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**The Registrar,
Hon'ble National Green Tribunal,
Faridkot House, Copernicus Marg,
Near India Gate,
New Delhi - 11001.**

No.: JK PCB/NGT/115/2021/794-795

Dated.: 14 -12-2021

Sub: Factual report of the five member joint committee constituted by the Hon'ble NGT in compliance to order dated 18-10-2021 in O.A. No. 241/021 Titled Raja Muzzaffar Bhat V/s Union of India & Ors.

Sir,

In compliance to the directions of the Hon'ble NGT dt. **18-10-2021** in O.A. No. **241 / 2021** titled **Raja Muzzaffar Bhat V/s Union of India & Ors.**, where under, the Pollution Control Board (JKPCC) was directed to act as nodal agency for compliance and coordination of the joint committee constituted by the Hon'ble Tribunal. The operative part of the order of the Hon'ble NGT as reproduced as under:-

"In view of above material, prima facia it appears that there is continued violation of Water Act to the prejudice of the environment and public health which remains unchecked. Thus, intervention of the Tribunal may be called for. Accordingly, we direct the authorities to verify the facts and take remedial action, in accordance with law. We also constitute a five member Joint Committee of CPCB, J&K PCC, Deputy Commissioners, Srinagar and Budgam and the Director, Urban Local Bodies, J&K. The State PCB will be the nodal agency for compliance and coordination. The joint committee may meet within two weeks and undertake visits to the sites in question. The committee may look into the water quality in terms of Fecal coli form, quantity of sewage being discharged, solid waste being dumped on the banks and the action plan prepared by the River Rejuvenation Committee (RRC) for J & K constituted as per orders of the Tribunal in OA 673/18. Further action be planned and executed accordingly. It may give a factual report to this Tribunal within two months by e-mail at judicial-ngt@gov.in in preferably in the form of searchable PDF/OCR support PDF and not in the form of Image PDF. A copy of the report may also be given to the Secretary, Urban Local Bodies who may file an action taken report in terms of status of compliance of orders of the Hon'ble

Supreme Court in Paryavaran Suraksha (supra) and orders of this Tribunal dated 21-05-2020 and 21-09-2020 in OA 593/2017, Paryavaran Suraksha Samiti V/s Union of India & Ors, dated 14-12- 2020 in OA No.606/2018, compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues and dated 06-12-2019 in OA 673 of 2018, in re-news item published in "The Hindu" authored by Shri Jacob Koshy titled "More rivers stretches are now critically polluted, CPCB" within one month of the said report".

Accordingly, JK PCC sensitized the joint committee about the matter and asked the committee members to do the needful vide communication No. **JK PCB/NGT/115/2021** dt **17-10-2021**.

Thereafter, the field visits of the committee were coordinated and logistic support was provided along with other facilities to accomplish the assignment. The joint committee conducted the field visit on **08-11-2021** and **02-12-2021** and the Central Pollution Control Board nominee Shri Suneel Dave Regional Director CPCB Chandigarh provided some suggestions and inputs during field inspection on **02-12-2021** and the committee accordingly framed the factual report. However, the officer was not available for signatures on the report due to his pre occupation.

The committee has submitted its report which is enclosed herewith for kind consideration of the Hon'ble Tribunal.

Encl. :- **Factual Report**
(Total 36 pages).

Yours faithfully,



(B. M. Sharma)
Member Secretary
JK PCC, Jammu

Copy to the :-

- i) Administrative Secretary to Govt. Housing and Urban Development Department, Civil Secretariat, Jammu, with the copy of factual report of Joint Committee for information and follow up action in terms of the Hon'ble NGT order dt. **18-10-2021** duly endorsed vide no. **JKPCC/LSJ/NGT/115/2021/1916-23** dt. **29-10-2021**.

Before the National Green Tribunal

Principal Bench, New Delhi

**Original Application No.241/2021 titled Raja Muzaffar
Bhat**

Versus

Union of India & Ors.

Order passed on 18.10.2021



FACTUAL REPORT

Submitted by

Joint Committee constituted by the Hon'ble National Green Tribunal

Background

Hon'ble NGT Order: in O/A No. 241 of 2021. Principal Bench, New Delhi in its Order dated 18th October, 2021 in O.A. No.241/2021, regarding Grievance in application against failure to prevent discharge of sewage and dumping of solid waste into river Doodh Ganga and Mamath Kull in violation of provisions of the Water (Prevention and Control of Pollution) Act, 1974, judgments of the Hon'ble Supreme Court dated 22.02.2017 *inter alia* in Paryavaran Suraksha Samiti Vs. Union of India and orders of this Tribunal on the subject has passed the following direction;

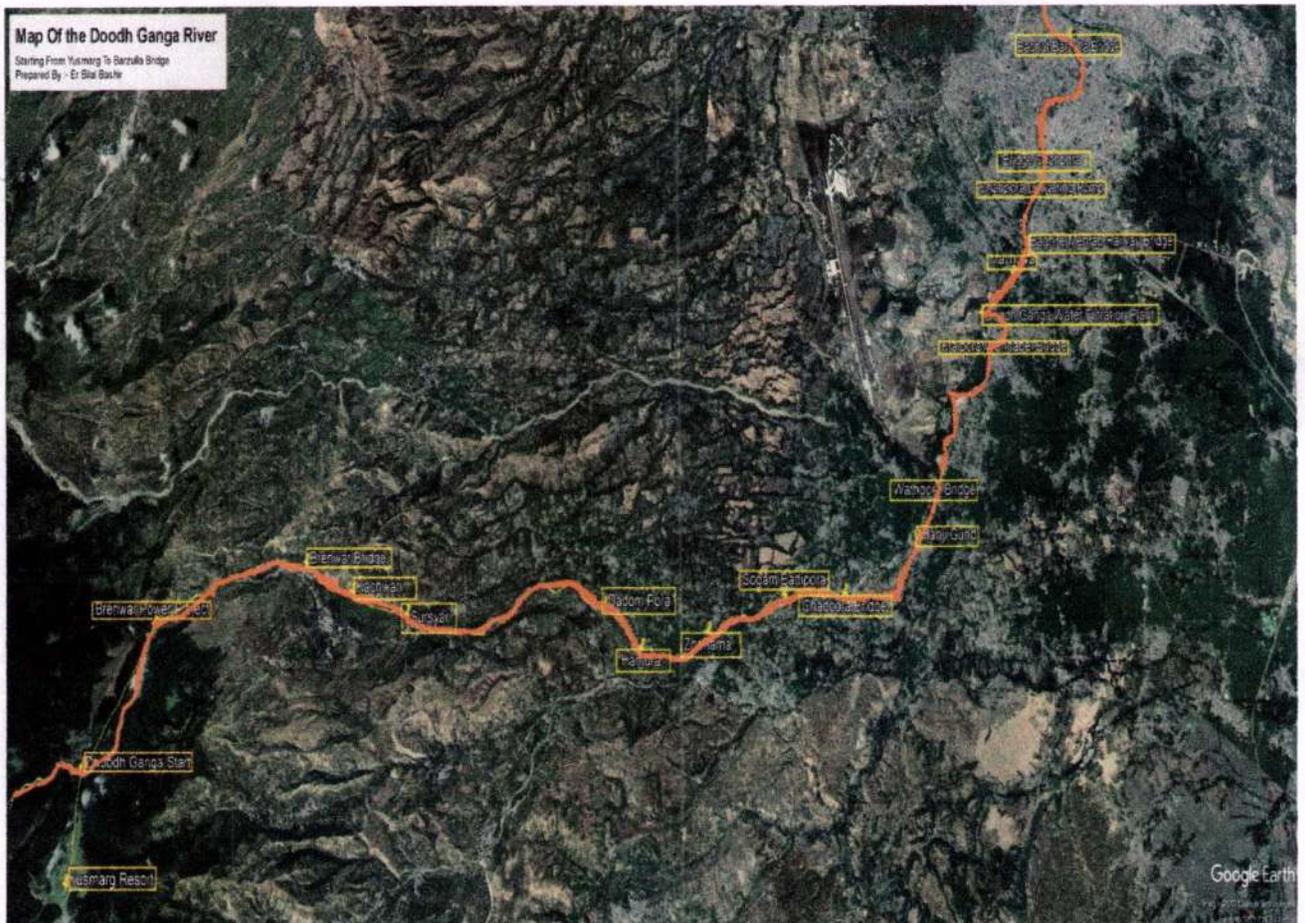
"In view of above material, prima facie it appears that there is continued violation of Water Act to the prejudice of the environment and public health which remains unchecked. Thus, intervention of the Tribunal may be called for. Accordingly, we direct the authorities to verify the facts and take remedial action in accordance with law. We also constitute a five-member Joint Committee of CPCB, J&K PCC, Deputy Commissioners, Srinagar and Budgam and the Director, Urban Local Bodies, J&K. The State PCB will be the nodal agency for compliance and coordination. The Joint Committee may meet within two weeks and undertake visits to the sites in question. The Committee may look into the water quality in terms of Fecal coliform, quantity of sewage being discharged, solid waste being dumped on the banks and the action plan prepared by the River Rejuvenation Committee (RRC) for J & K constituted as per orders of the Tribunal in OA 673/18. Further action be planned and executed accordingly. It may give a factual report to this Tribunal within two months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of the report may also be given to the Secretary, Urban Local Bodies who may file an action taken report in terms of status of compliance of orders of the Hon'ble Supreme Court in Paryavaran Suraksha (Supra) and orders of this Tribunal dated 21.05.2020 and 21.09.2020 in O.A. 593/2017, Paryavaran Suraksha Samiti v. Union of India & Ors., dated 14.12.2020 in O.A. No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues and dated 06.12.2019 in OA 673/2018, In re: News item published in "The Hindu" authorized by Shri Jacob Koshy titled "More rivers stretches are now critically polluted: CPCB" within one month of the said report."



A. Doodh Ganga River.

Introduction

Doodh Ganga originates from the glaciers of Pir Panjal mountains between the Budgam and Poonch Districts around mount Shankar Bul Bul located at an altitude of 4500 Mtrs. It is gorgeous river known for its water that appears milky in colour. It is one of the major rivers flowing across the Budgam and Srinagar District. The total length of Doodh Ganga River is around 42.73 KMs. The various villages en-route this river on both sides are, Yousmarg, Branwar, Suresyar, Dadompura, Nowhar, Hanjura, Kralwari, Sogam, Badipora, Chadoora, Wathora, Kralpora, Rawalpura, Barzulla & Tengpora. and enters into Hokarsar at Zanikoot and finally meets river Jhelum. The Google Image of the River is shown below.



Google image of River Doodh Ganga

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In compliance to the directions of the Hon'ble National Green Tribunal Dated 18-10-2021, the Joint Committee consisting of Deputy Commissioner Srinagar, Deputy Commissioner Budgam, Director Urban Local Bodies Kashmir, and Regional Director JKPCC Kashmir accompanied by other concerned officers made field visit on **08/11/2021** to Doodh Ganga and Mamath Kull followed by a meeting at Town Hall Chadoora on the same day.



Visit of joint Committee to DoodhGanga on 08/11/2021



Review meeting at Town Hall Chadoora by Joint Committee

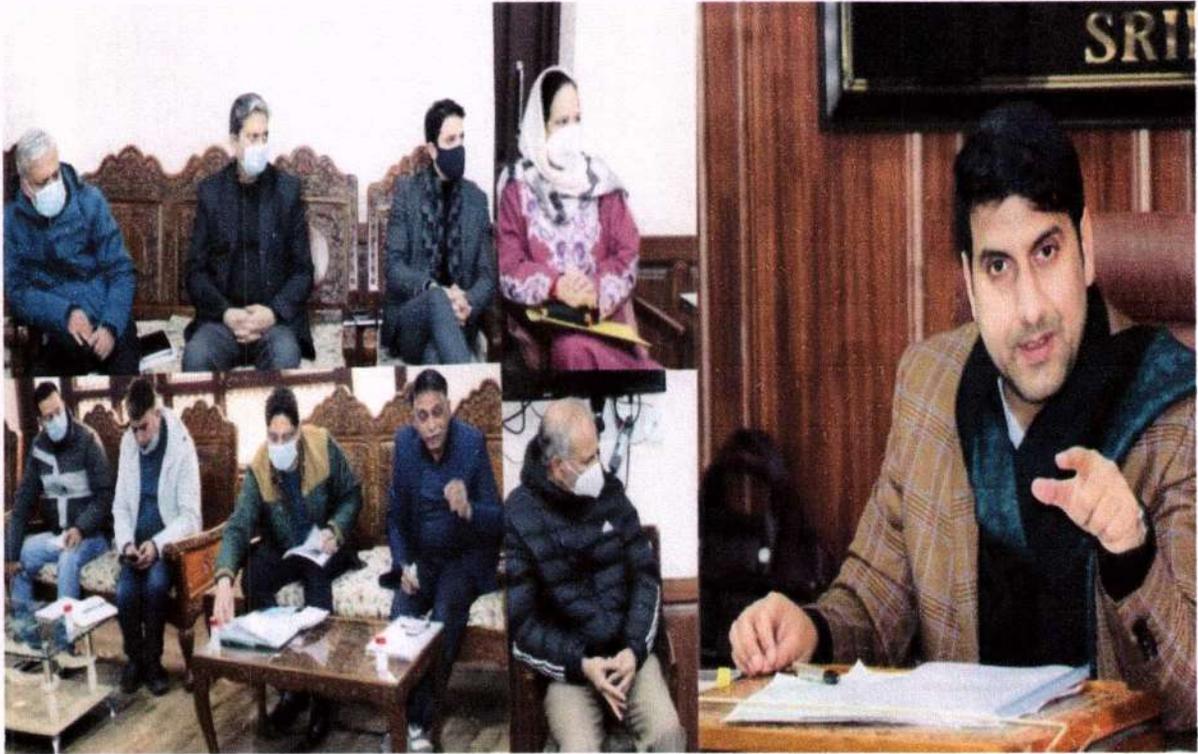
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Another field visit was made on **02/12/2021** by Regional Director, CPCB Chandigarh (Member of Joint Committee), accompanied by Officers of JKPCC Kashmir, Srinagar Municipal Corporation, Urban Environmental Engineering Department besides officers of Urban Local Bodies Kashmir to these areas. It was followed by a detailed discussion in the office chambers of Deputy Commissioner Srinagar on **03/12/2021**, which was attended by Member CPCB, DC Srinagar, Commissioner SMC, Regional Director JKPCC, Director Urban Local Bodies Kashmir , ADC Budgam representing Deputy Commissioner Budgam, SE Drainage Division SMC, SE UEED etc. The committee Members discussed in length about the progress achieved in ascertaining the factual ground position in respect status of dumping of solid waste on banks of Doodh Ganga River and Mamath Kull, untreated sewage discharge and water quality profile at various locations across these water bodies. The members recommended formulation of Short term/ Long Term Action Plan to be prepared by the respective Departments, responsible agencies for sewage management, solid waste management besides mining activity regulations for which the committee requested all the stakeholders for immediate submission of details which shall be included for finalization of factual report.



Field visit on 02/12/2021

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Meeting of Joint Committee Members/ Co opted Members.

a) Source of Pollution in Doodh Ganga River.

A detailed survey of the stretch of Doodh Ganga river from Sogam in Chadoora (District Budgam) to Tengpora in the heart of Srinagar City has revealed the following main sources of pollution:

- 1) The sources of pollution of the Doodh Ganga River include both point and non-point sources. Point sources of pollution include some of the latrines/bathrooms of residential houses located near the banks of River, direct discharge of untreated sewage, municipal waste water, effluents from restaurants, automobile workshops, vegetable, meat and fish markets situated in the catchment areas. Non-point sources of pollution include dumping of solid wastes, agricultural run-offs etc.
- 2) Dumps of solid waste which include both biodegradable and non-biodegradable waste are observed on the banks of river at various locations, prominent among them are sites near Chadoora, Kralpora, Bagh-e- Mehtab, Barzulla etc .

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- 3) Dumping of Cow dung by local inhabitants is observed at few places on the banks of river by the local inhabitants of the area and there is every possibility of contamination of river water during the rainy season by way of leaching.



Dumps of Cow Dung on the bank of Doodh Ganga near Bulbul Bagh Srinagar

- 4) Extraction of sand and boulders from the river bed from Sogam to Downtown Chadoora,
- 5) Public drain near Chadoora Bridge carrying domestic sewage discharges into the water body without any treatment.
- 6) No STP is installed in the entire stretch of the river for sewage treatment.
- 7) Littering and dumping of municipal solid waste including plastic waste on the banks of the river as well as into the river itself, at many scattered locations

b) Details of discharge of municipal waste water contributing the pollution:-

Sewerage is the core element that determines the environmental status of any settlement. Development of appropriate sewerage system with efficient treatment is the key requirement, which acts as pre-requisite for facilitating

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balanced and harmonized development of the area in general & Doodh Ganga River in particular. Augmentation of existing inadequate system/treatment facilities as well as adoption of new latest technologies of waste water treatment requires continuous efforts so that a clean & hygienic environment is created which shall lead to good health & well being of the people.

There are few small drains passing through Chadoora and Wathoora localities of District Budgam which discharge the untreated sewage and municipal wastes directly into the Doodh Ganga. In Srinagar city there are Thirteen (13) mechanical dewatering pumps operated by City Drainage Division (SMC Srinagar) from Chanapora to Tengpora bridge. Physically three number of dewatering stations at Rose colony Chanapora, Khan Colony Chanapora, Khachar pora are intermediate dewatering stations catering to minor catchment areas, discharging finally into MPS Chanapora station, Chanapora sluice station, Barzalla station respectively. **Superintending Engineer,** Drainage Circle SMC Srinagar has submitted the detail of ten numbers of main dewatering station that discharge about **12.24 million litres** of untreated waste water directly into Doodh Ganga River per day during normal dry days. The detail of all thirteen dewatering pump stations as submitted by SMC and UEED is shown below in **Table 1**.

The main cause of entry of pollutants is the existing combined Drainage & Sewage flow system in Srinagar city. There is need to create a separate Sewage network & treatment plants to segregate Sewage flow.

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Table.1 Dry Weather Sewage Flow Discharging in to Doodh Ganga Nallah

(Source:- SMC&UEED Srinagar) .

S. No	Station	Max Design/Storm Discharge wet (cusec)	Normal Discharge during dry season (cusec)	Pumping operation per day @ hours / Day	Quantity of water pumped per day (Litres/Day) Dry Weather	Catchment areas
1	Chanapora MPS	40	6	@ 3 hours / Day	1840320	Right bank part area of Doodh ganga nala in upper chanapora and adjoining areas upto Bagh Mehtab including discharge of intermediate Khan colony pumping station
2	Chanapora IPS	56	6	@3.5 hours / Day	2147040	Right bank part area of Doodh ganga nala along national highway upto Pohru - Nowgam
3	Afandi Bagh	52	2	@ 4 hours / Day	817920	Left bank part areas of Doodh ganga nala along both sides of national highway bye pass from Hyderpora to Chana pora bridge
4	Channapora Sluice	5	3	@ 2 hours / Day	613440	Right bank part area of Doodh ganga nala in lower chanapora and adjoining areas of Nati pora
5	Pamposh Colony	5	2	@ 0.5 hours / Day	102240	Right bank part area of Doodh ganga nala in Pamposh colony and interiors
6	Natipora	10	5	@ 2.5 hours / Day	1278000	Right bank part area of Doodh ganga nala interiors of Nati pora along right & left side of Natipora-Nowgam road

7	Barzulla	10	5	@ 3 hours / Day	1533600	Left bank part area of Doodh ganga nala from Barzalla bridge to sanat nagar & upto parray pora along IG road
8	Bulbul bagh	15	5	@ 1.5 hours / Day	766800	Left bank part area of Bul Bul and adjoining area in between Nala and right side of national highway upto tengpora bridge
9	Magrey Mohalla	5	3	@ 2.75 hours / Day	843480	Right bank part area of Doodh ganga nala upto flood spill channel and teng pora bridge
10	Tengpora By Pass	67	6	@ 3.75 hours / Day	2300400	Left bank part areas of Doodh Ganga nala along both sides of national highway bye pass from Tengpora upto Hyderpora ,
Cumilative Dischage in Dood Ganga Nalla during dry period (Liters/day) as per the pumping Operation per Day			Total:- (Litres/day)		12243240	say 12.25 MLD
Note:	i) Intermediate Khacharpora DWS into main Barzulla DWS					
	ii) Intermediate Khan Colony into Main Chanapora Sluice					
	iii) Intermediate RoseLane into Main Chanapora MPS					

As per the information received from Superintendent Engineer UEED, there are 7 wards of Srinagar Municipal Corporation related to Doodh Ganga River forming catchment area of 13 dewatering stations, operated by SMC , discharging directly untreated sewage into said River as detailed below in Table 2



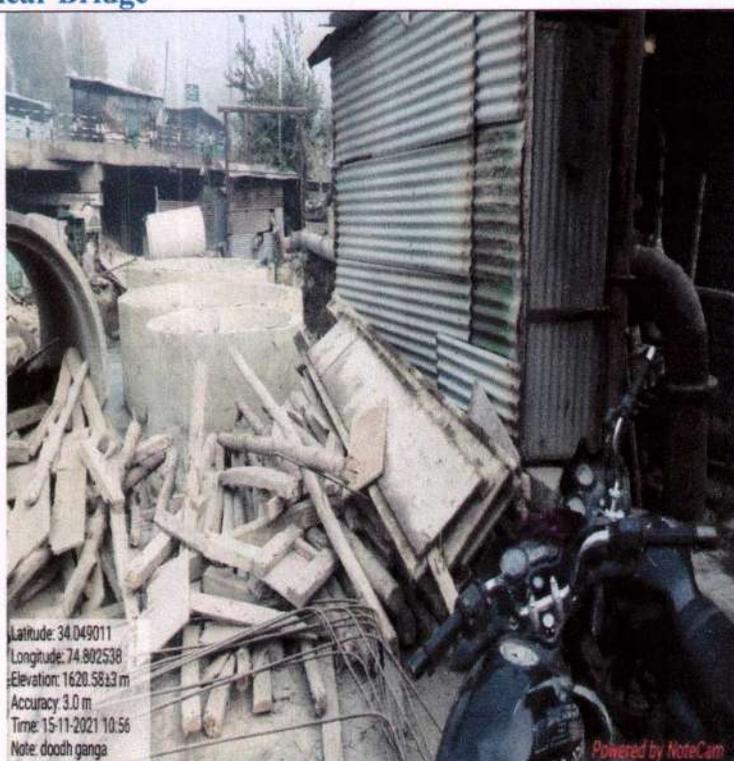
Table 2.

S No	Municipal ward name	Ward No.	Population 2021 as per decadle growth at the rate 20.35 %
1	Baghi Mehtab	78	30,000 Souls
2	Chanapora	10	19,095 souls
3	Rawalpora	68	16,681 Souls
4	Budshanagar	11	21,863 Souls
5	Natipora	13	16,489 souls
6	Hyderpora	15	23,356 souls
7	Baghati Burzulla	14	24,025 souls
Total Existing Population 2021			1,51,509 Souls
Average water consumption @ 135 LPCD			2,04,53,715 Liters/Day
Therefore sewage Quantity @ 80%			1,63,62,972.00 Ltrs. Say 16.36 MLD

Since total present sewage flow from the above locations comes out 16.36 MLD out of it 12.25 MLD is being discharged directly into Doodh Ganga River by pumping stations installed by Municipal Corporation Srinagar and rest residual finds its way in Septic Tank/Soakage pit treatment.

Details of all Dewatering Pump Stations including Waste Water Analysis

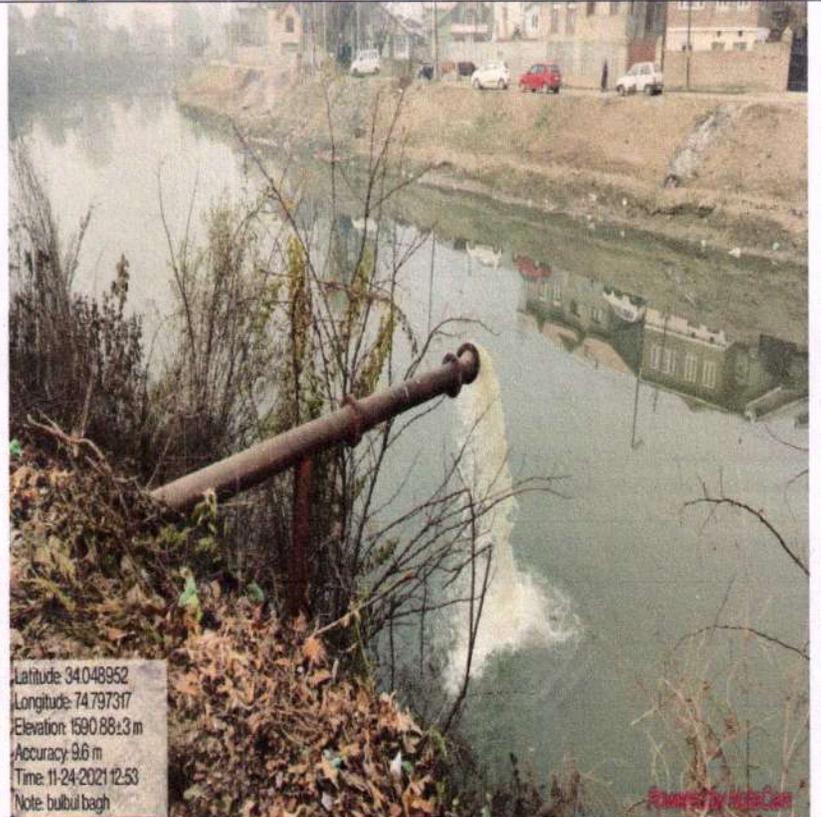
1. Dewatering Pump station Barzulla near Bridge	
GPS Coodinates	
Latitude	34.049003
Longitude	74.802541
Quantity of waste water pumped per day into Doodh Ganga River in MLD	1.5336 MLD approximately during dry season
Parameters	
Date of sampling=15/11/2021	
PH	7.30
BOD mg/l	41.0
COD mg/l	130.1
Phosphate mg/l	0.803
Ammonical Nitrogen mg/l	6.650
TSS mg/l	81.0
TDS mg/l	404.0
Chloride mg/l	52.0



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2. Dewatering Pump station Bul bul bagh

GPS Coodinates	
Latitude	34.048909
Longitude	74.797395
Quantity of waste water pumped per day into Doodh Ganga River	0.7668 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	7.20
BOD mg/l	61.5
COD mg/l	240.0
Phosphate	1.123
Ammonical Nitrogen mg/l	7.146
TSS mg/l	162.0
TDS mg/l	490.0
Chloride mg/l	72.0



3. Dewatering Pump station Khachar pora

GPS Coodinates	
Latitude	34.046352
Longitude	74.800594
Quantity of waste water pumped per day into Doodh Ganga River	waste water goes into pump station Barzulla.
Parameters	
Date of sampling=15/11/2021	
P H	Not analysed as waste water goes into pump station Barzulla.
BOD mg/l	
COD mg/l	
Phosphate mg/l	
Ammonical Nitrogen mg/l	
TSS mg/l	
TDS mg/l	
Chloride mg/l	



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4. Dewatering Pump station Margay Mohalla Old Barzulla

GPS Coodinates	
Latitude	34.053236
Longitude	74.793383
Quantity of waste water pumped per day into Doodh Ganga River	0.84348 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	Not analysed as waste water at present discharges into Doodh Ganga through gravity
BOD mg/l	
COD mg/l	
Phosphate mg/l	
Ammonical Nitrogen mg/l	
TSS mg/l	
TDS mg/l	
Chloride mg/l	



5. Dewatering Pump station Tengpora Bypass

GPS Coodinates	
Latitude	34.055000
Longitude	74.787222
Quantity of waste water pumped per day into Doodh Ganga River	2.3004 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	7.22
BOD mg/l	45.2
COD mg/l	186.9
Phosphate mg/l	1.012
Ammonical Nitrogen mg/l	6.582
TSS mg/l	110
TDS mg/l	408
Chloride mg/l	50.0



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6. Dewatering Pump station Natipora

GPS Coodinates	
Latitude	34.047138
Longitude	74.811095
Quantity of waste water pumped per day into Doodh Ganga River	1.278 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	7.15
BOD mg/l	48.5
COD mg/l	208.0
Phosphate	1.085
Ammonical Nitrogen mg/l	5.35
TSS mg/l	116.0
TDS mg/l	472.0
Chloride mg/l	60.0



7. Dewatering Pump station Pamposh Colony Chanapora

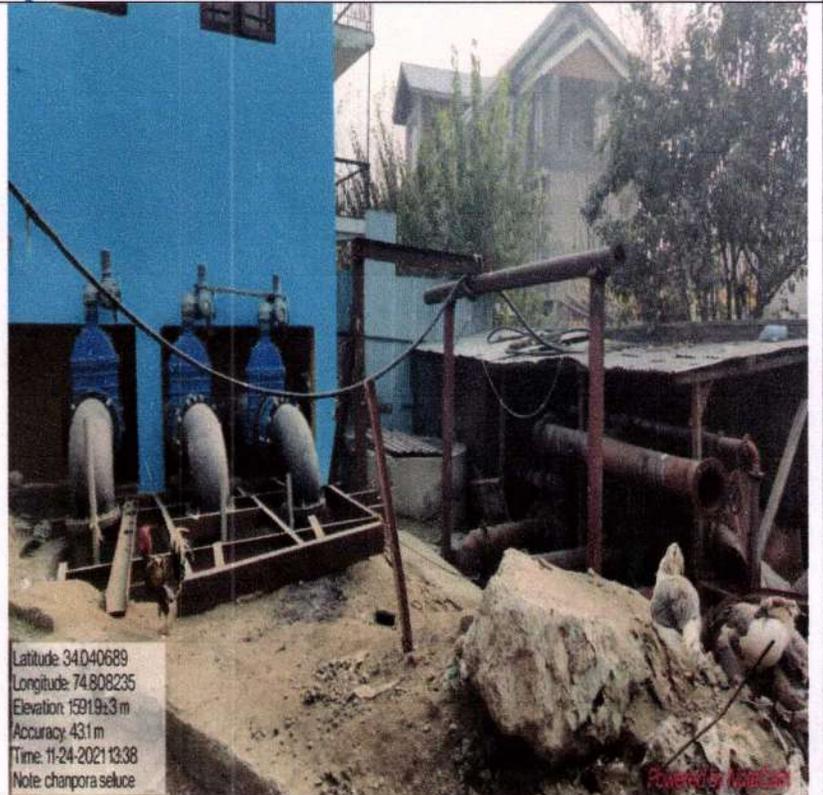
GPS Coodinates	
Latitude	34.04481
Longitude	74.810032
Quantity of waste water pumped per day into Doodh Ganga River	0.10224 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	7.12
BOD mg/l	54.5
COD mg/l	200.0
Phosphate mg/l	1.033
Ammonical Nitrogen mg/l	5.726
TSS mg/l	110
TDS mg/l	460
Chloride mg/l	58.0



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8. Dewatering Pump station Chanapora Sluice

GPS Coodinates	
Latitude	34.041128
Longitude	74.80847
Quantity of waste water pumped per day into Doodh Ganga River	0.61344 MLD At present Waste water flows continuously into DoodhGanga by Gravitation
Parameters	
Date of sampling=15/11/2021	
P H	7.40
BOD mg/l	62.5
COD mg/l	224.0
Phosphate mg/l	1.085
Ammonical Nitrogen mg/l	6.310
TSS mg/l	170.0
TDS mg/l	481.0
Chloride mg/l	60.0



9. Dewatering Pump station Khan Colony Chanpore

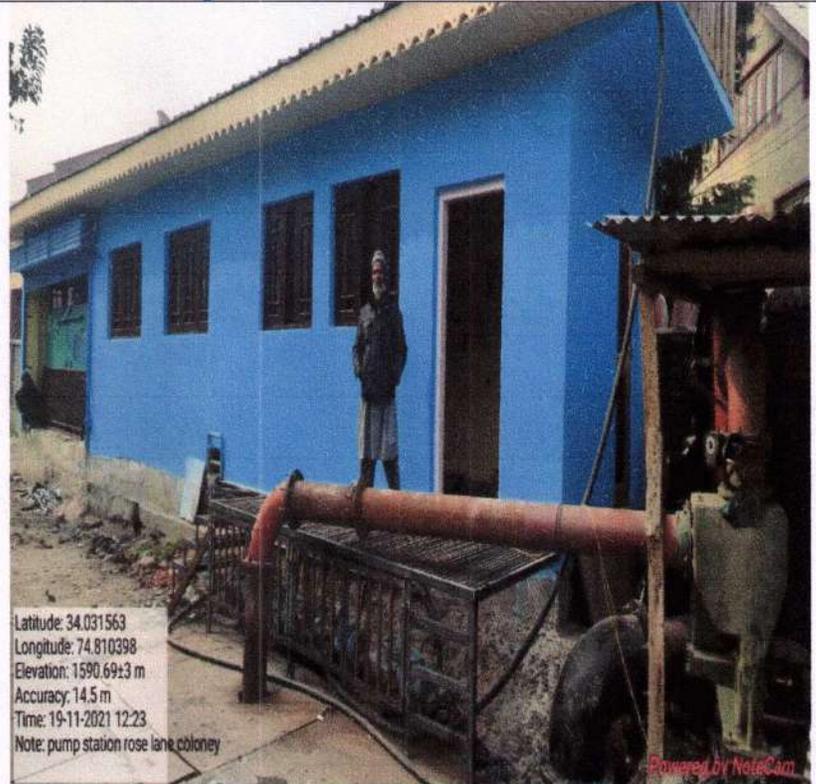
GPS Coodinates	
Latitude	34.033811
Longitude	74.809096
Quantity of waste water pumped per day into Doodh Ganga River	Discharge into Chanapora Sluice
Parameters	
Date of sampling=15/11/2021	
P H	Not analysed as waste water goes into drain through underground pipes.
BOD mg/l	
COD mg/l	
Phosphate mg/l	
Ammonical Nitrogen mg/l	
TSS mg/l	
TDS mg/l	
Chloride mg/l	



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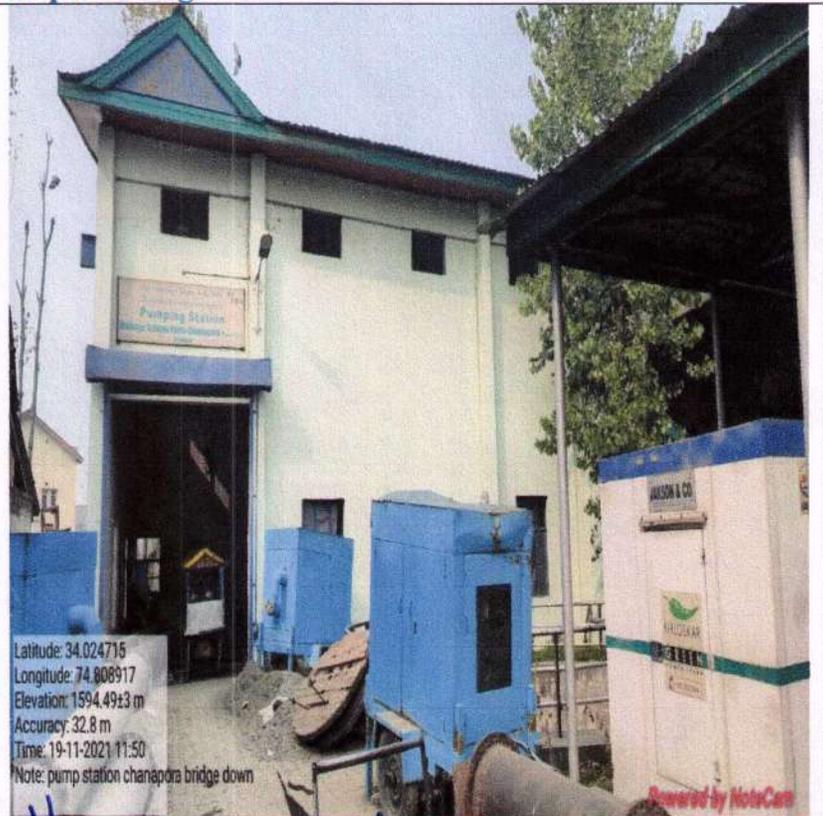
10. Dewatering Pump station Roselane Chanapora

GPS Coodinates	
Latitude	34.031549
Longitude	74.810393
Quantity of waste water pumped per day into Doodh Ganga River	Discharge into Chanapora MPS.
Parameters	
Date of sampling=15/11/2021	
P H	Not analysed as waste water goes into pump station Chanapora Bridge
BOD mg/l	
COD mg/l	
Phosphate mg/l	
Ammonical Nitrogen mg/l	
TSS mg/l	
TDS mg/l	
Chloride	



11. Dewatering Pump station Chanapora bridge

GPS Coodinates	
Latitude	34.024715
Longitude	74.808917
Quantity of waste water pumped per day into Doodh Ganga River	1.84032 MLD approximately during dry season
Parameters	
Date of sampling=15/11/2021	
P H	7.20
BOD mg/l	40.0
COD mg/l	170.7
Phosphate	0.863
Ammonical Nitrogen mg/l	5.236
TSS mg/l	83.0
TDS mg/l	380.0
Chloride mg/l	46.0



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12. Dewatering Pump station Chanapora (Nowgam)

GPS Coodinates	
Latitude	34.02533
Longitude	74.819507
Quantity of waste water pumped per day into Doodh Ganga River	2.14704 MLD <i>approximately during dry season</i>
Parameters	
Date of sampling=15/11/2021	
P H	7.15
BOD mg/l	54.5
COD mg/l	268.3
Phosphate mg/l	1.051
Ammonical nitrogen mg/l	6.096
TSS mg/l	244.0
TDS mg/l	410.0
Chloride mg/l	64.0



13. Dewatering Pump station Afandi bagh

GPS Coordinates	
Latitude	34.024996
Longitude	74.80792
Quantity of waste water pumped per day into Doodh Ganga River	0.81792 MLD <i>approximately during dry season</i>
Parameters	
P H	7.30
BOD mg/l	24.5
COD mg/l	104.0
Phosphate mg/l	0.599
Ammonical Nitrogen mg/l	3.413
TSS mg/l	46.0
TDS mg/l	327.0
Chloride mg/l	44.0



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Waste water from Dewatering Pump station Barzulla discharging into Doodh Ganga.



Waste water from Dewatering Pump station Chanpora MPS discharging into Doodh Ganga

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Collection chamber of Dewatering Pump station Chanpora IPS

d) Water quality Goal:

It is an important aspect for revival of Doodh Ganga river in context of meeting the water quality criteria for bathing. Doodh Ganga river receives agricultural run-off along with municipal waste water. In order to meet the water quality criteria for bathing, it is imperative to maintain the wastewater quality characteristic within prescribed norms by treatment of municipal sewage up to the prescribed standards stipulated under Schedule – VI of the Environment (Protection) Rules, 1986.

e) Water Quality of the Doodh Ganga River:-

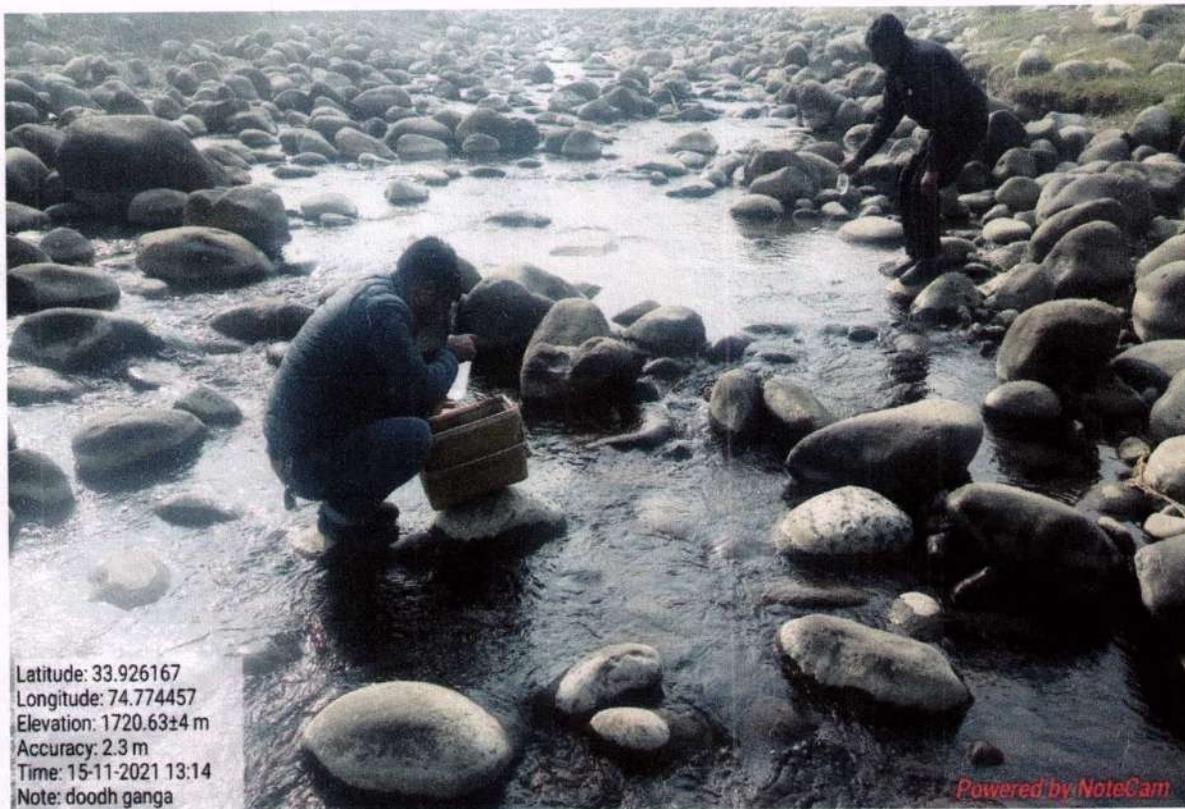
Water quality monitoring of the Doodh Ganga river has been carried out by the JK Pollution Control Committee and the samples have been collected on 15/11/2021 at the following Sampling locations:-

1. ***Sogam, (Up stream of Doodh Ganga)*** ✓
2. ***Chadoora (Main town market)***
3. ***Bagh- e- Mehtaab***
4. ***Old Barzulla***
5. ***Tengpora Bridge***

The water samples of the aforementioned locations were analysed for various Physico-chemical parameters which include some key parameters such as pH, DO, BOD, COD which are critical for ascertaining the present status and water quality of Doodh Ganga. Besides the physio-chemical analysis the samples were also collected by JK Lake conservation and Management Authority (LCMA) for microbiological analysis (*Faecal and Total Coliform*) Tot. The water quality analysis data is given in **Table-3**.

The analysis of samples collected from Doodh Ganga at different locations indicate that water in upstream locations i.e. at Sogam and Chadoora **meet the prescribed permissible limit for 'Class B' (Out door Bathing Organised)** criteria in terms of analysed physico-chemical parameters, **whereas in the lower course of river i.e. at Bagh-e-Mehtaab, at Old Barzulla and Near Tengpora, the water quality does not confirm 'Class B' Criteria for parameters viz Dissolved Oxygen and Biochemical Oxygen demand. Comparatively inferior quality in the lower course of river can be attributed to addition of sewage /domestic waste into the water body.**

The observed Total Coliform levels do not **meet the prescribed permissible limit for 'Class B' (Out door Bathing Organised)** at Baghi-e- Mehtaab and Tengpora .



Latitude: 33.926167
Longitude: 74.774457
Elevation: 1720.63±4 m
Accuracy: 2.3 m
Time: 15-11-2021 13:14
Note: doodh ganga

Powered by NoteCam

Sample collection in up stream of River Doodh Ganga near Sogam Village.



Latitude: 34.012661
Longitude: 74.811273
Elevation: 1623.97±6 m
Accuracy: 3.4 m
Time: 15-11-2021 11:59
Note: doodh ganga

Powered by NoteCam

Sample collection site at River Doodh Ganga near Bagh-e- Mehtaab.

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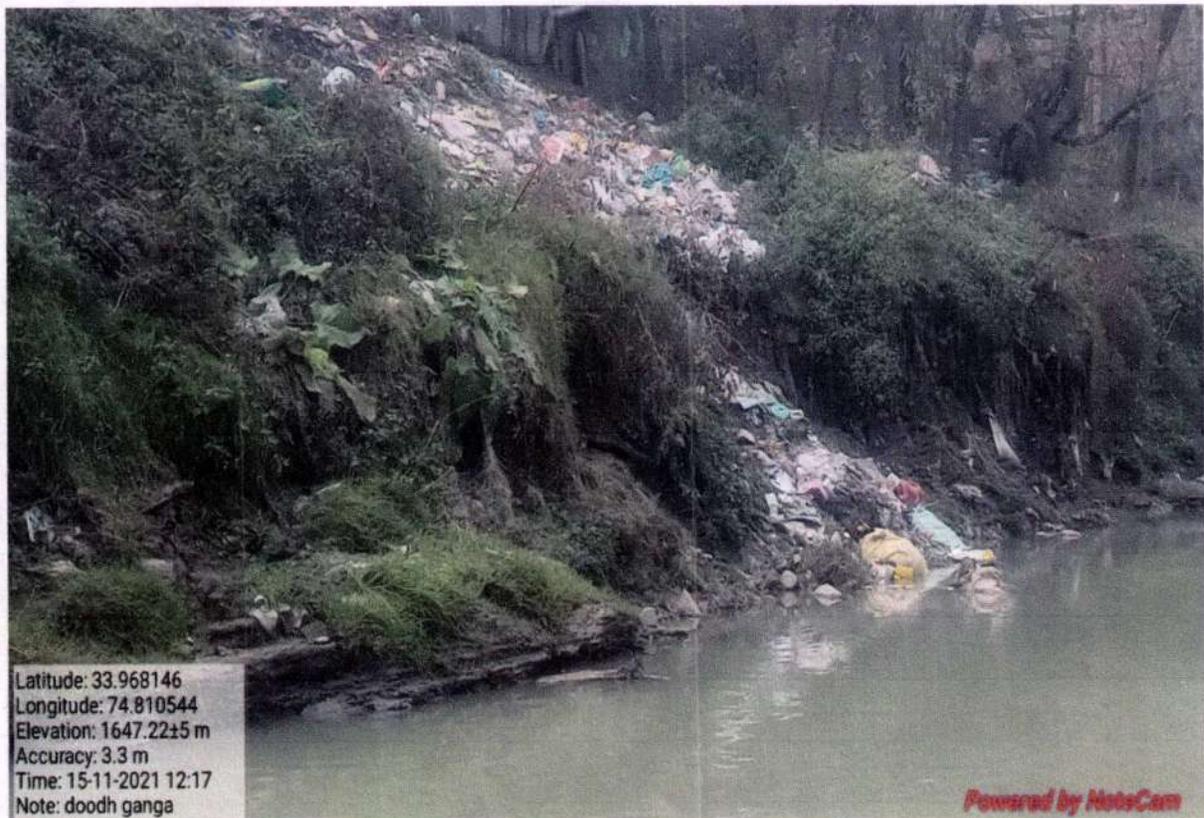
Table-3 Water quality Profile of Doodh Ganga River

S.NO	Date of Sampling=15/11/2021						Primary water quality criteria for Bathing (class B)
	Parameters	Site 1	Site 2	Site 3	Site 4	Site 5	
		Soagam Near Bridge	Chadoora near main Chowk	Baghi-e-Mehtab near Railway bridge	Old Barzulla	Near Tengapora Bridge	
1	Air Temp. °C	11.1	13	12.9	10.8	11.0	-
2	Water Temp. °C	9.3	8.8	7.9	8.8	8.8	-
3	pH	8.15	8.10	7.60	7.52	7.50	6.5 - 8.5
4	Conductivity µs/cm	126.0	187.0	293.0	323.0	340.0	-
5	T.D.S	91.0	135.0	211.0	235.0	248.0	-
6	Faecal Coliform col/100ml	21	115	270	200	430	
7	Total coliform col/100ml	39	175	550	325	560	MPN/100ml shall be 500 or less
8	D.O	10.3	11.4	7.8	4.5	4.9	>5mg/l
9	C.O.D	15.3	18.9	27.5	41.4	48.2	-
10	B.O.D	1.0	1.5	3.4	4.7	5.3	< 3mg/l
11	Phosphate	.036	.049	.085	.128	.174	-
12	Ammonical Nitrogen	.328	.459	1.13	2.161	2.547	-
13	Sulphate	12.72	25.30	26.36	30.14	31.5	-
14	Hardness	108.0	132.0	220.0	208.0	236.0	-
15	Calcium	35.2	43.2	65.7	76.1	70.5	-
16	Magnesium	4.86	5.8	13.68	4.37	14.58	-
17	T. Alkalinity	140.0	166.0	196.0	198.0	196.0	-
17	Chloride	16.0	20.0	18.0	28.0	28.0	-
18	Turbidity NTU	2.0	10.0	12.0	13.0	14.0	-

➤ All values are in mg/l Except pH ,temperature ,Turbidity and conductivity

f) Status of solid waste .

The disposal of Solid Waste as per the provisions of Solid Waste Management Rules, 2016 is not only mandatory but essential also keeping in view the fact that any improper dumping or dumping near the river bed is bound to pollute the river water by way of leachate discharges. There are dumps of solid waste which include both biodegradable and non-biodegradable on the banks of river Doodh Ganga at various locations, prominent among them are sites near Chadoora, Wathora , Kralpora, Baghe- Mehtab & Barzulla etc.



Solid waste dumped near Doodh Ganga river at Wathora (Budgam).

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Solid waste dumped near Doodh Ganga River at Chanapora Srinagar .

The details provided by **Director Local Bodies Kashmir** regarding solid waste generation of its two major towns falling in District Budgam is reproduced and shown in Table 4 below :

Table 4

S.No	ULB Name	Population 2020	No of House holds	No of wards	Waste generation 2020 (TPD)	Projected waste generation 2030 (TPD)
1.	Budgam	18022	3204	13	9.21	10.88
2.	Chadoora	7616	1269	13	3.05	3.60

Source:- Director Local Bodies Kashmir

As per the report Municipal Committee Chadoora has already started massive sanitation drive along the embankments of River Doodh Ganga and its surroundings during which more than 100 trips of Solid Waste was collected/lifted for its disposal at the proposed Waste Management Centre. During the drive the ULB authorities also launched public awareness through public address system to disseminate the inhabitants of town for avoiding littering of waste along the banks of River Doodh Ganga.

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Solid Waste dumping and disposal at Chadoora



Cleaning drive undertaken by Municipal Committee Chadoora near Chadoora Town.

g) Status of Sand Mining in River Bed

As per the report submitted by **Directorate of Geology and Mining** there are two minor mineral blocks in Doodh Ganga Nallah which have been auctioned by District Level Auction Committee headed by Deputy Commissioner Budgam :

- (i) 11/Bud-Chadoora old Bride to Hanjigund Downstream Nallah.
- (ii) 12/Bud-Chadoora to Sogam Bridge Upstream Doodh Ganga Nallah.

As per the report, the extraction from both the Blocks is being carried out in a controlled and scientific manner in accordance with the Approved Mining Plan and Environmental Clearance and CTO's with extraction limit upto 1 meter depth.

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B) Components of Action Plan for Doodh Ganga River

The Physical survey was conducted for identification of source of pollution of Doodh Ganga River. During the survey, it was observed that the main source of pollution are the untreated domestic sewage from catchment area and unscientific management of solid waste. The proposed action plan shall cover following components

i) SOURCE CONTROL

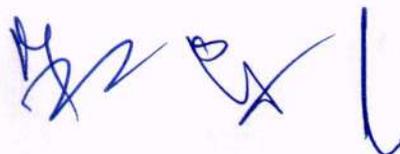
Source control includes disposal of domestic sewage and Municipal Solid waste as detailed below:-

a) Channelization, treatment, utilization and disposal of treated domestic sewage

- Identification of towns and villages in the catchment of Doodh Ganga River.
- Storm water drains carrying sewage and sullage joining Doodh Ganga river and interception and diversion of sewage to STP's to be proposed.
- Identification of suitable areas for installing decentralized sewage treatment plants.

b) Solid Waste Management

- Collection, segregation, transportation, disposal and treatment of municipal solid wastes generated from town in accordance of provisions of the Solid Waste Management Rules, 2016
- Total prohibition of unscientific disposal of solid waste along the river bank of Doodh Ganga.
- Prohibition of burning of solid waste.
- Scientific disposal of Construction and demolition wastes in designated areas and prohibition of its disposal into river beds .



C) Sand Mining Management in River Bed:

Any unsustainable, Unscientific excavation of river bed minerals in the form of sand and boulder along the river stretch from Soagam to Chadoora will have an adverse impact on river morphology, aquatic biodiversity and riparian communities. There is immediate need to regulate the mining activities as per the guidelines in vogue prior to granting mining lease.

ii) Recommendations:-

On the basis of inspections conducted by the joint committee and the analysis of water and waste water samples collected from various locations and status of Solid Waste generation and its management on scientific lines, following Action Plan to be executed by various responsible agencies is put forth for implementation in a time bound manner:-

S.No	Action to be taken for restoration of Doodh Ganga river	Responsible agencies
A. SEWAGE MANAGEMENT		
(a) Short Term Action Point		
1.	Estimation of total sewage generation from City/Towns where sewage treatment facility does not exist and preparation of DPR for treatment of sewage	City Drainage Division(SMC) ,UEED, Municipal committee Chadoora
2.	Measurement of flow & load of all the drains contributing pollution load in River	UEED
3.	Preparation of DPR for channelization including diversion of sewage generated from household / township / villages to sewer lines and interception of all drains (excluding drains carrying industrial wastewater) for ensuring proper treatment through proposed STPs	City Drainage (SMC) ,UEED, Municipal Committee Chadoora

(b) Long Term Action Point		
1..	The dewatering pump stations operated by City Drainage Division, SMC at various location of Srinagar city are presently discharging the waste directly into the Doodh Ganga river without any treatment. Setting up of Sewage Treatment Plants (STPs) of latest Technology, of requisite capacity as per requirement of each area in first phase, for treatment of sewage before being discharged into the river.	City Drainage Division SMC ,UEED,
2	Laying of Sewerage Network & Connection of households to the sewer	City Drainage SMC ,UEED, Municipal committee Chadoora
3	Establishment of Sewage Treatment Plants of adequate capacity for the treatment of total sewage generated	City Drainage SMC ,UEED, Municipal committee Chadoora
4	Tapping and diversion of all the drains to the related Sewage Treatment Plant for treatment based on proposed DPR	City Drainage SMC ,UEED, Municipal committee Chadoora
5	Infrastructure development for use of Treated sewage in irrigation/horticulture/ agriculture etc from STP's to be established.	City Drainage SMC ,UEED, Municipal committee Chadoora
6	Treatment of waste water in Rural areas Flowing into the river by Bio-remediation/Phyto-remediation/Oxidation Pond etc.	Municipal committee Chadoora, Budgam
B. SOLID WASTE MANAGEMENT		
(a) Short Term Action Point		
1.	Implementation of Door to Door collection of solid wastes for its proper disposal	Srinagar Muncpal Corporation Municipal Committee Chadoora
2.	Ensuring strict prohibition of dumping of solid & other waste within 500 Meters of the banks of the river	Srinagar Muncpal Corporation Srinagar Municipal Committee Chadoora Municipal Council Budgam
3.	Collection & Segregation of Solid Waste as per the provision of SWM Rules, 2016	Srinagar Muncpal Corporation Municipal Committee Chadoora Municipal Council Budgam
4.	Compliance of SWM Rules, 2016 by bulk generators (onsite bio-composting,	Srinagar Muncpal Corporation Municipal Committee

	disposal of recyclable waste through registered recyclers)	Chadoora Municipal Council Budgam PCC
5.	Compliance of C&D Waste Management Rules, 2016 & prohibition of its illegal dumping	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
6.	Formulation of Action Plan for income generation from Solid Waste & C&D Waste Treatment & Disposal Facilities and sale of RDF, compost etc	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
7.	Ensure strict prohibition of encroachments & illegal constructions	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
8.	Removal of solid waste disposed in the river by use of low cost innovative techniques with involvement of local community	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
9.	Treatment & disposal of already dumped waste On the bank of the river	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
10.	Bio-mining and capping of existing municipal dump sites in accordance with the Solid waste Management Rules,2016	Srinagar Municipal Corporation Municipal Committee Chadoora Municipal Council Budgam
(b) Long Term Action Point		
1.	Identification of suitable site for setting up common waste processing and secure landfill facility.	Srinagar Municipal Corporation Director Local bodies Kashmir
2.	Development of integrated solid waste management Facility (provision of segregation, treatment, compost, pellets making as well as sanitary landfill with leachate treatment provision in accordance with Solid Waste Management rules, 2016 as further amendments made thereof.	Director Local bodies Kashmir Srinagar Municipal Corporation
C. AWARENESS ACTIVITIES		
1.	For sustainable development it is necessary to promote and create environmental awareness among communities, businesses and governments establishments through add on media and direct contact.	District administration Srinagar District administration Budgam Pollution control Committee Director Local bodies Kashmir

2.	Sustained Awareness/ sensitization programme in the problematic areas to be organized to prevent dumping of wastes into water bodies/ drains etc and its adverse impact on human health and environment.	District administration Srinagar District administration Budgam Pollution control Committee Director Local bodies Kashmir
D. REGULATION OF MINING ACTIVITIES		
1.	Complete regulation and guidelines should be followed in granting lease and carrying out of any mining activity in the river bed	District Administration Budgam Director Geology and Mining Chief Engineer Irrigation and flood Control
2.	A greenbelt/greenway should be developed on both sides of the embankment, for controlling erosion, reducing sediment load of the main channel, reducing pollution, and enhancing beautification	Forest Deptt Soil Conservation Deptt. Chief Engineer Irrigation and flood Control

The implementation and execution of the proposed action plan will be monitored by the River Rejuvenation Committee constituted by the order of the Hon'ble National Green Tribunal in O.A 673/2018.

Mamath Kull.

Mamath kull is a small stream originating from Pir Panjal mountains and after passing through number of villages from upstream, it reaches to main Budgam town , traverses through it and finally drains into Bemina Nambal in District Srinagar. The Google image of this stream is shown below:-



Source of Pollution in Mamath Kull.

A detailed survey of the stretch of Mamath river from Village Mamath to Budgam town has revealed that the main sources of pollution of this stream is due to dumping of solid waste near Mamath Bridge on the bank of the Mamath stream which is approximately 2 km away from the District headquarter Budgam. During the inspection by the joint committee, huge dumps of solid waste which include both biodegradable and non-biodegradable waste was

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found accumulated (probably the legacy waste) as the site was previously being used by Municipal Council Budgam as dumpsite in unscientific manner. The adverse impact on environment due to un-scientific management of this waste results into:-

- Ground and Surface water pollution due to leachate **generation** from the dumping site.
- Air pollution due to bad odour of the waste
- Increase in acidity of soil near the garbage heaps.

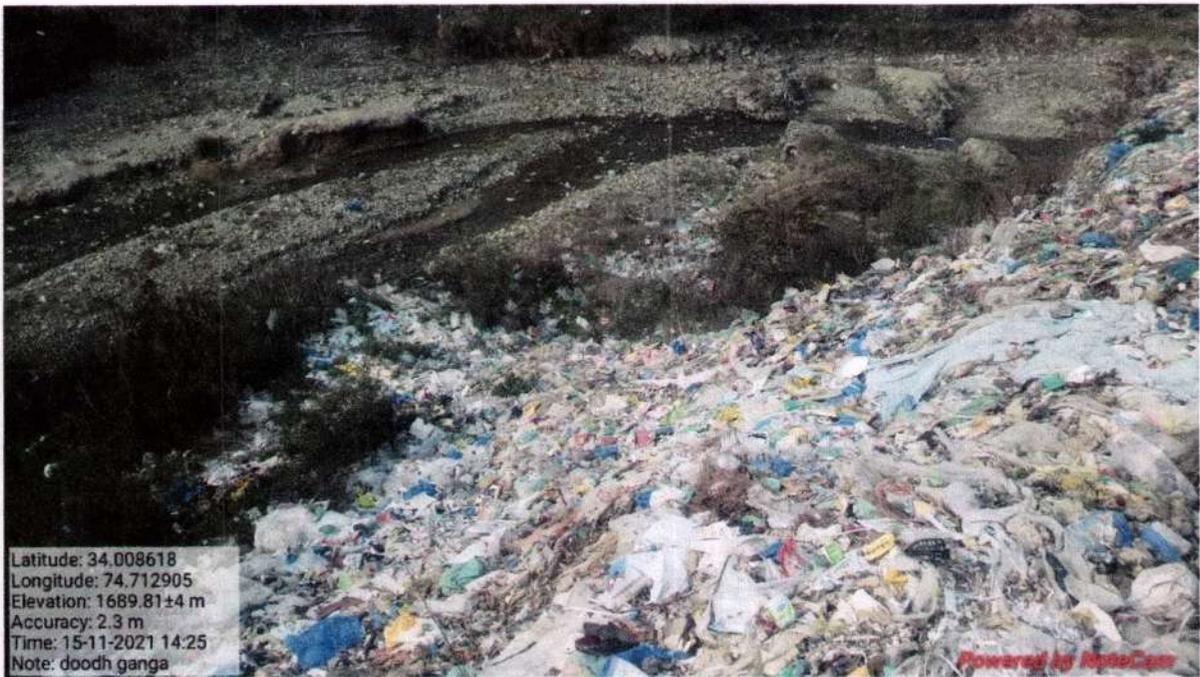
Recommendations:-

Solid Waste Management.

The following action needs to be taken;

- (i) Collection, segregation, transportation, disposal and treatment of municipal solid wastes generated from Budgam municipal limits in accordance with the provisions of the Solid Waste Management Rules, 2016.
- (ii) Total prohibition of illegal dumping and disposal of solid waste along the banks of Mamath Kull
- (iii) Prohibition of burning of solid waste should be strictly implemented.
- (iv) Construction and demolition wastes should be disposed off in designated areas and in no case it should be disposed off into this stream.
- (v) There is immediate need to shift the present dumping site to any suitable place having integrated solid waste management facility (provision of segregation, treatment, compost, pellet making as well as sanitary landfill with leachate treatment provision in accordance with Solid Waste Management Rules, 2016 and further amendments made thereof).

As per **Director Local Bodies Kashmir** an alternate site at **Pallar Budgam** has been already identified for scientific disposal of Solid Waste generated within jurisdiction of Municipal Council Budgam, where two new Waste Management Centers of 5 TPD capacity have been approved in the Action Plan involving an amount of **Rs.299.47 lacs**. So far as Municipal Committee Chadoora is concerned, one waste management Centre of 4 TPD for an amount of **Rs. 124.38 Lacs** stands approved in the Action Plan. The authorisation for establishment of the waste management centres for MC Budgam and MC Chadoora has already been conveyed on 05/11/2021 and 08/11/2021 respectively.



Unscientific Disposal Of Municipal Solid waste on Bank of Mamath river

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Leachate generation from solid waste Dumps.



Covering of solid waste dumps by soil at Mamath.

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Water Quality of the Mamath stream:-

Water quality monitoring of the Mamath stream was carried out by the JK Pollution Control Committee and JK Lake Conservation and Management Authority (LCMA) Srinagar on 15/11/2021 at the following Sampling locations:-

1. Mamath Upstream

2. Mamath Downstream

The water samples of the aforementioned locations were analysed for various Physico-chemical parameters which include some key parameters such as pH, DO, BOD, COD which are critical to ascertaining the present status and water quality of Mamath stream..

The analysis of samples collected from Mamath Kul as shown in **Table 5** indicate that **water quality in upstream and Down stream meets the prescribed permissible limit for 'Class B' (Out door Bathing Organised)** criteria in terms of analysed physico-chemical and Microbiological parameters. However dumps of solid waste were observed along the banks of this river. The concerned Municipal Council Budgam is responsible for dumping solid waste on the periphery of this stream and there is every apprehension that during rains there would be leaching of different pollutants and other obnoxious substances into the stream thus making it unfit for use by the local population dependant on it for their day today use.

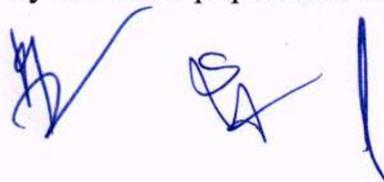


Table.5 Water quality Profile of Mamath River Budgam

S.NO	Date of Sampling=15/11/2021			Primary water quality criteria for Bathing (class B)
	Parameters	Site 1	Site 2	
		Mamath U/S	Mamath D/S Near Bridge	
1	Air Temp. °C	12.0	12.5	-
2	Water Temp. °C	10.0	10.2	-
3	pH	8.12	8.0	6.5 - 8.5
4	Conductivity µs/cm	221.0	290.0	-
5	T.D.S	160.0	209.0	-
6	Feecal Coliform col/100ml	42	75	
7	Total coliform col/100ml	60	97	MPN/100ml shall be 500 or less
8	D.O	10.5	9.4	>5mg/l
9	C.O.D	17.2	18.9	-
10	B.O.D	1.0	1.6	< 3mg/l
11	Phosphate	.076	.091	-
12	Ammonical Nitrogen	.516	.584	-
13	Sulphate	14.39	15.30	-
14	Hardness	172.0	212.0	-
15	Calcium	58.51	68.93	-
16	Magnesium	6.31	9.72	-
17	T. Alkalinity	154.0	188.0	-
18	Chloride	18.0	18.0	-
19	Turbidity NTU	2.0	3.0	-

All values are in mg/l except pH, Temp, Turbidity , Conductivity faecal and total coliform.

The Joint committee comprising of following members hereby submit a Factual report to the Nodal Agency for its onward submission to Hon'ble National Green Tribunal

1. (Sh. Mohammad Aijaz), IAS
Deputy Commissioner
Srinagar (Member)



2. (Sh. Shahbaz Ahmad Mirza), JKAS
Deputy Commissioner
Budgam (Member)

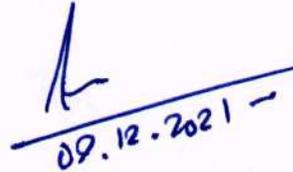


3. (Ms Mathoora Masoom), JKAS
Director Urban Local Bodies,
Kashmir (Member)



4. Sh. Suneel Dave
Regional Director
CPCB Chandigarh (Member)

5. (Sh. Rafi Ahmad Bhat), SFS
Regional Director,
JK PCC, Kashmir



09.12.2021 -

DATED:- ___/12/2021

PLACE: - SRINAGAR