



सत्यमेव जयते

केवल शासकीय कार्य हेतु
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भारत सरकार
GOVERNMENT OF INDIA
जल शक्ति मंत्रालय
MINISTRY OF JAL SHAKTI



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CENTRAL WATER COMMISSION
नर्मदा बेसिन संगठन, भोपाल
NARMADA BASIN ORGANISATION, BHOPAL

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प्रस्तावना

जल प्रकृति द्वारा प्रदत्त एक अनमोल उपहार है। जीवन संचालन में जल की महत्वता की दृष्टि से जल संसाधनों का नियोजन, प्रबंधन एवं विकास की अत्यधिक आवश्यकता है। केंद्रीय जल आयोग इस क्षेत्र में भारत सरकार की एक शीर्षस्थ तकनीकी संस्था है। आयोग के गेज एवं निस्सारण मापन स्थलों पर सतही जल की मात्रा के आकलन के अलावा प्रमुख स्थलों पर जल गुणवत्ता प्रबोधन, निलंबित गादभार का आंकलन एवं तलछट पदार्थ के आंकड़े भी एकत्रित किये जाते हैं।

जल ग्रहण क्षेत्र की मिटटी तीव्र वर्षा से बहकर नदी में आती है तथा निलंबित गाद के रूप में बहती है। जल की गति के मंद पड़ने, गाद के संगठन एवं नदी के आकार में परिवर्तन आदि कारणों से यह प्रवाह मार्ग में विभिन्न स्थलों पर निक्षेपित हो जाती है। अतः गाद भार के साथ तलछट पदार्थ के संगठन का आंकलन करना भी अत्यंत महत्वपूर्ण है।

इस पुस्तक में वर्ष 2020-21 में नर्मदा मंडल, भोपाल द्वारा नर्मदा नदी पर मध्यप्रदेश में स्थित 9 स्थलों तथा तापी मंडल, सूरत द्वारा गुजरात में स्थित 2 स्थलों पर एकत्रित किये गये गाद भार तथा तलछट पदार्थ संबंधी आंकड़ों का संकलन किया गया है।

आशा है कि इस पुस्तक में संकलित आंकड़े, जल संसाधन संबंधी परियोजनाओं के नियोजन, अभिकल्पन, विकास और सम्बंधित अध्ययनों के लिए लाभप्रद होंगे। इस पुस्तक को और अधिक उपयोगी बनाने के लिए सुझाव आमंत्रित है।

मैं, नर्मदा कछार संगठन के उन सभी अधिकारियों एवं कर्मचारियों के प्रति आभार प्रकट करता हूँ, जिन्होंने इस पुस्तक को तैयार करने में समर्पण की भावना से अपना प्रशंसनीय योगदान दिया है।



स्थान भोपाल
अप्रैल 2024

(नीलम नारोलिया)
अधीक्षण अभियंता (समन्वय)

PREFACE

Water resources, a precious gift of nature is decisive factor in the growth and development of human civilisation. Its availability varies widely in time and space. Central water commission, as a premier and nodal organisation in this sector, has been conducting hydrological observation through a network of gauge and discharge observation stations. Apart from assessment of surface flows, water quality monitoring and sediment load evaluation are integral part of hydrological planning and development of water resources projects.

The soil of the catchment area gets washed away by heavy rains and flows in the form of suspended silt. Due to slowing down of movement of water, organization of silt and change in the shape of the river, etc., it gets deposited at different places in the flow path. Therefore, it is also very important to assess the composition of the sedimentary material along with the silt mass.

This volume presents the suspended sediment load data for the year 2020-21, of 11 sites, out of which observation at 9 sites is done by Narmada Division, Bhopal (M.P.) and at 2 sites it is done by Tapi Division, Surat (Gujrat)

It is hoped that the data compiled herein will be useful for planners of water resource projects of this region in assessing the effect of sediment transported down the rivers. Comments and suggestions for improvement in data presentation in future publications are most welcome. The effort put in by concerned staff of Central Water Commission and the Co-operation extended by all are gratefully acknowledged.



Place-Bhopal
April 2024

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List of Abbreviation and Symbols

A	:	Area of section
AV	:	Average
C	:	Coarse sediment
Con	:	Concentration
Cumec	:	Cubic metres per second
Cum	:	Cubic metres
D	:	Day
F	:	Fine sediment
f	:	Average silt factor
G	:	Gauge
GD	:	Gauge and Discharge
GDS	:	Gauge, Discharge and Sediment
g/l	:	Grams per litre
km	:	Kilometer
L.B.	:	Left bank
M	:	Medium sediment
m	:	Metre
mm	:	Millimetre
m ³ /s	:	Cubic metre per second
Mean dia 'd'	:	Mean Diameter
NDB	:	Narmada Division
P	:	Wetted Perimeter
%	:	Percentage
Q	:	Discharge
R	:	Hydraulic mean depth
R.B.	:	Right bank
R. Days	:	Remaining days
R.D.	:	Reduced distance
R.L.	:	Reduced level
S	:	Second
Sed	:	Sediment
S/G	:	Station gauge
km ² /sq.km	:	Square kilo metre
m ²	:	Square metre
T/D	:	Tonnes per day
TDN	:	Tapi Division
V	:	Mean velocity
W.L.	:	Water Level
W.Year	:	Water year
W.Q	:	Water Quality
0°	:	Degree
'	:	Minute
"	:	Second
*	:	Estimated by unitary method
**	:	Estimated by interpolation
***	:	Estimated by average value
@	:	Estimated by graph
MMT	:	Million Metric Tones

1 Introduction

1.1 Scope

Central Water Commission is conducting sediment load observations & bed material observation along with discharge observations etc. During the reporting year 2020-21 sediment load & bed material observations in Narmada Basin were conducted at 11 stations under the jurisdiction of the Narmada Division, Bhopal and Tapi Division, Surat. 9 of these stations are located in the state of Madhya Pradesh and 2 stations in the Gujarat State. These stations have been functioning under plan schemes viz. “Development of Water Resources Information System”, during 12th Five Year Plan. The name of the stations where suspended sediment load & bed material observations were conducted are given in Table 1-1

Table 1-1: Sediment and Bed Material Observation Stations at Narmada River

Sl. No.	Name of Station	Code No.
1.	Orsang at Chandwada	CW1NAL000513
2.	Narmada at Garudeshwar	CW1NAL000434
3.	Narmada at Mandleshwar	CW1NAM000189
4.	Narmada at Handia	CW1NAM000392
5.	Narmada at Hoshangabad	CW1NAM000278
6.	Narmada at Sandia	CW1NAU000450
7.	Shakkar at Gadarwara	CW1NAU000391
8.	Narmada at Barmanghat	CW1NAU000188
9.	Banjar at Bamni	CW1NAU000781
10.	Burhner at Mohgaon	CW1NAU000390
11.	Narmada at Manot	CW1NAU000378

1.2 Sources of Information

The administrative controls of these 11 stations were distributed under two divisions, namely Narmada Division, Bhopal (Nine Stations) and Tapi Division, Surat (Two Stations). During the year 2020-21, the Division wise the stations and their code are given in Table 1-2.

Table 1-2: Division wise GD stations and their codes

Sl. No.	Name of Station	Code No.
Narmada Division, Bhopal		
1.	Narmada at Mandleshwar	CW1NAM000189
2.	Narmada at Handia	CW1NAM000392
3.	Narmada at Hoshangabad	CW1NAM000278
4.	Narmada at Sandia	CW1NAU000450
5.	Shakkar at Gadarwara	CW1NAU000391
6.	Narmada at Barmanghat	CW1NAU000188
7.	Banjar at Bamni	CW1NAU000781
8.	Burhner at Mohgaon	CW1NAU000390
9.	Narmada at Manot	CW1NAU000378
Tapi Division, Surat		
1.	Narmada at Garudeshwar	CW1NAL000513
2.	Orsang at Chandwada	CW1NAL000434

1.3 Basin Description

Narmada is the largest west flowing and fifth largest river of India. It drains a large area in Madhya Pradesh besides some area in the states of Maharashtra and Gujarat. Narmada basin lies between East Longitudes 72° 32' to 81° 45' and North Latitudes 21° 20' to 23° 45'. It flows through Deccan traps in between Vindhya and Satpura ranges of hills before falling into the Gulf of Cambay in the Arabian Sea. Narmada drains an area of 98,796 km² out of which nearly 87% lies in Madhya Pradesh. The state wise distribution of drainage area is shown in Table 1-3.

Table 1-3: Statewise Distribution of Drainage Area

Sl. No.	Name of State	Drainage Area (sq. km.)	Percentage
1.	Madhya Pradesh	85, 859	86.9
2.	Maharashtra	1,538	1.5
3.	Gujarat	11,399	11.6
	Total	98,796	100.0

Narmada rises from a 'Kund' (spring) at an elevation of 1,057 m at Amarkantak in Maikal hills in Shahdol district of Madhya Pradesh and flows through Madhya Pradesh, Maharashtra and Gujarat between Vindhya and Satpura hill ranges before falling into the Gulf of Cambay in the Arabian sea about 10 km north of Bharuch. The total length of this west flowing river from its origin to outfall into the sea is 1,312 km. For the first 1,079 km it runs in Madhya Pradesh and there after forms the common boundary between Madhya Pradesh and Maharashtra for 35 km and 39 km. in Maharashtra and Gujarat boundary. In Gujarat, it stretches for 159 km. The basin

has an elongated shape, with a maximum length of 953 km from east to west and a maximum width of 234 km from north to south.

The river has a number of falls in its heads reaches. At 8 km from the origin, the river drops 24 m at the Kapildhara falls. At 0.4 km further downstream, the river again drop by 4.6 m at Dudhdhara fall. Burhner, the first major tributary of Narmada, joins the river from left at 248 km from its origin. Flowing in a generally south-westerly direction in the narrow and deep valley, the river has hairpin bends at some places. At 286 km from its source, the river turns towards the north and about 1 km further downstream, the Banjar tributary joins it. After flowing past Mandla town in a number of channels called Sahastra-dhara, the river at 404 km from the origin drops nearly 15 km at the Dhuandhar fall close to Jabalpur. Further down, the river flows through a channel through the famous marble rocks.

Emerging from the marble rocks, the Narmada enters the upper fertile plains. At a distance of 464 km from the origin, Hiran a major right bank tributary joins the river. Continuing to flow in a western direction through the upper plains, the river receives several tributaries like Sher, Shakkar, Dudhi, Tawa and Ganjal from the left and Tendon, Barna and Kolar from the right. Flowing through west, it joins the middle plains near Panghat in East Nimar district. At Nandhar, 806 km from the origin, it drops 12 m at Dhardi, 853 km from origin, it again drops 12 m. At 966 km from the origin and nearly 6.4 km downstream of Maheshwar, the Narmada again drops by about 6.7 m at Sahastra-dhara falls. During this part of the journey through the middle plains, Chhota tawa and Kundi from the left and Man from the right joins it.

Flowing further west, the river enters the lower hilly regions and flows through a gorge where Goi enters from the left and Uri and Hatni from the right. The 113 km long gorge is formed by the convergence of Vindhya ranges from the north and Satpura ranges to the south. Emerging from the gorge, the river enters the lower plains and meanders in broad curves till it reaches Bharuch. The Karjan from the left and Orsang from the right joins the Narmada in this reach. Beyond Bharuch, the river valley widens and the river enters the Gulf of Cambay. The river has 41 tributaries of which 22 are on the left bank and 19 on the right bank, having catchment area more than 500 sq.km out of these some major tributaries like Burhner, Banjar, Hiran, Tawa, Orsang and Kundi are having catchment area more than 3,550 sq.km.

The average rainfall in Narmada Basin is 1,250 mm. The maximum temperature varies between 40°C to 49°C in the month of May when the land gets heated up. The temperature drops to a minimum range of 1°C to 9°C during the dry/cold season in December/January.

At present, there are 30 proposed/ongoing/completed major hydroelectric cum Irrigation projects. There are four major hydroelectric cum irrigation project namely *Bargi*, *Indira Sagar*, *Omkareshwar* & *Sardar Sarovar* Projects on main Narmada river which are almost completed and eight completed projects on different tributaries namely Matiyari, Barna, Tawa, Kolar, Sukta, Man, Jobat and Karjan.

There are 11 sediment-monitoring stations in Narmada basin. Out of eleven, 7 stations are located on the main river and remaining 4 are located on the principal tributaries viz. Orsang, Shakkar, Banjar and Burhner.

2 Suspended Sediment Observation

2.1 Observation Techniques

2.1.1 Collection of Sediment Samples

Suspended sediment observations are conducted simultaneously along with discharge observation once a day starting at 08:00 hrs except on Sunday and holidays. The observations are conducted at station gauge line under normal condition. However, when the conditions become unsuitable for observation, say due to pooling, shallow depths, multi-channel formation etc., then the observation site is shifted to a temporary section at up-stream or down-stream of the station gauge line.

Sediment samples are collected at 0.6 depths from each vertical, where velocity observation is done for computation of discharge, provided depth of flow is above 0.3 m. The samples thus collected from each vertical are grouped in 1, 2, 3, 4 or 5 composite groups depending upon the width of the river in such a way that each composite group discharge $\pm 10\%$ of average segment discharge. Punjab bottle type sampler is commonly used for collection of suspended sediment sample for analysis. A uniform practice of holding the bottle in vertical position is being adopted. Thus samples from shallow depths (less 0.3 m) are collected from the surface. These surface samples at shallow depths are presumed as of 0.6 depths sampling. The water samples collected are kept in composite groups based on the data observed on previous day and carried to the site laboratory for analysis.

2.1.2 Analysis of the Suspended Sediment Samples

The analysis of the suspended sediment sample is carried out for these different grades namely, coarse sediment having particle diameter above 0.2 mm, medium sediment with diameter ranging from 0.075 mm to 0.2 mm and fine sediment with diameter less than 0.075 mm. The sediment samples from each group (as stated in para 2.1.1) are passed through 212 micron mesh sieve. The residue on sieve is washed with clean water several times, transferred to a pre-weighted crucible and its oven dried weight is determined. This gives the coarse sediments from which the concentration of the coarse sediment g/l for the group is worked out.

After removal of coarse sediment, the filtrate and washing which now contains medium and fine sediment is similarly passed through 75 micron mesh sieve. The residue on sieve is washed with clean water several times, transferred to a pre-weighted crucible and its oven dried weight is determined. This gives the medium sediment from which sediment concentration in g/l for the group is determined.

The filtrates and washing after separation of coarse and medium grades now contain only fine sediment. For fine sediment analysis, all the above groups (after removal of coarse and fine sediment) are combined into a single large sample to form a homogeneous liquid in a big bucket. The sediment analysis of complete volume is carried out upto 10-12 litres with moderate sediment concentration. If either medium sediment is higher or volume of sample is more than 12 litres, then the water is stirred with a clean wooden rod, so that any sediment settled in the bucket mix with the whole sample thoroughly. Immediately at least four litres of homogeneous samples is taken into separate bucket for analysis of time sediment load. This homogeneous

sample is kept overnight for settling. About 5 to 10 ml of 10% alum solution is added to hasten the coagulation of colloidal silt. After the settlement is complete, the supernatant liquid is siphoned off carefully and the remaining volume of suspension is filtered in pre-weighed filter paper (Whatman grade I) and transfer of entire settled additional washing with clean water ensures silt. The filter paper along with the sediment is dried and weighted to determine the concentration of fine sediment in g/l for the entire cross section.

The total suspended sediment load of the river along the section is worked out from the concentration, thus contained for coarse, medium and fine sediment group-wise for the entire cross section.

2.1.3 Explanatory Notes

The explanatory notes described hereunder are given to assist in the interpretation of hydrological parameters contained in the data presented. The note are, therefore, applicable in so far as the data presented in this book are concerned.

- i. Water year covers the period from 1st June of calendar year to 31st May of next calendar year and includes complete one hydrological cycle. The water year is further sub divided as:
 - Monsoon period from June to October and
 - Non-Monsoon period from November to May.
- ii. The gauging station code number is a unique nine-column numeric reference number, which facilitates storage and retrieval of sediment data in data banks. The first two columns are identifier of measuring authority. Third and fourth columns are for zone/basin fifth and sixth columns are for Independent River and last three i.e. seventh, eighth and ninth columns are for station numbers.
- iii. Sediment is classified as coarse, medium and fine according to diameter as indicated below:
 - Coarse: Sediment above 0.2 mm diameter,
 - Medium: Sediment between 0.2 & 0.075 mm diameter,
 - Fine: Sediment above 0.075 mm diameter.

2.1.4 Method of Presentation

Suspended sediment data is presented in Part - I of the book, comprising history sheet and suspended sediment flow tables. The chronology of suspended sediment observation station is arranged from the mouth of the river to upstream giving. The tributaries are arranged in similar fashion.

History sheet gives concise description of the suspended sediment observation station. The suspended sediment table includes the following:

- Daily observed sediment flow tables for the period from June to November, because during the period major part of the annual sediment load is transported by the rivers.
- Ten daily summary of coarse, medium and fine sediment for the full year.
- Monthly and seasonal summary of the sediment load.

2.2 Comments on Sitewise Data

2.2.1 Orsang at Chandwada

The total length of the river Orsang, a major right bank tributary of Narmada is 101 km in the plains of Gujarat state. The monitoring station Chandwada is situated at 9 km upstream of the confluence point of this river with Narmada. It has a drainage area of 3,846 sq km. The maximum value of sediment concentration is 0.1 g/l recorded on 30.08.2020. The annual sediment load works out to 17555.64 metric tonnes.

2.2.2 Narmada at Garudeshwar

The river has drainage area of 87,892 sq km upto this station. The river flows over length of 1,169 km upto this station. The maximum sediment concentration is recorded as 1.11 g/l, on 31.08.2020. The annual sediment load work out to 8994457.8 metric tonnes.

2.2.3 Narmada at Mandleshwar

The river Narmada has drainage area of 72,809 sq km and length 852 km from the origin to this station. The maximum sediment concentration is 0.6 g/l, which was observed on 03.08.2020. The total annual sediment load 3007671.71 metric tonnes.

2.2.4 Narmada at Handia

The station is on main Narmada having a drainage area of 54,027 sq km. The river flows for a length of 774 km from the origin to this station. The maximum sediment concentration is 2.34 g/l, which was observed on 30.08.2020. The total annual sediment load is 78231613.17 metric tonnes.

2.2.5 Narmada at Hoshangabad

River Narmada has drainage area of 44,548 sq km and length of 521 km from the origin to this station. The maximum sediment concentration is 1.52 g/l, which was observed on 30.08.2020. The total annual sediment load is 12652232.73 metric tonnes.

2.2.6 Narmada at Sandia

The station is 584 km from the origin of Narmada and has drainage area of 33,954 sq km and length 852 km from the origin to this station. The maximum sediment concentration is 1.12 g/l, which was observed on 13.06.2020. The total annual sediment load is 3477111.98 metric tonnes.

2.2.7 Shakkar at Gadarwara

This station is on the tributary Shakkar on the left bank of Narmada and has a drainage area of 2,270 sq km. The length of the Shakkar upto this station is 140 km. The maximum sediment concentration is 6.25 g/l, which was observed on 29.08.2020. The total annual sediment load is 3158881.81 metric tonnes.

2.2.8 Narmada at Barmanghat

Narmada traverses a length of 504 km upto this station and the drainage area is 26,453 sq km. The maximum sediment concentration is 2.13 g/l which was observed on 30.08.2020. The total annual sediment load is 8616861.34 metric tonnes.

2.2.9 Banjar at Bamni

The Station is on the tributary Banjar on the left bank of Narmada and has a drainage area 1864 sq km. The maximum value of sediment concentration is 0.79g/l, which was recorded on 29.08.2020. The annual sediment load works out to 927993.72 metric tonnes.

2.2.10 Burhner at Mohgaon

This station is on the tributary Burhner on the left bank of Narmada and has a drainage area of 3919 sq km. The length of the Burhner river upto this site is 177 km. The maximum sediment concentration is 2.57 g/l, which was observed on 09.08.2020 The total annual sediment load is 1635171.53 metric tonnes.

2.2.11 Narmada at Manot

The length and drainage area of Narmada at this station are 218 km and 4,667 sq km. respectively. The maximum sediment concentration is 1.31 g/l, which was observed on 21.08.2020. The total annual sediment load is 2123826.18 metric tonnes.

3 Bed Material Observation

3.1 Observation Techniques

3.1.1 Collection of Samples

Depending upon the width of the river, 3 to 10 samples are collected from the site along the station gauge line. A scoop type bed material sampler is used for collecting the sample from flowing portion of the channel and where the bed is dry, samples are collected manually after scraping the upper layer at the bed to avoid local surface contamination. After drying the sample, about 1 kg of the sample is taken by coning and quartering process.

3.1.2 Packing of Samples

Bed material samples thus collected are filled in polythene bags and placed inside a thick cloth bag for protection. The details of the samples are inserted in the polythene bag and the same are sent to divisional laboratory for analysis.

3.1.3 Analysis of Sample

In the laboratory, analysis of samples is done either by sieve for Bed Material particles above 0.6 mm size or by wet process using Puri's Siltometer for particles below 0.6 mm size.

Analysis by Sieves: The sieves are arranged one above the other in order of their mesh sizes, largest at top and smallest (0.6 mm) aperture sieve at the bottom. Each representative sample is weighed and then put on the top metallic. The portion of the material passing through 0.6 mm sieve is collected in a metallic container placed at the bottom of the set of sieves. Shaking of the sieves is done either by gentle horizontal rotation or by a mechanical shaker for about 15 to 20 minutes. The material retained on each sieve is collected separately in a metallic container and is weighed. The material passing through 0.6 mm sieve is also weighed and recorded.

Analysis by Puri's Siltometer: For particles of size below 0.6 mm, the analysis is done by wet process using Puri's Siltometer. About 10 grams of the Bed Material sample passing through

0.6 mm sieve is released from the top of the siltometer. The sand, silt particles travel downwards at different velocities depending upon their diameter and the temperature of water. The trough of the Siltometer is rotated at a pre-determined rate to collect the fractions. Thus different fractions of a sample are redeposit in 20 receptacles in a trough. Each of these fractions is then collected in the silt measuring tube and compacted by tapping on the rubber pad. The volume of each fraction is noted.

From the result of the above analysis, summation curves are plotted and the mean diameter of the samples worked out as per the standard procedure. Statistical method is also used to work out the mean diameter. The silt factor is obtained from formula:

$$f = 1.76 (d)^{1/2}$$

Where 'd' is the mean diameter in mm of the particles.

3.2 Presentation of Data

The sequence of the stations for which analysis data has been presented in this book are downstream to upstream in part - II of the book.

Sr.	Name of Station	Code No.
A	Tapi Division, Surat	
1.	Orsang at Chandwada	CW1NAL000513
2.	Narmada at Garudeshwar	CW1NAL000434
B	Narmada Division, Bhopal	
3.	Narmada at Mandleshwar	CW1NAM000189
4.	Narmada at Handia	CW1NAM000392
5.	Narmada at Hoshangabad	CW1NAM000278
6.	Narmada at Sandia	CW1NAU000450
7.	Shakkar at Gadarwara	CW1NAU000391
8.	Narmada at Barman	CW1NAU000188
9.	Banjar at Bamni	CW1NAU000781
10.	Burhner at Mohgaon	CW1NAU000390
11.	Narmada at Manot	CW1NAU000378

Plate 1: Line Diagram of Narmada Basin

Silt observation stations under Narmada Basin Organisation, Bhopal

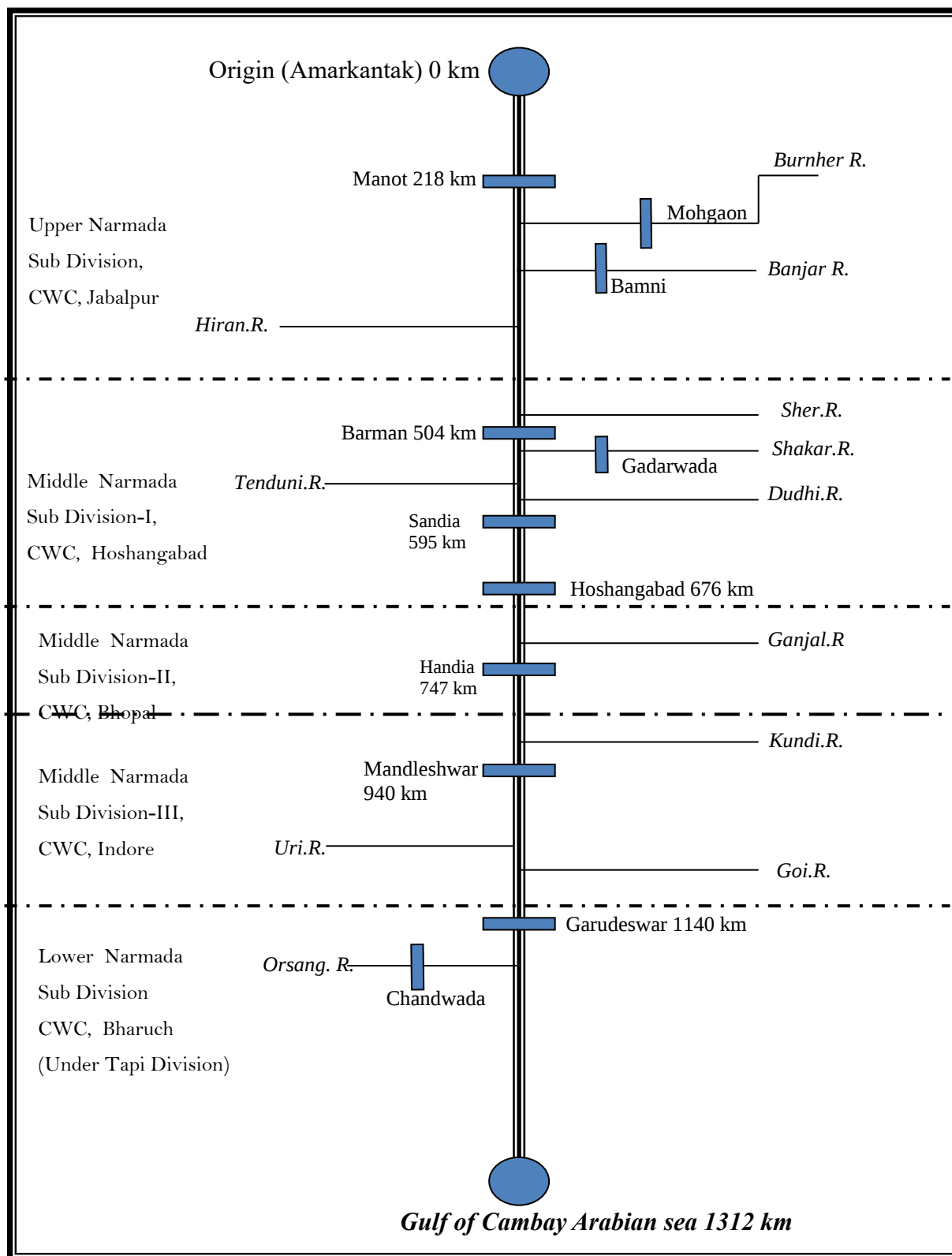
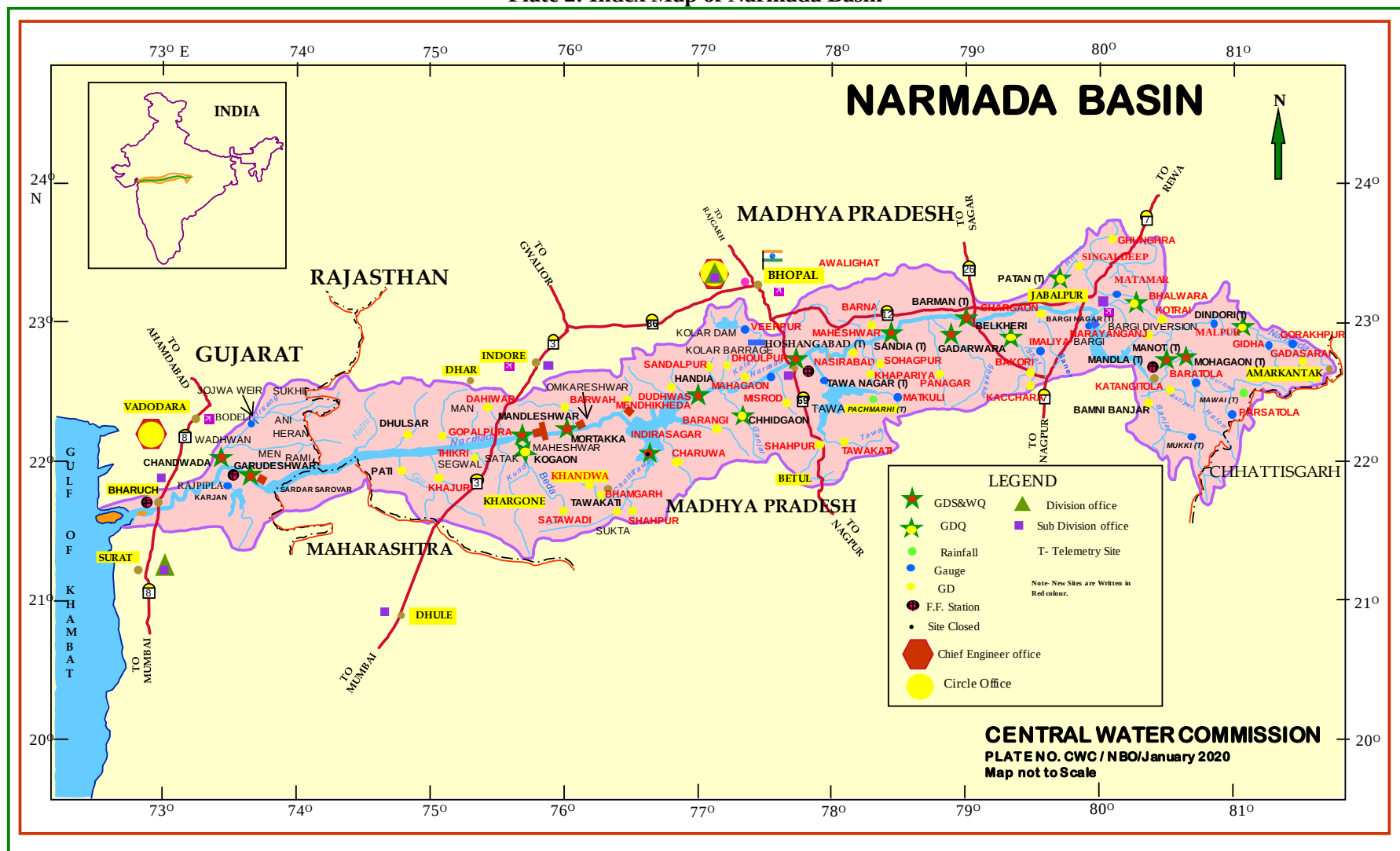


Plate 2: Index Map of Narmada Basin



For International / State boundaries and Coast Line refer to Survey of India Maps

4 Part – I Sediment Data

4.1 Orsang at Chandwada

History Sheet

HISTORY SHEET					
				Water Year	: 2020-2021
Site	:	Orsang at Chandwada		Code	: CW1NAL000513
State	:	Gujarat		District	Vadodara
Basin	:	Narmada		Independent River	: Narmada
Tributary	:	Orsang		Sub Tributary	:
Sub-Sub Tributary	:			Local River	: Orsang
Division	:	Tapi Division, Surat		Sub-Division	: LNSD Bharuch
Drainage Area	:	3846 Sq. Km.		Bank	: Right
Latitude	:	73°27'55.0"		Longitude	: 73°27'55.0"
Zero of Gauge (m)	:	18 (m.s.l)		11/01/1979	
		Opening Date		Closing Date	
Gauge	:	11/09/1979			
Discharge	:	01/11/1979			
Sediment	:	01/08/1988			
Water Quality	:	15/03/1980			

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Orsang at Chandwada (CW1NAL000513)

Local River : Orsang

Division : Tapi Division, Surat

Sub-Division : LNSD,Bharuch

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1							2.92	0	0	0.001	0.001	0.252						
2							2.42	0	0	0.001	0.001	0.209						
3							2.09	0	0	0.016	0.016	2.889						
4																		
5																		
6																		
7																		
8																		
9																		
10													198.4	0.0	0.0	0.005	0.005	83.9
11													274.3	0.0	0.0	0.008	0.008	185.6
12													129.9	0.0	0.0	0.004	0.004	42.5
13													380.0	0.0	0.0	0.004	0.004	131.3
14													1077.0	0.0	0.0	0.003	0.003	279.2
15													1213.7	0.0	0.0	0.003	0.003	354.5
16													258.3	0.0	0.0	0.001	0.001	16.1
17							16.33	0	0	0.006	0.006	8.465	394.9	0.0	0.0	0.035	0.035	1194.2
18	73.5	0	0	0.002	0.002	12.7	2.76	0	0	0.005	0.005	1.192	354.9	0.0	0.0	0.003	0.003	92.0
19	62.7	0	0	0.001	0.001	5.42							365.5	0.0	0.0	0.003	0.003	94.7
20	16.68	0	0	0.001	0.001	1.44							216.9	0.0	0.0	0.003	0.003	56.2
21	14.58	0.0	0.0	0.001	0.001	1.10							355.0	0.0	0.0	0.003	0.003	92.0
22	15.48	0	0	0.001	0.001	1.34							118.0	0.0	0.0	0.003	0.003	30.6
23	14.82	0	0	0.001	0.001	1.28							220.0	0.0	0.0	0.006	0.006	106.4
24	3.83	0	0	0.002	0.002	0.66							897.7	0.0	0.0	0.003	0.003	232.7
25	2.73	0.0	0.0	0.001	0.001	0.34							845.7	0.0	0.0	0.005	0.005	365.3
26	15.6	0.0	0.0	0.008	0.008	10.98							263.2	0.0	0.0	0.003	0.003	68.2
27	2.88	0	0	0.002	0.002	0.5							209.5	0.0	0.0	0.025	0.025	452.5
28	2.73	0	0	0.002	0.002	0.47							241.4	0.0	0.0	0.025	0.025	521.5
29	2.63	0	0	0.002	0.002	0.45							224.8	0.0	0.0	0.025	0.025	485.5
30	2.71	0	0	0.002	0.002	0.47							707.6	0.0	0.0	0.079	0.079	4811.2
31													802.0	0.0	0.0	0.089	0.089	6181.2
TenDaily I							0.74	0	0	.006	0.006	1.117	19.8	0.0	0.0	0.005	0.005	83.919
TenDaily II	15.29	0	0	0.0013	0.001	6.52	1.91	0	0	.006	0.006	4.829	306.3	0.0	0.0	0.007	0.007	244.6
TenDaily III	6.07	0	0	0.002	0.002	1.8					0	0	286.8	0.0	0.0	0.024	0.024	1213.4
Total	June					37.15	July					18.954	August					15877.3

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Orsang at Chandwada (CW1NAL000513)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	1567.3	0.0	0.0	0.174	0.174	23606.5	92.6	0.0	0.0	0.025	0.025	200.0	8.5	0	0	0	0	0
2	1240.1	0.0	0.0	0.006	0.006	642.9	134.3	0.0	0.0	0.036	0.036	417.6	8.38	0	0	0	0	0
3	265.3	0.0	0.0	0.004	0.004	91.7	113.4	0.0	0.0	0.025	0.025	245.0	8.19	0	0	0	0	0
4	231.8	0.0	0.0	0.004	0.004	80.1	98.4	0.0	0.0	0.022	0.022	187.0	7.29	0	0	0	0	0
5	224.1	0.0	0.0	0.035	0.035	677.7	88.4	0.0	0.0	0.018	0.018	137.4	7	0	0	0	0	0
6	204.1	0.0	0.0	0.032	0.032	562.3	47.6	0.0	0.0	0.002	0.002	8.2	6.99	0	0	0	0	0
7	122.0	0.0	0.0	0.004	0.004	42.2	45.0	0.0	0.0	0.002	0.002	7.8	6.97	0	0	0	0	0
8	59.5	0.0	0.0	0.001	0.001	5.1	47.2	0.0	0.0	0.002	0.002	8.2	6.2	0	0	0	0	0
9	39.4	0.0	0.0	0.001	0.001	3.4	45.9	0.0	0.0	0.002	0.002	7.9	6.93	0	0	0	0	0
10	38.1	0.0	0.0	0.001	0.001	3.3	43.6	0.0	0.0	0.002	0.002	7.5	6.14	0	0	0	0	0
11	56.3	0.0	0.0	0.001	0.001	4.9	45.6	0.0	0.0	0.002	0.002	7.9	5.96	0	0	0	0	0
12	59.8	0.0	0.0	0.001	0.001	5.2	53.6	0.0	0.0	0.016	0.016	74.1	5.97	0	0	0	0	0
13	63.0	0.0	0.0	0.001	0.001	5.7	51.1	0.0	0.0	0.001	0.001	4.4	6.95	0	0	0	0	0
14	40.3	0.0	0.0	0.001	0.001	3.5	18.0	0.0	0.0	0.001	0.001	1.6	7	0	0	0	0	0
15	36.7	0.0	0.0	0.001	0.001	3.2	16.6	0.0	0.0	0.0	0.0	0.0	7	0	0	0	0	0
16	32.1	0.0	0.0	0.001	0.001	2.8	15.9	0.0	0.0	0.0	0.0	0.0	8.55	0	0	0	0	0
17	70.7	0.0	0.0	0.001	0.001	6.1	15.2	0.0	0.0	0.0	0.0	0.0	8.65	0	0	0	0	0
18	69.0	0.0	0.0	0.001	0.001	6.0	12.9	0.0	0.0	0.0	0.0	0.0	8.52	0	0	0	0	0
19	81.2	0.0	0.0	0.001	0.001	7.0	10.6	0.0	0.0	0.0	0.0	0.0	8.49	0	0	0	0	0
20	83.0	0.0	0.0	0.001	0.001	7.3	8.7	0.0	0.0	0.0	0.0	0.0	6.99	0	0	0	0	0
21	144.0	0.0	0.0	0.025	0.025	311.0	13.5	0.0	0.0	0.0	0.0	0.0	6.78	0	0	0	0	0
22	194.1	0.0	0.0	0.025	0.025	419.3	14.3	0.0	0.0	0.0	0.0	0.0	6.7	0	0	0	0	0
23	203.7	0.0	0.0	0.038	0.038	668.6	14.7	0.0	0.0	0.0	0.0	0.0	5.68	0	0	0	0	0
24	820.5	0.0	0.0	0.005	0.005	354.5	13.1	0.0	0.0	0.0	0.0	0.0	5.66	0	0	0	0	0
25	201.2	0.0	0.0	0.002	0.002	34.8	12.7	0.0	0.0	0.0	0.0	0.0	5.92	0	0	0	0	0
26	138.6	0.0	0.0	0.038	0.038	454.9	12.1	0.0	0.0	0.0	0.0	0.0	7.18	0	0	0	0	0
27	150.7	0.0	0.0	0.041	0.041	538.2	11.6	0.0	0.0	0.0	0.0	0.0	7.17	0	0	0	0	0
28	119.1	0.0	0.0	0.035	0.035	360.3	11.2	0.0	0.0	0.0	0.0	0.0	6.02	0	0	0	0	0
29	101.4	0.0	0.0	0.035	0.035	306.5	9.2	0.0	0.0	0.0	0.0	0.0	5.65	0	0	0	0	0
30	93.5	0.0	0.0	0.025	0.025	201.9	8.8	0.0	0.0	0.0	0.0	0.0	5.65	0	0	0	0	0
31							9.0	0.0	0.0	0.0	0.0	0.0						
TenDaily I	222.0	0.0	0.0	0.026	0.026	2571.5	52.4	0.0	0.0	0.0136	0.0136	122.7	1.53	0	0	0	0	0
TenDaily II	44.6	0.0	0.0	0.001	0.001	5.2	19.0	0.0	0.0	0.0020	0.0	8.8	0.86	0	0	0	0	0
TenDaily III	201.6	0.0	0.0	0.027	0.027	365.0	9.9	0.0	0.0	0.0	0.0	0.0	0.57	0	0	0	0	0
Total	September					29416.5	October					1314.6	November					0

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Orsang at Chandwada (CW1NAL000513)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.71	0	0	0	0	0	5.66	0	0	0	0	0						
2	5.71	0	0	0	0	0	5.89	0	0	0	0	0						
3	5.7	0	0	0	0	0	5.72	0	0	0	0	0						
4	5.68	0	0	0	0	0	5.71	0	0	0	0	0						
5	5.67	0	0	0	0	0	5.7	0	0	0	0	0						
6	4.83	0	0	0	0	0	5.7	0	0	0	0	0						
7	4	0	0	0	0	0	5.67	0	0	0	0	0						
8	3.98	0	0	0	0	0	5.68	0	0	0	0	0		0	0	0	0	0
9	3.98	0	0	0	0	0	5.68	0	0	0	0	0						
10	3.98	0	0	0	0	0	5.6	0	0	0	0	0						
11	5.68	0	0	0	0	0	5.81	0	0	0	0	0						
12	8.8	0	0	0	0	0	7.05	0	0	0	0	0						
13	9	0	0	0	0	0	7.04	0	0	0	0	0						
14	7.28	0	0	0	0	0	5.9	0	0	0	0	0						
15	5.61	0	0	0	0	0	5.74	0	0	0	0	0		0	0	0	0	0
16	5.6	0	0	0	0	0	5.71	0	0	0	0	0						
17	8.67	0	0	0	0	0	5.7	0	0	0	0	0						
18	8.62	0	0	0	0	0	5.71	0	0	0	0	0						
19	8.48	0	0	0	0	0	5.72	0	0	0	0	0						
20	8.5	0	0	0	0	0	5.7	0	0	0	0	0						
21	5.84	0	0	0	0	0	5.7	0	0	0	0	0						
22	5.75	0	0	0	0	0	5.7	0	0	0	0	0		0	0	0	0	0
23	5.72	0	0	0	0	0	5.7	0	0	0	0	0						
24	5.74	0	0	0	0	0												
25	5.77	0	0	0	0	0		0	0	0	0	0						
26	5.65	0	0	0	0	0												
27	5.6	0	0	0	0	0												
28	5.65	0	0	0	0	0												
29	5.56	0	0	0	0	0												
30	5.57	0	0	0	0	0												
31	5.66	0	0	0	0	0												
TenDaily I	0.4	0	0	0	0	0	0.57	0	0	0	0	0	0	0	0	0	0	0
TenDaily II	0.73	0	0	0	0	0	1.15	0	0	0	0	0	0	0	0	0	0	0
TenDaily III	1.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	December					0	January					0	February					0

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Orsang at Chandwada (006-TDSURAT)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1																		
2																		
3														0	0	0	0	0
4																		
5								0	0	0	0	0						
6																		
7																		
8		0	0	0	0	0												
9																		
10														0	0	0	0	0
11																		
12								0	0	0	0	0						
13																		
14																		
15		0	0	0	0	0												
16																		
17														0	0	0	0	0
18																		
19								0	0	0	0	0						
20																		
21																		
22		0	0	0	0	0												
23																		
24																		
25														0	0	0	0	0
26								0	0	0	0	0						
27																		
28																		
29					0	0												
30																		
31													22.43	0	0	0	0	0
TenDaily I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TenDaily II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TenDaily III	0	0	0	0	0	0	0	0	0	0	0	0	2.04	0	0	0	0	0
Total	March					0	April					0						0

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1989-2020

Station Name : Orsang at Chandwada (006-TDSURAT) Division : Tapi Division, Surat

Local River : Orsang Sub-Division : LNSD,Bharuch

Year	Monsoon	Non-Monsoon	Annual Load	Annual Run Off
	(M.T.)	(M.T.)	(M.T.)	(MCM)
1989-1990	1707848	0	1707848	1097
1990-1991	2902510	0	2902510	2782
1991-1992	1714771	0	1714771	858
1992-1993	908882	0	908882	589
1993-1994	827289	0	827289	974
1994-1995	1887533	0	1887533	4035
1995-1996	702121	0	702121	579
1996-1997	3226266	0	3226266	2348
1997-1998	1632617	0	1632617	1999
1998-1999	999417	0	999417	1389
1999-2000	2884450	0	2884450	1070
2000-2001	52131	0	52131	43
2001-2002	1397910	0	1397910	1009
2002-2003	732254	0	732254	447
2003-2004	1734616	0	1734616	1706
2004-2005	3831760	0	3831760	2297
2005-2006	4509	0	4509	953
2006-2007	2268661	0	2268661	2812
2007-2008	1191464	0	1191464	2229
2008-2009	913355	0	913355	947
2009-2010	84582	0	84582	323
2010-2011	676260	0	676260	808
2011-2012	257612	26	257638	1104
2012-2013	10657	24	10681	1439
2013-2014	308796	0	308796	4306
2014-2015	9316	0	9316	720
2015-2016	1101	0	1101	329
2016-2017	1883	0	1883	549
2017-2018	516	0	516	340
2018-2019	237	0	237	261
2020-2021	46664.504	0	46664.5	1591.7

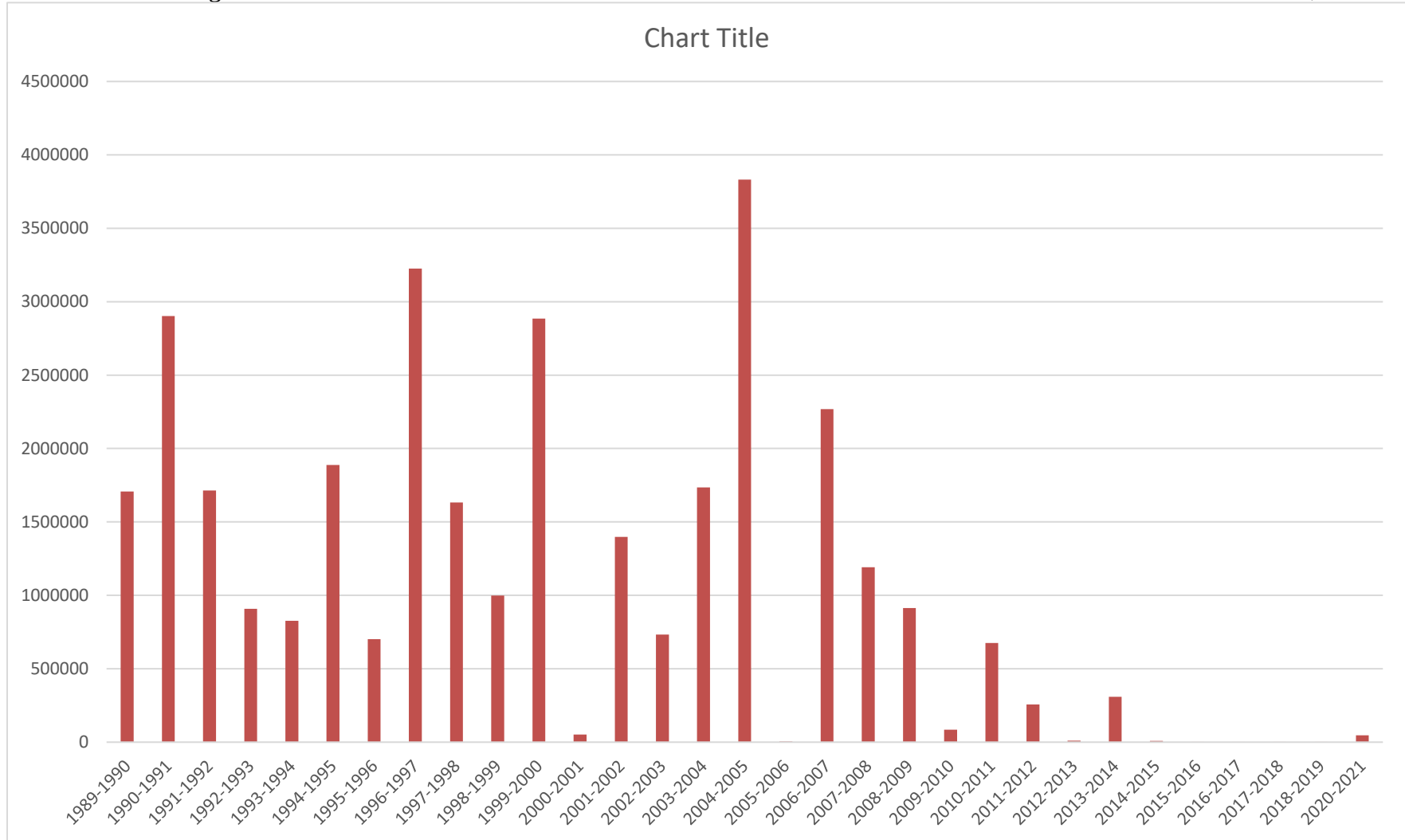
Annual Sediment Load for the period: 1989-2021

Station Name : Orsang at Chandwada (006-TDSURAT)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch



Seasonal Sediment Load for the period : 1989-2021

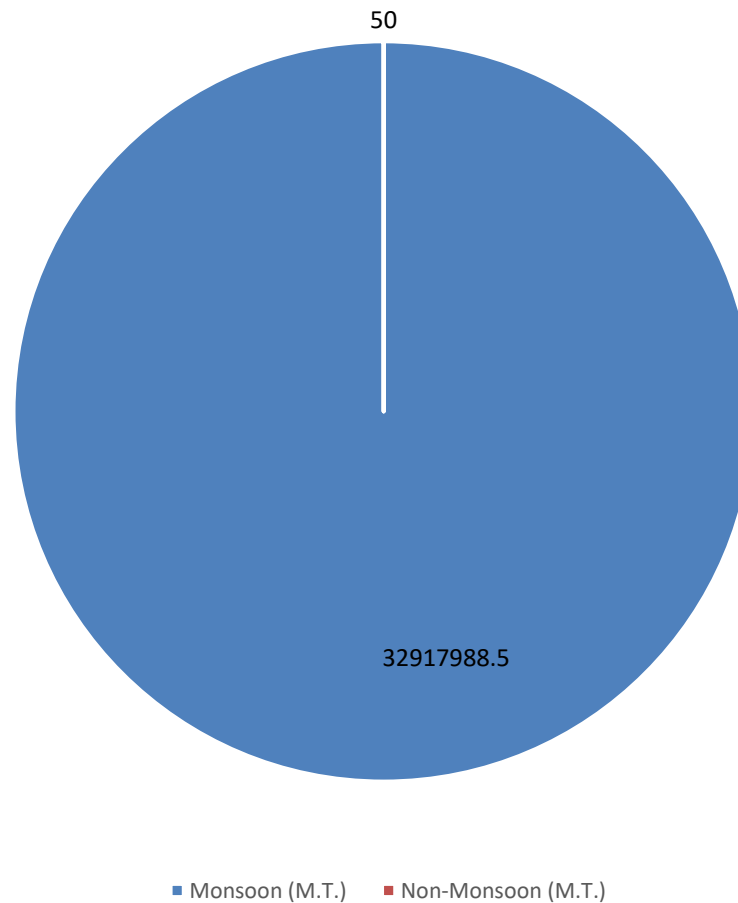
Station Name : Orsang at Chandwada (006-TDSURAT)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Seasonal Sediment Load for the period : 1989-2021



Sediment Data Year Book 2020-21

Seasonal Sediment Load for the Year: 2020-21

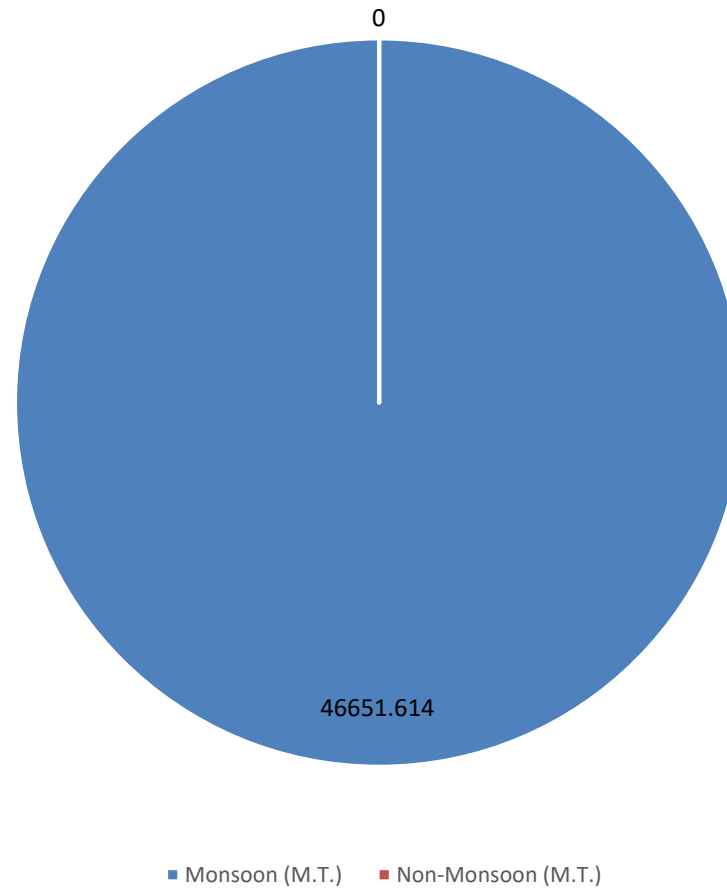
Station Name : Orsang at Chandwada (006-TDSURAT)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Seasonal Sediment Load for the Year: 2020-21



4.2 Narmada at Garudeshwar

HISTORY SHEET (SEDIMENT)					
				Water Year	: 2020-21
Site	:	Narmada at Garudeshwar		Code	: CW1NAL000434
State	:	Gujarat		District	Bharuch
Basin	:	Narmada		Independent River	: Narmada
Tributary	:			Sub Tributary	:
Sub-Sub Tributary	:			Local River	: Narmada
Division	:	Tapi Division, Surat		Sub-Division	: LNSD Bharuch
Drainage Area	:	87892 Sq. Km.		Bank	: Right
Latitude	:	21°53'00"		Longitude	: 73°39'00"
Zero of Gauge (m)	:	10 (m.s.l)		22/12/1971	
		Opening Date		Closing Date	
Gauge	:	22/11/1971			
Discharge	:	23/03/1972			
Sediment	:	21/03/1973			
Water Quality	:	15/06/1977			

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	14.1	0	0	0	0	0	1042	0	0	0	0	0	24.73	0.00	0.00	0.00	0.00	0
2	33.03	0	0	0	0	0	996	0	0	0	0	0	22.25	0.00	0.00	0.00	0.00	0
3	32.16	0	0	0	0	0	621	0	0	0	0	0	21.56	0.00	0.00	0.00	0.00	0
4	33.24	0	0	0	0	0	564	0	0	0	0	0	21.51	0.00	0.00	0.00	0.00	0
5	33.91	0	0	0	0	0	450	0	0	0	0	0	21.79	0.00	0.00	0.00	0.00	0
6	32.63	0	0	0	0	0	340	0	0	0	0	0	23.9	0.00	0.00	0.00	0.00	0
7	12	0	0	0	0	0	355.3	0	0	0	0	0	23.56	0.00	0.00	0.00	0.00	0
8	12.62	0	0	0	0	0	328	0	0	0	0	0	29.64	0.00	0.00	0.00	0.00	0
9	12.14	0	0	0	0	0	266	0	0	0	0	0	39.2	0.00	0.00	0.00	0.00	0
10	13.5	0	0	0	0	0	241	0	0	0	0	0	25.38	0.00	0.00	0.00	0.00	0
11	20.56	0	0	0	0	0	252	0	0	0	0	0	26.21	0.00	0.00	0.07	0.07	158.5
12	21.97	0	0	0	0	0	240	0	0	0	0	0	30	0.00	0.00	0.08	0.08	207.7
13	205.76	0	0	0	0	0	227.2	0	0	0	0	0	39.02	0.00	0.00	0.06	0.06	209.0
14	337	0	0	0	0	0	18.31	0	0	0	0	0	55.3	0.00	0.00	0.15	0.15	697.6
15	337	0	0	0	0	0	17.79	0	0	0	0	0	66.7	0.00	0.00	0.18	0.18	1042.6
16	618.48	0	0	0	0	0	17.11	0	0	0	0	0	60.2	0.00	0.00	0.16	0.16	849.3
17	663	0	0	0	0	0	16.63	0	0	0	0	0	84.75	0.00	0.00	0.09	0.09	644.3
18	954	0	0	0	0	0	16.54	0	0	0	0	0	82.08	0.00	0.00	0.05	0.05	326.2
19	906	0	0	0	0	0	17.01	0	0	0	0	0	78.81	0.00	0.00	0.06	0.06	408.5
20	921	0	0	0	0	0	16.91	0	0	0	0	0	58.88	0.00	0.00	0.06	0.06	305.2
21	900	0	0	0	0	0	16.81	0	0	0	0	0	57.96	0.00	0.00	0.07	0.07	340.5
22	889	0	0	0	0	0	21.85	0	0	0	0	0	54.06	0.00	0.00	0.07	0.07	336.3
23	917	0	0	0	0	0	20.8	0	0	0	0	0	55	0.00	0.00	0.07	0.07	348.1
24	901	0	0	0	0	0	22.36	0	0	0	0	0	62.04	0.00	0.00	0.06	0.06	321.6
25	980	0	0	0	0	0	21.69	0	0	0	0	0	66.69	0.00	0.00	0.09	0.09	518.6
26	941.63	0	0	0	0	0	21.71	0	0	0	0	0	74.06	0.00	0.00	0.11	0.11	716.7
27	938	0	0	0	0	0	20.66	0	0	0	0	0	978.3	0.00	0.00	0.06	0.06	4733.4
28	935	0	0	0	0	0	22.36	0	0	0	0	0	1288	0.03	0.032	0.00	0.07	7344.7
29	940	0	0	0	0	0	22.39	0	0	0	0	0	8869	0.29	0.072	0.03	0.39	297317.3
30	1122	0	0	0	0	0	21.61	0	0	0	0	0	24773	0.81	0.2	0.08	1.09	2341215.3
31							22.25	0	0	0	0	0	27135	0.80	0.09	0.22	1.11	2597666.1
TenDaily I	22.933	0	0	0	0	0	520.33	0	0	0	0	0	25.352	0.00	0.00	0.00	0.00	0
TenDaily II	498.477	0	0	0	0	0	83.95	0	0	0	0	0	58.195	0.00	0.00	0.10	0.10	484.9
TenDaily III	946.363	0	0	0	0	0	21.317	0	0	0	0	0	5764.83	0.18	0.04	0.80	1.20	477350.8
Total	June					0	July					0	August					5255707.6

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	31533	0.026	0.800	0.160	0.99	2686308.9	1499	0	0	0.003	0.003	388.5	55.4	0	0	0	0	0
2	7297	0.016	0.022	0.150	0.19	118526.6	1134	0	0	0.002	0.002	222.4	56.24	0	0	0	0	0
3	2823	0.01	0.246	0.246	0.50	122441.4	433.1	0	0	0.003	0.003	112.3	42.63	0	0	0	0	0
4	2003	0	0.006	0.178	0.18	31842.9	370	0	0	0.003	0.003	81.9	41.01	0	0	0	0	0
5	1727	0	0.008	0.034	0.04	6266.9	25.46	0	0	0.030	0.03	66.0	40.94	0	0	0	0	0
6	900	0	0.00	0.018	0.02	1702.0	18.18	0	0	0	0	0	39.01	0	0	0	0	0
7	892	0	0.00	0.046	0.05	3545.2	0.39	0	0	0	0	0	38.84	0	0	0	0	0
8	902	0	0.00	0.034	0.03	2649.7	0.39	0	0	0	0	0	38	0	0	0	0	0
9	301.11	0	0.00	0.050	0.05	1300.8	0.42	0	0	0	0	0	38.42	0	0	0	0	0
10	417.19	0	0.00	0.042	0.04	1513.9	0.38	0	0	0	0	0	35.78	0	0	0	0	0
11	1500	0	0.00	0.038	0.04	4924.8	0.39	0	0	0	0	0	35.24	0	0	0	0	0
12	1311	0	0.00	0.036	0.04	4077.7	0.39	0	0	0	0	0	33.13	0	0	0	0	0
13	1300	0	0.00	0.036	0.04	4009.6	0.41	0	0	0	0	0	33.32	0	0	0	0	0
14	1462	0	0.00	0.034	0.03	4294.8	0.4	0	0	0	0	0	33	0	0	0	0	0
15	608.45	0	0.00	0.036	0.04	1892.5	0.4	0	0	0	0	0	33	0	0	0	0	0
16	212.22	0	0.00	0.034	0.03	623.4	0.39	0	0	0	0	0	32.88	0	0	0	0	0
17	1520	0	0.00	0.036	0.04	4727.8	0.38	0	0	0	0	0	32.38	0	0	0	0	0
18	3004	0	0.00	0.034	0.03	8824.6	0.4	0	0	0	0	0	32.26	0	0	0	0	0
19	4368	0	0.00	0.036	0.04	13586.2	0.4	0	0	0	0	0	33.16	0	0	0	0	0
20	1590	0	0.00	0.013	0.01	1800.2	0.4	0	0	0	0	0	31.09	0	0	0	0	0
21	1469	0	0.00	0.004	0.00	507.7	0.39	0	0	0	0	0	31.47	0	0	0	0	0
22	6398	0	0.00	0.210	0.21	116085.3	0.3	0	0	0	0	0	31	0	0	0	0	0
23	4877	0	0.00	0.044	0.04	18540.4	0.31	0	0	0	0	0	31.26	0	0	0	0	0
24	4084	0	0.00	0.064	0.06	22582.9	0.32	0	0	0	0	0	10.78	0	0	0	0	0
25	4264	0	0.00	0.040	0.04	14736.4	55.5	0	0	0	0	0	10.51	0	0	0	0	0
26	1910	0	0.00	0.036	0.04	5940.9	55.31	0	0	0	0	0	8.24	0	0	0	0	0
27	1884	0	0.00	0.036	0.04	5780.2	55.44	0	0	0	0	0	17.48	0	0	0	0	0
28	1979	0	0.00	0.044	0.04	7523.4	55.35	0	0	0	0	0	18	0	0	0	0	0
29	4298	0	0.00	0.040	0.04	14853.9	53.05	0	0	0	0	0	17.99	0	0	0	0	0
30	4176	0	0.00	0.042	0.04	15153.9	52.5	0	0	0	0	0	11	0	0	0	0	0
31							55.3	0	0	0	0	0						
TenDaily I	4789.53	0.01	0.11	0.09	0.21	297609.8	348.132	0	0	0.004	0.004	87.1	42.627	0	0	0	0	0
TenDaily II	1687.57	0	0.00	0.03	0.03	4876.2	0.396	0	0	0	0	0	32.946	0	0	0	0	0
TenDaily III	3533.9	0	0.00	0.05	0.05	22170.5	34.89	0	0	0	0	0	18.77	0	0	0	0	0
Total	September					3246564.9	October					871.1	November					0

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	17.24	0	0	0	0	0	132	0	0	0	0	0	129.98	0	0	0	0	0
2	17.08	0	0	0	0	0	106.94	0	0	0	0	0	130.53	0	0	0	0	0
3	17.49	0	0	0	0	0	108	0	0	0	0	0	92.25	0	0	0	0	0
4	162.76	0	0	0	0	0	108.2	0	0	0	0	0	130.28	0	0	0	0	0
5	154.68	0	0	0	0	0	108.62	0	0	0	0	0	252.44	0	0	0	0	0
6	155	0	0	0	0	0	255.8	0	0	0	0	0	131.08	0	0	0	0	0
7	123.17	0	0	0	0	0	109.07	0	0	0	0	0	132	0	0	0	0	0
8	123.67	0	0	0	0	0	113.73	0	0	0	0	0	135.91	0	0	0	0	0
9	155.23	0	0	0	0	0	130.07	0	0	0	0	0	275.01	0	0	0	0	0
10	155.94	0	0	0	0	0	125	0	0	0	0	0	164.46	0	0	0	0	0
11	128.31	0	0	0	0	0	415.25	0	0	0	0	0	168.25	0	0	0	0	0
12	155.36	0	0	0	0	0	17.01	0	0	0	0	0	166.91	0	0	0	0	0
13	128						22.13	0	0	0	0	0	131.72	0	0	0	0	0
14	127.92	0	0	0	0	0	130	0	0	0	0	0	131	0	0	0	0	0
15	100.29	0	0	0	0	0	80.78	0	0	0	0	0	248.59	0	0	0	0	0
16	110.23	0	0	0	0	0	79	0	0	0	0	0	72.28	0	0	0	0	0
17	106.2	0	0	0	0	0	132	0	0	0	0	0	98.56	0	0	0	0	0
18	132.02	0	0	0	0	0	129.31	0	0	0	0	0	98.69	0	0	0	0	0
19	131	0	0	0	0	0	135.17	0	0	0	0	0	168.34	0	0	0	0	0
20	130	0	0	0	0	0	125.71	0	0	0	0	0	167.73	0	0	0	0	0
21	129.07	0	0	0	0	0	104.34	0	0	0	0	0	120	0	0	0	0	0
22	32.26	0	0	0	0	0	165.29	0	0	0	0	0	125.25	0	0	0	0	0
23	124.56	0	0	0	0	0	158.21	0	0	0	0	0	168.46	0	0	0	0	0
24	131.03	0	0	0	0	0	112	0	0	0	0	0	168	0	0	0	0	0
25	145	0	0	0	0	0	111.1	0	0	0	0	0	165.13	0	0	0	0	0
26	130.47	0	0	0	0	0	155	0	0	0	0	0	102.37	0	0	0	0	0
27	132	0	0	0	0	0	130.31	0	0	0	0	0	102	0	0	0	0	0
28	129.57	0	0	0	0	0	124.98	0	0	0	0	0	105	0	0	0	0	0
29	109.67	0	0	0	0	0	96.57	0	0	0	0	0						
30	120.61	0	0	0	0	0	131.55	0	0	0	0	0						
31	160.18	0	0	0	0	0	129.07	0	0	0	0	0						
TenDaily I	12.32	0	0	0	0	0	10.82	0	0	0	0	0	26.59	0	0	0	0	0
TenDaily II	12.79	0	0	0	0	0	54.46	0	0	0	0	0	24.86	0	0	0	0	0
TenDaily III	23.51	0	0	0	0	0	10.1	0	0	0	0	0	15.66	0	0	0	0	0
Total	December					0	January					0	February					0

Note-Data is published as sent by Tapi Division.

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	110.1	0	0	0	0	0	202.57	0	0	0	0	0	272	0	0	0	0	0
2	109.85	0	0	0	0	0	202	0	0	0	0	0	252	0	0	0	0	0
3	312.53	0	0	0	0	0	180	0	0	0	0	0	280	0	0	0	0	0
4	383.67	0	0	0	0	0	150	0	0	0	0	0	280	0	0	0	0	0
5	580.17	0	0	0	0	0	30.71	0	0	0	0	0	298	0	0	0	0	0
6	756.22	0	0	0	0	0	79.41	0	0	0	0	0	298.18	0	0	0	0	0
7	400	0	0	0	0	0	228.37	0	0	0	0	0	275	0	0	0	0	0
8	420.91	0	0	0	0	0	242.33	0	0	0	0	0	291	0	0	0	0	0
9	791.04	0	0	0	0	0	293.68	0	0	0	0	0	280	0	0	0	0	0
10	649.74	0	0	0	0	0	264	0	0	0	0	0	212.38	0	0	0	0	0
11	620.96	0	0	0	0	0	301.8	0	0	0	0	0	232.01	0	0	0	0	0
12	170.47	0	0	0	0	0	242.91	0	0	0	0	0	251.6	0	0	0	0	0
13	170	0	0	0	0	0	201	0	0	0	0	0	232	0	0	0	0	0
14	450	0	0	0	0	0	240	0	0	0	0	0	220	0	0	0	0	0
15	85	0	0	0	0	0	228.54	0	0	0	0	0	219	0	0	0	0	0
16	107.54	0	0	0	0	0	212.64	0	0	0	0	0	300	0	0	0	0	0
17	161.95	0	0	0	0	0	206.42	0	0	0	0	0	265.07	0	0	0	0	0
18	354.31	0	0	0	0	0	245	0	0	0	0	0	254.94	0	0	0	0	0
19	301.13	0	0	0	0	0	215.76	0	0	0	0	0	271.63	0	0	0	0	0
20	19.7	0	0	0	0	0	260.15	0	0	0	0	0	255.34	0	0	0	0	0
21	250	0	0	0	0	0	215.18	0	0	0	0	0	300	0	0	0	0	0
22	276.76	0	0	0	0	0	233.69	0	0	0	0	0	255	0	0	0	0	0
23	222.36	0	0	0	0	0	241.03	0	0	0	0	0	280	0	0	0	0	0
24	203.57	0	0	0	0	0	241	0	0	0	0	0	300	0	0	0	0	0
25	234.41	0	0	0	0	0	206.3	0	0	0	0	0	350	0	0	0	0	0
26	219.56	0	0	0	0	0	192.2	0	0	0	0	0	380	0	0	0	0	0
27	199.18	0	0	0	0	0	255	0	0	0	0	0	626.35	0	0	0	0	0
28	199	0	0	0	0	0	266	0	0	0	0	0	642.32	0	0	0	0	0
29	199	0	0	0	0	0	276.7	0	0	0	0	0	686.4	0	0	0	0	0
30	352.94	0	0	0	0	0	268	0	0	0	0	0	750	0	0	0	0	0
31	339.81	0	0	0	0	0							824	0	0	0	0	0
TenDaily I	53.1	0	0	0	0	0	3.07	0	0	0	0	0	21.24	0	0	0	0	0
TenDaily II	8.5	0	0	0	0	0	45.87	0	0	0	0	0	26.51	0	0	0	0	0
TenDaily III	25.16	0	0	0	0	0												
Total	March					0	April					0						0

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2020

Station Name : Narmada at Garudeshwar (CW1NAL000434) Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	23596920	0	23596920	15058
1988-1989	44968910	0	44968910	33262
1989-1990	29277169	0	29277169	23454
1990-1991	51824968	0	51824968	51213
1991-1992	30082897	0	30082897	26138
1992-1993	15587484	0	15587484	20886
1993-1994	17225635	0	17225635	35989
1994-1995	36751681	0	36751681	74061
1995-1996	2218095	0	2218095	23290
1996-1997	9122661	0	9122661	27246
1997-1998	7607284	0	7607284	33802
1998-1999	4610413	0	4610413	23109
1999-2000	15376745	0	15376745	49029
2000-2001	588472	0	588472	11486
2001-2002	3084144	0	3084144	23284
2002-2003	3720112	0	3720112	21023
2003-2004	4835297	0	4835297	30308
2004-2005	2602520	0	2602520	17505
2005-2006	2678060	85099	2763159	25676
2006-2007	6639002	60256	6699258	32524
2007-2008	3310012	43520	3353532	18427
2008-2009	75144	3083	78227	4492
2009-2010	737914	7828	745742	6744
2010-2011	311630	205	311835	8295
2011-2012	84072	423	84495	21732
2012-2013	28164	451	28615	21901
2013-2014	2767532	0	2767532	49130
2014-2015	104139	0	104139	8980
2015-2016	58431	0	58431	6284
2016-2017	340982	58	341040	16018
2017-2018	1444	0	1444	1440
2018-2019	1005	0	1005	699
2019-2020	3460319	0	3460319	51194
2020-2021	8503143.593	0	8503143.6	19843.9

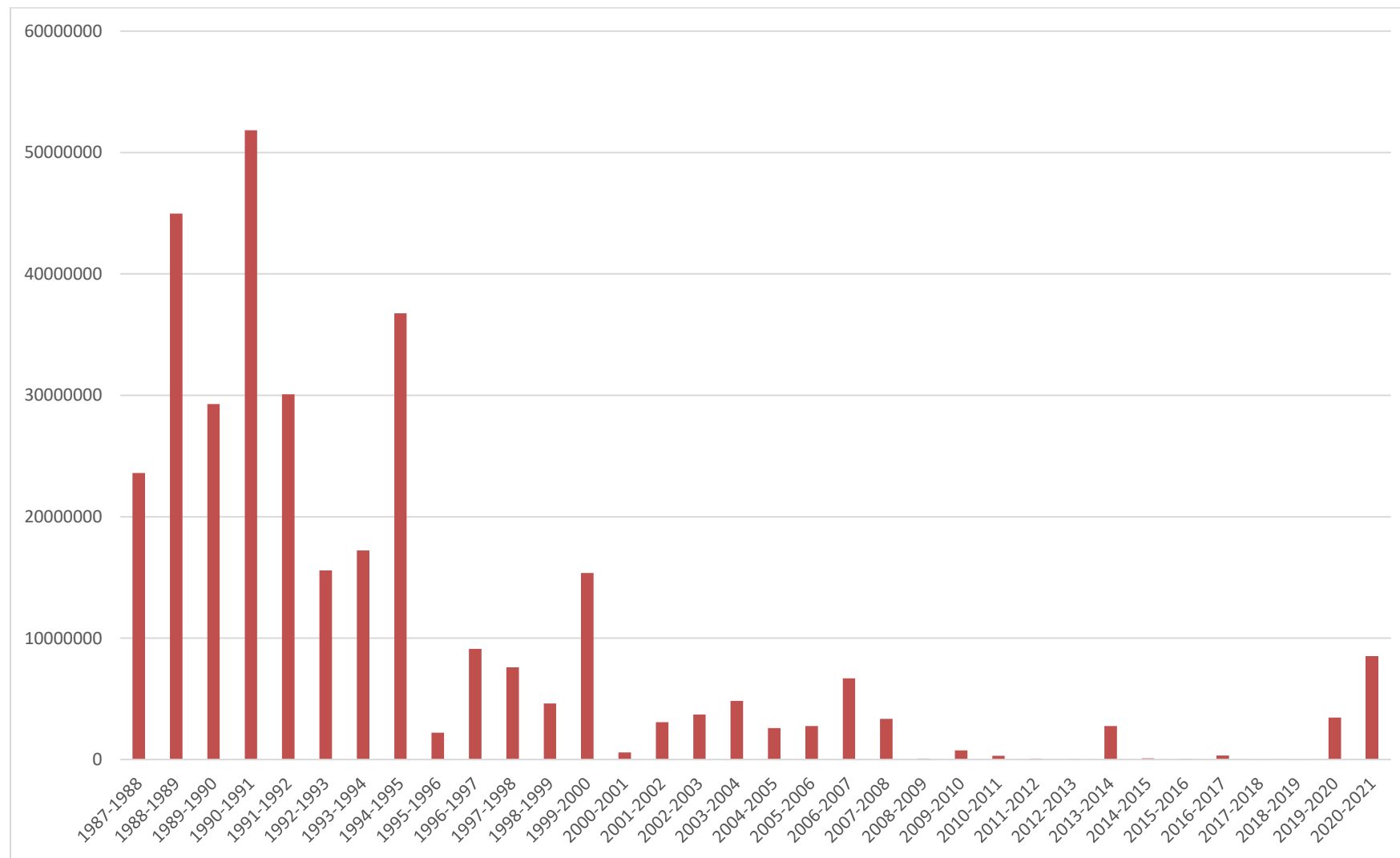
Annual Sediment Load for period : 1987-2020

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch



Sediment Data Year Book 2020-21

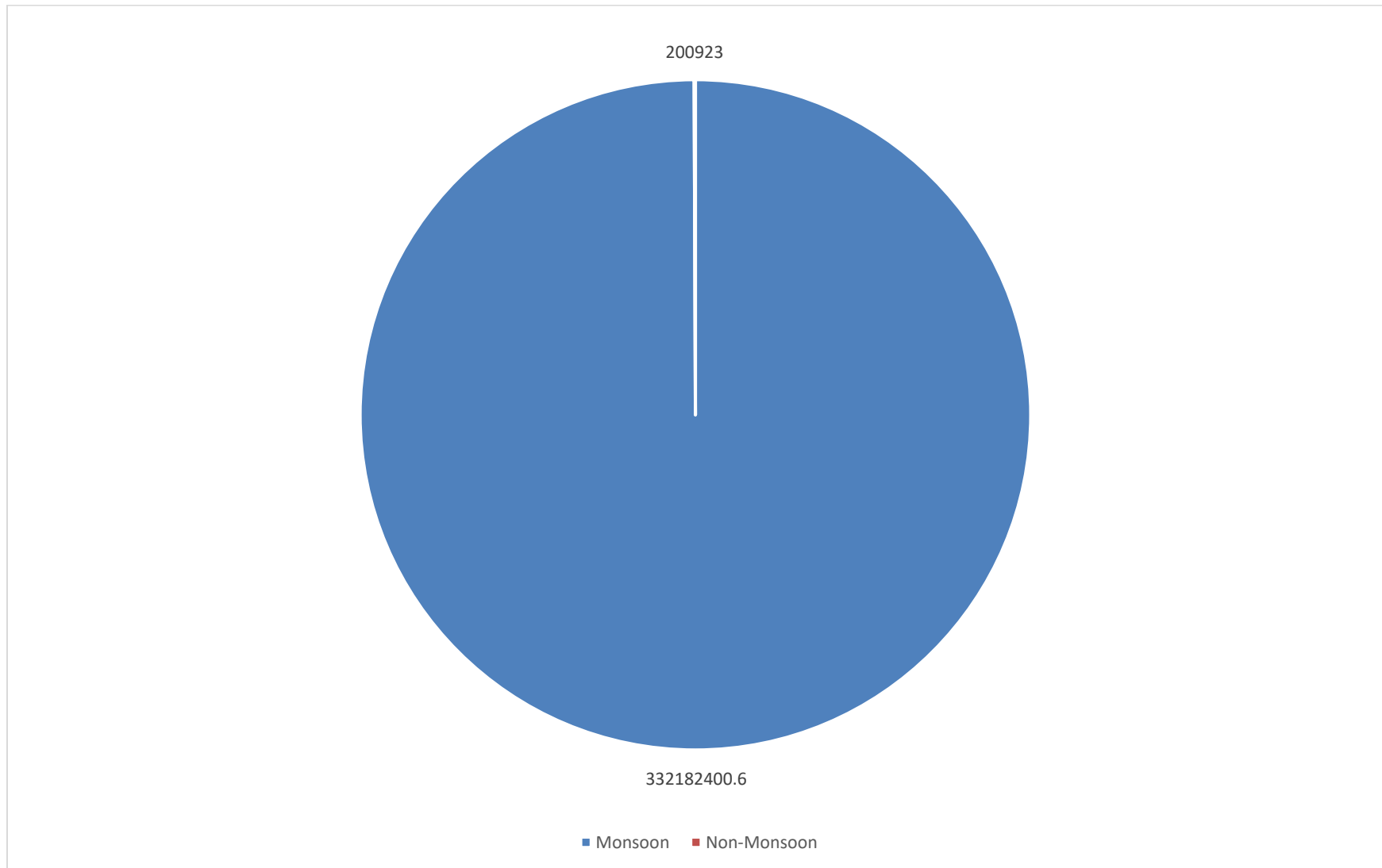
Seasonal Sediment Load for the period : 1987-2021

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch



Sediment Data Year Book 2020-21

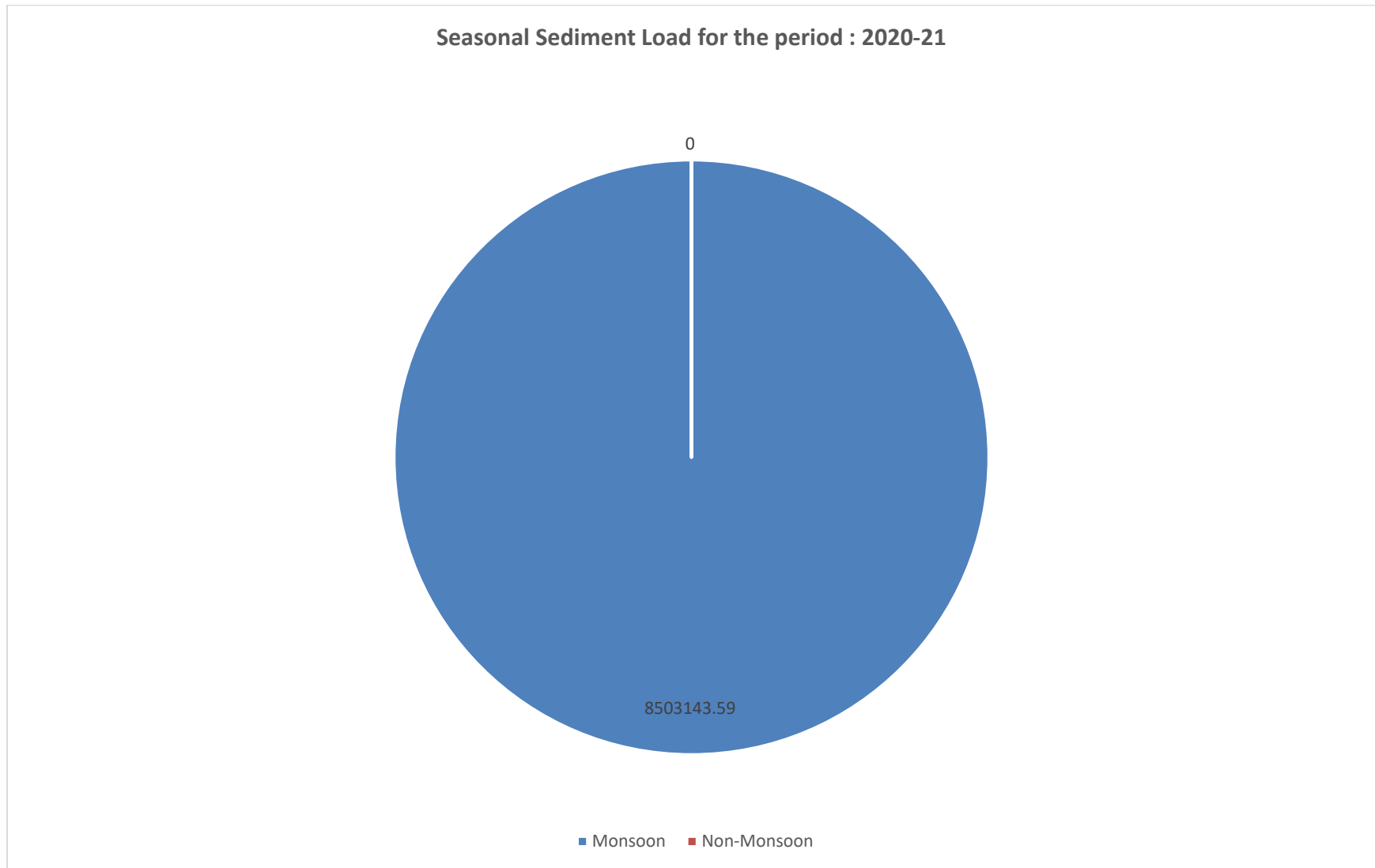
Seasonal Sediment Load for the period : 2020-21

Station Name : Narmada at Garudeshwar (CW1NAL000434)

Local River : Narmada

Division : Tapi Division, Surat

Sub-Division : LNSD,Bharuch



4.3 Narmada at Mandleshwar

History Sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020-21	
Site	:	Mandleshwar		Code	:	CW1NAM000189	
State	:	Madhya Pradesh		District	:	KHARGONE	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-III, Indore	
Drainage Area	:	72809.0 Sq. Km.		Bank	:	Right	
Latitude	:	22°10'18"		Longitude	:	75°39'39"	
Current Zero of Gauge (m)	:	138					
CATEGORY		Opening Date				Closing Date	
Gauge	:	16/12/1970					
Discharge	:	28/08/1971					
Sediment	:	14/04/1972					
Water Quality	:	18/06/1979					
Reduced Level		Opening Date				Closing Date	
138.0		16/12/1970					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD- III, Indore

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	1500.41	0	0	0.02	0.02	2592.71	1623.94	0	0	0.04	0.04	5331.72	104	0	0	0	0	0
2	1307.33	0	0	0.02	0.02	2484.98	515.4	0	0	0.01	0.01	534.36	125	0	0	0	0	43.2
3	1645.98	0	0	0.02	0.02	2986.47	469.56	0	0	0.01	0.01	446.27	102.54	0	0	0.01	0.01	88.59
4	1440.43	0	0	0.02	0.02	2364.61	1274.16	0	0	0.03	0.03	3302.62	818.28	0	0	0.02	0.02	1201.9
5	1178.82	0	0	0.02	0.02	1731.46	1625	0	0	0.04	0.04	5335.2	293.05	0	0	0.01	0.01	379.79
6	1589.43	0	0	0.02	0.02	2609.21	544.38	0	0	0.02	0.02	1034.76	195.31	0	0	0.01	0.01	253.12
7	1597	0	0	0.02	0.02	2759.62	941.82	0	0	0.04	0.04	2848.05	422.93	0	0	0.01	0.01	548.12
8	1527.94	0	0	0.02	0.02	2508.27	450.4	0	0	0.02	0.02	661.54	157.03	0	0	0.01	0.01	203.51
9	1671.03	0	0	0.01	0.01	1732.53	743.1	0	0	0.03	0.03	1733.51	127	0	0	0.01	0.01	109.73
10	1668.54	0	0	0.02	0.02	3027.41	494.62	0	0	0.02	0.02	769.23	270.8	0	0	0.02	0.02	374.36
11	1807.08	0	0	0.02	0.02	2810.37	154.25	0	0	0.01	0.01	79.96	262	0	0	0.02	0.02	452.74
12	1435.61	0	0	0.01	0.01	1736.52	123	0	0	0.01	0.01	53.14	136.95	0	0	0.01	0.01	165.65
13	778.97	0	0	0.01	0.01	673.03	84.29	0	0	0.01	0.01	72.83	140.39	0	0	0.01	0.01	169.82
14	456	0	0	0.01	0.01	236.39	201.63	0	0	0.02	0.02	418.1	145.31	0	0	0.01	0.01	188.32
15	753.61	0	0	0.03	0.03	2213.79	1000.59	0	0	0.12	0.12	10287.68	398	0	0	0.03	0.03	1031.62
16	278.07	0	0	0.28	0.28	6775.1	195.37	0	0	0.02	0.02	388.24	270	0	0	0.02	0.02	466.56
17	916.22	0	0	0.06	0.06	4591.35	269.72	0	0	0.03	0.03	745.71	177.19	0	0	0.02	0.02	260.26
18	830.57	0	0	0.04	0.04	2511.65	151.43	0	0	0.02	0.02	235.5	321.8	0	0	0.02	0.02	472.66
19	1302.21	0	0	0.03	0.03	3487.83	154	0	0	0.02	0.02	239.5	137.98	0	0	0.02	0.02	190.74
20	1195.27	0	0	0.06	0.06	6506.1	121.24	0	0	0.02	0.02	209.5	453.19	0	0	0.02	0.02	822.28
21	488	0	0	0.02	0.02	1011.92	85.36	0	0	0.01	0.01	103.26	207.24	0	0	0.02	0.02	322.29
22	750.41	0	0	0.1	0.1	6289.04	79.79	0	0	0.01	0.01	89.62	4220.6	0	0	0.03	0.03	9845.82
23	1482.79	0	0	0.02	0.02	2306.03	94.23	0	0	0.02	0.02	130.26	4510	0	0	0.03	0.03	11689.92
24	1389.47	0	0	0.01	0.01	1800.76	184.26	0	0	0.03	0.03	477.6	4140.79	0	0	0.03	0.03	9659.64
25	1475.97	0	0	0.03	0.03	3443.13	401.3	0	0	0.07	0.07	2288.37	2504.33	0	0	0.02	0.02	4327.49
26	1513.84	0	0	0.02	0.02	2092.73	317	0	0	0.05	0.05	1424.22	2472.18	0	0	0.03	0.03	5339.9
27	1537.58	0	0	0.02	0.02	2258.39	280.88	0	0	0.01	0.01	364.02	2465.94	0	0	0.02	0.02	3408.91
28	1012	0	0	0.01	0.01	1136.68	495.21	0	0	0.02	0.02	770.15	2438.49	0	0	0.03	0.03	6320.56
29	1367.1	0	0	0.02	0.02	2244.23	159.22	0	0	0.01	0.01	82.54	9720	0	0	0.06	0.06	50388.48
30	848.61	0	0	0.02	0.02	1539.71	128.45	0	0	0.01	0.01	55.49	28500	0	0	0.18	0.18	443232
31							143.04	0	0	0.01	0.01	61.79	28650	0	0	0.6	0.6	1485216
TenDaily I	1512.69	0	0	0.02	0.02	2479.72	868.24	0	0	0.02	0.02	2199.73	261.59	0	0	0.01	0.01	320.23
TenDaily II	975.36	0	0	0.06	0.06	3154.21	245.55	0	0	0.03	0.03	1273.02	244.28	0	0	0.02	0.02	422.06
TenDaily III	1186.58	0	0	0.03	0.03	2412.26	215.34	0	0	0.02	0.02	531.57	8166.32	0	0	0.09	0.09	184522.82
Total	June					80461.99	July					40574.73	August					2037173.97

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	28650	0	0	0.06	0.06	155947.68	2240.12	0	0	0.05	0.05	9096.68	750	0	0	0.06	0.06	3888
2	7900	0	0	0.04	0.04	28667.52	1885	0	0	0.04	0.04	6514.56	359.94	0	0	0.02	0.02	746.37
3	9950	0	0	0.05	0.05	42124.32	781.73	0	0	0.04	0.04	2971.82	298.44	0	0	0.02	0.02	593.06
4	2628.33	0	0	0.05	0.05	10446.04	490	0	0	0.03	0.03	1270.08	199.15	0	0	0.02	0.02	326.92
5	2513.89	0	0	0.04	0.04	8688.01	359.35	0	0	0.03	0.03	869.33	155.55	0	0	0.02	0.02	255.35
6	2485	0	0	0.04	0.04	8588.16	439.5	0	0	0.03	0.03	1253.11	106.2	0	0	0.02	0.02	155.99
7	2452.8	0	0	0.06	0.06	11867.65	553.93	0	0	0.04	0.04	1770.81	144.64	0	0	0.02	0.02	224.94
8	2477.79	0	0	0.07	0.07	13915.26	450.46	0	0	0.04	0.04	1362.19	101.5	0	0	0.01	0.01	87.7
9	2285.41	0	0	0.04	0.04	7503.45	834.77	0	0	0.04	0.04	3245.58	87.64	0	0	0.01	0.01	106.02
10	2245.11	0	0	0.04	0.04	7371.13	1337.2	0	0	0.05	0.05	5661.17	196.56	0	0	0.02	0.02	288.71
11	2539.74	0	0	0.06	0.06	13165.99	340	0	0	0.01	0.01	293.76	374.44	0	0	0.02	0.02	647.04
12	2369.27	0	0	0.06	0.06	11668.18	122.58	0	0	0.03	0.03	285.96	561.5	0	0	0.02	0.02	1067.29
13	2310	0	0	0.06	0.06	11975.04	170.21	0	0	0.03	0.03	411.76	512.81	0	0	0.02	0.02	797.52
14	2306.16	0	0	0.06	0.06	10958.89	402.18	0	0	0.03	0.03	1042.45	562	0	0	0.02	0.02	971.14
15	2246.88	0	0	0.05	0.05	10094.76	1303.46	0	0	0.05	0.05	5293.09	442	0	0	0.02	0.02	763.78
16	2442.68	0	0	0.05	0.05	10974.47	481.86	0	0	0.04	0.04	1540.42	463.35	0	0	0.02	0.02	680.57
17	2397.63	0	0	0.05	0.05	10357.75	933.34	0	0	0.05	0.05	3709.47	472.71	0	0	0.02	0.02	776
18	2355.67	0	0	0.05	0.05	9972.96	930	0	0	0.05	0.05	4017.6	502.76	0	0	0.02	0.02	868.77
19	2277.28	0	0	0.05	0.05	9444.33	457.97	0	0	0.03	0.03	1068.35	470.29	0	0	0.02	0.02	731.4
20	2607	0	0	0.06	0.06	13514.69	629.17	0	0	0.04	0.04	2011.34	573.95	0	0	0.02	0.02	1090.95
21	2658.59	0	0	0.05	0.05	11485.13	399.3	0	0	0.03	0.03	1069.5	487.73	0	0	0.02	0.02	674.24
22	2673.32	0	0	0.05	0.05	11317.75	606.29	0	0	0.04	0.04	1885.8	505	0	0	0.02	0.02	872.64
23	2975.98	0	0	0.05	0.05	13370.46	487.52	0	0	0.03	0.03	1390.03	462.73	0	0	0.01	0.01	559.71
24	3145	0	0	0.06	0.06	15760.2	588.66	0	0	0.04	0.04	1780.11	490.18	0	0	0.02	0.02	847.03
25	2525.78	0	0	0.05	0.05	10693.13	395	0	0	0.03	0.03	1023.84	517.59	0	0	0.02	0.02	804.96
26	2741.43	0	0	0.05	0.05	12790.42	420.36	0	0	0.02	0.02	871.67	481.99	0	0	0.02	0.02	832.88
27	2588	0	0	0.05	0.05	11180.16	486.48	0	0	0.03	0.03	1345.02	410.62	0	0	0.02	0.02	709.56
28	2548	0	0	0.05	0.05	11007.36	427	0	0	0.02	0.02	885.42	415.66	0	0	0.01	0.01	359.13
29	2513.68	0	0	0.05	0.05	11510.63	299.96	0	0	0.02	0.02	570.16	441	0	0	0.01	0.01	381.02
30	2233.29	0	0	0.04	0.04	8297.12	565	0	0	0.04	0.04	1952.64	436	0	0	0.01	0.01	376.7
31							405.36	0	0	0.03	0.03	910.6						
TenDaily I	6358.83	0	0	0.05	0.05	29511.92	937.21	0	0	0.04	0.04	3401.53	239.96	0	0	0.02	0.02	667.31
TenDaily II	2385.23	0	0	0.05	0.05	11212.71	577.08	0	0	0.03	0.03	1967.42	493.58	0	0	0.02	0.02	839.45
TenDaily III	2660.31	0	0	0.05	0.05	11741.24	461.9	0	0	0.03	0.03	1244.07	464.85	0	0	0.02	0.02	641.79
Total	September					524658.63	October					67374.32	November					21485.39

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	543.33	0	0	0.01	0.01	704.15	594.32	0	0	0.02	0.02	1026.99	646.86	0	0	0.02	0.02	1117.77
2	667.62	0	0	0.01	0.01	576.83	545.27	0	0	0.02	0.02	864.4634	584.83	0	0	0.02	0.02	1010.58
3	536.55	0	0	0.01	0.01	463.58	634	0	0	0.02	0.02	1168.697	625.31	0	0	0.02	0.02	1080.53
4	630	0	0	0.01	0.01	544.32	609.19	0	0	0.02	0.02	894.78	573.12	0	0	0.02	0.02	990.34
5	585.59	0	0	0.01	0.01	505.95	649.79	0	0	0.02	0.02	1122.84	556.38	0	0	0.02	0.02	961.43
6	608	0	0	0.01	0.01	525.31	629.1	0	0	0.02	0.02	1087.08	534.03	0	0	0.02	0.02	922.8
7	529.55	0	0	0.02	0.02	823.56	639.17	0	0	0.02	0.02	1104.48	662	0	0	0.02	0.02	1143.94
8	520.16	0	0	0.02	0.02	898.83	591.32	0	0	0.02	0.02	1021.8	504.4	0	0	0.02	0.02	740.86
9	595.61	0	0	0.02	0.02	1029.22	413.8	0	0	0.01	0.01	357.52	607.65	0	0	0.02	0.02	1050.01
10	568.74	0	0	0.02	0.02	982.78	661	0	0	0.02	0.02	1142.21	592.41	0	0	0.02	0.02	1023.68
11	833.02	0	0	0.03	0.03	2159.18	714	0	0	0.02	0.02	1233.8	584.73	0	0	0.02	0.02	1010.41
12	865.8	0	0	0.03	0.03	2244.17	695.52	0	0	0.02	0.02	1201.86	518.84	0	0	0.02	0.02	896.55
13	437	0	0	0.02	0.02	755.14	540.64	0	0	0.02	0.02	934.23	519.64	0	0	0.02	0.02	897.95
14	635.82	0	0	0.02	0.02	1098.69	638.79	0	0	0.02	0.02	1103.82	546	0	0	0.02	0.02	943.49
15	871.21	0	0	0.03	0.03	2258.18	539.12	0	0	0.02	0.02	931.59	524.12	0	0	0.02	0.02	860.4
16	570.59	0	0	0.02	0.02	985.99	530.13	0	0	0.01	0.01	458.03	432.45	0	0	0.02	0.02	747.27
17	607.52	0	0	0.02	0.02	1049.8	720	0	0	0.02	0.02	1244.16	428.04	0	0	0.02	0.02	739.65
18	793.56	0	0	0.02	0.02	1371.27	656.83	0	0	0.02	0.02	1135	437.54	0	0	0.02	0.02	756.08
19	601.5	0	0	0.02	0.02	1039.39	578.41	0	0	0.02	0.02	999.49	441.98	0	0	0.02	0.02	763.75
20	520	0	0	0.02	0.02	898.56	524.52	0	0	0.02	0.02	906.37	486.85	0	0	0.02	0.02	841.28
21	525.32	0	0	0.02	0.02	862.37	578.75	0	0	0.02	0.02	1000.08	449	0	0	0.01	0.01	387.94
22	523.71	0	0	0.02	0.02	904.97	572.89	0	0	0.02	0.02	989.96	386.04	0	0	0.01	0.01	466.95
23	187.23	0	0	0.01	0.01	161.77	576.99	0	0	0.02	0.02	997.04	344.03	0	0	0.01	0.01	297.24
24	579.93	0	0	0.02	0.02	1002.12	805	0	0	0.02	0.02	1391.04	428.35	0	0	0.01	0.01	370.09
25	653	0	0	0.02	0.02	1128.38	591.26	0	0	0.02	0.02	919.53	324.81	0	0	0.01	0.01	280.64
26	603.64	0	0	0.02	0.02	1043.08	567	0	0	0.02	0.02	979.78	429.59	0	0	0.01	0.01	371.17
27	594	0	0	0.02	0.02	1026.43	596.83	0	0	0.02	0.02	1031.32	518.7	0	0	0.01	0.01	448.15
28	635.76	0	0	0.02	0.02	988.73	499.41	0	0	0.02	0.02	862.98	680	0	0	0.02	0.02	1175.04
29	594.22	0	0	0.02	0.02	1026.82	590.28	0	0	0.02	0.02	1020.01						
30	672.86	0	0	0.02	0.02	1162.7	713.14	0	0	0.02	0.02	1232.3						
31	650.53	0	0	0.02	0.02	1124.12	549	0	0	0.02	0.02	948.67						
TenDaily I	578.51	0	0	0.01	0.01	705.45	596.7	0	0	0.01	0.01	775.77	588.7	0	0	0.02	0.02	1004.2
TenDaily II	673.6	0	0	0.02	0.02	1386.04	613.8	0	0	0.02	0.02	1014.83	492.02	0	0	0.02	0.02	845.68
TenDaily III	565.47	0	0	0.02	0.02	948.32	603.69	0	0	0.02	0.02	1033.88	445.06	0	0	0.01	0.01	474.65
Total	December					31346.39	January					29278.75	February					22295.99

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	504.41	0	0	0.02	0.02	697.29	612.35	0	0	0.02	0.02	1058.14	689	0	0	0.03	0.03	1488.24
2	519.06	0	0	0.02	0.02	896.93	850	0	0	0.02	0.02	1468.8	775	0	0	0.03	0.03	2008.8
3	504.11	0	0	0.02	0.02	871.1	933.29	0	0	0.03	0.03	2419.1	569	0	0	0.02	0.02	983.23
4	446.31	0	0	0.02	0.02	771.23	731	0	0	0.02	0.02	1263.17	862	0	0	0.03	0.03	2234.3
5	365.56	0	0	0.01	0.01	315.84	558.75	0	0	0.02	0.02	820.69	996	0	0	0.04	0.04	3442.18
6	413.68	0	0	0.02	0.02	714.83	521	0	0	0.02	0.02	900.29	875	0	0	0.03	0.03	2268
7	437	0	0	0.02	0.02	755.14	664.76	0	0	0.02	0.02	1148.71	932	0	0	0.03	0.03	2415.74
8	386.73	0	0	0.01	0.01	467.79	856.09	0	0	0.03	0.03	2218.98	932	0	0	0.03	0.03	2415.74
9	372.79	0	0	0.01	0.01	322.09	682.36	0	0	0.02	0.02	1179.11	727	0	0	0.03	0.03	1884.38
10	404.41	0	0	0.01	0.01	349.41	802	0	0	0.03	0.03	2078.78	650	0	0	0.02	0.02	1123.2
11	429	0	0	0.01	0.01	370.66	589	0	0	0.02	0.02	1017.79	185	0	0	0.01	0.01	159.84
12	385.09	0	0	0.01	0.01	332.71	563	0	0	0.02	0.02	972.86	601	0	0	0.02	0.02	1038.53
13	387.61	0	0	0.01	0.01	334.9	475	0	0	0.02	0.02	820.8	1352	0	0	0.05	0.05	5840.64
14	394	0	0	0.01	0.01	340.42	484	0	0	0.02	0.02	836.35	875	0	0	0.03	0.03	2268
15	403.47	0	0	0.02	0.02	592.62	426	0	0	0.02	0.02	736.13	1299	0	0	0.05	0.05	5611.68
16	116.33	0	0	0.01	0.01	100.51	440	0	0	0.02	0.02	760.32	1510	0	0	0.05	0.05	6523.2
17	230.55	0	0	0.01	0.01	199.19	462	0	0	0.02	0.02	798.34	1320	0	0	0.05	0.05	5702.4
18	407.76	0	0	0.02	0.02	704.61	676	0	0	0.02	0.02	1168.13	1380	0	0	0.05	0.05	5961.6
19	407.29	0	0	0.02	0.02	703.8	881	0	0	0.03	0.03	2283.55	1464	0	0	0.05	0.05	6324.48
20	430.39	0	0	0.02	0.02	743.72	769	0	0	0.03	0.03	1993.25	1436	0	0	0.05	0.05	6203.52
21	605	0	0	0.03	0.03	1568.16	184	0	0	0.01	0.01	158.98	1425	0	0	0.05	0.05	6156
22	463.11	0	0	0.02	0.02	640.2	727	0	0	0.03	0.03	1884.38	1446	0	0	0.05	0.05	6246.72
23	399.08	0	0	0.02	0.02	689.6	552	0	0	0.02	0.02	953.86	1151	0	0	0.04	0.04	3977.86
24	439.36	0	0	0.02	0.02	759.21	758	0	0	0.03	0.03	1964.74	775	0	0	0.03	0.03	2008.8
25	285.89	0	0	0.02	0.02	395.22	925	0	0	0.03	0.03	2397.6	925	0	0	0.03	0.03	2397.6
26	260.83	0	0	0.02	0.02	450.71	629	0	0	0.02	0.02	1086.91	235	0	0	0.01	0.01	203.04
27	449	0	0	0.03	0.03	1163.82	574	0	0	0.02	0.02	991.87	812	0	0	0.03	0.03	2104.7
28	565	0	0	0.04	0.04	1952.64	645	0	0	0.02	0.02	1114.56	850	0	0	0.03	0.03	2203.2
29	421	0	0	0.03	0.03	1091.23	802	0	0	0.03	0.03	2078.78	408	0	0	0.01	0.01	352.51
30	365.54	0	0	0.01	0.01	473.74	639	0	0	0.02	0.02	1104.19	590	0	0	0.02	0.02	1019.52
31	394.03	0	0	0.01	0.01	340.45							513.08	0	0	0.01	0.01	664.95
TenDaily I	435.41	0	0	0.02	0.02	616.17	721.16	0	0	0.02	0.02	1455.58	800.7	0	0	0.03	0.03	2026.38
TenDaily II	359.15	0	0	0.01	0.01	442.31	576.5	0	0	0.02	0.02	1138.75	1142.2	0	0	0.04	0.04	4563.39
TenDaily III	422.53	0	0	0.02	0.02	865.91	643.5	0	0	0.02	0.02	1373.59	830.01	0	0	0.03	0.03	2484.99
Total	March					20109.76	April					39679.17						93232.62

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Mandleshwar

Division:Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

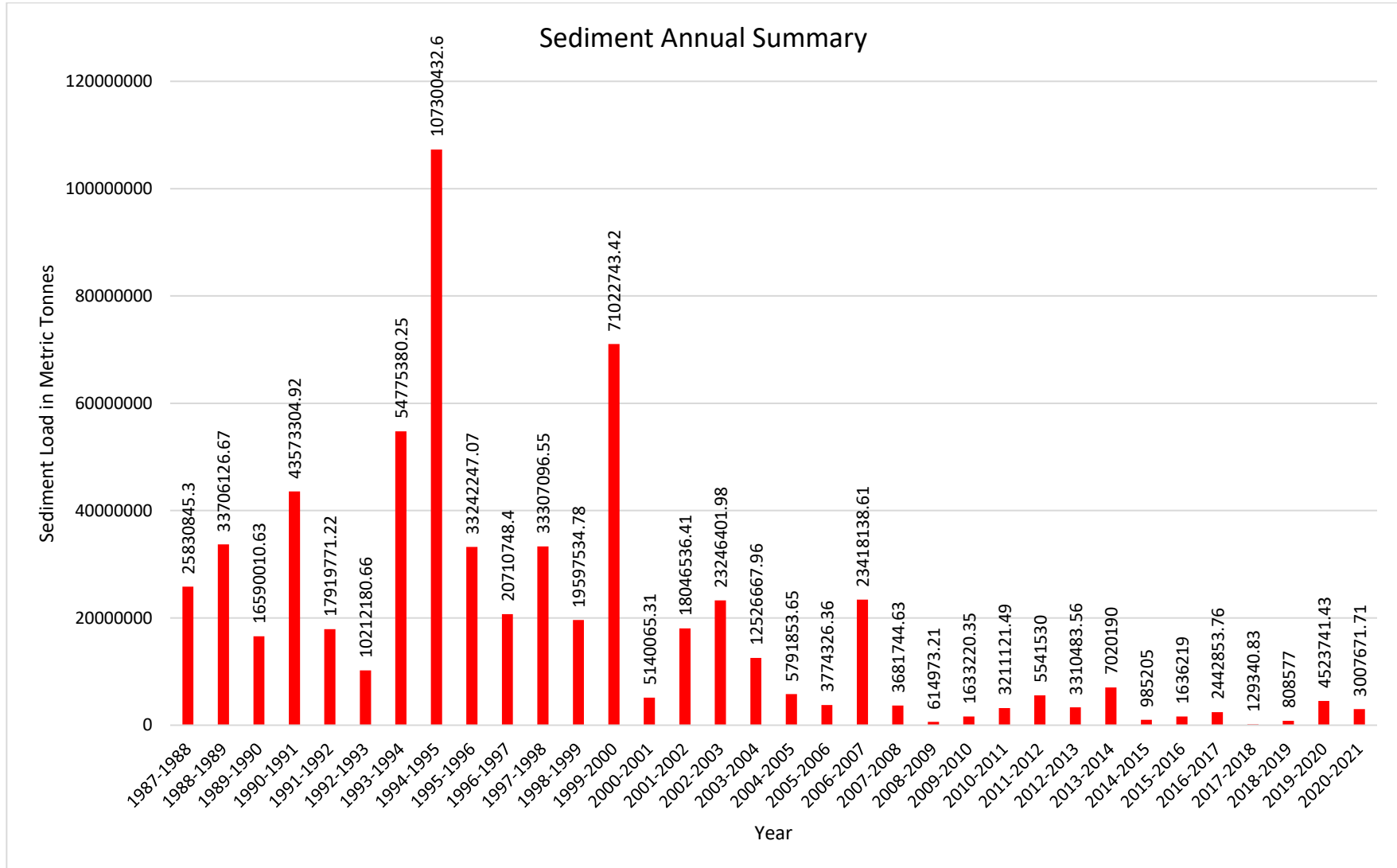
Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	25830845.3	0	25830845.3	14409.67
1988-1989	33706126.67	0	33706126.67	30075.84
1989-1990	16590010.63	0	16590010.63	17493.47
1990-1991	43573304.92	0	43573304.92	44940.12
1991-1992	17919771.22	0	17919771.22	23174.76
1992-1993	10212180.66	0	10212180.66	16597.46
1993-1994	54775380.25	0	54775380.25	30818.43
1994-1995	107300432.6	0	107300432.6	67156.44
1995-1996	33242247.07	0	33242247.07	21176.67
1996-1997	20710748.4	0	20710748.4	20291.08
1997-1998	33307096.55	0	33307096.55	25333.12
1998-1999	19597534.78	0	19597534.78	24211.83
1999-2000	71022743.42	0	71022743.42	52394.48
2000-2001	5140065.31	0	5140065.31	11173.53
2001-2002	18046536.41	0	18046536.41	19604.46
2002-2003	23246401.98	0	23246401.98	19314.77
2003-2004	12526667.96	0	12526667.96	31450.66
2004-2005	5791853.65	0	5791853.65	16428.18
2005-2006	3756112.88	18213.48	3774326.36	33882.83
2006-2007	23348119.18	70019.42	23418138.61	33299.23
2007-2008	3619870.62	61874.01	3681744.63	24539.35
2008-2009	357341.28	257631.93	614973.21	16209.55
2009-2010	1250505.76	382714.59	1633220.35	28066.07
2010-2011	2824844.03	386277.46	3211121.49	28697.37
2011-2012	5268557	272974	5541530	44924
2012-2013	3053619	256864.56	3310483.56	45507.08
2013-2014	6692576	327613	7020190	65013
2014-2015	738527	246678	985205	25134
2015-2016	1481523	154696	1636219	21095
2016-2017	2294790.88	148062.88	2442853.76	33674.57
2017-2018	121946.92	7393.91	129340.83	5954.39
2018-2019	654450	154126	808577	16621
2019-2020	4366487.71	157253.72	4523741.43	48788.18
2020-2021	2771729.03	235942.68	3007671.71	34889.29

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Mandleshwar (CW1NAM000189)
Bhopal Local River : Narmada

Division : Narmada Division,
Sub-Division : MNSD-III, Indore



Sediment Data Year Book 2020-21

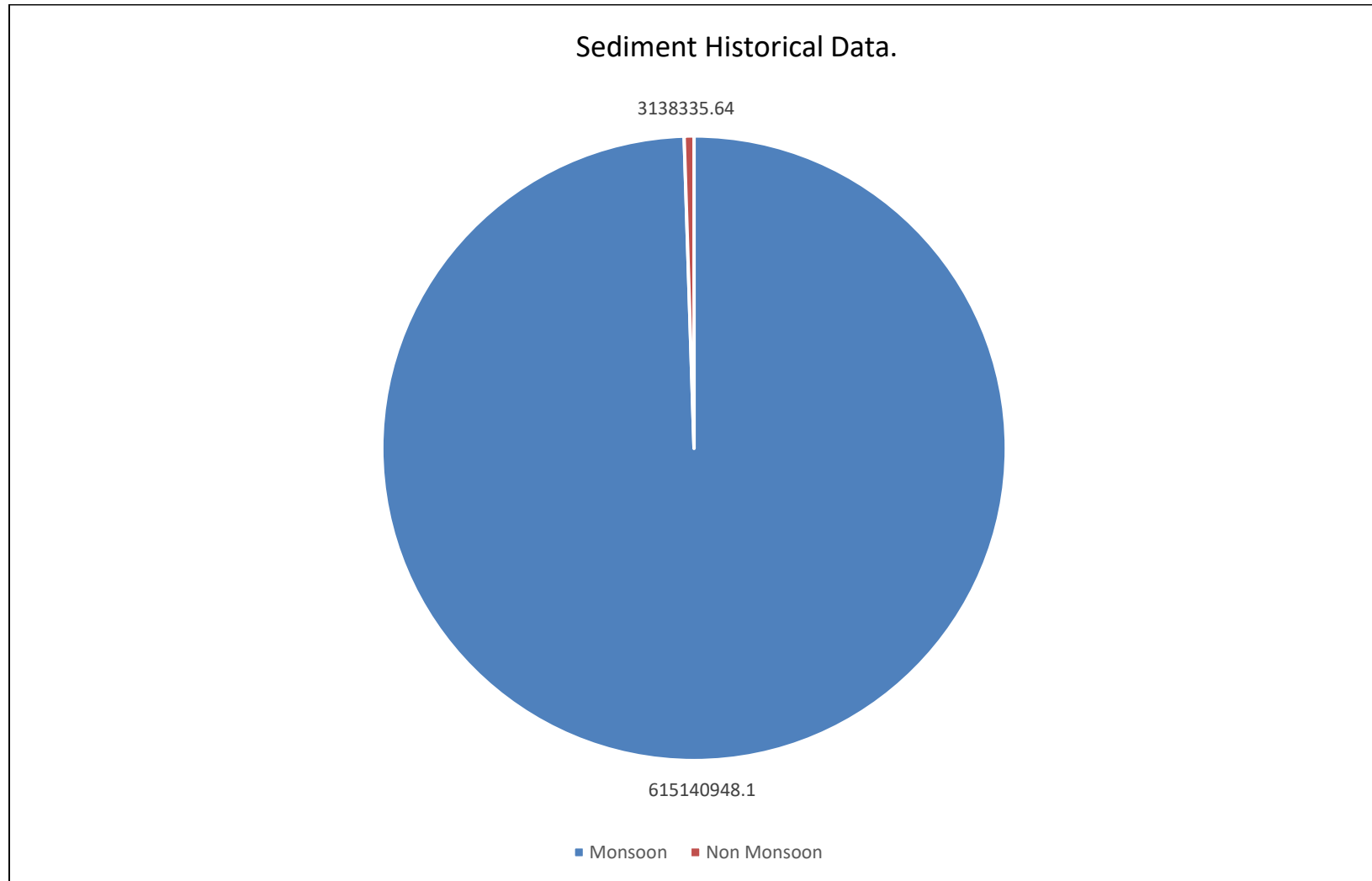
Seasonal Sediment Load for the period : 1987-2021

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore



Sediment Data Year Book 2020-21

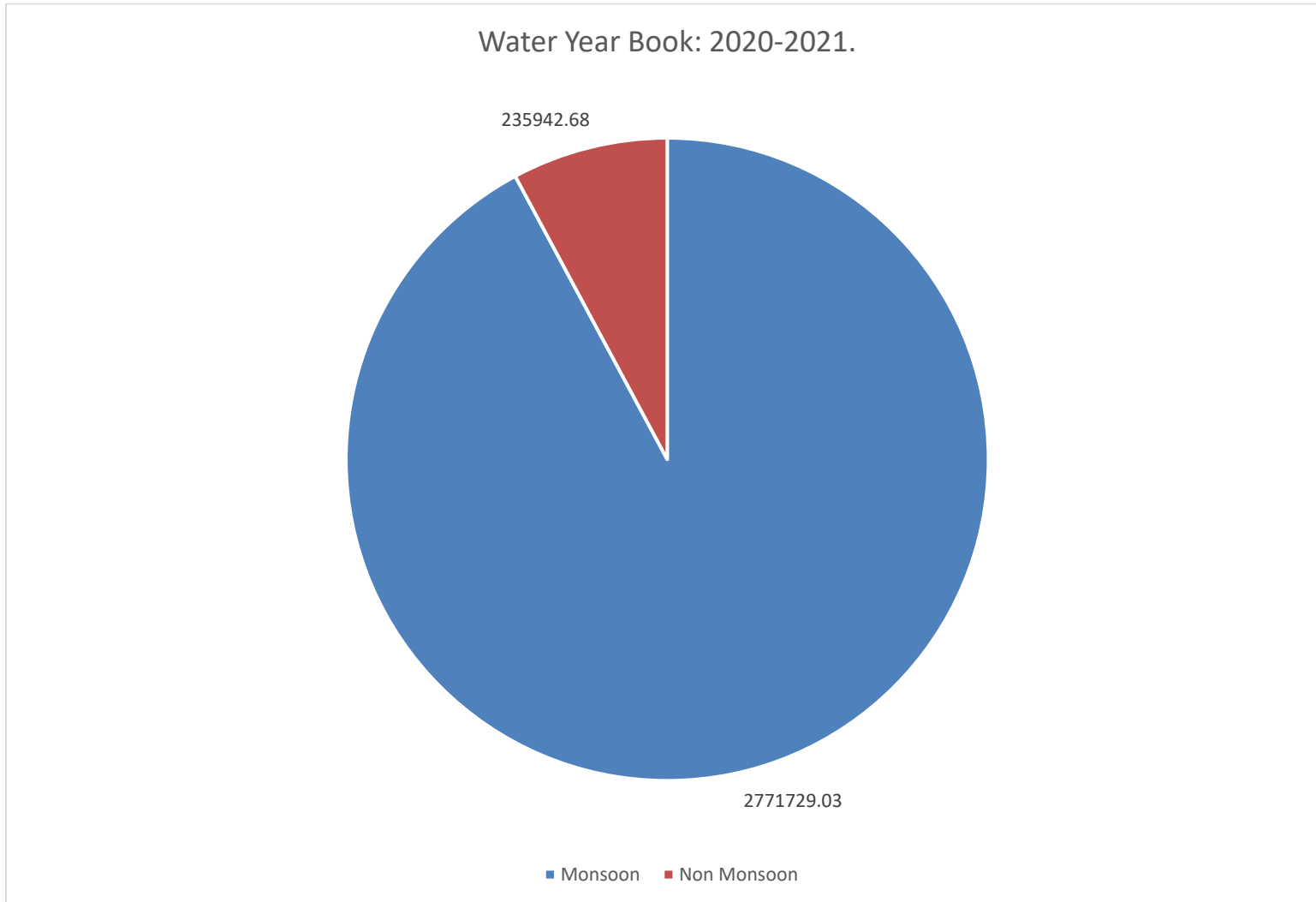
Seasonal Sediment Load for the period : 2020-21

Station Name : Narmada at Mandleshwar (CW1NAM000189)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore



4.4 Narmada at Handia

History Sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Handia		Code	:	CW1NAM000392	
State	:	Madhya Pradesh		District	:	HARDA	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-II, Bhopal	
Drainage Area	:	54027.0 Sq. Km.		Bank	:	Left	
Latitude	:	22°29'30"		Longitude	:	76°59'38"	
Current Zero of Gauge (m)	:	258.000 (M.S.L.)					
CATEGORY		Opening Date		Closing Date			
Gauge	:	09/02/1977					
Discharge	:	26/04/1977					
Sediment	:	11/12/1977					
Water Quality	:	01/08/1979					
Reduced Level		Opening Date		Closing Date			
258.0		09/02/1977					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	162	0	0	0.09	0.09	1225.67	228	0	0.01	0.01	0.02	334.89	540	0.08	0.09	0.6	0.77	36111.74
2	157	0	0	0.08	0.08	1151.17	262	0	0.01	0.01	0.02	407.46	530	0.08	0.09	0.59	0.76	34801.92
3	157	0	0	0.08	0.08	1151.17	349	0	0.01	0.01	0.02	542.76	430	0.07	0.07	0.48	0.62	23034.24
4	157	0	0	0.08	0.08	1151.17	541	0	0.01	0.01	0.02	888.11	390	0.1	0.1	0.36	0.55	18667.58
5	158	0	0	0.09	0.09	1165.89	550	0	0.01	0.01	0.02	950.4	377	0.09	0.1	0.31	0.5	16156.11
6	164	0	0	0.09	0.09	1256.12	517	0	0.01	0.01	0.02	848.71	708	0.1	0.11	0.36	0.56	34561.73
7	159	0	0	0.09	0.09	1180.69	528	0	0	0.01	0.02	775.53	976	0.1	0.11	0.55	0.76	63919.41
8	155	0	0	0.08	0.08	1122.03	540	0	0.01	0.02	0.03	1306.37	736	0.1	0.1	0.35	0.55	35229.08
9	153	0	0	0.08	0.08	1093.26	491	0	0.01	0.02	0.03	1060.56	750	0.1	0.1	0.04	0.24	15292.8
10	147	0	0	0.08	0.08	1009.20	393	0	0.01	0.02	0.02	814.92	674	0.1	0.1	0.34	0.53	30922.04
11	145	0	0	0.08	0.08	981.92	326	0	0	0.02	0.02	647.83	710	0.11	0.11	0.04	0.26	15704.06
12	145	0	0	0.08	0.08	981.92	300	0	0	0.02	0.02	518.4	938	0.1	0.11	0.04	0.24	19774.54
13	148	0	0	0.08	0.08	1022.98	326	0	0	0.02	0.02	647.83	1280	0.09	0.09	0.59	0.77	84824.06
14	148	0	0	0.08	0.08	1022.98	377	0	0	0.02	0.02	749.17	2650	0.09	0.1	0.79	0.98	225296.64
15	149	0	0	0.08	0.08	1036.85	388	0	0	0.02	0.02	771.03	3600	0.12	0.14	1.07	1.33	413683.2
16	154	0	0	0.08	0.08	1107.60	428	0	0	0.38	0.39	14310.95	2550	0.09	0.1	0.76	0.95	209304
17	159	0	0	0.09	0.09	1180.69	432	0	0	0.35	0.36	13287.63	1340	0.09	0.1	0.53	0.71	82316.74
18	162	0	0	0.09	0.09	1225.67	445	0	0	0.4	0.41	15648.34	1330	0.09	0.1	0.55	0.74	84575.23
19	180	0	0	0.10	0.10	1513.17	440	0	0	0.04	0.04	1520.64	1200	0.09	0.09	0.54	0.72	74131.2
20	210	0	0	0.11	0.11	2059.59	454	0	0	0.32	0.33	12826.77	2960	0.1	0.11	1.18	1.38	353693.95
21	530	0	0	0.29	0.29	13118.79	407	0	0	0.34	0.35	12202.19	6920	0.1	0.1	1.03	1.23	734804.35
22	290	0	0	0.16	0.16	3927.70	700	0	0.01	0.61	0.62	37558.08	19200	0.1	0.11	1.4	1.6	2662502.4
23	259	0	0	0.14	0.14	3110.49	403	0	0	0.33	0.33	11594.79	11800	0.06	0.07	0.86	0.99	1009324.8
24	341	0	0	0.01	0.02	559.79	851	0.09	0.1	0.34	0.53	39116.04	6410	0.1	0.1	0.78	0.98	540532.22
25	284	0	0.01	0.01	0.02	490.75	519	0.1	0.1	0.32	0.52	23362.47	3720	0.09	0.09	0.78	0.96	308551.68
26	296	0	0.01	0.02	0.02	588.21	443	0.09	0.09	0.27	0.45	17223.84	2800	0.1	0.1	0.78	0.97	235630.08
27	460	0	0	0.01	0.02	715.39	484	0.1	0.11	0.32	0.52	21786.97	2460	0.09	0.1	0.6	0.79	167909.76
28	485	0	0	0.01	0.01	419.04	434	0.05	0.11	0.35	0.5	18898.79	2970	0.1	0.11	0.6	0.81	206826.05
29	266	0	0.01	0.01	0.02	459.65	420	0.1	0.11	0.32	0.53	19377.79	18074	0.1	0.1	0.86	1.06	1661535.59
30	267	0	0.01	0.02	0.02	530.58	560	0.1	0.11	0.39	0.6	29078.78	40000	0.22	0.22	1.9	2.34	8087040
31							586	0.09	0.1	0.65	0.84	42732.06	28700	0.16	0.16	1.37	1.69	4190659.2
TenDaily I		0	0	0.08	0.08	1150.64	439.9	0	0.01	0.01	0.02	792.97	611.1	0.09	0.1	0.4	0.58	30869.67
TenDaily II		0	0	0.09	0.09	1213.34	391.6	0	0	0.16	0.16	6092.86	1855.8	0.1	0.1	0.61	0.81	156330.36
TenDaily III	265.8	0	0.004	0.07	0.07	2392.04	527.91	0.07	0.08	0.39	0.53	24811.98	13004.91	0.11	0.11	1	1.22	1800483.28
Total	June					47560.13	July					341790.11	August					21677316.42

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSTD-II, Bhopal

Days	September						October						November						
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	
1	16800	0.09	0.1	0.69	0.89	1290401.28	1150						1050						
2	7150	0.09	0.1	0.61	0.8	494825.76	1500						1040						
3	3710	0.08	0.09	0.34	0.5	161554.18	961						1000						
4	3020	0.1	0.1	0.35	0.55	143510.4	1200						930						
5	2610	0.1	0.1	0.35	0.54	122899.68	672	Observation Not Done due to non-working of equipment						800	Observation Not Done due to non-working of equipment				
6	2600	0.1	0.1	0.35	0.55	123552	536						878						
7	1680	0.09	0.1	0.33	0.51	74317.82	570						809						
8	1440	0.09	0.1	0.32	0.51	63452.16	522						795						
9	1340	0.09	0.09	0.34	0.52	60435.07	503						745						
10	1350	0.09	0.09	0.33	0.52	60302.88	495						703						
11	1520	0.09	0.1	0.34	0.53	68947.2	766						615						
12	1640	0.09	0.1	0.39	0.57	81475.2	766						550						
13	2100	0.12	0.13	0.53	0.78	141523.2	849						505						
14	1340	0.09	0.1	0.38	0.57	65876.54	865						405						
15	1380	0.09	0.09	0.33	0.52	61762.18	869						330						
16	1370	0.09	0.09	0.38	0.56	66522.82	835						305						
17	1410	0.09	0.09	0.33	0.52	63104.83	804						289						
18	1160	0.09	0.09	0.33	0.51	51314.69	1200						279						
19	1240	0.09	0.09	0.32	0.5	53996.54	504						245						
20	1900	0.14	0.14	0.49	0.77	126403.2	495						235						
21	1330	0.09	0.09	0.32	0.51	58145.47	543						221						
22	1420	0.09	0.09	0.32	0.51	62325.5	517						189						
23	2050	0.09	0.09	0.32	0.49	87497.28	469						172						
24	2520	0.09	0.09	0.33	0.51	109952.64	447						145						
25	2260	0.09	0.09	0.33	0.51	99975.17	900						144						
26	2330	0.09	0.09	0.33	0.51	103071.74	413						132						
27	3000	0.12	0.12	0.42	0.66	171072	399						130						
28	1930	0.09	0.09	0.33	0.51	84710.02	399						125						
29	1930	0.09	0.09	0.32	0.51	84376.51	394						115						
30	1380	0.09	0.09	0.33	0.51	61046.78	800						114						
31							299												
TenDaily I	4170	0.09	0.1	0.4	0.59	259525.12													
TenDaily II	1506	0.1	0.1	0.38	0.58	78092.64													
TenDaily III	2015	0.09	0.09	0.34	0.52	92217.31													
Total	September					4298350.75	October						November						

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	110						120						169					
2	108						122						165					
3	102						123						159					
4	102						122						160					
5	97	Observation Not Done due to non-working of equipment					127	Observation Not Done due to non-working of equipment					152	Observation Not Done due to non-working of equipment				
6	96						127						151					
7	90						132						149					
8	88						131						146					
9	86						132						146					
10	85						131						147					
11	78						135						147					
12	77						138						159					
13	77.5						138						204					
14	76						145						196					
15	78						148						182					
16	78						161						153					
17	76						168						152					
18	72						152						142					
19	71						146						136					
20	71						146						118					
21	69						142						119					
22	69						138						119					
23	71						132						130					
24	71						133						138					
25	72						137						124					
26	74						158						124					
27	76						171						105					
28	76						170						101					
29	76						161											
30	77						153											
31	76						151											
TenDaily I																		
TenDaily II																		
TenDaily III																		
Total	December						January						February					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSTD-II, Bhopal

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	125						116						148.6					
2	128						104						154					
3	127						102.4						154					
4	120						107						153					
5	119						107						153					
6	118	Observation Not Done due to non-working of equipment					107	Observation Not Done due to non-working of equipment					148.8	Observation Not Done due to non-working of equipment				
7	122						99						148					
8	123						95						145					
9	122						89.6						148.6					
10	122						93						154					
11	125						93						148.6					
12	140						104						148.4					
13	135						116						147.2					
14	127						116						154					
15	118						112						159					
16	115						112						154					
17	114						112						188					
18	113						102.4						180					
19	114						125						168					
20	118						112						159					
21	123						102.4						154					
22	108						102.4						154					
23	102						112						165					
24	104						112						185					
25	100						118						190					
26	101						118						191					
27	100						121						200					
28	88						135.3						220					
29	84						142						220					
30	80						142						240					
31	74												240					
TenDaily I																		
TenDaily II																		
TenDaily III																		
Total	March						April											

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Handia (CW1NAM000392) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	19027611.41	0	19027611.41	11265.19
1988-1989	22044739.41	0	22044739.41	19304.17
1989-1990	16984378.34	0	16984378.34	12359.86
1990-1991	36819507.23	0	36819507.23	31513.91
1991-1992	21786214.04	0	21786214.04	19856.16
1992-1993	30379689.36	0	30379689.36	16123.49
1993-1994	32853670.17	0	32853670.17	21599.5
1994-1995	101606688.5	0	101606688.5	55829.04
1995-1996	26951346.79	0	26951346.79	18223.32
1996-1997	10000361.42	0	10000361.42	10982.67
1997-1998	17324970.73	0	17324970.73	19017.07
1998-1999	8688916.91	0	8688916.91	16825.69
1999-2000	55929197.65	0	55929197.65	45126.42
2000-2001	4949972.04	0	4949972.04	9610.6
2001-2002	23651115.7	0	23651115.7	14956.12
2002-2003	42984926.55	0	42984926.55	17154.69
2003-2004	91149988.2	0	91149988.2	30918.61
2004-2005	20421994.13	0	20421994.13	15926.84
2005-2006	41467075.14	98453.37	41565528.51	31744.09
2006-2007	45194539.9	292973.12	45487513.02	25638.43
2007-2008	8965974.34	385963.73	9351938.06	16540.04
2008-2009	5445970.33	127525.09	5573495.42	14835.28
2009-2010	20454333.84	148157.52	20602491.36	18686.79
2010-2011	8459170.23	184097.28	8643267.51	16813.83
2011-2012	20529932	47316	20577247	28368
2012-2013	25035666.95	32777.43	25068444.38	26488.89
2013-2014	57330546	116888	57447434	44001
2014-2015	3431846	107423	3539270	15060
2015-2016	3935676	1084585	5020260	13485
2016-2017	20463864.06	53209.22	20517073.29	27522.35
2017-2018	1948044.49	283197.82	2231242.31	6370.2
2018-2019	6460619	672539	7133158	14245
2019-2020	77443276.33	788336.84	78231613.17	39299.06
2020-2021	26365017.41	0	26365017.41	22930.73

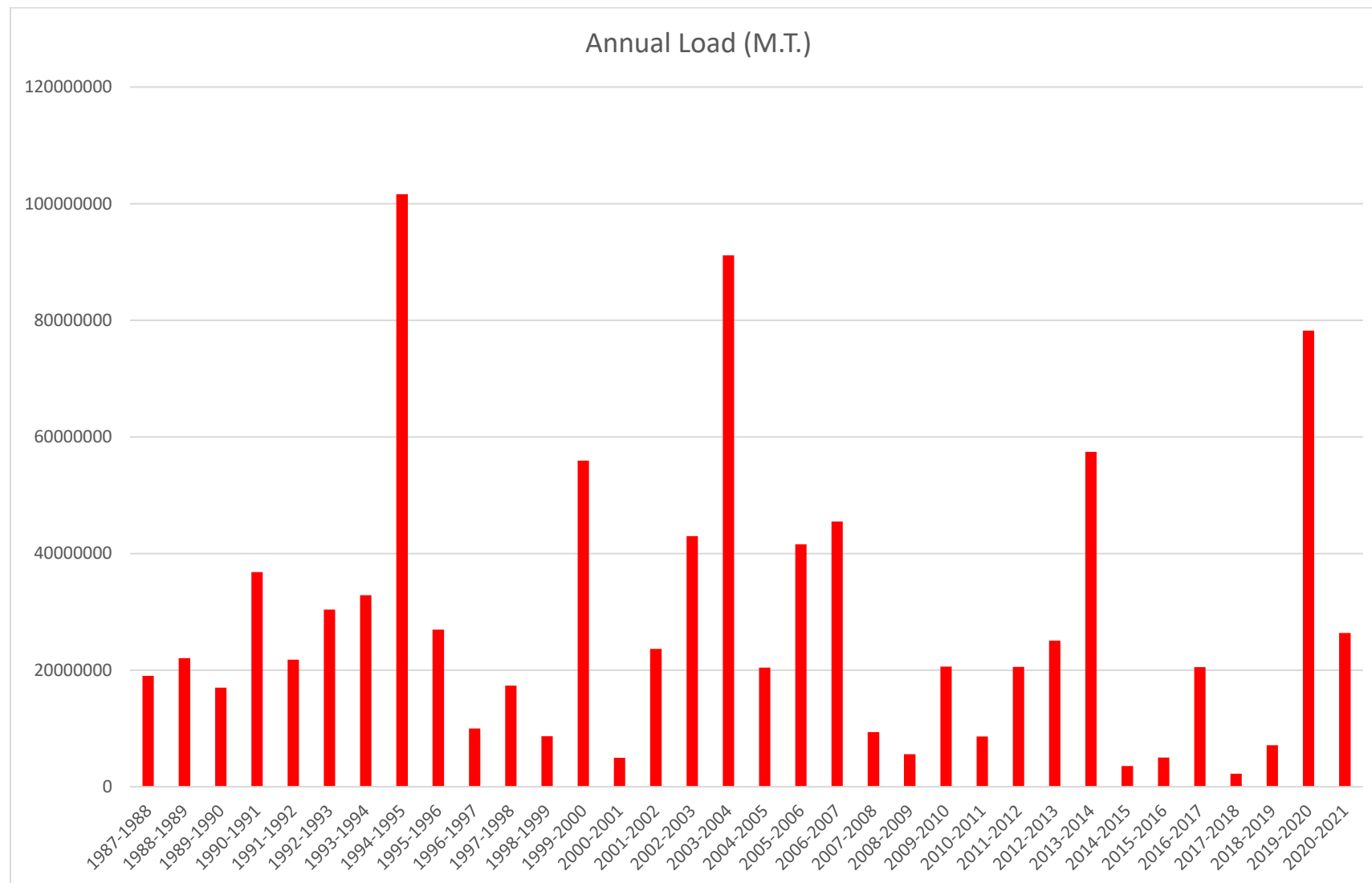
Annual Sediment Load for period : 1987-2020

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD II, Bhopal



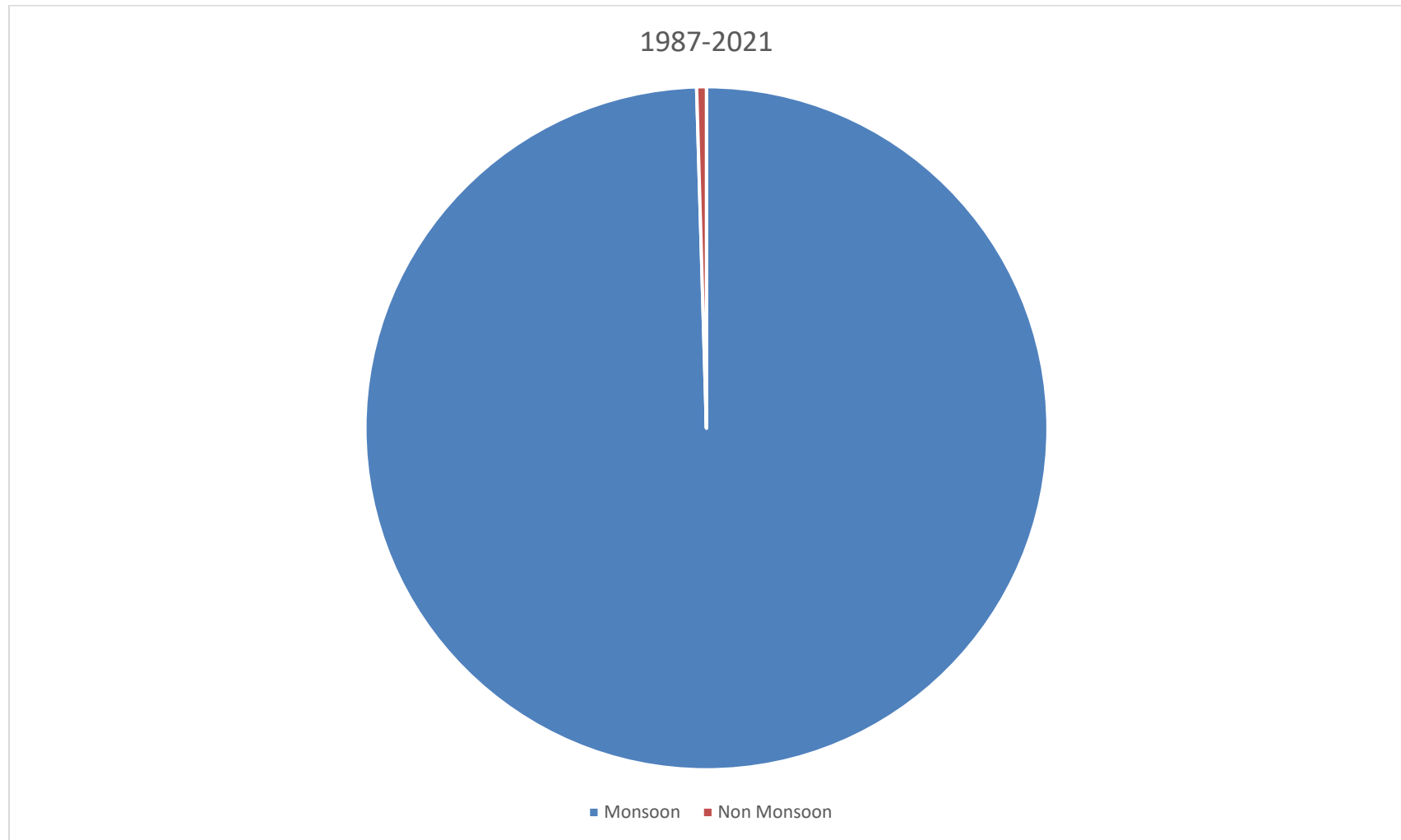
Seasonal Sediment Load for the period : 1987-2021

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal



Sediment Data Year Book 2020-21

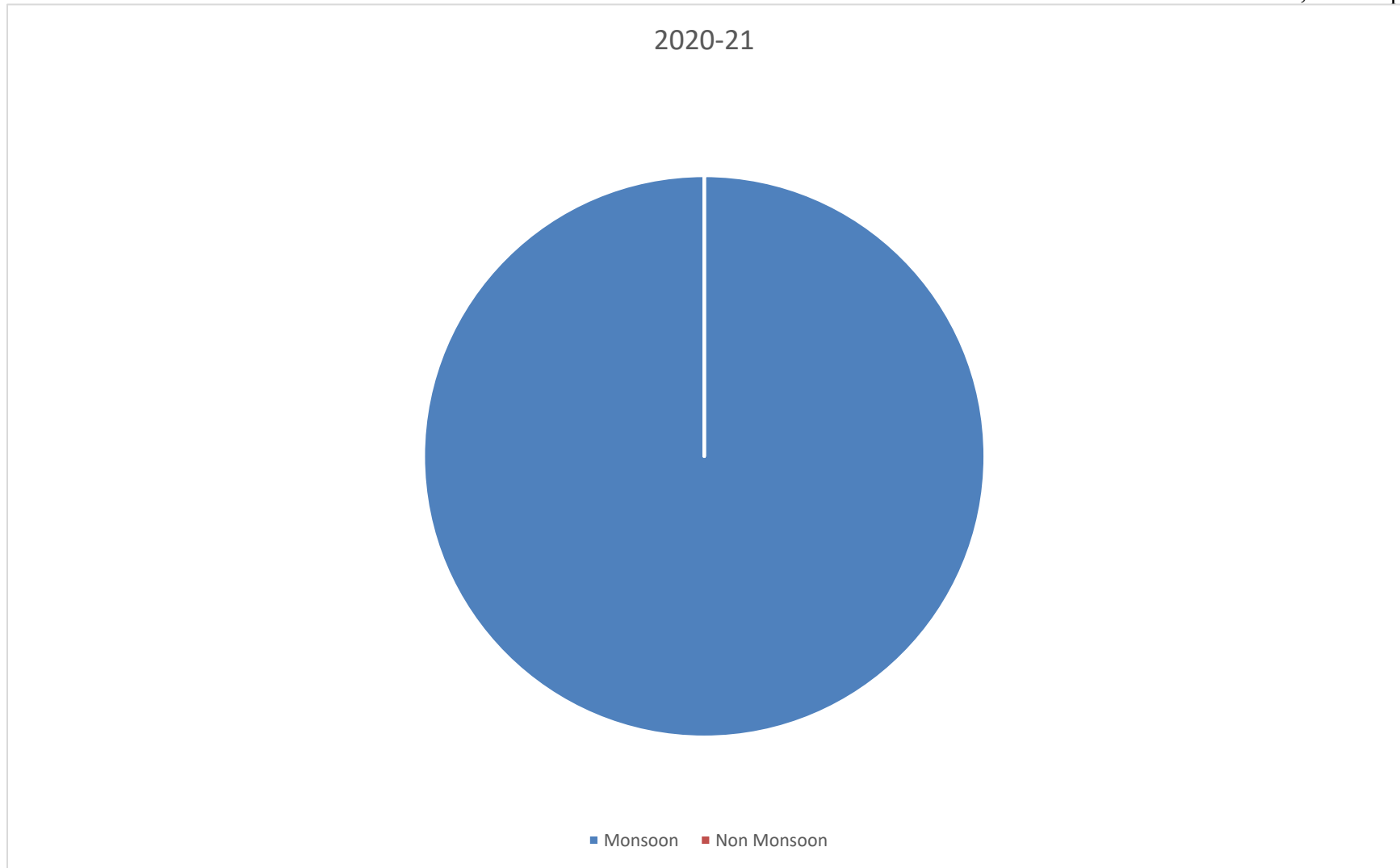
Seasonal Sediment Load for the period : 2020-21

Station Name : Narmada at Handia (CW1NAM000392)

Division : Narmada Division Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal



4.5 Narmada at Hoshangabad

History sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Hoshangabad		Code	:	CW1NAM000278	
State	:	Madhya Pradesh		District	:	HOSHANGABAD	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-I, Hosangabad	
Drainage Area	:	44548.0 Sq. Km.		Bank	:		
Latitude	:	22°45'36"		Longitude	:	77°41'24"	
Current Zero of Gauge (m)	:	282					
CATEGORY		Opening Date		Closing Date			
Gauge	:	21/05/1972					
Discharge	:	16/09/1972					
Sediment	:	29/12/1972					
Water Quality	:	15/07/1979					
Reduced Level		Opening Date		Closing Date			
282.0		21/05/1972					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	285.9	0	0	0.01	0.01	247.02	250.2	0	0	0.01	0.01	216.17	320	0	0	0.01	0.01	304.13
2	284.3	0	0	0.01	0.01	245.64	245.9	0	0	0.01	0.01	212.46	285	0	0	0.01	0.01	246.24
3	296.2	0	0	0.01	0.01	255.92	315	0	0	0.01	0.01	353.81	198	0	0	0.01	0.01	171.07
4	307.4	0	0	0.01	0.01	265.59	310	0	0	0.01	0.01	348.19	200	0	0	0.01	0.01	172.8
5	302.9	0	0	0.01	0.01	261.71	300	0	0	0.01	0.01	311.04	323	0	0	0.02	0.02	446.52
6	268.1	0	0	0.01	0.01	231.64	297	0	0	0.01	0.01	307.93	325	0	0	0.02	0.02	449.28
7	270	0	0	0.01	0.01	233.28	400	0	0	0.02	0.02	552.96	440	0	0	0.02	0.02	836.35
8	203.9	0	0	0.01	0.01	176.17	295	0	0	0.01	0.01	305.86	420	0	0	0.02	0.02	762.05
9	202.6	0	0	0.01	0.01	175.05	300	0	0	0.01	0.01	311.04	450	0	0	0.02	0.02	894.24
10	181.1	0	0	0.01	0.01	156.47	264	0	0	0.01	0.01	228.1	650	0	0	0.03	0.03	1853.28
11	186.2	0	0	0.01	0.01	160.88	227	0	0	0.01	0.01	196.13	410	0	0	0.02	0.02	743.9
12	186.9	0	0	0.01	0.01	161.48	280	0	0	0.01	0.01	290.3	1050	0	0	0.05	0.05	4808.16
13	186.2	0	0	0.01	0.01	160.88	290	0	0	0.01	0.01	325.73	948	0	0	0.05	0.05	3931.55
14	185	0	0	0.01	0.01	159.84	322	0	0	0.01	0.01	278.21	1000	0	0	0.05	0.05	4406.4
15	280.8	0	0	0.01	0.01	242.61	236	0	0	0.01	0.01	203.9	1200	0	0	0.06	0.06	6324.48
16	354.4	0	0	0.01	0.01	306.2	234	0	0	0.01	0.01	202.18	950	0	0	0.05	0.05	3939.84
17	311.3	0	0	0.01	0.01	268.96	235	0	0	0.01	0.01	203.04	820	0	0	0.04	0.04	2904.77
18	355.4	0	0	0.01	0.01	307.07	292	0	0	0.01	0.01	252.29	670	0	0	0.03	0.03	1968.19
19	250.3	0	0	0.01	0.01	216.26	294	0	0	0.01	0.01	254.02	1180	0	0	0.06	0.06	6117.12
20	239.3	0	0	0.01	0.01	206.76	256	0	0	0.01	0.01	221.18	1550	0	0	0.08	0.08	10445.76
21	235	0	0	0.01	0.01	203.04	253	0	0	0.01	0.01	218.59	8820	0	0	0.45	0.45	339111.36
22	250	0	0	0.01	0.01	216	272	0	0	0.01	0.01	235.01	12500	0	0	0.63	0.63	681480
23	263.1	0	0	0.01	0.01	227.32	237	0	0	0.01	0.01	204.77	9000	0	0	0.46	0.46	353808
24	172.6	0	0	0.01	0.01	149.13	204	0	0	0.01	0.01	176.26	4000	0	0	0.2	0.2	69811.2
25	234.3	0	0	0.01	0.01	202.44	289	0	0	0.01	0.01	249.7	1800.1	0	0	0.09	0.09	14153.11
26	211	0	0	0.01	0.01	182.3	285	0	0	0.01	0.01	246.24	1643.3	0	0	0.08	0.08	11784.43
27	215.8	0	0	0.01	0.01	186.45	276	0	0	0.01	0.01	238.46	1456.7	0	0	0.07	0.07	9313.56
28	213	0	0	0.01	0.01	184.03	263	0	0	0.01	0.01	227.23	2133.8	0	0	0.11	0.11	19910.91
29	166	0	0	0.01	0.01	143.42	299	0	0	0.01	0.01	258.34	22600	0	0	1.14	1.14	2227962.24
30	180	0	0	0.01	0.01	155.52	450	0	0	0.01	0.01	583.2	30100	0	0	1.52	1.52	3952972.8
31							430	0	0	0.01	0.01	520.13	29000	0	0	1.46	1.46	3648153.6
TenDaily I	260.24	0	0	0.01	0.01	224.85	297.71	0	0	0.01	0.01	314.76	361.1	0	0	0.02	0.02	613.6
TenDaily II	253.58	0	0	0.01	0.01	219.09	266.6	0	0	0.01	0.01	242.7	977.8	0	0	0.05	0.05	4559.02
TenDaily III	214.08	0	0	0.01	0.01	184.97	296.18	0	0	0.01	0.01	287.08	11186.72	0	0	0.56	0.56	1029860.11
Total	June					6289.06	July					8732.45	August					11380187.34

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	15000	0	0	0.76	0.76	982368	916	0	0	0.01	0.01	554	250	0	0	0.01	0.01	129.6
2	4779.1	0	0	0.24	0.24	99512.33	820	0	0	0.01	0.01	425.09	240	0	0	0.01	0.01	124.42
3	2936.38	0	0	0.15	0.15	37548.08	731	0	0	0.01	0.01	315.79	183	0	0	0	0	63.24
4	2433.9	0	0	0.12	0.12	25865.54	700	0	0	0.01	0.01	302.4	162	0	0	0	0	55.99
5	2247.2	0	0	0.11	0.11	21939.86	507	0	0	0.01	0.01	438.05	152	0	0	0	0	52.53
6	1525	0	0	0.08	0.08	10145.52	431	0	0	0.01	0.01	372.38	157	0	0	0	0	54.26
7	1400.09	0	0	0.01	0.01	1209.68	413	0	0	0.01	0.01	356.83	149	0	0	0	0	38.62
8	1297.75	0	0	0.01	0.01	1009.13	431	0	0	0.01	0.01	372.38	155	0	0	0	0	53.57
9	1307.13	0	0	0.01	0.01	1016.42	416	0	0	0.01	0.01	359.42	152	0	0	0.01	0.01	131.33
10	1283.83	0	0	0.01	0.01	998.31	428	0	0	0.01	0.01	369.79	141	0	0	0.01	0.01	109.64
11	1260.83	0	0	0.01	0.01	980.42	695	0	0	0.01	0.01	600.48	45	0	0	0	0	11.66
12	1606.21	0	0	0.01	0.01	1526.54	743	0	0	0.01	0.01	641.95	132	0	0	0.01	0.01	102.64
13	1360	0	0	0.01	0.01	1175.04	733.4	0	0	0.01	0.01	633.66	150	0	0	0.01	0.01	129.6
14	1312.42	0	0	0.01	0.01	1133.93	636.7	0	0	0.01	0.01	550.11	160	0	0	0.01	0.01	152.06
15	1117.35	0	0	0.01	0.01	868.85	707	0	0	0.01	0.01	610.85	165	0	0	0.01	0.01	156.82
16	1060	0	0	0.01	0.01	732.67	732.3	0	0	0.01	0.01	632.71	163	0	0	0.01	0.01	154.92
17	901.64	0	0	0.01	0.01	545.31	566.3	0	0	0.01	0.01	489.28	161	0	0	0.01	0.01	153.01
18	972	0	0	0.01	0.01	587.87	560	0	0	0.01	0.01	483.84	154	0	0	0.01	0.01	133.06
19	978	0	0	0.01	0.01	591.49	564.7	0	0	0.01	0.01	487.9	168	0	0	0.01	0.01	159.67
20	970	0	0	0.01	0.01	586.66	631.7	0	0	0.01	0.01	545.79	161	0	0	0.01	0.01	153.01
21	1259	0	0	0.01	0.01	1087.78	629.6	0	0	0.01	0.01	543.97	156	0	0	0.01	0.01	134.78
22	1050	0	0	0.01	0.01	725.76	481	0	0	0.01	0.01	415.58	155	0	0	0.01	0.01	133.92
23	1600	0	0	0.01	0.01	1797.12	485.5	0	0	0.01	0.01	419.47	160	0	0	0.01	0.01	152.06
24	2155.1	0	0	0.02	0.02	3165.41	439.2	0	0	0.01	0.01	379.47	202	0	0	0.01	0.01	226.89
25	2281.4	0	0	0.02	0.02	3548.03	435	0	0	0.01	0.01	375.84	147	0	0	0.01	0.01	127.01
26	2320.4	0	0	0.02	0.02	3608.69	429.1	0	0	0.01	0.01	370.74	144	0	0	0.01	0.01	111.97
27	2000	0	0	0.02	0.02	2764.8	334	0	0	0.01	0.01	230.86	146	0	0	0.01	0.01	126.14
28	1400	0	0	0.01	0.01	1209.6	332	0	0	0.01	0.01	229.48	157	0	0	0.01	0.01	135.65
29	1190	0	0	0.01	0.01	925.34	266	0	0	0.01	0.01	137.89	160	0	0	0.01	0.01	152.06
30	967	0	0	0.01	0.01	584.84	250	0	0	0.01	0.01	129.6	162	0	0	0.01	0.01	153.96
31							210	0	0	0.01	0.01	90.72						
TenDaily I	3421.04	0	0	0.15	0.15	118161.29	579.3	0	0	0.01	0.01	386.61	174.1	0	0	0.01	0.01	81.32
TenDaily II	1153.84	0	0	0.01	0.01	872.88	657.01	0	0	0.01	0.01	567.66	145.9	0	0	0.01	0.01	130.65
TenDaily III	1622.29	0	0	0.01	0.01	1941.74	390.13	0	0	0.01	0.01	302.15	158.9	0	0	0.01	0.01	145.45
Total	September					1209759.03	October					12866.34	November					3574.11

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	138	0	0	0.01	0.01	133.92	155	0	0	0.01	0.01	133.92	147	0	0	0.01	0.01	127.01
2	138	0	0	0.01	0.01	136.51	139	0	0	0.01	0.01	120.1	150	0	0	0.01	0.01	129.6
3	138	0	0	0.01	0.01	103.68	156	0	0	0.01	0.01	134.78	158	0	0	0.01	0.01	150.16
4	138	0	0	0.01	0.01	138.24	168	0	0	0.01	0.01	145.15	153	0	0	0.01	0.01	132.19
5	138	0	0	0.01	0.01	137.38	180	0	0	0.01	0.01	155.52	160	0	0	0.01	0.01	152.06
6	138	0	0	0.01	0.01	135.65	170	0	0	0.01	0.01	146.88	149	0	0	0.01	0.01	128.74
7	135	0	0	0.01	0.01	133.06	172	0	0	0.01	0.01	148.61	160	0	0	0.01	0.01	152.06
8	135	0	0	0.01	0.01	132.19	169	0	0	0.01	0.01	146.02	165	0	0	0.01	0.01	156.82
9	138	0	0	0.01	0.01	134.78	167	0	0	0.01	0.01	144.29	148	0	0	0.01	0.01	127.87
10	138	0	0	0.01	0.01	136.51	165	0	0	0.01	0.01	142.56	163	0	0	0.01	0.01	154.92
11	124	0	0	0.01	0.01	107.14	164	0	0	0.1	0.1	1416.96	180	0	0	0.01	0.01	186.62
12	151	0	0	0.01	0.01	130.46	163	0	0	0.01	0.01	140.83	175	0	0	0.01	0.01	181.44
13	130	0	0	0.01	0.01	133.06	162	0	0	0.01	0.01	139.97	164	0	0	0.01	0.01	155.87
14	155	0	0	0.01	0.01	138.24	162	0	0	0.01	0.01	139.97	154	0	0	0.01	0.01	133.06
15	128	0	0	0.01	0.01	110.59	160	0	0	0.01	0.01	138.24	134	0	0	0.01	0.01	104.2
16	126	0	0	0.01	0.01	133.92	158	0	0	0.01	0.01	136.51	133	0	0	0.01	0.01	103.42
17	124	0	0	0.01	0.01	107.14	156	0	0	0.01	0.01	134.78	140	0	0	0.01	0.01	120.96
18	128	0	0	0.01	0.01	101.95	157	0	0	0.01	0.01	135.65	160	0	0	0.01	0.01	152.06
19	129	0	0	0.01	0.01	111.46	153	0	0	0.01	0.01	132.19	163	0	0	0.01	0.01	154.92
20	130	0	0	0.01	0.01	128.74	155	0	0	0.01	0.01	133.92	159	0	0	0.01	0.01	151.11
21	130	0	0	0.01	0.01	131.33	157	0	0	0.01	0.01	135.65	136	0	0	0.01	0.01	105.75
22	144	0	0	0.01	0.01	133.06	166	0	0	0.01	0.01	143.42	161	0	0	0.01	0.01	153.01
23	111	0	0	0.01	0.01	95.9	170	0	0	0.01	0.01	146.88	165	0	0	0.01	0.01	156.82
24	145	0	0	0.01	0.01	125.28	165	0	0	0.01	0.01	142.56	163	0	0	0.01	0.01	154.92
25	132	0	0	0.01	0.01	129.6	152	0	0	0.01	0.01	131.33	140	0	0	0.01	0.01	120.96
26	134	0	0	0.01	0.01	115.78	150	0	0	0.01	0.01	129.6	138	0	0	0.01	0.01	107.31
27	133	0	0	0.01	0.01	133.92	149	0	0	0.01	0.01	128.74	139	0	0	0.01	0.01	108.09
28	111	0	0	0.01	0.01	95.9	149	0	0	0.01	0.01	128.74	137	0	0	0.01	0.01	106.53
29	126	0	0	0.01	0.01	108.86	148	0	0	0.01	0.01	127.87						
30	130	0	0	0.01	0.01	138.24	145	0	0	0.01	0.01	125.28						
31	130	0	0	0.01	0.01	112.32	146	0	0	0.01	0.01	126.14						
TenDaily I	153	0	0	0.01	0.01	132.19	164.1	0	0	0.01	0.01	141.78	155.3	0	0	0.01	0.01	141.14
TenDaily II	139.2	0	0	0.01	0.01	120.27	159	0	0	0.02	0.02	264.9	156.2	0	0	0.01	0.01	144.37
TenDaily III	138.91	0	0	0.01	0.01	120.02	154.27	0	0	0.01	0.01	133.29	147.38	0	0	0.01	0.01	126.67
Total	December					3844.8	January					5533.06	February					3868.47

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	228	0	0	0.01	0.01	196.99	170	0	0	0.01	0.01	146.88	265	0	0	0.01	0.01	228.96
2	192	0	0	0.01	0.01	165.89	167	0	0	0.01	0.01	144.29	259	0	0	0.01	0.01	223.78
3	177	0	0	0.01	0.01	152.93	167	0	0	0.01	0.01	144.29	254	0	0	0.01	0.01	219.46
4	249	0	0	0.01	0.01	215.14	162	0	0	0.01	0.01	139.97	270	0	0	0.01	0.01	233.28
5	254	0	0	0.01	0.01	219.46	157	0	0	0.01	0.01	135.65	259	0	0	0.01	0.01	223.78
6	243	0	0	0.01	0.01	209.95	138	0	0	0.01	0.01	119.23	259	0	0	0.01	0.01	223.78
7	228	0	0	0.01	0.01	196.99	133	0	0	0.01	0.01	114.91	259	0	0	0.01	0.01	223.78
8	270	0	0	0.01	0.01	233.28	143	0	0	0.01	0.01	123.55	254	0	0	0.01	0.01	219.46
9	292	0	0	0.01	0.01	252.29	162	0	0	0.01	0.01	139.97	249	0	0	0.01	0.01	215.14
10	292	0	0	0.01	0.01	252.29	177	0	0	0.01	0.01	152.93	233	0	0	0.01	0.01	201.31
11	292	0	0	0.01	0.01	252.29	177	0	0	0.01	0.01	152.93	233	0	0	0.01	0.01	201.31
12	265	0	0	0.01	0.01	228.96	157	0	0	0.01	0.01	135.65	223	0	0	0.01	0.01	192.67
13	238	0	0	0.01	0.01	205.63	162	0	0	0.01	0.01	139.97	228	0	0	0.01	0.01	196.99
14	217	0	0	0.01	0.01	187.49	162	0	0	0.01	0.01	139.97	228	0	0	0.01	0.01	196.99
15	207	0	0	0.01	0.01	178.85	162	0	0	0.01	0.01	139.97	228	0	0	0.01	0.01	196.99
16	217	0	0	0.01	0.01	187.49	157	0	0	0.01	0.01	135.65	212	0	0	0.01	0.01	183.17
17	192	0	0	0.01	0.01	165.89	162	0	0	0.01	0.01	139.97	270	0	0	0.01	0.01	233.28
18	202	0	0	0.01	0.01	174.53	162	0	0	0.01	0.01	139.97	314	0	0	0.01	0.01	271.3
19	270	0	0	0.01	0.01	233.28	147	0	0	0.01	0.01	127.01	297	0	0	0.01	0.01	256.61
20	243	0	0	0.01	0.01	209.95	152	0	0	0.01	0.01	131.33	281	0	0	0.01	0.01	242.78
21	223	0	0	0.01	0.01	192.67	157	0	0	0.01	0.01	135.65	281	0	0	0.01	0.01	242.78
22	207	0	0	0.01	0.01	178.85	157	0	0	0.01	0.01	135.65	275	0	0	0.01	0.01	237.6
23	192	0	0	0.01	0.01	165.89	157	0	0	0.01	0.01	135.65	265	0	0	0.01	0.01	228.96
24	177	0	0	0.01	0.01	152.93	157	0	0	0.01	0.01	135.65	275	0	0	0.01	0.01	237.6
25	157	0	0	0.01	0.01	135.65	212	0	0	0.01	0.01	183.17	275	0	0	0.01	0.01	237.6
26	138	0	0	0.01	0.01	119.23	223	0	0	0.01	0.01	192.67	275	0	0	0.01	0.01	237.6
27	162	0	0	0.01	0.01	139.97	249	0	0	0.01	0.01	215.14	270	0	0	0.01	0.01	233.28
28	177	0	0	0.01	0.01	152.93	249	0	0	0.01	0.01	215.14	270	0	0	0.01	0.01	233.28
29	177	0	0	0.01	0.01	152.93	254	0	0	0.01	0.01	219.46	270	0	0	0.01	0.01	233.28
30	177	0	0	0.01	0.01	152.93	259	0	0	0.02	0.02	447.55	292	0	0	0.01	0.01	252.29
31	177	0	0	0.01	0.01	152.93							281	0	0	0.01	0.01	242.78
TenDaily I	242.5	0	0	0.01	0.01	209.52	157.6	0	0	0.01	0.01	136.17	256.1	0	0	0.01	0.01	221.27
TenDaily II	234.3	0	0	0.01	0.01	202.44	160	0	0	0.01	0.01	138.24	251.4	0	0	0.01	0.01	217.21
TenDaily III	178.55	0	0	0.01	0.01	154.26	207.4	0	0	0.01	0.01	201.57	275.36	0	0	0.01	0.01	237.91
Total	March					5816.45	April					4759.78						7001.86

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Hoshangabad

Division : Narmada Division, Bhopal

Local River : Narmada

SubDivision :MNSD-I, Hoshangabad

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	13696732.18	0	13696732.18	11561.86
1988-1989	21927042.52	0	21927042.52	19316.57
1989-1990	12260502.83	0	12260502.83	10573.59
1990-1991	28921420.73	0	28921420.73	29218.27
1991-1992	17163195.9	0	17163195.9	19324.19
1992-1993	22273545.69	0	22273545.69	14560.38
1993-1994	24945904.79	0	24945904.79	17995.51
1994-1995	41396876.18	0	41396876.18	49621.55
1995-1996	13478551.68	0	13478551.68	15540.35
1996-1997	1864008.25	0	1864008.25	7541.49
1997-1998	14386693.7	0	14386693.7	16226.7
1998-1999	6442728.38	0	6442728.38	13430.35
1999-2000	27754796.99	0	27754796.99	40494.91
2000-2001	5418045.97	0	5418045.97	9462.58
2001-2002	11518072	0	11518072	13981.29
2002-2003	12492177.07	0	12492177.07	13759.02
2003-2004	24976309.71	0	24976309.71	25704.97
2004-2005	11095494.45	0	11095494.45	12307.41
2005-2006	41754968.22	112665.92	41867634.13	29700.15
2006-2007	21223787.14	63622.41	21287409.54	20517.11
2007-2008	3245231.01	48195.04	3293426.05	12584.91
2008-2009	8450880.75	43281.39	8494162.14	12343.45
2009-2010	14345893.18	12601.91	14358495.09	13831.1
2010-2011	2677514.25	84382.13	2761896.38	12858.8
2011-2012	6143300	19536.58	6162836.58	15668.8
2012-2013	32740070.13	122953.65	32863023.78	21076.02
2013-2014	338236903	74412	338311315	38710
2014-2015	13947824	91716	14039540	12492
2015-2016	5170582	37221	5207803	12457
2016-2017	9466715.49	76137.97	9542853.46	19521.88
2017-2018	132371.6	11654.47	144026.07	5797.33
2018-2019	197199.4	17362.14	214561.54	8636.52
2019-2020	841602.38	58367.88	899970.26	36892.38
2020-2021	12621408.32	30824.41	12652232.73	23310.39

Sediment Data Year Book 2020-21

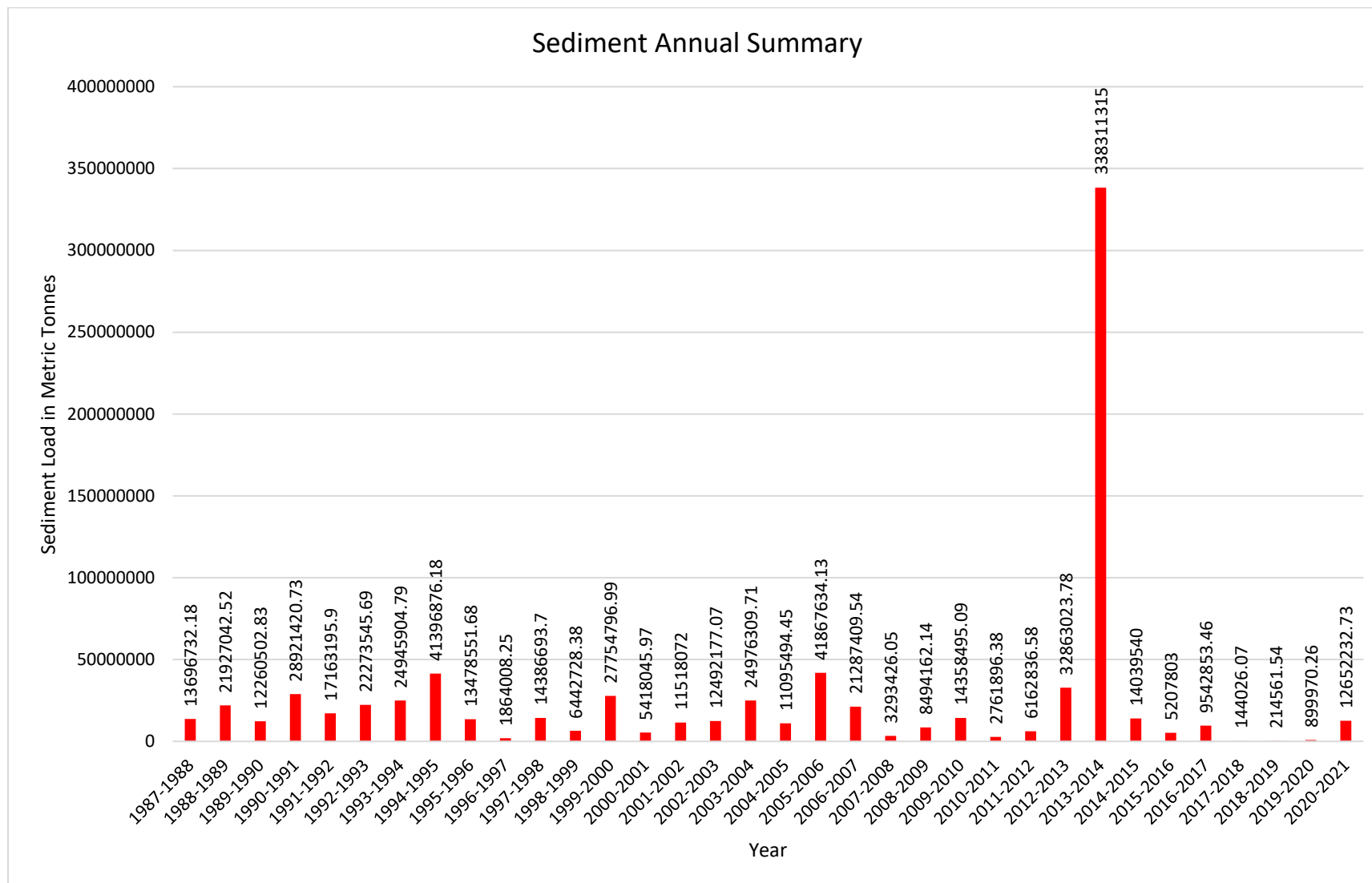
Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

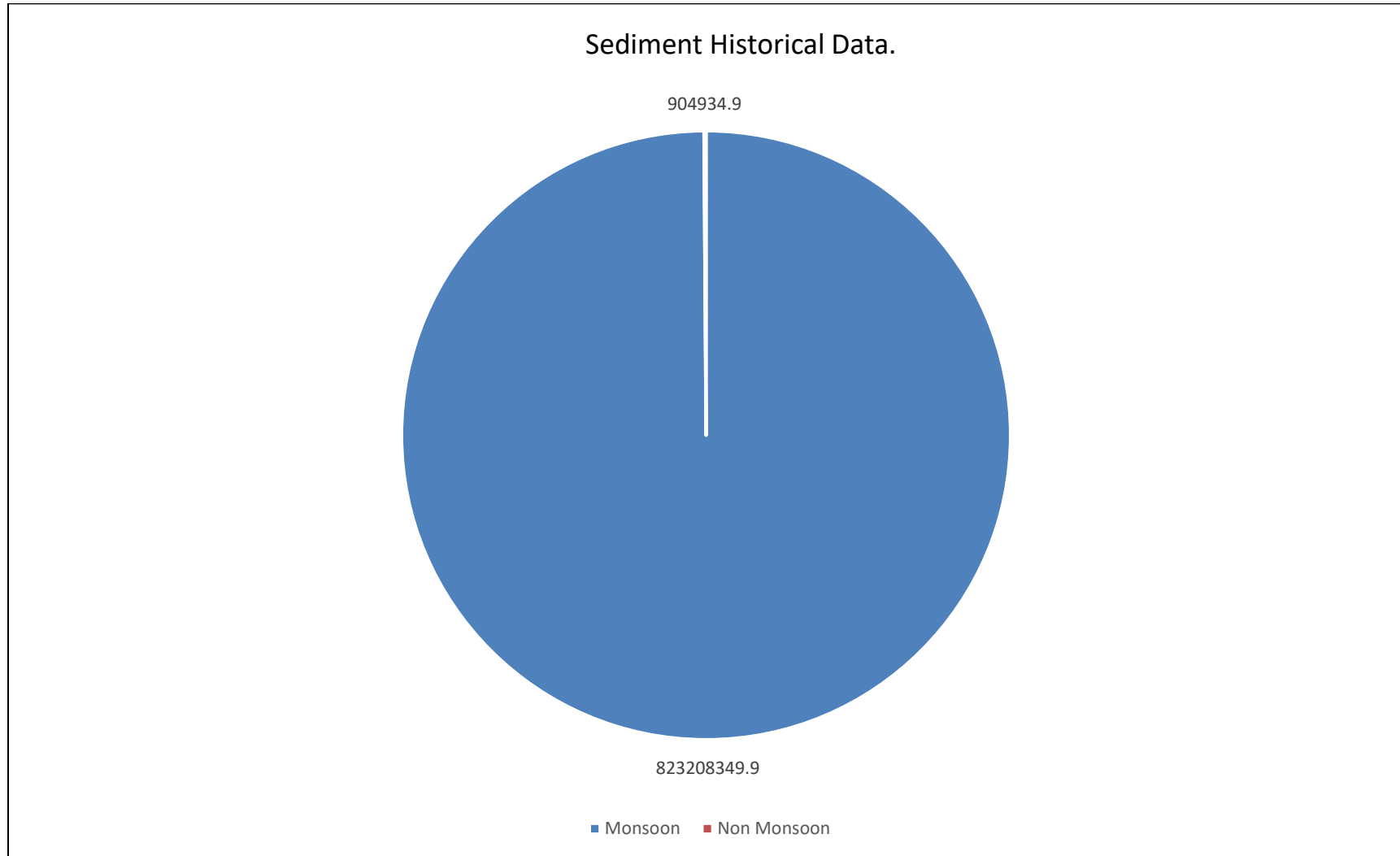
Seasonal Sediment Load for the period : 1987-2021

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

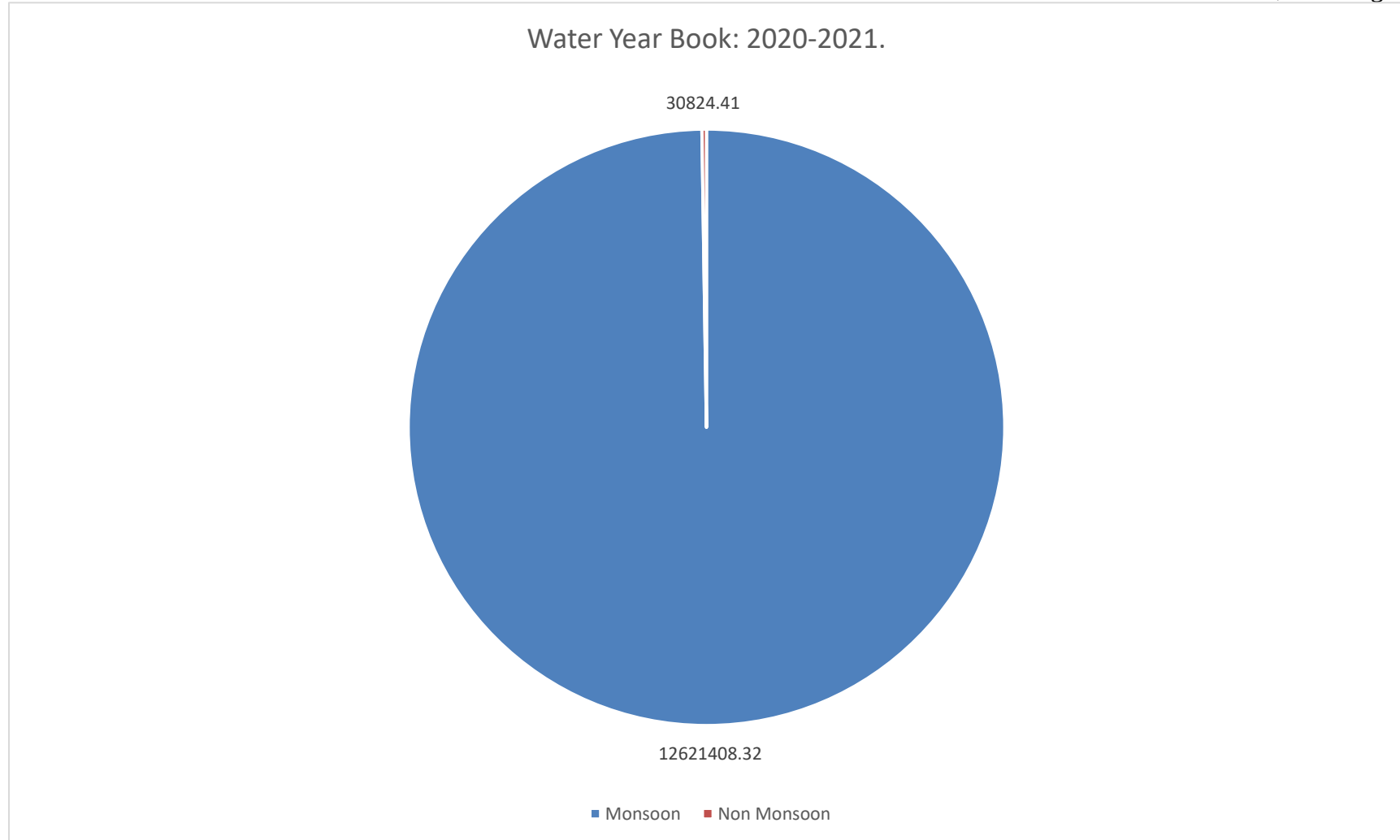
Seasonal Sediment Load for the period : 2020-21

Station Name : Narmada at Hoshangabad (CW1NAM000278)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



4.6 Narmada at Sandia

History sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Sandia		Code	:	CW1NAU000450	
State	:	Madhya Pradesh		District	:	HOSHANGABAD	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-I, Hosangabad	
Drainage Area	:	33953.5 Sq. Km.		Bank	:	Left	
Latitude	:	22°54'57"		Longitude	:	78°20'51"	
Current Zero of Gauge (m)	:	297					
CATEGORY		Opening Date		Closing Date			
Gauge	:	01/03/1978					
Discharge	:	18/04/1978					
Sediment	:	09/08/1978					
Water Quality	:	15/09/1979					
Reduced Level		Opening Date		Closing Date			
297.0		01/03/1978					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	80.9	0	0	0.09	0.09	594.13	175.9	0	0	0.16	0.16	2431.64	289	0	0	0.14	0.14	3570.65
2	75	0	0	0.08	0.08	518.4	282.8	0	0	0.36	0.36	8796.21	260	0	0	0.13	0.13	2920.32
3	85	0	0	0.09	0.09	660.96	199.7	0	0	0.14	0.14	2501.84	248	0	0	0.16	0.16	3492.63
4	80	0	0	0.09	0.09	622.08	171.5	0	0	0.14	0.14	2118.92	325	0	0	0.28	0.28	7862.4
5	74	0	0	0.08	0.08	511.49	185	0	0	0.15	0.15	2397.6	282.6	0	0	0.11	0.11	2759.08
6	76	0	0	0.08	0.08	525.31	353.6	0	0	0.17	0.17	5132.57	377.2	0	0	0.14	0.14	4562.61
7	67	0	0	0.07	0.07	405.22	297.9	0	0	0.12	0.12	3165.84	369.6	0	0	0.15	0.15	4949.68
8	65.3	0	0	0.11	0.11	637.54	226	0	0	0.15	0.15	2928.96	430	0	0	0.16	0.16	5870.02
9	78	0	0	0.13	0.13	876.1	204.2	0	0	0.13	0.13	2258.29	710	0	0	0.26	0.26	15949.44
10	81	0	0	0.14	0.14	979.78	211.5	0	0	0.15	0.15	2741.04	1150	0	0	0.26	0.26	25336.8
11	79	0	0	0.13	0.13	887.33	298.7	0	0	0.16	0.16	4206.65	920	0	0	0.16	0.16	12797.57
12	75	0	0	0.13	0.13	842.4	310	0	0	0.17	0.17	4553.28	920	0	0	0.17	0.17	13353.98
13	72	0	0	1.21	1.21	7527.17	331	0	0	0.28	0.28	7864.56	630	0	0	0.18	0.18	9961.06
14	125	0	0	0.21	0.21	2268	244.9	0	0	0.13	0.13	2750.72	1360	0	0	0.37	0.37	43006.46
15	280.8	0	0	0.13	0.13	3226.73	212.7	0	0	0.16	0.16	2995.5	830	0	0	0.23	0.23	16493.76
16	85	0	0	0.04	0.04	293.76	283.3	0	0	0.12	0.12	2814.87	832	0	0	0.23	0.23	16533.5
17	90	0	0	0.04	0.04	311.04	348.6	0	0	0.04	0.04	1144.52	680	0	0	0.11	0.11	6697.73
18	91	0	0	0.04	0.04	314.5	330.1	0	0	0.28	0.28	7843.18	980	0	0	0.14	0.14	12277.44
19	118.6	0	0	0.05	0.05	512.35	290	0	0	0.03	0.03	626.4	2380	0	0	0.24	0.24	49351.68
20	112.1	0	0	0.05	0.05	484.27	239.6	0	0	0.25	0.25	5237.46	5450	0	0	0.37	0.37	172342.08
21	155	0	0	0.07	0.07	937.44	249.4	0	0	0.13	0.13	2758.16	8260	0	0	0.17	0.17	119895.55
22	150.4	0	0	0.14	0.14	1793.25	206.3	0	0	0.13	0.13	2370.63	9450	0	0	0.3	0.3	241678.08
23	160.4	0	0	0.15	0.15	2078.78	187.5	0	0	0.13	0.13	2041.2	4540	0	0	0.14	0.14	56484.86
24	219.7	0	0	0.2	0.2	3796.42	320.4	0	0	0.25	0.25	6920.64	2620	0	0	0.17	0.17	38708.93
25	182.3	0	0	0.17	0.17	2677.62	283.5	0	0	0.1	0.1	2522.92	2345	0	0	0.16	0.16	33025.1
26	155.2	0	0	0.14	0.14	1877.3	322	0	0	0.11	0.11	3060.29	2195	0	0	0.14	0.14	27498.96
27	215.8	0	0	0.2	0.2	3729.02	355.3	0	0	0.33	0.33	10068.92	1838	0	0	0.11	0.11	18103.56
28	163	0	0	0.15	0.15	2112.48	320	0	0	0.24	0.24	6773.76	1990	0	0	0.11	0.11	18569.09
29	160.8	0	0	0.15	0.15	2153.43	321	0	0	0.35	0.35	9651.57	14650	0	0	0.16	0.16	206318.88
30	177.5	0	0	0.17	0.17	2607.12	328	0	0	0.36	0.36	10202.11	22850	0	0	0.25	0.25	493560
31							332	0	0	0.21	0.21	6023.81	16350	0	0	0.36	0.36	512788.32
TenDaily I	76.22	0	0	0.1	0.1	633.1	230.81	0	0	0.17	0.17	3447.29	444.14	0	0	0.18	0.18	7727.36
TenDaily II	112.85	0	0	0.2	0.2	1666.75	288.89	0	0	0.16	0.16	4003.71	1498.2	0	0	0.22	0.22	35281.53
TenDaily III	174.01	0	0	0.15	0.15	2376.29	293.22	0	0	0.21	0.21	5672.18	7917.09	0	0	0.19	0.19	160602.85
Total	June					46761.41	July					136904.07	August					2196720.24

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5930	0	0	0.19	0.19	96322.18	846.2	0	0	0.13	0.13	9358.3	205	0	0	0.06	0.06	1080.43
2	2760	0	0	0.15	0.15	35769.6	815	0	0	0.12	0.12	8449.92	200.1	0	0	0.1	0.1	1694.29
3	2530	0	0	0.1	0.1	21859.2	680	0	0	0.1	0.1	5875.2	186	0	0	0.09	0.09	1446.34
4	2175	0	0	0.16	0.16	30067.2	650	0	0	0.1	0.1	5616	180	0	0	0.09	0.09	1399.68
5	1885	0	0	0.15	0.15	24592.46	607.1	0	0	0.13	0.13	7028.76	177	0	0	0.09	0.09	1376.35
6	1335	0	0	0.17	0.17	19147.1	540.3	0	0	0.12	0.12	5601.83	174	0	0	0.09	0.09	1353.02
7	1236	0	0	0.15	0.15	16552.51	496.2	0	0	0.11	0.11	4715.88	170	0	0	0.08	0.08	1175.04
8	1150	0	0	0.11	0.11	11227.68	481	0	0	0.1	0.1	4155.84	173	0	0	0.09	0.09	1345.25
9	1290	0	0	0.15	0.15	17052.77	471.2	0	0	0.1	0.1	4071.17	172	0	0	0.11	0.11	1679.27
10	1120	0	0	0.16	0.16	15773.18	564.4	0	0	0.12	0.12	5851.7	170	0	0	0.11	0.11	1615.68
11	1165	0	0	0.14	0.14	13890.53	660	0	0	0.14	0.14	7983.36	165	0	0	0.11	0.11	1568.16
12	1125	0	0	0.14	0.14	13608	688.3	0	0	0.12	0.12	7136.29	164	0	0	0.1	0.1	1416.96
13	1115	0	0	0.14	0.14	13487.04	679	0	0	0.12	0.12	7039.87	188	0	0	0.12	0.12	1949.18
14	1250	0	0	0.12	0.12	12960	665.03	0	0	0.12	0.12	6895.03	193	0	0	0.12	0.12	2001.02
15	1060	0	0	0.18	0.18	16943.04	646	0	0	0.11	0.11	6139.58	190	0	0	0.12	0.12	1969.92
16	870	0	0	0.18	0.18	13906.08	577.9	0	0	0.1	0.1	4993.06	171	0	0	0.1	0.1	1403.57
17	865	0	0	0.17	0.17	12705.12	490.6	0	0	0.09	0.09	3814.91	187	0	0	0.11	0.11	1777.25
18	875	0	0	0.15	0.15	11718	380	0	0	0.07	0.07	2298.24	190	0	0	0.11	0.11	1805.76
19	860	0	0	0.18	0.18	13226.11	452.3	0	0	0.1	0.1	3829.71	180	0	0	0.11	0.11	1710.72
20	1260	0	0	0.26	0.26	28304.64	494.5	0	0	0.11	0.11	4699.73	177	0	0	0.1	0.1	1529.28
21	1130	0	0	0.17	0.17	16890.34	465	0	0	0.1	0.1	4017.6	178	0	0	0.1	0.1	1537.92
22	980	0	0	0.12	0.12	9737.28	428.3	0	0	0.09	0.09	3330.46	160	0	0	0.09	0.09	1244.16
23	1020	0	0	0.16	0.16	13747.97	392.1	0	0	0.09	0.09	3048.97	156.7	0	0	0.12	0.12	1692.36
24	1360	0	0	0.16	0.16	19153.15	378.4	0	0	0.08	0.08	2615.5	152.1	0	0	0.12	0.12	1576.97
25	2075	0	0	0.32	0.32	56473.2	372	0	0	0.08	0.08	2571.26	150	0	0	0.11	0.11	1425.6
26	2025	0	0	0.32	0.32	56512.08	369.6	0	0	0.11	0.11	3608.48	144	0	0	0.11	0.11	1368.58
27	1750	0	0	0.28	0.28	42336	366	0	0	0.11	0.11	3478.46	150	0	0	0.11	0.11	1425.6
28	1504.9	0	0	0.15	0.15	19893.57	358.6	0	0	0.11	0.11	3408.13	151	0	0	0.12	0.12	1565.57
29	1057.8	0	0	0.17	0.17	15628.36	314.3	0	0	0.09	0.09	2444	150	0	0	0.11	0.11	1425.6
30	926.9	0	0	0.14	0.14	11211.78	308	0	0	0.09	0.09	2395.01	150			0.11	0.11	1425.6
31							290.7	0	0	0.09	0.09	2260.48						
TenDaily I	2141.1	0	0	0.15	0.15	28836.39	615.14	0	0	0.11	0.11	6072.46	180.71	0	0	0.09	0.09	1416.53
TenDaily II	1044.5	0	0	0.17	0.17	15074.86	573.36	0	0	0.11	0.11	5482.98	180.5	0	0	0.11	0.11	1713.18
TenDaily III	1382.96	0	0	0.2	0.2	26158.37	367.55	0	0	0.09	0.09	3016.21	154.18	0	0	0.11	0.11	1468.8
Total	September					700696.18	October					148732.74	November					45985.13

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	149	0	0	0.12	0.12	1544.83	100	0	0	0.11	0.11	933.12	109.6	0	0	0.12	0.12	1088.99
2	140	0	0	0.11	0.11	1330.56	106	0	0	0.11	0.11	1007.42	108	0	0	0.12	0.12	1119.74
3	135	0	0	0.11	0.11	1283.04	110	0	0	0.12	0.12	1140.48	106	0	0	0.12	0.12	1099.01
4	140	0	0	0.11	0.11	1330.56	132	0	0	0.11	0.11	1288.74	105	0	0	0.11	0.11	997.92
5	133	0	0	0.11	0.11	1264.03	122	0	0	0.1	0.1	1054.08	103	0	0	0.11	0.11	978.91
6	160	0	0	0.13	0.13	1797.12	115	0	0	0.1	0.1	993.6	108	0	0	0.12	0.12	1119.74
7	138	0	0	0.11	0.11	1311.55	112	0	0	0.09	0.09	870.91	109	0	0	0.12	0.12	1130.11
8	136	0	0	0.11	0.11	1292.54	113	0	0	0.09	0.09	878.69	147.4	0	0	0.1	0.1	1273.54
9	140	0	0	0.11	0.11	1330.56	110	0	0	0.09	0.09	855.36	154	0	0	0.1	0.1	1330.56
10	122	0	0	0.1	0.1	1054.08	108	0	0	0.09	0.09	839.81	165	0	0	0.11	0.11	1568.16
11	110	0	0	0.09	0.09	855.36	117	0	0	0.12	0.12	1192.84	145	0	0	0.1	0.1	1252.8
12	127	0	0	0.1	0.1	1097.28	115	0	0	0.12	0.12	1192.32	128	0	0	0.09	0.09	995.33
13	133	0	0	0.11	0.11	1264.03	113	0	0	0.12	0.12	1171.58	112	0	0	0.08	0.08	774.14
14	132	0	0	0.11	0.11	1254.53	112	0	0	0.11	0.11	1064.45	106	0	0	0.07	0.07	641.09
15	124	0	0	0.1	0.1	1071.36	112	0	0	0.11	0.11	1064.45	100.6	0	0	0.12	0.12	999.56
16	117	0	0	0.09	0.09	909.79	110	0	0	0.11	0.11	1045.44	96	0	0	0.11	0.11	912.38
17	116	0	0	0.09	0.09	902.02	110	0	0	0.11	0.11	1045.44	95	0	0	0.11	0.11	902.88
18	120	0	0	0.1	0.1	1036.8	112.2	0	0	0.11	0.11	1066.35	133	0	0	0.16	0.16	1838.59
19	117	0	0	0.09	0.09	909.79	110	0	0	0.11	0.11	1045.44	115	0	0	0.14	0.14	1391.04
20	123	0	0	0.1	0.1	1062.72	110	0	0	0.11	0.11	1045.44	125	0	0	0.15	0.15	1620
21	87.1	0	0	0.13	0.13	1000.88	109	0	0	0.11	0.11	1035.94	150	0	0	0.18	0.18	2332.8
22	88	0	0	0.13	0.13	988.42	110	0	0	0.11	0.11	1045.44	164.3	0	0	0.12	0.12	1703.46
23	85	0	0	0.13	0.13	954.72	110	0	0	0.11	0.11	1045.44	167	0	0	0.12	0.12	1731.46
24	84	0	0	0.13	0.13	943.49	108	0	0	0.11	0.11	1026.43	152	0	0	0.11	0.11	1444.61
25	81	0	0	0.12	0.12	839.81	103	0	0	0.12	0.12	1050.11	120	0	0	0.09	0.09	933.12
26	80	0	0	0.12	0.12	829.44	106	0	0	0.12	0.12	1099.01	130.3	0	0	0.1	0.1	1125.79
27	78	0	0	0.12	0.12	808.7	121	0	0	0.14	0.14	1463.62	131	0	0	0.1	0.1	1131.84
28	102.1	0	0	0.11	0.11	970.36	118	0	0	0.14	0.14	1427.33	105	0	0	0.08	0.08	725.76
29	102	0	0	0.11	0.11	969.41	120	0	0	0.14	0.14	1451.52						
30	97	0	0	0.1	0.1	838.08	122	0	0	0.14	0.14	1475.71						
31	94	0	0	0.1	0.1	812.16	121	0	0	0.14	0.14	1463.62						
TenDaily I	139.3	0	0	0.11	0.11	1353.89	112.8	0	0	0.1	0.1	986.22	121.5	0	0	0.11	0.11	1170.67
TenDaily II	121.9	0	0	0.1	0.1	1036.37	112.12	0	0	0.11	0.11	1093.37	115.56	0	0	0.11	0.11	1132.78
TenDaily III	88.93	0	0	0.12	0.12	905.04	113.45	0	0	0.13	0.13	1234.92	139.95	0	0	0.11	0.11	1391.1
Total	December					33858.03	January					34380.12	February					34163.34

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	75	0	0	0.09	0.09	602.64	94	0	0	0.06	0.06	519.78	144	0	0	0.1	0.1	1206.84
2	110	0	0	0.13	0.13	1235.52	90	0	0	0.6	0.6	4665.6	145	0	0	0.1	0.1	1252.8
3	135	0	0	0.16	0.16	1866.24	86	0	0	0.6	0.6	4458.24	144	0	0	0.1	0.1	1244.16
4	125	0	0	0.15	0.15	1620	75	0	0	0.5	0.5	3240	145	0	0	0.1	0.1	1252.8
5	124	0	0	0.15	0.15	1607.04	65	0	0	0.04	0.04	224.64	150	0	0	0.1	0.1	1296
6	123	0	0	0.15	0.15	1594.08	66	0	0	0.04	0.04	228.1	155	0	0	0.1	0.1	1339.2
7	145	0	0	0.17	0.17	2129.76	85	0	0	0.06	0.06	440.64	154	0	0	0.1	0.1	1330.56
8	149.6	0	0	0.11	0.11	1421.8	86	0	0	0.06	0.06	445.82	155	0	0	0.1	0.1	1339.2
9	153	0	0	0.11	0.11	1454.11	90	0	0	0.06	0.06	466.56	154	0	0	0.1	0.1	1330.56
10	152	0	0	0.11	0.11	1444.61	92	0	0	0.06	0.06	476.93	155	0	0	0.1	0.1	1339.2
11	124	0	0	0.09	0.09	964.22	91	0	0	0.06	0.06	471.74	156	0	0	0.11	0.11	1482.62
12	114	0	0	0.08	0.08	787.97	90	0	0	0.06	0.06	466.56	155	0	0	0.1	0.1	1339.2
13	115	0	0	0.08	0.08	794.88	85	0	0	0.06	0.06	440.64	154	0	0	0.1	0.1	1330.56
14	116	0	0	0.09	0.09	902.02	86	0	0	0.06	0.06	445.82	156	0	0	0.11	0.11	1482.62
15	118	0	0	0.08	0.08	815.62	85	0	0	0.06	0.06	440.64	155	0	0	0.1	0.1	1339.2
16	105	0	0	0.07	0.07	635.04	86	0	0	0.06	0.06	445.82	150	0	0	0.1	0.1	1296
17	104	0	0	0.07	0.07	628.99	85	0	0	0.06	0.06	440.64	152	0	0	0.1	0.1	1313.28
18	128	0	0	0.09	0.09	995.33	75	0	0	0.05	0.05	324	150	0	0	0.1	0.1	1296
19	127	0	0	0.09	0.09	987.55	74	0	0	0.05	0.05	319.68	152	0	0	0.1	0.1	1313.28
20	103	0	0	0.07	0.07	622.94	86	0	0	0.06	0.06	445.82	162	0	0	0.11	0.11	1539.65
21	100	0	0	0.07	0.07	604.8	85	0	0	0.06	0.06	440.64	160	0	0	0.11	0.11	1520.64
22	103.4	0	0	0.07	0.07	670.03	86	0	0	0.06	0.06	445.82	150	0	0	0.1	0.1	1296
23	95	0	0	0.06	0.06	492.48	92	0	0	0.06	0.06	476.93	152	0	0	0.1	0.1	1313.28
24	96	0	0	0.06	0.06	497.66	126	0	0	0.09	0.09	979.78	148	0	0	0.1	0.1	1278.72
25	76	0	0	0.05	0.05	328.32	135	0	0	0.09	0.09	1049.76	147	0	0	0.1	0.1	1270.08
26	72	0	0	0.06	0.06	373.25	134	0	0	0.09	0.09	1041.98	156	0	0	0.11	0.11	1482.62
27	84	0	0	0.06	0.06	435.46	122	0	0	0.08	0.08	843.26	158	0	0	0.11	0.11	1501.63
28	92	0	0	0.06	0.06	476.93	146	0	0	0.1	0.1	1261.44	155	0	0	0.1	0.1	1339.2
29	88	0	0	0.06	0.06	456.19	152	0	0	0.1	0.1	1313.28	154	0	0	0.1	0.1	1330.56
30	87	0	0	0.06	0.06	451.01	146	0	0	0.1	0.1	1261.44	156	0	0	0.11	0.11	1482.62
31	95	0	0	0.06	0.06	492.48							160	0	0	0.11	0.11	1520.64
TenDaily I	129.16	0	0	0.13	0.13	1497.58	82.9	0	0	0.21	0.21	1516.63	150.1	0	0	0.1	0.1	1293.13
TenDaily II	115.4	0	0	0.08	0.08	813.46	84.3	0	0	0.06	0.06	424.14	154.2	0	0	0.1	0.1	1373.24
TenDaily III	89.85	0	0	0.06	0.06	479.87	122.4	0	0	0.08	0.08	911.43	154.18	0	0	0.1	0.1	1394.18
Total	March					28388.97	April					28522.02						41999.73

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Sandia

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division:MNSD-I, Hoshangabad

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	7529140.18	0	7529140.18	6886.96
1988-1989	16266196.89	0	16266196.89	14519.18
1989-1990	4764959.28	0	4764959.28	6212.52
1990-1991	16499578.83	0	16499578.83	20837.87
1991-1992	31100237.29	0	31100237.29	14450.2
1992-1993	7506724.17	0	7506724.17	10887.27
1993-1994	11324633.03	0	11324633.03	12061.07
1994-1995	43941942.28	0	43941942.28	34413.84
1995-1996	11257938.33	0	11257938.33	13275.06
1996-1997	2415022.75	0	2415022.75	5763.67
1997-1998	7382982.42	0	7382982.42	11395.81
1998-1999	5939963.36	0	5939963.36	9874.67
1999-2000	34685472.31	0	34685472.31	28910.32
2000-2001	10300013.96	0	10300013.96	7673.68
2001-2002	18040558.08	0	18040558.08	11842.63
2002-2003	13837434.36	0	13837434.36	9241.7
2003-2004	36417061.91	0	36417061.91	19362.19
2004-2005	11432445.12	0	11432445.12	10323.99
2005-2006	26940023.78	200264.78	27140288.56	24422.53
2006-2007	17843015.67	125369.91	17968385.58	13936.42
2007-2008	225891.69	11152.44	237044.13	9304.6
2008-2009	1249337.48	49464.41	1298801.9	9913.65
2009-2010	47170094.29	42441.39	47212535.68	11271.35
2010-2011	4083187.3	422459.49	4505646.79	9112.39
2011-2012	28905207.84	0	28905207.84	14916
2012-2013	15153224.05	153016.8	15306240.85	13589.21
2013-2014	15096652	132822	15229473	28654
2014-2015	3320615	71095	3391709	10500
2015-2016	566346	58438	624785	6318
2016-2017	5051534.42	58304.64	5109839.06	15068.69
2017-2018	390036.11	0	390036.11	2852.59
2018-2019	2359487	115780	2475267	9395
2019-2020	6272189	206471.48	6478660.48	23809.49
2020-2021	3275799.78	201312.2	3477111.98	17882.96

Sediment Data Year Book 2020-21

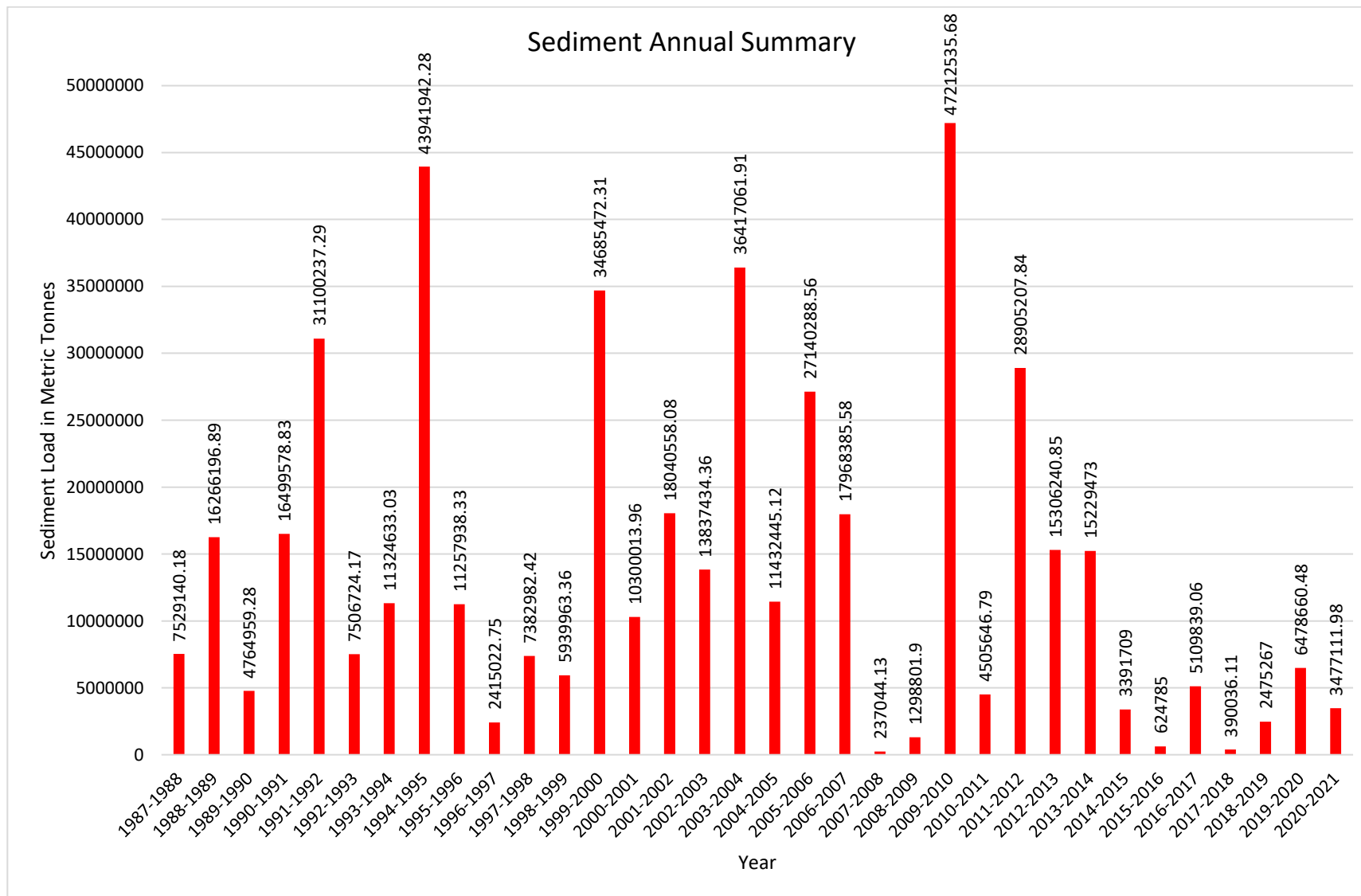
Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

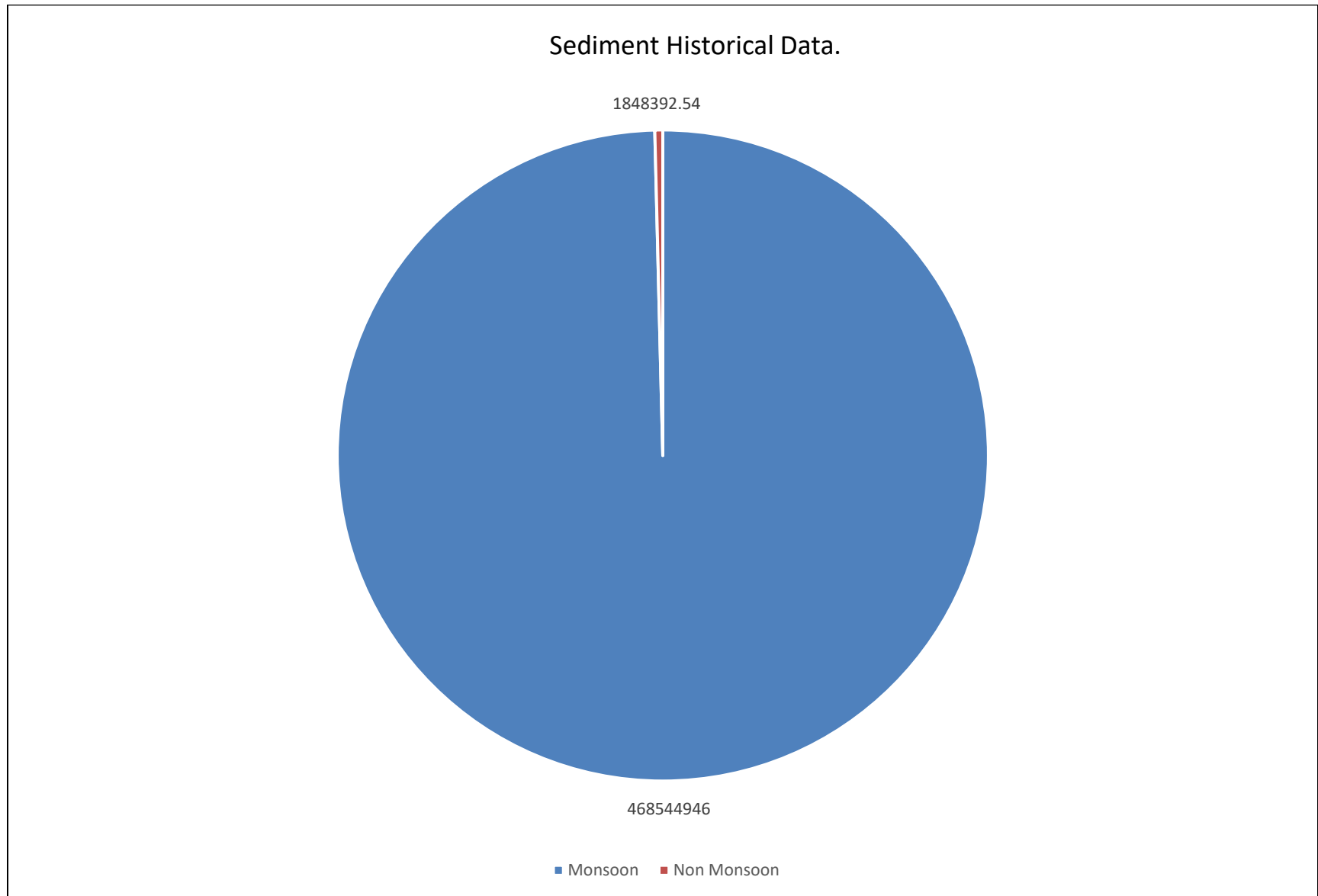
Seasonal Sediment Load for period : 1987-2021

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

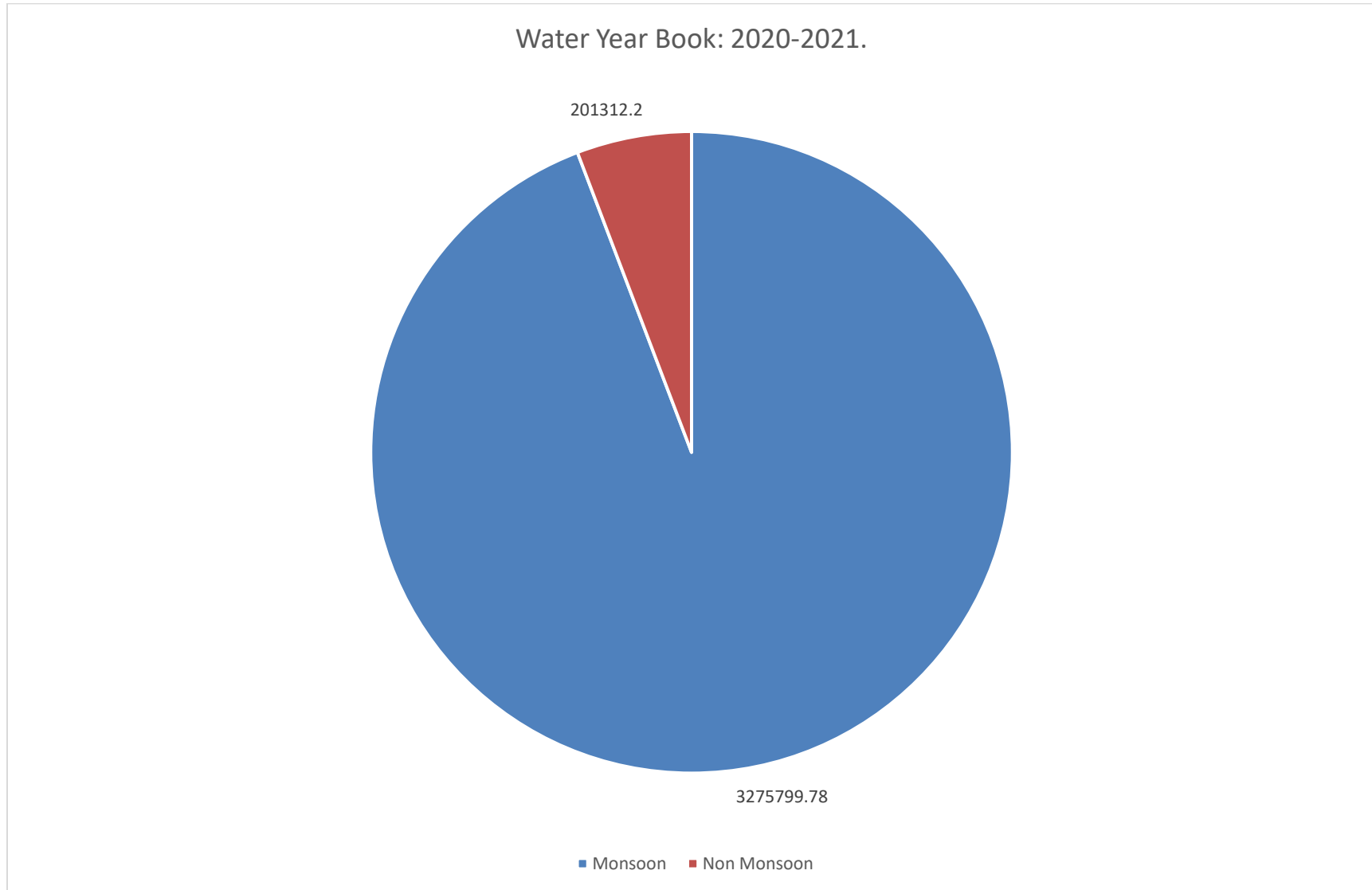
Seasonal Sediment Load for period : 2020-21

Station Name : Narmada at Sandia (CW1NAU000450)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-1 Hoshangabad



4.7 Shakkar at Gadarwara

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020- 2021	
Site	:	Gadarwara		Code	:	CW1NAU000391	
State	:	Madhya Pradesh		District	:	NARSINGHPUR	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Shakkar	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-I, Hosangabad	
Drainage Area	:	2270.0 Sq. Km.		Bank	:	Left	
Latitude	:	22°55'26"		Longitude	:	78°47'30"	
Current Zero of Gauge (m)	:	321					
CATEGORY		Opening Date		Closing Date			
Gauge	:	01/02/1977					
Discharge	:	01/02/1977					
Sediment	:	15/06/1978					
Water Quality	:	16/06/1979					
Reduced Level		Opening Date		Closing Date			
321.0		01/02/1977					
321.0							
321.0							

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Division : MNSD-I, Hoshangabad

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.38	0	0	0	0	0	13.05	0	0	0.04	0.04	45.09	13.61	0	0	0.06	0.06	64.67
2	0.43	0	0	0	0	0	18.6	0	0	0.04	0.04	64.27	10.9	0	0	0.04	0.04	37.67
3	0.42	0	0	0	0	0	16.7	0	0	0.14	0.14	202.04	16	0	0	0.01	0.01	13.83
4	0.45	0	0	0	0	0	12.84	0	0	0.14	0.14	155.34	21.77	0	0	0.11	0.11	206.9
5	0.45	0	0	0	0	0	12.4	0	0	0.14	0.14	149.99	18.84	0	0	0.1	0.1	162.78
6	0.44	0	0	0	0	0	31.09	0	0	0.37	0.37	993.92	18.2	0	0	0.1	0.1	157.25
7	0.43	0	0	0	0	0	29.7	0	0	0.14	0.14	359.28	17.47	0	0	0.09	0.09	135.86
8	0.42	0	0	0	0	0	26.74	0	0	0.13	0.13	300.35	12.48	0	0	0.07	0.07	75.49
9	0.04	0	0	0	0	0	20.23	0	0	0.13	0.13	227.17	22.1	0	0	0.12	0.12	229.13
10	0.39	0	0	0	0	0	17.69	0	0	0.04	0.04	61.12	28.4	0	0	0.07	0.07	171.78
11	0.38	0	0	0	0	0	15.51	0	0	0.09	0.09	120.57	31.27	0	0	0.09	0.09	243.14
12	0.5	0	0	0	0	0	12.9	0	0	0.07	0.07	78.02	34.51	0	0	0.18	0.18	536.76
13	0.52	0	0	0	0	0	13.61	0	0	0.24	0.24	282.24	34.05	0	0	0.04	0.04	117.67
14	0.51	0	0	0	0	0	10.96	0	0	0.1	0.1	94.73	351.44	0.01	0.01	0.18	0.2	6072.92
15	0.52	0	0	0	0	0	8.51	0	0	0.1	0.1	73.55	328	0	0	0.17	0.17	4817.66
16	0.58	0	0	0	0	0	16.01	0	0	0.2	0.2	276.58	160.1	0	0	0.08	0.08	1106.61
17	0.84	0	0	0	0	0	17.49	0	0	0.23	0.23	347.64	128.62	0.01	0.01	0.06	0.08	889.01
18	0.88	0	0	0	0	0	15.27	0	0	0.19	0.19	250.74	128.08	0.01	0.01	0.06	0.08	885.31
19	0.85	0	0	0	0	0	13.8	0	0	0.02	0.02	20.27	214.28	0.01	0.01	0.13	0.15	2777.07
20	0.83	0	0	0	0	0	14.67	0	0	0.17	0.17	215.52	181.01	0	0	0.12	0.13	1986.2
21	0.86	0	0	0	0	0	11.09	0	0	0.15	0.15	143.73	350.5	0	0.01	0.16	0.17	5148.14
22	1.11	0	0	0	0	0	9.68	0	0	0.17	0.17	142.14	389.47	0	0	0.35	0.36	12013.19
23	34.52	0	0	0.15	0.15	447.38	18.05	0	0	0.23	0.23	358.67	185.1	0	0	0.17	0.17	2718.75
24	35.55	0	0	0.09	0.09	276.41	17.89	0	0	0.22	0.22	340.02	164.21	0.01	0.01	0.36	0.38	5391.18
25	33.93	0	0	0	0	0	16.43	0	0	0.06	0.06	85.19	103.47	0.01	0.01	0.28	0.3	2681.94
26	17.78	0	0	0.01	0.01	15.36	19	0	0	0.07	0.07	114.91	173.39	0	0	0.29	0.3	4434.32
27	15.74	0	0	0.02	0.02	27.2	14.96	0	0	0.06	0.06	77.53	74.77	0	0	0.09	0.09	581.42
28	13.1	0	0	0.02	0.02	22.64	13.37	0	0	0.04	0.04	46.21	470.35	0.01	0.01	0.59	0.61	24789.38
29	14.91	0	0	0.04	0.04	51.53	12.98	0	0	0.03	0.03	33.65	4985	0	0	6.25	6.25	2691900
30	12.68	0	0	0.03	0.03	32.86	17.26	0	0	0.07	0.07	104.41	540.1	0	0	0.68	0.68	31731.96
31							12.69	0	0	0.07	0.07	76.76	527.88	0.01	0.01	1.91	1.93	88024.38
TenDaily I	0.39	0	0	0	0	0	19.9	0	0	0.13	0.13	255.86	17.98	0	0	0.08	0.08	125.54
TenDaily II	0.64	0	0	0	0	0	13.87	0	0	0.14	0.14	175.99	159.14	0	0	0.11	0.12	1943.24
TenDaily III	18.02	0	0	0.04	0.04	87.34	14.85	0	0	0.11	0.11	138.47	724.02	0	0	1.01	1.02	260855.88
Total	June					873.37	July					5841.63	August					2890102.36

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Local River : Shakkar

Division : Narmada Division, Bhopal

Sub-Division : MNSD-I, Hoshangabad

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	499.25	0.01	0.01	0.73	0.75	32351.27	73.11	0	0	0.04	0.04	252.66	7	0	0	0.03	0.03	18.14
2	489.7	0.01	0.01	0.6	0.62	26232.25	68.7	0	0	0.04	0.04	237.43	7	0	0	0.03	0.03	18.14
3	433.6	0.01	0.01	0.57	0.59	22103.19	98.6	0	0	0.06	0.06	511.16	7	0	0	0.03	0.03	18.14
4	320.05	0.01	0.01	0.59	0.61	16867.7	73.2	0	0	0.04	0.04	252.98	7	0	0	0.03	0.03	18.14
5	220.27	0.01	0.01	0.38	0.4	7612.63	105.52	0	0	0.06	0.06	547.01	7	0	0	0.03	0.03	18.14
6	160.2	0	0	0.28	0.28	3875.56	91.78	0	0	0.06	0.06	475.79	7	0	0	0.03	0.03	18.14
7	170.07	0.01	0.01	0.73	0.75	11020.6	67.89	0	0	0.04	0.04	234.63	7	0	0	0.03	0.03	18.14
8	167.25	0.01	0.01	0.71	0.73	10548.79	80.48	0	0	0.06	0.06	417.22	7	0	0	0.03	0.03	18.14
9	167.24	0.01	0.01	0.86	0.88	12715.59	99.44	0	0	0.08	0.08	687.33	7	0	0	0.03	0.03	18.14
10	100.21	0.01	0.01	0.73	0.75	6493.48	78.24	0	0	0.06	0.06	405.6	6.8	0	0	0.03	0.03	17.63
11	108.61	0.01	0.01	0.45	0.47	4410.6	67.9	0	0	0.05	0.05	293.33	6.8	0	0	0.03	0.03	17.63
12	116.5	0.01	0.01	0.45	0.47	4730.63	68.4	0	0	0.06	0.06	354.59	6.6	0	0	0.03	0.03	17.11
13	135.8	0	0	0.52	0.52	6101.22	35.88	0	0	0.04	0.04	124	6.6	0	0	0.03	0.03	17.11
14	103.72	0.01	0.01	0.04	0.06	537.68	27.16	0	0	0.04	0.04	93.86	6.5	0	0	0.03	0.03	16.85
15	107.84	0.01	0.01	0.3	0.32	2981.56	20.08	0	0	0.03	0.03	52.05	6.5	0	0	0.03	0.03	16.85
16	104.27	0.01	0.01	0.04	0.06	540.53	10.71	0	0	0.02	0.02	18.51	6.4	0	0	0.02	0.02	11.06
17	111.9	0.01	0.01	0.77	0.79	7657.25	15.25	0	0	0.03	0.03	39.53	6.4	0	0	0.02	0.02	11.06
18	108.77	0.01	0.01	0.69	0.71	6672.33	14.5	0	0	0.03	0.03	37.58	5.12	0	0	0.02	0.02	8.86
19	107.55	0	0.01	0.68	0.69	6411.64	13.43	0	0	0.02	0.02	23.21	5.5	0	0	0.02	0.02	9.5
20	111.9	0	0	0.71	0.71	6864.39	12.41	0	0	0.02	0.02	21.44	5.4	0	0	0.02	0.02	9.33
21	116.09	0.01	0.01	0.32	0.34	3410.23	14.81	0	0	0.02	0.02	25.59	5.4	0	0	0.02	0.02	9.33
22	110.24	0.01	0.01	0.71	0.73	6952.93	31.95	0	0	0.02	0.02	55.21	5.4	0	0	0.02	0.02	9.33
23	115.74	0.01	0.01	0.72	0.74	7400.21	12.65	0	0	0.03	0.03	32.79	5.3	0	0	0.02	0.02	9.16
24	109.86	0.01	0.01	0.71	0.73	6928.77	11.65	0	0	0.04	0.04	40.26	5.3	0	0	0.02	0.02	9.16
25	106.64	0.01	0.01	0.85	0.87	8015.84	11.1	0	0	0.04	0.04	38.36	5.3	0	0	0.02	0.02	9.16
26	106.06	0.01	0.01	0.85	0.87	7972.32	10.3	0	0	0.03	0.03	26.7	5.3	0	0	0.02	0.02	9.16
27	107.4	0	0	0.86	0.86	7980.25	10.23	0	0	0.03	0.03	26.53	5.3	0	0	0.02	0.02	9.16
28	114.86	0.01	0.01	0.83	0.85	8435.32	9.84	0	0	0.03	0.03	25.51	5.2	0	0	0.02	0.02	8.99
29	102.08	0.01	0.01	0.08	0.1	881.93	8.26	0	0	0.03	0.03	21.41	5.2	0	0	0.02	0.02	8.99
30	100.39	0.01	0.01	0.06	0.08	693.86	8.59	0	0	0.03	0.03	22.27	5	0	0	0.02	0.02	8.64
31							7.79	0	0	0.03	0.03	20.19						
TenDaily I	272.78	0.01	0.01	0.62	0.64	14982.11	83.7	0	0	0.05	0.05	402.18	6.98	0	0	0.03	0.03	18.09
TenDaily II	111.69	0.01	0.01	0.47	0.48	4690.78	28.57	0	0	0.03	0.03	105.81	6.18	0	0	0.03	0.03	13.53
TenDaily III	108.93	0.01	0.01	0.6	0.62	5867.17	12.47	0	0	0.03	0.03	30.44	5.27	0	0	0.02	0.02	9.11
Total	September					255400.56	October					5414.73	November					407.33

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Division : MNSD-I, Hoshangabad

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5	0	0	0.02	0.02	8.64	3	0	0	0.01	0.01	2.59	2.9	0	0	0.01	0.01	2.51
2	5	0	0	0.02	0.02	8.64	3	0	0	0.01	0.01	2.59	2.9	0	0	0.01	0.01	2.51
3	5	0	0	0.02	0.02	8.64	3	0	0	0.01	0.01	2.59	2.9	0	0	0.01	0.01	2.51
4	4.9	0	0	0.02	0.02	8.47	3.2	0	0	0.01	0.01	2.76	2.9	0	0	0.01	0.01	2.51
5	4.9	0	0	0.02	0.02	8.47	3.2	0	0	0.01	0.01	2.76	2.9	0	0	0.01	0.01	2.51
6	4.9	0	0	0.02	0.02	8.47	3.2	0	0	0.01	0.01	2.76	2.9	0	0	0.01	0.01	2.51
7	4.9	0	0	0.02	0.02	8.47	3.2	0	0	0.01	0.01	2.76	2.9	0	0	0.01	0.01	2.51
8	4.9	0	0	0.02	0.02	8.47	3.2	0	0	0.01	0.01	2.76	2.9	0	0	0.01	0.01	2.51
9	4.8	0	0	0.02	0.02	8.29	3.2	0	0	0.01	0.01	2.76	2.8	0	0	0.01	0.01	2.42
10	4.6	0	0	0.02	0.02	7.95	3.2	0	0	0.01	0.01	2.76	2.8	0	0	0.01	0.01	2.42
11	4.5	0	0	0.02	0.02	7.78	3.1	0	0	0.01	0.01	2.68	2.8	0	0	0.01	0.01	2.42
12	4.4	0	0	0.02	0.02	7.6	3.1	0	0	0.01	0.01	2.68	2.8	0	0	0.01	0.01	2.42
13	4.4	0	0	0.02	0.02	7.6	3.1	0	0	0.01	0.01	2.68	2.7	0	0	0.01	0.01	2.33
14	4.4	0	0	0.02	0.02	7.6	3.1	0	0	1	1	267.84	2.65	0	0	0.01	0.01	2.29
15	4.4	0	0	0.02	0.02	7.6	3.1	0	0	0.01	0.01	2.68	2.6	0	0	0.01	0.01	2.25
16	3.88	0	0	0.01	0.01	3.35	3.1	0	0	0.01	0.01	2.68	2.1	0	0	0.01	0.01	1.81
17	4	0	0	0.02	0.02	6.91	3.1	0	0	0.01	0.01	2.68	1.8	0	0	0.01	0.01	1.56
18	3.9	0	0	0.02	0.02	6.74	3.1	0	0	0.01	0.01	2.68	1.5	0	0	0.01	0.01	1.3
19	3.9	0	0	0.02	0.02	6.74	3.1	0	0	0.01	0.01	2.68	1.4	0	0	0.01	0.01	1.21
20	3.9	0	0	0.02	0.02	6.74	3.1	0	0	0.01	0.01	2.68	1.6	0	0	0.01	0.01	1.38
21	3.9	0	0	0.02	0.02	6.74	3	0	0	0.01	0.01	2.59	1.5	0	0	0.01	0.01	1.3
22	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	1.11	0	0	0	0	0
23	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	1.17	0	0	0	0	0
24	3.8	0	0	0.01	0.01	3.28	3	0	0	1	1	259.2	1.1	0	0	0	0	0
25	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	1.1	0	0	0	0	0
26	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	1.1	0	0	0	0	0
27	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	0.98	0	0	0	0	0
28	3.8	0	0	0.01	0.01	3.28	3	0	0	0.01	0.01	2.59	0.97	0	0	0	0	0
29	3.7	0	0	0.01	0.01	3.2	3	0	0	0.01	0.01	2.59						
30	3.7	0	0	0.01	0.01	3.2	3	0	0	0.01	0.01	2.59						
31	3.7	0	0	0.01	0.01	3.2	3	0	0	0.01	0.01	2.59						
TenDaily I	4.89	0	0	0.02	0.02	8.45	3.14	0	0	0.01	0.01	2.71	2.88	0	0	0.01	0.01	2.49
TenDaily II	4.17	0	0	0.02	0.02	6.87	3.1	0	0	0.11	0.11	29.19	2.19	0	0	0.01	0.01	1.9
TenDaily III	3.78	0	0	0.01	0.01	3.57	3	0	0	0.1	0.1	25.92	1.13	0	0	0	0	0.16
Total	December					192.48	January					604.2	February					45.14

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Div : MNSD-I, Hoshangabad

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.96						0.70						0.34					
2	0.95						0.70						0.31					
3	0.94						0.69						0.27					
4	0.93						0.68						0.23					
5	0.92						0.67						0.2					
6	0.91						0.67						0.0					
7	0.9						0.66						0.0					
8	0.89						0.65						0.0					
9	0.88						0.64						0.0					
10	0.88						0.63						0.0					
11	0.87						0.62						0.0					
12	0.86						0.61						0.0					
13	0.85						0.60						0.0					
14	0.84						0.59						0.0					
15	0.83						0.58						0.0					
16	0.83						0.57						0.0					
17	0.82						0.56						0.0					
18	0.81						0.53						0.0					
19	0.80						0.54						0.0					
20	0.79						0.53						0.0					
21	0.79						0.52						0.0					
22	0.78						0.51						0.0					
23	0.78						0.5						0.0					
24	0.77						0.48						0.0					
25	0.76						0.46						0.0					
26	0.75						0.44						0.0					
27	0.74						0.42						0.0					
28	0.73						0.4						0.0					
29	0.71						0.38						0.0					
30	0.71						0.36						0.0					
31	0.70												0.0					
TenDaily I	0.92						0.67						0.14					
TenDaily II	0.83						0.57						0.0					
TenDaily III	0.75						0.45						0.0					
Total			March						April									

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Shakkar at Gadarwara (CW1NAU000391) Division : Narmada Division, Bhopal

Local River : Shakkar

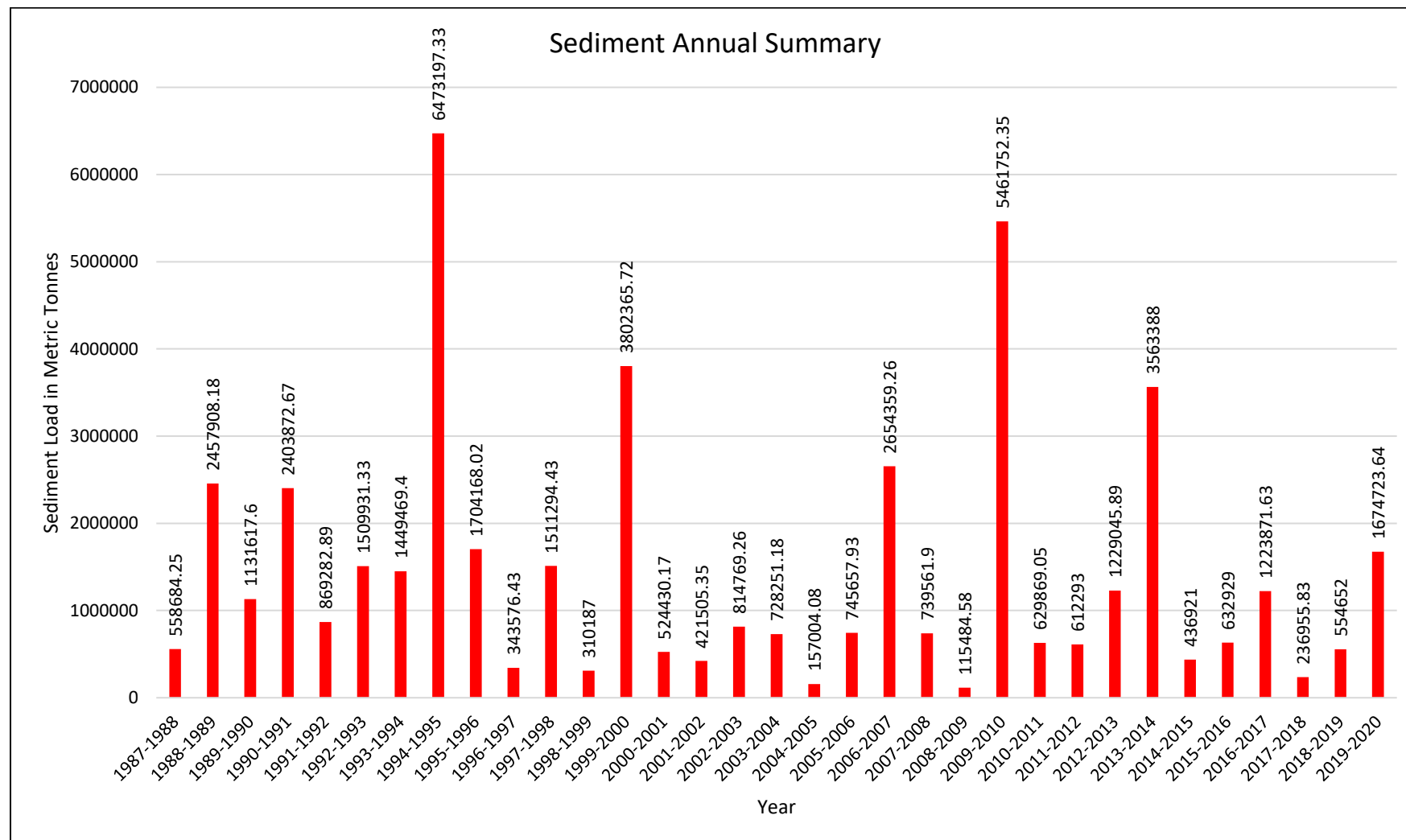
Sub-Division : MNSD-I, Hoshangabad

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	558684.25	0	558684.25	469.4
1988-1989	2457908.18	0	2457908.18	1489.96
1989-1990	1131617.6	0	1131617.6	1056.04
1990-1991	2403872.67	0	2403872.67	2143.98
1991-1992	869282.89	0	869282.89	694.18
1992-1993	1509931.33	0	1509931.33	1102.19
1993-1994	1449469.4	0	1449469.4	1357.02
1994-1995	6473197.33	0	6473197.33	2994.98
1995-1996	1704168.02	0	1704168.02	868.31
1996-1997	343576.43	0	343576.43	642.71
1997-1998	1511294.43	0	1511294.43	1064.63
1998-1999	310187	0	310187	768.64
1999-2000	3802365.72	0	3802365.72	3620.84
2000-2001	524430.17	0	524430.17	701.09
2001-2002	421505.35	0	421505.35	575.17
2002-2003	814769.26	0	814769.26	1193.79
2003-2004	728251.18	0	728251.18	1567.57
2004-2005	157004.08	0	157004.08	637.78
2005-2006	745497.82	160.11	745657.93	1411.11
2006-2007	2654320.91	38.34	2654359.26	2307.03
2007-2008	739549.33	12.56	739561.9	1627.42
2008-2009	115482.48	2.1	115484.58	788.83
2009-2010	5461673.61	78.74	5461752.35	2151.56
2010-2011	629850	19.05	629869.05	1314.56
2011-2012	612288	5	612293	1280
2012-2013	1228999.91	45.98	1229045.89	2214.79
2013-2014	3562927	462	3563388	2941
2014-2015	436903	18	436921	1066
2015-2016	632929	0	632929	1075
2016-2017	1223466.6	405.03	1223871.63	2542.2
2017-2018	236955.83	0	236955.83	803.74
2018-2019	554652	0	554652	907
2019-2020	1674404.8	318.84	1674723.64	1921.41
2020-2021	3158039.99	841.82	3158881.81	1476.8

Annual Sediment Load for period : 1987-2021

Station Name : Shakkar at Gadarwara (CW1NAU000391)
BhopalLocal River : Shakkar

Division :Narmada Division,
Sub-Div : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

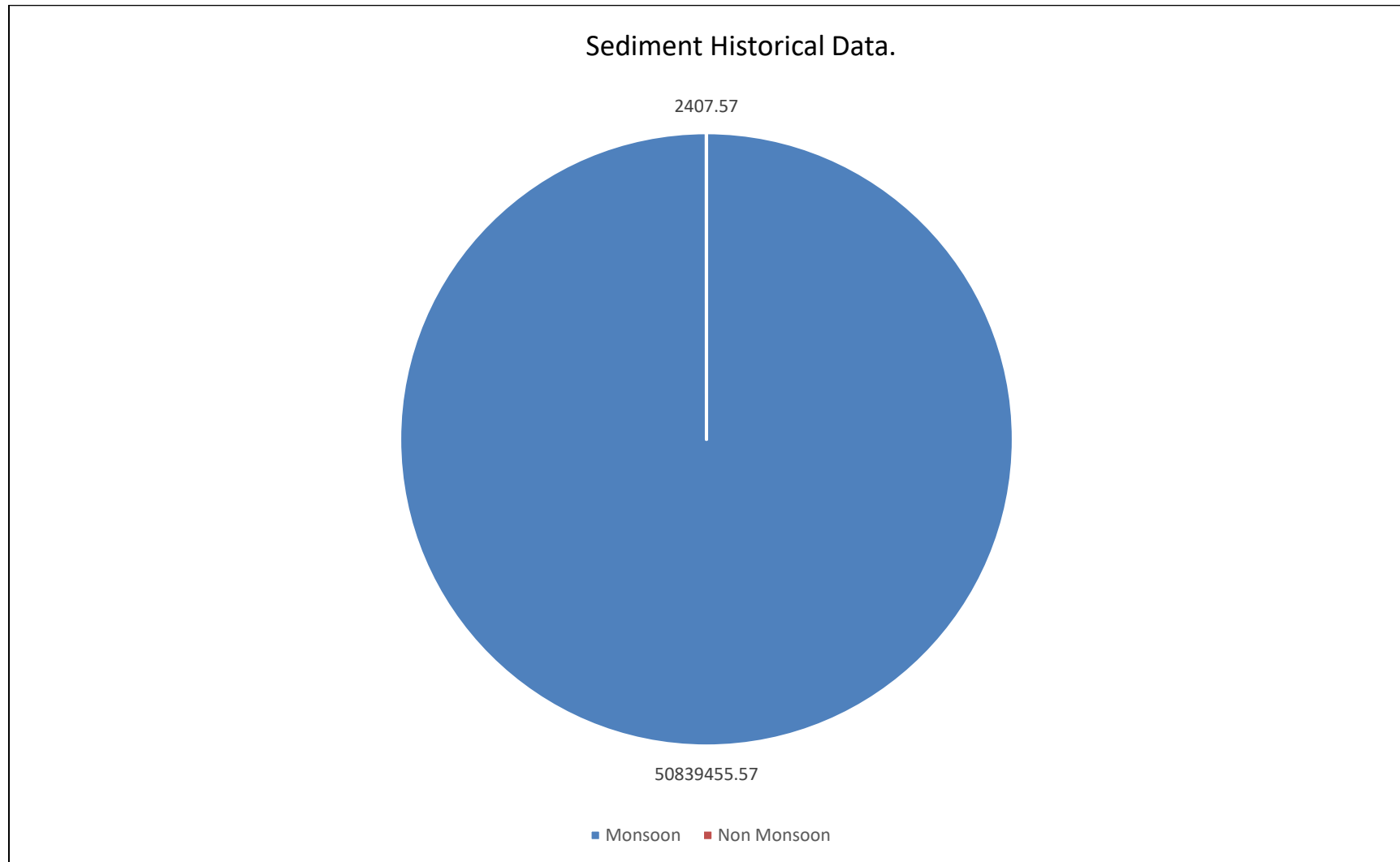
Seasonal Sediment Load for the period : 1987-2021

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Div : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

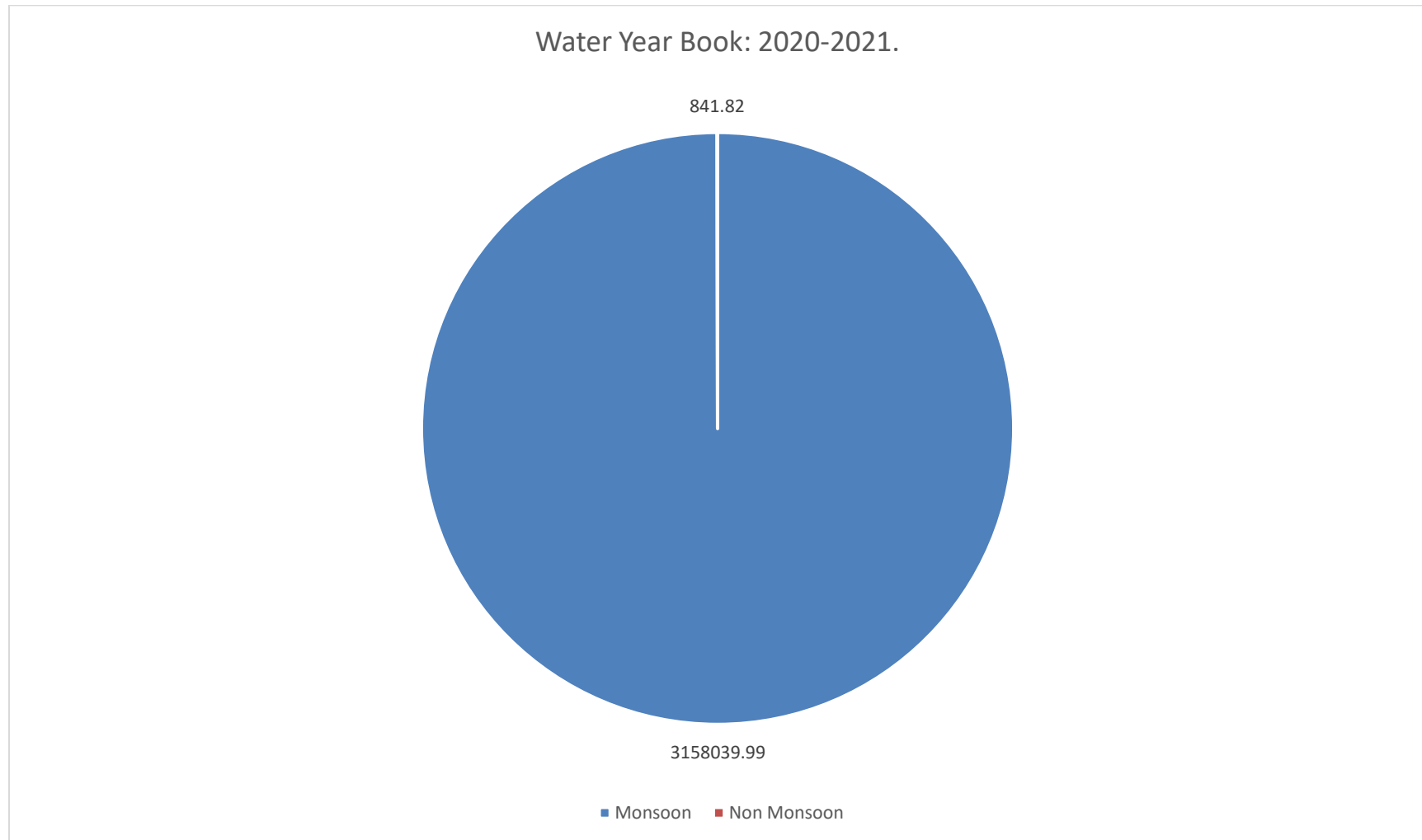
Seasonal Sediment Load for the period : 2020-21

Station Name : Shakkar at Gadarwara (CW1NAU000391)

Local River : Shakkar

Division : Narmada Division, Bhopal

Sub-Div : MNSD-I, Hoshangabad



4.8 Narmada at Barman

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Barmanghat		Code	:	CW1NAU000188	
State	:	Madhya Pradesh		District	:	HOSHANGABAD	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Middle Narmada Sub-Division-I, Hosangabad	
Drainage Area	:	26453.0 Sq. Km.		Bank	:	Right	
Latitude	:	23°10'50"		Longitude	:	79°00'55"	
Current Zero of Gauge (m)	:	306					
CATEGORY		Opening Date		Closing Date			
Gauge	:	09/12/1970					
Discharge	:	20/11/1971					
Sediment	:	27/08/1972					
Water Quality	:	01/06/1979					
Reduced Level		Opening Date		Closing Date			
306.0		01/03/2017					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	128	0	0	0.01	0.01	110.59	155	0	0	0.01	0.01	133.92	162	0	0	0.14	0.14	1945.56
2	104	0	0	0.01	0.01	89.86	170	0	0	0.07	0.07	1028.16	130	0	0	0.11	0.11	1246.75
3	82.3	0	0	0.01	0.01	71.11	203	0	0	0.1	0.1	1753.92	274	0	0	0.14	0.14	3432.67
4	95.8	0	0	0.01	0.01	82.77	173	0	0	0.06	0.06	896.83	228	0	0	0.12	0.12	2363.9
5	76.2	0	0	0.02	0.02	131.67	178	0	0	0.06	0.06	953.51	367	0	0	0.1	0.1	3170.88
6	63.1	0	0	0.02	0.02	109.04	156	0	0	0.27	0.27	3639.17	280	0	0	0.19	0.19	4499.71
7	80	0	0	0.03	0.03	172.8	168	0	0	0.22	0.22	3193.34	360	0	0	0.18	0.18	5754.24
8	66.8	0	0	0.02	0.02	115.43	165	0	0	0.1	0.1	1425.6	362	0	0	0.15	0.15	4691.52
9	76.8	0	0	0.02	0.02	132.71	208	0	0	0.07	0.07	1257.98	380	0	0	0.16	0.16	5154.62
10	68.9	0	0	0.01	0.01	59.53	265	0	0	0.06	0.06	1373.76	979	0	0	0.19	0.19	15732.92
11	106	0	0	0.01	0.01	91.58	286	0	0	0.06	0.06	1482.62	820	0	0	0.16	0.16	11264.83
12	110	0	0	0.01	0.01	95.04	225	0	0	0.05	0.05	913.68	511	0	0	0.11	0.11	4856.54
13	135	0	0	0.02	0.02	233.28	186	0	0	0.03	0.03	482.11	440	0	0	0.12	0.12	4561.92
14	110	0	0	0.02	0.02	152.06	173	0	0	0.03	0.03	448.42	390	0	0	0.2	0.2	6739.2
15	108	0	0	0.02	0.02	186.62	215	0	0	0.03	0.03	557.28	580	0	0	0.3	0.3	14883.26
16	130	0	0	0.02	0.02	224.64	222	0	0	0.04	0.04	767.23	430	0	0	0.22	0.22	8210.59
17	139	0	0	0.08	0.08	960.77	282	0	0	0.06	0.06	1461.89	445	0	0	0.23	0.23	8843.04
18	137	0	0	0.06	0.06	710.21	249	0	0	0.05	0.05	1075.68	2000	0	0	0.54	0.54	93312
19	127	0	0	0.05	0.05	548.64	179	0	0	0.04	0.04	556.76	3200	0	0	0.91	0.91	251596.8
20	122	0	0	0.03	0.03	316.22	230	0	0	0.06	0.06	1192.32	7640	0	0	0.9	0.9	596066.69
21	115	0	0	0.03	0.03	278.21	141	0	0	0.07	0.07	852.77	5920	0	0	0.69	0.69	351903.74
22	116	0	0	0.8	0.8	8017.92	120	0	0	0.11	0.11	1140.48	4060	0	0	0.49	0.49	171182.59
23	154	0	0	0.41	0.41	5455.3	271	0	0	0.11	0.11	2575.58	2360	0	0	0.7	0.7	142732.8
24	138	0	0	0.1	0.1	1192.32	227	0	0	0.09	0.09	1765.15	1800	0	0	0.41	0.41	63141.12
25	129	0	0	0.06	0.06	668.74	271	0	0	0.09	0.09	2107.3	1720	0	0	0.24	0.24	35368.7
26	116	0	0	0.05	0.05	501.12	240	0	0	0.08	0.08	1658.88	1540	0	0	0.18	0.18	24615.36
27	118	0	0	0.06	0.06	611.71	228	0	0	0.07	0.07	1378.94	990	0	0	0.09	0.09	7441.63
28	128	0	0	0.07	0.07	718.85	250	0	0	0.06	0.06	1296	4200	0	0	1.43	1.43	518555.52
29	140	0	0	0.04	0.04	483.84	262	0	0	0.07	0.07	1584.58	12040	0	0	1.57	1.57	1632161.66
30	149	0	0	0.04	0.04	514.94	304	0	0	0.18	0.18	4727.81	17020	0	0	2.13	2.13	3129283.58
31							222	0	0	0.19	0.19	3644.35	6280	0	0	1.01	1.01	548017.92
TenDaily I	84.19	0	0	0.02	0.02	107.55	184.1	0	0	0.1	0.1	1565.62	352.2	0	0	0.15	0.15	4799.28
TenDaily II	122.4	0	0	0.03	0.03	351.91	224.7	0	0	0.04	0.04	893.8	1645.6	0	0	0.37	0.37	100033.49
TenDaily III	130.3	0	0	0.17	0.17	1844.29	230.55	0	0	0.1	0.1	2066.53	5266.36	0	0	0.81	0.81	602218.6
Total	June					23037.52	July					47326.03	August					7672732.3

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	2420	0	0	1.19	1.19	248814.72	469	0	0	0.08	0.08	3241.73	120	0	0	0.03	0.03	321.41
2	1680	0	0	0.92	0.92	133539.84	390	0	0	0.07	0.07	2257.63	101	0	0	0.03	0.03	261.79
3	1640	0	0	0.74	0.74	104855.04	365	0	0	0.07	0.07	2207.52	90.6	0	0	0.03	0.03	234.84
4	1420	0	0	0.5	0.5	61344	330	0	0	0.06	0.06	1796.26	90.7	0	0	0.03	0.03	235.09
5	834	0	0	0.2	0.2	14411.52	283	0	0	0.07	0.07	1711.58	94.2	0	0	0.03	0.03	244.17
6	620	0	0	0.15	0.15	7981.63	271	0	0	0.06	0.06	1404.86	89.4	0	0	0.03	0.03	231.72
7	831	0	0	0.34	0.34	24411.46	289	0	0	0.06	0.06	1498.18	112	0	0	0.03	0.03	290.3
8	838	0	0	0.36	0.36	26065.15	288	0	0	0.05	0.05	1244.16	93.6	0	0	0.03	0.03	242.61
9	720	0	0	0.4	0.4	24883.2	460	0	0	0.04	0.04	1589.76	87.6	0	0	0.03	0.03	227.06
10	630	0	0	0.18	0.18	9797.76	542	0	0	0.06	0.06	2809.73	90.8	0	0	0.03	0.03	235.35
11	674	0	0	0.19	0.19	11239.08	548	0	0	0.06	0.06	2840.83	79.9	0	0	0.26	0.26	1794.87
12	656	0	0	0.09	0.09	5101.06	552	0	0	0.05	0.05	2384.64	159	0	0	0.03	0.03	412.13
13	420	0	0	0.06	0.06	2104.7	550	0	0	0.05	0.05	2376	133	0	0	0.03	0.03	344.74
14	730	0	0	0.07	0.07	4415.04	536	0	0	0.05	0.05	2315.52	130	0	0	0.03	0.03	336.96
15	453	0	0	0.06	0.06	2348.35	505	0	0	0.09	0.09	3926.88	120	0	0	0.03	0.03	311.04
16	428	0	0	0.06	0.06	2218.75	356	0	0	0.07	0.07	2153.09	115	0	0	0.03	0.03	298.08
17	436	0	0	0.11	0.11	4143.74	315	0	0	0.06	0.06	1632.96	131	0	0	0.03	0.03	339.55
18	440	0	0	0.12	0.12	4561.92	350	0	0	0.07	0.07	2026.08	98.6	0	0	0.03	0.03	255.57
19	663	0	0	0.11	0.11	6301.15	375	0	0	0.06	0.06	1944	109	0	0	0.03	0.03	282.53
20	680	0	0	0.11	0.11	6638.98	368	0	0	0.05	0.05	1589.76	108	0	0	0.02	0.02	186.62
21	503	0	0	0.07	0.07	3042.14	349	0	0	0.05	0.05	1507.68	122	0	0	0.02	0.02	210.82
22	493	0	0	0.12	0.12	5111.42	346	0	0	0.04	0.04	1195.78	110	0	0	0.02	0.02	190.08
23	465	0	0	0.16	0.16	6428.16	338	0	0	0.04	0.04	1168.13	105	0	0	0.02	0.02	181.44
24	1340	0	0	0.14	0.14	16208.64	330	0	0	0.03	0.03	855.36	99.8	0	0	0.02	0.02	172.45
25	1160	0	0	0.12	0.12	12026.88	328	0	0	0.03	0.03	850.18	106	0	0	0.02	0.02	183.17
26	1240	0	0	0.2	0.2	21427.2	329	0	0	0.03	0.03	852.77	104	0	0	0.02	0.02	179.71
27	880	0	0	0.14	0.14	10796.54	185	0	0	0.04	0.04	639.36	111	0	0	0.02	0.02	191.81
28	735	0	0	0.11	0.11	6985.44	174	0	0	0.04	0.04	601.34	75.5	0	0	0.02	0.02	130.46
29	475	0	0	0.1	0.1	4104	145	0	0	0.04	0.04	501.12	73	0	0	0.02	0.02	126.14
30	482	0	0	0.08	0.08	3331.58	14	0	0	0.04	0.04	47.17	82.4	0	0	0.02	0.02	142.39
31							118	0	0	0.03	0.03	305.86						
TenDaily I	1163.3	0	0	0.5	0.5	65610.43	368.7	0	0	0.06	0.06	1976.14	96.99	0	0	0.03	0.03	252.43
TenDaily II	558	0	0	0.1	0.1	4907.28	445.5	0	0	0.06	0.06	2318.98	118.35	0	0	0.05	0.05	456.21
TenDaily III	777.3	0	0	0.12	0.12	8946.2	241.45	0	0	0.04	0.04	774.98	98.87	0	0	0.02	0.02	170.85
Total	September					794639.12	October					51475.91	November					8794.92

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	87.3	0	0	0.02	0.02	173.48	110	0	0	0.02	0.02	190.08	106	0	0	0.01	0.01	91.58
2	90.5	0	0	0.02	0.02	156.38	158	0	0	0.03	0.03	409.54	108	0	0	0.01	0.01	93.31
3	95.1	0	0	0.03	0.03	246.5	130	0	0	0.02	0.02	224.64	116	0	0	0.01	0.01	100.22
4	93.5	0	0	0.02	0.02	161.57	128	0	0	0.01	0.01	110.59	114	0	0	0.01	0.01	98.5
5	108	0	0	0.03	0.03	279.94	129	0	0	0.01	0.01	111.46	113	0	0	0.01	0.01	97.63
6	103	0	0	0.03	0.03	266.98	126	0	0	0.01	0.01	108.86	134	0	0	0.01	0.01	115.78
7	106	0	0	0.02	0.02	183.17	116	0	0	0.01	0.01	100.22	120	0	0	0.01	0.01	103.68
8	110	0	0	0.02	0.02	190.08	108	0	0	0.01	0.01	93.31	148	0	0	0.01	0.01	179.02
9	78.6	0	0	0.01	0.01	67.91	106	0	0	0.01	0.01	91.58	166	0	0	0.01	0.01	143.42
10	77.4	0	0	0.01	0.01	66.87	107	0	0	0.01	0.01	92.45	136	0	0	0.01	0.01	117.5
11	118	0	0	0.02	0.02	203.9	112	0	0	0.01	0.01	96.77	113	0	0	0.01	0.01	97.63
12	106	0	0	0.02	0.02	183.17	110	0	0	0.01	0.01	95.04	103	0	0	0.01	0.01	88.99
13	60	0	0	0.01	0.01	51.84	111	0	0	0.01	0.01	95.9	80.5	0	0	0.01	0.01	69.55
14	103	0	0	0.02	0.02	177.98	108	0	0	0.01	0.01	93.31	73	0	0	0.01	0.01	63.07
15	80.4	0	0	0.02	0.02	138.93	105	0	0	0.01	0.01	90.72	75.4	0	0	0.01	0.01	65.15
16	92.3	0	0	0.02	0.02	159.49	108	0	0	0.01	0.01	93.31	112	0	0	0.02	0.02	193.54
17	106	0	0	0.02	0.02	183.17	106	0	0	0.01	0.01	91.58	111	0	0	0.02	0.02	191.81
18	101	0	0	0.02	0.02	174.53	109	0	0	0.01	0.01	94.18	105	0	0	0.01	0.01	90.72
19	108	0	0	0.02	0.02	186.62	107	0	0	0.01	0.01	92.45	85.5	0	0	0.01	0.01	73.87
20	110	0	0	0.02	0.02	190.08	115	0	0	0.01	0.01	99.36	119	0	0	0.02	0.02	205.63
21	107	0	0	0.02	0.02	184.9	113	0	0	0.01	0.01	97.63	116	0	0	0.02	0.02	200.45
22	96.5	0	0	0.02	0.02	166.75	109	0	0	0.01	0.01	94.18	111	0	0	0.01	0.01	95.9
23	109	0	0	0.02	0.02	188.35	111	0	0	0.01	0.01	95.9	78.2	0	0	0.01	0.01	67.56
24	105	0	0	0.02	0.02	181.44	110	0	0	0.01	0.01	95.04	73.9	0	0	0.01	0.01	63.85
25	103	0	0	0.02	0.02	177.98	108	0	0	0.01	0.01	93.31	106	0	0	0.01	0.01	91.58
26	112	0	0	0.02	0.02	193.54	110	0	0	0.01	0.01	95.04	79.2	0	0	0.01	0.01	68.43
27	95	0	0	0.02	0.02	164.16	106	0	0	0.01	0.01	91.58	50.3	0	0	0	0	0
28	108	0	0	0.02	0.02	186.62	108	0	0	0.01	0.01	93.31	38	0	0	0	0	0
29	82.6	0	0	0.02	0.02	142.73	109	0	0	0.01	0.01	94.18						
30	107	0	0	0.02	0.02	184.9	105	0	0	0.01	0.01	90.72						
31	104	0	0	0.02	0.02	179.71	103	0	0	0.01	0.01	88.99						
TenDaily I	94.94	0	0	0.02	0.02	179.29	121.8	0	0	0.01	0.01	153.27	126.1	0	0	0.01	0.01	114.07
TenDaily II	98.47	0	0	0.02	0.02	164.97	109.1	0	0	0.01	0.01	94.26	97.74	0	0	0.01	0.01	114
TenDaily III	102.65	0	0	0.02	0.02	177.37	108.36	0	0	0.01	0.01	93.63	81.57	0	0	0.01	0.01	73.47
Total	December					5393.68	January					3505.25	February					2868.39

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	102	0	0	0.01	0.01	88.13	52.5	0	0	0.01	0.01	49.9	108	0	0	0.01	0.01	93.31
2	96.1	0	0	0.01	0.01	83.03	51.1	0	0	0.01	0.01	44.15	108	0	0	0.01	0.01	93.31
3	88.1	0	0	0.01	0.01	76.12	39.2	0	0	0.01	0.01	33.87	109	0	0	0.01	0.01	94.18
4	81.1	0	0	0.01	0.01	70.07	43.2	0	0	0.01	0.01	37.32	109	0	0	0.01	0.01	94.18
5	91.2	0	0	0.01	0.01	78.8	50.6	0	0	0.01	0.01	43.72	109	0	0	0.01	0.01	94.18
6	128	0	0	0.01	0.01	110.59	54.1	0	0	0.01	0.01	46.74	109	0	0	0.01	0.01	94.18
7	113	0	0	0.01	0.01	97.63	50.8	0	0	0.01	0.01	43.89	110	0	0	0.01	0.01	95.04
8	117	0	0	0.01	0.01	101.09	54.9	0	0	0.01	0.01	47.43	112	0	0	0.01	0.01	96.77
9	109	0	0	0.01	0.01	94.18	50.1	0	0	0.01	0.01	43.29	111	0	0	0.01	0.01	95.9
10	77.2	0	0	0.01	0.01	66.7	54.6	0	0	0.01	0.01	47.17	112	0	0	0.01	0.01	96.77
11	60.2	0	0	0.01	0.01	52.01	51.9	0	0	0.01	0.01	44.84	112	0	0	0.01	0.01	96.77
12	52.9	0	0	0.01	0.01	45.71	52.6	0	0	0.01	0.01	45.45	114	0	0	0.01	0.01	98.5
13	77.5	0	0	0.01	0.01	66.96	51.7	0	0	0.01	0.01	44.67	114	0	0	0.01	0.01	98.5
14	55	0	0	0.01	0.01	47.52	54.6	0	0	0.01	0.01	47.17	114	0	0	0.01	0.01	98.5
15	51.1	0	0	0.01	0.01	44.15	54	0	0	0.01	0.01	46.66	113	0	0	0.01	0.01	97.63
16	127	0	0	0.01	0.01	109.73	49.2	0	0	0.01	0.01	42.51	113	0	0	0.01	0.01	97.63
17	105	0	0	0.01	0.01	90.72	51.8	0	0	0.01	0.01	44.76	114	0	0	0.01	0.01	98.5
18	60.2	0	0	0.01	0.01	52.01	54.6	0	0	0.01	0.01	47.17	114	0	0	0.01	0.01	98.5
19	65	0	0	0	0	0	54.7	0	0	0.01	0.01	47.26	116	0	0	0.01	0.01	100.22
20	51.5	0	0	0.01	0.01	44.5	53.1	0	0	0.01	0.01	45.88	116	0	0	0.01	0.01	100.22
21	51	0	0	0	0	0	55	0	0	0.01	0.01	47.52	116	0	0	0.01	0.01	100.22
22	57.2	0	0	0.01	0.01	49.42	85	0	0	0.02	0.02	146.88	117	0	0	0.01	0.01	101.09
23	47.3	0	0	0.02	0.02	81.73	104	0	0	0.02	0.02	179.71	117	0	0	0.01	0.01	101.09
24	39.4	0	0	0.02	0.02	68.08	107	0	0	0.02	0.02	184.9	118	0	0	0.01	0.01	101.95
25	55.2	0	0	0.01	0.01	47.69	96	0	0	0.02	0.02	165.89	117	0	0	0.01	0.01	101.09
26	54.1	0	0	0.01	0.01	46.74	103	0	0	0.01	0.01	88.99	116	0	0	0.01	0.01	100.22
27	54.3	0	0	0.01	0.01	46.92	114	0	0	0.01	0.01	98.5	118	0	0	0.01	0.01	101.95
28	51.8	0	0	0.01	0.01	44.76	115	0	0	0.01	0.01	99.36	118	0	0	0.01	0.01	101.95
29	58.3	0	0	0.01	0.01	50.37	109	0	0	0.01	0.01	94.18	118	0	0	0.01	0.01	101.95
30	46.7	0	0	0.01	0.01	40.35	108	0	0	0.01	0.01	93.31	118	0	0	0.01	0.01	101.95
31	60.3	0	0	0.01	0.01	52.1							117	0	0	0.01	0.01	101.09
TenDaily I	100.27	0	0	0.01	0.01	86.63	50.11	0	0	0.01	0.01	43.75	109.7	0	0	0.01	0.01	94.78
TenDaily II	70.54	0	0	0.01	0.01	55.33	52.82	0	0	0.01	0.01	45.64	114	0	0	0.01	0.01	98.5
TenDaily III	52.33	0	0	0.01	0.01	48.01	99.6	0	0	0.01	0.01	119.92	117.27	0	0	0.01	0.01	101.32
Total	March					1947.8	April					2093.08						3047.33

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Barman (CW1NAU000188) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division: MNSD-I, Hoshangabad

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	4381713.26	0	4381713.26	7218.11
1988-1989	8267376.12	0	8267376.12	12306.84
1989-1990	1419707.17	0	1419707.17	3539.78
1990-1991	20391794.48	0	20391794.48	16171.23
1991-1992	16865568.65	0	16865568.65	12532.34
1992-1993	9827989.92	0	9827989.92	8121.38
1993-1994	7409792.47	0	7409792.47	8252.5
1994-1995	60655648.9	0	60655648.9	26240.7
1995-1996	13038553.8	0	13038553.8	10345.6
1996-1997	733589.54	0	733589.54	4254.21
1997-1998	6005110.89	0	6005110.89	8409.89
1998-1999	1253537.41	0	1253537.41	6845.88
1999-2000	12801168.91	0	12801168.91	20564.29
2000-2001	1591161.9	0	1591161.9	6223.5
2001-2002	2438049.9	0	2438049.9	10661.06
2002-2003	8769326.44	0	8769326.44	6764.87
2003-2004	9592151.93	0	9592151.93	14842.88
2004-2005	2583377.56	0	2583377.56	8770.91
2005-2006	15179014.84	79829.98	15258844.82	21037.63
2006-2007	3190311.39	40541.34	3230852.72	9267.54
2007-2008	1070163.99	77034.66	1147198.65	6153.63
2008-2009	2081124.18	58625.3	2139749.48	8569.49
2009-2010	18820922.04	78878	18899800.04	5717.65
2010-2011	1663068.17	160331.96	1823400.13	7788.37
2011-2012	11067511	122367	11189878	25203
2012-2013	1576090.85	35014.79	1611105.63	10312.87
2013-2014	338236903	74412	338311315	38710
2014-2015	13947824	91716	14039540	12492
2015-2016	5170582	37221	5207803	12457
2016-2017	8001661.45	39094.35	8040755.8	11706.22
2017-2018	609270.82	25589.58	634860.4	2933.71
2018-2019	410212	22702	432914	8511
2019-2020	8241441.8	33771.86	8275213.66	18604.27
2020-2021	8598005.8	18855.54	8616861.34	12451.81

Sediment Data Year Book 2020-21

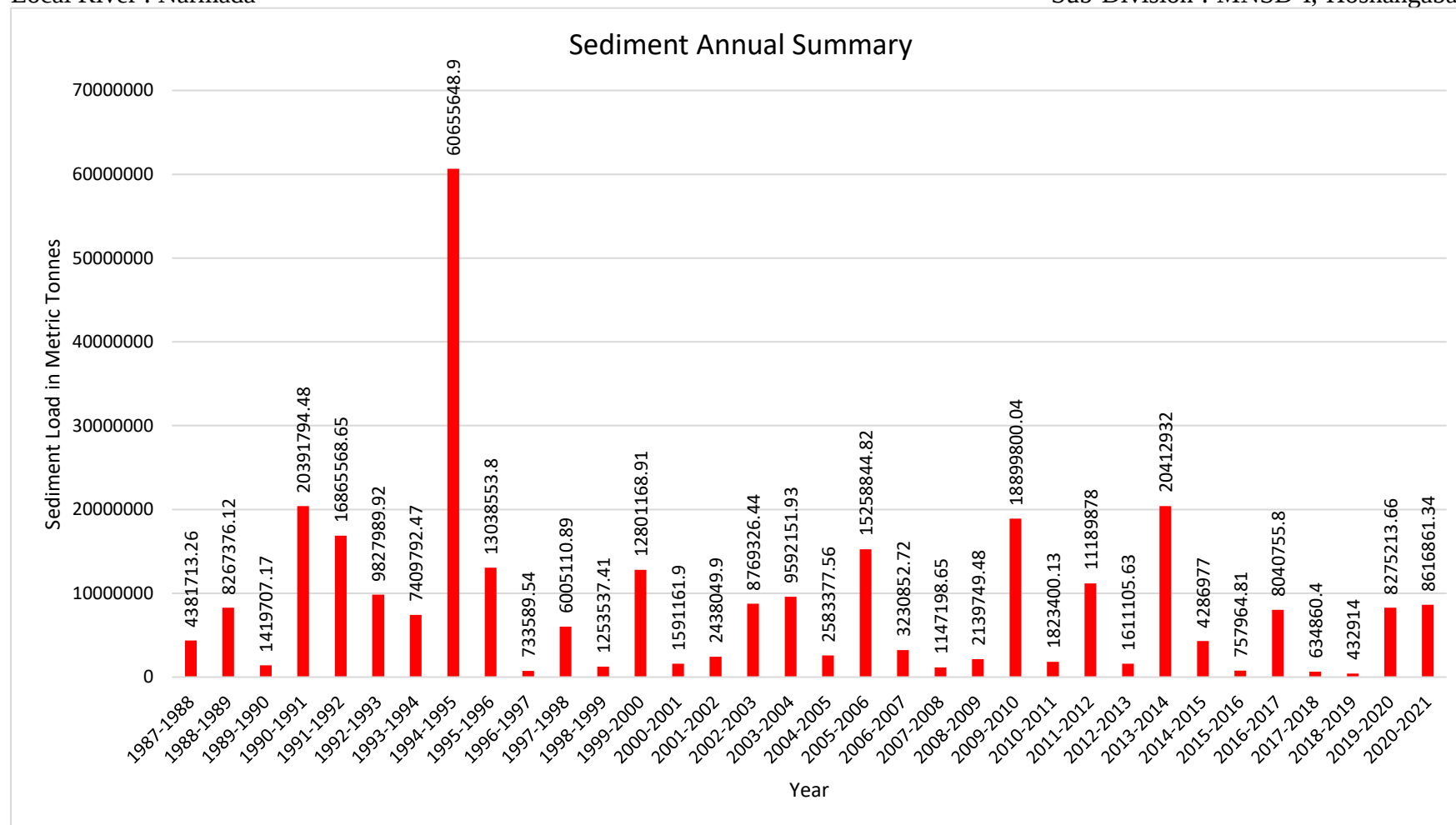
Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

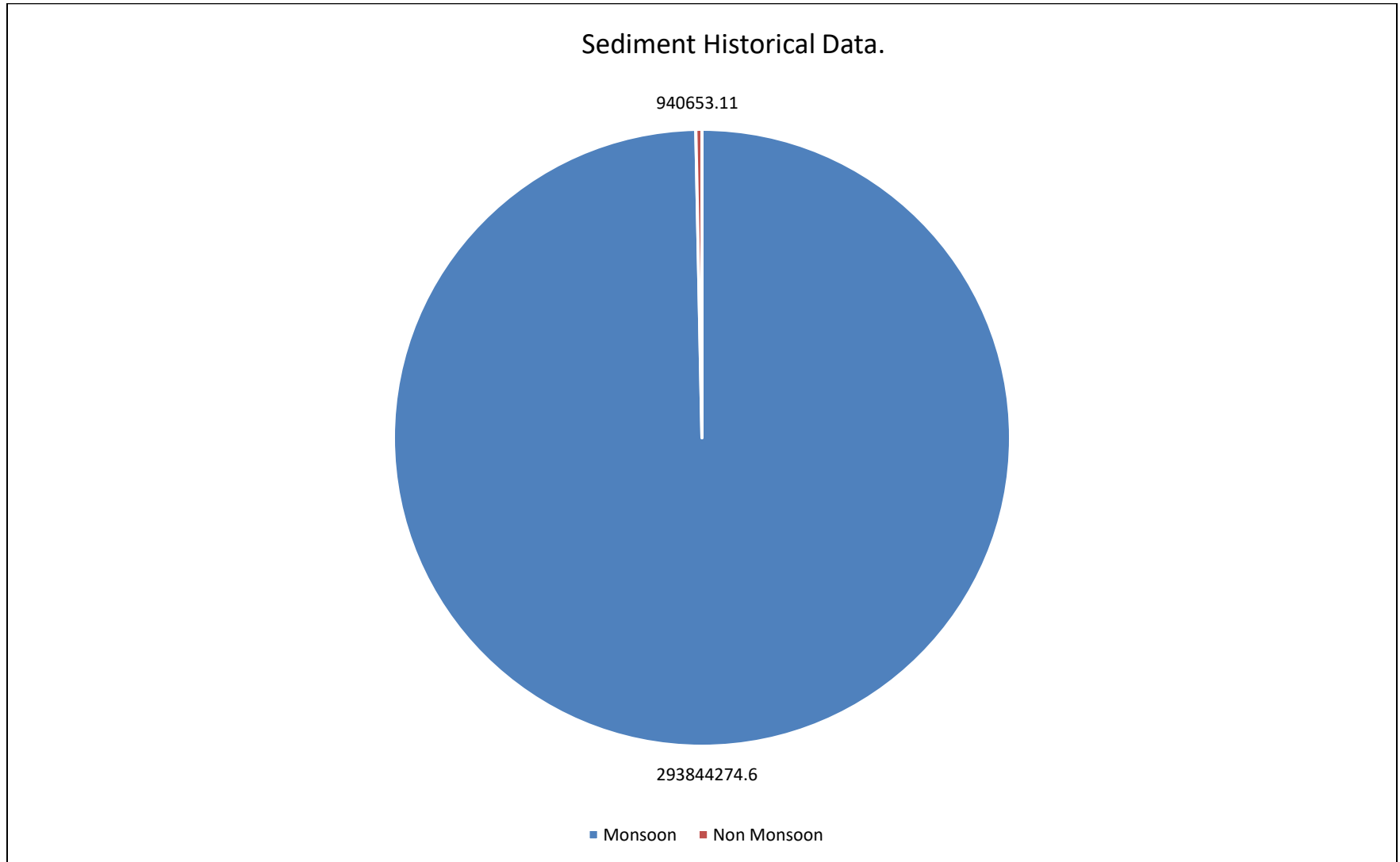
Seasonal Sediment Load for period : 1987-2021

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2020-21

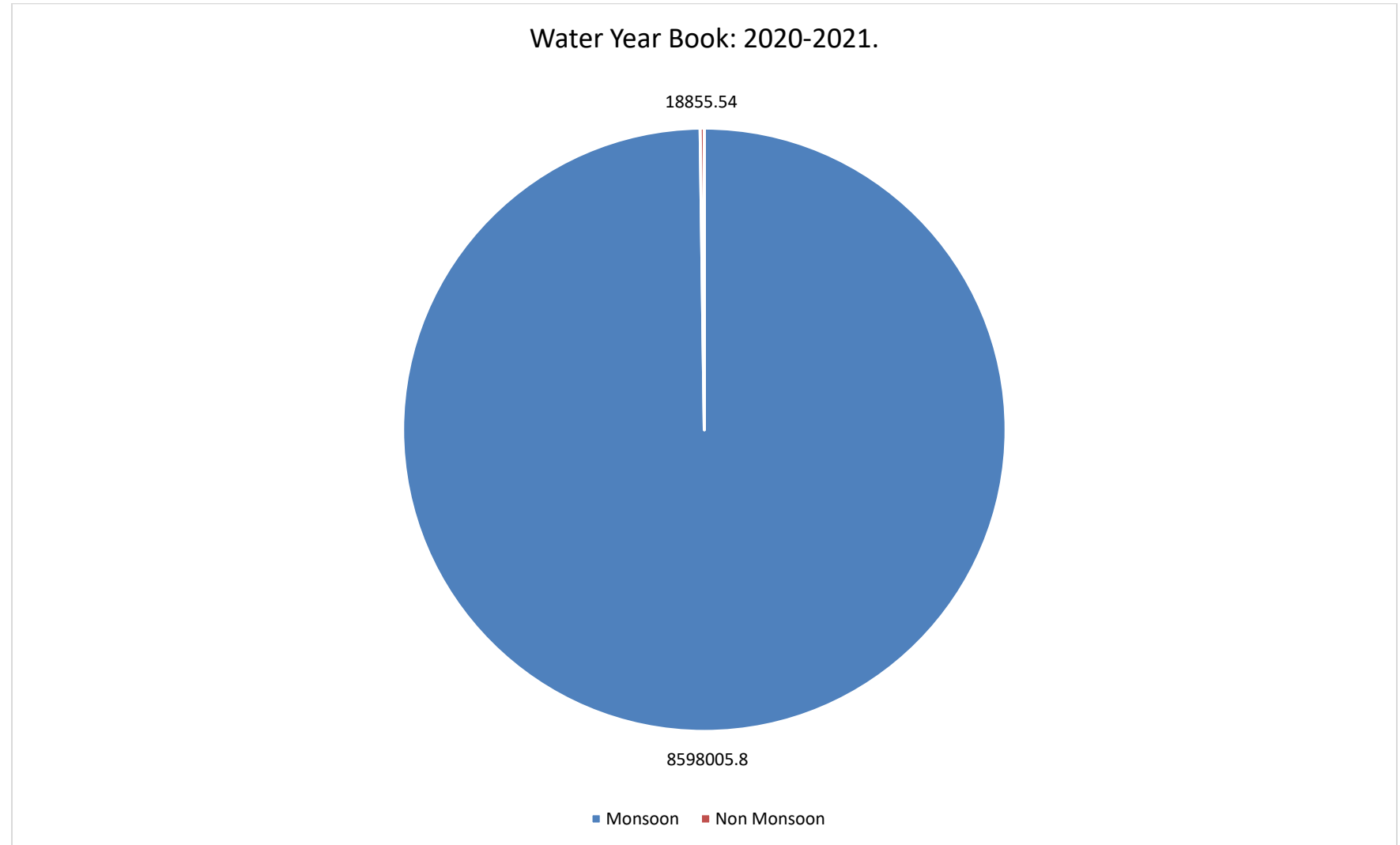
Seasonal Sediment Load for period : 1987-2021

Station Name : Narmada at Barman (CW1NAU000188)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



4.9 Banjar at Bamni

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Bamni		Code	:	CW1NAU000781	
State	:	Madhya Pradesh		District	:	MANDLA	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Banjar	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Upper Narmada Sub-Division, Jabalpur	
Drainage Area	:	1864.0 Sq. Km.		Bank	:	Left	
Latitude	:	22°36'15"		Longitude	:	80°21'43"	
Current Zero of Gauge (m)	:	436					
CATEGORY		Opening Date		Closing Date			
Gauge	:	20/06/1999					
Discharge	:	30/11/1999					
Sediment	:	01/07/2002					
Water Quality	:	01/07/2002					
Reduced Level		Opening Date		Closing Date			
440.0		03/06/2014					
436.0				-			

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0	0	0		0	0	12.16	0	0	0.09	0.09	94.56	22.9	0	0		0	0
2	0	0	0		0	0	7.43	0	0	0.06	0.06	35.33	18.95	0	0		0	0
3	0	0	0		0	0	10.95	0	0	0.08	0.08	76.63	23.06	0	0	0.15	0.15	298.86
4	0	0	0		0	0	6.71	0	0	0.05	0.05	29	79.03	0.04	0.04	0.28	0.36	2458.15
5	0	0	0		0	0	7.2	0	0	0.05	0.05	32.97	50.5	0	0	0.15	0.15	654.48
6	0	0	0		0	0	33.24	0	0	0.12	0.12	344.63	37.35	0	0	0.14	0.14	451.79
7	0	0	0		0	0	154.6	0.05	0.05	0.19	0.29	3873.66	38.91	0	0	0.02	0.02	67.24
8	0	0	0		0	0	35.31	0	0	0.27	0.27	823.71	42.22	0	0	0.22	0.22	802.52
9	0	0	0		0	0	19.91	0	0	0.18	0.18	309.64	42.16	0	0	0.22	0.22	801.38
10	0	0	0		0	0	17.13	0	0	0.11	0.11	162.8	111.4	0.04	0.04	0.28	0.36	3464.99
11	0	0	0		0	0	26.91	0	0	0.13	0.13	302.25	150.2	0.05	0.05	0.38	0.48	6229.09
12	0	0	0		0	0	43.42	0	0	0.21	0.21	787.81	202.9	0.05	0.05	0.41	0.51	8940.59
13	0	0	0		0	0	51.52	0	0	0.24	0.24	1068.32	485.2	0.05	0.05	0.47	0.57	23895.13
14	0	0	0		0	0	36.11	0	0	0.06	0.06	187.19	507.9	0.06	0.06	0.49	0.61	26768.36
15	0	0	0		0	0	73.89	0.04	0.04	0.13	0.21	1340.66	507.9	0.06	0.06	0.49	0.61	26768.36
16	0	0	0		0	0	45.91	0	0	0.19	0.19	753.66	420	0.05	0.05	0.41	0.50	18304.76
17	0	0	0		0	0	44.19	0	0	0.1	0.1	381.8	1714.5	0.07	0.07	0.64	0.78	115543.58
18	12.37	0	0	0.06	0.06	64.13	38.73	0	0	0.15	0.15	501.94	1384.8	0.07	0.07	0.62	0.76	90931.51
19	8.35	0	0	0.04	0.04	28.85	32	0	0	0.12	0.12	342.84	1095.8	0.06	0.06	0.61	0.73	69114.3
20	11.84	0	0	0.04	0.04	40.92	19.19	0	0	0.15	0.15	248.7	350.3	0.06	0.06	0.6	0.72	21791.46
21	7.8	0	0	0.03	0.03	17.52	18.83	0	0	0.04	0.04	65.08	265.3	0.05	0.05	0.34	0.44	10085.64
22	7.94	0	0	0.03	0.03	18.52	30.54	0	0	0.15	0.15	395.8	428.6	0.06	0.06	0.6	0.72	26662.35
23	18.16	0	0	0.07	0.07	109.83	22.94	0	0	0.13	0.13	257.66	280.4	0.04	0.04	0.39	0.47	11386.48
24	11.96	0	0	0.09	0.09	93	23.41	0	0	0.12	0.12	242.71	263.3	0.05	0.05	0.34	0.44	10009.61
25	8.31	0	0	0.06	0.06	43.09	24.18	0	0	0.2	0.2	417.83	216.9	0.05	0.05	0.09	0.19	3560.63
26	8.09	0	0	0.06	0.06	41.95	35.5	0	0	0.29	0.29	901.76	152.4	0.04	0.05	0.09	0.18	2370.12
27	8.39	0	0	0.06	0.06	43.51	23.33	0	0	0.11	0.11	221.73	126.6	0.04	0.04	0.34	0.42	4594.06
28	7.42	0	0	0.06	0.06	38.47	22.28	0	0	0.14	0.14	269.5	501.6	0.06	0.06	0.46	0.58	25136.18
29	9.4	0	0	0.07	0.07	56.88	20.24	0	0	0.14	0.14	244.82	2094.6	0.07	0.07	0.65	0.79	142969.02
30	5.18	0	0	0.04	0.04	17.92	20.96	0	0	0.13	0.13	235.42	785.5	0.03	0.03	0.24	0.30	20106.30
31							36.26	0	0	0.28	0.28	877.2	482.7	0.05	0.05	0.45	0.55	22937.9
TenDaily I	0	0	0	0	0	0	30.46	0.01	0.01	0.12	0.13	578.29	46.65	0.01	0.01	0.15	0.16	899.94
TenDaily II	3.26	0	0	0.01	0.01	13.39	41.19	0	0	0.15	0.16	591.52	574.14	0.04	0.04	0.38	0.46	35698.49
TenDaily III	9.27	0	0	0.06	0.06	48.07	25.32	0	0	0.16	0.16	375.41	412	0.04	0.04	0.31	0.39	22575.05
Total	June					614.58	July					15827.63	August					614309.84

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	281.1	0.05	0.05	0.36	0.46	11172.04	113.1	0.03	0.04	0.32	0.39	3811.02	19.02	0	0	0.04	0.04	65.73
2	220.3	0.05	0.05	0.34	0.44	8374.92	112.8	0.03	0.04	0.32	0.39	3800.91	16.85	0	0	0.04	0.04	58.23
3	206.6	0.05	0.05	0.34	0.44	7854.11	106.4	0.03	0.03	0.32	0.38	3493.32	16.85	0	0	0.04	0.04	58.23
4	203.5	0.05	0.05	0.34	0.44	7736.26	83.05	0.02	0.02	0.25	0.3	2123.95	14.68	0	0	0.03	0.03	38.05
5	263.1	0.05	0.05	0.34	0.44	10002.01	76.42	0.03	0.03	0.29	0.35	2310.94	14.68	0	0	0.03	0.03	38.05
6	223.5	0.04	0.04	0.29	0.37	7202.78	135	0.04	0.04	0.33	0.41	4782.24	12.51	0	0	0.03	0.03	32.43
7	156.6	0.04	0.04	0.34	0.42	5682.7	142.5	0.04	0.04	0.33	0.41	5047.92	10.36	0	0	0.02	0.02	17.9
8	143.1	0.04	0.04	0.33	0.41	5069.17	224.6	0.04	0.04	0.33	0.41	7956.23	10	0	0	0.02	0.02	17.28
9	136.8	0.04	0.04	0.33	0.41	4846	222.7	0.04	0.04	0.33	0.41	7888.92	9.25	0	0	0.02	0.02	15.98
10	207.6	0.05	0.05	0.34	0.44	7892.12	209.6	0.04	0.04	0.32	0.4	7243.78	9.25	0	0	0.02	0.02	15.98
11	221	0.05	0.05	0.34	0.44	8401.54	180	0.03	0.03	0.28	0.34	5334.34	8.5	0	0	0.02	0.02	14.69
12	206	0.05	0.05	0.34	0.44	7831.3	138.2	0.03	0.34	0.25	0.62	7403.1	7.75	0	0	0.02	0.02	13.39
13	203.9	0.05	0.05	0.34	0.44	7672.44	115.3	0.03	0.03	0.25	0.31	3088.2	7.35	0	0	0.02	0.02	12.71
14	156.1	0.04	0.05	0.34	0.43	5799.43	112.1	0.03	0.03	0.24	0.3	2905.63	7.35	0	0	0.02	0.02	12.7
15	139.6	0.04	0.04	0.34	0.42	5065.8	102.2	0.03	0.03	0.23	0.29	2560.72	7	0	0	0.01	0.01	6.05
16	116.7	0.04	0.04	0.33	0.41	4133.98	79.32	0.03	0.03	0.23	0.29	1987.44	7	0	0	0.01	0.01	6.05
17	113.3	0.04	0.04	0.33	0.41	4013.54	74.78	0.03	0.03	0.22	0.28	1809.08	6.7	0	0	0.01	0.01	5.79
18	112	0.04	0.04	0.33	0.41	3967.49	79.32	0.03	0.03	0.23	0.30	2035.41	6.7	0	0	0.01	0.01	5.79
19	219.8	0.04	0.05	0.34	0.43	8166.01	37.02	0	0	0.07	0.07	223.9	6.7	0	0	0.01	0.01	5.79
20	207.8	0.04	0.05	0.32	0.41	7289.29	35.77	0	0	0.06	0.06	185.43	6.5	0	0	0.01	0.01	5.62
21	205.5	0.41	0.42	0.42	1.25	22194	33.59	0	0	0.06	0.06	174.13	6.48	0	0	0.01	0.01	5.6
22	272.6	0.05	0.05	0.34	0.44	10363.16	32.94	0	0	0.06	0.06	170.76	6.25	0	0	0.01	0.01	5.4
23	222.8	0.04	0.05	0.34	0.43	8277.47	26.19	0	0	0.06	0.06	135.77	6.25	0	0	0.01	0.01	5.4
24	282.5	0.05	0.05	0.34	0.44	10739.52	25.85	0	0	0.05	0.05	111.67	6	0	0	0.01	0.01	5.18
25	272.4	0.04	0.05	0.34	0.43	10120.2	24.95	0.00	0.00	0.05	0.05	104.03	6	0	0	0.01	0.01	5.18
26	262	0.04	0.04	0.33	0.41	9281.09	24.54	0	0	0.05	0.05	106.01	5.8	0	0	0.01	0.01	5.01
27	206	0.03	0.03	0.26	0.32	5713.29	23.63	0	0	0.05	0.05	102.08	5.6	0	0	0.01	0.01	4.84
28	150.7	0.04	0.04	0.33	0.41	5338.4	20.16	0	0	0.05	0.05	87.09	5.45	0	0	0.01	0.01	4.71
29	132.1	0.04	0.04	0.33	0.41	4679.51	20.05	0	0	0.05	0.05	86.62	5.45	0	0	0.01	0.01	4.71
30	126	0.04	0.04	0.32	0.4	4354.56	19.8	0	0	0.05	0.05	83.83	5.2	0	0	0.01	0.01	4.49
31							19.02	0	0	0.04	0.04	65.73						
TenDaily I	204.22	0.05	0.05	0.33	0.43	7583.21	142.62	0.03	0.04	0.31	0.38	4845.92	13.34	0	0	0.03	0.03	35.79
TenDaily II	149.23	0.04	0.04	0.3	0.38	5466.84	87.47	0.02	0.05	0.18	0.26	2549.78	7.16	0	0	0.01	0.01	8.86
TenDaily III	213.26	0.08	0.08	0.33	0.49	9106.12	22.34	0	0	0.05	0.05	102.15	5.85	0	0	0.01	0.01	5.05
Total	September					221561.68	October					75080.76	November					496.98

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.2	0	0	0.01	0.01	4.49	2.4	0	0	0.01	0.01	1.04	0.8					
2	5	0	0	0.01	0.01	4.32	2.12	0	0	0	0	0.73	0.8					
3	5	0	0	0.01	0.01	4.32	1.9	0	0	0	0	0.66	0.8					
4	4.75	0	0	0.01	0.01	4.1	1.9	0	0	0	0	0.66	0.78					
5	4.46	0	0	0.01	0.01	3.85	1.9	0	0	0	0	0.66	0.78					
6	4.3	0	0	0.01	0.01	3.72	1.7	0	0	0	0	0.59	0.78					
7	4.3	0	0	0.01	0.01	3.72	1.7	0	0	0	0	0.59	0.75					
8	4.15	0	0	0.01	0.01	3.59	1.7	0	0	0	0	0.59	0.75					
9	4.15	0	0	0.01	0.01	3.59	1.5	0	0	0	0	0.39	0.75					
10	4	0	0	0.01	0.01	3.46	1.5	0	0	0	0	0.39	0.74					
11	3.88	0	0	0.01	0.01	3.35	1.5	0	0	0	0	0.39	0.74					
12	4	0	0	0.01	0.01	3.46	1.3	0	0	0	0	0.34	0.74					
13	4	0	0	0.01	0.01	3.46	1.3	0	0	0	0	0.34	0.74					
14	4	0	0	0.01	0.01	3.46	1.3	0	0	0	0	0.34	0.74					
15	4	0	0	0.01	0.01	3.46	1.2	0	0	0	0	0.31	2.1					
16	4	0	0	0.01	0.01	3.46	1.2	0	0	0	0	0.31	2.75					
17	4	0	0	0.01	0.01	3.46	1	0	0	0	0	0.17	3.35					
18	4	0	0	0.01	0.01	3.46	1	0	0	0	0	0.17	3.2					
19	4.05	0	0	0.01	0.01	3.5	1	0	0	0	0	0.17	3					
20	3.8	0	0	0.01	0.01	3.28	1	0	0	0	0	0.17	2.87					
21	3.6	0	0	0.01	0.01	3.11	0.8						2.6					
22	3.4	0	0	0.01	0.01	2.94	0.8						2.35					
23	3.1	0	0	0.01	0.01	2.68	0.76						2.1					
24	2.9	0	0	0.01	0.01	2.51	0.76						1.85					
25	2.7	0	0	0.01	0.01	2.33	0.8						1.6					
26	2.42	0	0	0.01	0.01	1.05	0.8						1.35					
27	2.4	0	0	0.01	0.01	1.04	0.8						1.08					
28	2.4	0	0	0.01	0.01	1.04	0.8						0.9					
29	2.4	0	0	0.01	0.01	1.04	0.8											
30	2.4	0	0	0.01	0.01	1.04	0.93											
31	2.4	0	0	0.01	0.01	1.04	0.93											
TenDaily I	4.53	0	0	0.01	0.01	3.91	1.83	0	0	0	0	0.63	0.77					
TenDaily II	3.97	0	0	0.01	0.01	3.43	1.18	0	0	0	0	0.27	2.02					
TenDaily III	2.74	0	0	0.01	0.01	1.8	0.82						1.73					
Total	December					93.26	January					8.99	February					

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.9						0.0						0.0					
2	0.9						0.0						0.0					
3	0.75						0.0						0.0					
4	0.6						0.0						0.0					
5	0.5						0.0						0.0					
6	0.44						0.0						0.0					
7	0.4						0.0						0.0					
8	0.36						0.0						0.0					
9	0.32						0.0						0.0					
10	0.28						0.0						0.0					
11	0.24						0.0						0.0					
12	0.24						0.0						0.0					
13	0.24						0.0						0.0					
14	0.24						0.0						0.0					
15	0.24						0.0						0.0					
16	0.24						0.0						0.0					
17	0.23						0.0						0.0					
18	0.23						0.0						0.0					
19	0.23						0.0						0.0					
20	0.23						0.0						0.0					
21	0.22						0.0						0.0					
22	0.22						0.0						0.0					
23	0.2						0.0						0.0					
24	0.2						0.0						0.0					
25	0.19						0.0						0.0					
26	0.19						0.0						0.0					
27	0.18						0.0						0.0					
28	0.16						0.0						0.0					
29	0.16						0.0						0.0					
30	0.15						0.0						0.0					
31	0.15						0.0						0.0					
TenDaily I	0.55																	
TenDaily II	0.24																	
TenDaily III	0.18																	
Total																		

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 2002-2021

Station Name : Banjar at Bamni (CW1NAU000781) Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2002-2003	368398	0	368398	607
2003-2004	782914	0	782914	1401
2004-2005	323458	0	323458	742
2005-2006	1639533	0	1639533	1467
2006-2007	324825	0	324825	697
2007-2008	171622	133	171755	568
2008-2009	208836	0	208836	472
2009-2010	137064	103	137167	272
2010-2011	186273	0	186273	477
2011-2012	219514	1406	220919	745
2012-2013	84554	1107	85661	532
2013-2014	209201	733	209934	1376
2014-2015	131573	3093	134666	878
2015-2016	73949	821	74771	527
2016-2017	117094.36	451.58	117545.94	888.6
2017-2018	40875.1	0	40875.1	349.93
2018-2019	93824	0	93824	674
2019-2020	1194215.28	787.35	1195002.64	1805.06
2020-2021	927891.46	102.25	927993.72	1769.69

Sediment Data Year Book 2020-21

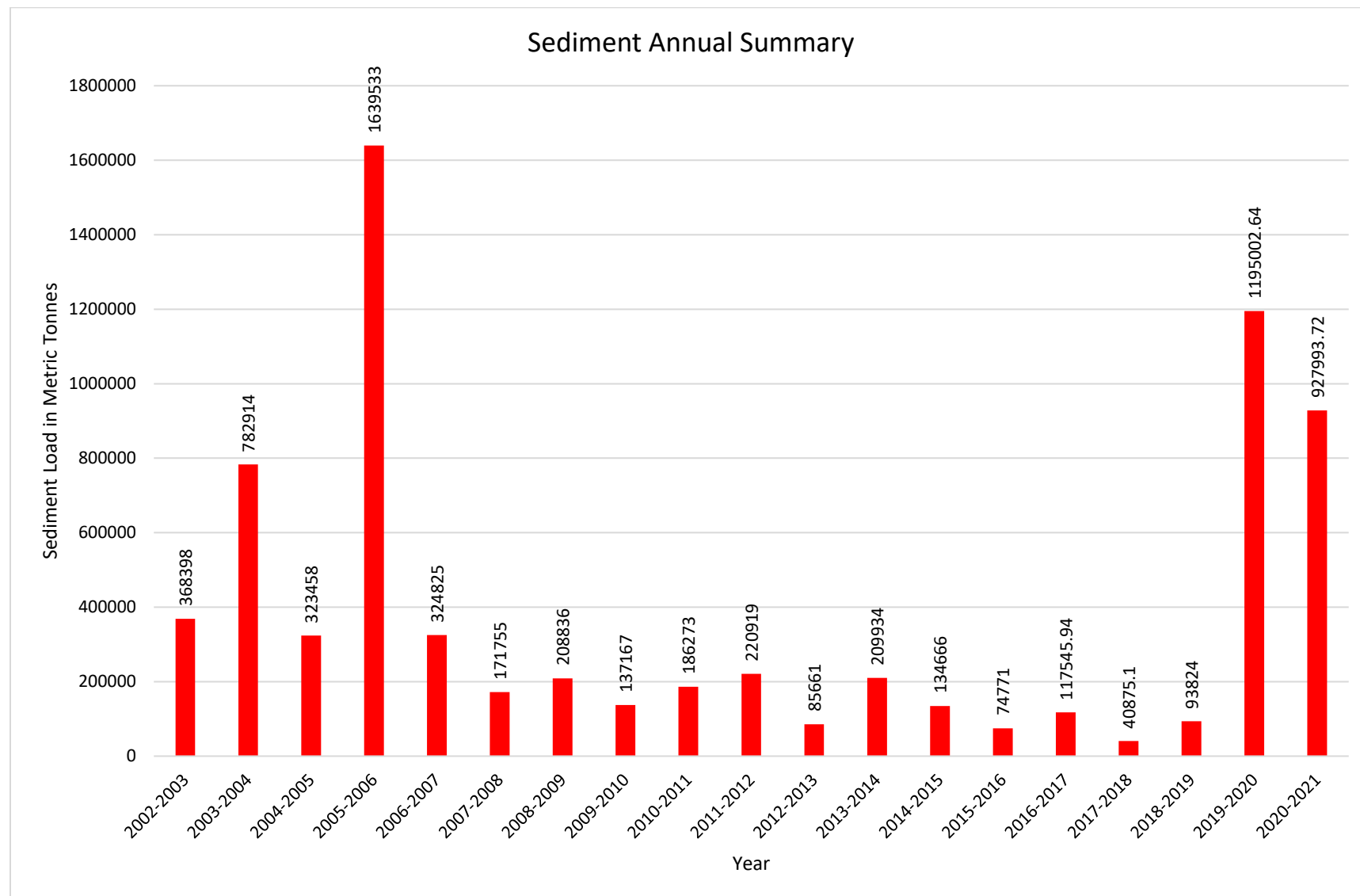
Annual Sediment Load for period : 2002-2021

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

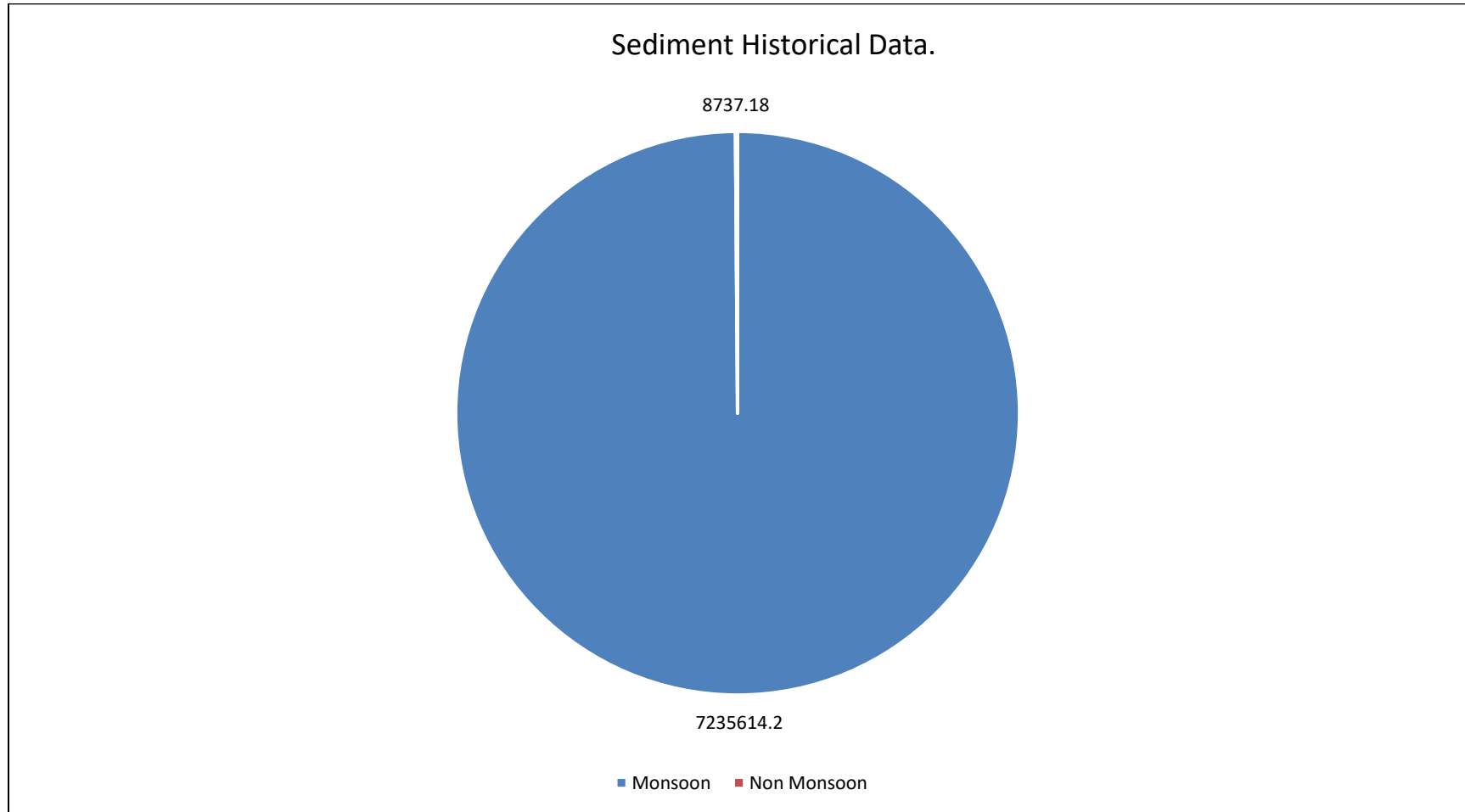
Seasonal Sediment Load for period : 2002-2020

Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

Seasonal Sediment Load for period : 2020-21

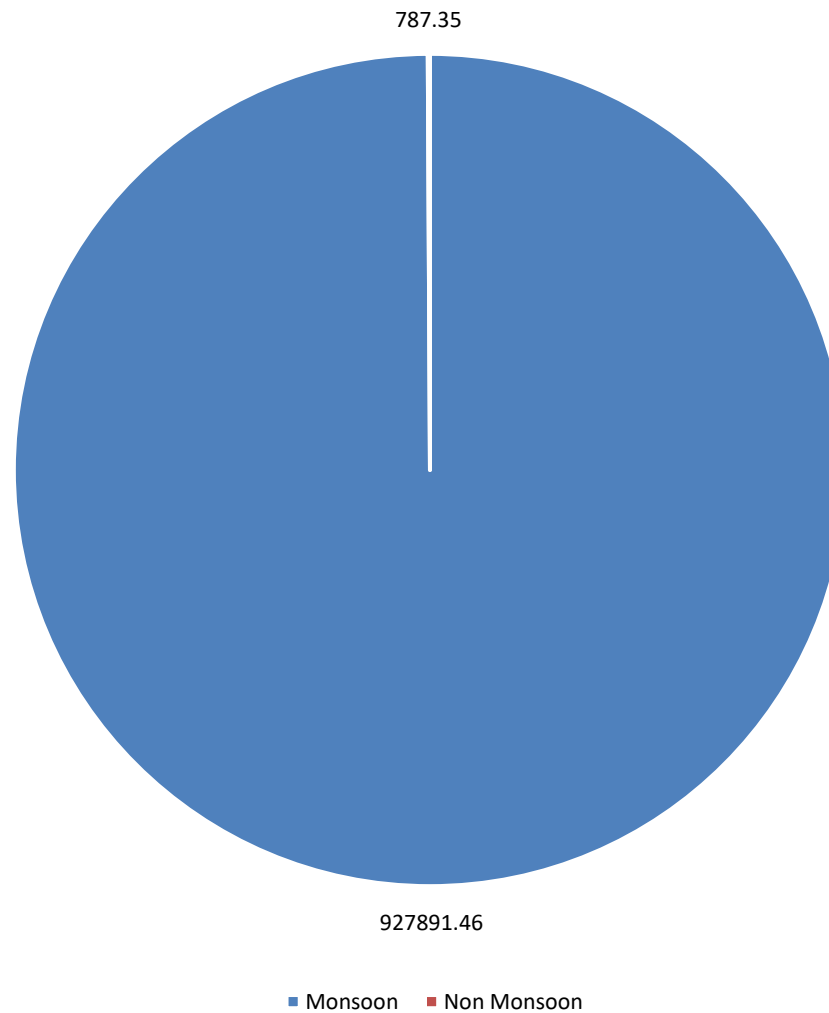
Station Name : Banjar at Bamni (CW1NAU000781)

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur

Water Year Book: 2020-2021.



4.10 Burhner at Mohgaon

History Sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Mohgaon		Code	:	CW1NAU000390	
State	:	Madhya Pradesh		District	:	MANDLA	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Burhner	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Upper Narmada Sub-Division, Jabalpur	
Drainage Area	:	4090.0 Sq. Km.		Bank	:	Right	
Latitude	:	22°45'56"		Longitude	:	80°37'23"	
Current Zero of Gauge (m)	:	447.000					
CATEGORY		Opening Date		Closing Date			
Gauge	:	13/01/1977					
Discharge	:	13/01/1977					
Sediment	:	27/08/1992					
Water Quality	:	16/09/1986					
Reduced Level		Opening Date		Closing Date			
447.0		13/01/1977					
447.0							

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.89	0	0		0	0	20.69	0	0	0.05	0.05	82.23	55	0	0	0.17	0.17	788.83
2	0.95	0	0		0	0	68.16	0	0	0.33	0.33	1949.27	48	0	0	0.15	0.15	622.08
3	0.59	0	0		0	0	112.5	0	0	0.3	0.3	2954.88	110.6	0	0	0.14	0.14	1366.49
4	1.13	0	0		0	0	64.8	0	0	0.28	0.28	1539.65	95.76	0	0	0.42	0.42	3483.21
5	56.8	0	0	0.33	0.33	1609.67	35	0	0	0.5	0.5	1512	103.5	0	0	0.44	0.44	3934.66
6	20.14	0	0	0.18	0.18	308	215.9	0	0	0.6	0.6	11266.87	158.8	0	0	0.56	0.56	7683.38
7	15	0	0	0.13	0.13	168.48	186	0	0	0.58	0.58	9352.97	93.85	0	0	0.4	0.4	3235.35
8	10.07	0	0	0.06	0.06	51.33	94.5	0	0	0.4	0.4	3298.58	95.72	0	0	0.42	0.42	3481.76
9	20.15	0	0	0.53	0.53	929.67	54.23	0	0	0.26	0.26	1236.96	585	0	0	2.57	2.57	129898.08
10	13.26	0	0	0.18	0.18	209.66	107.7	0	0	0.4	0.4	3694.2	665.5	0	0	0.66	0.66	38006.97
11	10.19	0	0	0.06	0.06	51.06	102.6	0	0	0.28	0.28	2499.83	250	0	0	0.25	0.25	5400
12	9.85	0	0	0.07	0.07	61.26	70	0	0	0.19	0.19	1149.12	575.6	0	0	0.52	0.52	25711.36
13	9.94	0	0	0.07	0.07	60.11	96.05	0	0	0.4	0.4	3311.19	352.7	0	0	0.32	0.32	9751.45
14	7	0	0	0.05	0.05	30.24	148.1	0	0	0.56	0.56	7101.69	1248	0	0	0.95	0.95	102974.98
15	16.09	0	0	0.09	0.09	118.16	560.8	0	0	0.6	0.6	28926.51	868	0	0	0.66	0.66	49496.83
16	25.72	0	0	0.26	0.26	573.33	250.9	0	0	0.62	0.62	13440.21	775	0	0	0.59	0.59	39506.4
17	13.67	0	0	0.25	0.25	297.63	123.5	0	0	0.37	0.37	3990.73	987	0	0	0.94	0.94	80160.19
18	19.46	0	0	0.26	0.26	440.51	98.99	0	0	0.3	0.3	2565.82	1846.4	0	0	1.03	1.03	164952.94
19	22.35	0	0	0.26	0.26	496.28	90	0	0	0.27	0.27	2099.52	1318	0	0	0.83	0.83	94971.92
20	16.58	0	0	0.15	0.15	219.17	101.8	0	0	0.42	0.42	3711.71	995.2	0	0	0.8	0.8	68874.21
21	25	0	0	0.23	0.23	496.8	179.6	0	0	0.42	0.42	6548.36	458.4	0	0	0.32	0.32	12713.45
22	81.53	0	0	0.26	0.26	1810.36	214.9	0	0	0.58	0.58	10694.8	582.6	0	0	0.59	0.59	29899.96
23	59.9	0	0	0.24	0.24	1262.79	112.3	0	0	0.4	0.4	3900.49	360	0	0	0.36	0.36	11197.44
24	94.66	0	0	0.26	0.26	2093.73	116.2	0	0	0.44	0.44	4397.38	311.5	0	0	0.58	0.58	15556.06
25	30.83	0	0	0.24	0.24	628.64	172.3	0	0	0.56	0.56	8396.11	202.7	0	0	0.54	0.54	9527.22
26	30.78	0	0	0.28	0.28	755.27	170	0	0	0.55	0.55	8078.4	180.04	0	0	0.4	0.4	6284.4
27	26.29	0	0	0.24	0.24	547.42	86.4	0	0	0.4	0.4	2978.52	323.1	0	0	0.5	0.5	14041.67
28	29	0	0	0.26	0.26	651.46	69.26	0	0	0.33	0.33	1968.76	1425	0	0	0.85	0.85	105267.6
29	24.78	0	0	0.23	0.23	492.43	56.6	0	0	0.28	0.28	1374.16	2234	0	0	1.2	1.2	230849.05
30	22.35	0	0	0.24	0.24	465.38	185	0	0	0.56	0.56	8983.01	640	0	0	0.34	0.34	18800.64
31							80.71	0	0	0.38	0.38	2642.9	563.1	0	0	0.3	0.3	14546.9
TenDaily I	13.9	0	0	0.14	0.14	327.68	95.95	0	0	0.37	0.37	3688.76	201.17	0	0	0.59	0.59	19250.08
TenDaily II	15.08	0	0	0.15	0.15	234.78	164.27	0	0	0.4	0.4	6879.63	921.59	0	0	0.69	0.69	64180.03
TenDaily III	42.51	0	0	0.25	0.25	920.43	131.21	0	0	0.45	0.45	5451.17	661.86	0	0	0.54	0.54	42607.67
Total	June					14828.83	July					165646.82	August					1302985.48

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	345.1	0	0	0.1	0.1	2892.21	103.6	0	0	0.06	0.06	519.16	44.5	0	0	0.05	0.05	176.86
2	242.6	0	0	0.09	0.09	1970.3	98	0	0	0.06	0.06	508.03	43.84	0	0	0.04	0.04	166.66
3	227.7	0	0	0.09	0.09	1750.92	94.64	0	0	0.06	0.06	482.44	43	0	0	0.04	0.04	148.61
4	223.5	0	0	0.09	0.09	1699.32	86	0	0	0.05	0.05	371.52	41.25	0	0	0.04	0.04	142.56
5	263.5	0	0	0.1	0.1	2276.64	72.87	0	0	0.06	0.06	358.87	40.5	0	0	0.04	0.04	139.97
6	180	0	0	0.07	0.07	1088.64	146.1	0	0	0.09	0.09	1072.96	39.75	0	0	0.04	0.04	137.38
7	173.2	0	0	0.09	0.09	1391.7	276.5	0	0	0.11	0.11	2532.3	39	0	0	0.03	0.03	101.09
8	152.7	0	0	0.09	0.09	1200.59	532.8	0	0	0.43	0.43	19656.48	36.5	0	0	0.04	0.04	126.14
9	142.7	0	0	0.09	0.09	1097.31	234.4	0	0	0.1	0.1	2085.97	34.68	0	0	0.04	0.04	125.85
10	123.5	0	0	0.09	0.09	928.32	156.4	0	0	0.06	0.06	864.83	34	0	0	0.04	0.04	117.5
11	248.4	0	0	0.1	0.1	2232.02	208	0	0	0.08	0.08	1437.7	33	0	0	0.04	0.04	114.05
12	175.1	0	0	0.1	0.1	1452.35	202.2	0	0	0.12	0.12	2113.88	33	0	0	0.04	0.04	114.05
13	170	0	0	0.1	0.1	1468.8	123.3	0	0	0.08	0.08	841.6	32	0	0	0.03	0.03	82.94
14	149.8	0	0	0.09	0.09	1190.73	121.8	0	0	0.07	0.07	778.74	30	0	0	0.03	0.03	77.76
15	148.2	0	0	0.09	0.09	1165.21	99.35	0	0	0.07	0.07	609.45	28	0	0	0.04	0.04	96.77
16	135.3	0	0	0.09	0.09	1052.09	85.99	0	0	0.06	0.06	468.06	25.39	0	0	0.04	0.04	87.75
17	158.2	0	0	0.1	0.1	1312.17	83.25	0	0	0.06	0.06	438.76	24.5	0	0	0.04	0.04	84.67
18	116.9	0	0	0.09	0.09	909.01	85	0	0	0.06	0.06	440.64	24.5	0	0	0.04	0.04	84.67
19	119.1	0	0	0.08	0.08	864.38	83.7	0	0	0.06	0.06	426.67	23.5	0	0	0.04	0.04	81.22
20	127	0	0	0.09	0.09	987.55	77.91	0	0	0.06	0.06	376.96	23.5	0	0	0.04	0.04	81.22
21	127.2	0	0	0.05	0.05	538.51	67.82	0	0	0.05	0.05	304.7	23.5	0	0	0.04	0.04	81.22
22	660.7	0	0	0.56	0.56	32138.56	64.66	0	0	0.05	0.05	284.92	24.5	0	0	0.04	0.04	84.67
23	593	0	0	0.5	0.5	25617.6	62.24	0	0	0.05	0.05	268.88	26.09	0	0	0.04	0.04	85.66
24	324.8	0	0	0.4	0.4	11225.09	58.13	0	0	0.05	0.05	246.1	26	0	0	0.04	0.04	89.86
25	332.7	0	0	0.11	0.11	3133.24	57.5	0	0	0.05	0.05	248.4	25.25	0	0	0.04	0.04	87.26
26	338.6	0	0	0.1	0.1	2779.23	56.72	0	0	0.05	0.05	240.13	24.5	0	0	0.04	0.04	84.67
27	157	0	0	0.05	0.05	678.24	54.76	0	0	0.05	0.05	227.1	23	0	0	0.04	0.04	79.49
28	153.6	0	0	0.06	0.06	836.08	52.49	0	0	0.05	0.05	213.15	22.25	0	0	0.03	0.03	57.67
29	142.7	0	0	0.06	0.06	739.76	48.01	0	0	0.05	0.05	190.81	23	0	0	0.04	0.04	79.49
30	116.9	0	0	0.06	0.06	585.81	47.5	0	0	0.05	0.05	205.2	23.75	0	0	0.04	0.04	82.08
31							45.86	0	0	0.05	0.05	182.27						
TenDaily I	207.45	0	0	0.09	0.09	1629.59	180.13	0	0	0.11	0.11	2845.26	39.7	0	0	0.04	0.04	138.26
TenDaily II	154.8	0	0	0.09	0.09	1263.43	117.05	0	0	0.07	0.07	793.25	27.74	0	0	0.04	0.04	90.51
TenDaily III	294.72	0	0	0.19	0.19	7827.21	55.97	0	0	0.05	0.05	237.42	24.18	0	0	0.04	0.04	81.21
Total	September					107202.38	October					38996.67	November					3099.78

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	23.58	0	0	0.04	0.04	71.31	10.64	0	0	0.03	0.03	27.58	5.93	0	0	0.02	0.02	11.79
2	21.5	0	0	0.04	0.04	74.3	10.25	0	0	0.03	0.03	26.57	6.65	0	0	0.02	0.02	11.49
3	19.5	0	0	0.03	0.03	50.54	10.25	0	0	0.03	0.03	26.57	6.3	0	0	0.02	0.02	10.89
4	17.5	0	0	0.03	0.03	45.36	10.25	0	0	0.02	0.02	21.25	6.3	0	0	0.02	0.02	10.89
5	16.5	0	0	0.03	0.03	42.77	9.9	0	0	0.02	0.02	17.11	5.9	0	0	0.02	0.02	10.2
6	15.5	0	0	0.03	0.03	40.18	9.9	0	0	0.02	0.02	17.11	5.8	0	0	0.02	0.02	10.02
7	14.87	0	0	0.03	0.03	41.11	9.9	0	0	0.02	0.02	17.11	5.8	0	0	0.02	0.02	10.02
8	14.75	0	0	0.03	0.03	38.23	9.9	0	0	0.02	0.02	17.11	5.91	0	0	0.02	0.02	11.75
9	14	0	0	0.03	0.03	36.29	9.5	0	0	0.02	0.02	16.42	5.76	0	0	0.02	0.02	9.95
10	13.5	0	0	0.03	0.03	34.99	9	0	0	0.02	0.02	15.55	5.6	0	0	0.02	0.02	9.68
11	13	0	0	0.03	0.03	33.7	8.71	0	0	0.02	0.02	18.06	5.5	0	0	0.02	0.02	9.5
12	13	0	0	0.03	0.03	33.7	8.5	0	0	0.02	0.02	14.69	5.5	0	0	0.02	0.02	9.5
13	14	0	0	0.03	0.03	36.29	8.5	0	0	0.02	0.02	14.69	5.2	0	0	0.02	0.02	8.99
14	14.73	0	0	0.03	0.03	36.91	8.25	0	0	0.02	0.02	14.26	5.2	0	0	0.02	0.02	8.99
15	14.3	0	0	0.03	0.03	37.07	8.25	0	0	0.02	0.02	14.26	4.94	0	0	0.02	0.02	9.39
16	13.8	0	0	0.03	0.03	35.77	8	0	0	0.02	0.02	13.82	4.9	0	0	0.02	0.02	8.47
17	13.5	0	0	0.03	0.03	34.99	7.7	0	0	0.02	0.02	13.31	6.4	0	0	0.03	0.03	16.59
18	13.4	0	0	0.03	0.03	34.73	7.37	0	0	0.02	0.02	15.27	6.15	0	0	0.02	0.02	10.63
19	13.5	0	0	0.03	0.03	34.99	7.35	0	0	0.02	0.02	12.7	5.9	0	0	0.02	0.02	10.2
20	12.75	0	0	0.03	0.03	33.05	7	0	0	0.02	0.02	12.1	5.65	0	0	0.02	0.02	9.76
21	12.29	0	0	0.03	0.03	27.61	7	0	0	0.02	0.02	12.1	6.7	0	0	0.03	0.03	17.37
22	12	0	0	0.03	0.03	31.1	7	0	0	0.02	0.02	12.1	7.88	0	0	0.02	0.02	16.34
23	12	0	0	0.03	0.03	31.1	6.65	0	0	0.02	0.02	11.49	7.25	0	0	0.02	0.02	12.53
24	11.75	0	0	0.03	0.03	30.46	6.3	0	0	0.02	0.02	10.89	7	0	0	0.02	0.02	12.1
25	11.5	0	0	0.03	0.03	29.81	6.02	0	0	0.02	0.02	11.97	6.5	0	0	0.02	0.02	11.23
26	11.25	0	0	0.03	0.03	29.16	6.33	0	0	0.02	0.02	10.94	6.2	0	0	0.02	0.02	10.71
27	11	0	0	0.03	0.03	28.51	5.9	0	0	0.02	0.02	10.2	6.9	0	0	0.02	0.02	11.92
28	10.82	0	0	0.03	0.03	23.37	5.9	0	0	0.02	0.02	10.2	6.8	0	0	0.02	0.02	11.75
29	10.6	0	0	0.03	0.03	27.48	5.8	0	0	0.02	0.02	10.02						
30	10.6	0	0	0.03	0.03	27.48	5.8	0	0	0.02	0.02	10.02						
31	10.8	0	0	0.03	0.03	27.99	5.8	0	0	0.02	0.02	10.02						
TenDaily I	17.12	0	0	0.03	0.03	47.51	9.95	0	0	0.02	0.02	20.24	6	0	0	0.02	0.02	10.67
TenDaily II	13.6	0	0	0.03	0.03	35.12	7.96	0	0	0.02	0.02	14.31	5.53	0	0	0.02	0.02	10.2
TenDaily III	11.33	0	0	0.03	0.03	28.55	6.23	0	0	0.02	0.02	10.9	6.9	0	0	0.02	0.02	12.99
Total	December					1140.34	January					465.45	February					312.63

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	4.83	0	0	0.02	0.02	9.17	1.2	0	0	0.01	0.01	1.04	0.56	0	0		0	0
2	4.8	0	0	0.02	0.02	8.29	0.7	0	0		0	0	0.56	0	0		0	0
3	4.4	0	0	0.02	0.02	7.6	0.5	0	0		0	0	0.47	0	0		0	0
4	4.4	0	0	0.02	0.02	7.6	0.9	0	0		0	0	0.46	0	0		0	0
5	4	0	0	0.02	0.02	6.91	1.4	0	0	0.01	0.01	1.21	0.46	0	0		0	0
6	4	0	0	0.02	0.02	6.91	1.3	0	0	0.01	0.01	1.12	0.39	0	0		0	0
7	3.2	0	0	0.01	0.01	2.76	1.3	0	0	0.01	0.01	1.12	0.39	0	0		0	0
8	2.75	0	0	0.02	0.02	5.24	1.2	0	0	0.01	0.01	1.04	0.32	0	0		0	0
9	2.6	0	0	0.02	0.02	4.49	1.2	0	0	0.01	0.01	1.04	0.32	0	0		0	0
10	2.6	0	0	0.02	0.02	4.49	1.2	0	0	0.01	0.01	1.04	0.25	0	0		0	0
11	2.4	0	0	0.02	0.02	4.15	1.2	0	0	0.01	0.01	1.04	0.25	0	0		0	0
12	2.4	0	0	0.02	0.02	4.15	1.2	0	0	0.01	0.01	1.04	0.18	0	0		0	0
13	2.6	0	0	0.02	0.02	4.49	1.15	0	0	0.01	0.01	0.99	0.18	0	0		0	0
14	2.6	0	0	0.02	0.02	4.49	1.13	0	0	0.01	0.01	0.98	0.1	0	0		0	0
15	2.6	0	0	0.02	0.02	4.94	1	0	0	0.01	0.01	0.86	0.1	0	0		0	0
16	2.6	0	0	0.02	0.02	4.49	1	0	0	0.01	0.01	0.86	0.32	0	0		0	0
17	2.6	0	0	0.02	0.02	4.49	0.9	0	0		0	0	1.95	0	0	0.02	0.02	3.71
18	2.6	0	0	0.02	0.02	4.49	0.9	0	0		0	0	1.47	0	0	0.02	0.02	2.54
19	2.75	0	0	0.02	0.02	4.75	0.8	0	0		0	0	3.15	0	0	0.03	0.03	8.16
20	2.75	0	0	0.02	0.02	4.75	0.79	0	0		0	0	3.99	0	0	0.04	0.04	13.79
21	2.6	0	0	0.02	0.02	4.49	0.79	0	0		0	0	9.87	0	0	0.1	0.1	85.28
22	2.3	0	0	0.02	0.02	4.36	0.75	0	0		0	0	10.35	0	0	0.11	0.11	98.37
23	2.3	0	0	0.02	0.02	3.97	0.75	0	0		0	0	7.95	0	0	0.08	0.08	54.95
24	2.3	0	0	0.02	0.02	3.97	0.75	0	0		0	0	5.79	0	0	0.04	0.04	20
25	2	0	0	0.02	0.02	3.46	0.75	0	0		0	0	4.5	0	0	0.03	0.03	11.66
26	4	0	0	0.03	0.03	10.37	0.75	0	0		0	0	3.55	0	0	0.02	0.02	6.13
27	2.6	0	0	0.02	0.02	4.49	0.65	0	0		0	0	2.8	0	0	0.02	0.02	4.84
28	2.3	0	0	0.02	0.02	3.97	0.65	0	0		0	0	2.55	0	0	0.02	0.02	4.41
29	2.3	0	0	0.02	0.02	3.97	0.65	0	0		0	0	2.05	0	0	0.01	0.01	1.77
30	2.07	0	0	0.02	0.02	3.93	0.65	0	0		0	0	2.05	0	0	0.01	0.01	1.77
31	1.8	0	0	0.02	0.02	3.11							1.8	0	0	0.02	0.02	3.59
TenDaily I	3.76	0	0	0.02	0.02	6.35	1.09	0	0	0.01	0.01	0.76	0.42	0	0	0	0	0
TenDaily II	2.59	0	0	0.02	0.02	4.52	1.01	0	0	0.01	0.01	0.58	1.17	0	0	0.01	0.01	2.82
TenDaily III	2.42	0	0	0.02	0.02	4.56	0.71	0	0	0	0	0	4.84	0	0	0.04	0.04	26.62
Total	March					158.8	April					13.38						320.97

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1992-2021

Station Name : Burhner at Mohgaon (CW1NAU000390) Division : Narmada Division Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1992-1993	605097.97	0	605097.97	1022.52
1993-1994	2614918.88	0	2614918.88	2015.96
1994-1995	10303377.01	0	10303377.01	4417.32
1995-1996	4828059.7	0	4828059.7	2475.42
1996-1997	1409800.54	0	1409800.54	1337.38
1997-1998	4380350.99	0	4380350.99	2072.02
1998-1999	2103433.4	0	2103433.4	2106.9
1999-2000	3021685.76	0	3021685.76	3110.3
2000-2001	1855837.04	0	1855837.04	1549.75
2001-2002	2744673.29	0	2744673.29	2798
2002-2003	949968.19	0	949968.19	1292.67
2003-2004	4909520.96	0	4909520.96	3497.51
2004-2005	3346347.46	0	3346347.46	2981.94
2005-2006	9693524.02	2164.29	9695688.3	3698.57
2006-2007	3637424.88	3056.18	3640481.06	2304.52
2007-2008	1020925.3	1009.61	1021934.91	1532.21
2008-2009	705272.35	1919.72	707192.08	1315.69
2009-2010	645909.89	118.37	646028.25	635.45
2010-2011	2985567.96	482.57	2986050.53	2013.97
2011-2012	2679812	5483	2685295	3386
2012-2013	1718997.31	903.17	1719900.48	2124.72
2013-2014	2060996	1539	2062535	3161
2014-2015	1776997	7796	1784793	2169
2015-2016	1096956	1604	1098559	1453
2016-2017	2319029.07	571.6	2319600.67	2504.24
2017-2018	1459628.16	1000.54	1460628.7	1338.53
2018-2019	1688779	1202	1689981	1746
2019-2020	4522616.25	14538.71	4537154.96	3617.78
2020-2021	1632759.97	2411.57	1635171.53	3056.76

Sediment Data Year Book 2020-21

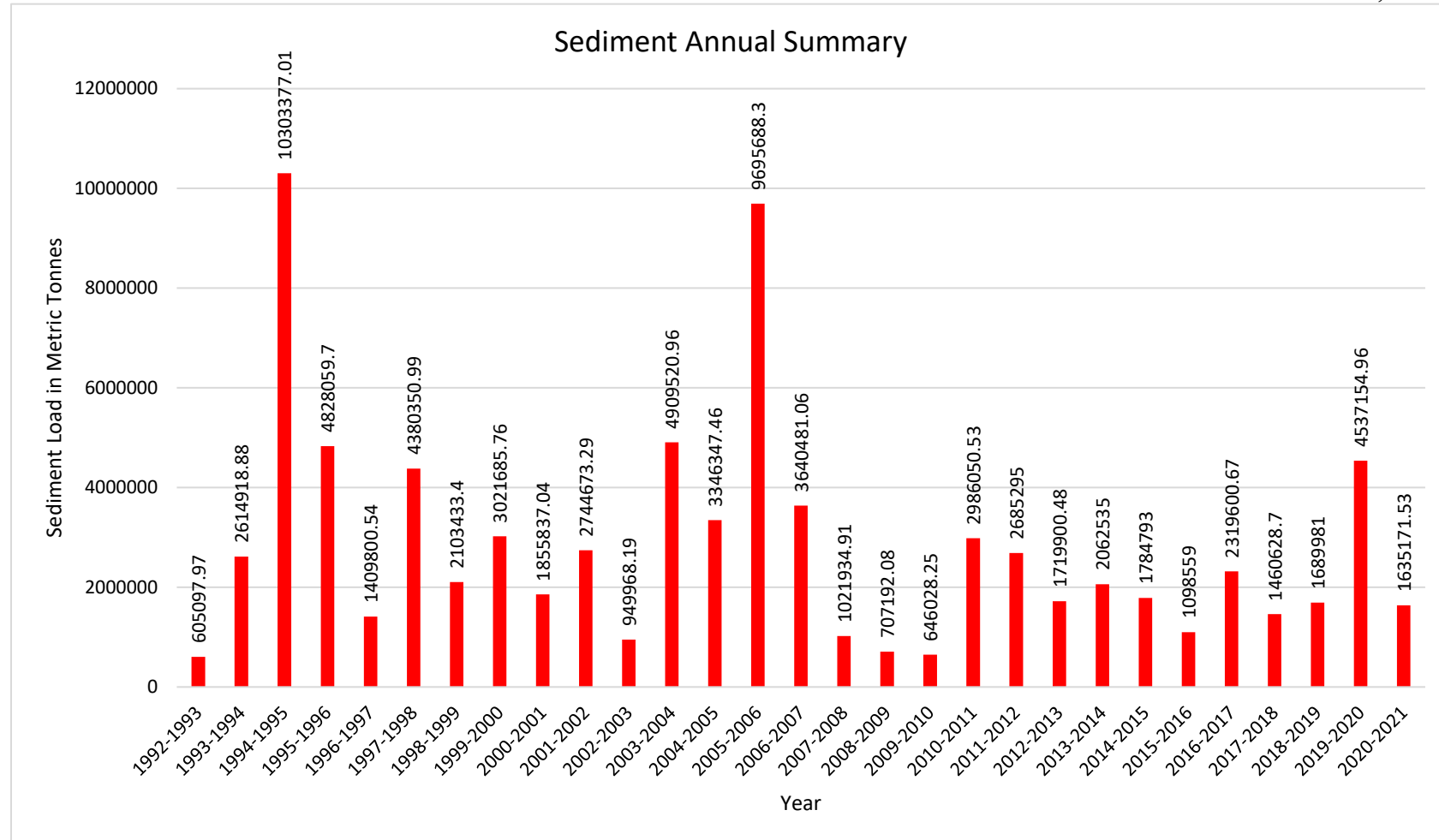
Annual Sediment Load for period : 1992-2021

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

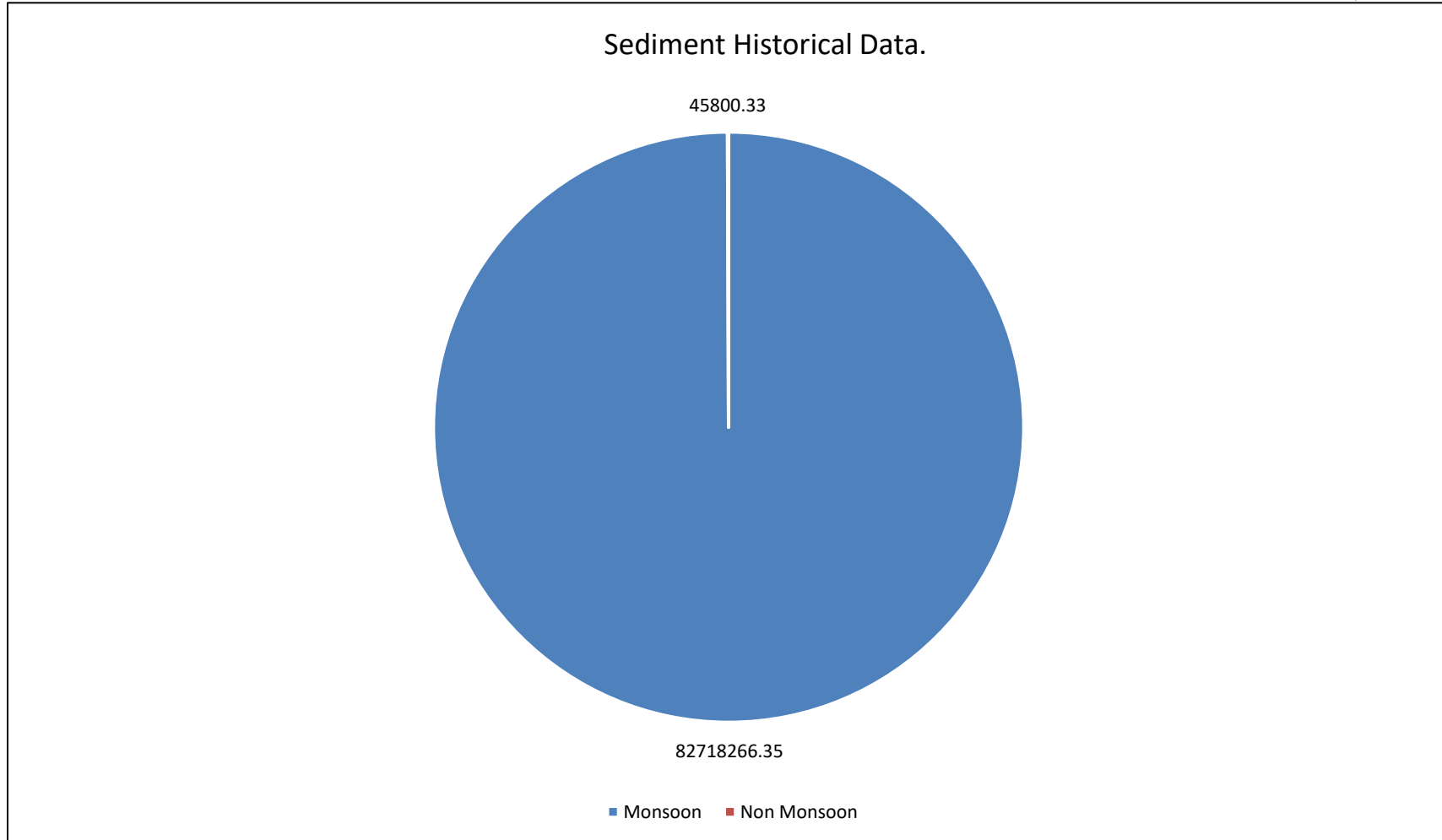
Seasonal Sediment Load for period : 1992-2021

Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

Seasonal Sediment Load for period : 2020-21

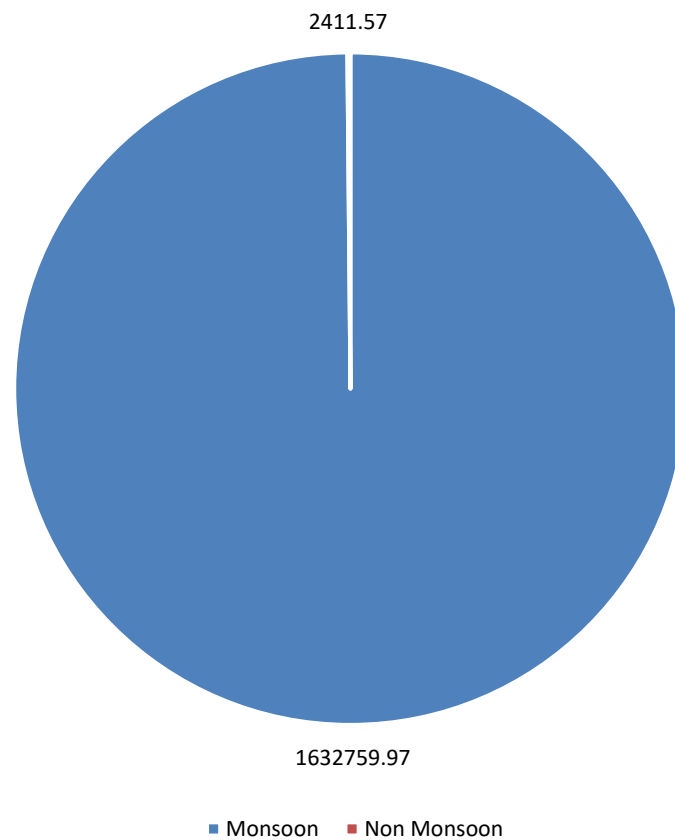
Station Name : Burhner at Mohgaon (CW1NAU000390)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Water Year Book: 2020-2021.



4.11 Narmada at Manot

History Sheet

HISTORY SHEET (SEDIMENT)							
				Water Year	:	2020 - 2021	
Site	:	Manot		Code	:	CW1NAU000378	
State	:	Madhya Pradesh		District	:	MANDLA	
Basin	:	Narmada		Independent River	:	Narmada	
Tributary	:	-		Sub Tributary	:	-	
Sub-Sub Tributary	:	-		Local River	:	Narmada	
Division	:	Narmada Division(ND), Bhopal		Sub-Division	:	Upper Narmada Sub-Division, Jabalpur	
Drainage Area	:	4467.0 Sq. Km.		Bank	:	Right	
Latitude	:	22°44'3.0"		Longitude	:	80°30'48.0"	
Current Zero of Gauge (m)	:	442					
CATEGORY		Opening Date		Closing Date			
Gauge	:	16/12/1976					
Discharge	:	16/12/1976					
Sediment	:	09/11/1979					
Water Quality	:	01/01/1980					
Reduced Level		Opening Date		Closing Date			
442.0		16/12/1976					
442.0							

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Days	June						July						August					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	3.97	0	0	0.01	0.01	3.43	67.46	0	0	0.31	0.31	1830.16	105	0	0	0.22	0.22	1968.62
2	3.34	0	0	0.01	0.01	3.75	58.37	0	0	0.3	0.3	1512.95	74	0	0	0.15	0.15	959.04
3	3.11	0	0	0.01	0.01	3.76	111	0	0	0.24	0.24	2301.7	69.58	0	0	0.34	0.34	2013.92
4	3.99	0	0	0.03	0.03	9.65	163.4	0	0	0.25	0.25	3487.09	58.8	0	0	0.26	0.26	1331.04
5	4.11	0	0	0.02	0.02	6.75	100	0	0	0.5	0.5	4320	96.02	0	0	0.28	0.28	2306.32
6	4.81	0	0	0.02	0.02	9.14	118.1	0	0	0.2	0.2	2010.16	271	0	0	0.34	0.34	7843.82
7	18.5	0	0	0.08	0.08	127.87	331.1	0	0	0.18	0.18	5034.84	184.7	0	0	0.32	0.32	5170.42
8	13.84	0	0	0.03	0.03	29.89	258.1	0	0	0.2	0.2	4415.37	336.7	0	0	0.41	0.41	11810.9
9	8.53	0	0	0.03	0.03	22.1	115.2	0	0	0.18	0.18	1801.54	330	0	0	0.4	0.4	11404.8
10	7.18	0	0	0.03	0.03	17.99	108.4	0	0	0.19	0.19	1788.86	341.3	0	0	0.41	0.41	11972.26
11	6.43	0	0	0.03	0.03	18.34	252.1	0	0	0.2	0.2	4421.63	290	0	0	0.04	0.04	876.96
12	9.93	0	0	0.04	0.04	30.04	105	0	0	0.8	0.8	7257.6	279.3	0	0	0.56	0.56	13586.05
13	9.93	0	0	0.03	0.03	21.44	70.36	0	0	0.26	0.26	1556.25	387.1	0	0	0.73	0.73	24415.17
14	14	0	0	0.04	0.04	48.38	76.23	0	0	0.34	0.34	2212.99	994.3	0	0	0.86	0.86	74310
15	20.46	0	0	0.02	0.02	38.89	1348	0	0	0.57	0.57	66619.24	1200	0	0	1.04	1.04	107827.2
16	21.36	0	0	0.55	0.55	1022.41	346.5	0	0	0.54	0.54	16286.05	1000	0	0	0.86	0.86	74304
17	21.56	0	0	0.53	0.53	977.96	262.5	0	0	0.58	0.58	13109.04	1233.3	0	0	0.9	0.9	95688.29
18	111.04	0	0	0.51	0.51	4883.27	148.4	0	0	0.6	0.6	7680.23	1082.2	0	0	0.84	0.84	78915.76
19	83.68	0	0	0.47	0.47	3361.93	140.5	0	0	0.57	0.57	6919.34	1716.1	0	0	1.4	1.4	207579.46
20	37.51	0	0	0.49	0.49	1604.23	158.9	0	0	0.64	0.64	8813.99	1142.7	0	0	1.06	1.06	104949.22
21	90	0	0	1.18	1.18	9175.68	117.3	0	0	0.61	0.61	6141.64	528.1	0	0	1.31	1.31	59863.73
22	72.01	0	0	0.51	0.51	3166.83	343.9	0	0	0.68	0.68	20293.95	1397.5	0	0	1.06	1.06	128471.62
23	64.13	0	0	0.52	0.52	2903.4	198.3	0	0	0.67	0.67	11444.92	800	0	0	0.61	0.61	42163.2
24	761.1	0	0	0.78	0.78	51226.29	371.9	0	0	0.4	0.4	12820.73	501.1	0	0	0.88	0.88	38099.64
25	263	0	0	0.66	0.66	14906.42	259.4	0	0	0.35	0.35	7754.61	384.1	0	0	0.7	0.7	23329.93
26	143	0	0	0.67	0.67	8265.63	260	0	0	0.35	0.35	7862.4	288.2	0	0	0.63	0.63	15587.7
27	145.9	0	0	0.61	0.61	7676.91	151	0	0	0.37	0.37	4853.26	317.7	0	0	0.48	0.48	13230.55
28	110	0	0	0.46	0.46	4371.84	107.6	0	0	0.3	0.3	2826.18	1171.7	0	0	0.94	0.94	94755.85
29	80.05	0	0	0.6	0.6	4156.71	108.7	0	0	0.32	0.32	2967.77	1721.2	0	0	0.86	0.86	128486.89
30	71.82	0	0	0.6	0.6	3704.53	159.8	0	0	0.33	0.33	4487.18	1100	0	0	0.55	0.55	52272
31							187.1	0	0	0.37	0.37	5965.05	488.7	0	0	0.73	0.73	30823.29
TenDaily I	7.14	0	0	0.03	0.03	23.43	143.11	0	0	0.25	0.25	2850.27	186.71	0	0	0.31	0.31	5678.12
TenDaily II	33.59	0	0	0.27	0.27	1200.69	290.85	0	0	0.51	0.51	13487.64	932.5	0	0	0.83	0.83	78245.21
TenDaily III	180.1	0	0	0.66	0.66	10955.42	205.91	0	0	0.43	0.43	7947.06	790.75	0	0	0.8	0.8	57007.67
Total	June					121795.47	July					250796.73	August					1466317.65

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Days	September						October						November					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	378.3	0	0	0.3	0.3	9936.28	113.6	0	0	0.25	0.25	2434.13	38	0	0	0.08	0.08	262.66
2	348.7	0	0	0.3	0.3	8978.05	100	0	0	0.22	0.22	1900.8	37.39	0	0	0.09	0.09	293.98
3	322.1	0	0	0.27	0.27	7625.27	93.48	0	0	0.2	0.2	1615.33	36	0	0	0.09	0.09	279.94
4	331.2	0	0	0.28	0.28	8126.85	90	0	0	0.2	0.2	1555.2	35.5	0	0	0.09	0.09	276.05
5	330.1	0	0	0.27	0.27	7672.05	83.96	0	0	0.18	0.18	1305.75	34	0	0	0.08	0.08	235.01
6	350	0	0	0.29	0.29	8769.6	96.7	0	0	0.21	0.21	1754.52	33.7	0	0	0.08	0.08	232.93
7	284	0	0	0.28	0.28	6845.99	100.5	0	0	0.22	0.22	1910.3	33.6	0	0	0.08	0.08	232.24
8	278.5	0	0	0.29	0.29	6881.85	181.5	0	0	0.4	0.4	6272.64	27.6	0	0	0.07	0.07	166.92
9	255.6	0	0	0.27	0.27	6050.97	185	0	0	0.4	0.4	6393.6	26.22	0	0	0.08	0.08	176.7
10	168	0	0	0.27	0.27	3904.59	140.8	0	0	0.31	0.31	3771.19	26.22	0	0	0.08	0.08	181.23
11	185.2	0	0	0.28	0.28	4400.35	140	0	0	0.31	0.31	3749.76	25.5	0	0	0.08	0.08	176.26
12	189.6	0	0	0.28	0.28	4570.42	134.6	0	0	0.29	0.29	3372.54	24.77	0	0	0.08	0.08	171.21
13	160	0	0	0.24	0.24	3317.76	159.5	0	0	0.35	0.35	4823.28	24.77	0	0	0.08	0.08	171.21
14	177	0	0	0.28	0.28	4297.28	147.8	0	0	0.32	0.32	4086.37	24.77	0	0	0.08	0.08	171.21
15	202.7	0	0	0.31	0.31	5411.6	111.8	0	0	0.24	0.24	2318.28	24.77	0	0	0.08	0.08	171.21
16	186.6	0	0	0.35	0.35	5642.78	93.59	0	0	0.2	0.2	1617.24	24.05	0	0	0.07	0.07	149.61
17	533.9	0	0	0.46	0.46	21403.84	89.84	0	0	0.2	0.2	1552.44	24.05	0	0	0.07	0.07	145.45
18	195.5	0	0	0.4	0.4	6722.7	85	0	0	0.19	0.19	1395.36	24.2	0	0	0.07	0.07	146.36
19	180.8	0	0	0.33	0.33	5154.97	80.58	0	0	0.18	0.18	1253.18	24.2	0	0	0.07	0.07	146.36
20	140	0	0	0.26	0.26	3144.96	75.46	0	0	0.16	0.16	1043.16	24.2	0	0	0.07	0.07	146.36
21	164.8	0	0	0.29	0.29	4200.42	80.18	0	0	0.17	0.17	1177.68	24	0	0	0.07	0.07	145.15
22	178.7	0	0	0.3	0.3	4616.46	68.58	0	0	0.15	0.15	888.8	24	0	0	0.07	0.07	145.15
23	369.6	0	0	0.42	0.42	13284.31	62.76	0	0	0.14	0.14	759.14	24.17	0	0	0.07	0.07	154.53
24	288.2	0	0	0.42	0.42	10508	57.7	0	0	0.13	0.13	648.09	24.2	0	0	0.07	0.07	146.36
25	327	0	0	0.42	0.42	12007.44	52.5	0	0	0.11	0.11	498.96	23.6	0	0	0.07	0.07	142.73
26	282.4	0	0	0.4	0.4	9686.55	45.89	0	0	0.1	0.1	396.49	22.6	0	0	0.07	0.07	136.68
27	170	0	0	0.4	0.4	5875.2	44.33	0	0	0.1	0.1	383.01	22.6	0	0	0.07	0.07	136.68
28	150	0	0	0.34	0.34	4471.2	41.35	0	0	0.09	0.09	321.54	22.2	0	0	0.06	0.06	115.08
29	144.2	0	0	0.3	0.3	3712.75	37.45	0	0	0.08	0.08	258.85	22.2	0	0	0.06	0.06	115.08
30	133	0	0	0.29	0.29	3366.92	37.5	0	0	0.08	0.08	259.2	22.2	0	0	0.06	0.06	115.08
31							38.75	0	0	0.08	0.08	267.84						
TenDaily I	304.65	0	0	0.28	0.28	7479.15	118.55	0	0	0.26	0.26	2891.35	32.82	0	0	0.08	0.08	233.77
TenDaily II	215.13	0	0	0.32	0.32	6406.67	111.82	0	0	0.24	0.24	2521.16	24.53	0	0	0.08	0.08	159.52
TenDaily III	220.79	0	0	0.36	0.36	7172.93	51.54	0	0	0.11	0.11	532.69	23.18	0	0	0.07	0.07	135.26
Total	September					210587.41	October					59984.68	November					5285.46

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Days	December						January						February					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	21.78	0	0	0.07	0.07	141.13	12.05	0	0	0.07	0.07	77.04	5.53	0	0	0.07	0.07	32.94
2	21.7	0	0	0.07	0.07	131.24	12	0	0	0.07	0.07	72.58	5.53	0	0	0.07	0.07	33.42
3	21.2	0	0	0.07	0.07	128.22	12	0	0	0.07	0.07	72.58	7	0	0	0.09	0.09	54.43
4	20.4	0	0	0.07	0.07	123.38	11.12	0	0	0.06	0.06	57.65	7.53	0	0	0.1	0.1	65.02
5	19.2	0	0	0.06	0.06	99.53	11.12	0	0	0.06	0.06	57.65	7	0	0	0.09	0.09	54.43
6	19.1	0	0	0.06	0.06	99.01	11.12	0	0	0.06	0.06	57.65	6.92	0	0	0.09	0.09	53.85
7	18.72	0	0	0.07	0.07	119.69	9.76	0	0	0.06	0.06	50.6	6.92	0	0	0.09	0.09	53.85
8	15.77	0	0	0.06	0.06	81.75	9.76	0	0	0.06	0.06	50.6	5.58	0	0	0.07	0.07	33.72
9	15.77	0	0	0.06	0.06	81.75	9.76	0	0	0.06	0.06	50.6	6.58	0	0	0.08	0.08	45.45
10	15.77	0	0	0.06	0.06	81.75	9.76	0	0	0.06	0.06	50.6	6.34	0	0	0.08	0.08	43.79
11	12.82	0	0	0.05	0.05	55.38	8.4	0	0	0.07	0.07	52.98	6.1	0	0	0.08	0.08	42.14
12	12.82	0	0	0.05	0.05	55.38	8.4	0	0	0.07	0.07	50.8	5.86	0	0	0.07	0.07	35.41
13	12.82	0	0	0.05	0.05	55.38	8	0	0	0.07	0.07	48.38	5.62	0	0	0.07	0.07	33.96
14	12.82	0	0	0.07	0.07	83.07	8	0	0	0.07	0.07	48.38	5.38	0	0	0.07	0.07	32.57
15	13.8	0	0	0.08	0.08	95.39	8	0	0	0.07	0.07	48.38	5.38	0	0	0.07	0.07	31.6
16	14.2	0	0	0.08	0.08	98.15	7.7	0	0	0.06	0.06	39.92	5.38	0	0	0.07	0.07	32.53
17	13.2	0	0	0.07	0.07	79.83	7.7	0	0	0.06	0.06	39.92	8.67	0	0	0.11	0.11	82.4
18	13.2	0	0	0.07	0.07	79.83	7.34	0	0	0.07	0.07	46.29	9.47	0	0	0.12	0.12	98.17
19	13.2	0	0	0.07	0.07	79.83	7.34	0	0	0.07	0.07	44.39	7	0	0	0.09	0.09	54.43
20	12.8	0	0	0.07	0.07	77.41	7.34	0	0	0.07	0.07	44.39	6.58	0	0	0.09	0.09	51.17
21	12.33	0	0	0.07	0.07	77.77	7	0	0	0.07	0.07	42.34	7.8	0	0	0.1	0.1	67.39
22	12.05	0	0	0.07	0.07	72.88	6.7	0	0	0.06	0.06	34.73	9.65	0	0	0.08	0.08	65.88
23	12.05	0	0	0.07	0.07	72.88	6.6	0	0	0.06	0.06	34.21	9.2	0	0	0.08	0.08	63.59
24	11.5	0	0	0.07	0.07	69.55	6.6	0	0	0.06	0.06	34.21	8.28	0	0	0.07	0.07	50.08
25	11.5	0	0	0.07	0.07	69.55	6.49	0	0	0.07	0.07	40.38	7.82	0	0	0.06	0.06	40.54
26	11.5	0	0	0.07	0.07	69.55	6.24	0	0	0.07	0.07	37.74	6.9	0	0	0.06	0.06	35.77
27	11.5	0	0	0.07	0.07	69.55	6.24	0	0	0.07	0.07	37.74	6.44	0	0	0.05	0.05	27.82
28	11.5	0	0	0.07	0.07	71.54	6.01	0	0	0.06	0.06	31.15	6	0	0	0.05	0.05	25.92
29	11.5	0	0	0.07	0.07	69.55	6.01	0	0	0.06	0.06	31.15						
30	11.5	0	0	0.07	0.07	69.55	5.77	0	0	0.06	0.06	29.9						
31	11.5	0	0	0.07	0.07	69.55	5.77	0	0	0.06	0.06	29.9						
TenDaily I	18.94	0	0	0.07	0.07	108.75	10.85	0	0	0.06	0.06	59.75	6.49	0	0	0.08	0.08	47.09
TenDaily II	13.17	0	0	0.07	0.07	75.97	7.82	0	0	0.07	0.07	46.38	6.54	0	0	0.08	0.08	49.44
TenDaily III	11.68	0	0	0.07	0.07	71.08	6.31	0	0	0.06	0.06	34.86	7.76	0	0	0.07	0.07	47.12
Total	December					2629.06	January					1444.8	February					1342.28

Sediment Data Year Book 2020-21

Daily Observed Sediment Datasheet for period : 2020-21

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Days	March						April						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.55	0	0	0.06	0.06	26.36	3.73	0	0	0.04	0.04	12.9	2.27	0	0	0.04	0.04	7.85
2	5.31	0	0	0.06	0.06	27.54	3.62	0	0	0.04	0.04	12.51	2.27	0	0	0.04	0.04	7.85
3	5.08	0	0	0.05	0.05	21.93	3.51	0	0	0.04	0.04	12.13	2.27	0	0	0.05	0.05	10.6
4	4.96	0	0	0.05	0.05	21.42	3.51	0	0	0.04	0.04	12.13	2.07	0	0	0.05	0.05	8.95
5	4.84	0	0	0.05	0.05	20.91	3.4	0	0	0.05	0.05	15.56	1.87	0	0	0.04	0.04	6.47
6	4.72	0	0	0.05	0.05	20.41	3.4	0	0	0.05	0.05	14.68	1.87	0	0	0.04	0.04	6.47
7	4.72	0	0	0.05	0.05	20.41	3.4	0	0	0.05	0.05	14.68	1.67	0	0	0.04	0.04	5.79
8	4.72	0	0	0.06	0.06	22.42	3.38	0	0	0.05	0.05	14.58	2.27	0	0	0.05	0.05	9.81
9	4.72	0	0	0.06	0.06	24.45	3.38	0	0	0.05	0.05	14.58	3.66	0	0	0.08	0.08	25.33
10	4.72	0	0	0.06	0.06	24.45	3.35	0	0	0.05	0.05	14.48	4.66	0	0	0.06	0.06	22.16
11	4.58	0	0	0.06	0.06	23.74	3.35	0	0	0.05	0.05	14.48	5.2	0	0	0.07	0.07	31.45
12	4.58	0	0	0.06	0.06	23.74	3.35	0	0	0.05	0.05	15.35	6.28	0	0	0.08	0.08	43.41
13	4.58	0	0	0.06	0.06	23.74	3.26	0	0	0.05	0.05	14.09	6.64	0	0	0.09	0.09	51.63
14	4.58	0	0	0.06	0.06	23.74	3.26	0	0	0.05	0.05	14.09	6.28	0	0	0.08	0.08	43.41
15	4.73	0	0	0.06	0.06	22.47	3.26	0	0	0.05	0.05	14.09	6.1	0	0	0.08	0.08	42.16
16	4.72	0	0	0.06	0.06	24.49	3.26	0	0	0.05	0.05	14.09	5.74	0	0	0.07	0.07	34.72
17	4.72	0	0	0.06	0.06	24.49	3.24	0	0	0.05	0.05	13.99	5.38	0	0	0.05	0.05	25.11
18	4.83	0	0	0.06	0.06	25.04	3.26	0	0	0.05	0.05	14.09	5.3	0	0	0.05	0.05	22.9
19	4.72	0	0	0.06	0.06	24.49	3.28	0.05	0	0.05	0.1	28.94	12	0	0	0.11	0.11	114.05
20	4.72	0	0	0.06	0.06	24.47	3.06	0	0	0.05	0.05	13.2	32	0	0	0.3	0.3	829.44
21	4.55	0	0	0.06	0.06	23.59	3.28	0	0	0.05	0.05	14.18	28	0	0	0.26	0.26	628.99
22	4.34	0	0	0.05	0.05	20.26	3.06	0	0	0.05	0.05	13.2	20	0	0	0.19	0.19	328.32
23	4.34	0	0	0.05	0.05	18.76	2.93	0	0	0.05	0.05	12.64	12	0	0	0.11	0.11	114.05
24	4.22	0	0	0.05	0.05	18.22	2.93	0	0	0.04	0.04	10.12	7.93	0	0	0.05	0.05	36.98
25	4.22	0	0	0.05	0.05	18.22	2.93	0	0	0.04	0.04	10.12	7.04	0	0	0.04	0.04	24.31
26	4.22	0	0	0.05	0.05	18.22	2.6	0	0	0.05	0.05	11.23	6.12	0	0	0.04	0.04	21.14
27	4.09	0	0	0.05	0.05	17.68	2.6	0	0	0.05	0.05	11.23	5.22	0	0	0.03	0.03	13.52
28	4.09	0	0	0.05	0.05	17.68	2.6	0	0	0.05	0.05	11.23	4.77	0	0	0.03	0.03	12.36
29	4.09	0	0	0.05	0.05	17.68	2.6	0	0	0.05	0.05	11.23	4.32	0	0	0.03	0.03	11.19
30	3.97	0	0	0.05	0.05	17.14	2.27	0	0	0.04	0.04	7.85	3.55	0	0	0.02	0.02	6.13
31	3.84	0	0	0.04	0.04	13.28							3.78	0	0	0.05	0.05	16.96
TenDaily I	4.93	0	0	0.05	0.05	23.03	3.47	0	0	0.05	0.05	13.83	2.49	0	0	0.05	0.05	11.13
TenDaily II	4.68	0	0	0.06	0.06	24.04	3.26	0.01	0	0.05	0.06	15.64	9.09	0	0	0.1	0.1	123.83
TenDaily III	4.18	0	0	0.05	0.05	18.25	2.78	0	0	0.05	0.05	11.3	9.34	0	0	0.08	0.08	110.36
Total	March					671.47	April					407.68						2563.48

Sediment Data Year Book 2020-21

Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Manot (CW1NAU000378) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	10725744	0	10725744	3916
1988-1989	6696569	0	6696569	3252
1989-1990	2489833	0	2489833	1423
1990-1991	6352482	0	6352482	4327
1991-1992	4774264	0	4774264	3270
1992-1993	5297060	0	5297060	2563
1993-1994	8389055	0	8389055	2849
1994-1995	9782946	0	9782946	5549
1995-1996	6064747	0	6064747	3479
1996-1997	2765903	0	2765903	2211
1997-1998	4988927	0	4988927	3859
1998-1999	994318	0	994318	2291
1999-2000	7375323	0	7375323	4115
2000-2001	2429516	0	2429516	2043
2001-2002	2766792	0	2766792	3725
2002-2003	1840581	0	1840581	2000
2003-2004	4006296	0	4006296	4442
2004-2005	9624012	0	9624012	3474
2005-2006	10701534	2767	10704300	4890
2006-2007	2398636	2313	2400949	2902
2007-2008	1844237	1764	1846001	1425
2008-2009	1966443.9	746.1	1967190.01	2225.42
2009-2010	820713.66	2008.74	822722.4	1222.85
2010-2011	876001.91	2005.34	878007.24	2023.37
2011-2012	2758553	2653	2761206	3878
2012-2013	1085095.12	1390.97	1086486.09	2177.72
2013-2014	1628948	4325	1633274	2874
2014-2015	990486	1352	991839	2158
2015-2016	617184	280	617465	1438
2016-2017	1025923.8	722.4	1026646.21	2070.75
2017-2018	310766.81	1022.79	311789.61	1217.46
2018-2019	713233	2445	715678	1771
2019-2020	3304228.99	11277.73	3315506.72	3830.16
2020-2021	2114767.41	9058.78	2123826.18	3554.38

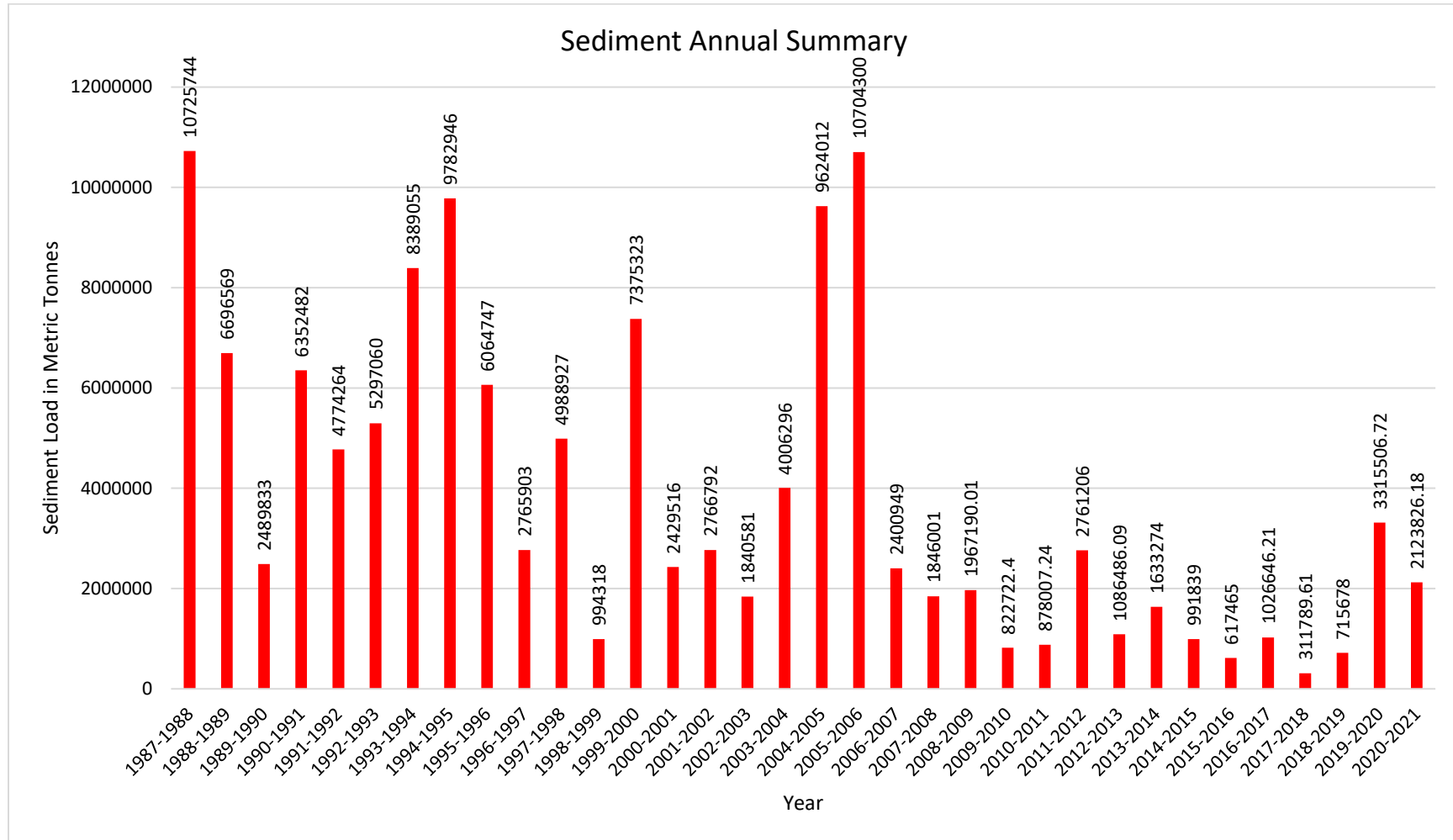
Annual Sediment Load for period : 1987-2021

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

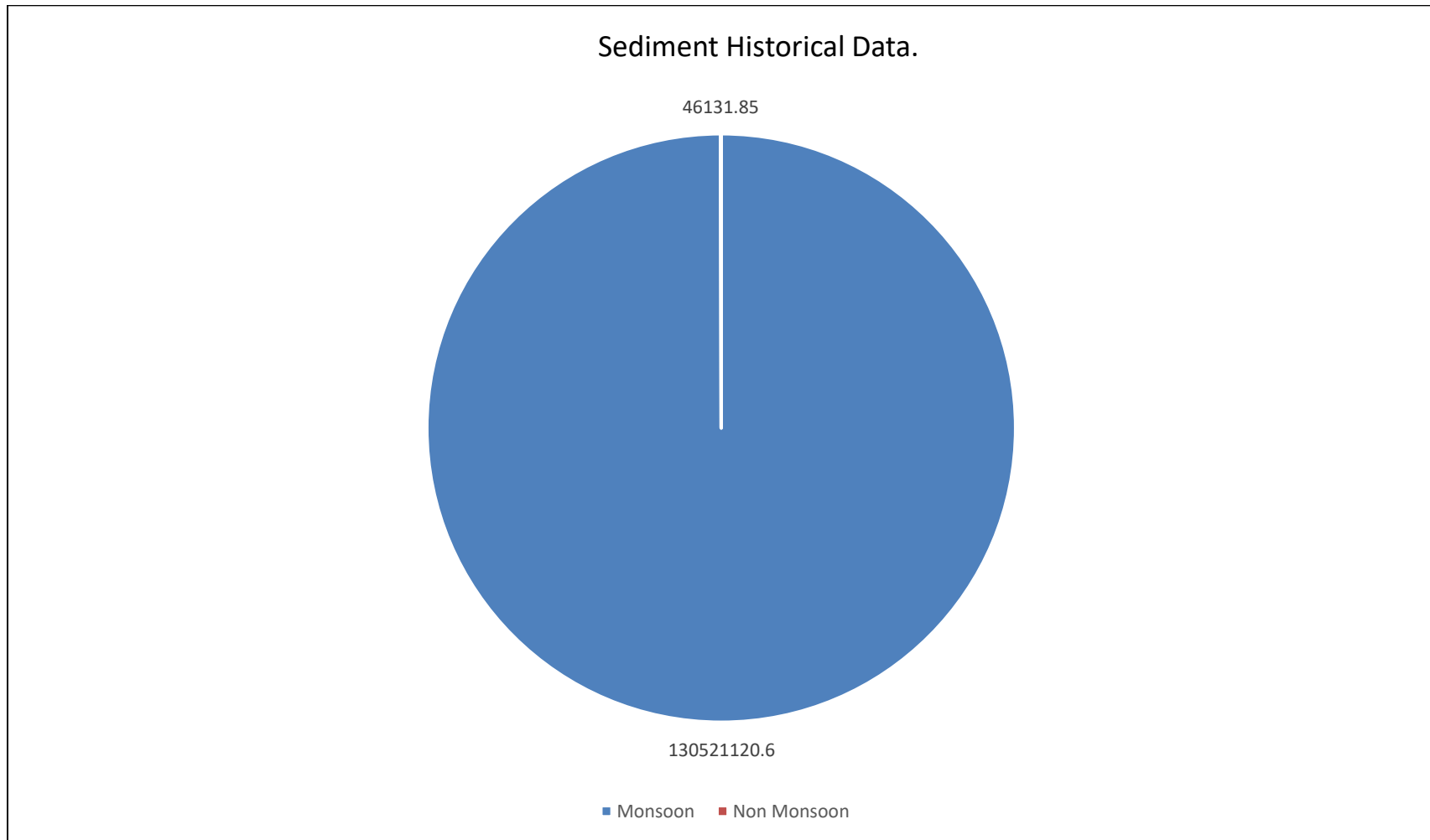
Seasonal Sediment Load for period : 2010-2021

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2020-21

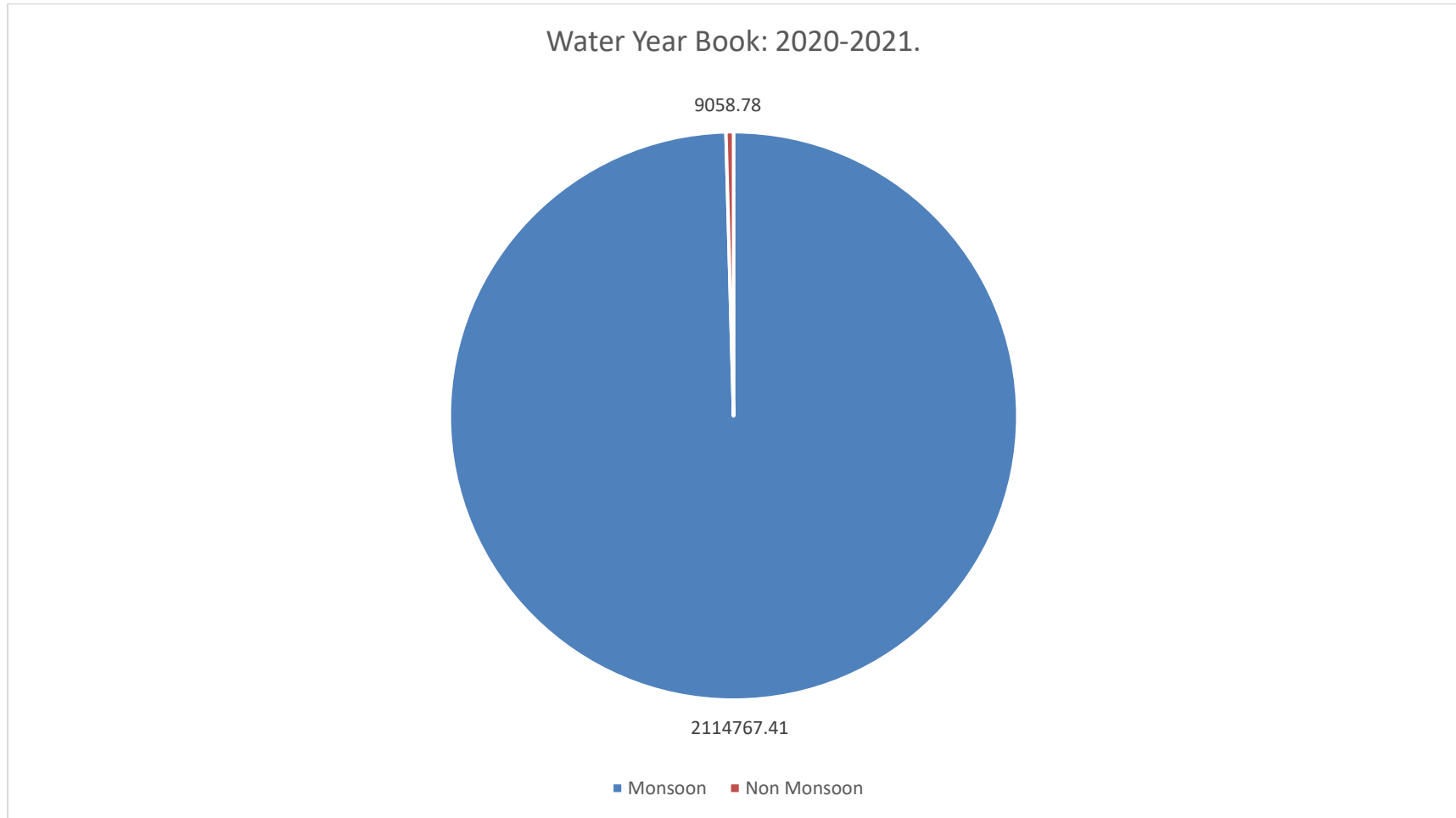
Seasonal Sediment Load for period : 2020-21

Station Name : Narmada at Manot (CW1NAU000378)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur



5 Part – II Bed material Data

5.1 Orsang at Chandwada -

5.2 Narmada at Garudeshwar - Data Not Received

5.3 Narmada at Mandleshwar

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE : NARMADA AT MANDLESHWER

MEASURING AUTHORITY : NDB

CODE : CW1NAM000189

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE 20.05.2020)

Discharge 'Q' : 237.0 m³/secArea of Section 'A' : m²

Wetted Perimeter 'P': 579.00 m

Water edge: L.B. m R.B. m

Mean Velocity 'V' : 0.349 m/ sec

Hydraulic Mean Depth 'R': 1.116 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	146.210	0.61	
2	100	139.200	0.73	Av . Mean Dia "d"= 2.32 mm
3	200	138.600	6.55	
4	300	138.310	1.85	Av .Silt Factor " f " = 3.53
5	400	138.850	2.11	
6	500	138.200	1.65	
7	600	139.535	2.72	
8	700	141.500	2.33	

MONSOON SURVEY (DATE)

Discharge 'Q' :

m³/secArea of Section 'A' m²

Wetted Perimeter 'P' m

Water edge: L.B m R.B m

Mean Velocity 'V' : m/ sec

Hydraulic Mean Depth 'R' m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50			
2	100			
3	200			Av . Mean Dia "d"= mm
4	300	NOT COLLECTED		
5	400			Av .Silt Factor " f " =
6	500			
7	600			
8	700			

POST MONSOON SURVEY (DATE 11.01.2021)

Discharge 'Q' : 714.0 m³/secArea of Section 'A' : m²

Wetted Perimeter 'P' : 596.24 m

Water edge: L.B. m R.B. M

Mean Velocity 'V' : 0.665 m/ sec

Hydraulic Mean Depth 'R' : 1.576 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	145.245	0.65	
2	100	138.700	0.75	Av . Mean Dia "d"=3.11 mm
3	200	138.350	6.38	
4	300	138.350	2.32	Av .Silt Factor " f " = 3.10
5	400	138.700	3.68	
6	500	138.300	2.72	
7	600	139.630	5.16	

Sediment Data Year Book 2020-21

8 700 142.200 3.21

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.4 Narmada at Handia

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE :NARMADA AT HANDIA

CODE :CW1NAM000392

MEASURING AUTHORITY : NDB

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B.m R.B m

Area of Section 'A' : m²

Mean Velocity' V ' : m/ sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	NOT COLLECTED	NOT COLLECTED	NOT COLLECTED
2	180			
3	300			
4	420			
5	540			
6	660			

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B. m R.B m

Area of Section 'A' : m²

Mean Velocity' V ' : m/ sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	NOT COLLECTED	NOT COLLECTED	NOT COLLECTED
2	180			
3	300			
4	420			
5	540			
6	660			

POST MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B. m R.B m

Area of Section 'A' : m²

Mean Velocity' V ' : m/ sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	NOT COLLECTED	NOT COLLECTED	NOT COLLECTED
2	180			
3	300			
4	420			
5	540			
6	660			

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.5 Narmada at Hoshangabad

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE:NARMADA AT HOSHANGABAD

CODE : CW1NAM000278

MEASURING AUTHORITY : NDB

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' : m/ sec

Wetted Perimeter 'P':m

Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100			
2	200			Av . Mean Dia "d" = mm
3	300	NOT COLLECTED		
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' : m/sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth'R': m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100			
2	200			Av . Mean Dia "d"= mm
3	300	NOT COLLECTED		
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

POST MONSOON SURVEY (DATE)

Discharge 'Q' : m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' : m/ sec

Wetted Perimeter 'P' : m

Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100			
2	200			Av . Mean Dia "d"= mm
3	300	NOT COLLECTED		
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.6 Narmada at Sandia

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE :NARMADA AT SANDIA

CODE : CW1NAU000450

MEASURING AUTHORITY : NDB

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE)

Discharge 'Q' : m^3/sec

Water edge: L.B. m R. m

Area of Section 'A' : m^2 Mean Velocity 'V' : m/sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	NOT COLLECTED		
2	200			Av . Mean Dia "d"= mm
3	300			
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

Note ; 1) Discharge was observed at S / G section 2) Single Channel

Flow

MONSOON SURVEY (DATE)

Discharge 'Q' : m^3/sec

Water edge: L.B. m R.B m

Area of Section 'A' : m^2 Mean Velocity 'V' : m/sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	NOT COLLECTED		
2	200			Av . Mean Dia "d"= mm
3	300			
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

POST MONSOON SURVEY (DATE)

Discharge 'Q' : m^3/sec

Water edge: L.B. m R.B m

Area of Section 'A' : m^2 Mean Velocity 'V' : m/sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	NOT COLLECTED		
2	200			Av . Mean Dia "d"= mm
3	300			
4	400			Av .Silt Factor " f " =
5	500			
6	600			
7	700			

Note ; 1) Discharge was observed at S / G section 2) Single Channel

Flow

5.7 Shakkar at Gadarwara

BED MATERIAL DATA FOR THE YEAR 2020-2021**SITE :SHAKKAR AT
GADARWARA**

CODE : CW1NAU000391

W.YEAR

MEASURING AUTHORITY : NDB

:2020-21

PRE MONSOON SURVEY (DATE 20.05.2020)

Discharge 'Q' :

Area of Section 'A' : m²

Wetted Perimeter 'P' : m

Water edge: L.B. m R.B m

Mean Velocity 'V' : m/ sec

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	323.160	0.81	
2	60	323.510	1.86	Av . Mean Dia "d"= 1.65 mm
3	90	323.370	3.32	
4	120	322.930	1.79	Av .Silt Factor " f " = 2.26
5	150	322.500	1.78	
6	180	321.990	1.57	
7	210	323.110	0.40	

MONSOON SURVEY (DATE 19.10.2020)Discharge 'Q' :13.43 m³/secArea of Section 'A' : m²

Wetted Perimeter 'P':93.5 m

Water edge: L.B m R.B m

Mean Velocity 'V' :0.385 m/ sec

Hydraulic Mean Depth 'R' :0.38 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	321.900	3.06	
2	60	323.360	2.28	Av . Mean Dia "d"= 2.34 mm
3	90	323.840	2.04	
4	120	323.210	1.46	Av .Silt Factor " f " = 2.69
5	150	322.630	2.18	
6	180	322.190	3.55	
7	210	323.870	1.79	

POST MONSOON SURVEY (DATE 29.12.2020)Discharge 'Q' : 3.7m³/secArea of Section 'A' : m²

Wetted Perimeter 'P' : m

Water edge: L.B. m R.B. m

Mean Velocity 'V' : m/ sec

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	321.920	1.72	
2	60	323.330	1.57	Av . Mean Dia "d"= 1.99mm
3	90	323.790	1.38	
4	120	323.210	1.11	Av .Silt Factor " f " = 2.48
5	150	322.680	3.19	
6	180	322.180	3.69	
7	210	323.020	1.25	

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.8 Narmada at Barmanghat

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE :NARMADA AT BARMANGHAT

CODE : CW1NAU000188

MEASURING AUTHORITY : NDB

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE 22.05.2020)

Discharge 'Q' : 22.100m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' :0.630 m/ sec

Wetted Perimeter 'P':178.5m

Hydraulic Mean Depth'R': 1.97m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	311.920	1.49	
2	120	309.980	1.09	Av . Mean Dia "d" = 1.05 mm
3	180	306.160	0.71	
4	240	305.480	2.42	Av .Silt Factor " f " = 1.80
5	300	308.630	0.59	
6	350	322.410	0.30	
7	400	327.850	0.73	

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

MONSOON SURVEY (DATE 26.10.2020)

Discharge 'Q' : 329.0m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' 0.687 m/ sec

Wetted Perimeter 'P' 141.2 m

Hydraulic Mean Depth'R' 3.39 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60.00	311.850	0.71	
2	120.00	309.890	1.61	Av . Mean Dia "d" = 0.88 mm
3	180.00	306.290	0.59	
4	240.00	305.550	0.82	Av .Silt Factor " f " = 1.65
5	300.00	308.600	0.90	
6	350.00	322.520	0.76	
7	400.00	337.870	0.78	

POST MONSOON SURVEY (DATE 04.01.2021)

Discharge 'Q' 128.0m³/sec

Water edge: L.B. m R.B. m

Area of Section 'A' : m²

Mean Velocity' V ' : 0.386 m/ sec

Wetted Perimeter 'P': 167.3 m

Hydraulic Mean Depth'R' : 1.98 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60.00	311.835	1.03	
2	120.00	310.800	1.43	Av . Mean Dia "d" = 1.39 mm
3	180.00	307.390	1.79	
4	240.00	306.530	1.31	Av .Silt Factor " f " = 2.08
5	300.00	308.280	1.31	
6	350.00	322.420	1.40	
7	400.00	327.850	1.46	

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.9 Banjar at Bamni

BED MATERIAL DATA FOR THE YEAR 2020-2021

SITE :BANJAR AT BAMNI
MEASURING AUTHORITY : NDB

CODE :
CW1NAU000781
W.YEAR :2020-21

PRE MONSOON SURVEY (DATE)

Discharge 'Q' : m^3/sec
Area of Section 'A' : m^2
Wetted Perimeter 'P': m

Water edge: L.B. m R.B. m
Mean Velocity 'V' : m/ sec
Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50			
2	100			Av . Mean Dia "d" = mm
3	150	NOT COLLECTED		
4	200			Av .Silt Factor " f " =

Note : River Dry

MONSOON SURVEY (DATE 23.10.2020)

Discharge 'Q' : m^3/sec
Area of Section 'A' : m^2

Water edge: L.B. m R.B. m
Mean Velocity 'V' : m/ sec
Hydraulic Mean Depth 'R' : m

Wetted Perimeter 'P': m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	440.160	1.39	
2	100	440.260	0.96	Av .Mean Dia"d" = 1.11 mm
3	150	439.400	0.95	
4	200	439.050	1.12	Av .Silt Factor " f " = 1.85

POST MONSOON SURVEY (DATE 12.02.2021)

Discharge 'Q' : m^3/sec
Area of Section 'A' : m^2
Wetted Perimeter 'P' : m

Water edge: L.B. m R.B. m
Mean Velocity 'V' : m/ sec
Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	439.860	1.06	
2	100	439.790	0.95	Av . Mean Dia "d" = 1.03 mm
3	150	439.340	1.28	
4	200	439.120	0.81	Av .Silt Factor " f " = 1.79

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.10 Burhner at Mohgaon**BED MATERIAL DATA FOR THE YEAR 2020-2021****SITE :BURHNER AT MOHGAON**

MEASURING AUTHORITY : NDB

CODE :

CW1NAU000390

W.YEAR :2020-21

PRE MONSOON SURVEY (DATE 21.05.2020)Discharge 'Q' : m³/secArea of Section 'A' : m²

Wetted Perimeter 'P' : m

Water edge: L.B. m R.B. m

Mean Velocity 'V' : m/ sec

Hydraulic Mean Depth 'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	450.610	4.48	
2	100	449.340	5.15	Av . Mean Dia "d"=3.39 mm
3	150	449.340	3.32	
4	200	451.630	0.62	Av .Silt Factor " f " = 3.24

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

MONSOON SURVEY (DATE 28.10.2020)Discharge 'Q' :52.49 m³/secArea of Section 'A' : m²

Wetted Perimeter 'P':54.82 m

Water edge: L.B. m R.B. m

Mean Velocity 'V' : 1.125 m/ sec

Hydraulic Mean Depth 'R' :0.85 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	450.970	4.10	
2	100	449.360	1.73	Av . Mean Dia "d" =1.72 mm
3	150	451.520	0.72	
4	200	460.430	0.34	Av .Silt Factor " f " = 2.31

POST MONSOON SURVEY (DATE 18.12.2020)Discharge 'Q' : 13.40 m³/secArea of Section 'A' : 21.14 m²

Wetted Perimeter 'P' : 21.45m

Water edge: L.B. m R.B. m

Mean Velocity 'V' : 0.626 m/ sec

Hydraulic Mean Depth 'R' :1.00 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	490.950	5.82	
2	100	449.430	0.88	Av . Mean Dia "d" = 2.01mm
3	150	452.220	0.74	
4	200	460.410	0.60	Av .Silt Factor " f " = 2.50

Note ; 1) Discharge was observed at S / G section 2) Single Channel Flow

5.11 Narmada at Manot**BED MATERIAL DATA FOR THE YEAR 2020-2021**

SITE :NARMADA AT MANOT
MEASURING AUTHORITY : NDB

CODE :
CW1NAU000378
W.YEAR :2020-21

PRE MONSOON SURVEY (DATE 20.05.2020)

Discharge 'Q' :8.471 m³/sec
 Area of Section 'A' : m²
 Wetted Perimeter 'P': 39.22m

Water edge: L.B. m R.B. m
 Mean Velocity' V ' : 0.388m/ sec
 Hydraulic Mean Depth 'R' : 0.56m

Sample. No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.030	4.08	
2	100	443.770	0.77	Av . Mean Dia "d"= 1.30mm
3	150	442.630	0.57	
4	200	448.410	0.42	Av .Silt Factor " f " = 2.01
5	250	459.380	0.67	

MONSOON SURVEY (DATE 31.10.2020)

Discharge 'Q' : m³/sec
 Area of Section 'A' : m²
 Wetted Perimeter 'P': m

Water edge: L.B. m R.B. m
 Mean Velocity' V ' : m/ sec
 Hydraulic Mean Depth'R' :m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.270	6.03	
2	100	443.770	1.74	Av . Mean Dia "d" =2.35 mm
3	150	Rocky Bed		
4	200	448.660	0.81	Av .Silt Factor " f " = 2.70
5	250	459.910	0.80	

POST MONSOON SURVEY (DATE 18.02.2021)

Discharge 'Q' : m³/sec
 Area of Section 'A' : m²
 Wetted Perimeter 'P': m

Water edge: L.B. m R.B. m
 Mean Velocity' V ' : m/ sec
 Hydraulic Mean Depth'R' : m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.255	2.69	
2	100	443.760	1.23	Av . Mean Dia "d" = 1.24mm
3	150	Rocky Bed		
4	200	448.690	0.79	Av .Silt Factor " f " = 2.67
5	250	459.780	0.27	

Note ; 1) Discharge was observed at S / G section 2) Single Channel flow
