

## **ACTION PLAN FOR CONSERVATION OF RIVER MANDAKINI**



Submitted to

**HON' BLE NATIONAL GREEN TRIBUNAL**

**NEW DELHI**

In Case no. OA 673/2018 Dated 08-04-2019

**M.P. POLLUTION CONTROL BOARD SATNA (M.P.)**

# **1. CORRECTION IN POLLUTED RIVER STRETCH OF RIVER MANDAKINI AT CHITRAKOOT**

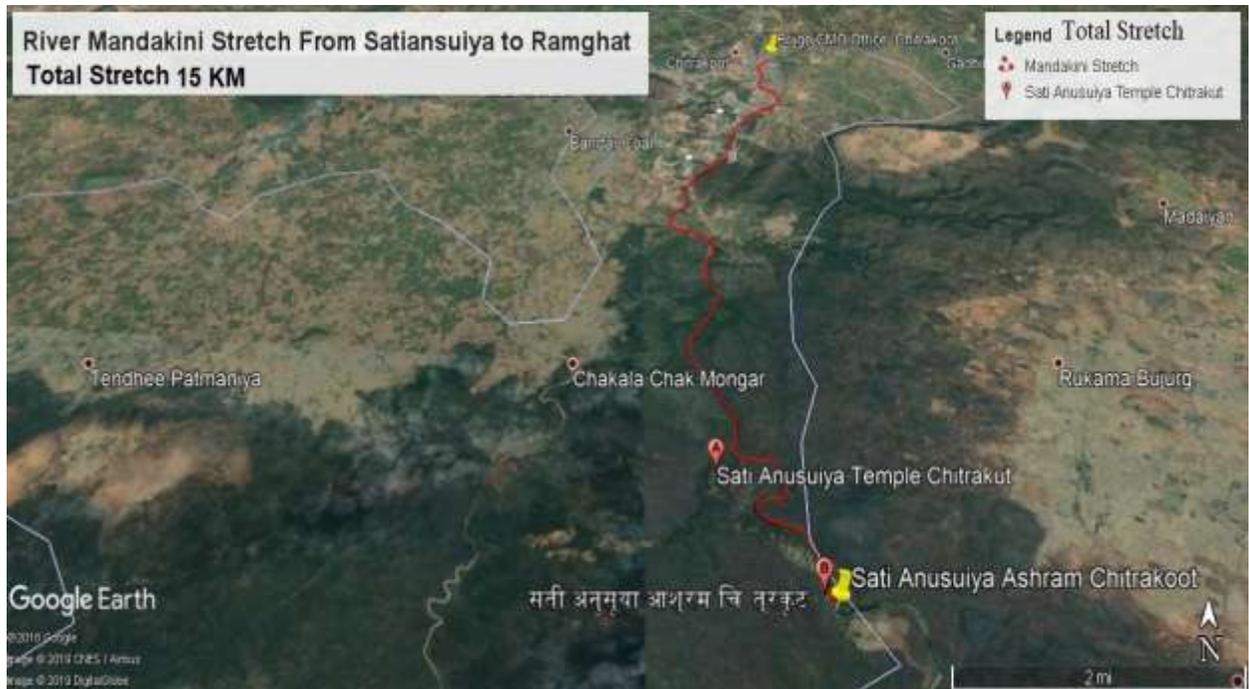
## **1.1. RIVER MANDAKINI**

River Mandakini is small but important river for the majority Hindus. The river is called Paisuani in Government records and Survey of India map. It originates in the Western upland of Majhgawan N lock in district Satna MP and travels 39km, before reaching Sati Anusuiya Ashram site. In these 35 km, it is seasonal stream flowing only in monsoon. At Sati Anusuiya Ashram a number of springs from nearby hillocks enter into the river and convert it into perennial one with the minimum flow recorded as 1.2 m<sup>3</sup>/sec in May 1993.

Cluster of streams from western upland near Majhgawan, Distt. Satna, Madhya Pradesh joins at Chitrakoot near Sati Anusuiya Ashram, to form perennial river. The contiguous flow in the river is observed only from the Sati Anusuiya Ashram. In Madhya Pradesh, river flows effectively from Sati Anusuiya up to Ram Ghat and find its way into Uttar Pradesh at Ram Ghat. Total length of the river in Madhya Pradesh is approximately 15 Km. The river Mandakini join River Yamuna at Rajapur in Uttar Pradesh. Pilgrims from country and abroad visit these ghats round the year.

From origin up to Ram Ghat (M.P – U.P inter-state boundary) there are several Ghats on the river in Chitrakoot region. These include following:

<b>S.No.</b>	<b>Name of Station</b>	<b>Details of Station</b>
1.	Sati Anusuiya Ghat	West side of River
2.	Sphatickshila Ghat	West side of River
3.	Arogyadam Ghat	West side of River
4.	Jankikund Ghat	West side of River
5.	Pramodvan Ghat	West side of River
6.	Goyanka Ghat	West side of River
7.	Raghav Prayag Ghat	East side of River
8.	Bharat Ghat	West side of River
9.	Ramghat	West side of River
10	Janki Ghat	East side of River



### River Stretch in Madhya Pradesh

## 1.2. RIVER MANDAKINI AND POLLUTION STATUS

The river Mandakini originates from hills of Khillora near Pindra village, Majhagawan block ( $25^{\circ} 09'24.8''$  N,  $80^{\circ} 52' 55.3''$  E), travels 39 km, before reaching Sati Anusuya Ashram site, Satna district, M.P. at an elevation of 156 meter above mean sea level in the state of Madhya Pradesh of northern India. Whole watershed area is 1956.3 sq. km. The river passes through two states especially between M.P. and U.P. states. Sati Anusuiya is a perennial reach of Mandakini River where a large number of small and big springs feed to the river.

River stretch in this region caters the water need of Chitrakoot town and at the same time river drains the major sewage of the town. Chitrakoot lies on the border of M.P. and U.P. the city comprises of 15 wards and about 5000 house hold. Total population of the city is 23,316 as per the Census of India 2011. Beside permanent population the city receives huge floating population which may go up to 05 lakh on 'Amavasya' (No Moon day) of every month and may even reach 8-10 lakh on Diwali night. Somwati Amavasyas, Sharad-Poornima, Makar Sankranti and Ramanavami are other special occasions when Chitrakoot receives huge floating population from near & far places. Hence, most of the resources of the town including river Mandakini remain under stress throughout the year.

Regional Office M.P. Pollution Control Board Satna monitors the river quality round the year at 06 points which are as follows:

SN	Sampling station	Location	Latitude and Longitude
1.	Sati Anusuiya	A upstream station, 15.0 Km in the south of Chitrakoot	25 <sup>0</sup> 4' 26.5" N and 80 <sup>0</sup> 52' 2.6" E
2.	Sphatikshilla	A upstream station, 3.0 Km in the south of Chitrakoot	25 <sup>0</sup> 8'46.5" N and 80 <sup>0</sup> 51' 25.1" E
3.	Arogyadham	A midstream station, 2.0 Km in the south of Chitrakoot	25 <sup>0</sup> 9' 25.9" N and 80 <sup>0</sup> 51' 46.7" E
4.	Jankikund	A midstream station, 1.5 Km in the south of Chitrakoot	25 <sup>0</sup> 9'31.6" N and 80 <sup>0</sup> 51' 51.4" E
5.	Pramod Van	A midstream station, 1.0 Km in the south of Chitrakoot	25 <sup>0</sup> 10'15.2" N and 80 <sup>0</sup> 52' 1.1" E
6.	Ramghat	A downstream station, 0.0 Km from Chitrakoot	25 <sup>0</sup> 10'32.8" N and 80 <sup>0</sup> 52' 9.1" E

### INTERPRETATION OF THE ANALYSIS REPORT

The interpretation of the analysis reports of last three years, as obtained from the analysis of samples when compared with the standards laid down in IS 2296 revealed that:

- The quality of river from Sati Anusuiya to Sphatikshilla is good and falls under 'A' category Sati Anusuiya and 'B' category Sphatikshilla, as this area is devoid of major human intervention.
- The quality of river after Sphatikshilla gradually falls to category 'B' or 'C' due to confluence of sewage containing drains in to the river from various settlements in the close Catchment of the river.
- Seasonal variations are also observed in the river quality.

Thus, it can be concluded that the river-water quality is fit for drinking after conventional treatment, out-door bathing / other uses and irrigation etc. Nevertheless, the river health can further be improved by appropriate management of city sewage. The quality of river water at origin and at the down-stream of Chitrakoot (M.P. - U.P. inter-state boundary) are presented in the table as follows:

### INTERPRETATION OF THE ANALYSIS REPORT YEAR 2016-17

Monitoring Point	Month	pH unit	BOD mg/l	MPN MPN/100ml	DO mg/l	Category as per IS 2296*
<b>River Mandakini at Sati Ansuiya Ghat Chitrakoot Distt. Satna</b>	April	7.2	2.7	-	6	A
	May	7.2	1	-	4.6	A
	June	6.9	0.5	45	5.4	A
	July	7.2	1	110	7.9	B
	August	7.6	0.5	90	7.5	B
	September	-	-	-	-	-
	October	7.3	1	30	5.1	A
	November	5.5	0.7	44	4.9	A
	December	6.8	0.7	40	5.4	A
	January	6.3	0.8	20	5.6	A
	February	6.9	0.7	24	4.9	A
	March	7.19	0.6	10	5.8	A
<b>River Mandakini at Ramghat Chitrakoot Distt. Satna</b>	April	8	5.8	-	6.2	C
	May	7.6	3	490	6.2	B
	June	8.2	3.8	980	5.9	C
	July	7.9	1.3	450	8.9	B
	August	8.3	1.1	350	9.6	B
	September	8.1	2.4	540	6.9	C
	October	7.9	3.9	4000	6.8	C
	November	7.7	3.8	3140	6.8	C
	December	8	4.1	3780	6.5	C
	January	7.95	3.7	2400	5.8	C
	February	8.3	2.9	1498	6.8	C
	March	7.95	3	2045	6.7	C

## INTERPRETATION OF THE ANALYSIS REPORT YEAR 2017-18

Monitoring Point	Month	pH unit	BOD mg/l	MPN MPN/100ml	DO mg/l	Category as per IS 2296
<b>River Mandakini at Sati Ansuiya Ghat Chitrakoot Distt. Satna</b>	April	6.5	0.4	12	4.3	A
	May	6.7	0.5	10	6.1	A
	June	6.9	0.6	10	5.2	A
	July	6.7	0.4	40	7.2	A
	August	6.7	0.6	60	7.2	B
	September	6.6	0.5	50	4.1	A
	October	7.3	0.6	30	6.8	A
	November	7.2	0.6	14	6.4	A
	December	7.4	0.5	06	4.5	A
	January	7.5	0.3	10	6.5	A
	February	7.3	0.3	08	6.8	A
	March	7.4	0.5	09	6.6	A
<b>River Mandakini at Ramghat Chitrakoot Distt. Satna</b>	April	7.8	2.5	1550	6.4	C
	May	8.1	2.9	1470	4.5	C
	June	8.1	2.8	1620	6.4	C
	July	6.9	1.9	1050	7.6	C
	August	6.9	1.8	1245	7.1	C
	September	7.5	4.5	1679	6.8	C
	October	6.8	2.8	950	6.9	C
	November	7.9	2.9	930	6.9	C
	December	8.1	3	950	6.9	B
	January	7.4	3.1	750	6.6	C
	February	7.4	3.0	1045	6.9	C
	March	7.5	3.5	940	6.8	C

### INTERPRETATION OF THE ANALYSIS REPORT YEAR 2018-19

Monitoring Point	Month	pH unit	BOD mg/l	MPN MPN/100ml	DO mg/l	Class of Water
<b>River Mandakini at Sati Ansuiya Ghat Chitrakoot Distt. Satna</b>	April	7	0.4		6.7	A
	May	6.8	0.6	10	6.4	A
	June	7.4	0.2		6.9	A
	July	7.3	0.5	18	6.6	A
	August	7.5	0.2	20	6.4	A
	September	7.2	0.5	16	6.8	A
	October	7.3	0.3	08	6.7	A
	November	7.3	0.5	60	4.5	A
	December	7.4	0.4	40	5.6	A
	January	7.1	1	-	6.9	A
	February	7.1	0.8	18	6.7	A
	March	-	-	-	-	-
<b>River Mandakini at Ramghat Chitrakoot Distt. Satna</b>	April	7	3	980	6.9	C
	May	7.6	4.8	840	6.6	C
	June	8	4.9	-	6.9	C
	July	8.2	6.9	1200	6.2	C
	August	7.9	2.8	480	6.1	C
	September	7.9	3.2	850	5.8	C
	October	7.8	2.9	990	6.8	C
	November	7.8	2.8	960	5.6	C
	December	8.2	2.7	1040	6.6	C
	January	7.4	3	850	6.8	C
	February	8.1	3.1	940	6.9	C
	March	-	-	-	-	-

### COMPARATIVE QUALITY FOR LAST THREE YEARS (2016-2019)

Monitoring Point	Month	Water Quality Criteria, Class of Water		
		2016-17	2017-18	2018-19
River Mandakini at Sati Ansuiya Ghat Chitrakoot Distt. Satna	April	A	A	A
	May	A	A	A
	June	A	A	A
	July	B	A	A
	August	B	B	A
	September	-	-	A
	October	A	A	A
	November	A	A	A
	December	A	A	A
	January	A	A	A
	February	A	A	A
	March	A	A	A
River Mandakini at Ramghat Chitrakoot Distt. Satna	April	C	C	C
	May	B	C	C
	June	C	C	C
	July	B	C	C
	August	B	C	C
	September	C	C	C
	October	C	C	C
	November	C	C	C
	December	C	B	C
	January	C	C	C
	February	C	C	C
	March	C	C	C

- \* **Class A** – Drinking water without conventional treatment but after disinfection. **Class B** – Water for outdoor bathing. **Class C** – Drinking water with conventional treatment followed by disinfection. **Class D** – Water for fish culture and wild life propagation. **Class E** – Water for irrigation, industrial cooling and controlled waste disposal.

### 1.3 VARIOUS NALLAS JOINING RIVER MANDAKINI

Sewage is being discharged from residences & ashrams directly into the river through several small drains. However, the major nallahs draining sewage into the river are as follows:

S.No.	Name of Drain	Location of confluence	Co-ordinates	Bank
1.	Vaidehi Vatika	Between Arogyadham Ghat and Jankikund Ghat, Chitrakoot.	25.1571, 80.8628	Left bank
2.	Paisuni Nallla	Between Bharat Ghat and Ram Ghat, Chitrakoot.	25.1759, 80.8689	Left bank
3.	Nallah near Amodh Van (Kaanch Mandir) Ghat	Amodh Van Ghat	25.1625, 80.8678	Left bank

### 1.4. WATER QUALITY GOAL

The river Mandakini is one of the major rivers of the Chitrakoot region, known as the lifeline for the people of Chitrakoot. It fulfills the demands for water for drinking, domestic, and agriculture use. The Mandakini is a run able low volume river from October to April and can be unpredictable in the Monsoon months (June–September) when all rivers in the area become swollen torrents.

Nearly half of the town's population is being served by piped water supply from Mandakini River, The water from Mandakini River is stored in 4.5 lakh litre capacity over-head service reservoir by pumping through pipeline. The remaining population is being served by direct pumping of ground water. Beside this the ghats on the bank of river are being used for public bathing and rituals round the year. At some points the river water is also being used for irrigation.

Comparative suggested criteria for bathing in river is given in the following **Table-1**.

**Table 1. Suggested criteria for outdoor bathing**

Sl.No	Parameters	Class 'B' Water Quality Criteria –for Bathing (to be achieved)	Class 'E' Water Quality Criteria for Irrigation (Present Quality)
1	pH	6.5 to 8.5	6 to 8.5
2	Dissolved Oxygen (DO)	≥ 5.0 mg/l	-
3	Bio Chemical Oxygen Demand	< 3 mg/l	-
4	Total Coliforms Organism MPN/100 ml	< 500	-

**1.5****1.5. THE BASIS OF PROPOSED ACTION PLAN FOR REJUVENATION OF RIVER MANDAKINI**

The River Mandakini has a very small catchment area in comparison to other holy Indian rivers, it has a great historical and religious importance to Hindu ethos. It is believed that Lord Ram dwelled here for 12 years during his 14 years of exile. For such reason, many people visit here with spiritual emotions on the occasion of *Amawasya* (no moon day), *Purnima* (full moon day), *Ram Navami*, *Deepawali* (festival of lights), etc. and take holy baths in the River Mandakini.

The main components for the basic proposal as follows:

- Commissioning of STP (4.70 MLD)
- Nallah Trapping.
- Construction of Intermediate Pumping Station (IPS).
- Construction of Main Pumping Station (MPS).
- Construction of Electric Sub-station.
- Efforts should be made to prevent the loss of plantation along the banks of the river as it will help in preventing soil erosion.
- Wastewater should be recycled through effective technologies and can be use for irrigation.
- Development of related infrastructure etc.

## 1.6 1.6 FIELD SURVEY

The field recon survey is carried out to see the pollution level and current status of River Mandakini. The physical survey is conducted from Sati Anusuiya to Ramghat. During the field survey the following observations were made.

1. The length of River Mandakini (approximate 15 KM) from its origin Sati Anusuiya
2. The following Major Nallas are meeting with the River within Localities of Chitrakoot.
3. The contiguous flow in the river is observed only from the Sati Anusuiya Ashram
4. Number of drains carrying the waste water of town joining the river at various points increasing the pollution load in the river and altering the water quality.

Presently, the river Mandakini is carrying mostly domestic waste water generated from Houses, Hotels and Ashram (Maths). Also major Nallas (03 nos) and minar (03) which carry the sewage meet to river Mandakini at different locations.

## 1.7 COMPONENTS OF ACTION PLAN

### 1.7.1 MAIN SOURCE OF POLLUTION IN RIVER

- Domestic waste water localities of Chitrakoot directly Meeting River and various nallas draining into river Mandakini.

**Industrial** – There is no industrial activity in the catchment of river in this region. Hence river is free from the impacts of industrial pollution in this stretch.

**Municipal Solid Waste** – No MSW dumping sites are observed in the catchment of river in the stretch extending from Sati Anusuiya up to Ram Ghat. Thus, the river in this stretch is devoid of potential adverse impacts from MSW.

**Domestic waste-water** – Raw sewage of the habitation in river catchment is being disposed off in the river through nallahs. Based on the population / floating population trends of the town, current estimated sewage generation in the catchment of the river is about 5 MLD. The sewage generation by 2030 is expected to go up to 5.5 MLD.

## 1.8 **MEASURES TO ABATE POLLUTION IN RIVER MANDAKINI**

As stated here in above, various measures already implemented by Nagar Parisad Chitrakoot and Researcher University of Chitrakoot Distt. Satna, District Administration, MPPCB and other government agencies in compliance of order passed time to time by Hon'ble National Green Tribunal, Central Zonal Bench Bhopal in the cases filed before Hon'ble Green Tribunal.

## 1.9 **Solid Waste Management Practices**

By adopting the best solid waste management practices in the Nagar Parisad Chitrakoot and creating the awareness in the public - not to dump house refuse, debris and demolished material in & along the river and not to dispose the sewage directly in the rivers or water streams.

### 1.9.1 **Collection & Transportation -**

- a. 100 % Door to Door collection of waste is being practiced in all 15 wards of Chitrakoot Nagar Parishad.
- b. There are 06 Motorized Vehicles, 01-Trycycle, 15-Handcart and 02 Tractor Tali for Door to Door Collection of Waste (One part for Dry Waste and Other for Wet waste).
- c. No. of Transfer station-01.
- d. Storage capacity of waste storage facilities 10 MT/ Day.



## 1.10 **CLEANING & DREDGING OF RIVERS**

Manadkini river about 10 km from Sati Anusuiya to Sphaticshila has cleaned, dredged and widened also.

As per the directives issued by NGT vide order no. 8488/20/16 dated 27.02.2019 to take up the work from Sati Anusuiya to Ramgaht.

In order by Hon'ble National Green Tribunal Bhopal Bench, 14 illegal encroachments of encroachments identified at 100 meter along the Mandakini River Chitrakoot.

The efforts being made by the Nagar Parisad Chitrakoot to temporarily keep the river Mandakini pollution free.

- i- Dredging and cleaning of river including widening protection of river banks i/c the construction of retaining walls as per requirement.



ii. - Drives for removal of encroachments at Chitrakoot.





**1.11 PROPOSED ACTION PLAN- SHORT TERM & LONG TERM ACTION AND THE IDENTIFIED AUTHORITIES FOR INITIATING ACTIONS AND THE TIME LIMITS FOR ENSURING COMPLIANCE.**

**1.11.1 - UNDER NATIONAL RIVER CONSERVATION**

- 1) Ministry of Environment & Forest GoI sanctioned a project under NRCP for abatement and conservation of Mandakini River, Chitrakoot (M.P.). The project was sanctioned on the basis of cost sharing of 70% & 30% by Central & State Government respectively. Initial estimated cost of the project was Rs 620.0 lakhs which was later revised by the State Govt. to Rs 882.68 Lakh on 26/02/2018. Environment Planning & Coordination Organization (EPCO) Bhopal is the Nodal Agency and Public Health Engineering Department Satna (M.P) and Nagar Parishad, Chitrakoot, Distt. Satna (M.P) are the executing agencies for the project .

- 2) A Detailed Project Report has been prepared by EPCO, Bhopal

The main components of the project are as follows:

- Commissioning of STP (4.70 MLD)
  - Nallah Trapping.
  - Construction of Intermediate Pumping Station (IPS).
  - Construction of Main Pumping Station (MPS).
  - Construction of Electric Sub-station.
  - Development of related infrastructure etc.
- 3) Progress report submitted by the PHED vide letter dated 27<sup>th</sup> March 2019 is enclosed as **(Annexure-3 (1) & (2)).**
- 4) After implementation of the project it is envisaged that sewage being disposed off in to the river shall be completely checked.
- 5) Brief of the progress as received from Public Health Engineering Department is as follows:

SN	Details of Action	Status
1.	Project Cost	Rs 882.68 Lakh
2.	Construction of STP & infrastructure (4.70 MLD)	

2 a.	STP	Anaerobic pond cap. 51330 m <sup>3</sup> – 1 No. Facultative pond Cap. 34969 m <sup>3</sup> – 2 No.
2b.	Nallah trapping	Saryu, Payashvni Nallah and panchyat nallah have been trapped at confluence and weir (15 m long, 1 m height) constructed.
2c.	Intermediate Pumping Station (IPS)	IPS cap. 95.00 m <sup>3</sup> & 5 sewer pumps installed.
2d.	Main pumping Station (MPS)	MPS constructed near Omar Vaishya Dharamshala having capacity of 112 m <sup>3</sup> and 05 sewer pumps installed.
2e.	Pumping Main	Intermediate pumping station with GI pipe line 900 m and 1025 m from pumping station to STP (Tigodi Devi) completed.
2f.	Electricity Sub-station	02 transformers of 11 kVA sub-station near IPS and 110 kVA substation near MPS installed.
3.	Status of 1 <sup>st</sup> Phase tasks	The executing agency for construction work under the 1 <sup>st</sup> phase i.e. PHED has completed all tasks. Commissioning & trail runs of STP are remaining.

#### 1.11.2- CHITRAKOOT SEWERAGE SCHEME OF STATE GOVERNMENT:

The Public Health Engineering Department, Government of Madhya Pradesh has executed a Phase -1 project of the Sewerage system of Chitrakoot town. The State Government vide letter dated 14.11.2017, has sanctioned the amount of Rs 2887.67 lakhs for the sewerage scheme of Nagar Parisad Chitrakoot. The letter dated 14.11.2017 is enclosed as **Annexure 3(3)**.

Under the scheme, 5000 house sewer connections shall be installed thereby trapping the domestic sewage and channelizing the same to the proposed Sewage Treatment Plant [STP] of 4.70 MLD.

## 1.11.3

### Proposed Short Term and Long Term Action Plan and present status for Rejuvenation of River Mandakini Chitrakoot

SI No.	Action plan for rejuvenation of Mandakini river	Organization/Agency Responsible for Execution of the Action Plan	Time Target (For Preparation of Scheme)	Present Status
I.	<b>Industrial Pollution Control</b>			
	(a) Construction of Effluent Conveyance System & CETP (Common Effluent Treatment Plant).	N.A.	N.A.	There is no industrial activity in the catchment of river in this region. Hence river is free from the impacts of industrial pollution in this stretch.
	(b) Up gradation of CETP to achieve zero discharge by further installing MGF, ACF, RO, MEE & Dryer with provision to reuse the treated waste water in industries	N.A.	N.A.	N.A.
	(c) Inventorisation of the industries in the catchment area of River Mandakini covering assessment on aspects relating to Status of Consents under Water & Air Acts and Authorization Effluent Generation. ETP capacities and final mode of effluent discharges	There is no industrial activity in the catchment of river in this region. So NA	There is no industrial activity in the catchment of river in this region. So NA	There is no industrial activity in the catchment of river in this region. So NA
	(d) Actions against the Identified industries in operation without Consents under Water & Air Acts/Authorization under the H & OW (M & TM) Rules 2016 as	N.A.	N.A.	N.A.

	amended.			
	(e) Action against the industries not installed ETPs or ETPs exist but not operating or ETP outlet or treated effluent is not complying to the effluent discharge standards or norms.	N.A.	N.A.	N.A.
	(f) Action against the red category industries for installation of OCEMS and not transferring data in CPCB and MPPCB	N.A.	N.A.	N.A.
	(g) Small scale/tiny and service providing units located in urban or semi-urban limits like Dairies. Auto Service Stations to have a minimum provision of O & G traps.	District and local Authority	2 Month	-
	(h) Prohibition of Burning of any kind of waste including agro-residues	N.A.	N.A.	N.A.
	(i) Construction of CETP for readymade garments complex/ electronics complex	N.A.	N.A.	N.A.
<b>2</b>	<b>Sewage Treatment &amp; Disposal Plan</b>			
<b>1.</b>	<b>Protection of water quality of Pond <u>(There is no existing pond in the Mandakini catchment area in Chitrakoot region.)</u></b>			
	(a) Laying of sewerage network in the colonies at upstream.	N.A.	N.A.	
	(b) Trapping of sewage	N.A.	N.A.	
	(c) Construction of STP –	N.A.	N.A.	

	(d) Plantation in the area	N.A.	N.A.	
<b>2.</b>	<b>Rejuvenation of water quality of Pond (There is no pond available in the Chitrakoot Region).</b>			
	(a) Laying of sewerage network in the colonies at upstream.	N.A.	N.A.	N.A.
	(b) Trapping of sewage source.	N.A.	N.A.	
	(c) Construction of STP	N.A.	N.A.	
	(d) Plantation in the area	N.A.	N.A.	
	(e) Repair of existing stop dams.	N.A.	N.A.	
<b>3.</b>	<b>Protection of Pond &amp; its water quality (There is no pond available in the Chitrakoot Region)</b>			
	(a) Strengthening of existing pond viz. stone pitching of bunds.	N.A.	N.A.	N.A.
	(b) Fencing of Pond	N.A.	N.A.	N.A.
	(c) Trapping of sewerage outfalls and connecting to primary sewer lines.	N.A.	N.A.	N.A.
	(d) Plantation	N.A.	N.A.	N.A.
<b>4.</b>	<b>Completion of Conveyance System for Nagar Parishad Chitrakoot Sewage</b>			
	(a) Construction of STP and management to ensure to restricted sewage discharge in river Mandakini..	PHED and Nagar Parishad Chitrakoot	Construction of sewage treatment plant is already under final stage of construction Phase  (Govt. of M.P. Project for 4.7 MLD)	PHED has already completes 90% work in 1 <sup>st</sup> phase of STP. Remaining work 10% will be completed by Nagar Parishad Chitrakoot up to 15 June 2019.  • As per the Nagar Parishad Chitrakoot (Letter no 1050

				dt. 13.05.2019) <b>(Annexure C)</b> • As per MPUDCL letter No. 1899 Date:- 03.10.17 Letter No. 094 Date :- 13.05.19  (Annexure A&B)
<b>5.</b>	<b>Implementation of Nagar Parisad Chitrakoot Sewerage project</b>  (Status as per point no. 4) • Construction of STP (4.70 MLD) is already under <b>first phase</b> in final stage of construction  Status of first phase competition is as per the Nagar Parishad Chitrakoot (Letter no 1050 dt. 13.05.2019 <b>(Annexure C)</b> will be completed before 15 June. • The remaining second phase of construction work will be completed ( as per the As per MPUDCL letter No. 1899 Date:- 03.10.17 Letter No. 094 Date :- 13.05.19) on <b>13.10.19</b> <b>(Annexure A &amp; B)</b>			
<b>5.1</b>	<b>Interception &amp; Diversion of Sewage with STP in river Mandakini not confluence.</b>			
	Phase-I (b) STP	As per MP Govt. project proposed of PHED	Now responsibility of the nagar parishad Chitrakoot. Will completed upto 15 June 2019	
	Phase-II (a) Laying of sewer line in the area	Work under MPUDCL(work order issued 03.10.2017)	As per MPUDCL (letter No. 1899 Date:- 03.10.17 Letter No. 094 Date ) :- Will completed <b>upto 13.05.19</b>  <b>Annexure A&amp;B</b>	
<b>5.2</b>	<b>Interception &amp; Diversion of Sewage with STP in river Mandakini</b>			
	First Phase (a) STP 4.7MLD	Under process	Under process for the completion of remaining work  <b>Annexure-ABC</b>	
	Second Phase (b) Laying of Sewer lines in	Work order by MP Urban development corporation on	Annex-AB	-

	the area	03.10.2017		
<b>5.3</b>	<b>Interception &amp; Diversion of Sewage going into Paswani Nala joining river Mandakini River construction of STP.</b>			
	<b><u>FIRST PHASE</u></b> (a) Construction of STP and management to ensure to resect sewage discharge in river Mandakini.	PHED & Ngar Panchayat Parisad	Scheme is already under implementation	PHED has already completed first phase of STP. 90% work Completed 10% remaining will be completed.
	(b) Construction of STP- 4.7 MLD	PHED & Ngar Panchayat Parisad	Scheme is already under construction phase	Annxure : ABC
	(c) For remaining work of phase first	PHED & Ngar Panchayat Parisad	Will be completed <b>Annxure : ABC</b>	-
	(b) <b>SECOND PHASE:</b> catchment of city sewage & network deveopment for the connectivy of the sewer line to STP	MP Urban development corporation & Ngar Panchayat Parisad	Scheme is already under implementation process	Proposal submitted by MP Govt. for STP (4.7 MLD) under process .  • As per MPUDCL (letter No. 1899 Date:- 03.10.17 Letter No. 094 Date ) :- Will completed <b>upto 13.05.19</b> <b>Annexure A&amp;B</b>
	(d) Construction of Effluent Conveyance System & CETP [Common Effluent Treatment Plant.	NA	NA	-
<b>6.9</b>	<b>Reused network from Existing &amp; proposed STPs.</b>			

	Reuse of effluent of proposed STPS in for garden, flushing, horticulture & fire fighting	UADD/IMC Chitrakoot	Scheme made by UADD/IMC Chitrakoot.	-
<b>7</b>	<b>River front development</b>			
	The river front development work of Mandakini river has taken under Nagar Parisad starches in length 15 km.	Nagar Parisad Chitrakoot.	already under implementation	completed within 01 Year
<b>8</b>	<b>Zero discharge from Proposed 4.7 mld STP</b>			
<b>III</b>	<b>Ground water quality</b>			
	(a) Sealing of contaminated hand pumps and found to be unfit for drinking purpose by the public	N.A.	N.A.	-
	(b) Supply of potable water to the affected communities in the identified critical blocks	N.A.	N.A.	-
	(c) Carrying assessment of ground water survey for quality and to identify over exploited and critical blocks.	N.A.	N.A.	-
	(d) To Conduct periodic surprise inspection of the industry to rule out any forceful injection of industrial effluents into groundwater resources	N.A.	N.A.	-
	(e) All the industry should be directed to obtain NOC from the CGWB and action against the units in Operation without obtaining of NOC from CGWA	N.A.	N.A.	-
	(f) To ensure rain water harvesting by the industrial commercial and other institutions and groundwater recharging with only clean water be encouraged by CGWB/CGWA	N.A.	N.A.	-
<b>IV</b>	<b>Flood Plain Zone (FPZ)</b>			

	(a) Survey & Demarcation of FPZ of River & Identification of encroachments.	District/Local administration	Within 06 Months	-
	(b) Checking encroachments in the FPZ of river mandakini	District/Local administration	Within 06 Months	-
	(c) Notification of Flood plain Zone FPZ	State Government	Within 06 Months	-
	(d) Plantation in Flood plain Zone (FPZ)	M.P. State Forest Department	By Next Manson	-
	(e) Prohibition of disposal of municipal plastic and biomedical waste particularly in drains	Local administration	Regularly	-
V	<b>Environmental Flow (E-Flow and Irrigation Practices)</b>	<b>WRD Department within regularly</b>		
1.	<b>Catchment improvement of Pond</b>			
	(a) Removal of obstruction in upstream catchment	N.A.	N.A.	-
	(b) Strengthening of existing pond viz. stone pitching of bunds, plantation etc.	N.A.	N.A.	-
	(c) Removal of encroachments if any	N.A.	N.A.	-
	(d) Plantation in the area	N.A.	N.A.	-
	(e) Repair of existing Stops dams	N.A.	N.A.	-

**1.11.4 - REGULAR ACTIVITIES BEING TAKEN UP BY M.P. POLLUTION CONTROL BOARD**

M.P. Pollution Control Board has its Regional Office at Satna with provision of laboratory for monitoring and analyses of environmental samples. The Regional Office is equipped with a team of Scientists and Engineers to perform the regular activities of the Board entrusted under the provisions of Water Act, Air Act & EP Act. The activities include Environmental monitoring and sensitizing the public for conservation of Air, Water, Soil and other components of the environment.

M.P. Pollution Control Board through its Regional Office has been carrying out following activities on regular basis in the Chitrakoot region for conservation of river water quality:

1. Monitoring of River Mandakini at 06 locations on monthly basis for ensuring the quality.
2. Although idol immersion during Durga / Ganesh Utsav is very limited, as per NGT Directions and CPCB Guidelines separate arrangement are being made by the Local Body for Idol immersion on these occasions.
3. During monthly sampling of the river water, campaigns are being carried out for mass awareness regarding avoidance of soap / detergents / oils on river banks, discourage the disposal of 'pooja samgri' in river, discourage the disposal of clothes, polyethene bags etc. after rituals, etc. for abatement of water pollution in the river while performing baths and rituals.
4. Sensitization of various stake holders such as Pilgrims, Tourists, Local Body, Sadhu-Sant, Pujaris, Shop-keepers etc. regarding good practices to conserve the river quality.
5. Public awareness through Wall-writing at various ghats.

## 6. PHOTOGRAPHS

**Programs being taken up on regular basis by the M.P. Pollution Control Board through its Regional Office Satna**

**Polythene-bags confiscation drives with awareness programs were carried out jointly by MPPCB and Local Administration.**



**Polythene-bags confiscation drives with awareness programs were carried out jointly by MPPCB and Local Administration.**



### पॉलीथिन पर बैन | पीसीबी ने शुरू की छापांमारी

चित्रकूट में जत्रा की गई 29 किलो पॉलीथिन

स्टार समाचार | सतना

पॉलीथिन बैन पर पूरी तरह उठावर संछाग, जन-  
 शिक्षण पर प्रतिक्रिया लगाने प्रदुषण नियंत्रण बोर्ड की  
 छापांनर कार्रवाई शुरू कर दी गई है। सतना की  
 चित्रकूट में टीम बनकर छापांनर कार्रवाई के दौरान  
 प्रोडक्टों के 29 किलो पॉलीथिन जत्रा किया गया।  
 यही नरर परीवर एवं प्रदुषण इलरकों में निरुध पर्वीकरण  
 सतना कार्रकरण के उलरत चैट परदुषण की टीम पर  
 जलरसकलर पैली निकलती गई। कार्रवाई के दौरान नर  
 प्रदुषण नियंत्रण बोर्ड सतना की संयुक्त टीम द्वारा  
 चित्रकूट में सीएमओ कार्यालय के अधीकारी,  
 कर्मचारी निरुध प्रदुषण नियंत्रण बोर्ड के सतना  
 एसके मिश्र, सैन्ड डिवीसी, डॉ. रामकरन गुज्र, जेनेरल  
 सिंघ द्वारा परीवरण जन-शररसकलर के सतना पॉलीथिन  
 बैन पर उलरती कार्रवाई किया गया। यही एक उलर



निरुध नियंत्रण बोर्ड के क. वैज्ञानिक सोररर परेन तथा  
 सतनापी अरुथ परेन, सोनेट वैरर, अरररर सिंघ,  
 चंद्रसेन परेन तथा कोरर नरर परीवर के एरररी  
 कण्ठेन तथा अन्य कर्मचारीयों की संयुक्त टीम द्वारा  
 जत्रा-जत्रा नरर परीवर एवं प्रदुषण इलरकों में जन-  
 शररसकलर पैली निकलती गई।

म.प्र. प्रदूषण नियंत्रण बोर्ड द्वारा मंदाकिनी नदी के किनारे नदी को प्रदूषण से बचाने हेतु की गई जन-जागरूकता कार्यवाही













**Awareness Rallies are being conducted by the Board on Regular Basis on special occasions like – Paryavaran Diwas, Melas etc.**





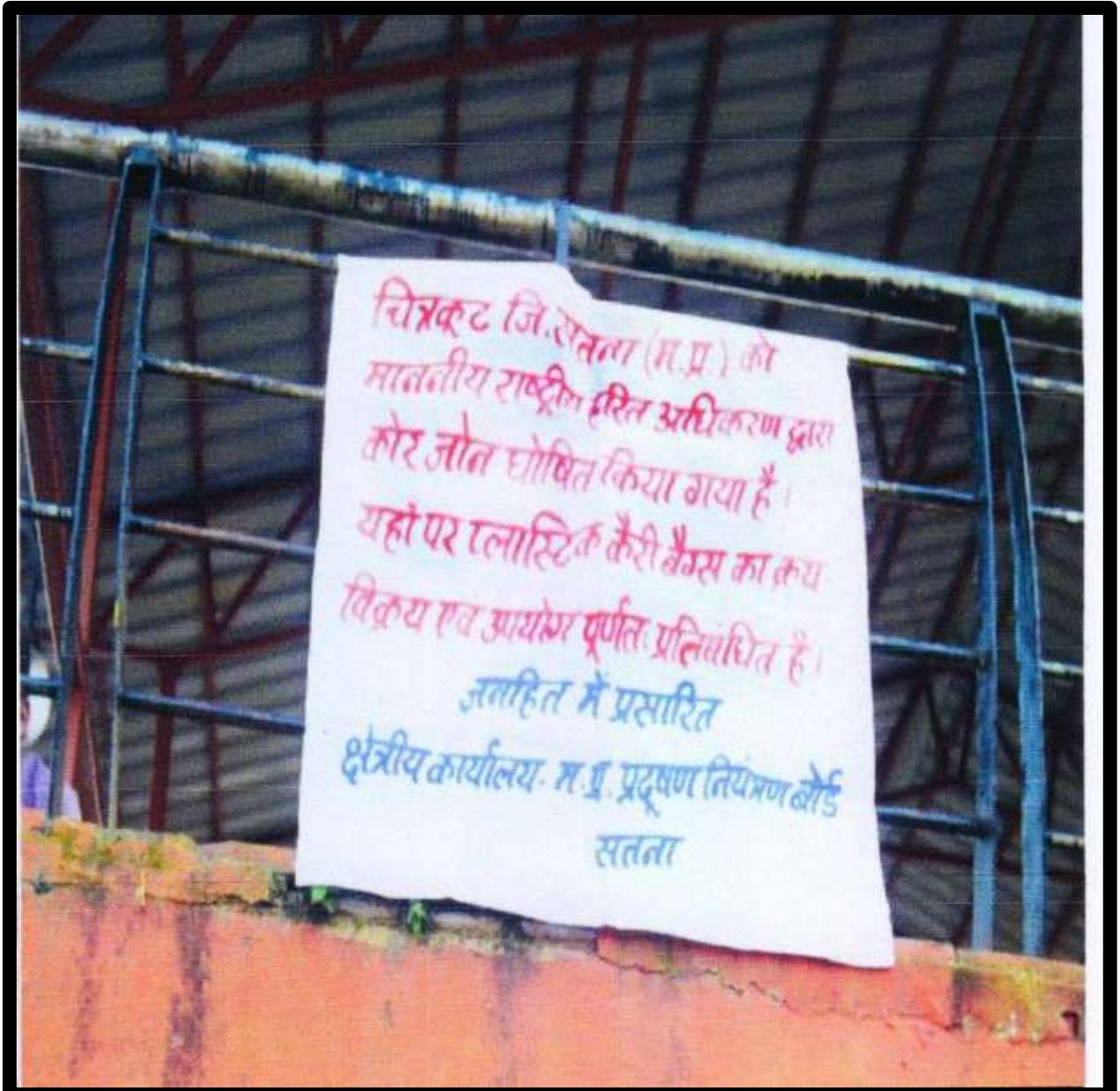












चित्रकूट जि. सतना (म.प्र.) को  
मातृतीय राष्ट्रीय हरित अधिकरण द्वारा  
कोर जोत घोषित किया गया है।  
यहां पर प्लास्टिक कैंरी बैग्स का क्रय-  
विक्रय एवं उपयोग पूर्णतः प्रतिबंधित है।

जनहित में प्रसारित

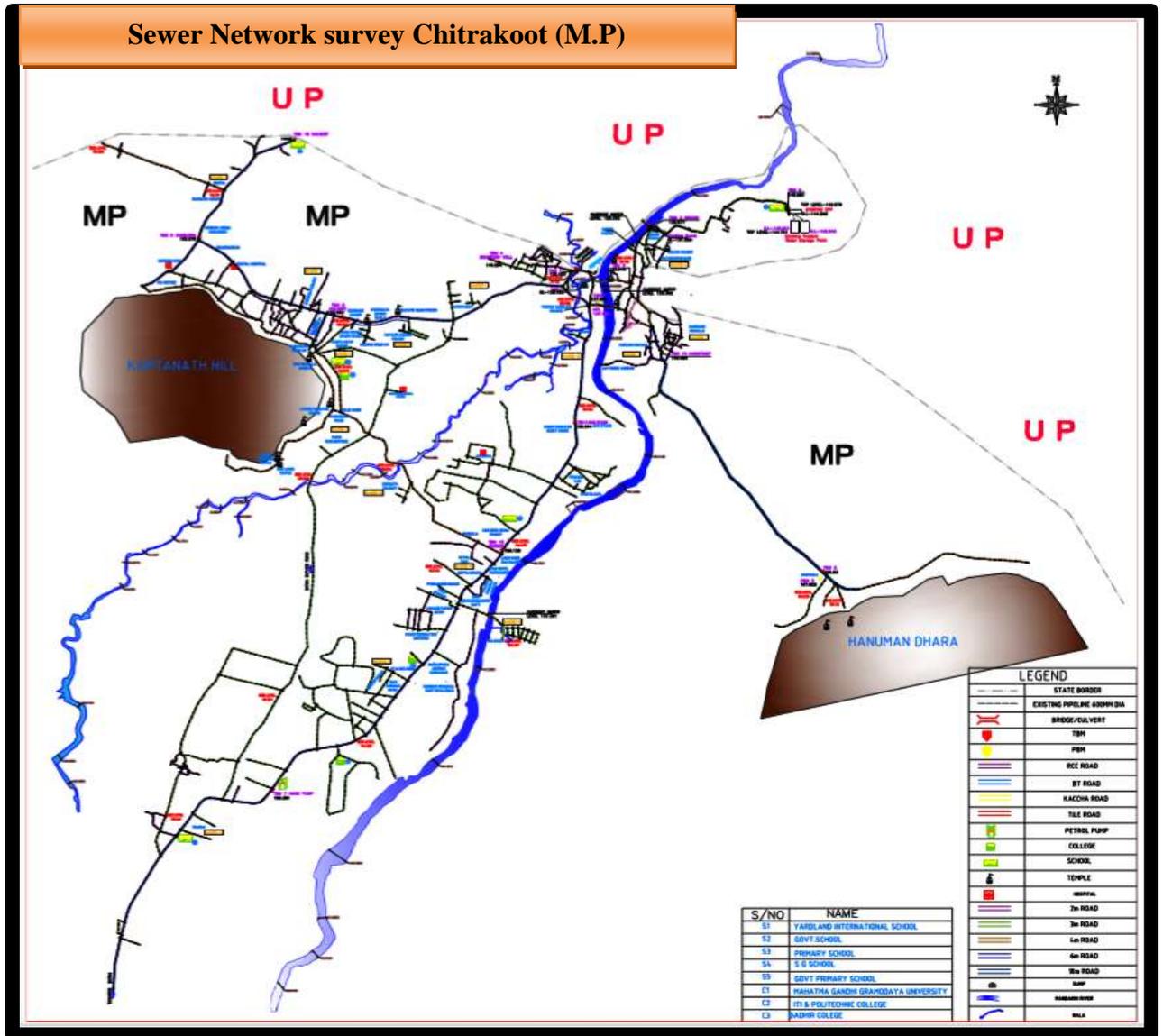
राष्ट्रीय कार्यालय - म.प्र. प्रदूषण नियंत्रण बोर्ड

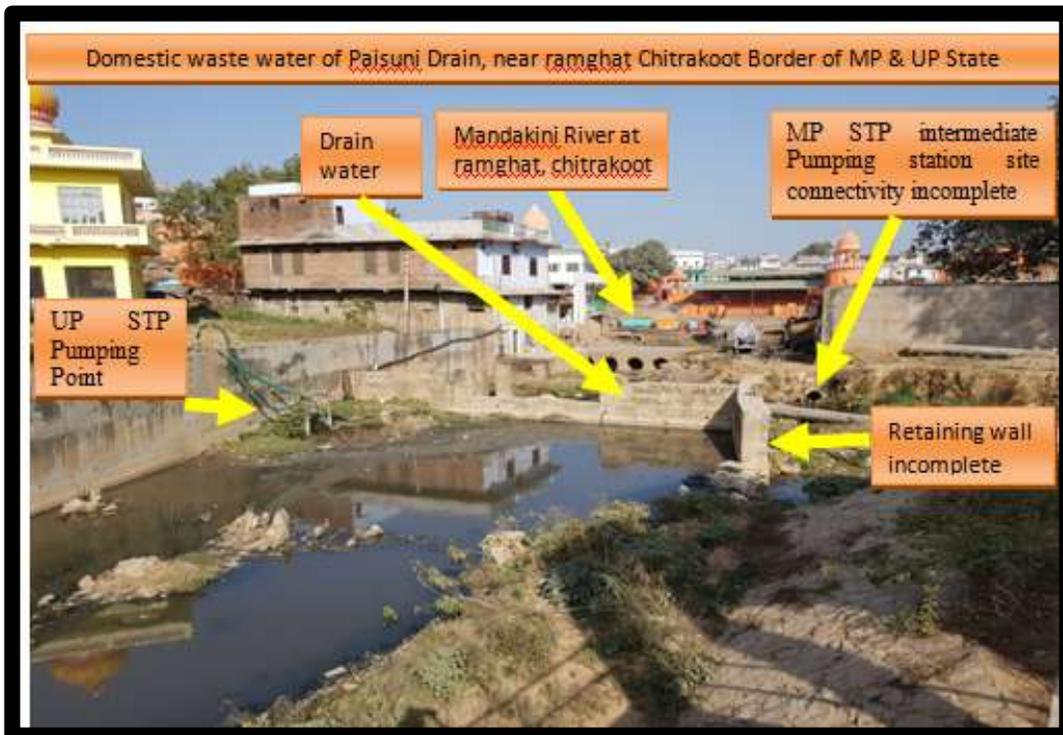
- सतना





## Glimpses of the activities taken up for conservation of the river quality





### Drives for removal of encroachments





Annex - A

## Madhya Pradesh Urban Development Company Limited

(CIN No. U75110MP2015SGC034139)

(Government of Madhya Pradesh Urban Development &amp; Housing Department)

1st Floor, Beej Bhawan, Arera Hills, Bhopal-462011

Ph. --91-755-2763060, 61, 62 Fax--91-755-2763868

E-mail-mpuspbpl@gmail.com

No. Engg./PMU/MPUDC/1897

Bhopal, Date 03/10/2017

### Letter for Commencement of Work (Work Order)

To,

M/s CHANDRA NIRMAN Pvt. Ltd,  
Villa No.C-22/23,  
Maruti Life Style, Opposite R K Mall,  
Kota Road, Raipur (C.G.)

**Sub.: Sewerage Project of Chitrakoot Nagar Parishad in Satna District in  
Madhya Pradesh.**

**Ref: Your bid dated 22.09.17 for MPUDCL Tender No.46.**

Dear Sir,

1. Your bid for the work mentioned above has been accepted on behalf of MPUDC at your bid rate for capital cost of Rs.28,35,00,000 (Rupees Twenty Eight Crore, Thirty Five Lakh only) and cost for the bid (A+B+C)=Rs.35,21,62,511/- (Rupees Thirty Five Crore, Twenty One Lakh, Sixty Two Thousand, Five Hundred and Eleven only).  
(as per page no.32 of tender document).
2. You are requested to contact the Project Manager, MPUDC, PIU Jabalpur for this work for taking the possession of site to start the work.
3. Please note that the time allowed for carrying out the work as entered in the bid 24 months shall be reckoned from the date of signing the contract agreement.

Endt. No. Engg./PMU/MPUDC/1900

Copy to:

1. Managing Director, MPUDC and Commissioner, UAD for information please.
2. Project Manager, MPUDC, PIU, Jabalpur for information & necessary action please.
3. CFA, MPUDC for information please.

Rlc 407  
3/10/17  
Engineer-in-Chief  
MPUDC

Bhopal, Date 03/10/2017

Rlc 407  
3/10/17  
Engineer-in-Chief  
MPUDC



Annex-C

## कार्यालय नगर परिषद चित्रकूट जिला-सतना(M0प्र0)

Email: smcchitrakoot@mpurban.gov.in Phone: 07670-265329

क्र0/न.प./सक/1847/2019  
प्रति

चित्रकूट, दिनांक 13-5-19

शेखरी अधिकारी,  
M0प्र0 प्रदूषण नियंत्रण बोर्ड,  
सतना (M0प्र0).

विषय-माननीय एन.जी.टी. संबंधित जानकारी तत्काल भेजने हेतु।

उपरोक्त विषयांतर्गत निम्न तालिका में दर्शित बिन्दुवार जानकारी निम्नानुसार है-

एस.टी.पी.निर्माण का चरण	शेष कार्य	समाहित कार्य पूर्ण होने की तिथि(नगर परिषद चित्रकूट द्वारा)	रिमाक
एस.टी.पी.निर्माण का प्रथम चरण (पीएचईसी) शेष कार्य नगर परिषद चित्रकूट	एस.टी.पी.निर्माण के दौरान इंटरमीडियम पम्पिंग स्टेशन के पास रिटनिंग वॉल का शेष निर्माण तथा पाइपलाइन का जोड़ना अब तक पूर्ण हो जावेगा।	1-प्रथम चरण में एस.टी.पी. का कार्य पी. एच.ई. सतना द्वारा किया गया है। दूरभाष से ली गई जानकारी अनुसार पाइपलाइन जोड़ने का कार्य 15 जून तक पूर्ण कर लिया जाएगा। 2-मुख्यमंत्री अखीसरंधना योजनांतर्गत द्वितीय चरण में भरतघाट में रिटनिंग जल का निर्माण कार्य नगर परिषद चित्रकूट द्वारा का 15 जून तक पूर्ण कर लिया जाएगा।	दूरभाष-एस.डी. ओ. पी.एच.ई. -9993595768
एस.टी.पी.निर्माण का द्वितीय चरण (नगर परिषद चित्रकूट द्वारा) जारी किये गये टेंडर अनुसार	सीवर लाइन को इंटरसेप्शन एवं डायवर्शन सीवर लाइन (शहर में उत्पन्न होने वाले धरेलू दूषित जल को संग्रहित कर एस.टी.पी. तक पहुंचाना )	सीवर योजना द्वितीय चरण का कार्य मध्यप्रदेश अर्थन डेवेलपमेंट कॉर्पोरेशन जबलपुर द्वारा कराया जा रहा है। जिसकी पूर्णता की जानकारी दूरभाष में सम्पर्क के पर्याप्त निष्काय को उपलब्ध नहीं कराई गई है।(अतः कृपया प्रोजेक्ट मैनेजर को दूरभाष पर सम्पर्क करने को कष्ट करें।	श्री मुकेश उपाध्याय, संहा0प्रोजेक्ट मैनेजर- 9826261067

मुख्य नगर पालिका अधिकारी  
नगर परिषद चित्रकूट, सतना (M0प्र0)