD at Tewar can irrigate 174 Hectares of Land
- (2) STP of 32 MLD at Kathonda can irrigate 192 Hectares of Land
- (3) STP of 34 MLD at Lalpur can irrigate 204 Hectare of Land
- Farmers use water from adjoining Talab and nala for irrigation.
- Most economical way to reuse treated water is to discharge it into these water bodies from where farmers themselves lift water for irrigation.
- Treated water from STP to water bodies will require a Rising Main of minimum 1000 m length and a pumping unit to pump from STP to Water body costing Rs. 50 lacs per location.

Economics of reuse of treated sewage

SN	Name of STP	Capacity of STP	Total treated Sewage available	Watre required in MLD per hact	Area to be irrigated	Rate of water Rs/hect.	Revenue relisation
1	TEWAR	29	5220				
	WHEET			5.00	924	300	277200
	VEGETABLE			6.00	100	300	30000
	KATHONDA	32	5760				
	WHEET			5.00	1122	300	336600
	VEGETABLE			6.00	150	300	45000
	LALPUR	34	6120				
	WHEET			5.00	1184	300	355200
	VEGETABLE			6.00	200	300	60000
							1104000

पी.डी.एम.सी पैकेज-1 के टीम लीडर श्री संजीव शर्मा द्वारा अवगत करया गया कि SLTC बैठक क्रमांक 12 एवं 13 मे दिए गये सभी सुझावो को प्रस्तुत डी.पी.आर मे सम्मिलित कर लिया गया है एवं डिजाइन मे सभी गणनाएँ CPHEEO Manual मे दिए गए प्रावधानो के अनुसार की गई है ।

समिति का निर्णय:-

समिति द्वारा निर्देश दिए गए कि विभाग द्वारा दिनांक 10.03.2017 को पेयजल एवं सीवरेज के कनेक्शन एवं संचालन संधारण के लिए जारी किए गए दिशा निर्देश के परिशिष्ट एक में दी गई न्यूनतम सीवरेज कनेक्शन की दरे लागू की जाये समीक्षा उपरांत सर्वसम्मति से जबलपुर शहर की सीवरेज

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परियोजना के डीपीआर की राशि रु. 324.16 करोड़ की स्वीकृति प्रदान की गई एवं राज्य स्तरीय उच्च शक्ति प्राप्त संचालन समिति के समक्ष प्रस्तुत करने की अनुशंसा की गई।

2.4 नगर पालिक निगम इंदौर के पार्क एव हरित क्षेत्र की परियोजनाओं पर विचार :-

SAAP Provision :- Rs. 25.00 Crore

Sl. No.	Name of Park / Green Space	Area (In Acres)	Cost (In Rs. Lakhs)
1.	Vishram Bagh	10.00 Acres	1040.00
2.	Sneh Nagar Park	3.04 Acres	266.70
3.	Nehru Park	11.65 Acres	993.00
TOTAL			2299.70

ESTIMATE SUMMARY

S. No.	Description of Item	Amount (Rs.)
1	Landscape Development	
a)	Surface Dressing	Rs. 2,21,283
b)	Pathway, walkway & Parking area	Rs. 35,02,606
c)	Plantation & sand pit - Lawns, Ground covers, Shrubs & Trees	Rs. 42,90,907
d)	Earthen Mounds	Rs. 34,51,864
e)	Water body (Pond)	Rs. 84,86,184
f)	Development of BAWDI	Rs. 1,23,08,834
g)	Entrance Plaza	Rs. 2,52,31,233
h)	Misc. civil work - Gazebo, Chabutras etc.	Rs. 6,70,071
		Rs. 5,81,62,981
i)	Garden accessories - Street furniture, Open gym, Swings & slides etc.	Rs. 33,00,000
j)	Irrigation - Sprinkler System	Rs. 20,00,000
k)	Music System with Public Addressing	Rs. 10,00,000
l)	Water fountain and Aeration System	Rs. 5,00,000
2	Boundary Hedge & See Through Mesh	Rs. 1,07,45,957
3	Office, Toilets and Guard Rooms	Rs. 1,10,52,891
4	Sanitary and Plumbing	Rs. 17,10,963
5	Site Development and Storm water drainage	Rs. 55,54,804
6	Complete Internal and External Electrification	Rs. 1,00,00,000
	TOTAL	Rs. 10,40,27,596
		Rs. 10,40,00,000

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PARK – Estimate Summary

Park Development for Sneh Park, Indore , MP		
Site Area - 3.04 Acres (12324.70 sqm)		
Summary		
S.NO	Item of Work	Amount
1	Cost of Boundary wall & Gate	1078065.00
2	Cost of Civil Work (including pathway, Plazas,amphitheatre, precast seater etc.)	10984705.00
3	Cost of Toilet Block	983769.54
4	Cost of Guard room	481454.29
5	Cost of Landscape Work	3243077.67
6	Kid's Play equipment	2000000.00
	Sub Total A: Civil & Landscape work	18771071.00
7	Add for Electrical Work (Sub Total A*10%)	1877107.00
8	Add for Water Suuply, Drainage System & Irrigation (Sub Total A*10%)	2815661.00
9	Add Solid Waste Management (Sub Total A*3%)	563132.00
	Sub Total B: (7+8+9)	5255900.00
	Sub Total C : A+B	24026971.00
10	Contingencies & Miscellaneous 3% (on Total A+B):D	720809.00
11	Variation & Escalation 8% (on Total A+B):E	1922158.00
	Grand Total (C+D+E)	26669938.00

समिति का निर्णय :-

समिति द्वारा निर्देशित किया गया कि विश्राम बाग पार्क में बनाये जा रहे Pond के तल में आर.सी.सी कार्य के प्रावधान को हया जाये तथा इन्ट्रेस प्लाजा के कार्य को नगर निगम अपने स्रोतो से कराये। नेहरु नगर का पार्क पूर्व से ही स्थापित है उसमें आवश्यक मरम्मत एवं नवीनकरण का कार्य निगम अपने स्रोतो से कराये। समिति द्वारा निम्न तालिका अनुसार पार्को के कार्यों का अनुमोदन करते हुए राज्य स्तरीय उच्च शक्ति प्राप्त संचालन समिति के समक्ष प्रस्तुत करने की अनुशंसा की गई।

Sl. No.	Name of Park / Green Space	Area (In Acres)	Cost (In Rs. Lakhs)
1.	Vishram Bagh	10.00 Acres	700.00
2.	Sneh Nagar Park	3.04 Acres	266.70





प्रमुख अभियंता,
(सदस्य-सचिव)
नगरीय प्रशासन एवं विकास
मध्यप्रदेश, भोपाल

सहायक यंत्री
नगर निगम जबलपुर

आयुक्त सह-सचिव, नगरीय प्रशासन एवं विकास की अध्यक्षता में दिनांक 25.03.2017 को संचालनालय, नगरीय प्रशासन एवं विकास के सभा कक्ष में अटल नवीकरण और शहरी परिवर्तन मिशन (Atal Mission for Rejuvenation and Urban Transformation - AMRUT) के सम्बंध में राज्य स्तरीय तकनीकी समिति की चौदहवी बैठक संपन्न हुई। जिसमें निम्न सूची अनुसार समिति के सदस्य एवं अन्य अधिकारीगण उपस्थित रहे।

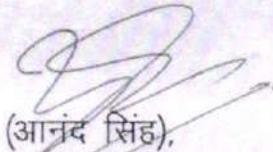
समिति के सदस्य

1. श्री ए.के. शर्मा, वित्तीय सलाहकार, भोपाल
2. श्री जाहिद खान, डी.जी.एम., एम.पी.ई.बी.,

अन्य उपस्थित अधिकारीगण

1. श्री मनीष सिंह, कमिश्नर, आई.एम.सी. इन्दौर
2. श्री वेद प्रकाश, कमिश्नर, जे.एम.सी.
3. श्री कैलाश जोशी, डिप्टी कमिश्नर, आई.एम.सी.
4. श्री डी.सी. जैन, अधीक्षण यंत्री, इन्दौर नगर निगम, इन्दौर
5. श्री के.के. श्रीवास्तव, पी.सी., इ.डी.एम.डी. जबलपुर
6. श्री अजय शर्मा, कार्यपालन यंत्री, नगर निगम, जबलपुर
7. श्री श्रीजन शर्मा, सब इंजीनियर, नगर निगम, इन्दौर
8. सुश्री सुस्मिता कनिक, सब इंजीनियर, नगर निगम, इन्दौर
9. श्री संजीव कुमार शर्मा, टीम लीडर, पी.डी.एम.सी.- I, इजिस-इंडिया, भोपाल
10. श्री उदय रोमन, आर.ई., वैपकॉस, पी.डी.एम.सी.- II, भोपाल
11. श्री एस.जी. फाड़के, सीनियर डिजाईन इंजीनियर, वैपकॉस





(आनंद सिंह),

कार्यपालन यंत्री

संचालनालय, नगरीय प्रशासन एवं विकास
मध्यप्रदेश, भोपाल



सहायक यंत्री
नगर निगम जबलपुर



कार्यालय नगर पालिक निगम जबलपुर

77

Annexure-5

अमृत योजना
नगर पालिक निगम, चार्टर्ड टाउन, जबलपुर - 482002

क्र./Sewer/2024/117

जबलपुर दिनांक 21.9.2024

उपस्थिति पत्रक

विषय:- नगर पालिक निगम, जबलपुर अमृत 2.0 (सीवर) योजना अंतर्गत DLRMC की बैठक में उपस्थित माननीय जनप्रतिनिधियों की उपस्थिति पत्रक।

बैठक में निम्नलिखित सदस्य उपस्थिति हुये। अमृत 2.0 (सीवरेज) के अंतर्गत जबलपुर शहर के समस्त छोटे हुये क्षेत्रों में सीवरेज तंत्र की शत-प्रतिशत व्याप्तता हेतु कार्य की विस्तृत परियोजना की डीपीआर राशि रु. 1202.38 करोड़ की स्वीकृति सभी उपस्थित सदस्यों द्वारा सर्वसम्मति से प्रदान की गई।

क्र.	नाम	हस्ताक्षर
1.	माननीय श्री राकेश सिंह, केबिनेट मंत्री, लोक निर्माण विभाग, म.प्र.विधायक (पश्चिम विधान सभा)/सदस्य	
2.	माननीय श्री जगत बहादुर सिंह (अन्नू), महापौर/सदस्य	
3.	माननीय श्री अशोक रोहाणी, विधायक (कैन्ट विधानसभा)/सदस्य	
4.	माननीय श्री सुशील इंदु तिवारी, विधायक (पनागर विधानसभा)/सदस्य	
5.	माननीय श्री लखन घनघोरिया, विधायक (पूर्व विधानसभा)/सदस्य	
6.	माननीय श्री अभिलाष पाण्डेय, विधायक (उत्तर मध्य विधानसभा)/सदस्य	
7.	माननीय श्री नीरज सिंह, विधायक (बरगी विधानसभा)/सदस्य	17/9/2024
8.	माननीय श्री दीपक सक्सेना, कलेक्टर जिला जबलपुर	
9.	माननीया श्रीमति प्रीति यादव, आयुक्त, नगर पालिक निगम, जबलपुर	

SANJAY SINGH Kushwaha
Asst. Engineer.

AMRUT 2.0

कार्यालय नगर पालिक निगम जबलपुर

मंगलवार, दिनांक-13 अगस्त 2024 को अपरान्ह 4.00 बजे मेयर-इन-काउन्सिल की बैठक नगर पालिक निगम जबलपुर कार्यालय परिसर स्थित महापौर कक्ष में महापौर माननीय श्री जगत बहादुर सिंह (अन्त) की अध्यक्षता में आयोजित हुई, का कार्यवाही विवरण।

उपस्थिति

श्री जगत बहादुर सिंह (अन्त), महापौर

उपस्थित सदस्य

- | | |
|----------------------------|----------------------------------|
| 1- डॉ० सुभाष तिवारी | 2- श्री दामोदर सोनी |
| 3- श्री विवेकराम सोनकर | 4- श्रीमति अंशुल राघवेन्द्र यादव |
| 5- श्रीमति रजनी कैलाश साहू | |

उपस्थित अधिकारी

श्रीमति प्रीति यादव, आयुक्त, नगर पालिक निगम जबलपुर।

बैठक की कार्यवाही अपरान्ह 4.00 बजे प्रारम्भ हुई।

(456) गत बैठक की कार्यवाही का पुष्टिकरण-

मेयर-इन-काउन्सिल की बैठक दिनांक-4 जुलाई 2024 की कार्यवाही का पुष्टिकरण करने पर विचार किया गया।

विनिश्चय किया गया कि उपरोक्त बैठक की कार्यवाही की पुष्टि की जाती है।

स्वच्छता एवं ठोस अपशिष्ट प्रबंधन विभाग-**(457) डोर टू डोर कचरा संग्रहण एवं परिवहन कार्य का अनुबंध समाप्त किये जाने के सम्बन्ध में-**

खंड (क) आयुक्त के पंजीबद्ध पत्र क्रमांक-442 दिनांक-09-8-2024 के अनुसार डोर टू डोर कचरा संग्रहण एवं परिवहन कार्य का अनुबंध समाप्त किये जाने के सम्बन्ध में विचार किया गया।

इसमें उल्लेखित है कि नगर निगम जबलपुर सीमांतगत 79 वार्डों से डोर टू डोर कचरा संग्रहण एवं परिवहन कार्य कराये जाने हेतु दिनांक 01.04.2016 को तृतीय निविदा आमंत्रित की गई जिसमें सफलतम निविदाकार एस्सेल इन्फ्रा प्रोजेक्ट लिमिटेड मुंबई के साथ नगर निगम जबलपुर, मेसर्स ऐस्सेल इन्फ्रा प्रोजेक्ट लिमिटेड इसकी SVT जबलपुर वेस्ट कलेक्शन एंड ट्रांसपोर्टेशन मेने. प्रा. लिमिटेड के साथ त्रि-पक्षीय अनुबंध दिनांक 17 नवंबर 2016 को संपादित किया गया है। अनुबंध, शर्तों के साथ, 10 वर्ष की अवधि के लिये है। उक्त संबंध में वस्तुस्थिति निम्नानुसार है:-

1) अनुबंध के निम्न आर्टिकलों/बिंदुओं का उल्लंघन किया गया है:-

1/2/24

[Handwritten Signature]

[Handwritten Signature]
Sajay Singh Kushwah
Asst. Engineer

जल कार्य तथा सीवरेज विभाग-

(471) अमृत 2.0 (सीवरेज) योजनान्तर्गत जबलपुर शहर के सीवरेज जोन-1 एवं जोन-6 (55 गांव) में सीवरेज तंत्र की शतप्रतिशत व्याप्तता हेतु तैयार की गई डी.पी.आर. की स्वीकृति के सम्बन्ध में-

आयुक्त के पंजीबद्ध पत्र क्रमांक-456 दिनांक- 09-8-2024 के अनुसार अमृत 2.0 (सीवरेज) योजनान्तर्गत जबलपुर शहर के सीवरेज जोन-1 एवं जोन-6 (55 गांव) में सीवरेज तंत्र की शतप्रतिशत व्याप्तता हेतु तैयार की गई डी.पी.आर. की स्वीकृति के सम्बन्ध में विचार किया गया।

इसमें उल्लेखित है कि अमृत 2.0 (सीवरेज) योजनान्तर्गत जबलपुर शहर के सीवरेज जोन-1 एवं जोन-6 (55 गांव) में सीवरेज तंत्र की शतप्रतिशत व्याप्तता हेतु तैयार की गई कार्ययोजना की स्वीकृति हेतु प्रस्ताव प्रस्तुत है।

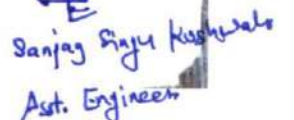
संक्षेपिका में उल्लेखित है कि नगर निगम जबलपुर शहर में सीवर लाईन परियोजना का कार्य वर्ष 2006 में जे.एन.एन.यू.आर.एम. परियोजना अंतर्गत स्वीकृत हुआ। उस समय उक्त कार्य योजना हेतु सम्पूर्ण जबलपुर शहर को पांच जोनों क्रमशः जोन 1 (शहर का मध्य क्षेत्र), जोन 2 (शहर का रांझी एवं अधारताल क्षेत्र), जोन 3 (शहर का सिविल लाइन क्षेत्र) जोन 4 (शहर का ग्वारीघाट रामपुर क्षेत्र) एवं जोन 5 (शहर का मेडीकल एवं धनवंतरी नगर क्षेत्र) में विभाजित किया गया था जिसमें जे.एन.एन.यू.आर.एम. परियोजना फेस 01 अंतर्गत जोन 1 एवं जे.एन.एन.यू.आर.एम. परियोजना फेस 02 अंतर्गत जोन 02,03,04 तथा 05 में सीवरेज का कार्य स्वीकृत हुआ जिसके पश्चात् शासन की अमृत-सीवरेज फेस 01 योजना अंतर्गत शहर के जोन 02,03,04 तथा 05 में छोटे हुये क्षेत्रों में शत-प्रतिशत सीवर लाईन बिछाने, एस.टी.पी. निर्माण एवं हाउस कनेक्शन कार्य प्रस्तावित कर वर्ष 2017 में स्वीकृत किया गया। जबकि जे.एन.एन.यू.आर.एम. परियोजना फेस 01 अंतर्गत जोन 1 में स्वीकृत सीवरेज कार्य हेतु नियुक्त फर्म के द्वारा कार्य की प्रगति संतोषजनक न कर पाने के कारण कार्य निरस्त कर फर्म को वर्ष 2012 में ब्लेकलिस्ट कर दिया गया। जिसके पश्चात् उक्त शेष कार्यों में से कुछ कार्य नगर निगम द्वारा विभिन्न योजना अंतर्गत पूर्ण करा लिया गया किन्तु अभी भी वर्तमान में कुछ कार्य शेष है। वर्तमान में शासन की अमृत-सीवरेज फेस 02 (अमृत 2.0) के अंतर्गत जबलपुर शहर के समस्त छोटे हुये क्षेत्रों में सीवरेज तंत्र की शत-प्रतिशत व्याप्तता हेतु कार्य योजना तैयार किये जाने हेतु निर्देश प्राप्त हुये हैं। निर्देशानुसार शहर के जोन 01 के, जिसमें जे.एन.एन.यू.आर.एम. परियोजना फेस 01 अंतर्गत जोन 1 के शेष कार्य तथा अन्य छोटे हुये क्षेत्रों के साथ-साथ वर्ष 2014 में जबलपुर नगर निगम सीमा में शामिल किये गये 55 गांवों (जोन 06) में सीवर लाईन बिछाने, एस.टी.पी. निर्माण एवं हाउस कनेक्शन कार्य की अमृत 2.0 की गाइड लाइन अनुसार विस्तृत कार्ययोजना तैयार करने का कार्य कंसलटेंट मे. स्नो फाउण्डेशन कंसलटेंट द्वारा जोन 01 एवं मे. ई.डी.एम.जी. कंसलटेंट द्वारा 55 गांवों (जोन 06) को प्रदान किया गया।

1. मेसर्स स्नो फाउण्डेशन द्वारा जोन 01 में क्रमशः

- जोन 1 में 110 एम.एल.डी. एस.टी.पी., एस.बी.आर. तकनीक पर कठौदा में निर्माण कार्य- राशि रु. 87.63 करोड़।
- उक्त एस.टी.पी. से घरों के सीवेज जोड़ने हेतु सीवर लाइन बिछाने एवं हाउस कनेक्शन कार्य- राशि रु. 647.51 करोड़।
- ऐसे 11 क्षेत्र जहां डिसेंटरलाइज्ड पद्धति अनुसार पृथक-पृथक छोटे एस.टी.पी. निर्माण, सीवर लाइन बिछाने का कार्य एवं हाउस कनेक्शन का कार्य- राशि रु. 69.64 करोड़।

11/11/24




Sanjay Singh Kushwaha
Astt. Engineer

(24) 80

उपरोक्तानुसार कुल राशि रु. 804.78 करोड़ (जी.एस.टी. अतिरिक्त) की डी.पी.आर. तैयार की गई है।

2. मे. ई.डी.एम.जी. द्वारा 55 गांवों (जोन 06) में क्रमशः

- (अ) 55 गांवों एवं मां नर्मदा नदी के किनारे स्थित बस्तियों के सीवेज शुद्धिकरण हेतु सीवर लाइन बिछाने, एस.टी.पी. निर्माण एवं हाउस कनेक्शन कार्य हेतु राशि रु. 256.93 करोड़।
- (ब) गोकलपुर तालाब पर स्थित बस्तियों के सीवेज शुद्धिकरण हेतु सीवर लाइन बिछाने, एस.टी.पी. निर्माण एवं हाउस कनेक्शन कार्य हेतु राशि रु. 40.67 करोड़।
- (स) परियट एवं गौर क्षेत्र में स्थित डेरियों में उत्पन्न होने वाले गोबर हेतु 4 नग बायो सी. एन.जी. प्लांट निर्माण कार्य राशि रु. 100.00 करोड़।

उपरोक्तानुसार कुल राशि रु. 397.60 करोड़ (जी.एस.टी. अतिरिक्त) की डी.पी.आर. तैयार की गई है।

उपरोक्त बिन्दु क्र. 1 एवं 2 अनुसार जोन 01 एवं 55 गांवों (जोन 06) हेतु कुल राशि रुपये 1202.38 करोड़ (जी.एस.टी. अतिरिक्त) की कार्ययोजना तैयार की गई है। उक्त कार्ययोजना शासन की अमृत 2.0 योजनान्तर्गत तैयार की गई है। अमृत 2.0 योजनान्तर्गत केन्द्र शासन से 25 प्रतिशत अनुदान, राज्य शासन से 58 प्रतिशत अनुदान एवं 17 प्रतिशत नगरीय निकाय को स्वयं के स्रोतों से वहन किया जाना है। अमृत 2.0 अंतर्गत जबलपुर शहर की सीवरेज परियोजनांतर्गत "स्टेट वाटर एक्शन प्लान (SWAP)" अनुसार पूर्व में कुल राशि रु. 759.62 करोड़ की कार्ययोजना की स्वीकृति दी गई है। वर्तमान में उक्त कार्ययोजना कुल राशि रु. 1202.38 करोड़ (जी.एस.टी. अतिरिक्त) की तैयार की गई है जिसे अनुमोदन हेतु जिला स्तरीय समीक्षा एवं निगमरानी समिति (DLRMC) के माध्यम से राज्यस्तरीय तकनीकी समिति (SLTC) को अनुमोदन एवं स्वीकृति हेतु प्रेषित किया जाना है।

अतः उपरोक्तानुसार अमृत 2.0 योजनान्तर्गत सीवरेज परियोजना के अंतर्गत सूची अनुसार कुल राशि रु. 1202.38 करोड़ (जी.एस.टी. अतिरिक्त) की डी.पी.आर. स्वीकृति हेतु प्रस्तुत है।

विनिश्चय किया गया कि उपरोक्तानुसार स्वीकृति प्रदान की जाती है।

माननीय महापौर महोदय की अनुमति से निम्नानुसार अन्य विषय पर विचार किया गया:-

(472) श्री अजय शर्मा, प्रभारी अधीक्षण यंत्री मूल पद कार्यपालन यंत्री को संविदा में रखे जाने के सम्बन्ध में-

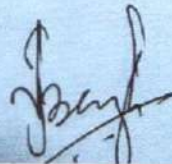
आयुक्त के पंजीबद्ध पत्र क्रमांक-457 दिनांक- 13-8-2024 के अनुसार श्री अजय शर्मा, प्रभारी अधीक्षण यंत्री मूल पद कार्यपालन यंत्री को संविदा में रखे जाने के सम्बन्ध में विचार किया गया।

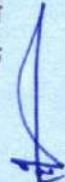
इसमें उल्लेखित है कि निगम में पदस्थ श्री अजय शर्मा, प्रभारी अधीक्षण यंत्री मूल पद कार्यपालन यंत्री को संविदा में रखे जाने के संबंध में प्रस्ताव प्रस्तुत है।

संक्षेपिका में उल्लेखित है कि-

1. श्री अजय शर्मा, कार्यपालन यंत्री, कार्यरत् प्रभारी अधीक्षण यंत्री, लोककर्म मुख्यालय, नगर पालिक निगम, का आवेदन दिनांक 01.08.2024 का अवलोकन करें, जिसके अनुसार श्री शर्मा दिनांक 31.08.2024 को अधिवार्षिकीय आयु पूर्ण कर सेवानिवृत्त हो रहे हैं तथा एक वर्ष के लिये सेवा वृद्धि की मांग की गई है।

अनुमोदन




Sanjay Singh Kushwaha
Asst. Engineer

F.No.Q-12045/13/8/NURM/2006-CPHEEO
Government of India
Ministry of Urban Development
(CPHEEO)

Subject: DPR for Storm Water Drainage System of Jabalpur City proposed under JNNURM at an estimated cost of Rs. 254.32 Crore (Revised) - Technical Appraisal-Regarding.

Ref: (1) JNNURM Division O.M. dated 22/23.3.2006
(2) OM No. K-14012/66(8)/2006-NURM-II dated 1.5.07
(3) OM No. K-14012/66(1)/2009-NURM-III dated 24.2.2009
(4) OM No. K-14012/66(1)/2009-NURM-III dated 18.9.2009
(5) Letter from Municipal Corporation, Jabalpur No. JMC/NURM/2009/2802285 dated 12.10.2009

The DPR for Storm Water Drainage System in Jabalpur City was received by the NURM Directorate of the Ministry in various forms and at different points of time for consideration under JNNURM. The NURM Directorate had been forwarding the DPRs received for technical appraisal by CPHEEO.

CPHEEO had technically appraised the DPR received in March, 2006. This was limited to the infrastructure development proposed for the Omti Nallah only. The topography of Jabalpur city consists of five natural drainage zones namely, Omti Nallah, Moti Nallah, Uldana Nallah, Khandhari Nallah & Shah Nallah. Only the Omti Nallah was taken up for development of comprehensive SWD. The CSMC had examined the DPR but did not approve the same as the city-wide approach for SWD facilities was not met.

Therefore, the Ministry had requested Jabalpur Municipal Corporation (JMC) to prepare a comprehensive DPR for SWD for the entire city. JMC had submitted such DPRs to the Ministry for approval but the technical appraisal revealed several shortcomings in the DPR such as inadequacy of rainfall data, incorrect analysis of rainfall data both of which affect the entire SWD network proposed physically and financially. CPHEEO had been interacting with the Jabalpur Municipal Corporation directly and also through NURM Directorate for correcting the technical and financial proposals of the DPRs. The latest revised DPR submitted through NURM Directorate dated 18.9.2009 had furnished several required corrections. But it still had certain issues regarding the applicability of ADB SoR vis-à-vis the unified SoR 2002 of PHED, GoMP. Finally, all the requisite corrections have been carried out by JMC and their Consultants duly interacting with CPHEEO.

The following Officials and Consultants of JMC have attended CPHEEO in the recent past for technical discussions and for carrying out necessary corrections.

S No	Name of Officer	Designation	Dates of Visit to CPHEEO
1	Shri Ajai Sharma	Exe. Engineer, SWD, JMC	16 October 09
2	Shri S.K.Dwivedi	Exe. Engineer, SWD, JMC	27 October 09
3	Shri K.G. Agrawal	Consultant to JMC	2, 7, 12, 16, 26, 27 Oct' 09
4	Shri Kuldeep Singh	Consultant to JMC	2, 7, 12, 16, 26, 27 Oct' 09

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The details of technical appraisal are as follows:

1.	Proposal	DPR: Storm Water Drainage Sector: DPR of Integrated Storm Water Drains (Including Omti Nallah) at Jabalpur City for Development of infrastructure services at a cost of Rs. 254.32 Crore.
2.	Name of State / UT	Madhya Pradesh
3.	Name of City	Jabalpur
4.	Objectives	To provide comprehensive Storm Water Drainage System with integration to the existing SWD and final disposal through the natural drains flowing into River Pariyat and then to River Narmada.
5.	Whether CDP is prepared	Yes
6.	Background:	<p>Jabalpur City receives and average annual rainfall of about 1386 mm (mentioned in CDP) which is substantially higher than the national average of 893 mm (LPA, from IMD website). The natural relief of the city is marked by heights and valleys providing excellent natural drainage. However, with increased urbanization, increased pavement area coupled with closure/development of very small & minor drains, the city has started experiencing flooding. The CDP mentions that Jabalpur had experienced flooding even during normal monsoons in 1991, 1994, 1998 & 1999.</p> <p>The highly flood-prone areas in JMC are:</p> <ul style="list-style-type: none"> • Areas lying in the catchment area of Ukhari Nallah; • Areas lying at the foot-hills of the Madan Mahal Hills; and • Low lying pockets across the city. <p>The CDP mentions that Municipal Corporation has been addressing the flooding problem on a piece-meal approach, attempting to solve local flooding problems by constructing drains in flood-prone areas and linking them to Nallah. However, Scientific and permanent solutions are to be worked out for preventing flooding in the city.</p> <p>There have been no systematic efforts in the past to study the drainage system covering the entire city. Jabalpur Municipal Corporation (JMC) had been taking up the drainage works to solve only the local problems due to fund scarcity. With the assistance available under the JNNURM, JMC's objective in SWD is to study the storm water drainage in totality and identify the reasons for the flooding and provide efficient drainage system to avoid the frequent flooding in the city area.</p> <p>Urban Infrastructure Development in Other Sectors:</p> <p>The Government of Madhya Pradesh and Jabalpur Municipal Corporation have taken up the ADB assisted UWSEIP/ Project UDAY Project for improving the</p>

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urban infrastructure in water supply, sewerage and solid waste management Sectors.

The Ministry has also approved two DPRs for providing sewerage facilities in Jabalpur.

As the city /State Governments have already taken up urban infrastructure improvement projects in priority sectors of water supply, sewerage and solid waste management with either GOI or ADB assistance, the only other Sector requiring assistance for improvement in infrastructure is the storm water drainage.

Accordingly, a comprehensive Storm Water Drainage DPR has now been prepared and submitted by JMC for the consideration of the Ministry under JNNURM.

7. **Present Status:**

The Existing storm water drainage system of Municipal Corporation of Jabalpur, is divided into five major drainage zones. These drainage zones are based on the natural drainage area of five major Nallahs flowing through the Municipal Corporation area. The major drainage zones are:

1. Uldana Nallah drainage zone
2. Moti Nallah drainage zone
3. Omti Nallah drainage zone.
4. Shah Nallah drainage zone
5. Khandhari Nallah drainage zone

With increased urbanisation in Jabalpur, problems of flooding are being recorded in the city. The major drainage problems identified in Jabalpur are as follows:

1. Inadequate drainage system from habitations to final disposal in Nallah.
2. Increased urbanization and increased imperviousness.
3. Lack of SWD network in most urbanised areas.
4. Un-improved hydraulics of natural drains (due to unlined Sections)

The CDP mentions that Jabalpur had experienced flooding even during normal monsoons in 1991, 1994, 1998 & 1999.

The JMC has tried to rectify these problems in storm water drainage by preparing a comprehensive DPR as per the provisions of Manual on Sewerage and Sewage Treatment (Storm Water Drainage Section) published by the Ministry and the inputs provided by CPHEEO while examining the initial DPRs.

8. **Need of the Project:**

The CDP mentions that Jabalpur Municipal Corporation has been addressing the flooding problem on a piece-meal approach, attempting to solve local flooding problems by constructing drains in flood-prone areas and linking them

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<p>to Nallahs wherever feasible within available funds. CDP acknowledges that Scientific and permanent solutions are to be worked out for preventing flooding in the city.</p> <p>Accordingly, JMC has prepared this comprehensive DPR for Storm Water Drainage based on rainfall data obtained from IMD (Autographic rainfall data) and provisions of the Manual on Sewerage & Sewage Treatment published by the Ministry.</p> <p>The proposed DPRs provides for 100% coverage and connectivity of the Storm Water Drainage network with due linkages with the existing SWD system in order to prevent flooding within the parameters of flooding frequency of once in two years mentioned in the Manual for the design storm analysed from the records of autographic rainfall data for the city.</p>			
9.	Population	Jabalpur MC	
	Year 2001	10,98,469	
	Year 2010-11	11,99,686	
	Year 2040-41	21,32,560	
10.	Area of city	134.00 Sq.km	
10.	SWD Area Coverage	Area under Existing system	Area Under Project
		5.40	128.60
		Total area of coverage after execution of Project 134.00	
		Proposed project will cover entire 134.00 sq.km with network as well as out falling to River Pariyat and to River Narmada	
11.	Project components	<ul style="list-style-type: none"> • Total Length of R.C.C. pipe drain - 88.060 Km. • Total length of R.C.C. covered channel drain - 73.80 Km. • Total Length of Stone Pitching of natural Drains - 64.005 Km. <p>Total length of Proposed improvement of SWD- 225.865 km</p>	
12.	Estimated Cost of the project (proposed)	Rs. 25432.12 lakh	
13.	Period of implementation	25 months From Dec'09 to Dec'11	
14.	Funding pattern	50%:20%:30% (Gol : GoMP : JMC)	

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Total Project Cost(In Lakh)	GOI (50 %) (In Lakh)	GOG(20 %) (In Lakh)	JMC(30 %) (In Lakh)
proposed DPR Rs. 25432.12 lakh	12716.06	5086.42	7629.64
CPHEEO recommendation Rs. 32648.86 lakh	16324.43	6529.77	9794.66

16. **Financial Phasing** 2009-2010, 2010-2011 & 2011-12
for a total of 25 months

(Rs.in Lakh)

Year	Total	GoI (50 %)	GoMP (20 %)	JMC (30 %)
2009 – 10 (25%)	8162.21	4081.11	1632.44	2448.66
2010 – 11(50%)	16324.43	8162.21	3264.89	4897.33
2011- 12 (25%)	8162.22	4081.11	1632.44	2448.67
Total	32648.86	16324.43	6529.77	9794.66

17. **Implementing Agency** Jabalpur Municipal Corporation

18. **Annual O & M Expenditure (Rs. lakh)**

Existing 2008-09	Rs.3.46 Lakh + Rs.160.00 (taken approx. 10% of total estt. Cost of staff engaged on SWM & SWD duties)= Rs.163.46 Lakh p.a. on SWD
Proposed (20012-13)	Total maintenance cost Rs. 497.01 Lakh per annum, after commissioning of project. JMC will meet O&M expenditure for these SWDs from property tax revenues.

19. **Agency Responsible for O & M** Jabalpur Municipal Corporation

20. **Estimated Cost for Consideration & approval** Rs. 32648.86 lakh

21. **SLBMs:**

Storm Water Drainage- Service Level Benchmarks				
		Benchmark	Existing	Proposed
1	Coverage of Storm Water Drainage network	100%	4%	100%
2	Incidence of water logging / flooding	0	Frequent in several spots rainy season	0 For design storm

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21. Coverage of Urban Poor & Minorities:


The Details of Urban Poor and Minority Population Benefiting from the project (As per census 2001) are given Below
Total Urban Poor = 275054;
Total Minority = 167000

S No.	Category	Total in city	Already connected to Storm Water Drainage	Storm Water drainage system Beneficiaries under the Project
1	Urban Poor Non-Minority	178054	-	178054
2	Urban Poor - Minority	97500	-	97500
3	Urban Non- Poor Minority	69500	-	69500

Project Beneficiaries:
Total Urban Poor (1+2) = 275554
Minority Population (2+3) = 167000
Urban Poor + Minority (1+2+3) = 345054

CPHEEO's comments on DPR:

- The DPR titled DPR of Storm Water Drainage System (Including Omti Nallah) for Jabalpur City has been proposed under JNNURM has been designed and estimated as per the design provisions of the Manual published by the Ministry and the cost estimated as per State Govt. Departmental procedures. Ministry may consider the same for providing ACA under JNNURM.
- IMD's rainfall data for Jabalpur (autographic rain gauge data) has been collected for 25 years (made available by IMD for 1975, 1980 and 1985-2007) and analysed for intensity of rainfall, which is in order.
- Time of concentrations versus intensity of rainfall is plotted and Storm intensity curve is prepared.
- Tributary area for the drain ascertained from the detailed survey drawings prepared and marked in the drawings.
- The land use plan of the tributary area is considered as per the approved master plan of the city confirmed by the JMC officials.
- The imperviousness constant, 'C' values have been adopted as per the guideline values indicated in the Manual on Sewerage & Sewage Treatment and accordingly the intensity of rainfall has been calculated and the discharges have been determined in the catchment areas, which are in order.
- The Design carried out by JMC through Snow Fountain Consultants has been based on the rational method suggested by Manual on Sewerage and Sewage Treatment and the design is in order for the design storm for the flooding


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frequency and time of concentration occurring the designed section at the point under consideration.

- The detailed drawings, designs have been furnished and estimates have been prepared.
- The details of proposed infrastructure are as follows:

Section Details	Jabalpur SWD -Zone wise Details					
	Khandhari Nala Zone	Shah Nala Zone	Moti Nala Zone	Uldana nala Zone	Omti Nala Zone	Total in M.
R.C.C. Pipe Dia.						
150	0.00	0.00	0.00	0.00	200.00	200.00
200	120.00	60.00	0.00	90.00	650.00	920.00
250	105.00	120.00	0.00	240.00	745.00	1210.00
300	141.00	300.00	60.00	480.00	2125.00	3106.00
350	90.00	210.00	90.00	360.00	1330.00	2080.00
400	240.00	270.00	180.00	1000.00	1493.00	3183.00
450	30.00	380.00	240.00	788.00	1064.00	2502.00
500	30.00	345.00	180.00	770.00	1226.00	2551.00
600	60.00	689.00	720.00	1660.00	3683.00	6812.00
700	90.00	800.00	1035.00	2851.00	2574.00	7350.00
800	120.00	575.00	1058.00	2760.00	4700.00	9213.00
900	120.00	1170.00	1420.00	1742.00	1930.00	6382.00
1000	120.00	660.00	629.00	2803.00	1660.00	5872.00
1100	150.00	678.00	350.00	1943.00	3246.00	6367.00
1200	180.00	310.00	575.00	770.00	2791.00	4626.00
1400	240.00	420.00	1588.00	4307.00	1922.00	8477.00
1600	300.00	540.00	420.00	1697.00	3462.00	6419.00
1800	390.00	750.00	570.00	5000.00	4081.00	10791.00
Total	2526.00	8277.00	9115.00	29261.00	38882.00	88061.00
R.C.C. Covered Drain						0.00
2.4 x 1.65	0.00	30.00	0.00	0.00	30	60.00
2.6 x 1.75	0.00	1200.00	2050	2390.00	3843	9483.00
2.8 x 1.85	630	1565.00	582	1495	180	4452.00
3.0 x 1.98	3219	180.00	0.00	1282	970	5651.00
3.2 x 2.05	1290	100.00	220	1676	2093	5379.00
3.4 x 2.15	1130	0.00	0.00	2910	2427	6467.00
3.6 x 2.25	480	0.00	0.00	1715	3780	5975.00
3.8 x 2.35	570	0.00	0.00	0.00	5320	5890.00
4.0 x 2.45	600	0.00	3920	120	679	5319.00
4.2 x 2.55	660	0.00	0.00	285	0.00	945.00
4.4 x 2.65	780	150	4510	313	416	6169.00
4.6 x 2.75	840	2350	730	210	955	5085.00
4.8 x 2.85	2040	0.00	0.00	330	755	3125.00
5.0 x 2.95	3090	0.00	0.00	0.00	625	3715.00
5.2 x 3.05	1590	0.00	0.00	0.00	0.00	1590.00
5.4 x 3.15	80	0.00	0.00	0.00	364	444.00
5.6 x 3.25	0.00	0.00	0.00	0.00	4046	4046.00
Total	16999.00	5575.00	12012.00	12726.00	26483.00	73795.00


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Stone Pitching Details Section Top, Bottom & Depth)						
						0.00
12.05x2.85x2.75	0.00	0.00	0.00	0.00	840.0	840.00
14.15x3.35x2.70	9060.00	0.00	0.00	1740		10800.00
14.67x3.35x3.15	0.00	0.00	0.00	493	2560.00	3053.00
15.20x3.60x3.35	0.00	0.00	0.00	2000		2000.00
15.72x3.72x3.45	0.00	0.00	0.00	890		890.00
16.24x3.34x3.55	0.00	0.00	0.00	8	1780.00	1788.00
16.77x3.97x3.65	0.00	0.00	0.00	4560	30.00	4590.00
17.29x4.09x3.75	0.00	0.00	0.00	527		527.00
17.82x4.22x3.85	0.00	0.00	0.00	10	1085.00	1095.00
18.34x4.34x3.95	0.00	30.00	0.00	3645		3675.00
18.86x4.86x3.60	0.00	6390.00	0.00	0.00	17663.00	24053.00
20.44x4.44x4.35	0.00	0.00	0.00	5250		5250.00
24.10x5.7x5.05	0.00	0.00	0.00	0.00	5444.00	5444.00
Total	9060.00	6420.00	0.00	19123.00	29402.00	64005.00
Total Length of R.C.C. Pipe in Km.				88.06		
Total Length of R.C.C. Drain Km.				73.80		
Total Length of Stone Pitching Drain Km.				64.00		
Grand Total				225.86 KM		

- The designers have stated that the SWD system has been interlinked to the existing ponds in the city such that the pond receives inflows from SWD on one side and the surplus water flows out to the SWD on the other side. Hence, preservation of water bodies & promotion of GW recharge is being ensured.
- The DPR proposes 100% coverage of SWD facility in all areas including all urban poor & minority areas. As per 2001 census, the urban poor beneficiaries are 2,75,554 whereas about 1,67,000 minorities will also be benefited. Details are obtained from CDP.
- The estimated cost of DPR has been finalized on the basis of detailed design, drawings, quantity survey and cost estimates using the rates of unified PHED SOR published in September 2002. The cost escalation over this SoR is adopted on the basis of WPI published by Ministry of Industries, GoI. The cost escalation on WPI basis is as follows:

WPI of Sept-Oct 2002 (18.9.2002) = 167.45
 $(167.4 = 167.5)/2 = 167.45$
 WPI of Sept-Oct 2009 (26.9.2009) = 243.00


% increase in WPI as in Oct 2009 = $(243.00 - 167.45) \times 100 / 167.45 = 45.12\%$
- Since the prices have been adjusted on the basis of published WPI, the cost estimates are at current 2009-10 levels. No cost escalation shall be allowed during project implementation.
- JMC has furnished the Bar-chart indicating the schedule & stages of implementation of the project as per stated period of implementation.


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- JMC has stated that the O & M cost will be met for their annual budget/property tax revenue generated so as to make the scheme sustainable.
- Since the DPR has been prepared as per the guidelines of the Manual on Sewerage & Sewage Treatment (Storm Water Drainage section), we may technically approve the same as per the abstract cost given below subject to the comments that follow:

**ABSTRACT OF APPROVED COST FOR STORM WATER DRAINAGE-
in Jabalpur (Rs. in Lakh)**

S NO	PROJECT COMPONENTS	Length in KM	Proposed DPR Cost (Rs. Lakh)	Appraised Cost (Rs. Lakh)
1	Military Dairy Farm to Khandhari Nallah via Bilahari	4.949	306.65	414.95
2	Narmada Nagar To Khandhari Nallah-II	0.375	14.30	13.2
3	Narmada Nagar To Khandhari Nallah-I	0.199	7.50	5.80
4	Khandhari Dam To Shah Nallah via Bhita, Kajarwara, Bilahari, Chheola and Polipather	23.000	2455.40	4916.25
5	Badariya Tiraha To Shah Nallah via Rampur Chowk (Left Side)	1.025	78.90	59.65
6	Badariya Tiraha To Shah Nallah via Rampur Chowk (Right Side) Megha Mobile	1.210	112.45	85.40
7	Poli Pathar (Riffle Range Side) To Shah Nallah-1	0.281	4.45	5.10
8	Poli Pathar (Riffle Range Side) To Shah Nallah-2	0.792	34.90	43.90
9	Shakti Bhawan To Shah Nallah via Rampur Mohalla	4.895	321.95	631.65
10	Rampur To Shah Nallah	1.599	78.60	112.20
11	Akash Ganga Barat Ghar ke Samne Nallah	0.255	6.05	7.30
12	Poli Pathar To Shah Nallah via Perfect Pottery (Part 1)	0.518	12.65	16.40
13	Poli Pathar To Shah Nallah via Perfect Pottery	0.578	24.75	30.20
14	Shah Nallah	9.400	693.60	1790.85
15	Soni Nagar Bhan Talaiya To Sidhatri Mata Mandir	0.250	7.05	19.00
16	Babu Nagar Jhanda Chowk To Ajai Furniture Shop	0.479	51.70	27.70
17	Bhawani Chowk To Moti Nallah Tekari Kabristan	0.678	85.80	51.30
18	Pinki Kiran store Choudhari Mohalla Bhang Talaiya to Keena Fakeer chand ustad ka bara Nallah	0.860	38.65	57.20
19	Jain Mandir To Behind of Hanuman Thana	0.540	25.10	42.85
20	Shanti Nagar Nallah-II	0.150	2.90	6.85
21	Om Sai Body Maker To Moti Nallah via Shanti Nagar	0.628	2.90	6.40
22	Trimurti Nagar To Moti Nallah	0.710	33.05	33.20
23	Madho Tal to Moti Nallah	3.702	371.30	492.35
24	Sushil Soni Ka khet To Moti Nallah	0.720	63.10	66.15
25	Moti Nallah (Fakeer Chand Akhera, Radha Krishna ward to Uldana Nallah Near by pass Road Via Madar Tekri, Damoh Naka Area & Village- Kathonda)	10.270	933.30	2720.05
26	Vehicle Gun Factory, Jabalpur To Uldana Nallah	0.625	41.35	61.05
27	Kendriya Vidyalaya Vehicle Factory To Uldana Nallah Near Jabalpur Tank	0.234	14.60	20.80
28	Chhoti Khermai Mata Mandir Siddh Baba Bagh To House of Magan Lal Yadav	0.438	22.30	30.80
29	Patel Mohalla Seth Govind das Ward To Manthi Tel GCF Nallah	1.200	41.85	59.30


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30	Jhanda Chowk To Mangal Parag Ground	0.392	12.15	21.10
31	GCF Hospital to VGF Ground Nallah	1.049	30.15	46.05
32	GCF Area Nallah -1	0.070	1.90	3.20
33	GCF Area Nallah -2	0.080	3.10	3.50
34	GCF Hospital To Gun Carriage Factory Nallah	1.428	153.95	356.95
35	Adhartal Subhash Nagar To Hitkari Girls School V.F.J. via Kanchanpur, Sharda Colony Nallah (Nahar Wala Nallah)	1.937	142.90	191.10
36	GCF To Uldana Nallah via Bhadpur, Azad Nagar Gokar Bagh, Uday Nagar & Ankur Vidya Mandir of WWA Nallah	3.370	636.30	712.95
37	Razah Chowk To Adhartal Shobhapur Railway Crossing Nallah	0.490	21.65	30.70
38	Adhartal To Shobhapur Railway Crossing Left Side	1.950	268.60	255.35
39	IP Industrial Area Adhartal Nallah	0.880	57.95	58.40
40	Shobhapur Railway Crossing To Uldana Nallah Near Teen Puliya	2.240	299.25	424.75
41	Naveen Hotel Agriculture College To Uldana Nallah (Left Side Nallah)	0.700	55.75	90.55
42	Krishi Nagar Adhartal To Uldana Nallah Via Kulpati Niwas Nallah	0.915	136.35	39.85
43	Slaughter House To SC_ST Hostel Near Raddi Chowki	1.330	89.85	115.85
44	Anjuman School To SC_ST hostel Near Raddi Chowki	0.270	7.25	11.60
45	Jakir Hussain Ward To SC_ST Hostel Near Raddi Chowki	2.035	77.90	138.90
46	Neta Colony to Adhartal Police Station Near Adhartal Chowk	0.978	50.05	65.05
47	Jai Prakash Nagar Nallah Jhanda Chowk to Adhartal Talab	0.430	13.90	22.80
48	Adhartal Talab to Nallah (Raddi Chowki To Uldana Nallah via Adhartal Chowk, Agriculture College)	0.100	12.65	10.85
49	Raddi Chowki To Uldana Nallah via Adhartal Chowk, Agriculture College	2.156	232.35	233.20
50	Naveen Hotel Agriculture College To Uldana Nallah (Right Side Nallah)	0.637	34.05	50.05
51	Dhobiyana Mohalla To Raddi Chowki via Gohalpur Chowki Nallah	0.735	26.00	35.80
52	Jakir Hussain Ward to Raddi Chowki To Jagrati Nagar Near Vidya Yadav Madhyamik Vidyalaya Nallah	2.410	235.30	312.15
53	Kali Mata Mandir ke peechhe se khooni Nallah Near Bhole Kuti Yoga Kendra	0.560	6.65	10.75
54	Moti Nallah Pulla To Khooni Nallah via Gohalpur Chowk Near Village	2.555	139.15	252.65
55	Gohalpur Chowk To Uldana Nallah via Gohalpur, Jagrati Nagar & Amkhera Village	4.142	331.10	453.95
56	Adhartal Road Near Dhani Ki Kutiya To Uldana Nallah via Ravindra Nagar, Alok Nagar, New Ram Nagar, Village -Amkhera & Kundwari (Khooni Nallah)	4.145	415.50	578.35
57	Uldana Nallah (Jabalpur Tank To Omti Nallah Near Chota Pandwar Village via Agriculture College)	18.000	1413.60	3148.65
58	Ambey Studio Narayan Nagar To Omti Nallah (Dwarka Nagar Ward)	0.125	2.00	2.80
59	House of Mohanlal to house of Ram Charan Siddha Baba ward	0.383	21.35	37.55
60	House of Purushottam to Deepak Singh Dwarka nagar ward	0.226	4.80	7.45

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61	Poorv Parshad Laxmi Ben house to Omti Nallah Siddha Baba ward	0.425	40.85	77.30
62	Thana ghampur to Omti Nallah (Sanjay Gandhi Ward)	0.325	10.25	14.40
63	Sahu Mohalla to Tripathi Bhawan (Vinoba Bhawe Ward)	0.181	26.95	25.90
64	Marghatiya Nallah Begam Chowk To Omti Nallah Via Bamba Devi Temple	0.893	63.50	128.55
65	Kuchch Bindiya Mohalla Near House of Chandobai to Omti	0.200	3.70	6.05
66	KanchGhar Chauraha to Omti Nallah via Kanchghar Colony Police Line	0.525	3.15	5.75
67	Samdariya Nagar to Omti Nallah	0.525	9.70	13.85
68	Kali Mai Mandir to Omti Nallah via Jhariya Kuwan Mohalla Kaori Mohalla -Part 1	0.140	203.45	4.30
69	Kali Mai Mandir to Omti Nallah via Jhariya Kuwan Mohalla Kaori Mohalla -Part 2	0.310	4.15	5.75
70	Kali Mai Mandir to Omti Nallah via Jhariya Kuwan Mohalla Kaori Mohalla	1.244	30.95	60.85
71	Tulsi Mohalla to Omti Nallah via bayee ka Bageecha Area	0.400	7.30	8.80
72	Khatik Mohalla Area Nallah-1	0.180	3.15	5.55
73	Sheetla Mayee road to durga mandir near ghamapur via Khalik Mohalla	0.438	11.05	16.30
74	House of Dinesh Muni Radha Krishna Ward To Omti Nallah Near Ghamapur Chowk	0.760	21.50	31.10
75	Ghamapur Area Nallah	0.100	2.05	3.80
76	Kanchghar Colony To Samdariya Colony	0.204	3.00	4.75
77	Kanchghar New Basti To Omti Nallah via Samdariya Colony, Nehru Nagar Ward	0.540	2.45	4.20
78	Mall Godam To Kanchghar New Basti Omti Nallah	2.183	107.55	153.60
79	Mall Godam Chowk To Omti Nallah Near Ghantaghar via Collectorate	1.025	5.35	7.20
80	Police Quarter Omti To Omti Nallah Near Ghantaghar via Collectorate	0.400	14.50	21.60
81	Empire Talkies To Omti nagar Near Jyoti Talkies via Nagrath Chowk	1.805	267.75	370.90
82	Russell Chowk To Income Tax Appellate Tribunal office	0.360	9.40	15.25
83	Agrawal Petrol Pump To Omti Nallah	0.362	5.20	6.55
84	Traffic Police Tiraha to Laghu Udyog Right Town	0.865	63.25	70.50
85	Bhagwati Dham Chowk to Omti Nallah	0.570	14.05	21.90
86	Grove Multi Special Hospital to Omti Nallah near house of Sri S S Srivastava	0.437	14.60	13.90
87	HawaBagh Nehru Colony to near Railway Line	0.510	22.85	47.15
88	Gulati Chowk to Railway Line Near Shastri Bridge	0.650	5.95	9.35
89	Chhoti Line Crossing to Near Madan Mahal Railway Station	1.036	32.10	52.05
90	Bridge No 4 Napier Town To Omti Nallah Near Madan Mahal Railway Station via Shastri Bridge	2.221	227.55	297.80
91	Stadium to Ranital Chowk Nallah	0.220	7.45	12.20
92	Sneh Nagar Nallah (opposite of PNT Boundary)	0.400	9.95	16.25
93	Dashmesh Nagar to Madan Mahal Chowk near BSNL office	0.475	17.50	29.40
94	SEE Office to Mahananda Pond	1.280	46.90	85.50

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95	Prem Nagar Nallah	0.600	19.10	10.30
96	Ganga Sagar Talab to Kali Math Amanpur	0.800	58.70	116.30
97	Shakti Nagar Hill To Kali Math Near Railway Line Madan Mahal	2.600	55.15	86.80
98	Gupteshwar Chowk to Omti Nallah via Madan Mahal Chowk Madan Mahal Railway Station and kali math mandir	2.575	259.50	546.70
99	Sanjay Nagar To Daryani Classes	0.932	34.25	53.45
100	Shanker Ghee Tiraha to Baldevbagh Nallah Part-2	0.505	16.35	25.55
101	Jaiswal Medical Store to Tula Ram Chowk (Right Side)	0.213	4.65	5.40
102	Jaiswal Medical Store to Tula Ram Chowk (Left Side)	0.266	4.40	7.70
103	Nagar Nigam Jabalpur Saskiya Nallah Bhartipur to Sidharth Hostel via Ghantaghar Tularam Chowk	0.416	15.45	16.80
104	Mukadamganj Galhala Bazar to Ranital via Lordganj and Lard Tularam Chowk	1.261	27.75	40.55
105	Hitkari Vidyalaya Sidharth Hotel via Tularam Chowk-2	0.332	11.00	13.70
106	Ranital to sanjay Nagar Nallah via Harshit Nagar	1.124	155.60	158.65
107	Ukhari Chowk Nallah	0.290	14.70	20.05
108	Sanjay Nagar Nallah-1	0.150	3.95	6.05
109	Baldev Bagh to Omti Nallah near Daryani Classes via sanjay Nagar Anna Mohalla and Sheetalpuri	1.380	222.70	464.25
110	Sanjay Nagar Nallah -2	0.214	3.95	5.50
111	Cherital to Anand Colony Nallah	0.130	7.20	11.90
112	Baldevbagh Chowk to State Bank to Ukhari drain	0.460	16.20	22.55
113	Krishi Upaj Mandi Chowk to Vijay Nagar Chowk (Ahimsa Chowk)	0.396	22.20	39.95
114	Deen Dayal Chowk to Ekta Chowk	1.000	1455.75	64.05
115	Janaki Nagar Nallah	0.200	7.15	9.35
116	Ukhari Chowk Nallah-1	0.450	13.80	23.70
117	Ukhari Chowk Nallah-2	0.180	7.45	12.00
118	Ukhari Chowk Nallah-4	0.370	15.30	26.6
119	Ukhari Chowk Nallah-3	0.475	18.40	26.90
120	Ukhari Chowk Nallah-5	0.080	1.35	1.90
121	Anand Colony to Omti Nallah via Jaki Nagar, Ahinsa Chowk and Ekta Chowk	2.261	237.60	388.00
122	Govt. Naveen School Garha to Kachhpura fly over Nallah	0.099	4.40	5.70
123	Gulavva pond to Kachhpura Nallah near house of Ranjan Gopal Dubey	0.150	12.80	19.65
124	Garha Geeta Bhawan to Kachhpura Nallah	0.364	21.40	35.35
125	Supatal to Kachhpura Malviya Dr. Mukherjee Chowk	0.610	101.05	120.75
126	Nehru Nagar to Medical College Gate Nallah 1	0.505	7.75	11.45
127	Medical College Gate to Kachhpura Nallah via mudfaiya Pond Shaheed Chowk Garha	1.320	139.65	179.75
128	Mudfaiya Pond to Kuchhpura Fly over Drain	3.780	4906.60	850.00
129	Tirupati Chowk to Kachhpura Nallah near Bhoolan fatak via Ganga Nagar & Nivesh Colony	0.960	22.45	36.90
130	Kachhpura fly over to Omti Nallah near Kachnar city via Sanjiwani Nagar, Kachhpura Railway Station and Village Basa	5.348	1161.60	418.10
131	Damoh Naka Chowk to Omti Nallah via Deen Dayal Chowk and I T I College	5.100	664.95	897.05
132	I T I College to Omti Nallah	4.750	380.95	481.95
133	Omti Nallah	33.752	2299.30	5084.35

सहायक य.न।
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	Sub Total	225.86 KM.	24572.10	31544.80
	Contingency, 3%		737.16	946.34
	Administrative cost 0.5%		122.86	157.72
	Grand Total		25432.12	32,648.87

Note: The cost variations are due to technical appraisal:

1. The IDF curve has been corrected during technical appraisal. With the correction, the size of sections has increased to next higher diameters.
2. The cost estimates have been rationalized in conformity with JNNURM & UIDSSMT projects in Madhya Pradesh using the unified PHED SoR 2002 adjusted to current price level on the basis of WPI indices published by Ministry of Industry, Gov.

General Comments for Project Implementation:

- Jabalpur Municipal Corporation (JMC) shall obtain all administrative, technical and expenditure sanctions from Government of Madhya Pradesh immediately upon approval by CSMC to expedite the project implementation without any delay.
- JMC shall obtain clearances from other departments as required. Clearances shall be obtained from Authorities of National & State Highways, Railways and other departments / agencies to expedite the project implementation.
- Geo-technical investigations of the project sites for bearing capacity, ground water table, uplift etc should be carried out before execution of the project. The design may be modified if necessary on the basis of the actual ground conditions.
- Structural design of various components of the scheme may be got approved from the competent authority before implementation of the scheme.
- Adequate expertise of Staff and institutional capacity may be created by the JMC to implement the said scheme as per the specifications.
- The State Govt. /JMC may ensure that there is no encroachment on the alignment of the SWD system, so as to facilitate smooth execution of the project and to avoid time over run & cost over run of the scheme.
- The State Govt. /JMC may ensure that Municipal Solid Waste management plan / DPR already being implemented under ADB assisted project is implemented & maintained properly in the city so that no solid waste finds its way into the drains / SWD proposed. JMC shall ensure this.
- Since Govt. of India will not provide funds for R & R., JMC shall ensure the R & R programme, if any, for the project affected persons shall be implemented simultaneously so as to avoid time over run and cost over run.
- The invert levels at each cross section of the drains at various locations shall be


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checked at the field by JMC during implementation by detailed survey to ensure smooth flow of storm water in the channels.

- The JMC shall ensure that the designed section shall carry all the silt without depositing in the drainage channels, for which adequate self-cleaning velocity shall be facilitated in the sections.
- JMC shall prepare a PERT Chart for all the drainage works and get it approved by the competent authority. JMC shall monitor implementation regularly so as to avoid time over run and resulting cost over run.
- A suitable mechanism may be developed by JMC for routine maintenance of the SWD system. JMC shall ensure effective O& M of the scheme on its completion from its own resources.
- The estimate has been prepared on unified PHED Schedule of Rates 2002 adjusted to 2009-10 (October 2009) on WPI indices. No escalation cost has been included during implementation. Cost escalations if any, shall be borne by JMC / Govt. of Madhya Pradesh themselves.
- If there is any change in the scope of work, a revised approval has to be obtained from Ministry / CPHEEO.

Encl: Original & Revised DPRs ¹³ (13 Volumes)
 & Project Appraisal Report + one Volume
 of Revised cost Estimates
Total 14 Volumes.

J.B. Naurinder
 27.10.09
 (J B Ravinder)
 Asstt. Adviser (PHE)
 27.10.2009

DA (PHE) - on leave

95/DALPHE/2009/FTS

Consultant (Shri R.Sethuraman, Retd. JA (PHEE)) – May please see & advise.

The DPR has been examined in the light of the notes above. The scheme is technically conforming to the guidelines for SWD system given in the Manual on Sewerage Treatment. CSTMC may kindly consider and approve the scheme.

[Signature]
 27/10/09.
 (Consultant)

Dir (NURM-III)

US(N-III)
Nitin
27/10
 Open a file &
 return to me.
 So (N-III) PC 28/10



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OFFICE OF THE MUNICIPAL CORPORATION JABALPUR

(JNNURM)

Manas Bhawan Building Wright Town Pin- 482002

 Phone & Fax No.- 0761-2419966
 E-mail - jmc_nurm@Yahoo.co.in

No./NURM/2010/299

Jabalpur, Date- 2/09/2010

WORK ORDER

To

 M/S LARSEN AND TOUBRO LIMITED
 ECC DIVISION
 MOUNT POONAMALLEE ROAD
 P.O. -979 MANAPAKKAM, CHENNAI - 600089

Subject: - Construction of Storm Water Drainage System comprising RCC Rectangular, RCC Spigot & Socket pipe and Trapezoidal Stone Masonry /c.c. Drains complete, including testing and Commissioning in Jabalpur city under JNNURM.

 Reference: - Tender Dated- 28th June' 2010 & agreement Dated - 09 September 2010.

- | | | |
|-------------------------|---|--|
| 1. Name of Work | - | Construction of Storm water Drainage System comprising RCC Rectangular, RCC Spigot & Socket pipe and Trapezoidal Stone Masonry Drains etc. complete, including testing and Commissioning in Jabalpur city for Omti Nalla, Khandar Nalla, Shah Nalla, Moti Nalla and Urdana Nalla Zone Area |
| 2. Contract Cost | - | Rs. 3749980714/- (Rupees Three Hundred and Seventy Four Crores, Ninety Nine Lakhs, Eighty Thousand, Seven Hundred Fourteen only) |
| 3. Approved Tender Rate | - | Items Rate |
| 4. Time of Completion | - | 30 Months including Rainy Seasons. |

You are hereby instructed to proceed the execution of the said works in accordance with the contract documents & complete the work in stipulated time period. It is also instructed to submit the work programme immediately

Enclosure - Referenced Agreement 11nd Copy.

 Commissioner
 MUNICIPAL CORPORATION JABALPUR

Jabalpur, Date- 2/09/2010

Endt.No. /NURM/2010/299

- Copy to: -
1. Honorable Mayor, Municipal Corporation Jabalpur
 2. Ad. Commissioner 2, Municipal Corporation Jabalpur
 3. Superintending Engineer (JNNURM), Municipal Corporation Jabalpur for necessary action
 4. Shri S. K Dwivedi, Executive Engineer (JNNURM) - I, Municipal Corporation Jabalpur for execution of the project
 5. Shri R. K Gupta, Executive Engineer (JNNURM) - II, Municipal Corporation Jabalpur for execution of the project
 6. M/s Snow Fountain Consultants, Lucknow for commencement of the project and necessary action

 Commissioner
 MUNICIPAL CORPORATION JABALPUR

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 Received along with 11nd
 copy of agreement and
 documents.

 M/s P. SAGIT
 DGM, WEP
 L&T, ECC
 09/09/2010/K

Sl. No	Drain No	Location	Tender Length	Surveyed length / Scope Length	Deleted length / Already Constructed Drain	Length due to Hindrance						Completed Length	Balance Work Length	Hindrance details	
						Disputed Land/ Local Problem	Railway Permission	Army Area	NHAI	Electric Poles/ Transformers / Utility / Water pipe line/Toilet block	Drawings/ Alignment				ROW/ Encroachment
1	1	Military Dairy farm to Khandari Nala via Bilahari	4949	1430		180						180	1250	-	WORK COMPLETED AS PER AVAILABLE FRONT
2	2	Narmada Nagar To Khandari Nala II	437	322	96							0	226	-	WORK COMPLETED AS PER AVAILABLE FRONT
3	3	Narmada Nagar To Khandari Nala I	199	200			200					200	0	-	Railway Permission not available
4	4	Khandari Dam To Shah Nala via Bhitia, Kajarwara, Bilhani, Chheola and Polipathar	23000	10800	7120		335	310				645	12035	-	Ch between 0 to 7120 Length deleted vide client instruction. Ch between 12690 to 13000: Army Area Ch between 13200 to 13205 Army Area Ch between 17583 to 17748 Railway Permission (Broad Gauge) Ch between 18050 to 18220 : Railway Permission (Narrow Gauge) WORK COMPLETED AS PER AVAILABLE FRONT
5	5	Badariya Tiraha To Shah Nala via Rampur Chowk (Left Side)	1025	1050	300	10						10	740	-	Ch: 0 to 300 Already Constructed Drain 10 m balance due to local problem WORK COMPLETED AS PER AVAILABLE FRONT
6	6	Badariya Tiraha To Shah Nala via Rampur Chowk (Right Side) Megha Mohala	1210	1200	275						125	125	800	-	WORK COMPLETED AS PER AVAILABLE FRONT
7	7	Poli Pathar (Rifle Range Side) To Shah Nala 1	281	140	140							0	0	-	Ch: 0 to 140 Already Constructed Nallah
8	8	Poli Pathar (Rifle Range Side) To Shah Nala 2	792	330	330							0	0	-	Ch: 0 to 330 Already Constructed Nallah
9	9	Shakti Bhawan To Shah Nala via Rampur Mohalla	4895	2045					900		1145	2045	0	-	Ch: 0 to 900 Permission from MPSEB Ch: 900 to 2045 Encroachment
10	10	Rampur To Shah Nala	1599	1122		260					297	567	565	-	Ch: 380 to 460 Land Dispute Ch: 570 to 750 Land Dispute
11	11	Akash Ganga Barat Ghar ke Samne Nala	255	210								0	210	-	WORK COMPLETED AS PER AVAILABLE FRONT
12	12	Poli Pathar To Shah Nala Via Perfect Pottery (Part 1)	518	347	347							0	0	-	CH: 0 TO 347 Already Constructed Drain
13	13	Poli Pathar To Shah Nala Via Perfect Pottery	578	870		35					10	45	825	-	CH: 640 to 675 Railway Permission Narrow Gauge Ch: 240 to 250 Encroachment of compound Wall WORK COMPLETED AS PER AVAILABLE FRONT
14	14	Shah Nala	9400	8510		288	55			58	245	646	7864	-	Ch: 0 to 245 ROW Encroachment Water pipe line hindrances at Ch: 1430 Ch: 3000 to 3288 Land dispute, Ch: 740 to 795 railway not given permission
15	15	Soni Nagar Bhan Talaiya To Sidhatri Mata Mandir	250									0		-	Unidentified Drain
16	16	Babu Nagar Jhanda Chowk To Ajai Furniture Shop	479	450	450							0		-	Deleted Drain
17	17	Bhavani Chowk To Moti Nala Tekari Kabrastan	678	685	685							0		-	Deleted Drain
18	18	Pinki Kirana Store- Chodhari Mohalla, Shang Talaiya to Keena Fakeer chand ustad ka bara Nala	860	480	480							0		-	Deleted Drain
19	19	Jain Mandir To behind Hanuman Thana	540	740	740							0		-	Deleted Drain
20	20	Shanti Nagar Nala II	150	150	150							0		-	Deleted Drain
21	21	Om Sai Body maker to Moti Nala via Shanti nagar	628	630	117.5							0	512.5	-	COMPLETED
22	22	Trimurti Nagar to Moti Nala	710									0	0	-	Unidentified Drain
23	23	Madhotal To Moti Nala	3702	2280							42.5	42.5	2237.5	-	WORK COMPLETED AS PER AVAILABLE FRONT
24	24	Sushil Soni Ka khet To Moti Nala	720	750		105.5						105.5	644.5	-	WORK COMPLETED AS PER AVAILABLE FRONT
25	25	Moti Nala (Fakeer Chand Akhera, Radha Krishna war To Uldana Nala Near By pass Road via Mandir Tekri, Damoh Naka Area & Village Kathonda)	10270	8770		200				70		270	8500	-	Ch between: 0 to 260 Decision regarding Section to be finalized Water pipe line hindrance for flume (35mtr) @ Madhartekri Design not available for connection of 2.6m to 4m sec (12mtr) @ Kasai mandi Enchroachment/Row for access of work @ Kasai mandi Water pipe line hindrance for flume (35 mtr) @ Gohalpur Ch between 2700 to 2900 Land issue Land dispute at Yadav land builder
26	26	Vehicle Gun Factory, Jabalpur To Uldana Nala	625	640	640							0	0	-	Deleted Drain
27	27	Kendriya Vidhyalaya Vehicle Factory to Uldana nala near Jabalpur Tank	234	230	230							0	0	-	Deleted Drain
28	28	Chhoti Khemari Mata Mandir Siddh baba Bagh to house of Magantial Yadav	438									0	0	-	Unidentified Drain
29	29	Patel Mohalla Seth Govind das ward To Manthi Tel GCF Nala	1200									0	0	-	Unidentified Drain
30	30	Jhanda Chowk to Mangal Parag Ground	392	470	180							0	290	-	COMPLETED
31	31	GCF Hospital to VGF Ground Nala	1049	1100							170	170	930	-	COMPLETED
32	32	GCF Area Nalla-1	70	50								50	0	-	Railway not permitted
33	33	GCF Area Nalla-2	80	60								60	0	-	Railway not permitted
34	34	GCF Hospital to Gun Carriage Factory Nala	1428	1190			140					140	1050	-	Ch between: 0 to 170 Already Constructed Drain in GCF area Ch between: 679 to 819 Railway Permission WORK COMPLETED AS PER AVAILABLE FRONT
35	35	Adhartal Subhash Nagar To Hitkari girls School V.F. J. via Kanhanpur, Sharda colony nala (Nahar Wala Nala)	1937	1937	1937							0	0	-	Deleted Drain
36	36	GCF to Uldana Nala via Bhadpur, Azad Nagar Gokar Bagh, Uday Nagar & Ankur Vidhya Mandir of WWA Nala	3370	1765							79	79	1686	-	WORK COMPLETED AS PER AVAILABLE FRONT
37	37	Razah Chowk To Adhartal Shobhpur Railway Crossing Nala	490									0	0	-	Unidentified Drain

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Sl. No	Drain No	Location	Tender Length	Surveyed length / Scope Length	Deleted length / Already Constructed Drain	Length due to Hindrance							Completed Length	Balance Work Length	Hindrance details	
						Disputed Land/ Local Problem	Railway Permission	Army Area	NHAI	Electric Poles/ Transformers / Utility / Water pipe line/Toilet block	Drawings/ Alignment	ROW/ Encroachment				Total Hindrance
36	38	Adhartal to Shobhpur railway crossing Left Side	1950	2280						555		555	1710	15.0	CH between:1670 to 2200 : Decision Regarding Alignment due to Rising main / Sewer line in proposed alignment Ch between: 160 to 185 : Transformer, Work stopped by Kanchan associates WORK COMPLETED AS PER AVAILABLE FRONT	
39	39	IP Industrial Area Adhar: Tal Nala	850	657.5								0	657.5	-	COMPLETED	
40	40	Shobhapur Railway Crossing To Uldana Nala Near Teen Puliya	2240	2240				180				1497.5	1677.5	562.5	-	Ch between: 0 to 160 : Army Area Ch between: 160 to 210 : Road Crossing Ch between: 255 to 950 : Encroachment Ch between: 1355 to 2220 : Encroachment WORK COMPLETED AS PER AVAILABLE FRONT
41	41	Naveen Hotel Agriculture college to Uldana Nala (Left Side Nala)	700	760								0	760	-	Completed	
42	42	Slaughter House To SC_ST hostel near raddi chowk	1330	1200								1200	1200	0	-	Non Feasible Due to ROW Issue
43	43	Anuman School To SC_ST hostel near Raddi chowk	270	270								100	100	170	-	COMPLETED AS PER AVAILABLE FRONT
44	44	Jakir Hussain ward to SC_ST Hostel Near raddi chowk	2035	2035	2035							0	0	0	-	Deleted Drain
45	45	Neta colony to Adhartal Police station Near Adhartal chowk	978	930								930	930	0	-	Non Feasible Due to ROW Issue
46	46	Jaiprakash Nagar Nala Jhanda chowk to Adhartal Talab	430									0	0	0	-	Unidentified Drain
47	47	Adhartal talab to Nala (Raddi chowki to Uldana Nala via Adhartal chowk,Agriculture college)	100	100	100							0	0	0	-	Constructed in ADB Scope
48	48	Raddi Chowki To Uldana Nala via Adhartal Chowk, Agriculture college	336	336	336							0	0	0	-	Constructed in ADB Scope
49	49	Naveen Hotel Agriculture college to Uldana Nala (Right Side Nala)	637	660								0	660	0	-	COMPLETED
50	50	Dhobyana Mohalla To Raddi Chowki via Gohalpur Chowki nala	35	325						22		223	245	60	-	Ch between: 210 to 215 : Electric Pole Ch between:254 to 271 : Transformer Ch between: 0 To 223 : Encroachment WORK COMPLETED AS PER AVAILABLE FRONT
51	51	Jakir Hussain ward to raddi chowk via Gohalpur Chowki Nala	4671	3570								0	3570	0	-	Completed
52	52	Kali Mata Mandir ke Peeche se khooni Nala near Bhole kuti Yoga Kendra	560	630		100						305	405	225	-	Ch between: 0 to 100 : Encroachment Both side Building Ch between: 301 to 506 : Encroachment Ch between: 530 to 630 : Local Problem WORK COMPLETED AS PER AVAILABLE FRONT
53	54	Gohalpur Chowki To Uldana Nala via Gohalpur, Jagrati Nagar & Amrekhia village	4142	4142			41			46.5	465	552.5	3580.5	0	-	Transformer at near Amikhera Road Water pipe line at near overhead Water tank Land Dispute at near petrol pump WORK COMPLETED AS PER AVAILABLE FRONT
54	56	Uldana Nala (Jabalpur Tank To Omti Nala Near Chota Pandwar village via Agriculture college)	18000	17820	6284	0	40					40	11496	0	-	Ch between: 0 to 150 : denied due to site conitions not required Ch between: 1040 to 1080 : railway land Ch between: 8660 to 8710 : Land issue Ch between: 9000 to 9090 : Land issue at Surendra razzak Ch between: 9220 to 9300 : Land issue at Vardhman city Ch between: 9750 to 10080 : Land issue at Vardhman city Balance land issue WORK COMPLETED AS PER AVAILABLE FRONT
55	57	Ambej Studio Narayan Nagar To Omti nala (Dwarika Nagar ward)	125	125								125	125	0	-	Non Feasible Due to ROW Issue
56	58	House of Mohanlal to house of Ram Charan Siddha baba ward	383	380								380	380	0	-	Non Feasible Due to ROW Issue
57	59	House of Purushottam to Deepak Singh Dwarika nagar ward	226	120								120	120	0	-	Non Feasible Due to ROW Issue
58	60	Pooru Prasad Laxmi house to Omtinala siddha naba ward	425	400								400	400	0	-	Non Feasible Due to ROW Issue
59	61	Thana ghampur to Omtinala (Sanjay Gandhi ward)	325	300								300	300	0	-	Non Feasible Due to ROW Issue
60	62	Sahu mohalla to Tripath Bhawan (Vinoba bhawe ward)	181	160								160	160	0	-	Non Feasible Due to ROW Issue
61	63	Marghatiya Nala Began chowk to Omti nala via Bamba Devi temple	893	330								330	330	0	-	Non Feasible Due to ROW Issue
62	64	Kunchchindiya Mohalla Near House of Chandobai to Omti nala	200	180								180	180	0	-	Non Feasible Due to ROW Issue
63	65	Kanchghar Chauraha to Omtinala via Kanchghar colony Police line	525	510								510	510	0	-	Non Feasible Due to ROW Issue
64	66	Samdariya nagar to Omtinala	525	380								380	380	0	-	Non Feasible Due to ROW Issue
65	67	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla part 1	140	120	120							0	0	0	-	Deleted Drain
66	68	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla part 2	310	310								310	310	0	-	Non Feasible Due to ROW Issue
67	69	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla	1244	630								524	524	106	-	COMPLETED AS PER AVAILABLE FRONT
68	70	Tulsi Mohalla to Omtinala via bayee ka Baagecha area	400	390								390	390	0	-	Non Feasible due to ROW Issue
69	71	Khalki Mohalla Area Nala 1	180									0	0	0	-	Unidentified Drain
70	72	Sheetla Mayee road to durga mandir near ghampur via Khalki Mohalla	438	230								230	230	0	-	Non Feasible due to ROW Issue
71	73	House of Dimesh muni Radha krishna ward to Omtinala Near Ghampura chowk	760	690	550							0	140	0	-	COMPLETED AS PER AVAILABLE FRONT
72	74	Ghampur Area Nala	100	100								100	100	0	-	Non Feasible due to ROW Issue

Sl. No	Drain No	Location	Tender Length	Surveyed length / Scope Length	Deleted length / Already Constructed Drain	Length due to Hindrance						Completed Length	Balance Work Length	Hindrance details			
						Disputed Land/ Local Problem	Railway Permission	Army Area	NHAI	Electric Poles/ Transformers / Utility / Water pipe line/Toilet block	Drawings/ Alignment				ROW/ Encroachment	Total Hindrance	
73	75	Kanchgar colony To Samdariya colony	204	210	120							0	90	-	COMPLETED		
74	76	Kanchgar new Basti To Omti nala via Samdariya colony, Nehru Nagar ward	540	2185								1000	1000	1185	-	Ch between 0 to 420 Encroachment Ch between 1300 to 1880 Central jail land WORK COMPLETED AS PER AVAILABLE FRONT	
75	77	Mall Godam To Kanchgar New Basti Omti Nala	2183	1104								0	1103.5	-	COMPLETED		
76	78	Mall Godam chowk To Omti nala near ghataghar via Collectorate	1025	1025	1025							0	0	-	Deleted Drain		
77	79	Police quarter Omti To Omtinala near Ghataghar via collectorate	400	400								400	400	0	-	Non Feasible due to ROW Issue	
78	80	Empire Talkies to Omtinagar near Jyoti Talkies via Nagrath chowk	1805	1810			629	90				401	1320	490	-	Ch between 0 to 90 Army Area Ch between 90 to 920 Railway Permission Ch between 1220 to 1493 Encroachment Ch between 1705 to 1833 Encroachment WORK COMPLETED AS PER AVAILABLE FRONT	
79	81	Rusell Chowk to Income tax Appellate tribunal office	360	385								385	385	0	-	Non Feasible Due to ROW Issue	
80	82	Agrawal Petrolpump To Omtinala	362	362								362	362	0	-	Non Feasible Due to ROW Issue	
81	83	Traffic Police Tiraha to Laghu udyog Right town	865	1362							235	200	435	708	219.0	Ch between 0 to 235 Transformer, electric pole, tree, Utility Shifting, & Encroachment Ch between 760 to 960 Encroachment Encroachment	
82	84	Bhagwati Dham Chowk to Omti Nala	570	550								550	550	0	-	Non Feasible Due to ROW Issue / Design	
83	85	Grove Multi Special Hospital to Omti Nala near house of SS. Srivastava	437	360								360	360	0	-	Non Feasible Due to ROW Issue / Design	
84	86	Hawa Bagh Nehru colony to near Railway line	510	530	530							0	0	0	-	Deleted Drain	
85	87	Gulati Chowk to Railway line near Shastri Bridge	650									0	0	0	-	Unidentified Drain	
86	88	Chhoti Line crossing to Near Madan Mahal Riv Station	1036	885			145					740	885	0	-	Non Feasible Due to ROW Issue	
87	89	Bridge No 4 Nepian Tower To Omti Nala near Madan Mahal rly station via Shashtri bridge	2221	2030			770					212	982	1048	-	Ch between 0 to 770 Railway Permission Encroachment	
88	90	Stadium to Ranital chowk nala	220	200								200	200	0	-	Non Feasible Due to ROW Issue	
89	91	Sneh Nagar Nala (Opposite of PNT Boundary)	400	265	265							0	0	0	-	Deleted Drain	
90	92	Dashmesh nagar to Madan Mahal chowk near BSNL office	475	475								475	475	0	-	Non Feasible Due to ROW Issue	
91	93	SEE Office to Mahananda Road	1280	900								900	900	0	-	Non Feasible Due to ROW Issue	
92	94	Premnagar Nala	600	725	375							243	243	107	-	COMPLETED AS PER AVAILABLE FRONT	
93	95	Ganaga Sagar Talab to Kali Math Amanpur	800	800								680	680	120	-	Ch between 0 to 435 Encroachment Ch between 490 to 535 Encroachment Ch between 550 to 750 Encroachment WORK COMPLETED AS PER AVAILABLE FRONT	
94	96	Shaklinagar Hill To Kali Math Near Railway line Madan Mahal	2600	2610								1894	1894	716	-	COMPLETED AS PER AVAILABLE FRONT	
95	97	Gupteshwar Chowk to Omtinala via Madanmahal chowk, Madanmahal Rly station and Kali math mandir	2575	2560			1240					1320	2560	0	-	Non Feasible Due to ROW Issue / Railway permission	
96	98	Sanjay Nagar To Daryani Classes	932	330								330	330	0	-	Non Feasible Due to ROW Issue	
97	99	Shanker Ghee tiraha to Baldevbagh Nala Part-2	505	500								500	500	0	-	Non Feasible Due to ROW Issue	
98	100	Jaiswal Medical store to Tula Ram chowk (Right Side)	213	285	285							0	0	0	-	Deleted Drain	
99	101	Jaiswal Medical store to Tula Ram chowk (Left Side)	286	280	280							0	0	0	-	Deleted Drain	
100	102	Nagar Nigam- Jabalpur Sankhya Nala Bhartipur to Sidharth Hostel via Ghataghar Tularam chowk	416	460	460							0	0	0	-	Deleted Drain	
101	103	Hikari Vidhyalaya Sidharth hotel via Tularam Chowk 2	332	330	330							0	0	0	-	Deleted Drain	
102	104	Mukdmaganj Gallihaka Bazar To Ranital via Lardganj and Lard Tularam chowk	1011	1060								1060	1060	0	-	Non Feasible Due to ROW Issue	
103	105	Ukheri Chowk Nala	290	255								0	255	-	COMPLETED		
104	107	Baldev bagh to Omti Nala near Daryani Classes via sanjay nagar anna Mohalla and Sheetaloun	1119	1139								0	1139	-	D NO. 106, 108 Merged in D no 107 WORK COMPLETED		
105	109	Cherital to Anand colony nala	130									0	0	0	-	Unidentified Drain	
106	110	Baldevbagh chowk to State bank to Ukheri drain	460	460	460							0	0	0	-	Deleted Drain	
107	111	Krishi Upaj Mandi Chowk to Vijay Nagar chowk (Ahinsha chowk)	396	315								0	315	-	COMPLETED		
108	112	Deen Dayal chowk to Ekta Chowk	1000	967.5								0	967.5	-	COMPLETED		
109	113	Janaki Naagar Nala	200	200	200							0	0	0	-	Deleted Drain	
110	114	Ukheri Chowk Nala 1	450	450	450							0	0	0	-	Deleted Drain	
111	115	Ukheri Chowk Nala 2	180	180	180							0	0	0	-	Deleted Drain	
112	116	Ukheri Chowk Nala 4	370	370	370							0	0	0	-	Deleted Drain	
113	117	Ukheri Chowk Nala 5	475	475	475							0	0	0	-	Deleted Drain	
114	118	Ukheri Chowk Nala 5	80	80	80							0	0	0	-	Deleted Drain	
115	119	Govt. Navteen School Garha to Kachhpura fly over Nala	99	132								0	132	-	WORK COMPLETED AS PER AVAILABLE FRONT		
116	120	Guleva pond to Kanchhpura Nala near house of Ranjan Gopal Dubey	150	125								0	125	-	WORK COMPLETED AS PER AVAILABLE FRONT		
117	121	Garha Geeta bhawab to Kachhpura nala	364	360	360							0	0	-	Already constructed Drain		
118	122	Supatal to Kanchhpura malviya Dr. Mukherjee Chowk	610	600								20	150	170	430	-	Ch between 0 to 20 Transformer Ch between 540 to 600 Encroachment Encroachment WORK COMPLETED AS PER AVAILABLE FRONT

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Sl. No	Drain No	Location	Tendor Length	Surveyed length / Scope Length	Deleted length / Already Constructed Drain	Length due to Hindrance							Completed Length	Balance Work Length	Hindrance details		
						Disputed Land/ Local Problem	Railway Permission	Army Area	NHAI	Electric Poles/ Transformers / Utility / Water pipe line/Toilet block	Drawing/ Alignment	ROW/ Encroachment				Total Hindrance	
119	123	Nehrunagar to Medical college gate nala 1	505	245								165	165	80	-	Ch between: 80 to 245 : Decision Required Ch between: 245 to 510 : Already Constructed Drain WORK COMPLETED AS PER AVAILABLE FRONT	
120	124	Medical college Gate to Kachhpura Nala via Mudfaiya pond Saheed chowk Garha	1320	1220	230							365	365	855	-	Ch between: 0 to 365 : Encroachment Ch between: 1220 to 1450 : Deleted due to change in alignment WORK COMPLETED AS PER AVAILABLE FRONT	
121	125	Mudfaiya Pond to Kuchhpura fly over drain	3780	1630							34		34	1590	-	WORK COMPLETED AS PER AVAILABLE FRONT	
122	126	Tripti chowk to Kuchhpura Nala near Jhoolan fatah via Ganga nagar & Nav Nivesh colony	960	1270								1220	1220	50	-	Ch between: 0 to 510 : Encroachment Ch between: 530 to 610 : Encroachment Ch between: 640 to 1270 : Encroachment WORK COMPLETED AS PER AVAILABLE FRONT	
123	127	Kachhpura fly over to Omtinatala near Kachnar city via Sanjivani Nagar, Kachhpura rly station and village Basa	5348	3640				1665					1665	1975	-	WORK COMPLETED AS PER AVAILABLE FRONT	
124	128	Damoh Naka Chowk to Omti Nala via Deen Dayal Chowk and ITI College	5100	4473									0	4473	-	COMPLETED	
125	129	ITI College to Omti Nala	4750	5075				1750			205		1955	3120	-	1. 20 mtr Balance in front of Ceat tyres 700 Dia. (Local Resistance) 2. Connection to Culvert. (Local Resistance) 3. Man Hole is not Completed Near in front of Khermai Mandir. (Local Resistance) 4. In Front of ACC Cement 1100 Dia Road crossing Balance. (Local Resistance) 5. Opp. of Frontier Logistics 1100 Dia 30 mtr (Appr.) Balance. 6. In Front of Pudda Factory 1600 Dia 20 mtr (Appr.) Electr. Pole & Boundary Wall. 7. In Front of Kathonda Village Road 6 Nos. of Electric Pole 1600 Dia 20 mtr (Appr.) Balance. 8. Near Muna Hotel Electric Pole & 2 Nos. Trees 1600 Dia 40 mtr (Appr.) Balance.	
126	130	Omti Nala	33762	27484							116	116	15558	110.0	-	Ch: 0 to 618 : Encroachment Ch: 3690 to 3762 : Deshbandhu Complex Land dispute at (chowdhry) Land Dispute @ Madhanmahal Column with three floor buildings at Busstand Ch: 16900 to 28380 : Land dispute Land dispute at Madanmahal Rly station Land dispute at Rekhabadel Column, Septic tank & Encroachment Land dispute from Katni bye pass WORK COMPLETED AS PER AVAILABLE FRONT	
127				51								51			-	Encroachment & Land Dispute	
128				500							500	500			-	Column, Septic tank & Encroachment	
129				55								55			-	Land dispute	
130				90	11810	90						90			-	Land dispute	
131	(51) Connecting Raddi Chowk to ST-SC Hostel			350									0	350	-	WORK COMPLETED AS PER AVAILABLE FRONT	
132	Bhawartal Park to Bus Stand			145									0	145	-	WORK COMPLETED AS PER AVAILABLE FRONT	
133	NEW DRAIN OPP OF S.P RESIDENCE			210									0	210	-	WORK COMPLETED AS PER AVAILABLE FRONT	
134	NEW DRAIN JAIPARKASH NAGAR TO DHANI KUTIYA			1150									0	1150	-	WORK COMPLETED AS PER AVAILABLE FRONT	
135	6 A			137									0	137	-	WORK COMPLETED AS PER AVAILABLE FRONT	
136	25 C			220									0	220	-	WORK COMPLETED AS PER AVAILABLE FRONT	
137	25A			180									0	180	-	WORK COMPLETED AS PER AVAILABLE FRONT	
138	25B			350									0	350	-	WORK COMPLETED AS PER AVAILABLE FRONT	
139	127C			215									0	215	-	WORK COMPLETED AS PER AVAILABLE FRONT	
140	51 SC/ST			320									0	320	-	WORK COMPLETED AS PER AVAILABLE FRONT	
141	97C			100									0	100	-	WORK COMPLETED AS PER AVAILABLE FRONT	
142	ADB Drain Connecting			117.5									0	117.5	-	WORK COMPLETED AS PER AVAILABLE FRONT	
143	Gulati Petrol pump			15									0	15	-	WORK COMPLETED AS PER AVAILABLE FRONT	
144	96A			1195						32		404	436	758	-	Water pipe line, Toilet block	
145	128 C			305									0	298	7.0	Work in Progress	
146	125A			2108						38			38	2060	10.0	Water pipe line to be remove	
147	ADB			350						60			60	290	-	WORK COMPLETED AS PER AVAILABLE FRONT	
	Total			213793	187560	41928	1494.5	5529	580	2650	1171	840	25691	37955	107657	361	

सहायक यंत्री
नगर निगम जबलपुर


OFFICE OF THE MUNICIPAL CORPORATION JABALPUR

Manas Bhawan Building Wright Town Pin- 482002

E-mail - jnnurm@rediffmail.com

 S.No./NURM/2018-19/.....25
 To,

Jabalpur, Date:-03/05/2018

 PROJECT MANAGER,
 L & T, Construction
 Water & Effluent treatment
 46, Narmada road, Gorakhpur,
 Jabalpur -482001

Subject : Construction of Storm Water Drainage System comprising RCC rectangular, Spigot and Socket RCC pipe and Trapezoidal Stone Masonry/ Cement Concrete Drains Complete, including testing and Commissioning in Jabalpur City"

Reference: Work Order no. JNNURM/2010/299 dated 09.09.2010

With respect to the above work order and agreement, it is hereby concluded by Mayor-in-council through its resolution no.540 dated 18/09/2017 that the works of Storm Water Drainage Project in Jabalpur city executed by M/s Larsen & Toubro Limited Construction is foreclosed as per the Clause 14 of conditions of contract due to financial implications and land issues.

g/c



 COMMISSIONER
 MUNICIPAL CORPORATION JABALPUR

 End. No./NURM/2018-19/.....25
 CC:

Jabalpur, Date:-03/05/2018

1- Project Manager, JNNURM SWD Municipal Corporation Jabalpur for information.

Received
 on 5/5/18
 Lennu


 सहायक यंत्री
 नगर निगम जबलपुर

g/c


 COMMISSIONER
 MUNICIPAL CORPORATION JABALPUR

कार्यालय नगर पालिक निगम जबलपुर

सोमवार, दिनांक-18 सितम्बर 2017 को दोपहर 12.00 बजे मेयर-इन-काउन्सिल की बैठक नगर पालिक निगम जबलपुर कार्यालय परिसर स्थित महापौर कक्ष में महापौर माननीया डॉ. श्रीमति स्वाती सदानन्द गोडबोले की अध्यक्षता में आयोजित हुई, का कार्यवाही विवरण।

उपस्थिति

डॉ. श्रीमति स्वाती सदानन्द गोडबोले, महापौर

उपस्थित सदस्य

- | | |
|-----------------------------------|---|
| 1- श्री कमलेश अग्रवाल | 2- श्री श्रीराम शुक्ला |
| 3- श्री मनप्रीत सिंह आनन्द (काके) | 4- श्री रमेश प्रजापति पंकज भैया |
| 5- श्रीमति दुर्गा देवी उपाध्याय | 6- श्रीमति इन्द्रजीत कुंवरपाल सिंह (शेरू) |
| 7- श्रीमति ज्योति कुरील | 8- श्री नवीन कुमार रिछारिया |
| 9- श्रीमति रेखा सिंह ठाकुर | 10- श्रीमति वीणा रजनीश जैन |

उपस्थित अधिकारी

श्री वेद प्रकाश, आयुक्त, नगर पालिक निगम जबलपुर.

बैठक की कार्यवाही दोपहर 12.10 बजे प्रारम्भ हुई।

(501) गत बैठकों की कार्यवाही का पुष्टिकरण-

मेयर-इन-काउन्सिल की निम्नलिखित बैठकों की कार्यवाही का पुष्टिकरण करना:-

- (1) मेयर-इन-काउन्सिल की बैठक दिनांक-19 जून 2017
- (2) मेयर-इन-काउन्सिल की बैठक दिनांक-19 जुलाई 2017
- (3) मेयर-इन-काउन्सिल की बैठक दिनांक-22 अगस्त 2017
- (4) मेयर-इन-काउन्सिल की स्थगित बैठक दिनांक-25 अगस्त 2017
- (5) मेयर-इन-काउन्सिल की बैठक दिनांक-29 अगस्त 2017

विनिश्चय किया गया कि उपरोक्त बैठकों की कार्यवाही की पुष्टि की जाती है।

आवास पर्यावरण एवं लोक निर्माण विभाग-

- (502) विभिन्न पांच सड़कों का चौड़ीकरण करते हुये डामरीकरण एवं अन्य विकास कार्य: कुल प्राक्कलन राशि रूपये 8,48,79,345/- (आठ करोड़ अड़तालीस लाख उन्चासी हजार तीन सौ पैंतालिस रूपये) के कार्य हेतु : आमंत्रित ई-निविदा में प्राप्त निविदा दर ठेकेदार पी.एस. कंस्ट्रक्शन नोएडा कैंप आफिस जबलपुर की 5.53 प्रतिशत अधिक यू.ए.डी.डी. एस.ओ.आर. 10/05/2012 सड़क/भवन स्वीकृत करने के सम्बन्ध में-

आयुक्त के पंजीबद्ध पत्र क्रमांक-492 दिनांक-13-9-2017 के साथ संलग्न संक्षेपिका के अनुसार नगर निगम जबलपुर की विभिन्न पांच सड़कों का चौड़ीकरण करते हुये डामरीकरण एवं अन्य विकास कार्य कराये जाने हेतु कुल प्राक्कलन राशि रूपये 8,48,79,345/- (आठ करोड़ अड़तालीस लाख उन्चासी हजार तीन सौ पैंतालिस रूपये) के कार्य हेतु आमंत्रित ई-निविदा में प्राप्त निविदा दर

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पुनर्वास तथा नियोजन विभाग-

(540)

एल. एण्ड टी द्वारा कराये जाने वाले शेष कार्य के सम्बन्ध में-

आयुक्त के पंजीबद्ध पत्र क्रमांक-531 दिनांक-13-9-2017 के साथ संलग्न संक्षेपिका के अनुसार एल. एण्ड टी द्वारा कराये जाने वाले शेष कार्य करने एवं अनुबंध समाप्त करने के सम्बन्ध में विचार किया गया।

प्रस्ताव के साथ संलग्न संक्षेपिका में उल्लेखित है कि जे.एन.एन.यू.आर.एम. के अंतर्गत वर्षाजल निकासी परियोजना हेतु निविदा क्र. NURM/2010/69 दिनांक-10-05-2010 के तहत मेसर्स एल. एण्ड टी. को जबलपुर के पांच बड़े नालों के 130 कनेक्टिंग ड्रेन हेतु स्वीकृत दर रु. 374.99 करोड़ के कार्य हेतु मेसर्स एल. एण्ड टी. को कार्यदेश क्र. NURM/2010/229 दिनांक-09-09-2010 दिया गया था। कार्य पूर्ण करने की अवधि 30 माह थी। निर्धारित अवधि समाप्ति उपरांत मेसर्स एल. एण्ड टी. को बिना पेनाल्टी के 09 बार क्रमशः दिनांक-08-03-2013 को 01 माह की दिनांक-06-04-2013 को 2 1/2 माह की, दिनांक-04-05-2013 को 06 माह की, दिनांक-31-12-2013 को 06 माह की, दिनांक-01-07-2014 को 06 माह की, दिनांक-30-12-2014 को 06 माह की, दिनांक-30-06-2015 को 06 माह की, दिनांक-31-12-2015 को 06 माह की एवं दिनांक-29-06-2016 को 09 माह की समयवृद्धि दी गई जो कि दिनांक-31-03-2017 तक है। आज दिनांक तक मेसर्स एल.एण्ड टी. को राशि रु. 364.07 करोड़ का भुगतान किया जा चुका है। इस राशि में राशि रु. 308,87,50,428.00 का मूल कार्य एवं राशि रु. 53,98,98,825.00 का escalation एवं राशि रु. 1,20,86,485.00 की excise duty सम्मिलित है।

इस कार्य हेतु जे.एन.एन.यू.आर.एम. योजनांतर्गत राशि रु. 326.49 करोड़ स्वीकृत हुई थी जिसके विरुद्ध स्वीकृत राशि का 50 प्रतिशत अंश राशि रु. 163.24 करोड़ केन्द्र शासन से, स्वीकृत राशि का 20 प्रतिशत अंश राशि रु. 65.30 करोड़ राज्य शासन से तथा शेष स्वीकृत राशि का 30 प्रतिशत अंश राशि 97.95 करोड़ तथा बढ़ी हुई निविदा लागत की राशि नगर निगम जबलपुर को स्वयं के स्रोत से उपयोग करनी थी। केन्द्र शासन एवं राज्य शासन से समस्त किस्तें राशि रु. 205.69 करोड़ प्राप्त हो चुकी है। नगर निगम द्वारा हुडको से राशि रु. 97.00 करोड़ ऋण लिया जा चुका है तथा शेष राशि रु. 61.80 करोड़ का भुगतान नगर निगम द्वारा स्वयं के स्रोत किया गया है।

एल.एण्ड टी. कंपनी द्वारा कार्य समाप्त करने के आवेदन के साथ दी गई जानकारी निम्नानुसार है:-

- i) भुगतान में विलंब का विवरण- कंपनी द्वारा रु. 7.27 करोड़ की interest की अतिरिक्त मांग की है। (संलग्न क्र.-1) (नस्ती में)
- ii) ड्रेन कार्य के Alignment में आने वाले Hindrances का विवरण (संलग्न क्र.-2)(नस्ती में)
- iii) एल. एण्ड टी. की निविदा दरें एवं विभाग में प्रचलित दरों का विश्लेषण किया जिसके अनुसार विभाग में प्रचलित दरों से एल. एण्ड टी. की दरें अधिक हैं। अनुबंध की Clause 42 (Condition of contract part-II) (संलग्न क्र.-3) (नस्ती में) के अनुसार एल.एण्ड.टी. को escalation का भी भुगतान किया जाता है। इस प्रकार तुलनात्मक तालिका निम्नानुसार है:-

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क्र.	कार्य का प्रकार	100 मी. हेतु राशि		कार्य में व्यय का अंतर (विभिन्न आकारों हेतु तैयार प्राक्कलन अनुसार)
		एल.एण्ड.टी.	नगर निगम	
1	RCC Drain (section- 2X1.25)	2255393.00	1738441.00	20.19% से 48.54%
2	RRM Drain (section- 15.33X2.45)	3536989.00	2512795.00	40.76% से 42.42%
3	RCC Hume Pipe (1200mm)	1330220.00	882180.00	34.20% से 89.80%

(उपरोक्त प्राक्कलन संलग्न है (नस्ती में))

अतः उक्त निर्माण कार्य उपरान्त एल. एण्ड टी. कंपनी के कार्य समाप्त करने हेतु विचार किये जाने हेतु प्रस्ताव प्रस्तुत है।

विनिश्चय किया गया कि एल एण्ड टी से अब आगे कार्य न कराया जाये क्योंकि Escalation राशि का भुगतान सम्मिलित हो जाने पर अधिक व्यय होता है एवं वित्तीय दृष्टि से कार्य कराना निगम हित में नहीं है। एल एण्ड टी द्वारा किये गये कार्यों के विरुद्ध म.प्र. लोकायुक्त संगठन द्वारा जांच की जा रही है एवं जांच निष्कर्ष आने पर वसूली की स्थितियां भी निर्मित हो सकती हैं। अतः तब तक सुरक्षा निधि अमानत राशि आदि के रूप में जमा की गयी राशियां न लौटाई जावें अर्थात् यह निर्णय कार्य पूर्ण होने अथवा कार्य समाप्त हो जाने का नहीं है।

(541) स्वच्छ भारत मिशन : जबलपुर शहर के 12 सार्वजनिक/सामुदायिक शौचालयों के संचालन एवं संधारण में होने वाले व्यय की स्वीकृति के सम्बन्ध में-

आयुक्त के पंजीबद्ध पत्र क्रमांक-532 दिनांक-13-9-2017 के साथ संलग्न संक्षेपिका के अनुसार स्वच्छ भारत मिशन के अन्तर्गत जबलपुर शहर के 12 सार्वजनिक/सामुदायिक शौचालयों के संचालन एवं संधारण में होने वाले व्यय की स्वीकृति के सम्बन्ध में विचार किया गया।

इसमें उल्लेखित है कि सुलभ इन्टरनेशनल सोशल सर्विस आर्गनाइजेशन के प्रस्ताव तथा संलग्न संक्षेपिका अनुसार मेयर-इन-काउन्सिल के समक्ष प्रशासकीय/वित्तीय स्वीकृति हेतु प्रकरण प्रस्तुत किया गया था जिसमें एम.आई.सी. के संकल्प क्रमांक 321 दिनांक-19-06-2017 में विनिश्चय किया गया था कि प्रकरण आगामी बैठक में प्रस्तुत किया जावे।

अतः प्रकरण पुनः एम.आई.सी. के समक्ष प्रस्तुत है।

संक्षेपिका में उल्लेखित है कि जबलपुर शहर को खुले में शौच से मुक्त करने हेतु व्यक्तिगत शौचालयों सार्वजनिक एवं सामुदायिक शौचालयों का नगर निगम जबलपुर द्वारा विभिन्न एजेंसियों के माध्यम से कराया गया है। स्वच्छता मिशन योजनान्तर्गत 25 नग सार्वजनिक/सामुदायिक शौचालयों के निर्माण हेतु ऑनलाईन निविदा प्राप्त कर निविदा कार्यवाही पूर्ण कर सुलभ इन्टरनेशनल सोशल सर्विस आर्गनाइजेशन संस्था को एम.आई.सी. से स्वीकृति उपरांत एजेंसी से अनुबंध कर दिनांक-30-03-2016 को कार्यादेश दिया गया था। सुलभ इन्टरनेशनल सोशल सर्विस आर्गनाइजेशन संस्था एवं नगर निगम जबलपुर के मध्य अनुबंध की कंडिका 14 के अनुसार सुलभ इन्टरनेशनल सोशल सर्विस आर्गनाइजेशन संस्था को 30 वर्ष तक उपरोक्त सार्वजनिक/सामुदायिक शौचालयों के संचालन एवं संधारण का कार्य किया जाना है।

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था। पत्र के संदर्भ में आयुक्त नगर निगम जबलपुर के द्वारा पत्र क्रमांक/नि.स.(आ.)/17-18/का.पा.यं./लो.नि.वि./50 जबलपुर दिनांक-13-07-2017 के द्वारा श्री पी.के. जैन अधीक्षक यंत्री नगरीय प्रशासन एवं विकास म.प्र. भोपाल को सीमेंटीकरण की जगह डामरीकरण के प्रस्ताव पर पुनः विचार करने हेतु पत्र भेजा गया तथा पत्र की प्रतिलिपि सचिव नगरीय प्रशासन एवं विकास भोपाल को सूचनार्थ प्रेषित की गई थी। जिस पर श्री राजीव गोस्वामी अधीक्षण यंत्री नगरीय प्रशासन एवं विकास भोपाल के द्वारा पत्र क्रमांक 10451/मु.श.अधो.वि.यो/यां.प्र./07-5/2017 भोपाल दिनांक-27-08-2017 के द्वारा माननीय प्रमुख अभियंता नगरीय प्रशासन एवं विकास म.प्र. भोपाल दिनांक-23-08-2017 को स्मार्ट सिटी बोर्ड बैठक में शामिल होने आना प्रस्तावित है का उल्लेख करते हुये उल्लेखित योजना के अन्तर्गत प्रेषित डी.पी.आर. के सम्बन्ध में चर्चा कर डी.पी.आर. स्वीकृत के सम्बन्ध में दिये गये निर्देशानुसार कार्यवाही हेतु लिखा गया है। तदनुसार ही प्रमुख अभियंता नगरीय प्रशासन एवं विकास म.प्र. भोपाल के निर्देशानुसार ही उल्लेखित सड़क विस्तारीकरण कार्य हेतु कार्य का संशोधित प्राक्कलन राशि रूपये 3228.78 लाख का तैयार कराया गया है।

अतः निर्देशानुसार तैयार कराये गये प्राक्कलन राशि रूपये 3228.78 लाख (बत्तीस करोड़ अठ्ठाईस लाख अठहत्तर हजार) यू.ए.डी.डी. एस.ओ.आर. 10-05-2012 सड़क/भवन की तकनीकी, प्रशासकीय एवं वित्तीय स्वीकृत पश्चात् संशोधित डी.पी.आर. मुख्यमंत्री शहरी अधोसंरचना विकास योजना (द्वितीय चरण) में स्वीकृत हेतु प्रकरण आयुक्त नगरीय प्रशासन एवं विकास विभाग भोपाल भेजा जाना प्रस्तावित है। कृपया प्रकरण स्वीकृति हेतु प्रस्तुत है।

विनिश्चय किया गया कि उपरोक्तानुसार स्वीकृति प्रदान की जाती है।

बैठक की कार्यवाही सधन्यवाद समाप्त हुई।

(डॉ. श्रीमति स्वाती सदानन्द गोडबोले)

महापौर,

नगर पालिक निगम जबलपुर

(विनोद ओमरे)

सचिव

मेयर-इन-काउन्सिल,

नगर पालिक निगम जबलपुर

क्रमांक-सचिव/मेयर-इन-काउन्सिल/बैठक/कार्यवाही/2017-18/26 दिनांक-9-10-2017
प्रतिलिपि :-

- 1- माननीया महापौर महोदया को सूचनार्थ।
- 2- माननीय समस्त सदस्य, मेयर-इन-काउन्सिल, नगर पालिक निगम जबलपुर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।
- 3- आयुक्त, नगर पालिक निगम जबलपुर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।
- 4- समस्त विभागाध्यक्ष, नगर पालिक निगम जबलपुर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।
- 5- समस्त संभागीय अधिकारी, नगर पालिक निगम जबलपुर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।

(विनोद ओमरे)

सचिव,

मेयर-इन-काउन्सिल,

नगर पालिक निगम जबलपुर.

सहायक सचिव
नगर पालिक निगम जबलपुर

Total Drain Constructed Under INNURM Storm Water Drain

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Project

Annexure-10


Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
1	1	Military Dairy farm to Khandari Nala via Bilahari	4949	1430	1250
2	2	Narmada Nagar To Khandari Nala II	437	322	226
3	3	Narmada Nagar To Khandari Nala I	199	200	0
4	4	Khandari Dam To Shah Nala via Bhita, Kajarwara, Bilhari, Chheola and Polipathar	23000	19800	12035
5	5	Badariya Tiraha To Shah Nala via Rampur Chowk (Left Side)	1025	1050	740
6	6	Badariya Tiraha To Shah Nala via Rampur Chowk (Right Side) Megha Mobile	1210	1200	800
7	7	Poli Pathar (Riffle Range Side) To Shah Nala 1	281	140	0
8	8	Poli Pathar (Riffle Range Side) To Shah Nala 2	792	330	0
9	9	Shakti Bhawan To Shah Nala via Rampur Mohalla	4895	2045	0
10	10	Rampur To Shah Nala	1599	1122	565
11	11	Akash Ganga Barat Ghar ke Samne Nala	255	210	210
12	12	Poli Pathar To Shah Nala Via Perfect Pottery (Part 1)	518	347	0
13	13	Poli Pathar To Shah Nala Via Perfect Pottery	578	870	825


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
14	14	Shah Nala	9400	8510	7864
15	15	Soni Nagar Bhan Talaiya To Sidhatri Mata Mandir	250	0	0
16	16	Babu Nagar Jhanda Chowk To Ajai Furniture Shop	479	450	0
17	17	Bhavani Chowk To Moti Nala Tekari Kabrastan	678	685	0
18	18	Pinki Kirana Store- Chodhari Mohalla, Bhang Talaiya to Keena Fakeer chand ustad ka bara Nala	860	480	0
19	19	Jain Mandir To behind Hanuman Thana	540	740	0
20	20	Shanti Nagar Nala II	150	150	0
21	21	Om Sai Body maker to Moti Nala via Shanti nagar	628	630	512.5
22	22	Trimurti Nagar to Moti Nala	710		0
23	23	Madhotel To Moti Nala	3702	2280	2237.5
24	24	Sushil Soni Ka khet To Moti Nala	720	750	644.5
25	25	Moti Nala (Fakeer Chand Akhera, Radha Krishna war To Uldana Nala Near By pass Road via	10270	8770	8500
26	26	Vehicle Gun Factory, Jabalpur To Uldana Nala	625	640	0


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
27	27	Kendriya Vidhyalaya Vehicle Factory to Uldana nala near Jabalpur Tank	234	230	0
28	28	Chhoti Khemari Mata Mandir Siddh baba Bagh to house of Maganlal Yadav	438	0	0
29	29	Patel Mohalla Seth Govind das ward To Manthi Tel GCF Nala	1200	0	0
30	30	Jhanda Chowk to Mangal Parag Ground	392	470	290
31	31	GCF Hospital to VGF Ground Nala	1049	1100	930
32	32	GCF Area Nalla-1	70	50	0
33	33	GCF Area Nalla-2	80	60	0
34	34	GCF Hospital to Gun Carraiage Factory Nala	1428	1190	1050
35	35	Adhartal Subhash Nagar To Hitkari girls School V.F.J. via Kanhanpur, Sharda colony nala (1937	1937	0
36	36	GCF to Uldana Nala via Bhadpur, Azad Nagar Gokar Bagh, Uday Nagar & Ankur Vidhya Mandir	3370	1765	1686
37	37	Razah Chowk To Adhartal Shobhpur Railway Crossing Nala	490	0	0
38	38	Adhartal to Shobhpur railway crossing Left Side	1950	2280	1710
39	39	IP Industrial Area Adhar Tal Nala	880	667.5	667.5


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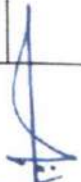
Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
40	40	Shobhapur Railway Crossing To Uldana Nala Near Teen Puliya	2240	2240	562.5
41	41	Naveen Hotel Agriculture college to Uldana Nala 9(Left Side Nala)	700	760	760
42	42	Slaughter House To SC_ST hostel near raddi chowk	1330	1200	0
43	43	Aniuman School To SC_ST hostel near Raddi chowk	270	270	170
44	44	Jakir Hussain ward to SC_ST Hostel Near raddi chowk	2035	2035	0
45	45	Neta colony to Adhartal Police station Near Adhartal chowk	978	930	0
46	46	Jaiprakash Nagar Nala Jhanda chowk to Adhartal Talab	430	0	0
47	47	Adhartal talab to Nala (Raddi chowki to Uldana Nala via Adhartal chowk, Agriculture college)	100	100	0
48	48	Raddi Chowki To Uldana Nala via Adhartal Chowk, Agriculture college	336	336	0
49	49	Naveen Hotel Agriculture college to Uldana Nala (Right Side Nala)	637	660	660
50	50	Dhobiyana Mohalla To Raddi Chowki via Gohalpur Chowki nala	35	325	80
51	51	Jakir Hussain ward to raddi chowk via Gohalpur Chowki Nala	4671	3570	3570
52	52	Kali Mata Mandir ke Peeche se khooni Nala near Bhole kuti Yoga Kendra	560	630	225


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
53	54	Gohalpur Chowk To Uldana Nala via Gohalpur, Jagrati Nagar & Amrekha village	4142	4142	3589.5
54	56	Uldana Nala (Jabalpur Tank To Omti Nala Near Chota Pandwar village via Agriculture college)	18000	17820	11496
55	57	Ambey Studio Narayan Nagar To Omti nala (Dwarika Nagar ward)	125	125	0
56	58	House of Mohanlal to house of Ram Charan Siddha baba ward	383	380	0
57	59	House of Purushottam to Deepak Singh Dwarika nagar ward	226	120	0
58	60	Pooru Prasad Laxmi house to Omtinala siddha baba ward	425	400	0
59	61	Thana ghampur to Omtinala (Sanjay Gandhi ward)	325	300	0
60	62	Sahu mohalla to Tripath Bhawan (Vinoba bhawe ward)	181	160	0
61	63	Marghatiya Nala Began chowk to Omti nala via Bamba Devi temple	893	330	0
62	64	KunchchBindiya Mohalla Near House of Chandobai to Omti nala	200	180	0
63	65	Kanchghar Chauraha to Omtinala via Kanchghar colony Police line	525	510	0
64	66	Samdariya nagar to Omtinala	525	380	0
65	67	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla part 1	140	120	0


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
66	68	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla part 2	310	310	0
67	69	Kali mai mandir to Omtinala via jhariya Kuwan Mohalla Kaori mohalla	1244	630	106
68	70	Tulsi Mohalla to Omtinala via bayee ka Bageecha area	400	390	0
69	71	Khatik Mohalla-Area Nala 1	180	0	0
70	72	Sheetla Mayee road to durga mandir near ghampur via Khalik Mohalla	438	230	0
71	73	House of Dinesh muni Radha krishna ward to Omtinala Near Ghampura chowk	760	690	140
72	74	Ghampur Area Nala	100	100	0
73	75	Kanchgar colony To Samdariya colony	204	210	90
74	76	Kanchgar new Basti To Omti nala via Samdariya colony, Nehru Nagar ward	540	2185	1185
75	77	Mall Godam To Kanchghar New Basti Omti Nala	2183	1104	1103.5
76	78	Mall Godam chowk To Omti nala near ghataghar via Collectorate	1025	1025	0
77	79	Police quarter Omti To Omtinala near Ghantaghar via collectorate	400	400	0
78	80	Empire Talkies to Omtinagar near Jyoti Talkies via Nagrath chowk	1805	1810	490


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
79	81	Russel Chowk to Income tax Appellate tribunal office	360	385	0
80	82	Agrawal Petrolpump To Omtinala	362	362	0
81	83	Traffic Police Tiraha to Laghu udyog Right town	865	1362	708
82	84	Bhagwati Dham Chowk to Omti Nala	570	550	0
83	85	Grove Multi Special Hospital to Omti Nala near house of SS Srivastava	437	360	0
84	86	Hawa Bagh Nehru colony to near Railway line	510	530	0
85	87	Gulati Chowk to Railway line near Shastri Bridge	650	0	0
86	88	Chhoti Line crossing to Near Madan Mahal Rly Station	1036	885	0
87	89	Bridge No 4 Nepian Tower To Omti Nala near Madan Mahal rly station via Shashtri bridge	2221	2030	1048
88	90	Staidium to Ranital chowk nala	220	200	0
89	91	Sneh Nagar Nala (Opposite of PNT Boundary)	400	265	0
90	92	Dashmesh nagar to Madan Mahal chowk near BSNL office	475	475	0
91	93	SEE Office to Mahananda Road	1280	900	0


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Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
92	94	Premnagar Nala	600	725	107
93	95	Ganaga Sagar Talab to Kali Math Amanpur	800	800	120
94	96	Shaktinagar Hill To Kali Math Near Railway line Madan Mahal	2600	2610	716
95	97	Gupteshwar Chowk to Omtinala via Madanmahal chowk, Madanmahal Rly station and Kali math mandir	2575	2560	0
96	98	Sanjay Nagar To Daiyani Classes	932	330	0
97	99	Shanker Ghee tiraha to Baldevbagh Nala Part-2	505	500	0
98	100	Jaiswal Medical store to Tula Ram chowk (Right Side)	213	285	0
99	101	Jaiswal Medical store to Tula Ram chowk (Left Side)	266	280	0
100	102	Nagar Nigam Jabalpur Saskiya Nala Bhartipur to Sidharth Hostel via Ghataghar Tularam chowk	416	460	0
101	103	Hitkari Vidhyalaya Sidharth hotel via Tularam Chowk 2	332	330	0
102	104	Mukdmaganj Gallhaka Bazar To Ranital via Lardganj and Lard Tularam chowk	1011	1060	0
103	105	Ukheri Chowk Nala	290	255	255
104	107	Baldev bagh to Omti Nala near Daryani Classes via sanjay nagar anna Mohalla and Sheetalpuri	1119	1139	1139


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Total Drain Constructed Under ANNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
105	109	Cherital to Anand colony nala	130	0	0
106	110	Baldevbagh chowk to State bank to Ukheri drain	460	460	0
107	111	Krishi Upaj Mandi Chowk to Vijay Nagar chowk (Ahinsha chowk)	396	315	315
108	112	Deen Dayal chowk to Ekta Chowk	1000	967.5	967.5
109	113	Janaki Nagar Nala	200	200	0
110	114	Ukheri Chowk Nala 1	450	450	0
111	115	Ukheri Chowk Nala 2	180	180	0
112	116	Ukheri Chowk Nala 4	370	370	0
113	117	Ukheri Chowk Nala 3	475	475	0
114	118	Ukheri Chowk Nala 5	80	80	0
115	119	Govt. Naveen School Garha to Kachhpura fly over Nala	99	132	132
116	120	Gulava pond to Kanchhpura Nala near house of Ranjan Gopal Dubey	150	125	125
117	121	Garha Geeta bhawab to Kachhpura nala	364	360	0



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Total Drain Constructed Under JNNURM Storm Water Drain Project


Sl. No	Drain No	Location	Tender Length (In mtr)	Surveyed length / Scope Length (In mtr)	Completed Length (in mtr)
118	122	Supatal to Kanchhpura malviya Dr Mukherjee Chowk	610	600	430
119	123	Nehrunagar to Medical college gate nala 1	505	245	80
120	124	Medical college Gate to Kachhpura Nala via Mudfaiya pond Saheed chowk Garha	1320	1220	855
121	125	Mudfaiya Pond to Kuchhpura fly over drain	3780	1630	1596
122	126	Tripti chowk to Kuchhpura Nala near Jhoolan fatak via Ganga nagar & Nav Nivesh colony	960	1270	50
123	127	Kachhpura fly over to Omtinala near Kachnar city via Sanjiwani Nagar, Kachhpura rly station and village	5348	3640	1975
124	128	Damoh Naka Chowk to Omti Nala via. Deen Dayal Chowk and ITI	5100	4473	4473
125	129	ITI College to Omti Nala	4750	5075	3120
126	130	Omti Nala	33752	27484	15558
127			51	51	0
128			500	500	0
129			55	55	0
130			90	90	0



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Total Drain Constructed Under 115 NURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
131	131	(51) Conecting Raddi Chowk to ST-SC Hostel	350	350	350
132	132	Bhawartal Park to Bus Stand	145	145	145
133	133	NEW DRAIN OPP. OF S.P RESIDENCE	210	210	210
134	134	NEW DRAIN JAIPARKASH NAGAR TO DHANI KUTIYA	1150	1150	1150
135	135	6 A	137	137	137
136	136	25 C	220	220	220
137	137	25A	180	180	180
138	138	25B	350	350	350
139	139	127C	215	215	215
140	140	51 SC/ST	320	320	320
141	141	97C	100	100	100
142	142	ADB Drain Connecting	117.5	117.5	117.5
143	143	Gulati Petrol pump	15	15	15


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Table 01- Total Drain Constructed Under JNNURM Storm Water Drain Project

Sl. No	Drain No	Location	Tendor Length (in mtr)	Surveyed length / Scope Length (in mtr)	Completed Length (in mtr)
144	144	96A	1195	1195	759
145	145	128 C	305	305	298
146	146	125A	2108	2108	2060
147	147	ADB	350	350	290
Total Length (In Mtr)			221956.5	187560	107657
Total Amount Paid to the Contractor for the said work (Rs.)			Rs. 364.24 Crore (With Escalation)		



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Jabalpur Municipal Corporation has constructed and repaired the new and old drains during last one year

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Sr. No.	Zone	Ward	Name of Work Location	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
1	01 Garha	Garha 01	Construction of RCC drain from Ram Bhaiya Dwivedi's house to Pankaj Chandel's house in Chandan Colony under Gadha Ward	0.45 x 0.45	34	23.206591 "N 79.96324"E	0.98	Open RCC Drain
2			RCC drain and curve work behind main road Phool Sagar Dada Darbar under Gadha Ward	0.45 x 0.45	33	23°20'71"N 79°96'23"E	0.94	Open RCC Drain
3		Tripuri 03	Drain construction work from Mosi to Chaurasia Ji in New Shastri Nagar.	0.45 x 0.45	33	23°20'65"N 79°96'46"E	0.99	Open RCC Drain
4			Drain construction work from Bharti ji to Choubey ji near Meet intersection in New Shastri Nagar.	0.45 x 0.45	32	23°18'90"N 79°94'63"E	0.98	Open RCC Drain
5		Indira Ghandi 08	RCC drain construction work in the main road in front of Anjani Vihar Colony (Naresh Tent).	0.45 x 0.45	36	23°20'67"N 79°96'32"E	0.96	Open RCC Drain
6			Construction work of damaged drain near main road Rajput Bhawan.	0.45 x 0.45	34	23°19'93"N 79°94'91"E	0.98	Open RCC Drain
7		sardar balllabh bhai patel ward 05	RCC drain construction work from Atul Kushwaha's house to Dhannu Dhol Wale in front of Block BM/B in Rampur Chhapar	0.45 x 0.45	35	23°20'67"N 79°96'39"E	0.95	Open RCC Drain
8			Drain construction work near Sai Clinic in Mandwa Basti	0.45 x 0.45	31	23°20'65"N 79°96'33"E	0.94	Open RCC Drain
9	02 Kachhpura	veer sawarkar ward 07	Construction of Drain at Shukla nagar main road towards kachpura school.	1.2 X 0.9	110	23°16'19"N 79°90'88"E	23	Coverd RCC Drain
10			Construction of Culvert at kchhapura railway crossing.	5.5 X 4.5	16	23°16'55"N 79°90'90"E	20	Culvert
11	04 Gorakhpur	13 Pt. Banarsi das bhanot	construction of drain from kochar tal to aneeka residency.	0.45 x 0.45	93.3	23°08'52"N 79°55'33"E	2.38	Open RCC Drain
12			Constrruction of Drain and CC work near hitkarni school at laki sardar to mahaveer school.	0.45 x 0.45 0.60 x 0.60	42.1 37.5	23°09'02"N 79°55'36"E	5.76	CC road with Covered RCC Drain

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Sr. No.	Zone	Ward	Name of Work Location	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
13	05 Sanjay Gandhi market	22 Jawahar ganj	construction of drain at khateek muhalla sailesh jain gali	0.45x0.45	65	23.175570"N 79.937560"E	1.99	Covered RCC Drain
14		25 Mahatma Gandhi	construction of drain from arvind bicycle store to jainith cotching in charhai.	0.45x0.45	30	23.16521 "N 79.936290	0.98	Covered RCC Drain
15		20 Kasturba Gandhi	construction of drain at ujarpurwa in various place.	0.45x0.45	30	23.16521 "N 79.936290"E	0.98	Covered RCC Drain
16	06 Kshetriya Bus Stand	26. Govind vallabh pant ward	construction of drain from Santosh light near damoh naka main road to nitin koshta house	0.6 x 0.6	140	23°11'10"N 79°55'51"E	11.86	Covered RCC Drain
17	07 Adhartal	60 Niramal chandra ward	Construction of drain from Mahatma Gandhi Institute to Bam Bam Kirana under Nirmal Chand Jain Ward.	1.2 x 1.2	1300	23.193674 "N 79.946836"E	200	Covered RCC Naia
18			Drain construction work from Umesh Haldkar's house to Kanchi's house in New Kanchanpur under Nirmalchand Jain Ward.	0.45 x 0.45	32.51	23.206433"N 79.96293"E	0.969	Open RCC Drain
19			Drain construction work from the house of Shri Vinod Rajak ji to the house of Rekha Singh ji in New Kanchanpur under Nirmalchand Jain Ward.	0.45 x 0.45	32.7	23.206581"N 79.96322"E	0.975	Open RCC Drain
20	07 Adhartal	57 Maharishi Mahesh yogi ward	Drain construction work from Vinay Pandey to J.P. Garden under Maharishi Mahesh Yogi Ward.	0.45 x 0.45	32.65	32.20309 "N 79.961776"E	0.954	Open RCC Drain
21			Drain construction work from the house of Rajveer Rajput to the house of Brajendra Narayan Srivastava under Maharishi Mahesh Yogi Ward.	0.45 x 0.45	32.5	23.17982 "N 79.941485"E	0.969	Open RCC Drain
22			Construction work of culvert and drain from Patel Saheb's residence to Arvind Pandey's house under Maharishi Mahesh Yogi ward.	0.45 x 0.45	32.85	23.199333 "N 79.949197"E	0.98	Open RCC Drain
23			Construction work of culvert and drain from Yadav ji's house to Patel Saheb's residence under Maharishi Mahesh Yogi ward.	0.45 x 0.45	32.05	23.205138"N 79.941989"E	0.956	Open RCC Drain

Sr. No.	Zone	Ward	Name of Work Location 119	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
24	07 Adhartal	61 Diwan Adhar Singh ward	Drain construction work up to Chhabbi Lal Rajak's house near the small Sai temple in Ekta Colony under Diwan Aadhar Singh Ward.	0.45 x 0.45	33	23.196851"N 79.949498"E	0.984	Open RCC Drain
25			Drain construction work from Preeti Tiwari to Srivastava in Jaiprakash Nagar under Diwan Aadhar Singh Ward.	0.45 x 0.45	32.4	23.20263"N 79.962973"E	0.966	Open RCC Drain
26			Drain construction work from Sandeep Agarwal to Mukesh Raj in Vivek Colony under Diwan Aadhar Singh Ward.	0.45 x 0.45	32.2	23.202291 "N 79.963486"E	0.96	Open RCC Drain
27	07 Adhartal	56 Shaheed Abadul Hameed ward	Drain construction work from Harda ji's house to Patel ji's house in Yashwant Nagar under Shaheed Abdul Hameed Ward.	0.45 x 0.45	33	23.196851 "N 79.949498"E	0.984	Open RCC Drain
28			Drain construction work from Pankaj Shrivatri's house to Bharti ji's house under Shaheed Abdul Hameed Ward.	0.45 x 0.45	32.7	23.20263 "N 79.962973"E	0.975	Open RCC Drain
29	07 Adhartal	42 Subhash chanda Bos ward	Drain construction work from Suresh Roi Das's house to Chandrabhan Rajak's house	0.45 x 0.45	33	23.191599 "N 79.951588"E	0.975	Open RCC Drain
30			Drain construction work from Munna Rajak's house to Parvati Bai's house in Sanjay Nagar Bhadpura under Subhash Chandra Bose Ward.	0.45 x 0.45	32.7	23.193265 "N 79.94885"E	0.978	Open RCC Drain
31		hanuman tal ward 24	Drain and cementation work from the residence of Shri Mukesh Yadav to Byawah Ji's enclosure under Hanumantal ward.	0.45 x 0.45	28	23.182613"N 79.939457"E	0.982	Open RCC Drain
32			Drain construction work from Jayshree Kirana to Sushila Chaharsiya's house under Hanumantal ward.	0.45 x 0.45	30	23.182689"N 79.939458"E	0.975	Open RCC Drain
								23.185278"N

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Sr. No.	Zone	Ward	Name of Work Location	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
33	08 Bhantalaiya	maulana abdul kalam aazad ward 36	Drain construction work from Guddu Tailor's house to Mohammad Ilyaz's house under Maulana Abdul Kalam Azad Ward.	0.45 x 0.45	28	79.937979"E	0.954	Open RCC Drain
34		seetlamai ward 45	Construction of drain from Chaakse ji's house to John ji's house under Sheetal Mai ward.	0.45 x 0.45	32	23.177368"N 79.952987"E	0.985	Open RCC Drain
35		Maa khermai ward 55	Drain construction work near Ballu Pasi's house under Maa Kheramai ward.	0.45 x 0.45	32	23.182789"N 79.939820"E	0.969	Open RCC Drain
36			Drain construction work next to Vinod Sahu's house under Maa Khermaai ward.	0.45 x 0.45	31	23.182687"N 79.939720"E	0.975	Open RCC Drain
37		Dr. radha krishnan ward 58	Construction work of drain from Raju Bhogre's residence to Jamuna Vanskar's residence under Dr. Radhakrishnan Ward.	0.45 x 0.45	32	23.182156"N 79.945875"E	0.969	Open RCC Drain
38	10 Ranjhi	Gokalpur	Construction work of drain from community building to Munna Yadav's house to the end of the pond under Gokalpur ward.	4.0*1.8	400	23.188662"N 79.982228"E	125	open RCC drain
39		Lala lajpat rai ward	Drain construction work from Ghosal Complex in Subhash Nagar to Gupta Cable house in Lala Lajpat Rai Ward.	3.5*1.8	200	23.208213"N 80.012585"E	190.63	open RCC drain
40		Dr. Bheem rav Ambedkar ward	Construction work of drain from near Radha Krishna temple in SAF colony under division number 10 Ranjhi towards Shanti Nagar V.F.J.	2*1.35	195	23.198144"N 79.999308"E	48	open RCC drain
41	12 Ghantaghar	Maharshi arvind ward 53	Drain construction work near Durga Mishthan Bhandaar located at Ghampaur Chowk.	.45x.45	28	23.1769371"N 79.9463749"E	0.98	covered
42		Charital ward 27	Construction of drain behind Kamal Baraat	0.45 x 0.45	02	23°11'0"N	0.05	covered

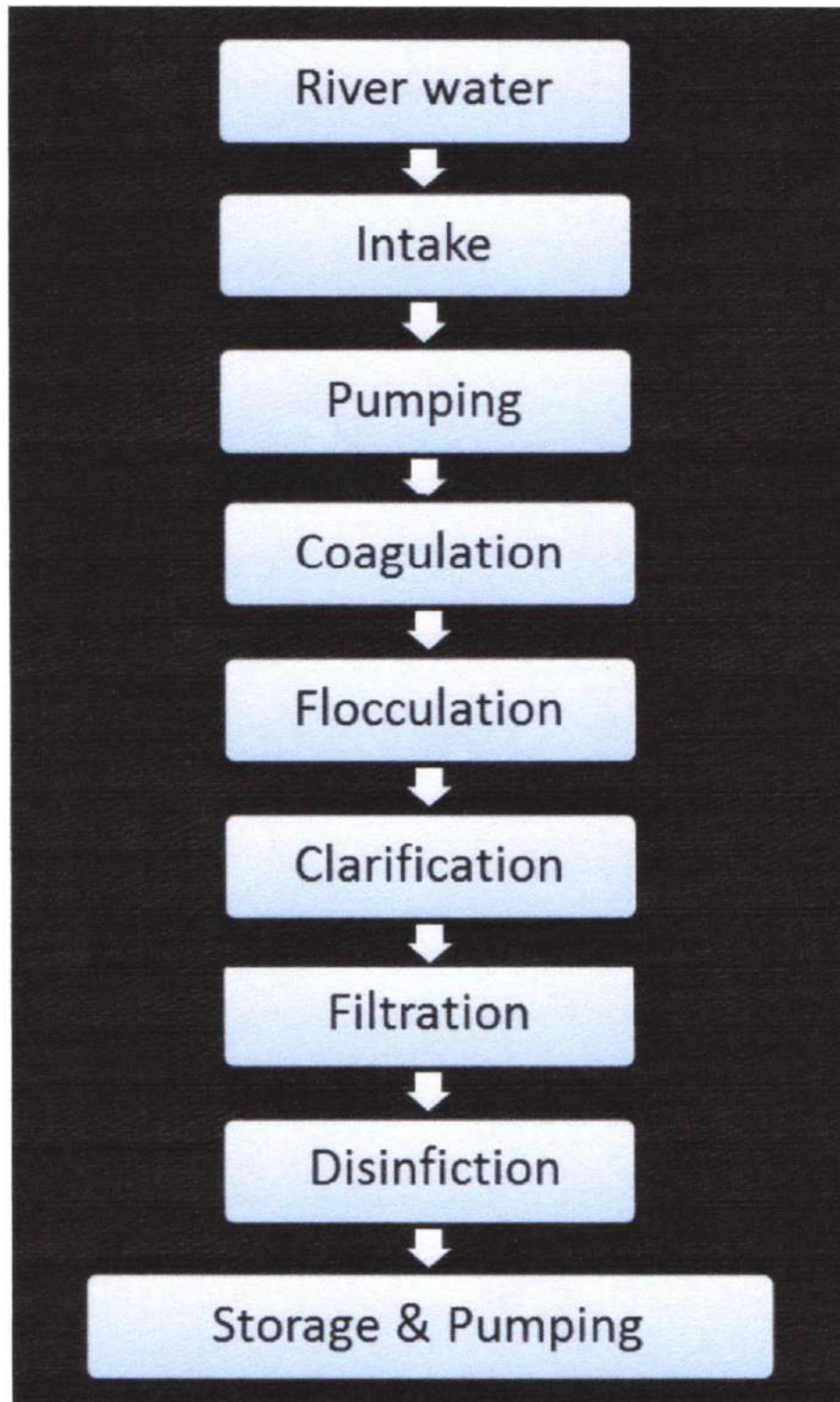
Sr. No.	Zone	Ward	Name of Work Location	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
			house.			79°59'0" E		drain
43	14 Vijay nagar	Jai prakh narayan ward 28	Drain construction work under Scheme 5/14.	.45x.45 and .60x.60	700	23°11'27"N 79°56'16" E	17	open drain
44		Chiranjn das Ward 39	Construction of drain from Sanjay flour mill to main road.	.6x.75	418	23°11'51"N 79°56'8" E	19.2	open drain
45		jakir husain ward 40	Construction of drain from Bahorabagh towards Char Khamba.	.45x.6	230	23°11'16.8"N 79°56'21.3"E	6.2	covered drain
46		Pt. motilal nehru ward 38	Construction of drain from Madrasa Gulshan to Zafar Bakery	0.6 x 0.6	300	23°11'53"N 79°56'18" E	15	open drain
47	15 Suhagi	saheed bircha munda ward 75	Construction work of RCC drain and culvert behind Maharajpur Patel Nagar Shankar Tola	0.30 x 0.30, 0.45 x 0.45, 0.60 x 0.60, 0.90 x 0.90	950	23.22733"N 79.95661"E	70.54	Open drain and Coverd drain
48		sant ravidas ward 77	RCC drain and culvert construction work from Shri Naresh Christian's house to Ram Naresh Vishwakarma's residence in Krishna Colony.	0.75 x 1.20, 0.90 x 1.80, 0.60 x 0.60, 0.45 x 0.45	750	23.22341"N 79.95394"E	76.41	Open drain and Coverd drain
49	16 Anand nagar bus stop	59 Shaheed Ashafakh Ulla kha ward	Construction work of covered drain from Qadir Qureshi's house towards Jama Masjid under Shaheed Ashfaqulla Khan Ward	0.45 x 0.45	30.1	23.1875024"N 79.939573"E	0.983	covered drain
50		50 Thakkar Gram Ward	Drain construction work from Aai Wale's house to the main road under Thakkargram ward.	0.45 x 0.45	30.1	23.1866499 "N 79.9437047"E	0.981	open RCC drain
51			Drain construction work from Sarwar Bhai's house to Nizam Hotel under Thakkargram ward.	0.45 x 0.45	44	23.1865705"N 79.9434845"E	0.975	open RCC drain
52		51 Ravindra Nath Taigor ward	Drain construction work from Mahmud to Kalam Chakki house under Rabindranath Tagore Ward.	0.45 x 0.45	44.2	23.1912273"N 79.9443399"E	0.932	open RCC drain
			Drain construction work from in front of			23.1914167"N		open RCC


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Sr. No.	Zone	Ward	Name of Work Location	Cross Section (M x M)	Length (m)	Co-Ordinate of Location	Amount (lakh)	Remark (Open/Covered)
53			Shahid Bartan Wala to Jamni Bai's house under Rabindranath Tagore Ward.	0.45 x 0.45	44.5	79.9444928"E	0.949	open RCC drain
54		41 Sanjay Gandhi ward	Drain construction work from Manzoor's house to Farooq Bhaijaan's house under Sanjay Gandhi Ward.	0.45 x 0.45	30	23.1940539"N 79.9495824"E	0.981	open RCC drain
55		49 Lal Bahadur shashtri ward	Drain construction work from Abdul Khaliq's house to Sanju's house under Lal Bahadur Shastri Ward.	0.45 x 0.45	30	23.1890699"N 79.9463957"E	0.927	open RCC drain
Total							890.292	lakh

Note: - The Joint Committee was not satisfied with the work of the storm water drainage system of Jabalpur city.


 सहायक यंत्रा
 नगर निगम जबलपुर

Flow Diagram of Water Treatment Plants of Jabalpur


Sanjay Singh Kushwaha
Asst. Engineer
Jabalpur Muni. Corp.



Central Pollution Control Board
Regional Directorate (Central)
"Parivahan" 124

Paryavaran Parisar, E-5, Arera Colony, Bhopal
EPA Recognised Lab

Test Report : Fresh Water (Physico Chemical Parameter)

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Annexure-12

Project Name		NGT Case OA No. 625/2024		Test Report No.	FW/24-25/44
Sample Description		Ranjhi WTP, 54 MLD		Requisition No.	96
Date of sample collection		29.08.2024		Date	18.09.2024
Date of sample receipt		30.08.2024		Type of sample	Grab
Date of analysis		30.08.2024 to 06.09.2024		Sample collected by	Dr. Y .K.Saxena, Sh. J J Ram
S.No.	Parameters	Unit	Result	Method	
1	Temperature	°C	28	-	
2	Odour	-	-	-	
3	Appearance	-	-	-	
4	Colour	Visualise Method	Clear Transparent	APHA, 2120-B	
5	Residual Chlorine	mg/L	0.1	APHA 4500-Cl-B	
6	Dissolved Oxygen	mg/L	-	APHA 4500-O-C	
7	pH	pH unit	6.74	APHA, 4500H+B	
8	Specific Conductivity	µmho/cm	173	APHA 2510 B	
9	Suspended Solids	mg/L	-	APHA 2540 D	
10	Total Dissolved Solids	mg/L	137.1	APHA 2540 C	
11	Total Solids	mg/L	-	APHA 2540 B	
12	Fixed Dissolved Solid	mg/L	-	APHA 2540 E	
13	COD	mg/L	-	APHA, 5220 B	
14	BOD (3 days, 27°C)	mg/L	-	IS 3025, 1993	
15	Chloride	mg/L	4.89	APHA, 4500-CL-B	
16	Total Alkalinity	mg/L	60	APHA 2320-B	
17	T. Hardness (as CaCO ₃)	mg/L	80.36	APHA 2340-C	
18	Ca Hardness (as CaCO ₃)	mg/L	51	APHA 3500-Ca-B	
19	Mg Hardness (as CaCO ₃)	mg/L	29.36	APHA 3500-Mg-B	
20	Oil & Grease	mg/L	-	APHA 5520-D	
21	Total Kjehdal Nitrogen	mg/L	-	APHA 4500-Norg-C	
22	Turbidity	N.T.U.	4.3	APHA, 2130-B	
23	Phosphate (as P)	mg/L	-	APHA 4500-P-D	
24	Sulphate (as SO ₄)	mg/L	39.09	APHA 4500-SO ₄ -E	
25	Ammono. Nitrogen (as NH ₃)	mg/L	BDL (DL=0.4)	APHA 4500-NH ₃ -F	
26	Nitrite Nitrogen (as NO ₂)	mg/L	-	APHA 4500-NO ₂ -B	
27	Nitrate Nitrogen (as NO ₃)	mg/L	0.347	APHA 4500-NO ₃ B	
28	Fluoride (as F)	mg/L	BDL (DL=0.2)	APHA 4500-F-D	
29	Sodium (as Na)	mg/L	-	APHA 3500-Na-B	
30	Potassium (as K)	mg/L	-	APHA 3500-K-B	
31	Chromium (as Cr ⁺⁶)	mg/L	-	APHA 3500-Cr B	
32	Boron (as B)	mg/L	BDL (DL=0.5)	APHA 4500-B-C	
33	Total Coliform	MPN/100ml	<1.8	APHA 9221-A,B,C	
34	E.Coli	MPN/100ml	<1.8	APHA 9221-G	
35	Bioassay Test	% Survival	-	APHA 8910-A	
36	Sulphide	mg/L	BDL	APHA 4500-S ⁻² -D	
37					
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Dr. Anoop Chaturvedi / Dr. Anoop Chaturvedi
विज्ञानिक - ख एवं सरकारी विश्लेषक
Scientist - 'B' Government Analyst
देशीय निदेशालय / Regional Directorate
केन्द्रीय प्रदूषण नियंत्रण बोर्ड, भोपाल (म.प्र.)
Central Pollution Control Board, Bhopal (M.F.)

Laboratory Head:

Prepared by:



125
Central Pollution Control Board
Regional Directorate (Central)
"Parivesh Bhawan"

Paryavaran Parisar, E-5, Arera Colony, Bhopal
EPA Recognised Lab

Test Report : Fresh Water (Physico Chemical Parameter)

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Project Name		NGT Case OA No. 625/2024		Test Report No.	FW/24-25/45
Sample Description		Bhongadwar WTP, 27 MLD		Requisition No.	96
Date of sample collection		29.08.2024		Date	18.09.2024
Date of sample receipt		30.08.2024		Type of sample	Grab
Date of analysis		30.08.2024 to 06.09.2024		Sample collected by	Dr.Y .K.Saxena, Sh. J J Ram
S.No.	Parameters	Unit	Result	Method	
1	Temperature	°C	29	-	
2	Odour	-	-	-	
3	Appearance	-	-	-	
4	Colour	Visualise Method	Clear	APHA, 2120-B	
5	Residual Chlorine	mg/L	0.5	APHA 4500-Cl-B	
6	Dissolved Oxygen	mg/L	-	APHA 4500-O-C	
7	pH	pH unit	6.82	APHA, 4500H+B	
8	Specific Conductivity	µmho/cm	199	APHA 2510 B	
9	Suspended Solids	mg/L	-	APHA 2540 D	
10	Total Dissolved Solids	mg/L	146.7	APHA 2540 C	
11	Total Solids	mg/L	-	APHA 2540 B	
12	Fixed Dissolved Solid	mg/L	-	APHA 2540 E	
13	COD	mg/L	-	APHA, 5220 B	
14	BOD (3 days, 27°C)	mg/L	-	IS 3025, 1993	
15	Chloride	mg/L	11.74	APHA, 4500-Cl-B	
16	Total Alkalinity	mg/L	73	APHA 2320-B	
17	T. Hardness (as CaCO ₃)	mg/L	88.2	APHA 2340-C	
18	Ca Hardness (as CaCO ₃)	mg/L	60	APHA 3500-Ca-B	
19	Mg Hardness (as CaCO ₃)	mg/L	28.2	APHA 3500-Mg-B	
20	Oil & Grease	mg/L	-	APHA 5520-D	
21	Total Kjehdal Nitrogen	mg/L	-	APHA 4500-Norg-C	
22	Turbidity	N.T.U.	4.1	APHA, 2130-B	
23	Phosphate (as P)	mg/L	-	APHA 4500-P-D	
24	Sulphate (as SO ₄)	mg/L	36.41	APHA 4500-SO ₄ -E	
25	Ammo. Nitrogen (as NH ₃)	mg/L	0.462	APHA 4500-NH ₃ -F	
26	Nitrite Nitrogen (as NO ₂)	mg/L	-	APHA 4500-NO ₂ -B	
27	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL=0.3)	APHA 4500-NO ₃ B	
28	Fluoride (as F)	mg/L	BDL (DL=0.2)	APHA 4500-F-D	
29	Sodium (as Na)	mg/L	-	APHA 3500-Na-B	
30	Potassium (as K)	mg/L	-	APHA 3500-K-B	
31	Chromium (as Cr ⁺⁶)	mg/L	-	APHA 3500-Cr B	
32	Boron (as B)	mg/L	BDL (DL=0.5)	APHA 4500-B-C	
33	Total Coliform	MPN/100ml	<1.8	APHA 9221-A,B,C	
34	E.Coli	MPN/100ml	<1.8	APHA 9221-G	
35	Bioassay Test	% Survival	-	APHA 8910 A-C	
36	Sulphide	mg/L	BDL	APHA 4500-S ²⁻ -D	
37					
38					

डॉ. अनूप चतुर्वेदी / Dr. Anoop Chaturvedi
वैज्ञानिक - 'ख' एवं सरकारी विश्लेषक
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Central Pollution Control Board, Bhopal (M.P.)
Laboratory Head.

Prepared by:

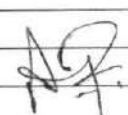


126
Central Pollution Control Board
Regional Directorate (Central)
"Parivesh Bhawan"

Paryavaran Parisar, E-5, Arera Colony, Bhopal
EPA Recognised Lab

Test Report : Fresh Water (Physico Chemical Parameter)

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Project Name		NGT Case OA No. 625/2024		Test Report No.	FW/24-25/46
Sample Description		WTP, Lalpur-02, 55 MLD		Requisition No.	96
Date of sample collection		29.08.2024		Date	18.09.2024
Date of sample receipt		30.08.2024		Type of sample	Grab
Date of analysis		30.08.2024 to 06.09.2024		Sample collected by	Dr.Y .K.Saxena, Sh. J J Ram
S.No.	Parameters	Unit	Result	Method	
1	Temperature	°C	28	-	
2	Odour	-	-	-	
3	Appearance	-	-	-	
4	Colour	Visualise Method	Clear	APHA, 2120-B	
5	Residual Chlorine	mg/L	0.1	APHA 4500-Cl-B	
6	Dissolved Oxygen	mg/L	-	APHA 4500-O-C	
7	pH	pH unit	6.86	APHA, 4500H+B	
8	Specific Conductivity	µmho/cm	205	APHA 2510 B	
9	Suspended Solids	mg/L	-	APHA 2540 D	
10	Total Dissolved Solids	mg/L	156.4	APHA 2540 C	
11	Total Solids	mg/L	-	APHA 2540 B	
12	Fixed Dissolved Solid	mg/L	-	APHA 2540 E	
13	COD	mg/L	-	APHA, 5220 B	
14	BOD (3 days, 27°C)	mg/L	-	IS 3025, 1993	
15	Chloride	mg/L	15.6	APHA, 4500-CL-B	
16	Total Alkalinity	mg/L	72	APHA 2320-B	
17	T. Hardness (as CaCO ₃)	mg/L	82.32	APHA 2340-C	
18	Ca Hardness (as CaCO ₃)	mg/L	64	APHA 3500-Ca-B	
19	Mg Hardness (as CaCO ₃)	mg/L	18.32	APHA 3500-Mg-B	
20	Oil & Grease	mg/L	-	APHA 5520-D	
21	Total Kjehdal Nitrogen	mg/L	-	APHA 4500-Norg-C	
22	Turbidity	N.T.U.	8.9	APHA, 2130-B	
23	Phosphate (as P)	mg/L	-	APHA 4500-P-D	
24	Sulphate (as SO ₄)	mg/L	38.98	APHA 4500-SO ₄ -E	
25	Ammono. Nitrogen (as NH ₃)	mg/L	BDL (DL=0.4)	APHA 4500-NH ₃ -F	
26	Nitrite Nitrogen (as NO ₂)	mg/L	-	APHA 4500-NO ₂ -B	
27	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL=0.3)	APHA 4500-NO ₃ B	
28	Fluoride (as F)	mg/L	BDL (DL=0.2)	APHA 4500-F-D	
29	Sodium (as Na)	mg/L	-	APHA 3500-Na-B	
30	Potassium (as K)	mg/L	-	APHA 3500-K-B	
31	Chromium (as Cr ⁺⁶)	mg/L	-	APHA 3500-Cr B	
32	Boron (as B)	mg/L	BDL (DL=0.5)	APHA 4500-B-C	
33	Total Coliform	MPN/100ml	<1.8	APHA 9221-A,B,C	
34	E.Coli	MPN/100ml	<1.8	APHA 9221-G	
35	Bioassay Test	% Survival	-	APHA 8910 A-C	
36	Sulphide	mg/L	BDL	APHA 4500-S ² -D	
37				 डॉ.अनूप चतुर्वेदी/Dr.Anoop Chaturvedi वैज्ञानिक- 'ख' एवं सरकारी विश्लेषक Scientist-'B' Government Analyst	
38					

Prepared by: 

क्षेत्रीय निदेशालय / Regional Directorate
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Central Pollution Control Board Laboratory Head

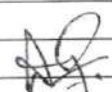


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Central Pollution Control Board
Regional Directorate (Central)
"Parivesh Bhawan"

Paryavaran Parisar, E-5, Arera Colony, Bhopal
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Test Report : Fresh Water (Physico Chemical Parameter)

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Project Name		NGT Case OA No. 625/2024		Test Report No.	FW/24-25/47
Sample Description		WTP, Lalpur-01, 42 MLD		Requisition No.	96
Date of sample collection		29.08.2024		Date	18.09.2024
Date of sample receipt		30.08.2024		Type of sample	Grab
Date of analysis		30.08.2024 to 06.09.2024		Sample collected by	Dr.Y .K.Saxena, Sh. J J Ram
S.No.	Parameters	Unit	Result	Method	
1	Temperature	°C	29	-	
2	Odour	-	-	-	
3	Appearance	-	-	-	
4	Colour	Visualise Method	Transparent	APHA, 2120-B	
5	Residual Chlorine	mg/L	0.1	APHA 4500-Cl-B	
6	Dissolved Oxygen	mg/L	-	APHA 4500-O-C	
7	pH	pH unit	6.72	APHA, 4500H+B	
8	Specific Conductivity	µmho/cm	187	APHA 2510 B	
9	Suspended Solids	mg/L	-	APHA 2540 D	
10	Total Dissolved Solids	mg/L	143	APHA 2540 C	
11	Total Solids	mg/L	-	APHA 2540 B	
12	Fixed Dissolved Solid	mg/L	-	APHA 2540 E	
13	COD	mg/L	-	APHA, 5220 B	
14	BOD (3 days, 27°C)	mg/L	-	IS 3025, 1993	
15	Chloride	mg/L	9.78	APHA, 4500-CL-B	
16	Total Alkalinity	mg/L	69	APHA 2320-B	
17	T. Hardness (as CaCO ₃)	mg/L	80.36	APHA 2340-C	
18	Ca Hardness (as CaCO ₃)	mg/L	50.36	APHA 3500-Ca-B	
19	Mg Hardness (as CaCO ₃)	mg/L	30	APHA 3500-Mg-B	
20	Oil & Grease	mg/L	-	APHA 5520-D	
21	Total Kjehdal Nitrogen	mg/L	-	APHA 4500-Norg-C	
22	Turbidity	N.T.U.	13.6	APHA, 2130-B	
23	Phosphate (as P)	mg/L	-	APHA 4500-P-D	
24	Sulphate (as SO ₄)	mg/L	35.52	APHA 4500-SO ₄ -E	
25	Ammono. Nitrogen (as NH ₃)	mg/L	BDL (DL=0.4)	APHA 4500-NH ₃ -F	
26	Nitrite Nitrogen (as NO ₂)	mg/L	-	APHA 4500-NO ₂ -B	
27	Nitrate Nitrogen (as NO ₃)	mg/L	0.311	APHA 4500-NO ₃ B	
28	Fluoride (as F)	mg/L	BDL (DL=0.2)	APHA 4500-F-D	
29	Sodium (as Na)	mg/L	-	APHA 3500-Na-B	
30	Potassium (as K)	mg/L	-	APHA 3500-K-B	
31	Chromium (as Cr ⁺⁶)	mg/L	-	APHA 3500-Cr B	
32	Boron (as B)	mg/L	BDL (DL=0.5)	APHA 4500-B-C	
33	Total Coliform	MPN/100ml	<1.8	APHA 9221-A,B,C	
34	E.Coli	MPN/100ml	<1.8	APHA 9221-G	
35	Bioassay Test	% Survival	-	APHA 8910 A-C	
36	Sulphide	mg/L	BDL	APHA 4500-S ² -D	
37				 Dr. Anoop Chaturvedi वैज्ञानिक- 'B' एवं सरकारी विश्लेषक Scientist - 'B' Government Analyst	
38				क्षेत्रीय निदेशालय / Regional Directorate कन्द्रीय प्रदूषण नियंत्रण बोर्ड भोपाल (म.प्र.) Central Pollution Control Board Laboratory Head (M.P.)	

Prepared by: 




128
Central Pollution Control Board
Regional Directorate (Central)
"Parivesh Bhawan"

Paryavaran Parisar, E-5, Arera Colony, Bhopal
EPA Recognised Lab

Test Report : Fresh Water (Physico Chemical Parameter)

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Project Name		NGT Case OA No. 625/2024		Test Report No.	FW/24-25/48
Sample Description		Ramnagar WTP, 120 MLD		Requisition No.	96
Date of sample collection		29.08.2024		Date	18.09.2024
Date of sample receipt		30.08.2024		Type of sample	Grab
Date of analysis		30.08.2024 to 06.09.2024		Sample collected by	Dr.Y. K.Saxena, Sh. J J Ram
S.No.	Parameters	Unit	Result	Method	
1	Temperature	°C	28	-	
2	Odour	-	-	-	
3	Appearance	-	-	-	
4	Colour	Visualise Method	Clear	APHA, 2120-B	
5	Residual Chlorine	mg/L	0.2	APHA 4500-Cl-B	
6	Dissolved Oxygen	mg/L	-	APHA 4500-O-C	
7	pH	pH unit	6.64	APHA, 4500H+B	
8	Specific Conductivity	µmho/cm	202	APHA 2510 B	
9	Suspended Solids	mg/L	-	APHA 2540 D	
10	Total Dissolved Solids	mg/L	139	APHA 2540 C	
11	Total Solids	mg/L	-	APHA 2540 B	
12	Fixed Dissolved Solid	mg/L	-	APHA 2540 E	
13	COD	mg/L	-	APHA, 5220 B	
14	BOD (3 days, 27°C)	mg/L	-	IS 3025, 1993	
15	Chloride	mg/L	11.74	APHA, 4500-CL-B	
16	Total Alkalinity	mg/L	77	APHA 2320-B	
17	T. Hardness (as CaCO ₃)	mg/L	78.4	APHA 2340-C	
18	Ca Hardness (as CaCO ₃)	mg/L	58	APHA 3500-Ca-B	
19	Mg Hardness (as CaCO ₃)	mg/L	20.4	APHA 3500-Mg-B	
20	Oil & Grease	mg/L	-	APHA 5520-D	
21	Total Kjehdal Nitrogen	mg/L	-	APHA 4500-Norg-C	
22	Turbidity	N.T.U.	BDL (DL=1)	APHA, 2130-B	
23	Phosphate (as P)	mg/L	-	APHA 4500-P-D	
24	Sulphate (as SO ₄)	mg/L	28.37	APHA 4500-SO ₄ -E	
25	Ammono. Nitrogen (as NH ₃)	mg/L	BDL (DL=0.4)	APHA 4500-NH ₃ -F	
26	Nitrite Nitrogen (as NO ₂)	mg/L	-	APHA 4500-NO ₂ -B	
27	Nitrate Nitrogen (as NO ₃)	mg/L	0.301	APHA 4500-NO ₃ B	
28	Fluoride (as F)	mg/L	BDL (DL=0.2)	APHA 4500-F-D	
29	Sodium (as Na)	mg/L	-	APHA 3500-Na-B	
30	Potassium (as K)	mg/L	-	APHA 3500-K-B	
31	Chromium (as Cr ⁺⁶)	mg/L	-	APHA 3500-Cr B	
32	Boron (as B)	mg/L	BDL (DL=0.5)	APHA 4500-B-C	
33	Total Coliform	MPN/100ml	<1.8	APHA 9221-A,B,C	
34	E.Coli	MPN/100ml	<1.8	APHA 9221-G	
35	Bioassay Test	% Survival	-	APHA 8910 A-C	
36	Sulphide	mg/L	BDL	APHA 4500-S ²⁻ -D	
37				 डॉ. अनूप चतुर्वेदी/Dr. Anoop Chaturvedi 'ज्ञानिक-ख' एवं सरकारी विज्ञापक Scientist-'B' Government Analyst क्षेत्रीय निदेशालय / Regional Director राष्ट्रीय प्रदूषण नियंत्रण बोर्ड, भोपाल (म.प्र.) Central Pollution Control Board, Bhopal (M.P.)	
38					

Prepared by: 


CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड

HEAD OFFICE - DELHI

Parivesh Bhavan, East Arjun Nagar, Delhi - 110032


INSTRUMENTATION LABORATORY (Analysis Report) उपकरणीय प्रयोगशाला (विश्लेषण आख्या)
Heavy Metals(Excluding Mercury)

TC-7723

ULR No: TC772324300000176F

Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: INSTR/2425/HM/00176,09/09/2024	Report sent to (Name, Mobile no. & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: DH of RD Bhopal
Sample Collected by नमूने एकत्रित करने वाले का नाम	: Y.K. Saxena, Shri Jagjivan Ram	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: 02/09/2024
Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: INSTR/HM/2425/SR00154, 30/08/2024	Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: RD Bhopal
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश्लेषण की अवधि	: 06/09/2024 to 06/09/2024
Report Status रिपोर्ट स्थिति	: Final	Sample Details नमूना विवरण	: Fresh Water (Drinking Water) Samples collected from Jabalpur

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	Sample Matrix नमूना मैट्रिक्स	Arsenic	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Nickel	Selenium	Zinc
1	29/08/2024	FW/24-25/44	Fresh Water	BDL	BDL	0.003	0.006	0.166	0.01	0.006	BDL	BDL	0.015
2	29/08/2024	FW/24-25/45	Fresh Water	BDL	BDL	0.002	0.005	0.311	0.015	0.174	BDL	BDL	0.012
3	29/08/2024	FW/24-25/46	Fresh Water	BDL	BDL	0.004	0.006	0.317	0.007	0.006	BDL	BDL	0.028
4	29/08/2024	FW/24-25/47	Fresh Water	BDL	BDL	0.004	0.012	0.586	0.009	0.018	BDL	BDL	0.028
5	29/08/2024	FW/24-25/48	Fresh Water	BDL	BDL	0.003	0.004	0.116	0.009	0.006	BDL	BDL	0.011
6	29/08/2024	Blank	Fresh Water	BDL	BDL	0.002	0.004	0.102	0.008	0.002	BDL	BDL	0.013

* END OF REPORT आख्या समाप्ति *

BDL : Below Deduction Limit न्यूनतम विश्लेषण की सीमा

Remarks (if any) :

 Analyst
 Maneesh N

 Supervisor & Reviewer
 B. K. Jena

 Approved By (DH Inst-Lab)
 Dr. K. Ranganathan

Doc: CB/CL/QR/7.8/IL-5	Issue No.:05	Revision No :05	Issue Date:08/12/2020	Revision Date: 08/12/2020	Page No. : 1/2
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CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032



INSTRUMENTATION LABORATORY (Analysis Report) उपकरणीय प्रयोगशाला (विश्लेषण आख्या)

Heavy Metals(Excluding Mercury)

TC-7723

ULR No: TC772324300000176F

Statement :

1. The results relate only to the samples tested
2. The report shall not be reproduced except in full, without the written approval of the laboratory.
3. The parameter is under the scope of NABL accreditation, ISO-17025:2017 (Certificate No.TC-7723).
4. The sample will be retained for 30 days from the date of issue of test report.

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurement
Arsenic	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00071	
Cadmium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00162	
Chromium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00051	
Copper	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00048	
Iron	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00170	
Lead	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00474	
Manganese	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00011	
Nickel	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00154	
Selenium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00428	
Zinc	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.00093	

Analyst
Maneesh N

Supervisor & Reviewer
B. K. Jena

Approved By (DH Inst-Lab)
Dr. K. Ranganathan

Doc: CB/CL/QR/7.8/IL-5	Issue No.:05	Revision No :05	Issue Date:08/12/2020	Revision Date: 08/12/2020	Page No. : 2/2
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केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
 'परिवेश भवन', पूर्वी अर्जुन नगर, दिल्ली-110032
 Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032
 ट्रेस ऑर्गेनिक्स प्रयोगशाला
 Trace Organics Laboratory

विश्लेषण रिपोर्ट / Analysis Report
जल तथा अपशिष्ट जल में Polycyclic Aromatic Hydrocarbon (PAHs)

1	रिपोर्ट सं. तथा जारी करने का दिनांक Report No. & Date of Issue	:	सं. / No: TOL/PAH/11/2024	दि./ Dt.: 04/09/2024
2	नमूना पंजीकरण सं. तथा दिनांक Sample Registration No. & Date	:	सं. / No: TOL/PAH/21/05/2024	दि./ Dt.:02/09/2024
3	विश्लेषण निवेदक प्रभाग / संस्थान Analysis Request Division / Organization	:	RD-Bhopal	
4	नमूना संग्राहक का नाम Sample Collected by	:	Mr. Jagjivan Ram	
5	नमूना मैट्रिक्स / Sample Matrix	:	Fresh Water (Drinking Water)	
6	नमूना संग्रहण योजना Sampling Plan	:	Hon'ble NGT OA no. 625/2024, Jabalpur, M.P.	
7	नमूना लेने की तारीख Date of Sample Collection	:	29.08.2024	
8	नमूना पंजीकरण की तारीख Date of Sample Receipt	:	02.09.2024	
9	नमूना विश्लेषण की तारीख Date of Sample Analysis	:	03.09.2024	
10	विश्लेषण की विधि Test Method	:	USEP Method-610	
11	परिणाम की इकाई Unit of Results	:	µg/L	
12	रिपोर्ट किस प्रभाग / संस्थान को भेजी गयी Report Sent to (Division / Organization)	:	RD-Bhopal	
13	रिपोर्ट की स्थिति Report Status	:	पूर्ण / Final	√ आंशिक / Partial

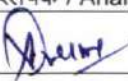

विश्लेषण के परिणाम
ANALYSIS RESULTS

नाम Name	विश्लेषण की सीमा / Detection Limit	नमूना के कोड / Sample Code						
		FW/24- 25/44	FW/24- 25/45	FW/24- 25/46	FW/24- 25/47	FW/24- 25/48		
Naphthalene	0.09	BDL	BDL	BDL	BDL	BDL		
Acenaphthalene	0.20	BDL	BDL	BDL	BDL	BDL		
Acenaphthene	0.10	BDL	BDL	BDL	BDL	BDL		
Fluorene	0.20	BDL	BDL	BDL	BDL	BDL		
Phenanthrene	0.10	BDL	BDL	BDL	BDL	BDL		
Anthracene	0.10	BDL	BDL	BDL	BDL	BDL		
Fluoroanthene	0.21	BDL	BDL	BDL	BDL	BDL		
Pyrene	0.12	BDL	BDL	BDL	BDL	BDL		
Benzo(a)Anthracene	0.11	BDL	BDL	BDL	BDL	BDL		
Chrysene	0.09	BDL	BDL	BDL	BDL	BDL		
Benzo(b) Fluoranthene	0.20	BDL	BDL	BDL	BDL	BDL		
Benzo(k) Fluoranthene	0.10	BDL	BDL	BDL	BDL	BDL		
Benzo(a)Pyrene	0.12	BDL	BDL	BDL	BDL	BDL		
Benzo(ghi) Perylene	0.17	BDL	BDL	BDL	BDL	BDL		
Dibenzo(a,h) Anthracene	0.16	BDL	BDL	BDL	BDL	BDL		
Indeno(1,2,3-cd)Pyrene	0.09	BDL	BDL	BDL	BDL	BDL		

BDL= विश्लेषण की सीमा से कम Below Detection Limit

विवरण Statement:

1. परिणाम केवल परीक्षण किए गए नमूनों से संबंधित हैं. / The results relate only to the samples tested.
2. प्रयोगशाला के लिखित अनुमोदन के बिना रिपोर्ट को पूर्ण रूप से छोड़कर पुनः नहीं बनाया जाएगा. / The report shall not be reproduced except in full, without the written approval of the laboratory.

प्राधिकृत हस्ताक्षरी / Authorized Signatories		
विश्लेषक / Analyst	पर्यवेक्षक तथा समीक्षक / Supervisor & Reviewer	जारीकर्ता / Issued by
		
नाम तथा पदनाम / Name & Designation		
वी कुमार वर्मा, V. K. Verma, Sc.'B'	बी . कुमार, वै 'घ' B. Kumar, Sc.'D'	संजय कुमार, वै 'घ' तथा प्रभारी, टी ओ एल Sanjay Kumar, Sc.'D' & Head-TOL



केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032



ट्रेस ऑर्गेनिक्स प्रयोगशाला Trace Organics Laboratory
Organophosphorus Pesticides Analysis Report

TC-7723

प्रतिवेदन संख्या Report No:- TOL/2425/OPPS/00033

यूएलआर नंबर ULR No: TC772324400000033F

1. जारी करने की तिथि : TOL/2425/OPPS/00033,19/09/2024
Date of Issue
2. रिपोर्ट भेज दी गई है : DH of RD Bhopal
(मांगकर्ता का नाम, मोबाइल नंबर और पता)
Report sent to
(Name, Mobile no. & Address of Indentor)
3. नमूने पंजीकरण संख्या और दिनांक : TOL/OPPS/2425/SR00017,02/09/2024
Samples Registration No. & Date
4. विश्लेषण अनुरोध प्रभाग/संगठन : RD Bhopal
Analysis Request Division/Organization
5. नमूना एकत्रित किया गया : Y.K. Saxena, Shri Jagjivan Ram
Sample Collected by
6. नमूनाकरण योजना प्राथमिकता :
Sampling Plan Preference
7. नमूना सीलिंग स्थिति : Sealed
Sample Sealing Status
8. नमूना प्राप्ति की तिथि एवं समय : 02/09/2024 12:27 PM
Date & Time of Sample Receipt
9. नमूना विश्लेषण अवधि : 05/09/2024 11/09/2024
Sample Analysis Period
10. नमूना विवरण : Fresh Water (Drinking Water) samples collected from Jabalpur, M.P.
Sample Details
11. रिपोर्ट स्थिति : Final
Report Status

Sr. No	Field Code	Parameter Name	Date of Sample Collection	Sample Matrix	Unit	Result value
1	FW/24-25/44	Chlorpyrifos	29/08/2024	Fresh Water	µg/l	BDL
2	FW/24-25/44	Ethion	29/08/2024	Fresh Water	µg/l	BDL
3	FW/24-25/44	Malathion	29/08/2024	Fresh Water	µg/l	BDL
4	FW/24-25/44	Methyl Parathion	29/08/2024	Fresh Water	µg/L	BDL
5	FW/24-25/44	Phorate	29/08/2024	Fresh Water	µg/l	BDL
6	FW/24-25/45	Chlorpyrifos	29/08/2024	Fresh Water	µg/l	BDL
7	FW/24-25/45	Ethion	29/08/2024	Fresh Water	µg/l	BDL
8	FW/24-25/45	Malathion	29/08/2024	Fresh Water	µg/l	BDL
9	FW/24-25/45	Methyl Parathion	29/08/2024	Fresh Water	µg/L	BDL
10	FW/24-25/45	Phorate	29/08/2024	Fresh Water	µg/l	BDL
11	FW/24-25/46	Chlorpyrifos	29/08/2024	Fresh Water	µg/l	BDL
12	FW/24-25/46	Ethion	29/08/2024	Fresh Water	µg/l	BDL
13	FW/24-25/46	Malathion	29/08/2024	Fresh Water	µg/l	BDL
14	FW/24-25/46	Methyl Parathion	29/08/2024	Fresh Water	µg/L	BDL
15	FW/24-25/46	Phorate	29/08/2024	Fresh Water	µg/l	BDL
16	FW/24-25/47	Chlorpyrifos	29/08/2024	Fresh Water	µg/l	BDL
17	FW/24-25/47	Ethion	29/08/2024	Fresh Water	µg/l	BDL
18	FW/24-25/47	Malathion	29/08/2024	Fresh Water	µg/l	BDL
19	FW/24-25/47	Methyl Parathion	29/08/2024	Fresh Water	µg/L	BDL
20	FW/24-25/47	Phorate	29/08/2024	Fresh Water	µg/l	BDL
21	FW/24-25/48	Chlorpyrifos	29/08/2024	Fresh Water	µg/l	BDL
22	FW/24-25/48	Ethion	29/08/2024	Fresh Water	µg/l	BDL
23	FW/24-25/48	Malathion	29/08/2024	Fresh Water	µg/l	BDL
24	FW/24-25/48	Methyl Parathion	29/08/2024	Fresh Water	µg/L	BDL

Analyst Charu Shama		Supervisor & Reviewer Bhupander Kumar		Issued By(DH TOL-Lab) Sanjay Kumar	
Doc: CB/CL/QR/7.8/TOL-2	Issue No.:01	Revision No : 08	Issue Date: 12/12/2017	Revision Date: 05/05/2022	



केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
 HEAD OFFICE - DELHI
 Parivesh Bhavan, East Arjun Nagar, Delhi - 110032



ट्रेस ऑर्गेनिक्स प्रयोगशाला Trace Organics Laboratory
Organophosphorus Pesticides Analysis Report

TC-7723

प्रतिवेदन संख्या Report No:- TOL/2425/OPPS/00033

यूएलआर नंबर ULR No: TC772324400000033F

25	FW/24-25/48	Phorate	29/08/2024	Fresh Water	µg/l	BDL
* END OF REPORT आख्या समाप्ति *						

बीडीएल BDL : कटौती सीमा से नीचे Below Deduction Limit

Remarks (if any) :

Statement : 1. परिणाम केवल परीक्षण किए गए नमूनों से संबंधित हैं। The results relate only to the samples tested.

2. पूरी रिपोर्ट को छोड़कर दोबारा प्रस्तुत नहीं किया जाएगा। प्रयोगशाला की लिखित अनुमति के बिना। The report shall not be reproduced except in full, without the written approval of the laboratory.

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurement
Chlorpyrifos	USEPA Method No.8141B.; 2007	µg/l	0.100	±0.036 µg/L @ 0.16 µg/L
Ethion	USEPA Method No.8141B.; 2007	µg/l	0.100	±0.044 µg/L @ 0.15 µg/L
Malathion	USEPA Method No.8141B.; 2007	µg/l	0.100	±0.040 µg/L @ 0.14 µg/L
Methyl Parathion	USEPA Method No.8141B.; 2007	µg/L	0.100	±0.051 µg/L @ 0.16 µg/L
Phorate	USEPA Method No.8141B.; 2007	µg/l	0.100	±0.040 µg/L @ 0.18 µg/L

Analyst Charu Sharma	Supervisor & Reviewer Bhupander Kumar	Issued By(DH TOL-Lab) Sanjay Kumar
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Doc: CB/CL/QR/7.8/TOL-2	Issue No.:01	Revision No : 08	Issue Date: 12/12/2017	Revision Date: 05/05/2022
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Printed on: 20 Sep 2024

Page No. : 2/2

यह एक कंप्यूटर जनित रिपोर्ट है, किसी हस्ताक्षर की आवश्यकता नहीं है। This is a computer-generated Report. No signature is required.



केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032



ट्रेस ऑर्गेनिक्स प्रयोगशाला Trace Organics Laboratory
Organochlorine Pesticides Analysis Report

TC-7723

प्रतिवेदन संख्या Report No:- TOL/2425/OCPS/00032

यूएलआर नंबर ULR No: TC772324400000032F

1. जारी करने की तिथि : TOL/2425/OCPS/00032,19/09/2024
Date of Issue
2. रिपोर्ट भेज दी गई है : DH of RD Bhopal
(मांगकर्ता का नाम, मोबाइल नंबर और पता)
Report sent to
(Name, Mobile no. & Address of Indentor)
3. नमूने पंजीकरण संख्या और दिनांक : TOL/OCPS/2425/SR00017,30/08/2024
Samples Registration No. & Date
4. विश्लेषण अनुरोध प्रभाग/संगठन : RD Bhopal
Analysis Request Division/Organization
5. नमूना एकत्रित किया गया : Y.K. Saxena,Shri Jagjivan Ram
Sample Collected by
6. नमूनाकरण योजना प्राथमिकता :
Sampling Plan Preference
7. नमूना सीलिंग स्थिति : Sealed
Sample Sealing Status
8. नमूना प्राप्ति की तिथि एवं समय : 02/09/2024 10:38 AM
Date & Time of Sample Receipt
9. नमूना विश्लेषण अवधि : 05/09/2024 17/09/2024
Sample Analysis Period
10. नमूना विवरण : Fresh Water (Drinking Water) samples collected from Jabalpur, M.P.
Sample Details
11. रिपोर्ट स्थिति : Final
Report Status

Sr. No	Field Code	Parameter Name	Date of Sample Collection	Sample Matrix	Unit	Result value
1	FW/24-25/44	Aldrin	29/08/2024	Fresh Water	µg/L	BDL
2	FW/24-25/44	Dieldrin	29/08/2024	Fresh Water	µg/l	BDL
3	FW/24-25/44	o,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
4	FW/24-25/44	p,p'-DDD	29/08/2024	Fresh Water	µg/l	BDL
5	FW/24-25/44	p,p'-DDE	29/08/2024	Fresh Water	µg/l	BDL
6	FW/24-25/44	p,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
7	FW/24-25/44	β-Endosulfan	29/08/2024	Fresh Water	µg/l	BDL
8	FW/24-25/44	β-HCH	29/08/2024	Fresh Water	µg/l	BDL
9	FW/24-25/44	α-Endosulfan	29/08/2024	Fresh Water	µg/L	BDL
10	FW/24-25/44	α-HCH	29/08/2024	Fresh Water	µg/L	BDL
11	FW/24-25/44	γ-HCH	29/08/2024	Fresh Water	µg/l	BDL
12	FW/24-25/45	Aldrin	29/08/2024	Fresh Water	µg/L	BDL
13	FW/24-25/45	Dieldrin	29/08/2024	Fresh Water	µg/l	BDL
14	FW/24-25/45	o,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
15	FW/24-25/45	p,p'-DDD	29/08/2024	Fresh Water	µg/l	BDL
16	FW/24-25/45	p,p'-DDE	29/08/2024	Fresh Water	µg/l	BDL
17	FW/24-25/45	p,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
18	FW/24-25/45	β-Endosulfan	29/08/2024	Fresh Water	µg/l	BDL
19	FW/24-25/45	β-HCH	29/08/2024	Fresh Water	µg/l	BDL
20	FW/24-25/45	α-Endosulfan	29/08/2024	Fresh Water	µg/L	BDL
21	FW/24-25/45	α-HCH	29/08/2024	Fresh Water	µg/L	BDL
22	FW/24-25/45	γ-HCH	29/08/2024	Fresh Water	µg/l	BDL
23	FW/24-25/46	Aldrin	29/08/2024	Fresh Water	µg/L	BDL
24	FW/24-25/46	Dieldrin	29/08/2024	Fresh Water	µg/l	BDL

Analyst Charu Sharma		Supervisor & Reviewer Bhupander Kumar		Issued By(DH TOL-Lab) Sanjay Kumar	
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 HEAD OFFICE - DELHI
 Parivesh Bhavan, East Arjun Nagar, Delhi - 110032



ट्रेस ऑर्गेनिक्स प्रयोगशाला Trace Organics Laboratory
Organochlorine Pesticides Analysis Report

TC-7723

प्रतिवेदन संख्या Report No:- TOL/2425/OCPS/00032

यूएलआर नंबर ULR No: TC77232440000032F

25	FW/24-25/46	o,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
26	FW/24-25/46	p,p'-DDD	29/08/2024	Fresh Water	µg/l	BDL
27	FW/24-25/46	p,p'-DDE	29/08/2024	Fresh Water	µg/l	BDL
28	FW/24-25/46	p,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
29	FW/24-25/46	β-Endosulfan	29/08/2024	Fresh Water	µg/l	BDL
30	FW/24-25/46	β-HCH	29/08/2024	Fresh Water	µg/l	BDL
31	FW/24-25/46	α-Endosulfan	29/08/2024	Fresh Water	µg/L	BDL
32	FW/24-25/46	α-HCH	29/08/2024	Fresh Water	µg/L	BDL
33	FW/24-25/46	γ-HCH	29/08/2024	Fresh Water	µg/l	BDL
34	FW/24-25/47	Aldrin	29/08/2024	Fresh Water	µg/L	BDL
35	FW/24-25/47	Dieldrin	29/08/2024	Fresh Water	µg/l	BDL
36	FW/24-25/47	o,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
37	FW/24-25/47	p,p'-DDD	29/08/2024	Fresh Water	µg/l	BDL
38	FW/24-25/47	p,p'-DDE	29/08/2024	Fresh Water	µg/l	BDL
39	FW/24-25/47	p,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
40	FW/24-25/47	β-Endosulfan	29/08/2024	Fresh Water	µg/l	BDL
41	FW/24-25/47	β-HCH	29/08/2024	Fresh Water	µg/l	BDL
42	FW/24-25/47	α-Endosulfan	29/08/2024	Fresh Water	µg/L	BDL
43	FW/24-25/47	α-HCH	29/08/2024	Fresh Water	µg/L	BDL
44	FW/24-25/47	γ-HCH	29/08/2024	Fresh Water	µg/l	BDL
45	FW/24-25/48	Aldrin	29/08/2024	Fresh Water	µg/L	BDL
46	FW/24-25/48	Dieldrin	29/08/2024	Fresh Water	µg/l	BDL
47	FW/24-25/48	o,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
48	FW/24-25/48	p,p'-DDD	29/08/2024	Fresh Water	µg/l	BDL
49	FW/24-25/48	p,p'-DDE	29/08/2024	Fresh Water	µg/l	BDL
50	FW/24-25/48	p,p'-DDT	29/08/2024	Fresh Water	µg/l	BDL
51	FW/24-25/48	β-Endosulfan	29/08/2024	Fresh Water	µg/l	BDL
52	FW/24-25/48	β-HCH	29/08/2024	Fresh Water	µg/l	BDL
53	FW/24-25/48	α-Endosulfan	29/08/2024	Fresh Water	µg/L	BDL
54	FW/24-25/48	α-HCH	29/08/2024	Fresh Water	µg/L	BDL
55	FW/24-25/48	γ-HCH	29/08/2024	Fresh Water	µg/l	BDL

* END OF REPORT आख्या समाप्ति *

बीडीएल BDL : कटौती सीमा से नीचे Below Deduction Limit

Remarks (if any) :

Statement : 1. परिणाम केवल परीक्षण किए गए नमूनों से संबंधित हैं। The results relate only to the samples tested.

2. पूरी रिपोर्ट को छोड़कर दोबारा प्रस्तुत नहीं किया जाएगा। प्रयोगशाला की लिखित अनुमति के बिना, The report shall not be reproduced except in full, without the written approval of the laboratory.

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देस ऑर्गेनिक्स प्रयोगशाला Trace Organics Laboratory
Organochlorine Pesticides Analysis Report

TC-7723

प्रतिवेदन संख्या Report No:- TOL/2425/OCPS/00032

यूएलआर नंबर ULR No: TC772324400000032F

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurement
Aldrin	USEPA Method No. 8081B, 2007	µg/L	0.010	±0.006 µg/L @ 0.04 µg/L
Dieldrin	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.006 µg/L @ 0.04 µg/L
o,p'-DDT	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.002 µg/L @ 0.05 µg/L
p,p'-DDD	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.003 µg/L @ 0.04 µg/L
p,p'-DDE	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.006 µg/L @ 0.04 µg/L
p,p'-DDT	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.002 µg/L @ 0.05 µg/L
β-Endosulfan	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.003 µg/L @ 0.05 µg/L
β-HCH	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.002 µg/L @ 0.05 µg/L
α-Endosulfan	USEPA Method 8081B : 2007	µg/L	0.010	±0.002 µg/L @ 0.05 µg/L
α-HCH	USEPA Method No. 8081B, 2007	µg/L	0.010	±0.005 µg/L @ 0.04 µg/L
γ-HCH	USEPA Method No. 8081B, 2007	µg/l	0.010	±0.004 µg/L @ 0.04 µg/L

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