

केवल सरकारी उपयोग हेतु

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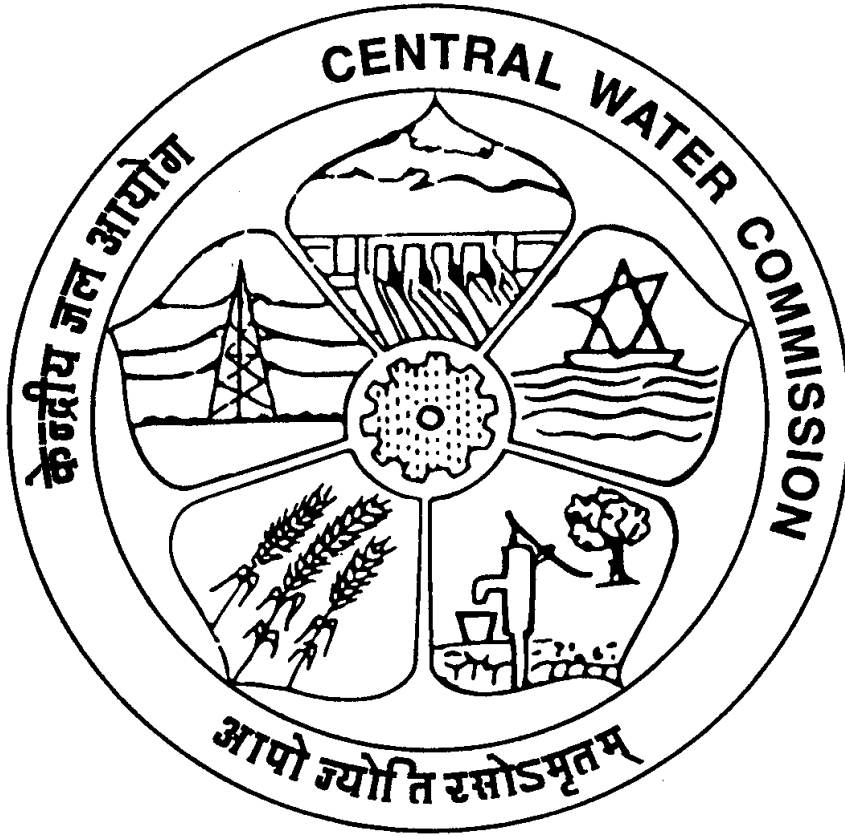
SEDIMENT DATA BOOK

नर्मदा बेसिन

Narmada Basin

जून 2016- मई 2017

June 2016 – May 2017



केन्द्रीय जल आयोग
नर्मदा बेसिन संगठन
मार्च 2018

CENTRAL WATER COMMISSION
Narmada Basin Organisation
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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
NDN	:	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 2016-17 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	010215032
2.	Narmada at Garudeshwar	010215030
3.	Narmada at Mandleshwar	010215026
4.	Narmada at Handia	010215022
5.	Narmada at Hoshangabad	010215019
6.	Narmada at Sandia	010215013
7.	Shakkar at Gadarwara	010215012
8.	Narmada at Barman	010215011
9.	Banjar at Bamni	NCA SITE
10.	Burhner at Mohgaon	010215004
11.	Narmada at Manot	010215002

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 2016-17, 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	010215026
2.	Narmada at Handia	010215022
3.	Narmada at Hoshangabad	010215019
4.	Narmada at Sandia	010215013
5.	Shakkar at Gadarwara	010215012
6.	Narmada at Barmanghat	010215011
7.	Banjar at Bamni	010215006
8.	Burhner at Mohgaon	010215004
9.	Narmada at Manot	010215002
Tapi Division, Surat		
1.	Narmada at Garudeshwar	010215030
2.	Orsang at Chandwada	010215032

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 $72^{\circ} 32'$ to $81^{\circ} 45'$ and North Latitudes $21^{\circ} 20'$ to $23^{\circ} 45'$. 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

3 2.1 Observation Techniques

3.1.1 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.

3.1.2 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.

3.2 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.

3.3 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.

3.4 Comments on Sitewise Data

3.4.1 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 0.007 g/l recorded on 03.08.2016. The annual sediment load works out to 1883 metric tonnes.

2.4.2. 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 0.083 g/l, on 05.08.2016. The annual sediment load work out to 341040 metric tonnes.

2.4.3. 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 0.43 g/l, which was observed on 07.08.2016. The total annual sediment load 2442853.764 metric tonnes.

2.4.4. 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 2.31 g/l, which was observed on 13.07.2016. The total annual sediment load is 20517073.287 metric tonnes.

2.4.5. 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 2.24 g/l, which was observed on 08.08.2016. The total annual sediment load is 9542853.464 metric tonnes.

2.4.6. 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 2.71 g/l, which was observed on 12.07.2016. The total annual sediment load is 5109839.061 metric tonnes.

2.4.7. 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 1.69 g/l, which was observed on 12.07.2016. The total annual sediment load is 1223871.631 metric tonnes.

2.4.8. 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 5.74 g/l which was observed on 22.07.2016. The total annual sediment load is 8040755.802 metric tonnes.

2.4.9. 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 0.32 g/l, which was recorded on 07.08.2016. The annual sediment load works out to 117545.944 metric tonnes.

2.4.10. 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 8.41 g/l, which was observed on 10.07.2016. The total annual sediment load is 2319600.668 metric tonnes.

2.4.11. 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 2.15 g/l, which was observed on 10.07.2016. The total annual sediment load is 1026646.206 metric tonnes.

4 Bed Material Observation

5 3.1 Observation Techniques

5.1.1 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.

5.1.2 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.

5.1.3 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 the 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.

5.2 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.
1.	Orsang at Chandwada	010215032
2.	Narmada at Garudeshwar	010215030
3.	Narmada at Mandleshwar	010215026
4.	Narmada at Handia	010215022
5.	Narmada at Hoshangabad	010215019
6.	Narmada at Sandia	010215013
7.	Shakkar at Gadarwara	010215012
8.	Narmada at Barman	010215011
9.	Banjar at Bamni	010215006
10.	Burhner at Mohgaon	010215004
11.	Narmada at Manot	010215002

6 Part – I Sediment Data

6.1 Orsang at Chandwada

History Sheet

		Water Year	: 2016-2017
Site	: Orsang at Chandwada	Code	: 01 02 15 032
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	: 22°01'48"	Longitude	: 73°25'30"
Zero of Gauge (m)	: 18 .000(M.S.L.)	01/10/1979	
	Opening Date	Closing Date	
Gauge	: 11/01/1979		
Discharge	: 01/11/1979		
Sediment	: 01/08/1988		
Water Quality	: 15/03/1980		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Day	Jun						Jul						Aug					
	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	0.000						0.000						19.35	0.000	0.000	0.002	0.002	3
2	0.000						0.000						58.32	0.000	0.000	0.004	0.004	20
3	0.000						0.000						296.4	0.000	0.000	0.007	0.007	182
4	0.000						0.000						90.84	0.000	0.000	0.004	0.004	29
5	0.000						0.000						127.4	0.000	0.000	0.004	0.004	46
6	0.000						0.000						52.42	0.000	0.000	0.002	0.002	8
7	0.000						0.000						144.4	0.000	0.000	0.005	0.005	58
8	0.000						0.000						144.4	0.000	0.000	0.005	0.005	56
9	0.000						0.000						190.1	0.000	0.000	0.005	0.005	82
10	0.000						0.000						322.4	0.000	0.000	0.005	0.005	125
11	0.000						0.000						475.2	0.000	0.000	0.006	0.006	246
12	0.000						0.000						245.6	0.000	0.000	0.003	0.003	66
13	0.000						157.6	0.000	0.000	0.004	0.004	60	149.9	0.000	0.000	0.002	0.002	26
14	0.000						47.91	0.000	0.000	0.001	0.001	6	71.95	0.000	0.000	0.001	0.001	6
15	0.000						13.99	0.000	0.000	0.001	0.001	1	49.95	0.000	0.000	0.001	0.001	3
16	0.000						7.583	0.000	0.000	0.001	0.001	1	34.55	0.000	0.000	0.001	0.001	4
17	0.000						5.050	0.000	0.000	0.001	0.001	0	32.56	0.000	0.000	0.001	0.001	3
18	0.000						2.521	0.000	0.000	0.001	0.001	0	24.00	0.000	0.000	0.001	0.001	2
19	0.000						2.521	0.000	0.000	0.001	0.001	0	24.05	0.000	0.000	0.001	0.001	2
20	0.000						1.839	0.000	0.000	0.001	0.001	0	85.69	0.000	0.000	0.004	0.004	27
21	0.000						0.000						85.69	0.000	0.000	0.004	0.004	27
22	0.000						0.000						101.1	0.000	0.000	0.004	0.004	35
23	0.000						0.000						60.09	0.000	0.000	0.003	0.003	15
24	0.000						0.000						85.80	0.000	0.000	0.004	0.004	29
25	0.000						0.000						85.83	0.000	0.000	0.004	0.004	29
26	0.000						0.000						85.85	0.000	0.000	0.004	0.004	28
27	0.000						0.000						91.80	0.000	0.000	0.003	0.003	26
28	0.000						0.000						100.8	0.000	0.000	0.004	0.004	32
29	0.000						58.41	0.000	0.000	0.002	0.002	11	66.09	0.000	0.000	0.004	0.004	22
30	0.000						24.21	0.000	0.000	0.002	0.002	4	65.86	0.000	0.000	0.004	0.004	20
31							21.78	0.000	0.000	0.002	0.002	3	66.54	0.000	0.000	0.004	0.004	21
Ten Daily Mean																		
Ten Daily I	0.000						0.000						144.6	0.000	0.000	0.004	0.004	61
Ten Daily II	0.000						23.90	0.000	0.000	0.001	0.001	9	119.3	0.000	0.000	0.002	0.002	39
Ten Daily III	0.000						9.491	0.000	0.000	0.002	0.002	6	81.40	0.000	0.000	0.004	0.004	26
Monthly																		

Total

86

1278

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Day	Sep						Oct						Nov					
	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	91.16	0.000	0.000	0.004	0.004	30	42.02	0.000	0.000	0.000	0.000	1	9.144	0.000	0.000	0.000	0.000	0
2	54.16	0.000	0.000	0.004	0.004	17	40.47	0.000	0.000	0.000	0.000	1	9.120	0.000	0.000	0.000	0.000	0
3	82.05	0.000	0.000	0.003	0.003	23	40.77	0.000	0.000	0.000	0.000	0	9.080	0.000	0.000	0.000	0.000	0
4	82.16	0.000	0.000	0.003	0.003	23	43.93	0.000	0.000	0.004	0.004	13	8.675	0.000	0.000	0.000	0.000	0
5	46.49	0.000	0.000	0.003	0.003	13	59.25	0.000	0.000	0.004	0.004	18	8.631	0.000	0.000	0.000	0.000	0
6	45.35	0.000	0.000	0.003	0.003	13	60.29	0.000	0.000	0.004	0.004	22	7.260	0.000	0.000	0.000	0.000	0
7	42.50	0.000	0.000	0.003	0.003	12	56.60	0.000	0.000	0.003	0.003	17	4.531	0.000	0.000	0.000	0.000	0
8	41.62	0.000	0.000	0.003	0.003	12	55.31	0.000	0.000	0.003	0.003	16	4.429	0.000	0.000	0.000	0.000	0
9	41.04	0.000	0.000	0.001	0.001	4	57.01	0.000	0.000	0.004	0.004	17	4.263	0.000	0.000	0.000	0.000	0
10	28.59	0.000	0.000	0.002	0.002	4	45.63	0.000	0.000	0.001	0.001	5	4.169	0.000	0.000	0.000	0.000	0
11	24.35	0.000	0.000	0.001	0.001	3	64.14	0.000	0.000	0.002	0.002	9	4.162	0.000	0.000	0.000	0.000	0
12	23.50	0.000	0.000	0.001	0.001	2	48.38	0.000	0.000	0.001	0.001	5	3.665	0.000	0.000	0.000	0.000	0
13	22.88	0.000	0.000	0.001	0.001	2	28.67	0.000	0.000	0.002	0.002	4	3.520	0.000	0.000	0.000	0.000	0
14	22.27	0.000	0.000	0.000	0.000	0	27.93	0.000	0.000	0.001	0.001	3	3.370	0.000	0.000	0.000	0.000	0
15	22.36	0.000	0.000	0.000	0.000	0	27.24	0.000	0.000	0.000	0.000	0	3.089	0.000	0.000	0.000	0.000	0
16	17.43	0.000	0.000	0.000	0.000	0	26.74	0.000	0.000	0.000	0.000	0	2.939	0.000	0.000	0.000	0.000	0
17	26.05	0.000	0.000	0.000	0.000	0	25.25	0.000	0.000	0.001	0.001	3	2.476	0.000	0.000	0.000	0.000	0
18	39.32	0.000	0.000	0.000	0.000	0	19.46	0.000	0.000	0.001	0.001	2	2.075	0.000	0.000	0.000	0.000	0
19	34.08	0.000	0.000	0.004	0.004	10	18.63	0.000	0.000	0.001	0.001	2	2.009	0.000	0.000	0.000	0.000	0
20	33.15	0.000	0.000	0.003	0.003	10	18.32	0.000	0.000	0.001	0.001	2	2.000	0.000	0.000	0.000	0.000	0
21	62.03	0.000	0.000	0.004	0.004	20	18.32	0.000	0.000	0.001	0.001	2	2.009	0.000	0.000	0.000	0.000	0
22	56.35	0.000	0.000	0.004	0.004	18	17.04	0.000	0.000	0.001	0.001	1	1.995	0.000	0.000	0.000	0.000	0
23	60.39	0.000	0.000	0.004	0.004	19	17.04	0.000	0.000	0.001	0.001	1	1.977	0.000	0.000	0.000	0.000	0
24	41.45	0.000	0.000	0.004	0.004	13	10.41	0.000	0.000	0.001	0.001	1	1.954	0.000	0.000	0.000	0.000	0
25	88.18	0.000	0.000	0.007	0.007	57	10.01	0.000	0.000	0.001	0.001	1	1.658	0.000	0.000	0.000	0.000	0
26	88.18	0.000	0.000	0.004	0.004	29	9.690	0.000	0.000	0.001	0.001	1	1.646	0.000	0.000	0.000	0.000	0
27	46.10	0.000	0.000	0.003	0.003	14	9.522	0.000	0.000	0.001	0.001	0	1.610	0.000	0.000	0.000	0.000	0
28	42.29	0.000	0.000	0.003	0.003	12	9.328	0.000	0.000	0.001	0.001	0	1.590	0.000	0.000	0.000	0.000	0
29	45.87	0.000	0.000	0.001	0.001	5	9.297	0.000	0.000	0.001	0.001	0	1.578	0.000	0.000	0.000	0.000	0
30	43.25	0.000	0.000	0.000	0.000	1	9.280	0.000	0.000	0.000	0.000	0	1.571	0.000	0.000	0.000	0.000	0
31							9.269	0.000	0.000	0.001	0.001	0						
<u>Ten Daily Mean</u>																		
Ten Daily I	55.51	0.000	0.000	0.003	0.003	15	50.13	0.000	0.000	0.002	0.002	11	6.930	0.000	0.000	0.000	0.000	0
Ten Daily II	26.54	0.000	0.000	0.001	0.001	3	30.48	0.000	0.000	0.001	0.001	3	2.931	0.000	0.000	0.000	0.000	0
Ten Daily III	57.41	0.000	0.000	0.003	0.003	19	11.75	0.000	0.000	0.001	0.001	1	1.759	0.000	0.000	0.000	0.000	0
<u>Monthly</u>																		
Total						366						149						3

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Day	Dec						Jan						Feb					
	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	1.567																	
2	1.561																	
3	1.560																	
4	1.150																	
5	0.756																	
6	0.753																	
7	0.753																	
8	0.740																	
9	0.737																	
10	0.717																	
11	7.720																	
12	7.720																	
13	0.732																	
14	0.730																	
15	0.730																	
16	0.728																	
17	0.753																	
18	0.720																	
19	0.696																	
20	0.692																	
21	0.680																	
22	0.676																	
23	0.667																	
24	0.000																	
25	0.000																	
26	0.000																	
27	0.000																	
28	0.000																	
29	0.000																	
30	0.000																	
31	0.000																	
Ten Daily Mean																		
Ten Daily I	1.029																	
Ten Daily II	2.122																	
Ten Daily III	0.184																	
Monthly																		

Total

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Day	Mar						Apr						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																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
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22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
<u>Ten Daily Mean</u>																		
Ten Daily I																		
Ten Daily II																		
Ten Daily III																		
<u>Monthly</u>																		

Total

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1989-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (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

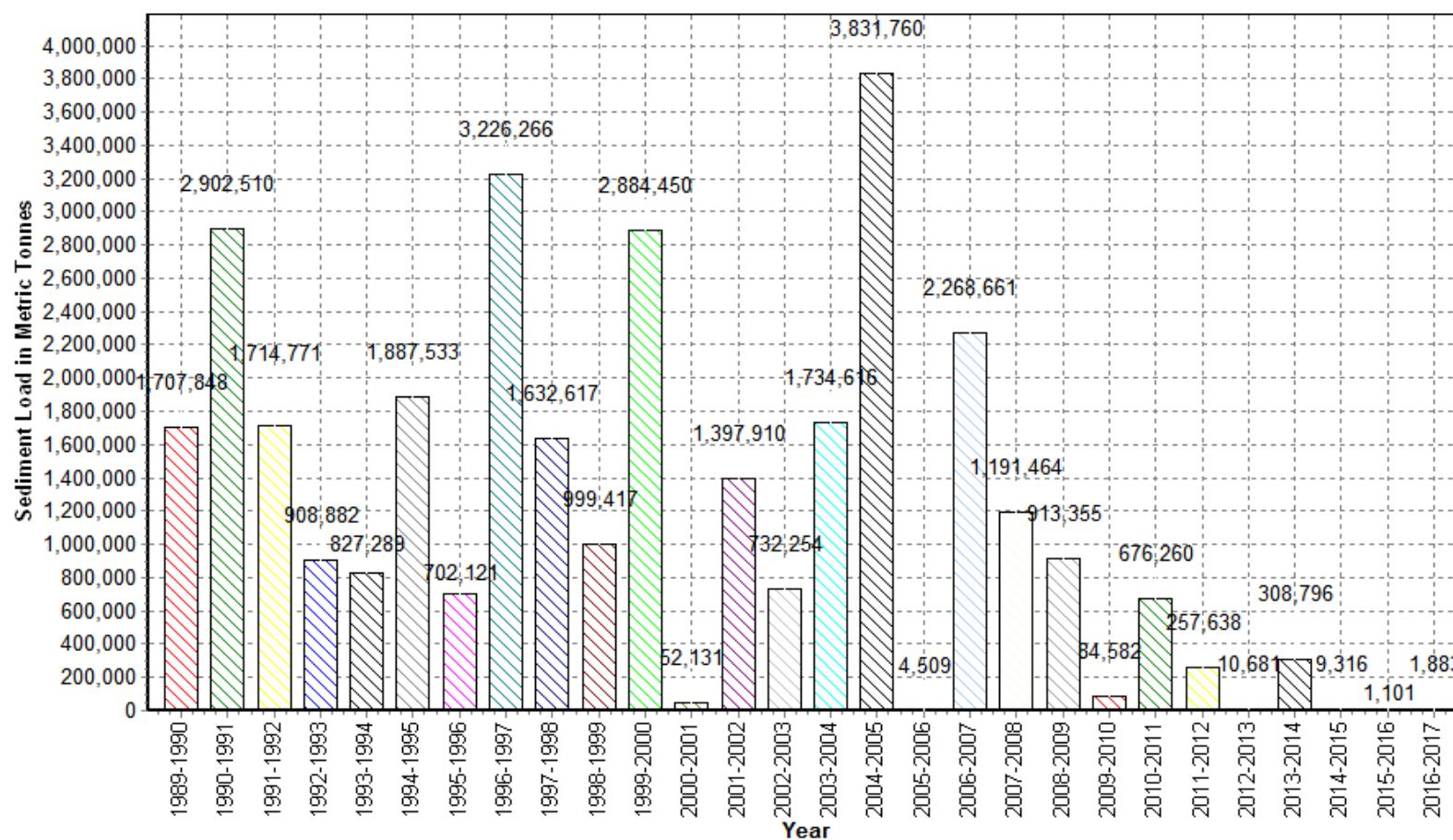
Annual Sediment Load for the period: 1989-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch



Sediment Data Year Book 2016-17

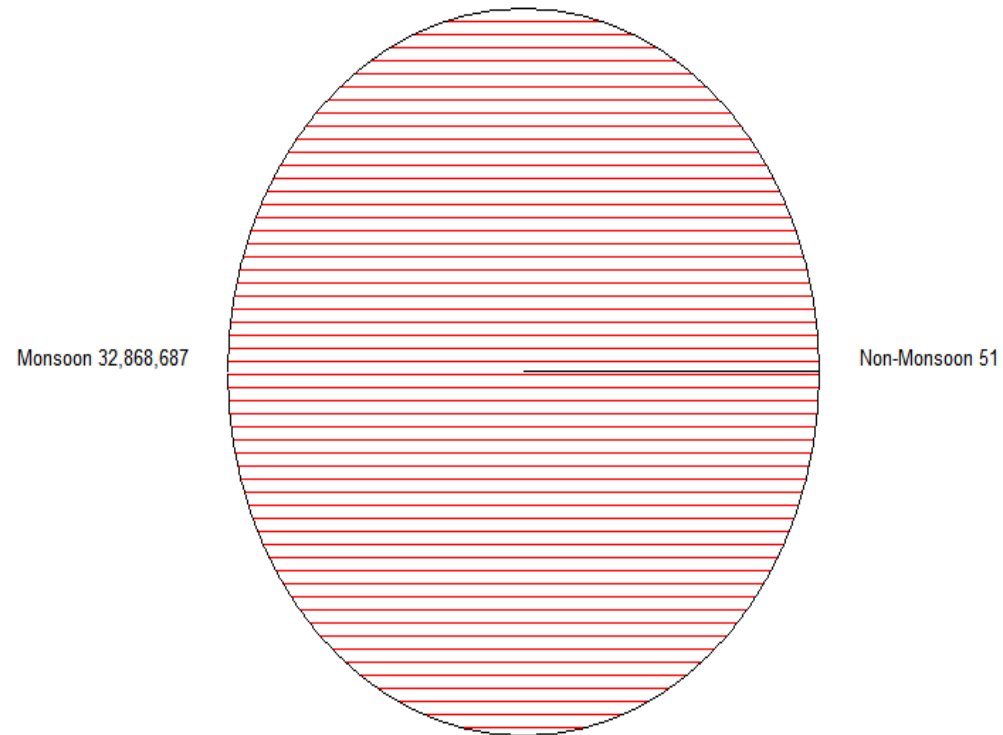
Seasonal Sediment Load for the period : 1989-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch



Sediment Data Year Book 2016-17

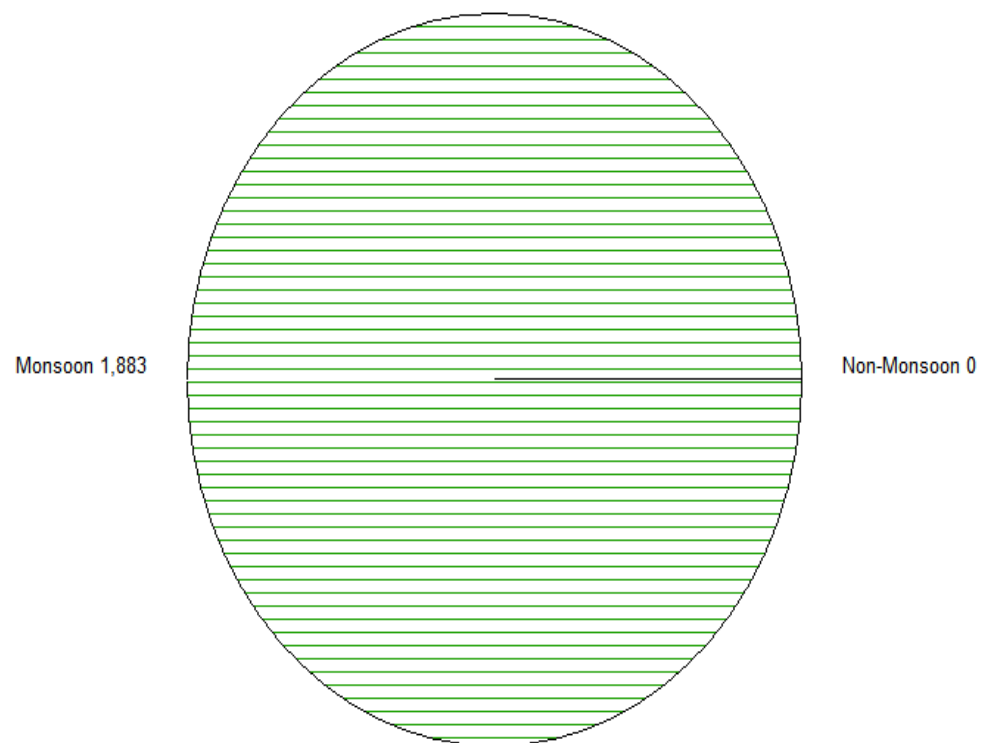
Seasonal Sediment Load for the Year: 2016-2017

Station Name : Orsang at Chandwada (01 02 15 032)

Division : Tapi Division, Surat

Local River : Orsang

Sub-Division : LNSD,Bharuch



6.2 Narmada at Garudeshwar**History Sheet**

		Water Year	: 2016-2017
Site	: Narmada at Garudeshwar	Code	: 01 02 15 030
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 .000(M.S.L.)	22/12/1971	
	Opening Date	Closing Date	
Gauge	: 22/12/1971		
Discharge	: 23/03/1972		
Sediment	: 21/03/1973		
Water Quality	: 15/06/1977		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Day	Jun						Jul						Aug					
	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	40.69	0.000	0.000	0.000	0.000	0	46.44	0.000	0.000	0.000	0.000	0	1373	0.000	0.000	0.068	0.068	8007
2	40.62	0.000	0.000	0.000	0.000	0	108.7	0.000	0.000	0.000	0.000	0	1313	0.000	0.000	0.080	0.080	9075
3	26.66	0.000	0.000	0.000	0.000	0	139.8	0.000	0.000	0.000	0.000	0	1276	0.000	0.000	0.070	0.070	7717
4	47.59	0.000	0.000	0.000	0.000	0	46.42	0.000	0.000	0.000	0.000	0	1329	0.000	0.000	0.058	0.058	6602
5	36.89	0.000	0.000	0.000	0.000	0	45.46	0.000	0.000	0.000	0.000	0	1321	0.000	0.000	0.083	0.083	9416
6	46.48	0.000	0.000	0.000	0.000	0	43.15	0.000	0.000	0.000	0.000	0	1540	0.000	0.000	0.013	0.013	1663
7	106.8	0.000	0.000	0.000	0.000	0	47.08	0.000	0.000	0.000	0.000	0	4794	0.000	0.000	0.039	0.039	16118
8	106.4	0.000	0.000	0.000	0.000	0	48.55	0.000	0.000	0.000	0.000	0	7075	0.000	0.000	0.075	0.075	45846
9	106.2	0.000	0.000	0.000	0.000	0	25.99	0.000	0.000	0.000	0.000	0	8117	0.000	0.000	0.048	0.048	33312
10	99.06	0.000	0.000	0.000	0.000	0	25.54	0.000	0.000	0.000	0.000	0	8996	0.000	0.000	0.005	0.005	3886
11	111.1	0.000	0.000	0.000	0.000	0	26.08	0.000	0.000	0.000	0.000	0	8328	0.000	0.000	0.065	0.065	46770
12	69.05	0.000	0.000	0.000	0.000	0	47.59	0.000	0.000	0.000	0.000	0	6525	0.000	0.000	0.073	0.073	40873
13	253.3	0.000	0.000	0.000	0.000	0	50.95	0.000	0.000	0.000	0.000	0	4354	0.000	0.000	0.050	0.050	18809
14	278.1	0.000	0.000	0.000	0.000	0	1552	0.000	0.000	0.000	0.000	0	3260	0.000	0.000	0.037	0.037	10545
15	274.0	0.000	0.000	0.000	0.000	0	1550	0.000	0.000	0.000	0.000	0	2563	0.000	0.000	0.029	0.029	6518
16	276.5	0.000	0.000	0.000	0.000	0	1532	0.000	0.000	0.000	0.000	40	1900	0.000	0.000	0.038	0.038	6156
17	272.1	0.000	0.000	0.000	0.000	0	1524	0.000	0.000	0.000	0.000	39	1641	0.000	0.000	0.038	0.038	5317
18	268.6	0.000	0.000	0.000	0.000	0	1515	0.000	0.000	0.000	0.000	0	1476	0.000	0.000	0.035	0.035	4463
19	86.15	0.000	0.000	0.000	0.000	0	1475	0.000	0.000	0.000	0.000	0	1538	0.000	0.000	0.033	0.033	4319
20	237.7	0.000	0.000	0.000	0.000	0	1410	0.000	0.000	0.000	0.000	0	1522	0.000	0.000	0.028	0.028	3682
21	248.4	0.000	0.000	0.000	0.000	0	1400	0.000	0.000	0.000	0.000	0	1508	0.000	0.000	0.028	0.028	3615
22	178.3	0.000	0.000	0.000	0.000	0	1021	0.000	0.000	0.000	0.000	0	1850	0.000	0.000	0.010	0.010	1598
23	110.7	0.000	0.000	0.000	0.000	0	950.9	0.000	0.000	0.000	0.000	0	2143	0.000	0.000	0.013	0.013	2314
24	104.8	0.000	0.000	0.000	0.000	0	820.7	0.000	0.000	0.000	0.000	0	2467	0.000	0.000	0.015	0.015	3197
25	46.13	0.000	0.000	0.000	0.000	0	902.0	0.000	0.000	0.000	0.000	0	2689	0.000	0.000	0.016	0.016	3799
26	44.39	0.000	0.000	0.000	0.000	0	1450	0.000	0.000	0.000	0.000	38	2718	0.000	0.000	0.013	0.013	2935
27	46.65	0.000	0.000	0.000	0.000	0	1196	0.000	0.000	0.001	0.001	52	2364	0.000	0.000	0.008	0.008	1532
28	46.80	0.000	0.000	0.000	0.000	0	1442	0.000	0.000	0.001	0.001	62	2257	0.000	0.000	0.007	0.007	1396
29	46.13	0.000	0.000	0.000	0.000	0	1436	0.000	0.000	0.001	0.001	99	2539	0.000	0.000	0.008	0.008	1645
30	46.59	0.000	0.000	0.000	0.000	0	1434	0.000	0.000	0.001	0.001	62	2680	0.000	0.000	0.008	0.008	1737
31							1373	0.000	0.000	0.000	0.000	57	2459	0.000	0.000	0.010	0.010	2125
Ten Daily Mean																		
Ten Daily I	65.74	0.000	0.000	0.000	0.000	0	57.71	0.000	0.000	0.000	0.000	0	3713	0.000	0.000	0.054	0.054	14164
Ten Daily II	212.7	0.000	0.000	0.000	0.000	0	1068	0.000	0.000	0.000	0.000	8	3311	0.000	0.000	0.042	0.042	14745
Ten Daily III	91.89	0.000	0.000	0.000	0.000	0	1221	0.000	0.000	0.000	0.000	34	2334	0.000	0.000	0.012	0.012	2354
Monthly Total						0						449						314988

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Day	Sep						Oct						Nov					
	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	2253	0.000	0.000	0.008	0.008	1460	935.4	0.000	0.000	0.002	0.002	121	40.31	0.000	0.000	0.000	0.000	1
2	2061	0.000	0.000	0.005	0.005	890	1302	0.000	0.000	0.002	0.002	235	40.49	0.000	0.000	0.000	0.000	1
3	1868	0.000	0.000	0.005	0.005	807	1271	0.000	0.000	0.002	0.002	220	36.22	0.000	0.000	0.000	0.000	1
4	1612	0.000	0.000	0.004	0.004	601	1310	0.000	0.000	0.002	0.002	192	34.23	0.000	0.000	0.000	0.000	1
5	1509	0.000	0.000	0.003	0.003	326	1553	0.000	0.000	0.002	0.002	201	36.00	0.000	0.000	0.000	0.000	1
6	1450	0.000	0.000	0.006	0.006	777	1625	0.000	0.000	0.000	0.000	42	36.71	0.000	0.000	0.000	0.000	1
7	1307	0.000	0.000	0.008	0.008	847	1645	0.000	0.000	0.001	0.001	142	36.47	0.000	0.000	0.000	0.000	0
8	1250	0.000	0.000	0.058	0.058	6210	1360	0.000	0.000	0.001	0.001	118	36.95	0.000	0.000	0.000	0.000	0
9	1311	0.000	0.000	0.003	0.003	328	1265	0.000	0.000	0.001	0.001	102	35.60	0.000	0.000	0.000	0.000	0
10	1300	0.000	0.000	0.002	0.002	247	1265	0.000	0.000	0.002	0.002	164	36.47	0.000	0.000	0.000	0.000	0
11	1280	0.000	0.000	0.002	0.002	240	1280	0.000	0.000	0.002	0.002	168	37.83	0.000	0.000	0.000	0.000	0
12	1044	0.000	0.000	0.002	0.002	180	1265	0.000	0.000	0.002	0.002	164	37.81	0.000	0.000	0.000	0.000	0
13	514.2	0.000	0.000	0.001	0.001	44	1272	0.000	0.000	0.002	0.002	165	43.22	0.000	0.000	0.000	0.000	0
14	40.65	0.000	0.000	0.003	0.003	9	560.5	0.000	0.000	0.001	0.001	48	882.7	0.000	0.000	0.000	0.000	0
15	36.73	0.000	0.000	0.004	0.004	13	42.90	0.000	0.000	0.002	0.002	6	879.7	0.000	0.000	0.000	0.000	0
16	36.51	0.000	0.000	0.003	0.003	8	1299	0.000	0.000	0.045	0.045	5098	761.7	0.000	0.000	0.000	0.000	0
17	33.86	0.000	0.000	0.004	0.004	12	1315	0.000	0.000	0.001	0.001	114	614.1	0.000	0.000	0.000	0.000	0
18	637.6	0.000	0.000	0.075	0.075	4149	249.2	0.000	0.000	0.001	0.001	22	522.5	0.000	0.000	0.000	0.000	0
19	238.5	0.000	0.000	0.006	0.006	113	39.38	0.000	0.000	0.002	0.002	5	36.04	0.000	0.000	0.000	0.000	0
20	752.0	0.000	0.000	0.005	0.005	312	895.5	0.000	0.000	0.001	0.001	77	33.95	0.000	0.000	0.000	0.000	0
21	812.2	0.000	0.000	0.005	0.005	351	47.83	0.000	0.000	0.001	0.001	3	32.39	0.000	0.000	0.000	0.000	0
22	41.04	0.000	0.000	0.000	0.000	1	563.4	0.000	0.000	0.001	0.001	58	32.06	0.000	0.000	0.000	0.000	0
23	41.22	0.000	0.000	0.000	0.000	1	80.76	0.000	0.000	0.000	0.000	1	33.48	0.000	0.000	0.000	0.000	0
24	42.53	0.000	0.000	0.001	0.001	4	36.07	0.000	0.000	0.001	0.001	2	29.56	0.000	0.000	0.000	0.000	0
25	41.53	0.000	0.000	0.001	0.001	4	36.78	0.000	0.000	0.000	0.000	1	31.19	0.000	0.000	0.000	0.000	0
26	40.53	0.000	0.000	0.000	0.000	1	48.85	0.000	0.000	0.000	0.000	0	33.42	0.000	0.000	0.000	0.000	0
27	38.51	0.000	0.000	0.000	0.000	1	39.54	0.000	0.000	0.001	0.001	2	32.51	0.000	0.000	0.000	0.000	0
28	39.66	0.000	0.000	0.000	0.000	1	39.25	0.000	0.000	0.000	0.000	1	34.33	0.000	0.000	0.000	0.000	0
29	294.0	0.000	0.000	0.000	0.000	5	39.83	0.000	0.000	0.000	0.000	0	33.25	0.000	0.000	0.000	0.000	0
30	741.8	0.000	0.000	0.002	0.002	128	44.62	0.000	0.000	0.000	0.000	0	32.95	0.000	0.000	0.000	0.000	0
31							37.78	0.000	0.000	0.000	0.000	1						
Ten Daily Mean																		
Ten Daily I	1592	0.000	0.000	0.010	0.010	1249	1353	0.000	0.000	0.001	0.001	154	36.95	0.000	0.000	0.000	0.000	1
Ten Daily II	461.4	0.000	0.000	0.010	0.010	508	821.8	0.000	0.000	0.006	0.006	587	385.0	0.000	0.000	0.000	0.000	0
Ten Daily III	213.3	0.000	0.000	0.001	0.001	49	92.25	0.000	0.000	0.000	0.000	6	32.51	0.000	0.000	0.000	0.000	0
Monthly																		
Total						18068						7471						6

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Day	Dec						Jan						Feb					
	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	33.39	0.000	0.000	0.000	0.000	0	18.32	0.000	0.000	0.000	0.000	0	32.50	0.000	0.000	0.000	0.000	0
2	32.98	0.000	0.000	0.000	0.000	0	30.49	0.000	0.000	0.003	0.003	7	31.37	0.000	0.000	0.000	0.000	0
3	32.43	0.000	0.000	0.000	0.000	0	34.85	0.000	0.000	0.003	0.003	9	28.83	0.000	0.000	0.000	0.000	0
4	32.79	0.000	0.000	0.000	0.000	0	37.02	0.000	0.000	0.003	0.003	10	30.76	0.000	0.000	0.000	0.000	0
5	32.65	0.000	0.000	0.000	0.000	0	35.65	0.000	0.000	0.003	0.003	9	30.74	0.000	0.000	0.000	0.000	0
6	33.00	0.000	0.000	0.000	0.000	0	33.77	0.000	0.000	0.003	0.003	8	30.76	0.000	0.000	0.000	0.000	0
7	37.83	0.000	0.000	0.000	0.000	0	34.08	0.000	0.000	0.003	0.003	8	33.75	0.000	0.000	0.000	0.000	0
8	38.10	0.000	0.000	0.000	0.000	0	33.47	0.000	0.000	0.003	0.003	8	30.62	0.000	0.000	0.000	0.000	0
9	38.24	0.000	0.000	0.000	0.000	0	29.20	0.000	0.000	0.000	0.000	0	33.58	0.000	0.000	0.000	0.000	0
10	37.11	0.000	0.000	0.000	0.000	0	29.94	0.000	0.000	0.000	0.000	0	30.36	0.000	0.000	0.000	0.000	0
11	36.26	0.000	0.000	0.000	0.000	0	33.61	0.000	0.000	0.000	0.000	0	30.61	0.000	0.000	0.000	0.000	0
12	32.86	0.000	0.000	0.000	0.000	0	31.54	0.000	0.000	0.000	0.000	0	43.74	0.000	0.000	0.000	0.000	0
13	32.86	0.000	0.000	0.000	0.000	0	30.96	0.000	0.000	0.000	0.000	0	33.23	0.000	0.000	0.000	0.000	0
14	29.58	0.000	0.000	0.000	0.000	0	30.37	0.000	0.000	0.000	0.000	0	30.32	0.000	0.000	0.000	0.000	0
15	29.03	0.000	0.000	0.000	0.000	0	30.29	0.000	0.000	0.000	0.000	0	31.70	0.000	0.000	0.000	0.000	0
16	27.21	0.000	0.000	0.000	0.000	0	30.45	0.000	0.000	0.000	0.000	0	36.35	0.000	0.000	0.000	0.000	0
17	26.64	0.000	0.000	0.000	0.000	0	30.20	0.000	0.000	0.000	0.000	0	39.13	0.000	0.000	0.000	0.000	0
18	27.20	0.000	0.000	0.000	0.000	0	34.35	0.000	0.000	0.000	0.000	0	29.82	0.000	0.000	0.000	0.000	0
19	26.50	0.000	0.000	0.000	0.000	0	34.18	0.000	0.000	0.000	0.000	0	28.98	0.000	0.000	0.000	0.000	0
20	27.17	0.000	0.000	0.000	0.000	0	32.22	0.000	0.000	0.000	0.000	0	25.61	0.000	0.000	0.000	0.000	0
21	30.59	0.000	0.000	0.000	0.000	0	31.54	0.000	0.000	0.000	0.000	0	26.21	0.000	0.000	0.000	0.000	0
22	29.84	0.000	0.000	0.000	0.000	0	30.52	0.000	0.000	0.000	0.000	0	26.17	0.000	0.000	0.000	0.000	0
23	30.59	0.000	0.000	0.000	0.000	0	30.51	0.000	0.000	0.000	0.000	0	24.97	0.000	0.000	0.000	0.000	0
24	31.04	0.000	0.000	0.000	0.000	0	30.70	0.000	0.000	0.000	0.000	0	40.36	0.000	0.000	0.000	0.000	0
25	30.67	0.000	0.000	0.000	0.000	0	30.35	0.000	0.000	0.000	0.000	0	29.78	0.000	0.000	0.000	0.000	0
26	30.67	0.000	0.000	0.000	0.000	0	30.56	0.000	0.000	0.000	0.000	0	651.1	0.000	0.000	0.000	0.000	0
27	30.53	0.000	0.000	0.000	0.000	0	30.56	0.000	0.000	0.000	0.000	0	607.6	0.000	0.000	0.000	0.000	0
28	30.51	0.000	0.000	0.000	0.000	0	33.56	0.000	0.000	0.000	0.000	0	571.5	0.000	0.000	0.000	0.000	0
29	30.05	0.000	0.000	0.000	0.000	0	32.54	0.000	0.000	0.000	0.000	0						
30	31.06	0.000	0.000	0.000	0.000	0	32.54	0.000	0.000	0.000	0.000	0						
31	30.55	0.000	0.000	0.000	0.000	0	33.23	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	34.85	0.000	0.000	0.000	0.000	0	31.68	0.000	0.000	0.002	0.002	6	31.33	0.000	0.000	0.000	0.000	0
Ten Daily II	29.53	0.000	0.000	0.000	0.000	0	31.82	0.000	0.000	0.000	0.000	0	32.95	0.000	0.000	0.000	0.000	0
Ten Daily III	30.55	0.000	0.000	0.000	0.000	0	31.51	0.000	0.000	0.000	0.000	0	247.2	0.000	0.000	0.000	0.000	0
Monthly																		
Total						0						58						0

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch

Day	Mar						Apr						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	620.0	0.000	0.000	0.000	0.000	0	26.79	0.000	0.000	0.000	0.000	0	55.44	0.000	0.000	0.000	0.000	0
2	32.63	0.000	0.000	0.000	0.000	0	26.70	0.000	0.000	0.000	0.000	0	29.32	0.000	0.000	0.000	0.000	0
3	26.22	0.000	0.000	0.000	0.000	0	26.63	0.000	0.000	0.000	0.000	0	28.94	0.000	0.000	0.000	0.000	0
4	30.40	0.000	0.000	0.000	0.000	0	26.56	0.000	0.000	0.000	0.000	0	54.57	0.000	0.000	0.000	0.000	0
5	27.30	0.000	0.000	0.000	0.000	0	26.74	0.000	0.000	0.000	0.000	0	59.44	0.000	0.000	0.000	0.000	0
6	27.30	0.000	0.000	0.000	0.000	0	25.70	0.000	0.000	0.000	0.000	0	236.2	0.000	0.000	0.000	0.000	0
7	297.8	0.000	0.000	0.000	0.000	0	27.30	0.000	0.000	0.000	0.000	0	236.2	0.000	0.000	0.000	0.000	0
8	30.80	0.000	0.000	0.000	0.000	0	28.65	0.000	0.000	0.000	0.000	0	54.27	0.000	0.000	0.000	0.000	0
9	30.42	0.000	0.000	0.000	0.000	0	28.95	0.000	0.000	0.000	0.000	0	29.37	0.000	0.000	0.000	0.000	0
10	30.91	0.000	0.000	0.000	0.000	0	28.79	0.000	0.000	0.000	0.000	0	29.12	0.000	0.000	0.000	0.000	0
11	30.46	0.000	0.000	0.000	0.000	0	29.60	0.000	0.000	0.000	0.000	0	27.09	0.000	0.000	0.000	0.000	0
12	33.30	0.000	0.000	0.000	0.000	0	33.30	0.000	0.000	0.000	0.000	0	27.06	0.000	0.000	0.000	0.000	0
13	29.04	0.000	0.000	0.000	0.000	0	29.04	0.000	0.000	0.000	0.000	0	245.5	0.000	0.000	0.000	0.000	0
14	30.25	0.000	0.000	0.000	0.000	0	29.04	0.000	0.000	0.000	0.000	0	160.0	0.000	0.000	0.000	0.000	0
15	28.46	0.000	0.000	0.000	0.000	0	253.0	0.000	0.000	0.000	0.000	0	54.53	0.000	0.000	0.000	0.000	0
16	29.66	0.000	0.000	0.000	0.000	0	262.5	0.000	0.000	0.000	0.000	0	57.62	0.000	0.000	0.000	0.000	0
17	29.36	0.000	0.000	0.000	0.000	0	266.1	0.000	0.000	0.000	0.000	0	56.50	0.000	0.000	0.000	0.000	0
18	28.99	0.000	0.000	0.000	0.000	0	271.1	0.000	0.000	0.000	0.000	0	59.02	0.000	0.000	0.000	0.000	0
19	252.0	0.000	0.000	0.000	0.000	0	252.0	0.000	0.000	0.000	0.000	0	57.36	0.000	0.000	0.000	0.000	0
20	28.64	0.000	0.000	0.000	0.000	0	56.04	0.000	0.000	0.000	0.000	0	57.76	0.000	0.000	0.000	0.000	0
21	28.59	0.000	0.000	0.000	0.000	0	54.46	0.000	0.000	0.000	0.000	0	44.67	0.000	0.000	0.000	0.000	0
22	52.61	0.000	0.000	0.000	0.000	0	52.61	0.000	0.000	0.000	0.000	0	30.10	0.000	0.000	0.000	0.000	0
23	53.46	0.000	0.000	0.000	0.000	0	53.46	0.000	0.000	0.000	0.000	0	30.10	0.000	0.000	0.000	0.000	0
24	53.53	0.000	0.000	0.000	0.000	0	53.53	0.000	0.000	0.000	0.000	0	32.08	0.000	0.000	0.000	0.000	0
25	28.36	0.000	0.000	0.000	0.000	0	57.00	0.000	0.000	0.000	0.000	0	30.29	0.000	0.000	0.000	0.000	0
26	56.61	0.000	0.000	0.000	0.000	0	56.61	0.000	0.000	0.000	0.000	0	57.48	0.000	0.000	0.000	0.000	0
27	29.24	0.000	0.000	0.000	0.000	0	56.16	0.000	0.000	0.000	0.000	0	60.86	0.000	0.000	0.000	0.000	0
28	25.93	0.000	0.000	0.000	0.000	0	59.01	0.000	0.000	0.000	0.000	0	61.17	0.000	0.000	0.000	0.000	0
29	25.82	0.000	0.000	0.000	0.000	0	57.44	0.000	0.000	0.000	0.000	0	59.92	0.000	0.000	0.000	0.000	0
30	26.72	0.000	0.000	0.000	0.000	0	57.42	0.000	0.000	0.000	0.000	0	59.92	0.000	0.000	0.000	0.000	0
31	26.84	0.000	0.000	0.000	0.000	0							57.32	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	115.4	0.000	0.000	0.000	0.000	0	27.28	0.000	0.000	0.000	0.000	0	81.29	0.000	0.000	0.000	0.000	0
Ten Daily II	52.02	0.000	0.000	0.000	0.000	0	148.2	0.000	0.000	0.000	0.000	0	80.24	0.000	0.000	0.000	0.000	0
Ten Daily III	37.06	0.000	0.000	0.000	0.000	0	55.77	0.000	0.000	0.000	0.000	0	47.63	0.000	0.000	0.000	0.000	0
Monthly																		
Total						0						0						0

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Garudeshwar (01 02 15 030) 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

Sediment Data Year Book 2016-17

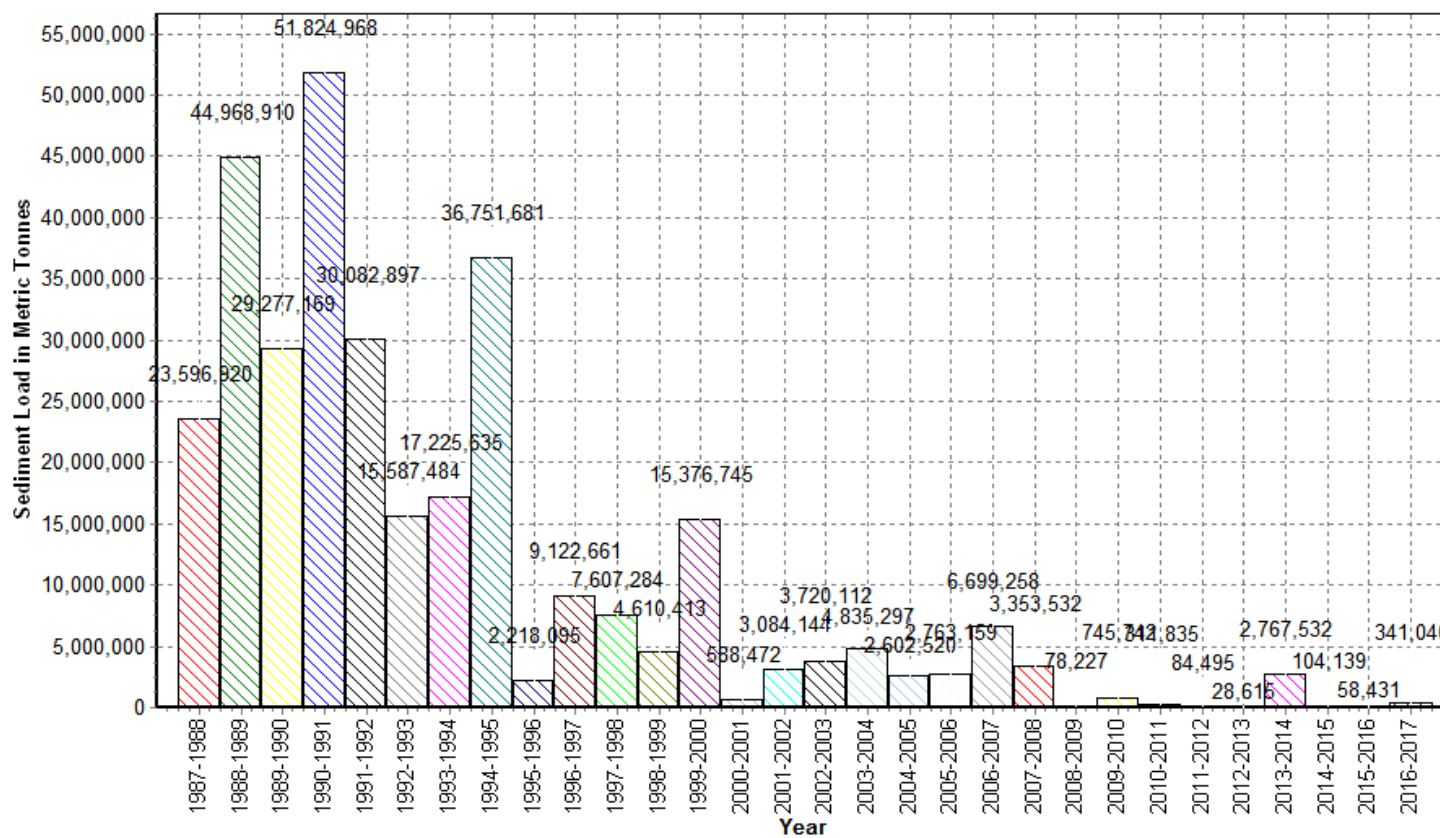
Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Division : Tapi Division, Surat

Local River : Narmada

Sub-Division : LNSD,Bharuch



Sediment Data Year Book 2016-17

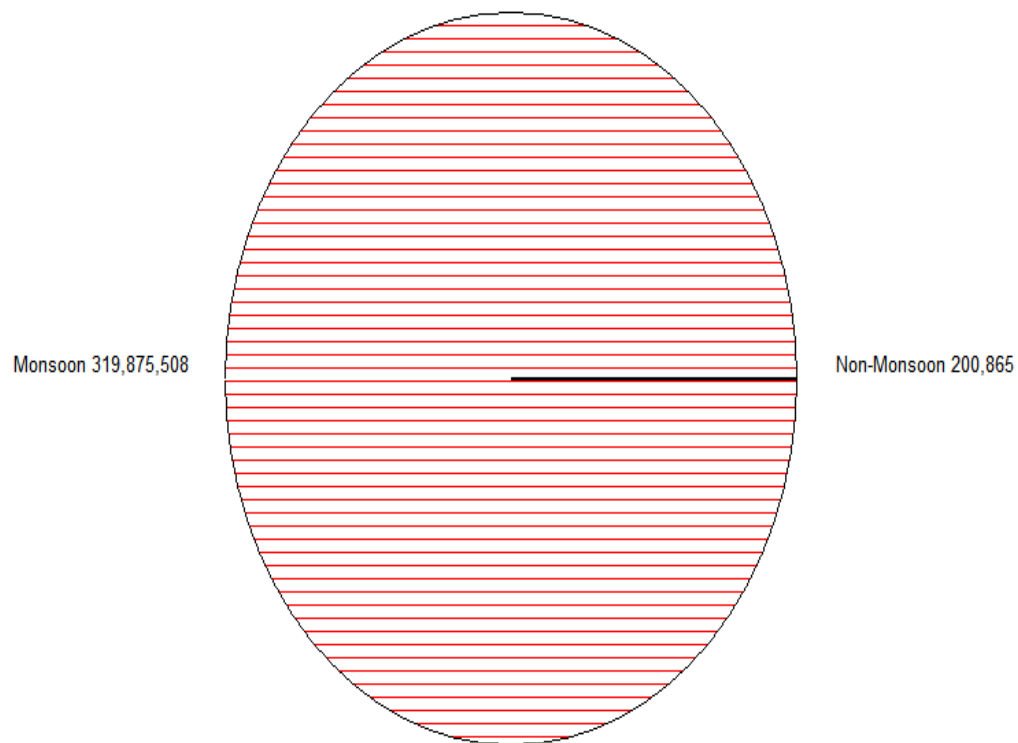
Seasonal Sediment Load for the period : 1987-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Local River : Narmada

Division : Tapi Division, Surat

Sub-Division : LNSD,Bharuch



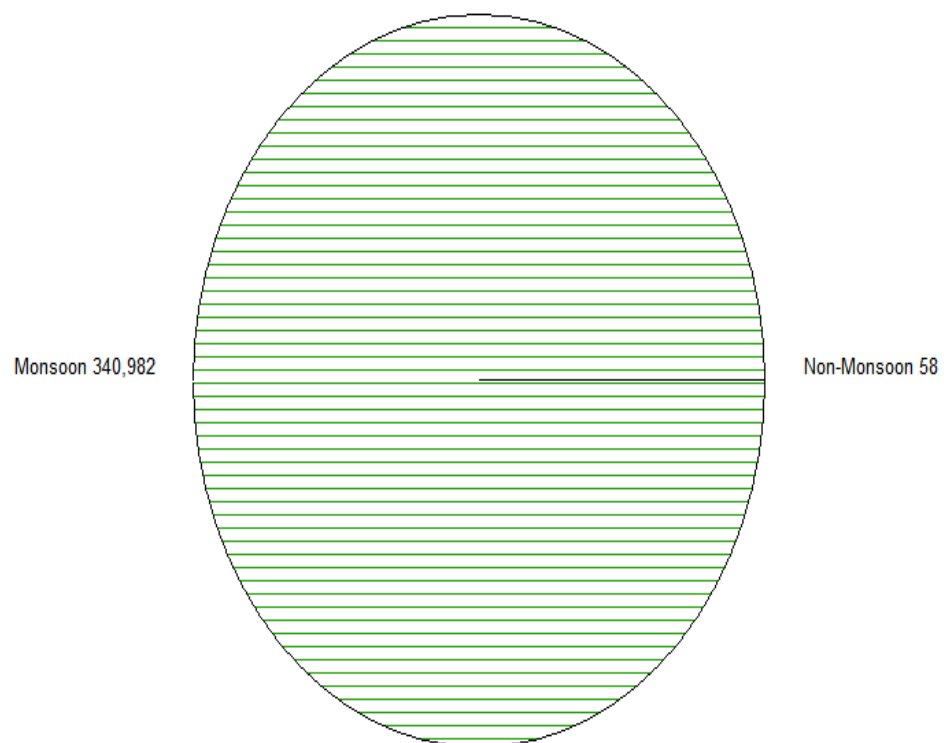
Seasonal Sediment Load for the period : 2016-2017

Station Name : Narmada at Garudeshwar (01 02 15 030)

Local River : Narmada

Division : Tapi Division, Surat

Sub-Division : LNSD,Bharuch



6.3 Narmada at Mandleshwar**History Sheet**

		Water Year	:	2016-2017	
Site	:	Narmada at Mandleshwar	Code	:	010215026
State	:	Madhya Pradesh	District	:	Khargone
Basin	:	Narmada	Independent River	:	Narmada
Tributary	:		Local River	:	Narmada
Division	:	Narmada Division, Bhopal	Sub-Division	:	MNSD-III, Indore
Drainage Area	:	72809 Sq. Km.	Bank	:	Right
Latitude	:	22°10'18"	Longitude	:	75°39'39"
Zero of Gauge (m)	:	138 .000(M.S.L.)	16/12/1970		
		Opening Date	Closing Date		
Gauge	:	16/12/1970			
Discharge	:	28/08/1971			
Sediment	:	14/04/1972			
Water Quality	:	18/06/1979			

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Mandleshwar (010215026)

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	743.11	0	0	0.02	0.02	1219.89	669.9	0	0	0.02	0.02	926.06	2235.19	0	0	0.12	0.12	22788.25
2	846.07	0	0	0.02	0.02	1242.71	179.86	0	0	0.02	0.02	264.17	2251.61	0	0	0.12	0.12	23539.19
3	354.15	0	0	0.02	0.02	489.58	185	0	0	0.02	0.02	335.66	2270.53	0	0	0.12	0.12	24129.39
4	539.36	0	0	0.02	0.02	699	192.67	0	0	0.02	0.02	282.99	2367.1	0	0	0.1	0.1	20860.81
5	706	0	0	0.03	0.03	1585.96	434.95	0	0	0.02	0.02	563.69	5034.25	0	0	0.1	0.1	45670.74
6	590.59	0	0	0.02	0.02	816.43	305.21	0	0	0.02	0.02	448.29	5539.68	0	0	0.24	0.24	115349.54
7	178.39	0	0	0.01	0.01	215.78	175	0	0	0.01	0.01	166.32	10000	0	0	0.43	0.43	374112
8	120.51	0	0	0.01	0.01	114.53	527.42	0	0	0.02	0.02	865.81	10000	0	0	0.23	0.23	196128
9	122.52	0	0	0.01	0.01	116.44	930.23	0	0	0.02	0.02	1446.69	10200	0	0	0.19	0.19	170087.04
10	295.21	0	0	0.02	0.02	612.14	298	0	0	0.01	0.01	154.48	9820	0	0	0.14	0.14	123024.96
11	174.32	0	0	0.02	0.02	256.04	434.63	0	0	0.02	0.02	826.15	7200	0	0	0.11	0.11	67806.72
12	245	0	0	0.03	0.03	592.7	1491.49	0	0	0.02	0.02	3221.62	5387.23	0	0	0.12	0.12	56785.76
13	346.27	0	0	0.02	0.02	538.52	2468.04	0	0	0.03	0.03	6823.63	5393.17	0	0	0.12	0.12	54052.54
14	199.32	0	0	0.02	0.02	258.32	2257.52	0	0	0.03	0.03	6241.59	5050	0	0	0.11	0.11	48867.84
15	160.42	0	0	0.01	0.01	194.04	2213.34	0	0	0.04	0.04	7840.54	2187	0	0	0.05	0.05	9258.88
16	173.7	0	0	0.02	0.02	225.12	2173.85	0	0	0.04	0.04	7512.82	2191.03	0	0	0.08	0.08	15523.02
17	429.08	0	0	0.02	0.02	630.24	2152	0	0	0.04	0.04	7437.31	2163.13	0	0	0.08	0.08	14017.11
18	156.3	0	0	0.01	0.01	175.56	2142.8	0	0	0.03	0.03	5739.28	2167.15	0	0	0.06	0.06	11796.25
19	205	0	0	0.01	0.01	230.26	2137.69	0	0	0.09	0.09	16807.35	2075.43	0	0	0.06	0.06	10938.36
20	222.58	0	0	0.02	0.02	326.92	2139.9	0	0	0.1	0.1	17564.32	2205.8	0	0	0.06	0.06	11244.28
21	325.93	0	0	0.02	0.02	506.89	2133.22	0	0	0.09	0.09	16772.22	3298	0	0	0.09	0.09	25645.25
22	457.4	0	0	0.02	0.02	671.82	2121.24	0	0	0.08	0.08	14112.22	3300.25	0	0	0.06	0.06	18249.06
23	151.63	0	0	0.02	0.02	222.72	2114.43	0	0	0.14	0.14	25028.12	4997.12	0	0	0.07	0.07	31517.83
24	244.96	0	0	0.02	0.02	423.28	2109	0	0	0.14	0.14	25510.46	4359.23	0	0	0.08	0.08	28247.82
25	160.63	0	0	0.02	0.02	249.81	2111.55	0	0	0.12	0.12	21892.52	4356.34	0	0	0.07	0.07	26723.55
26	141	0	0	0.02	0.02	219.28	2111.37	0	0	0.1	0.1	18424.66	3316.37	0	0	0.07	0.07	20917
27	174.3	0	0	0.02	0.02	240.95	2195	0	0	0.12	0.12	23137.08	3393.86	0	0	0.07	0.07	20526.05
28	129.99	0	0	0.02	0.02	168.47	2785.98	0	0	0.15	0.15	37069.19	4465	0	0	0.09	0.09	35491.39
29	106.3	0	0	0.01	0.01	128.59	2299.62	0	0	0.15	0.15	29604.36	4500.05	0	0	0.08	0.08	31493.13
30	459.96	0	0	0.02	0.02	874.29	2243.35	0	0	0.15	0.15	28298.51	3949.1	0	0	0.07	0.07	24566.58
31							2241	0	0	0.15	0.15	29043.36	3090.25	0	0	0.05	0.05	13349.9
TenDaily I	449.59	0	0	0.02	0.02	711.25	389.82	0	0	0.02	0.02	545.42	5971.84	0	0	0.18	0.18	111568.99
TenDaily II	231.2	0	0	0.02	0.02	342.77	1961.13	0	0	0.04	0.04	8001.46	3602	0	0	0.08	0.08	30029.08
TenDaily III	235.21	0	0	0.02	0.02	370.61	2224.16	0	0	0.13	0.13	24444.79	3911.42	0	0	0.07	0.07	25157.05
Total	June					14246.28	July					354361.49	August					1692708.23

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Mandleshwar (010215026)

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	2619.35	0	0	0.05	0.05	11768.23	1165.51	0	0	0.04	0.04	3625.2	146.92	0	0	0.02	0.02	241.18
2	2229.67	0	0	0.05	0.05	9246.89	1450	0	0	0.05	0.05	6264	257.23	0	0	0.02	0.02	377.82
3	2186.98	0	0	0.04	0.04	7747.18	2241.04	0	0	0.03	0.03	6389.65	377.33	0	0	0.02	0.02	652.03
4	2205	0	0	0.04	0.04	7620.48	2915.06	0	0	0.04	0.04	9570.72	429.13	0	0	0.02	0.02	778.62
5	2187	0	0	0.04	0.04	7558.27	2567.07	0	0	0.02	0.02	5323.07	521.83	0	0	0.02	0.02	946.81
6	2180.17	0	0	0.04	0.04	7534.68	2255.03	0	0	0.04	0.04	8572.71	950	0	0	0.04	0.04	2954.88
7	2164.08	0	0	0.04	0.04	6731.15	1448.04	0	0	0.04	0.04	5129.55	915.19	0	0	0.02	0.02	1818.66
8	2166.26	0	0	0.02	0.02	3743.29	1435.09	0	0	0.04	0.04	4835.67	703.79	0	0	0.02	0.02	1276.96
9	1843.09	0	0	0.02	0.02	3821.83	1680	0	0	0.05	0.05	6822.14	871.12	0	0	0.02	0.02	1655.82
10	1291.03	0	0	0.02	0.02	2007.81	1544.44	0	0	0.04	0.04	5204.14	914.26	0	0	0.02	0.02	1500.86
11	1060	0	0	0.02	0.02	1465.34	1790	0	0	0.05	0.05	7114.18	853.71	0	0	0.02	0.02	1475.2
12	720.08	0	0	0.02	0.02	1119.87	1165	0	0	0.03	0.03	3019.68	1175.3	0	0	0.02	0.02	2234.02
13	650	0	0	0.02	0.02	1010.88	921.39	0	0	0.03	0.03	2467.86	910	0	0	0.02	0.02	1179.36
14	903.86	0	0	0.02	0.02	1796.16	696.25	0	0	0.04	0.04	2165.61	870	0	0	0.02	0.02	1127.52
15	705.09	0	0	0.02	0.02	1462.08	1693.5	0	0	0.04	0.04	5413.77	856.22	0	0	0.02	0.02	1479.55
16	819.45	0	0	0.04	0.04	2478.03	1450	0	0	0.03	0.03	4259.52	390.77	0	0	0.02	0.02	641.48
17	728.5	0	0	0.03	0.03	1762.4	545.71	0	0	0.03	0.03	1367.32	494.72	0	0	0.02	0.02	897.62
18	670	0	0	0.03	0.03	1620.86	666.21	0	0	0.03	0.03	1496.58	458.75	0	0	0.02	0.02	713.45
19	361.12	0	0	0.02	0.02	748.83	905.3	0	0	0.02	0.02	1955.45	812.73	0	0	0.02	0.02	1404.4
20	381.18	0	0	0.07	0.07	2173.62	707.77	0	0	0.02	0.02	1467.63	790	0	0	0.02	0.02	1296.86
21	318.61	0	0	0.03	0.03	853.38	373.13	0	0	0.02	0.02	709.24	466.95	0	0	0.02	0.02	685.86
22	222.33	0	0	0.02	0.02	364.98	730.12	0	0	0.02	0.02	1577.05	575.86	0	0	0.02	0.02	796.08
23	170.21	0	0	0.02	0.02	338.24	540	0	0	0.02	0.02	699.84	538.98	0	0	0.02	0.02	838.22
24	196.78	0	0	0.02	0.02	306.03	738.94	0	0	0.02	0.02	1468.43	441.86	0	0	0.02	0.02	572.65
25	193	0	0	0.02	0.02	333.5	473.48	0	0	0.02	0.02	900	305.6	0	0	0.02	0.02	396.06
26	137.5	0	0	0.02	0.02	249.48	510.18	0	0	0.02	0.02	881.59	643.2	0	0	0.02	0.02	944.73
27	304.9	0	0	0.02	0.02	579.56	366.01	0	0	0.02	0.02	569.22	870	0	0	0.03	0.03	2029.54
28	448.18	0	0	0.02	0.02	890.63	856.19	0	0	0.02	0.02	1775.4	723.92	0	0	0.01	0.01	875.65
29	824.06	0	0	0.03	0.03	1851.16	809.79	0	0	0.02	0.02	1399.32	872.89	0	0	0.02	0.02	1508.36
30	1567.47	0	0	0.05	0.05	7177.74	308	0	0	0.01	0.01	212.89	501.03	0	0	0.01	0.01	606.04
31							396.81	0	0	0.02	0.02	548.55						
TenDaily I	2107.26	0	0	0.04	0.04	6777.98	1870.13	0	0	0.04	0.04	6173.69	608.68	0	0	0.02	0.02	1220.37
TenDaily II	699.93	0	0	0.03	0.03	1563.81	1054.11	0	0	0.03	0.03	3072.76	761.22	0	0	0.02	0.02	1244.95
TenDaily III	438.3	0	0	0.03	0.03	1294.47	554.79	0	0	0.02	0.02	976.5	594.03	0	0	0.02	0.02	925.32
Total	September					96362.58	October					103205.99	November					33906.31

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Mandleshwar (010215026)

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	531.69	0	0	0.01	0.01	505.31	642	0	0	0.01	0.01	721.09	497.05	0	0	0.01	0.01	386.51
2	549.69	0	0	0.01	0.01	522.43	607.27	0	0	0.01	0.01	629.62	880.69	0	0	0.02	0.02	1141.37
3	987.26	0	0	0.02	0.02	1705.99	449.37	0	0	0.01	0.01	349.43	566.05	0	0	0.01	0.01	489.07
4	652	0	0	0.01	0.01	732.33	807.58	0	0	0.02	0.02	1116.39	601.43	0	0	0.01	0.01	571.6
5	869.83	0	0	0.02	0.02	1277.6	950.22	0	0	0.02	0.02	1559.88	778	0	0	0.01	0.01	941.07
6	1125.74	0	0	0.02	0.02	2139.81	523.81	0	0	0.01	0.01	497.83	395.5	0	0	0.01	0.01	410.05
7	618.85	0	0	0.01	0.01	641.63	533.2	0	0	0.01	0.01	506.75	494.69	0	0	0.01	0.01	555.63
8	705.2	0	0	0.01	0.01	853.01	450	0	0	0.01	0.01	349.92	650.82	0	0	0.02	0.02	899.7
9	616.28	0	0	0.01	0.01	638.96	594.46	0	0	0.02	0.02	770.42	444.53	0	0	0.01	0.01	422.48
10	447.5	0	0	0.01	0.01	347.97	436.88	0	0	0.02	0.02	566.19	490.24	0	0	0.01	0.01	508.28
11	413	0	0	0.01	0.01	285.47	606.63	0	0	0.02	0.02	1048.26	301	0	0	0.01	0.01	208.05
12	334	0	0	0.01	0.01	202	638.32	0	0	0.02	0.02	1158.16	301	0	0	0.01	0.01	208.05
13	430.3	0	0	0.02	0.02	557.66	676.93	0	0	0.02	0.02	1345.19	467.95	0	0	0.01	0.01	485.17
14	521.32	0	0	0.02	0.02	1081.02	789.47	0	0	0.03	0.03	1841.67	530.6	0	0	0.01	0.01	504.29
15	303.02	0	0	0.01	0.01	366.53	532	0	0	0.02	0.02	827.37	1061.11	0	0	0.02	0.02	2108.64
16	427.16	0	0	0.02	0.02	738.13	421.8	0	0	0.01	0.01	510.21	835.42	0	0	0.02	0.02	1299.25
17	387.79	0	0	0.02	0.02	603.09	690.07	0	0	0.02	0.02	953.95	649.52	0	0	0.01	0.01	785.66
18	457	0	0	0.02	0.02	829.18	446.58	0	0	0.01	0.01	424.43	574.2	0	0	0.01	0.01	595.33
19	382.91	0	0	0.01	0.01	463.17	311.55	0	0	0.01	0.01	188.42	585	0	0	0.01	0.01	657.07
20	398.68	0	0	0.01	0.01	344.46	567.22	0	0	0.01	0.01	637.1	628.9	0	0	0.02	0.02	815.05
21	471.75	0	0	0.01	0.01	489.11	708.85	0	0	0.02	0.02	1041.16	424.3	0	0	0.01	0.01	476.57
22	512.77	0	0	0.01	0.01	575.94	708	0	0	0.02	0.02	1039.91	449.22	0	0	0.01	0.01	543.38
23	521.35	0	0	0.01	0.01	630.62	580.02	0	0	0.02	0.02	751.71	945.7	0	0	0.03	0.03	2451.26
24	434.04	0	0	0.01	0.01	412.51	576.1	0	0	0.02	0.02	995.49	945	0	0	0.03	0.03	2449.44
25	441	0	0	0.01	0.01	457.23	413.64	0	0	0.01	0.01	500.34	945.47	0	0	0.03	0.03	2450.65
26	494.93	0	0	0.01	0.01	555.91	574	0	0	0.02	0.02	991.87	441.99	0	0	0.01	0.01	534.64
27	363.29	0	0	0.01	0.01	219.72	492.12	0	0	0.02	0.02	722.83	441.7	0	0	0.01	0.01	496.12
28	510.25	0	0	0.01	0.01	440.86	466.8	0	0	0.02	0.02	645.3	740.85	0	0	0.02	0.02	1088.16
29	654.38	0	0	0.01	0.01	735	770	0	0	0.03	0.03	1796.26						
30	501.86	0	0	0.01	0.01	433.61	572.7	0	0	0.01	0.01	643.26						
31	457.07	0	0	0.01	0.01	355.42	593.62	0	0	0.01	0.01	512.89						
TenDaily I	710.4	0	0	0.01	0.01	936.5	599.48	0	0	0.01	0.01	706.75	579.9	0	0	0.01	0.01	632.58
TenDaily II	405.52	0	0	0.02	0.02	547.07	568.06	0	0	0.02	0.02	893.48	593.47	0	0	0.01	0.01	766.66
TenDaily III	487.52	0	0	0.01	0.01	482.36	586.9	0	0	0.02	0.02	876.46	666.78	0	0	0.02	0.02	1311.28
Total	December					20141.67	January					25643.32	February					24482.53

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Mandleshwar (010215026)

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	742.96	0	0	0.02	0.02	1091.26	275.02	0	0	0.01	0.01	142.57	227.6	0	0	0.01	0.01	235.98
2	448.08	0	0	0.01	0.01	387.14	640	0	0	0.01	0.01	442.37	621.01	0	0	0.03	0.03	1448.68
3	397.44	0	0	0.01	0.01	309.05	589.11	0	0	0.01	0.01	610.79	715.92	0	0	0.03	0.03	1917.52
4	579.52	0	0	0.01	0.01	650.92	679.85	0	0	0.01	0.01	587.39	238.76	0	0	0.01	0.01	247.54
5	570	0	0	0.01	0.01	640.22	669.8	0	0	0.01	0.01	694.45	366.53	0	0	0.02	0.02	506.69
6	369.01	0	0	0.01	0.01	350.71	245.59	0	0	0.01	0.01	127.31	653.61	0	0	0.03	0.03	1637.69
7	423.98	0	0	0.01	0.01	402.95	472.04	0	0	0.01	0.01	326.27	371	0	0	0.02	0.02	512.87
8	727.23	0	0	0.02	0.02	1256.66	644.26	0	0	0.01	0.01	612.3	337.44	0	0	0.01	0.01	379.02
9	551.99	0	0	0.02	0.02	715.38	1500	0	0	0.02	0.02	3240	463.14	0	0	0.01	0.01	560.22
10	391.12	0	0	0.01	0.01	371.72	419.07	0	0	0.01	0.01	470.7	891	0	0	0.03	0.03	2001.54
11	357.29	0	0	0.01	0.01	308.7	1561.34	0	0	0.04	0.04	4991.29	598.61	0	0	0.02	0.02	930.96
12	742	0	0	0.02	0.02	1282.18	992.96	0	0	0.02	0.02	2059	471.29	0	0	0.01	0.01	570.07
13	636	0	0	0.02	0.02	934.16	986.53	0	0	0.02	0.02	2045.66	795.33	0	0	0.02	0.02	1649.19
14	580.98	0	0	0.01	0.01	652.55	244	0	0	0.01	0.01	126.49	981	0	0	0.03	0.03	2457.99
15	356.06	0	0	0.01	0.01	184.58	438.44	0	0	0.01	0.01	378.81	399.96	0	0	0.01	0.01	380.12
16	429.44	0	0	0.01	0.01	259.73	588	0	0	0.01	0.01	711.24	220.72	0	0	0.01	0.01	114.42
17	680.44	0	0	0.01	0.01	705.48	420.42	0	0	0.01	0.01	508.54	880.99	0	0	0.02	0.02	1674.59
18	552.45	0	0	0.01	0.01	477.32	390.94	0	0	0.01	0.01	303.99	446.18	0	0	0.01	0.01	424.04
19	586	0	0	0.01	0.01	506.3	317.69	0	0	0.01	0.01	219.59	519.79	0	0	0.01	0.01	583.83
20	445.11	0	0	0.01	0.01	461.49	324.42	0	0	0.01	0.01	224.24	596.85	0	0	0.02	0.02	773.52
21	1003.51	0	0	0.02	0.02	1994.18	271.65	0	0	0.01	0.01	140.82	1510	0	0	0.04	0.04	4957.63
22	991.91	0	0	0.02	0.02	1885.42	202.48	0	0	0.01	0.01	104.97	1064.49	0	0	0.01	0.01	1287.6
23	552.51	0	0	0.01	0.01	572.85	168	0	0	0.01	0.01	87.09	1753.7	0	0	0.02	0.02	2424.31
24	318.01	0	0	0.01	0.01	192.33	304.48	0	0	0.01	0.01	315.68	1098.57	0	0	0.01	0.01	949.16
25	337.34	0	0	0.01	0.01	233.17	524.75	0	0	0.02	0.02	770.75	491.95	0	0	0.01	0.01	255.03
26	637	0	0	0.01	0.01	770.52	596.86	0	0	0.02	0.02	1031.38	479.74	0	0	0.01	0.01	248.7
27	836.89	0	0	0.01	0.01	1012.3	501.6	0	0	0.02	0.02	693.42	455.54	0	0	0.01	0.01	236.15
28	580.47	0	0	0.01	0.01	351.07	741.46	0	0	0.02	0.02	1537.49	352	0	0	0.01	0.01	182.48
29	594.24	0	0	0.01	0.01	359.39	472.59	0	0	0.02	0.02	653.31	578.9	0	0	0.01	0.01	600.2
30	669.72	0	0	0.01	0.01	462.91	456	0	0	0.02	0.02	590.98	900.72	0	0	0.02	0.02	1245.15
31	418.56	0	0	0.01	0.01	216.98							1063.49	0	0	0.02	0.02	1653.94
TenDaily I	520.13	0	0	0.01	0.01	617.6	613.47	0	0	0.01	0.01	725.42	488.6	0	0	0.02	0.02	944.78
TenDaily II	536.58	0	0	0.01	0.01	577.25	626.47	0	0	0.02	0.02	1156.89	591.07	0	0	0.02	0.02	955.87
TenDaily III	630.92	0	0	0.01	0.01	731.92	423.99	0	0	0.01	0.01	592.59	886.28	0	0	0.01	0.01	1276.4
Total	March					19999.6	April					24748.91						33046.85

Annual Sediment Load for period : 1972-2017

Station Name : Narmada at Mandleshwar (010215026) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1972-1973	8401739983392.962	0	8401739983392.962	6132.309
1987-1988	25830845.297	0	25830845.297	14409.668
1988-1989	33706126.672	0	33706126.672	30075.836
1989-1990	16590010.626	0	16590010.626	17493.466
1990-1991	43573304.92	0	43573304.92	44940.122
1991-1992	17919771.216	0	17919771.216	23174.76
1992-1993	10212180.659	0	10212180.659	16597.46
1993-1994	54775380.252	0	54775380.252	30818.431
1994-1995	107300432.618	0	107300432.618	67156.439
1995-1996	33242247.073	0	33242247.073	21176.669
1996-1997	20710748.398	0	20710748.398	20291.077
1997-1998	33307096.553	0	33307096.553	25333.118
1998-1999	19597534.783	0	19597534.783	24211.828
1999-2000	71022743.424	0	71022743.424	52394.479
2000-2001	5140065.315	0	5140065.315	11173.533
2001-2002	18046536.41	0	18046536.41	19604.463
2002-2003	23246401.98	0	23246401.98	19314.771
2003-2004	12526667.961	0	12526667.961	31450.665
2004-2005	5791853.647	0	5791853.647	16428.175
2005-2006	3756112.884	18213.475	3774326.359	33882.831
2006-2007	23348119.185	70019.423	23418138.608	33299.233
2007-2008	3619870.621	61874.008	3681744.63	24539.348
2008-2009	357341.284	257631.928	614973.213	16209.545
2009-2010	1250505.758	382714.589	1633220.347	28066.066
2010-2011	2824844.03	386277.457	3211121.488	28697.374
2012-2013	3053619.001	256864.558	3310483.56	45507.081
2016-2017	2294790.882	148062.882	2442853.764	33674.571

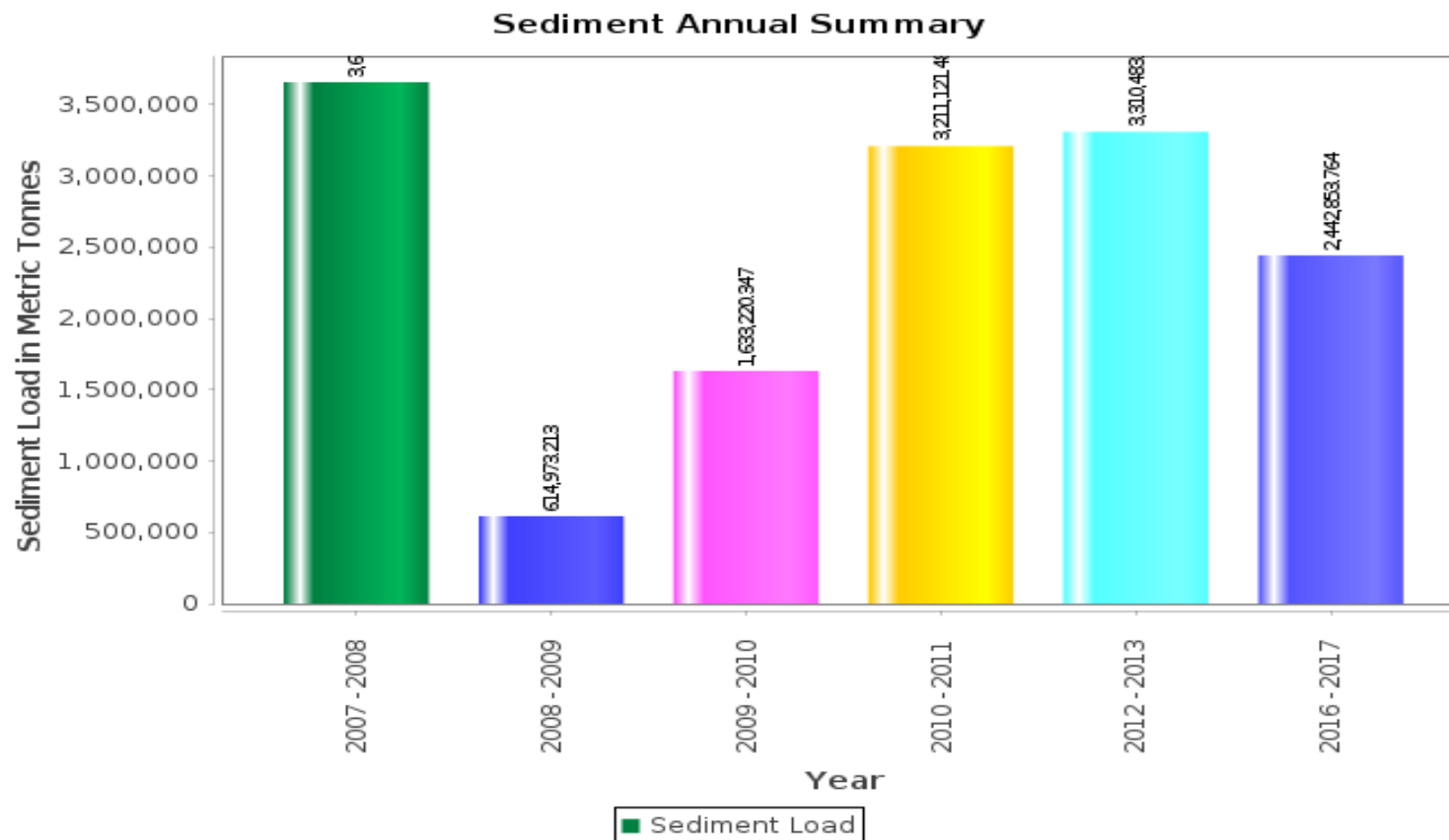
Annual Sediment Load for period : 2007-2017

Station Name : Narmada at Mandleshwar (010215026)

Local River : Narmada

Division : Narmada Division, Bhopal

Sub-Division : MNSD-III, Indore



Seasonal Sediment Load for the period : 2007-2017

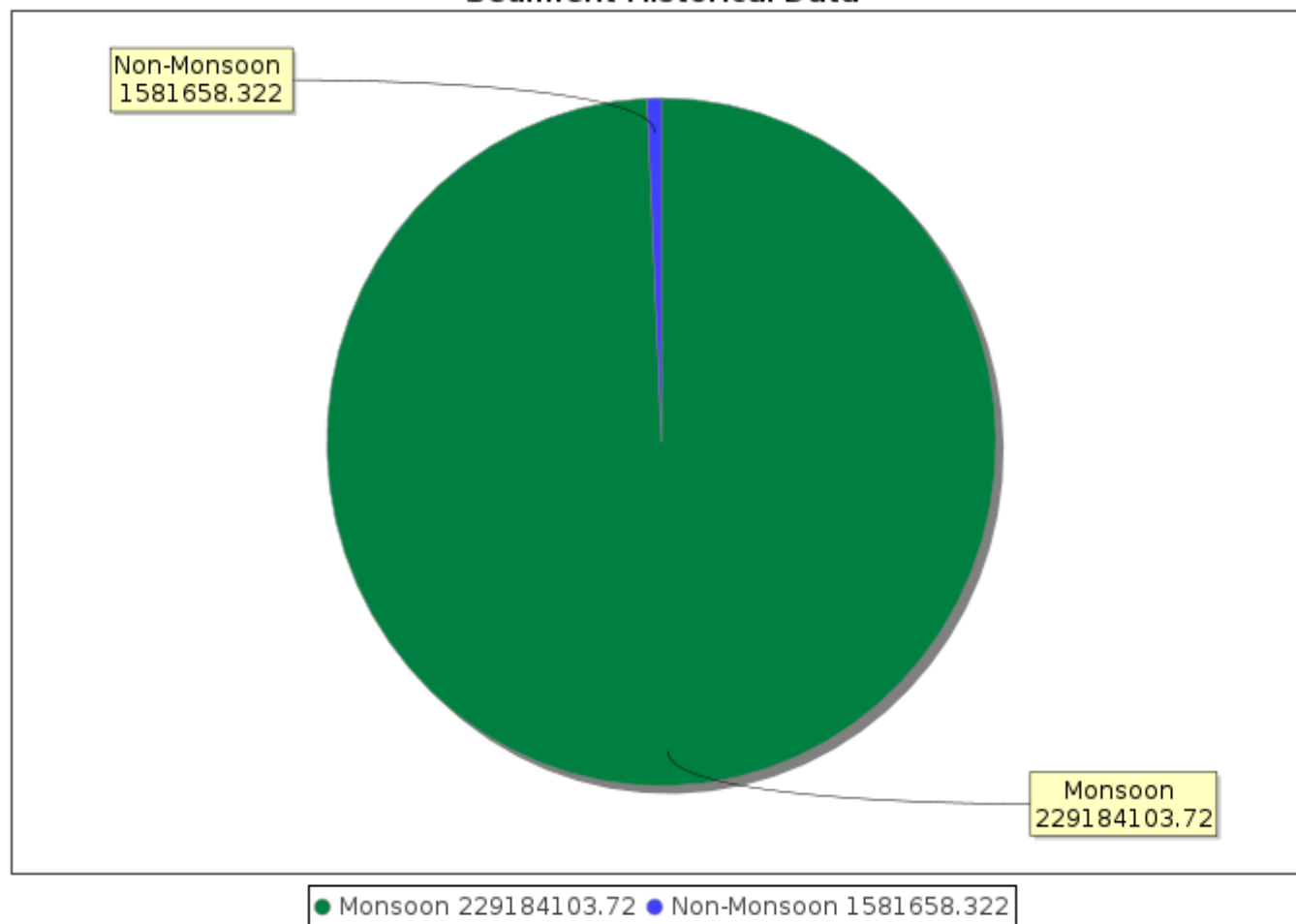
Station Name : Narmada at Mandleshwar (010215026)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

Sediment Historical Data



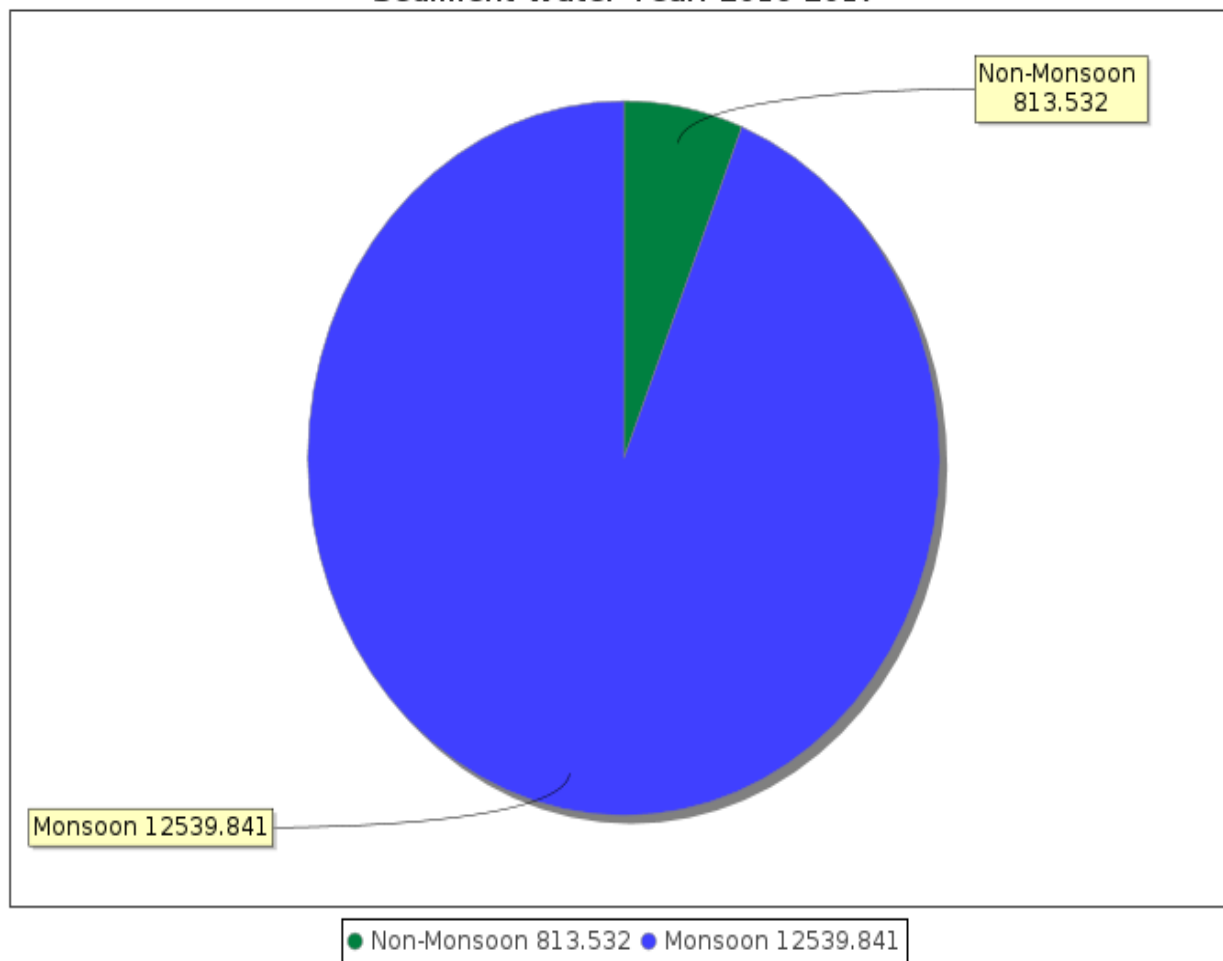
Station Name : Narmada at Mandleshwar (010215026)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-III, Indore

Sediment Water Year: 2016-2017



6.4 Narmada at Handia**History Sheet**

		Water Year	: 2016-2017
Site	: Narmada at Handia	Code	: 010215022
State	: Madhya Pradesh	District	Harda
Basin	: Narmada	Independent River	: Narmada
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Narmada
Division	: Narmada Division,Bhopal	Sub-Division	: MNSD-II, Bhopal
Drainage Area	: 54027 Sq. Km.	Bank	: Left
Latitude	: 22°29'25"	Longitude	: 76°59'37"
Zero of Gauge (m)	: 258 .000(M.S.L.)	09/02/1977	
	Opening Date	Closing Date	
Gauge	: 09/02/1977		
Discharge	: 26/04/1977		
Sediment	: 11/12/1977		
Water Quality	: 01/08/1979		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Handia (010215022)

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	140	0	0	0.04	0.04	423.36	128	0	0	0.04	0.04	427.99	1600	0.08	0.06	0.43	0.57	78382.08
2	144	0	0	0.04	0.04	510.11	136	0	0	0.16	0.16	1821.31	4794.9	0.01	0.02	0.49	0.52	215383.84
3	150	0	0	0.04	0.04	557.28	148	0	0	0.17	0.17	2224.97	5466.5	0.01	0.02	0.49	0.52	246165.68
4	142	0	0	0.04	0.04	503.02	160	0	0	0.19	0.19	2598.91	4385.8	0.01	0.02	0.49	0.52	196287.36
5	140	0	0	0.04	0.04	483.84	300	0	0	0.35	0.35	9149.76	3065.7	0.08	0.05	0.46	0.59	156886.34
6	120	0	0	0.03	0.03	352.51	510	0	0	0.6	0.6	26438.4	3118.8	0.08	0.05	0.46	0.59	159253.41
7	112	0	0	0.03	0.03	309.66	1750	0	0	2.06	2.06	311320.8	7000	0.18	0.11	1.03	1.32	800755.2
8	104	0	0	0.03	0.03	269.57	3405	0.01	0.01	0.49	0.51	149096.51	7500	0.19	0.12	1.11	1.42	918864
9	101	0	0	0.03	0.03	253.07	2950	0.01	0.01	0.42	0.44	112911.84	6500	0.17	0.1	0.96	1.23	690768
10	102	0	0	0.03	0.03	255.57	12500	0.04	0.04	1.8	1.87	2022840	6300	0.16	0.1	0.93	1.19	648829.44
11	105	0	0	0.03	0.03	272.16	4476.7	0.01	0.01	0.49	0.52	199272.6	4700	0.12	0.08	0.69	0.89	361005.12
12	110	0	0	0.03	0.03	294.62	10900	0.03	0.07	1.62	1.73	1631316.67	3264.8	0.09	0.05	0.46	0.6	169726.77
13	112	0	0	0.03	0.03	309.66	14900.8	0.1	0.08	2.12	2.31	2972030.12	2400	0.17	0.04	0.34	0.54	112181.76
14	104	0	0	0.03	0.03	296.52	6390	0.08	0.06	2.11	2.25	1241939.95	2000	0.06	0.03	0.28	0.37	63590.4
15	105	0	0	0.04	0.04	317.52	2995.2	0.01	0.01	0.46	0.48	125174.44	3300	0.09	0.05	0.46	0.61	173067.84
16	100	0	0	0.03	0.03	237.6	1800	0.01	0.01	0.28	0.29	44789.76	3390.3	0.1	0.05	0.46	0.61	179268.22
17	100	0	0	0.03	0.03	259.2	1700	0.01	0.01	0.26	0.27	40098.24	3253.6	0.09	0.05	0.46	0.61	170550.07
18	118	0	0	0.04	0.04	356.83	1750	0.01	0.01	0.27	0.28	42487.2	2600	0.07	0.04	0.37	0.48	107827.2
19	120	0	0	0.04	0.04	425.09	1150	0	0	0.18	0.18	18381.6	2500	0.07	0.04	0.35	0.46	99360
20	125	0	0	0.04	0.04	453.6	800	0	0	0.12	0.13	8916.48	2570	0.09	0.05	0.46	0.6	133672.9
21	130	0	0	0.04	0.04	494.21	780	0	0	0.12	0.13	8491.39	3500	0.12	0.07	0.63	0.82	247060.8
22	132	0	0	0.04	0.04	513.22	750	0	0	0.11	0.12	7776	3390.3	0.01	0.02	0.49	0.52	153051.7
23	134	0	0	0.04	0.04	434.16	773	0	0	0.44	0.44	29119.22	3000	0.01	0.02	0.43	0.46	119491.2
24	130	0	0	0.04	0.04	421.2	1250	0	0	0.71	0.71	76896	2500	0.01	0.02	0.36	0.38	82728
25	138	0	0	0.04	0.04	476.93	1630	0.07	0.06	0.45	0.58	82090.97	2550	0.01	0.02	0.37	0.39	86365.44
26	140	0	0	0.04	0.04	495.94	1570	0.08	0.06	0.44	0.58	78675.84	2200	0.01	0.01	0.32	0.34	64056.96
27	135	0	0	0.04	0.04	454.9	1600	0.07	0.05	0.44	0.56	77856.77	1833.4	0.05	0.05	0.46	0.56	89261.65
28	132	0	0	0.04	0.04	427.68	2517.5	0.08	0.06	0.46	0.6	130920.47	4300	0.12	0.12	1.08	1.31	487805.76
29	137	0	0	0.04	0.04	473.47	3170.7	0.08	0.05	0.46	0.59	161602.21	3137.2	0.08	0.05	0.46	0.59	159921.91
30	138	0	0	0.04	0.04	476.93	1780	0.08	0.06	0.44	0.57	87584.54	2900	0.07	0.05	0.42	0.54	136555.2
31							1550	0.07	0.05	0.38	0.5	67629.6	1920	0.09	0.05	0.46	0.6	99366.91
TenDaily I	125.5	0	0	0.04	0.04	391.8	2198.7	0.01	0.01	0.63	0.64	263883.05	4973.17	0.1	0.06	0.69	0.85	411157.53
TenDaily II	109.9	0	0	0.03	0.03	322.28	4686.27	0.03	0.03	0.79	0.84	632440.71	2997.87	0.09	0.05	0.44	0.58	157025.03
TenDaily III	134.6	0	0	0.04	0.04	466.86	1579.2	0.05	0.04	0.41	0.49	73513	2839.17	0.05	0.04	0.5	0.59	156878.68
Total	June					11809.41	July					9771880.58	August					7407491.14

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Handia (010215022)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

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
3417.9	0.09	0.05	0.46	0.6	178069.86	930	0	0	0.34	0.34	27078.62	690.5	0	0	0.4	0.4	24161.98
3332.6	0.08	0.05	0.46	0.59	171034.36	1300	0	0	0.47	0.47	52902.72	687.4	0	0	0.4	0.4	23637.76
3409.7	0.08	0.05	0.46	0.59	173076.37	2249.6	0.08	0.05	0.59	0.72	140137.48	686	0	0	0.4	0.4	23530.35
3100	0.07	0.04	0.42	0.54	143562.24	2315.4	0.08	0.05	0.47	0.6	120130.36	693.6	0	0	0.4	0.4	24090.67
2600	0.06	0.04	0.35	0.45	101088	2137.1	0.08	0.05	0.47	0.6	110510.3	678.9	0	0	0.39	0.39	23052.19
2100	0.05	0.03	0.28	0.36	65862.72	1765.1	0.07	0.04	0.5	0.6	91960.3	690	0	0	0.4	0.4	23846.4
1400	0.03	0.02	0.19	0.24	29393.28	1437	0.07	0.05	0.44	0.56	69217.42	680	0	0	0.39	0.39	23148.29
1250	0.03	0.02	0.17	0.22	23328	1200	0.06	0.04	0.47	0.57	58890.24	682.6	0	0	0.02	0.02	1179.53
900	0.02	0.01	0.12	0.16	12052.8	1180	0.06	0.04	0.46	0.56	56889.22	668.3	0	0	0.02	0.02	1154.82
750	0.02	0.01	0.1	0.13	8424	1170	0.06	0.04	0.46	0.55	56002.75	643.2	0	0	0.02	0.02	1055.88
740	0.02	0.01	0.1	0.13	8183.81	1150	0.06	0.04	0.45	0.54	54051.84	550	0	0	0.02	0.02	760.32
872	0	0.01	0.4	0.42	31304.1	1100	0.05	0.04	0.43	0.52	49515.84	543	0	0	0.02	0.02	750.64
800	0	0.01	0.37	0.38	25989.12	1175.3	0	0	0.42	0.43	43278.87	530	0	0	0.02	0.02	732.67
622	0	0	0.4	0.41	21888.63	1743.3	0	0.01	0.44	0.44	66333.54	510	0	0	0.02	0.02	660.96
603	0	0	0.28	0.29	15108.77	1731.7	0	0	0.44	0.44	65787.42	500	0	0	0.02	0.02	648
580	0	0	0.27	0.27	13480.13	1050	0	0	0.27	0.27	24222.24	470	0	0	0.01	0.01	568.51
700	0	0	0.32	0.32	19656	992.4	0	0	0.41	0.42	35823.58	430	0	0	0.01	0.01	482.98
650	0	0	0.3	0.3	16960.32	827	0	0	0.41	0.42	29788.67	410	0	0	0.01	0.01	425.09
850	0	0	0.4	0.4	29008.8	811.4	0	0	0.41	0.41	29044.48	400	0	0	0.01	0.01	414.72
870	0	0	0.4	0.4	30367.87	781.7	0	0	0.41	0.41	27940.83	400	0	0	0.01	0.01	414.72
1400	0	0	0.65	0.65	78624	788.4	0	0	0.41	0.41	28214.38	396	0	0	0.01	0.01	342.14
1100	0	0	0.51	0.51	48565.44	760	0	0	0.4	0.4	25937.28	345	0	0	0.01	0.01	268.27
1200	0	0	0.56	0.56	57749.76	760	0	0	0.4	0.4	25937.28	333	0	0	0.01	0.01	230.17
1100	0	0	0.51	0.51	48565.44	750	0	0	0.39	0.39	25272	335	0	0	0.01	0.01	231.55
1080	0	0	0.5	0.5	46749.31	760	0	0	0.4	0.4	25937.28	310	0	0	0.01	0.01	214.27
1010	0	0	0.42	0.42	36912.67	740	0	0	0.38	0.38	24615.36	300	0	0	0.01	0.01	207.36
1160	0	0	0.48	0.48	48307.97	730	0	0	0.38	0.38	23967.36	290	0	0	0.01	0.01	175.39
1160	0	0	0.42	0.42	42464.91	700	0	0	0.36	0.36	22014.72	310	0	0	0.03	0.03	803.52
1180	0	0	0.42	0.42	42931.99	690	0	0	0.36	0.36	21402.14	285	0	0	0.03	0.03	689.47
1160.4	0	0	0.42	0.42	42890.61	670	0	0	0.48	0.48	27786.24	266	0	0	0.03	0.03	597.54
						700	0	0	0.36	0.36	22014.72						
2226.02	0.05	0.03	0.3	0.39	90589.16	1568.42	0.06	0.04	0.47	0.56	78371.94	680.05	0	0	0.28	0.28	16885.79
728.7	0	0	0.33	0.33	21194.75	1136.28	0.01	0.01	0.41	0.43	42578.73	474.3	0	0	0.01	0.01	585.86
1155.04	0	0	0.49	0.49	49376.21	731.67	0	0	0.39	0.39	24827.16	317	0	0	0.01	0.01	375.97
September					1611601.28	October					1482605.49	November					178476.17

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Handia (010215022)

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	254	0	0	0.02	0.02	548.64	180	0	0	0.01	0.01	124.42	220	0	0	0.1	0.1	1919.81
2	245	0	0	0.02	0.02	508.03	173	0	0	0.01	0.01	112.1	220	0	0	0.1	0.1	1919.81
3	234	0	0	0.02	0.02	465	180	0	0	0.01	0.01	155.52	225	0	0	0.1	0.1	2002.32
4	230	0	0	0.02	0.02	437.18	180	0	0	0.01	0.01	155.52	225	0	0	0.1	0.1	2002.32
5	230	0	0	0.02	0.02	437.18	175	0	0	0.01	0.01	151.2	200	0	0	0.09	0.09	1589.76
6	220	0	0	0.02	0.02	399.17	172	0	0	0.01	0.01	148.61	190	0	0	0.09	0.09	1428.19
7	210	0	0	0.02	0.02	362.88	160	0	0	0.01	0.01	124.42	185	0	0	0.08	0.08	1358.64
8	190	0	0	0.02	0.02	295.49	160	0	0	0.01	0.01	124.42	180	0	0	0.08	0.08	1290.82
9	170	0	0	0.02	0.02	235.01	160	0	0	0.01	0.01	138.24	175	0	0	0.08	0.08	1209.6
10	180	0	0	0.02	0.02	264.38	191	0	0	0.01	0.01	198.03	175	0	0	0.08	0.08	1209.6
11	180	0	0	0.02	0.02	264.38	204	0	0	0.01	0.01	229.13	180	0	0	0.08	0.08	1290.82
12	190	0	0	0.02	0.02	295.49	178	0	0	0.01	0.01	169.17	180	0	0	0.08	0.08	1290.82
13	230	0	0	0.01	0.01	149.04	175	0	0	0.01	0.01	166.32	175	0	0	0.08	0.08	1209.6
14	245	0	0	0.01	0.01	232.85	160	0	0	0.01	0.01	138.24	170	0	0	0.08	0.08	1145.66
15	255	0	0	0.01	0.01	242.35	160	0	0	0.01	0.01	138.24	170	0	0	0.08	0.08	1145.66
16	260	0	0	0.01	0.01	247.1	150	0	0	0.01	0.01	129.6	165	0	0	0.08	0.08	1083.46
17	234	0	0	0.01	0.01	202.18	150	0	0	0.01	0.01	129.6	160	0	0	0.07	0.07	1009.15
18	230	0	0	0.01	0.01	198.72	145	0	0	0.01	0.01	125.28	175	0	0	0.08	0.08	1209.6
19	210	0	0	0.01	0.01	163.3	149	0	0	0.01	0.01	128.74	180	0	0	0.08	0.08	1290.82
20	200	0	0	0.01	0.01	155.52	160	0	0	0.01	0.01	152.06	170	0	0	0.01	0.01	183.6
21	180	0	0	0.01	0.01	124.42	169	0	0	0.01	0.01	160.62	161	0	0	0.01	0.01	166.92
22	170	0	0	0.01	0.01	102.82	175	0	0	0.01	0.01	181.44	165	0	0	0.01	0.01	171.07
23	240	0	0	0.01	0.01	207.36	175	0	0	0.01	0.01	181.44	160	0	0	0.01	0.01	165.89
24	220	0	0	0.01	0.01	190.08	160	0	0	0.01	0.01	152.06	160	0	0	0.01	0.01	165.89
25	200	0	0	0.01	0.01	155.52	160	0	0	0.01	0.01	152.06	155	0	0	0.01	0.01	147.31
26	200	0	0	0.01	0.01	155.52	180	0	0	0.01	0.01	186.62	150	0	0	0.01	0.01	142.56
27	220	0	0	0.01	0.01	190.08	185	0	0	0.01	0.01	191.81	140	0	0	0.01	0.01	120.96
28	220	0	0	0.01	0.01	190.08	190	0	0	0.01	0.01	213.41	134	0	0	0.01	0.01	115.78
29	210	0	0	0.01	0.01	163.3	220	0	0	0.02	0.02	285.12						
30	200	0	0	0.01	0.01	155.52	240	0	0	0.11	0.11	2332.8						
31	190	0	0	0.01	0.01	131.33	240	0	0	0.11	0.11	2280.96						
TenDaily I	216.3	0	0	0.02	0.02	395.3	173.1	0	0	0.01	0.01	143.25	199.5	0	0	0.09	0.09	1593.09
TenDaily II	223.4	0	0	0.01	0.01	215.09	163.1	0	0	0.01	0.01	150.64	172.5	0	0	0.07	0.07	1085.92
TenDaily III	204.55	0	0	0.01	0.01	160.55	190.36	0	0	0.03	0.03	574.4	153.12	0	0	0.01	0.01	149.55
Total	December					7869.92	January					9257.2	February					27986.43

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Handia (010215022)
Bhopal Local River : Narmada

Division : Narmada Division,
Sub-Division : MNSD-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	135	0	0	0.01	0.01	116.64	122	0	0	0.01	0.01	115.95	90	0	0	0.01	0.01	69.98
2	135	0	0	0.01	0.01	116.64	125	0	0	0.01	0.01	118.8	90	0	0	0.01	0.01	77.76
3	134	0	0	0.01	0.01	115.78	130	0	0	0.01	0.01	112.32	89	0	0	0.01	0.01	76.9
4	132	0	0	0.01	0.01	102.64	130	0	0	0.01	0.01	112.32	88	0	0	0.01	0.01	76.03
5	130	0	0	0.01	0.01	101.09	122	0	0	0.01	0.01	94.87	87	0	0	0.01	0.01	75.17
6	128	0	0	0.01	0.01	99.53	110	0	0	0.01	0.01	76.03	87	0	0	0.01	0.01	75.17
7	125	0	0	0.01	0.01	97.2	108	0	0	0.01	0.01	74.65	86	0	0	0.01	0.01	74.3
8	123	0	0	0.01	0.01	95.64	105	0	0	0.01	0.01	72.58	86	0	0	0.01	0.01	74.3
9	120	0	0	0.01	0.01	93.31	103	0	0	0.01	0.01	71.19	86	0	0	0.01	0.01	74.3
10	120	0	0	0.01	0.01	93.31	101	0	0	0.01	0.01	69.81	85	0	0	0.01	0.01	66.1
11	115	0	0	0.01	0.01	79.49	99	0	0	0.01	0.01	68.43	82	0	0	0.01	0.01	63.76
12	115	0	0	0.01	0.01	79.49	97	0	0	0.01	0.01	58.67	80	0	0	0.01	0.01	62.21
13	115	0	0	0.01	0.01	79.49	96	0	0	0.01	0.01	58.06	78	0	0	0.01	0.01	60.65
14	110	0	0	0.01	0.01	95.04	95	0	0	0.01	0.01	57.46	77	0	0	0.01	0.01	59.88
15	106	0	0	0.01	0.01	91.58	93	0	0	0.01	0.01	56.25	75	0	0	0.01	0.01	51.84
16	105	0	0	0.01	0.01	90.72	97	0	0	0.01	0.01	58.67	74	0	0	0.01	0.01	51.15
17	110	0	0	0.01	0.01	95.04	99	0	0	0.01	0.01	59.88	72	0	0	0.01	0.01	49.77
18	115	0	0	0.01	0.01	99.36	98	0	0	0.01	0.01	67.74	96	0	0	0.01	0.01	91.24
19	125	0	0	0.01	0.01	118.8	98	0	0	0.01	0.01	67.74	95	0	0	0.01	0.01	90.29
20	125	0	0	0.01	0.01	118.8	97	0	0	0.01	0.01	67.05	94	0	0	0.01	0.01	81.22
21	120	0	0	0.01	0.01	114.05	96	0	0	0.01	0.01	66.36	92	0	0	0.01	0.01	79.49
22	180	0	0	0.02	0.02	248.83	95	0	0	0.01	0.01	57.46	90	0	0	0.01	0.01	77.76
23	122	0	0	0.01	0.01	115.95	98	0	0	0.01	0.01	59.27	85	0	0	0.01	0.01	66.1
24	125	0	0	0.01	0.01	118.8	97	0	0	0.01	0.01	58.67	90	0	0	0.01	0.01	77.76
25	127	0	0	0.01	0.01	131.67	95	0	0	0.01	0.01	65.66	92	0	0	0.01	0.01	79.49
26	127	0	0	0.01	0.01	131.67	95	0	0	0.01	0.01	57.46	90	0	0	0.01	0.01	77.76
27	128	0	0	0.01	0.01	132.71	93	0	0	0.01	0.01	56.25	88	0	0	0.01	0.01	76.03
28	130	0	0	0.01	0.01	134.78	92	0	0	0.01	0.01	55.64	95	0	0	0.01	0.01	90.29
29	130	0	0	0.01	0.01	134.78	89	0	0	0.01	0.01	53.83	120	0	0	0.01	0.01	134.78
30	125	0	0	0.01	0.01	118.8	90	0	0	0.01	0.01	54.43	135	0	0	0.02	0.02	174.96
31	123	0	0	0.01	0.01	116.9							130	0	0	0.01	0.01	157.25
TenDaily I	128.2	0	0	0.01	0.01	103.18	115.6	0	0	0.01	0.01	91.85	87.4	0	0	0.01	0.01	74
TenDaily II	114.1	0	0	0.01	0.01	94.78	96.9	0	0	0.01	0.01	61.99	82.3	0	0	0.01	0.01	66.2
TenDaily III	130.64	0	0	0.01	0.01	136.27	94	0	0	0.01	0.01	58.5	100.64	0	0	0.01	0.01	99.24
Total	March					3478.55	April					2123.45						2493.68

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Handia (010215022) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	19027611.409	0	19027611.409	11265.186
1988-1989	22044739.415	0	22044739.415	19304.166
1989-1990	16984378.344	0	16984378.344	12359.858
1990-1991	36819507.226	0	36819507.226	31513.912
1991-1992	21786214.041	0	21786214.041	19856.163
1992-1993	30379689.357	0	30379689.357	16123.494
1993-1994	32853670.174	0	32853670.174	21599.499
1994-1995	101606688.464	0	101606688.464	55829.045
1995-1996	26951346.795	0	26951346.795	18223.315
1996-1997	10000361.417	0	10000361.417	10982.669
1997-1998	17324970.733	0	17324970.733	19017.07
1998-1999	8688916.907	0	8688916.907	16825.692
1999-2000	55929197.645	0	55929197.645	45126.423
2000-2001	4949972.037	0	4949972.037	9610.601
2001-2002	23651115.705	0	23651115.705	14956.116
2002-2003	42984926.554	0	42984926.554	17154.69
2003-2004	91149988.202	0	91149988.202	30918.612
2004-2005	20421994.13	0	20421994.13	15926.838
2005-2006	41467075.137	98453.373	41565528.51	31744.086
2006-2007	45194539.896	292973.125	45487513.021	25638.433
2007-2008	8965974.339	385963.726	9351938.064	16540.038
2008-2009	5445970.33	127525.088	5573495.418	14835.282
2009-2010	20454333.839	148157.518	20602491.357	18686.787
2010-2011	8459170.227	184097.283	8643267.511	16813.826
2012-2013	25035666.952	32777.431	25068444.383	26488.89
2016-2017	20463864.063	53209.224	20517073.287	27522.348

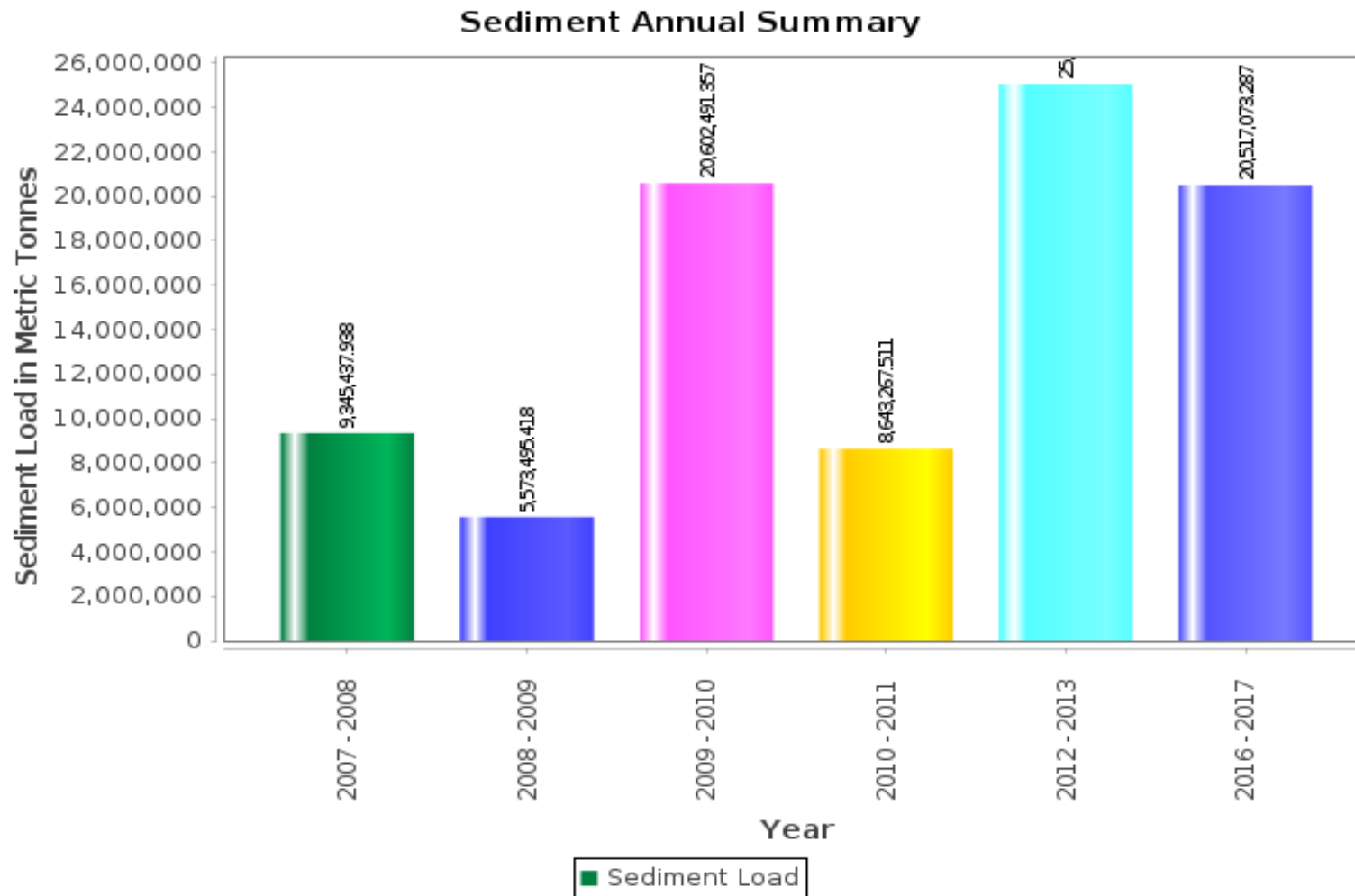
Annual Sediment Load for period : 2007-2017

Station Name : Narmada at Handia (010215022)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD II, Bhopal



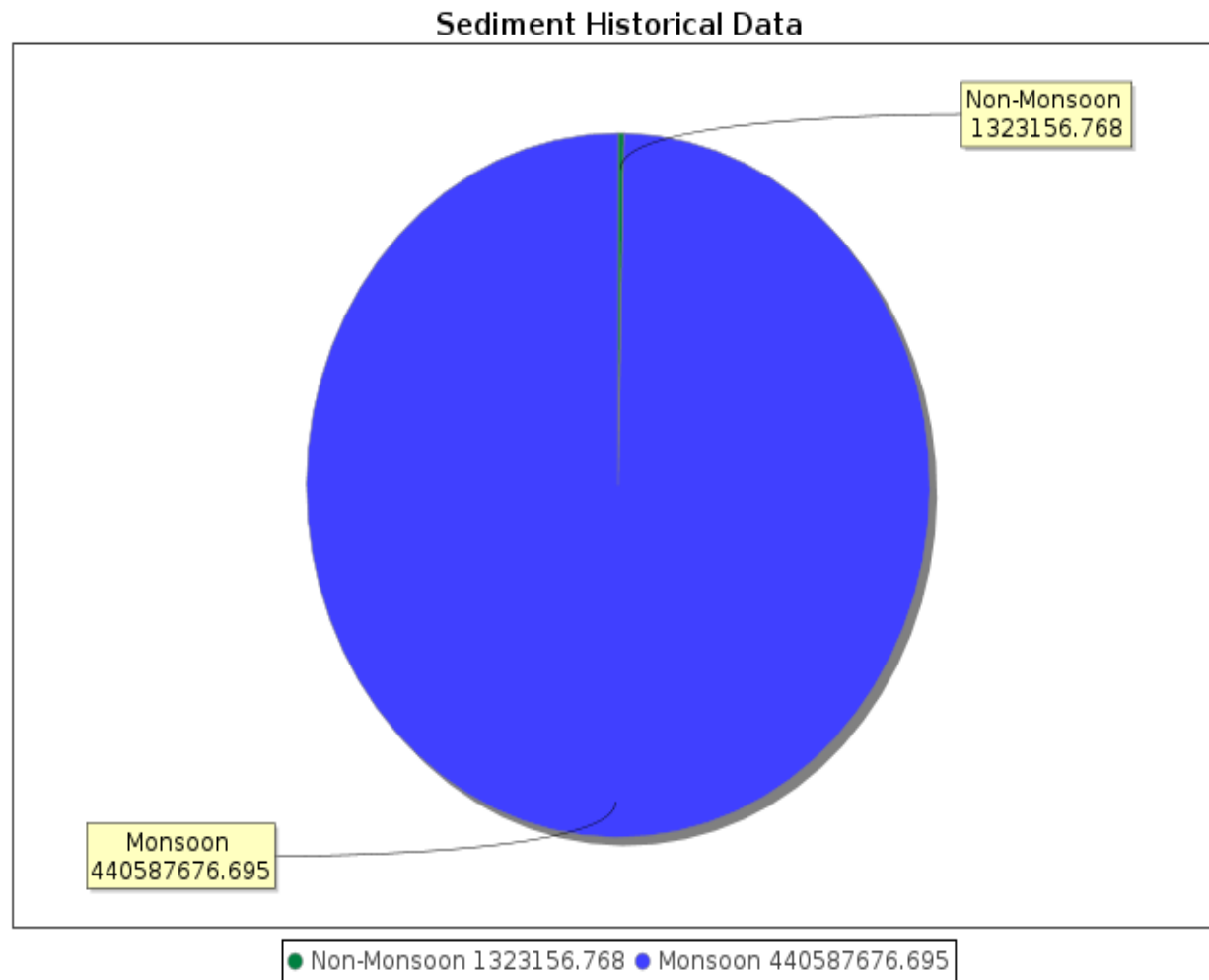
Seasonal Sediment Load for the period : 2007-2017

Station Name : Narmada at Handia (010215022)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal



Seasonal Sediment Load for the period : 2016-2017

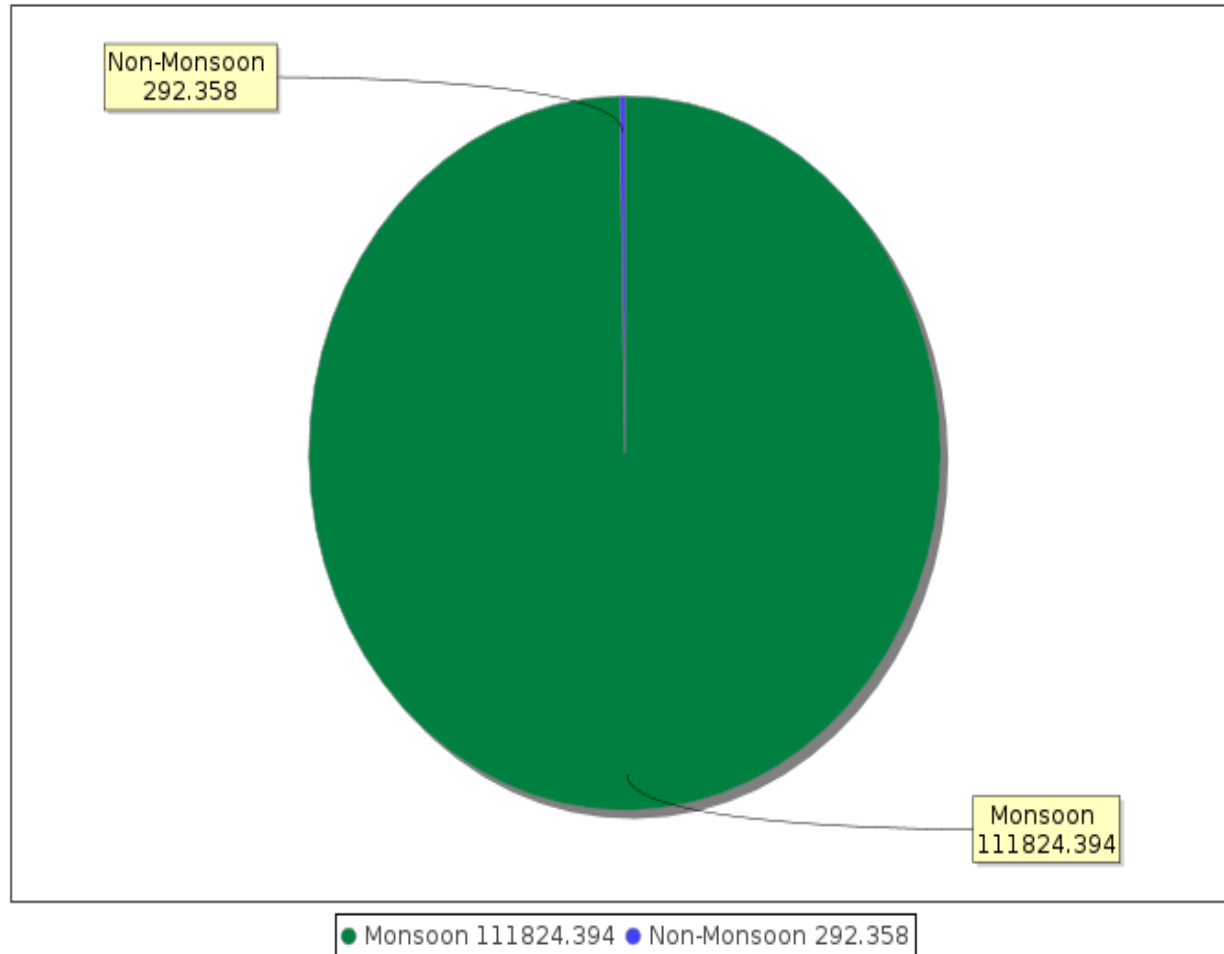
Station Name : Narmada at Handia (010215022)

Division : Narmada Division Bhopal

Local River : Narmada

Sub-Division : MNSD-II, Bhopal

Sediment Water Year: 2016-2017



6.5 Narmada at Hoshangabad**History sheet**

		Water Year	: 2016-2017
Site	: Narmada at Hoshangabad	Code	: 010215019
State	: Madhya Pradesh	District	Hoshangabad
Basin	: Narmada	Independent River	: Narmada
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Narmada
Division	: Narmada Division, Bhopal	Sub-Division	: MNSD-I, Hoshangabad
Drainage Area	: 44548 Sq. Km.	Bank	: Left
Latitude	: 22°45'21"	Longitude	: 77°43'58"
Zero of Gauge (m)	: 282 .000(M.S.L.)	21/05/1972	
	Opening Date	Closing Date	
Gauge	: 21/05/1972		
Discharge	: 16/09/1972		
Sediment	: 29/12/1972		
Water Quality	: 15/07/1979		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Hoshangabad (010215019)

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	182.2	0	0	0.02	0.02	236.13	156.9	0	0	0.14	0.14	1863.97	1450	0	0	0.51	0.51	63391.68
2	180.1	0	0	0.14	0.14	2217.39	185.8	0	0	0.02	0.02	393.3	3627	0	0	0.68	0.68	211683.33
3	164.3	0	0	0.01	0.01	195.19	333	0	0	0.04	0.04	1035.76	4501	0	0	0.6	0.6	231776.29
4	158.2	0	0	0.01	0.01	174.27	433	0	0	0.03	0.03	1047.51	1841	0	0	0.56	0.56	89671.43
5	144	0	0	0.01	0.01	111.97	488	0	0	0.03	0.03	1191.11	1826	0	0	0.6	0.6	94896.49
6	134.7	0	0	0.01	0.01	125.11	555.8	0	0	0.03	0.03	1428.63	2285	0	0	0.69	0.69	137061.61
7	125	0	0	0.01	0.01	108	3378	0	0	0.7	0.7	205322.95	4000	0	0	1.21	1.21	417484.8
8	134.3	0	0	0.01	0.01	121.84	3396	0	0	0.7	0.7	206563.74	7400	0	0	2.24	2.24	1428969.6
9	140.8	0	0	0.01	0.01	133.82	8000	0	0	1.66	1.66	1146009.6	7370	0	0	2.23	2.23	1417445.57
10	143.8	0	0	0.01	0.01	139.77	10.9	0	0	0	0	1.88	6280	0	0	1.9	1.9	1028754.43
11	136.8	0	0	0.01	0.01	106.38	434	0	0	0.76	0.76	28561.92	3571	0	0	0.37	0.37	114404.56
12	126	0	0	0.01	0.01	97.98	782	0	0	1.37	1.37	92496.21	1742	0	0	0.38	0.38	57840.53
13	108.4	0	0	0.01	0.01	84.29	14.18	0	0	0.02	0.02	30.63	1340	0	0	0.24	0.24	27242.09
14	104	0	0	0.01	0.01	71.88	3602.4	0	0	0.67	0.67	207135.12	1820	0	0	0.33	0.33	51262.85
15	112.3	0	0	0.01	0.01	87.32	1452.4	0	0	0.89	0.89	111746.49	2380	0	0	0.43	0.43	87599.23
16	123.1	0	0	0.01	0.01	95.72	1019	0	0	0.65	0.65	57006.94	2372	0	0	0.16	0.16	33610.29
17	125.4	0	0	0.01	0.01	97.51	1035	0	0	0.66	0.66	59019.84	1816	0	0	0.01	0.01	1412.12
18	136.9	0	0	0.01	0.01	118.28	883.8	0	0	0.46	0.46	34992.12	1804	0	0	0.1	0.1	15009.86
19	144	0	0	0.01	0.01	136.86	600.1	0	0	0.37	0.37	19158.07	1776	0	0	0.14	0.14	20945.43
20	137.4	0	0	0.01	0.01	121.68	573.1	0	0	0.42	0.42	20648.11	1767	0	0	0.17	0.17	26228.5
21	134.4	0	0	0.01	0.01	116.12	529.6	0	0	0.3	0.3	13567.08	3506	0	0	0.34	0.34	102083.5
22	139.9	0	0	0.01	0.01	123.9	512.9	0	0	0.32	0.32	14069.87	2319	0	0	0.19	0.19	38569.61
23	134.2	0	0	0.01	0.01	115.95	626.7	0	0	0.39	0.39	21171.43	1781	0	0	0.12	0.12	18742.39
24	134.3	0	0	0.01	0.01	116.04	1340	0	0	0.84	0.84	96788.74	1768	0	0	0.14	0.14	21003.84
25	156.3	0	0	0.01	0.01	175.56	1316.5	0	0	0.45	0.45	51612.07	1701	0	0	0.92	0.92	134474.26
26	160	0	0	0.01	0.01	138.24	1040.4	0	0	0.36	0.36	32001.04	1349	0	0	0.1	0.1	11573.77
27	152.6	0	0	0.01	0.01	164.81	970.5	0	0	0.33	0.33	27838.6	1835	0	0	0.16	0.16	25573.15
28	137	0	0	0.01	0.01	118.37	2320.5	0	0	0.79	0.79	158989.52	2350	0	0	0.2	0.2	41623.2
29	160	0	0	0.01	0.01	172.8	1702.3	0	0	0.58	0.58	85599.82	1873	0	0	0.21	0.21	34388.28
30	143.9	0	0	0.01	0.01	149.2	1315	0	0	0.45	0.45	51013.58	1419	0	0	0.13	0.13	15447.8
31							1275	0	0	0.44	0.44	48029.76	1500	0	0	0.54	0.54	70502.4
TenDaily I	150.74	0	0	0.02	0.02	356.35	1693.74	0	0	0.34	0.34	156485.85	4058	0	0	1.12	1.12	512113.52
TenDaily II	125.43	0	0	0.01	0.01	101.79	1039.6	0	0	0.63	0.63	63079.54	2038.8	0	0	0.23	0.23	43555.55
TenDaily III	145.26	0	0	0.01	0.01	139.1	1177.22	0	0	0.48	0.48	54607.41	1945.55	0	0	0.28	0.28	46725.65
Total	June					5972.37	July					2796335.41	August					6070672.89

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Hoshangabad (010215019)

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	2291	0	0	0.15	0.15	29542.9	990	0	0	0.15	0.15	12488.26	382.8	0	0	0.04	0.04	1190.66
2	2391	0	0	0.18	0.18	36978.25	1680	0	0	0.26	0.26	37013.76	380.8	0	0	0.03	0.03	964
3	2505	0	0	0.23	0.23	49833.47	1707.5	0	0	0.17	0.17	25669.87	377.1	0	0	0.01	0.01	456.14
4	1858	0	0	0.17	0.17	27450.84	1645.6	0	0	0.14	0.14	19905.18	380.9	0	0	0.01	0.01	411.37
5	1530	0	0	0.14	0.14	18506.88	1056.2	0	0	0.11	0.11	10220.64	383.4	0	0	0.01	0.01	463.76
6	1282	0	0	0.19	0.19	21244.69	826.1	0	0	0.06	0.06	4353.88	384	0	0	0.01	0.01	331.78
7	994	0	0	0.12	0.12	10305.79	759.1	0	0	0.06	0.06	4197.52	262.1	0	0	0.01	0.01	181.16
8	767.9	0	0	0.13	0.13	8625.05	711.3	0	0	0.12	0.12	7190.39	356.5	0	0	0.01	0.01	317.26
9	661.5	0	0	0.14	0.14	7858.62	700	0	0	0.12	0.12	7136.64	355.8	0	0	0.01	0.01	276.67
10	560.3	0	0	0.12	0.12	5605.87	708.3	0	0	0.11	0.11	6854.08	354.2	0	0	0.01	0.01	275.43
11	530	0	0	0.11	0.11	5220.29	710	0	0	0.11	0.11	6747.84	381.8	0	0	0.01	0.01	263.9
12	499.4	0	0	0.11	0.11	4724.72	730	0	0	0.11	0.11	7127.14	382.2	0	0	0.01	0.01	363.24
13	485	0	0	0.11	0.11	4483.73	775.3	0	0	0.12	0.12	7703.38	382	0	0	0.01	0.01	330.05
14	475.9	0	0	0.11	0.11	4337.92	760.2	0	0	0.12	0.12	7553.35	375	0	0	0.01	0.01	324
15	465.8	0	0	0.08	0.08	3098.87	674.5	0	0	0.11	0.11	6527	374.6	0	0	0.01	0.01	291.29
16	489.7	0	0	0.04	0.04	1745.29	510	0	0	0.08	0.08	3657.31	379.9	0	0	0.01	0.01	305.26
17	481.2	0	0	0.14	0.14	5687.55	474.7	0	0	0.58	0.58	23788.17	378.7	0	0	0.01	0.01	359.92
18	476	0	0	0.15	0.15	6140.17	457.6	0	0	0.08	0.08	3360.61	374.7	0	0	0.01	0.01	356.11
19	652.9	0	0	0.18	0.18	10193.39	449.1	0	0	0.1	0.1	4035.43	382.2	0	0	0.01	0.01	363.24
20	807.8	0	0	0.22	0.22	15564.04	447.2	0	0	0.1	0.1	3747.89	375	0	0	0.01	0.01	324
21	674.7	0	0	0.17	0.17	9764.26	445.1	0	0	0.06	0.06	2384.31	376.7	0	0	0.01	0.01	325.47
22	804.2	0	0	0.14	0.14	10005.53	440.9	0	0	0.06	0.06	2133.25	377.4	0	0	0.01	0.01	326.07
23	698.2	0	0	0.14	0.14	8734.98	427	0	0	0.06	0.06	2139.78	270.7	0	0	0.01	0.01	163.72
24	682.7	0	0	0.1	0.1	5798.25	408.8	0	0	0.08	0.08	2719.66	271.6	0	0	0.01	0.01	164.26
25	667	0	0	0.1	0.1	5647.62	407.2	0	0	0.08	0.08	2814.57	256.9	0	0	0.01	0.01	155.37
26	700.9	0	0	0.09	0.09	5525.9	398.4	0	0	0.08	0.08	2788.16	235.4	0	0	0.01	0.01	122.03
27	762.4	0	0	0.12	0.12	7792.58	394.7	0	0	0.07	0.07	2489.45	230	0	0	0.01	0.01	119.23
28	707.8	0	0	0.12	0.12	7185.59	392.7	0	0	0.07	0.07	2341.12	193	0	0	0.01	0.01	183.43
29	671.6	0	0	0.11	0.11	6458.32	393.4	0	0	0.06	0.06	2141.35	172.6	0	0	0.01	0.01	171.5
30	570	0	0	0.1	0.1	4924.8	390	0	0	0.06	0.06	1988.06	184.6	0	0	0.01	0.01	187.41
31							384.8	0	0	0.04	0.04	1462.86						
TenDaily I	1484.07	0	0	0.16	0.16	21595.24	1078.41	0	0	0.13	0.13	13503.02	361.76	0	0	0.02	0.02	486.82
TenDaily II	536.37	0	0	0.12	0.12	6119.6	598.86	0	0	0.15	0.15	7424.81	378.61	0	0	0.01	0.01	328.1
TenDaily III	693.95	0	0	0.12	0.12	7183.78	407.55	0	0	0.07	0.07	2309.33	256.89	0	0	0.01	0.01	191.85
Total	September					348986.18	October					234680.92	November					10067.73

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Hoshangabad (010215019)

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	233.4	0	0	0.01	0.01	262.15	268	0	0	0.01	0.01	208.4	276.5	0	0	0.01	0.01	238.9
2	232.9	0	0	0.01	0.01	261.59	264.5	0	0	0.01	0.01	228.53	276.2	0	0	0.01	0.01	238.64
3	237.1	0	0	0.01	0.01	266.31	251.4	0	0	0.01	0.01	217.21	272.5	0	0	0.01	0.01	235.44
4	243	0	0	0.01	0.01	272.94	250.4	0	0	0.01	0.01	194.71	267.9	0	0	0.01	0.01	231.47
5	255.9	0	0	0.01	0.01	243.21	233	0	0	0.01	0.01	181.18	272	0	0	0.01	0.01	235.01
6	231.8	0	0	0.01	0.01	180.25	191.3	0	0	0.01	0.01	115.7	272.5	0	0	0.01	0.01	241.33
7	1831	0	0	0.07	0.07	11390.28	166.8	0	0	0.01	0.01	86.47	267.9	0	0	0.01	0.01	231.47
8	235.4	0	0	0.01	0.01	183.05	371	0	0	0.01	0.01	448.76	268.2	0	0	0.01	0.01	231.72
9	236	0	0	0.01	0.01	183.51	380.2	0	0	0.01	0.01	295.64	263.4	0	0	0.01	0.01	227.58
10	257.8	0	0	0.01	0.01	222.74	289.5	0	0	0.01	0.01	200.1	256.7	0	0	0.01	0.01	199.61
11	270	0	0	0.01	0.01	256.61	276	0	0	0.01	0.01	166.92	257.2	0	0	0.01	0.01	200
12	300	0	0	0.01	0.01	311.04	229.9	0	0	0.01	0.01	119.18	277	0	0	0.01	0.01	239.33
13	383	0	0	0.05	0.05	1621.47	169.2	0	0	0.01	0.01	87.71	277.2	0	0	0.01	0.01	263.45
14	392.9	0	0	0.05	0.05	1731.27	166.8	0	0	0.01	0.01	86.47	272.5	0	0	0.01	0.01	235.44
15	396.9	0	0	0.05	0.05	1783.19	164	0	0	0.01	0.01	85.02	272.8	0	0	0.01	0.01	235.7
16	374.2	0	0	0.05	0.05	1584.21	226.6	0	0	0.01	0.01	215.36	275.9	0	0	0.01	0.01	238.38
17	350.6	0	0	0.05	0.05	1393.42	252.7	0	0	0.01	0.01	240.17	267.9	0	0	0.01	0.01	231.47
18	220	0	0	0.03	0.03	551.23	256.7	0	0	0.01	0.01	243.97	277.2	0	0	0.01	0.01	239.5
19	258.8	0	0	0.01	0.01	223.6	272.5	0	0	0.01	0.01	282.53	277	0	0	0.01	0.01	239.33
20	282.2	0	0	0.01	0.01	268.2	268.1	0	0	0.01	0.01	277.97	275.9	0	0	0.01	0.01	238.38
21	374.7	0	0	0.01	0.01	453.24	263.4	0	0	0.01	0.01	273.09	267.7	0	0	0.01	0.01	231.29
22	382.2	0	0	0.02	0.02	495.33	272	0	0	0.01	0.01	282.01	230	0	0	0.01	0.01	158.98
23	273.8	0	0	0.01	0.01	260.22	276	0	0	0.01	0.01	274.23	191.3	0	0	0.01	0.01	115.7
24	255.2	0	0	0.01	0.01	220.49	277.5	0	0	0.01	0.01	239.76	169	0	0	0.01	0.01	87.61
25	275	0	0	0.01	0.01	261.36	278.3	0	0	0.01	0.01	240.45	160.9	0	0	0.01	0.01	83.41
26	284.2	0	0	0.01	0.01	313.07	276	0	0	0.01	0.01	238.46	160	0	0	0.01	0.01	82.94
27	370.1	0	0	0.01	0.01	415.7	278.1	0	0	0.01	0.01	240.28	236.6	0	0	0.01	0.01	245.31
28	285.2	0	0	0.01	0.01	246.41	277.2	0	0	0.01	0.01	239.5	219.5	0	0	0.01	0.01	170.68
29	255.2	0	0	0.01	0.01	198.44	277	0	0	0.01	0.01	239.33						
30	273.8	0	0	0.01	0.01	236.56	282	0	0	0.01	0.01	316.74						
31	277.5	0	0	0.01	0.01	239.76	275.9	0	0	0.01	0.01	238.38						
TenDaily I	399.43	0	0	0.02	0.02	1346.6	266.61	0	0	0.01	0.01	217.67	269.38	0	0	0.01	0.01	231.12
TenDaily II	322.86	0	0	0.03	0.03	972.43	228.25	0	0	0.01	0.01	180.53	273.06	0	0	0.01	0.01	236.1
TenDaily III	300.63	0	0	0.01	0.01	303.69	275.76	0	0	0.01	0.01	256.57	204.38	0	0	0.01	0.01	146.99
Total	December					26530.89	January					6804.23	February					5848.04

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Hoshangabad (010215019)

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	153.5	0	0	0.01	0.01	79.57	227	0	0	0.02	0.02	431.48	124.8	0	0	0.02	0.02	183.31
2	154	0	0	0.01	0.01	93.14	224	0	0	0.02	0.02	406.43	139.2	0	0	0.02	0.02	264.59
3	163.1	0	0	0.01	0.01	98.64	224.7	0	0	0.01	0.01	271.8	139.7	0	0	0.02	0.02	265.54
4	162.7	0	0	0.01	0.01	98.4	227	0	0	0.01	0.01	196.13	136.7	0	0	0.02	0.02	259.84
5	151	0	0	0.01	0.01	78.28	231.7	0	0	0.01	0.01	200.19	124.8	0	0	0.02	0.02	215.65
6	133.8	0	0	0.01	0.01	127.16	158.2	0	0	0.01	0.01	95.68	105.8	0	0	0.02	0.02	155.4
7	130.4	0	0	0.01	0.01	123.93	152.3	0	0	0.01	0.01	92.11	98	0	0	0.02	0.02	135.48
8	139.2	0	0	0.01	0.01	132.3	124.8	0	0	0.01	0.01	64.7	94.4	0	0	0.18	0.18	1468.11
9	145.9	0	0	0.01	0.01	151.27	117	0	0	0.01	0.01	60.65	98	0	0	0.19	0.19	1587.6
10	137.3	0	0	0.01	0.01	130.49	114.3	0	0	0.01	0.01	108.63	92	0	0	0.18	0.18	1391.04
11	127.9	0	0	0.01	0.01	121.56	111.2	0	0	0.01	0.01	96.08	91.2	0	0	0.17	0.17	1371.06
12	110	0	0	0.01	0.01	85.54	117.9	0	0	0.01	0.01	101.87	87.2	0	0	0.17	0.17	1250.66
13	107	0	0	0.01	0.01	83.2	191.4	0	0	0.02	0.02	281.13	91.8	0	0	0.18	0.18	1388.02
14	134.2	0	0	0.01	0.01	147.25	224	0	0	0.02	0.02	387.07	99	0	0	0.19	0.19	1616.63
15	188.3	0	0	0.02	0.02	292.84	224.7	0	0	0.02	0.02	388.28	126.4	0	0	0.02	0.02	196.58
16	195.2	0	0	0.02	0.02	303.58	227	0	0	0.02	0.02	392.26	131.5	0	0	0.02	0.02	238.59
17	224.7	0	0	0.02	0.02	407.7	231.7	0	0	0.02	0.02	400.38	123.4	0	0	0.02	0.02	213.24
18	219	0	0	0.02	0.02	397.35	233.4	0	0	0.07	0.07	1330.94	123.2	0	0	0.02	0.02	202.25
19	160	0	0	0.02	0.02	207.36	227	0	0	0.07	0.07	1333.67	102.9	0	0	0.02	0.02	142.25
20	160.9	0	0	0.02	0.02	208.53	229.9	0	0	0.07	0.07	1370.57	100.9	0	0	0.02	0.02	139.48
21	183.3	0	0	0.02	0.02	269.23	219.5	0	0	0.07	0.07	1251.68	135	0	0	0.02	0.02	244.94
22	248	0	0	0.02	0.02	492.83	226.2	0	0	0.07	0.07	1328.97	141	0	0	0.02	0.02	268.01
23	241.3	0	0	0.02	0.02	479.51	226	0	0	0.07	0.07	1327.8	103.8	0	0	0.02	0.02	134.52
24	252.7	0	0	0.02	0.02	524	221.8	0	0	0.02	0.02	364.11	103.8	0	0	0.02	0.02	134.52
25	238.2	0	0	0.02	0.02	473.35	158.2	0	0	0.01	0.01	191.36	93	0	0	0.01	0.01	104.46
26	248	0	0	0.02	0.02	492.83	149.3	0	0	0.01	0.01	167.69	112.2	0	0	0.02	0.02	155.11
27	241.3	0	0	0.01	0.01	250.18	195.2	0	0	0.02	0.02	303.58	257.3	0	0	0.04	0.04	800.31
28	183.3	0	0	0.01	0.01	142.53	221.8	0	0	0.02	0.02	383.27	269	0	0	0.04	0.04	883.18
29	179.5	0	0	0.01	0.01	139.58	129.3	0	0	0.01	0.01	134.06	236.7	0	0	0.02	0.02	449.92
30	158.2	0	0	0.02	0.02	205.03	113	0	0	0.01	0.01	97.63	153.2	0	0	0.01	0.01	172.07
31	221.8	0	0	0.02	0.02	402.43							129.1	0	0	0.01	0.01	122.7
TenDaily I	147.09	0	0	0.01	0.01	111.32	180.1	0	0	0.01	0.01	192.78	115.34	0	0	0.07	0.07	592.66
TenDaily II	162.72	0	0	0.01	0.01	225.49	201.82	0	0	0.03	0.03	608.22	107.75	0	0	0.08	0.08	675.88
TenDaily III	217.78	0	0	0.02	0.02	351.95	186.03	0	0	0.03	0.03	555.01	157.65	0	0	0.02	0.02	315.43
Total	March					7239.59	April					13560.17						16155.05

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1972-2017

Station Name : Narmada at Hoshangabad (010215019) Division : Narmada Division, Bhopal

Local River : Narmada

SubDivision :MNSD-I, Hoshangabad

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1972-1973	0	1245032.64	1245032.64	24.875
1987-1988	13696732.176	0	13696732.176	11561.863
1988-1989	21927042.516	0	21927042.516	19316.573
1989-1990	12260502.832	0	12260502.832	10573.59
1990-1991	28921420.727	0	28921420.727	29218.274
1991-1992	17163195.9	0	17163195.9	19324.189
1992-1993	22273545.686	0	22273545.686	14560.378
1993-1994	24945904.795	0	24945904.795	17995.511
1994-1995	41396876.176	0	41396876.176	49621.55
1995-1996	13478551.684	0	13478551.684	15540.353
1996-1997	1864008.248	0	1864008.248	7541.495
1997-1998	14386693.696	0	14386693.696	16226.702
1998-1999	6442728.379	0	6442728.379	13430.353
1999-2000	27754796.993	0	27754796.993	40494.914
2000-2001	5418045.971	0	5418045.971	9462.58
2001-2002	11518072.004	0	11518072.004	13981.288
2002-2003	12492177.065	0	12492177.065	13759.019
2003-2004	24976309.706	0	24976309.706	25704.969
2004-2005	11095494.454	0	11095494.454	12307.414
2005-2006	41754968.216	112665.915	41867634.132	29700.147
2006-2007	21223787.135	63622.406	21287409.541	20517.108
2007-2008	3245231.009	48195.042	3293426.051	12584.91
2008-2009	8450880.75	43281.395	8494162.145	12343.452
2009-2010	14345893.177	12601.908	14358495.085	13831.1
2010-2011	2677514.253	84382.125	2761896.378	12858.8
2011-2012	6143299.998	19536.583	6162836.581	15668.799
2012-2013	32740070.128	122953.649	32863023.777	21076.019
2016-2017	9466715.494	76137.971	9542853.464	19521.88

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 2007-2017

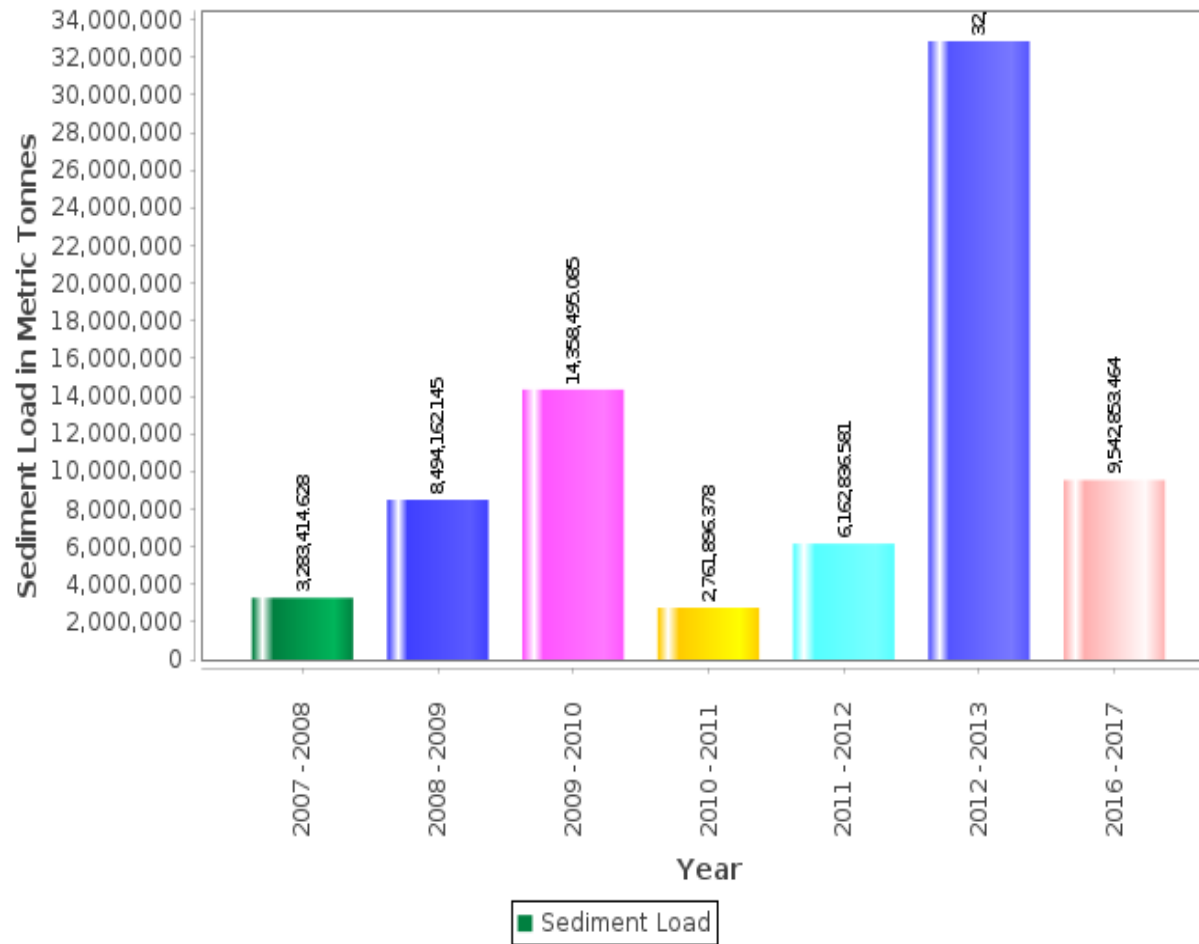
Station Name : Narmada at Hoshangabad (010215019)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Annual Summary



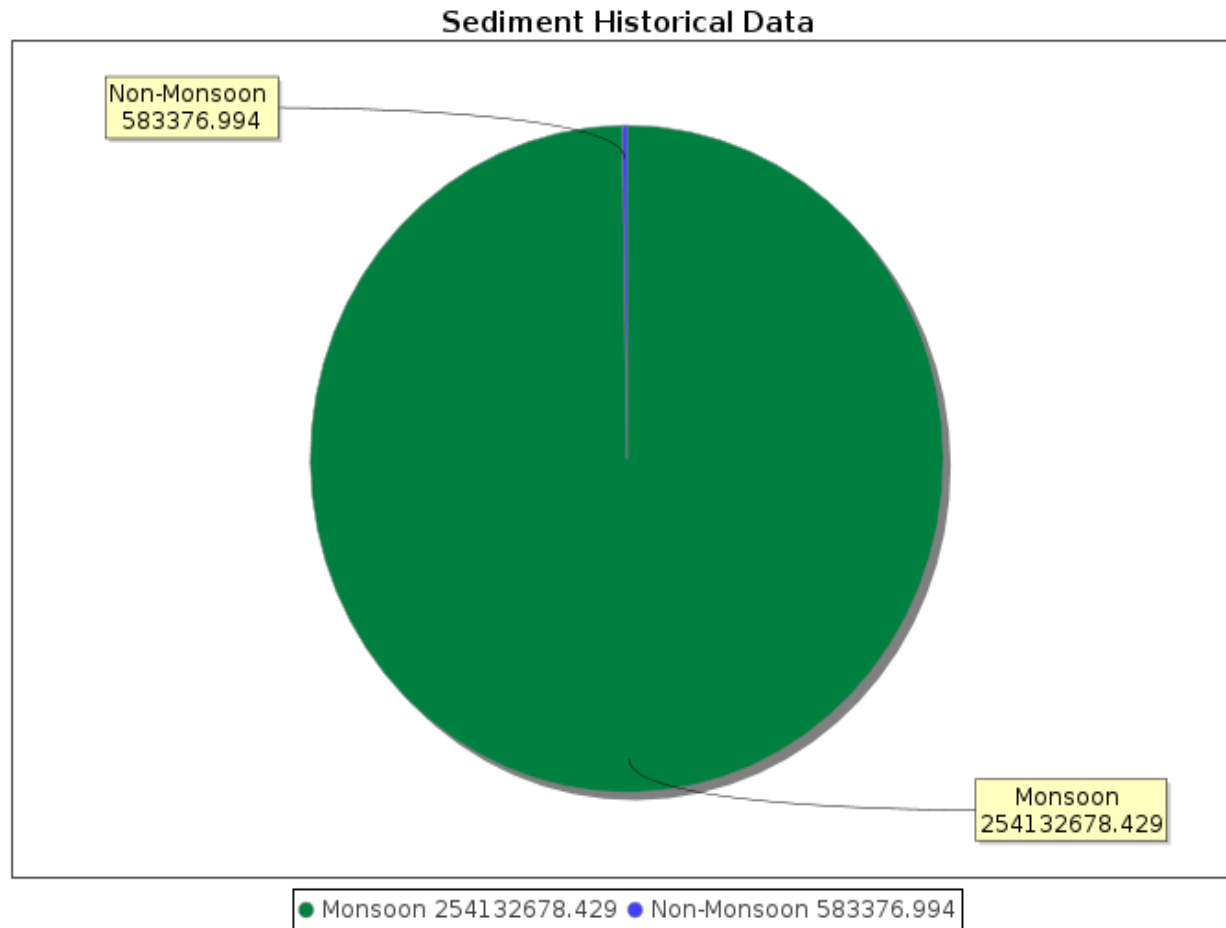
Seasonal Sediment Load for the period : 2007-2017

Station Name : Narmada at Hoshangabad (010215019)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Sediment Data Year Book 2016-17

Seasonal Sediment Load for the period : 2016-2017

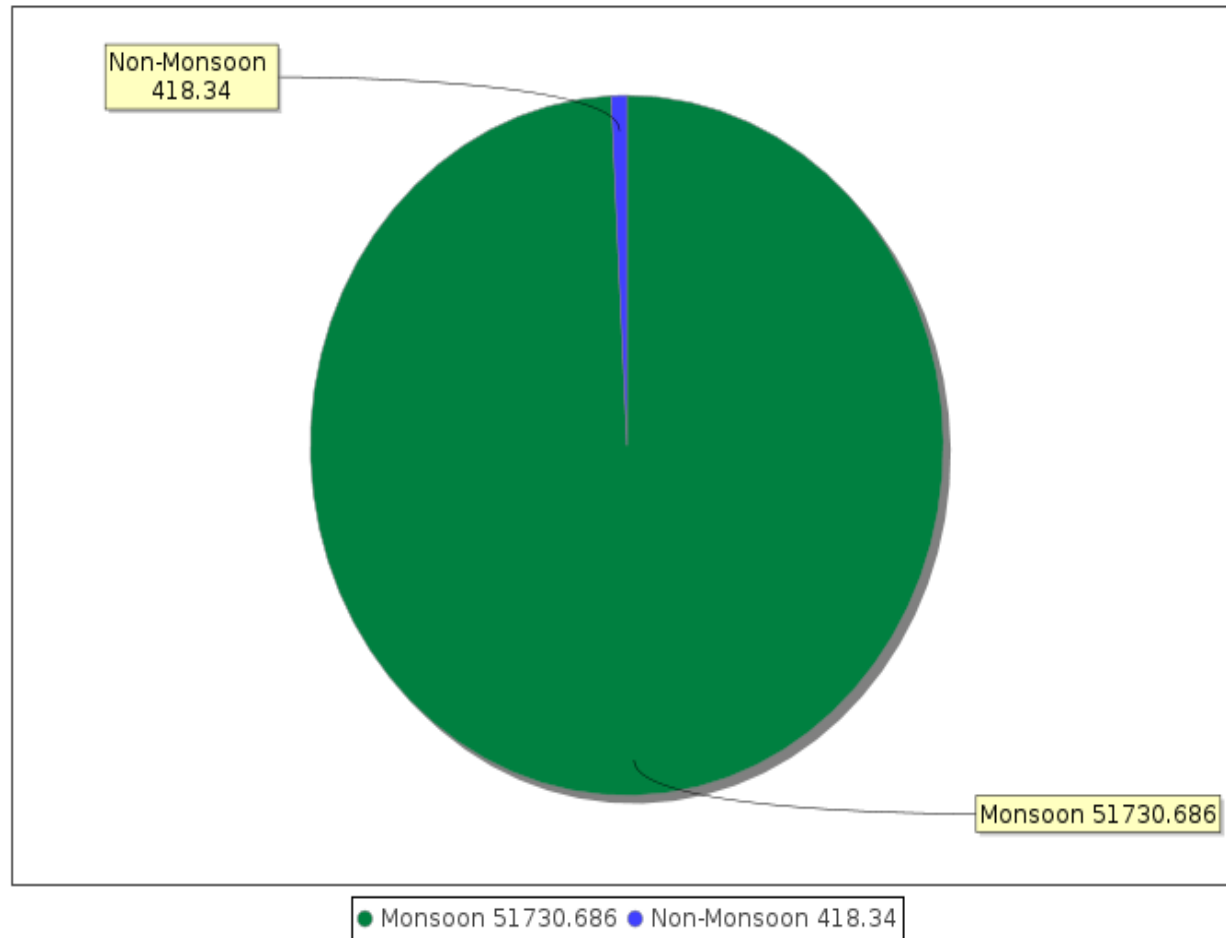
Station Name : Narmada at Hoshangabad (010215019)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Water Year: 2016-2017



6.6 Narmada at Sandia**History sheet**

		Water Year	: 2016-2017
Site	: Narmada at Sandia	Code	: 010215013
State	: Madhya Pradesh	District	Hoshangabad
Basin	: Narmada	Independent River	: Narmada
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Narmada
Division	: Narmada Division,Bhopal	Sub-Division	: MNSD-I, Hoshangabad
Drainage Area	: 33953.5 Sq. Km.	Bank	: Left
Latitude	: 22°54'57"	Longitude	: 78°20'51"
Zero of Gauge (m)	: 297 .000(M.S.L.)	01/03/1978	
	Opening Date	Closing Date	
Gauge	: 01/03/1978		
Discharge	: 18/04/1978		
Sediment	: 09/08/1978		
Water Quality	: 15/09/1979		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Sandia (010215013)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSED-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	124.2	0	0	0.04	0.04	429.24	124.9	0	0	0.05	0.05	539.57	1241.8	0	0	0.21	0.21	22531.22
2	110.2	0	0	0.05	0.05	476.06	154	0	0	0.08	0.08	1130.98	1789.4	0	0	0.35	0.35	53802.25
3	93.7	0	0	0.04	0.04	348.11	142	0	0	0.07	0.07	907.89	1868.2	0	0	0.35	0.35	56494.37
4	58.6	0	0	0.03	0.03	136.7	234.4	0	0	0.18	0.18	3645.39	1194.3	0	0	0.2	0.2	20121.57
5	80	0	0	0.04	0.04	248.83	264.5	0	0	0.1	0.1	2216.72	1712.5	0	0	0.31	0.31	45867.6
6	89.7	0	0	0.03	0.03	209.25	1754.1	0	0	0.54	0.54	81687.74	1247.8	0	0	0.22	0.22	24041.61
7	93.3	0	0	0.03	0.03	217.65	1850	0	0	0.57	0.57	91108.8	1740	0	0	0.31	0.31	46153.15
8	94.2	0	0	0.03	0.03	276.72	1748.2	0	0	0.64	0.64	96064.29	4574.1	0	0	0.63	0.63	248187.01
9	94.1	0	0	0.03	0.03	211.39	2673.6	0	0	0.64	0.64	146915.39	6517.6	0	0	1	1	565936.24
10	89.1	0	0	0.03	0.03	200.15	2630	0	0	0.63	0.63	143156.16	5585.8	0	0	0.4	0.4	194493.09
11	74.1	0	0	0.01	0.01	51.22	2325.7	0	0	0.59	0.59	117751.12	2038.8	0	0	0.35	0.35	61653.31
12	57	0	0	0.01	0.01	39.4	2867.5	0	0	2.71	2.71	672398.93	1101.9	0	0	0.06	0.06	5331.43
13	88.6	0	0	0.03	0.03	199.03	2708.6	0	0	0.81	0.81	190260.73	1351.9	0	0	0.28	0.28	33289.19
14	81.4	0	0	0.03	0.03	203.96	1536	0	0	0.49	0.49	64762.68	1800	0	0	0.37	0.37	58008.96
15	78	0	0	0.01	0.01	80.87	795.1	0	0	0.35	0.35	23837.73	1870	0	0	0.39	0.39	62526.82
16	89.1	0	0	0.03	0.03	254.04	652.2	0	0	0.18	0.18	10143.01	1817.7	0	0	0.25	0.25	39576.42
17	92.8	0	0	0.02	0.02	144.32	632	0	0	0.17	0.17	9501.24	1718.4	0	0	0.32	0.32	47213.38
18	81.9	0	0	0.02	0.02	176.9	553	0	0	0.25	0.25	11801.46	1856.6	0	0	0.35	0.35	55822.76
19	80	0	0	0.02	0.02	138.24	545.7	0	0	0.24	0.24	11079.89	1675.1	0	0	0.31	0.31	44576.42
20	86.3	0	0	0.02	0.02	186.41	504.7	0	0	0.22	0.22	9811.37	2126.7	0	0	0.36	0.36	67067.61
21	79	0	0	0.03	0.03	177.47	346.7	0	0	0.15	0.15	4583.1	2150	0	0	0.36	0.36	67616.64
22	71.7	0	0	0.02	0.02	154.87	404.7	0	0	0.23	0.23	7902.33	1786.7	0	0	0.34	0.34	51714.24
23	86.9	0	0	0.03	0.03	217.74	923.7	0	0	0.43	0.43	34077.88	1278.4	0	0	0.22	0.22	24852.1
24	85.1	0	0	0.03	0.03	205.87	920	0	0	0.42	0.42	33384.96	1740.3	0	0	0.33	0.33	49318.71
25	95.8	0	0	0.03	0.03	240.04	905.2	0	0	0.42	0.42	33238.94	1149.4	0	0	0.19	0.19	19166.47
26	80	0	0	0.03	0.03	235.01	773.2	0	0	0.26	0.26	17101.95	1120.2	0	0	0.18	0.18	17905.28
27	78.9	0	0	0.03	0.03	204.51	882.3	0	0	0.41	0.41	31407.06	2312	0	0	0.4	0.4	80501.99
28	78.8	0	0	0.03	0.03	224.67	1691.7	0	0	0.52	0.52	76589.35	1850	0	0	0.32	0.32	51148.8
29	82.8	0	0	0.03	0.03	214.62	1091.2	0	0	0.49	0.49	46102.76	1530.1	0	0	0.24	0.24	32124.76
30	92.3	0	0	0.03	0.03	271.14	1095.4	0	0	0.43	0.43	40507.02	1116.7	0	0	0.08	0.08	7815.11
31							1010	0	0	0.4	0.4	34556.54	1790.8	0	0	0.18	0.18	27541.07
TenDaily I	92.71	0	0	0.03	0.03	275.41	1157.57	0	0	0.35	0.35	56737.29	2747.15	0	0	0.4	0.4	127762.81
TenDaily II	80.92	0	0	0.02	0.02	147.44	1312.05	0	0	0.6	0.6	112134.82	1735.71	0	0	0.3	0.3	47506.63
TenDaily III	83.13	0	0	0.03	0.03	214.59	913.1	0	0	0.38	0.38	32677.44	1620.42	0	0	0.26	0.26	39064.11
Total	June					6374.44	July					2048172.97	August					2182399.58

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Sandia (010215013)

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	1894.3	0	0	0.42	0.42	67922.02	1516.7	0	0	0.36	0.36	47699.61	257.3	0	0	0.08	0.08	1822.92
2	2172.7	0	0	0.37	0.37	68893.71	1750	0	0	0.42	0.42	62748	255.2	0	0	0.08	0.08	1874.19
3	1901.7	0	0	0.22	0.22	35490.29	1823.6	0	0	0.5	0.5	78937.08	252.4	0	0	0.08	0.08	1657.36
4	1530	0	0	0.18	0.18	23397.98	1085.9	0	0	0.15	0.15	13979.44	249.6	0	0	0.07	0.07	1574.28
5	1150	0	0	0.13	0.13	13214.88	846.6	0	0	0.17	0.17	12142.28	250	0	0	0.07	0.07	1490.4
6	899.4	0	0	0.26	0.26	20359.54	775	0	0	0.06	0.06	4151.52	227	0	0	0.06	0.06	1255.22
7	776.9	0	0	0.17	0.17	11209.73	754.4	0	0	0.06	0.06	3975.99	227.1	0	0	0.07	0.07	1314.64
8	630.1	0	0	0.18	0.18	9527.11	740.9	0	0	0.1	0.1	6721.44	209.6	0	0	0.06	0.06	1122.79
9	610.7	0	0	0.16	0.16	8547.85	720	0	0	0.1	0.1	6034.18	231.3	0	0	0.05	0.05	1059.17
10	584.4	0	0	0.21	0.21	10552.86	753.4	0	0	0.12	0.12	7615.97	249.6	0	0	0.05	0.05	1121.4
11	570	0	0	0.2	0.2	10095.84	708	0	0	0.11	0.11	6912.35	247.6	0	0	0.05	0.05	1112.42
12	554	0	0	0.3	0.3	14120.35	725	0	0	0.12	0.12	7203.6	245.6	0	0	0.04	0.04	954.89
13	550	0	0	0.3	0.3	14160.96	772.2	0	0	0.23	0.23	15612.03	236	0	0	0.04	0.04	774.84
14	537	0	0	0.24	0.24	11135.23	749.2	0	0	0.19	0.19	12557.79	227	0	0	0.04	0.04	725.67
15	549.7	0	0	0.08	0.08	3562.06	561.7	0	0	0.06	0.06	3008.91	236.4	0	0	0.04	0.04	919.12
16	553.9	0	0	0.11	0.11	5455.69	470	0	0	0.05	0.05	2030.4	230.1	0	0	0.04	0.04	854.87
17	539.5	0	0	0.1	0.1	4614.67	457.7	0	0	0.11	0.11	4310.44	233	0	0	0.04	0.04	845.51
18	535	0	0	0.1	0.1	4576.18	432	0	0	0.19	0.19	7129.04	235.8	0	0	0.04	0.04	855.67
19	834	0	0	0.49	0.49	35308.22	420.3	0	0	0.2	0.2	7153.84	235.1	0	0	0.04	0.04	792.19
20	555	0	0	0.11	0.11	5274.72	417.9	0	0	0.1	0.1	3610.66	230	0	0	0.04	0.04	775.01
21	588.3	0	0	0.2	0.2	10013.34	415.8	0	0	0.14	0.14	4993.59	187.1	0	0	0.03	0.03	517.29
22	619.5	0	0	0.13	0.13	7011.75	336.5	0	0	0.07	0.07	2064.23	182.7	0	0	0.02	0.02	363.06
23	659	0	0	0.06	0.06	3416.26	325	0	0	0.07	0.07	1909.44	177.4	0	0	0.03	0.03	429.17
24	661.2	0	0	0.14	0.14	8226.39	317.1	0	0	0.07	0.07	1945.22	166.6	0	0	0.03	0.03	388.64
25	630	0	0	0.13	0.13	7239.46	298.9	0	0	0.04	0.04	1136.3	152.8	0	0	0.03	0.03	356.45
26	623.4	0	0	0.19	0.19	10072.15	288.7	0	0	0.1	0.1	2369.65	149.9	0	0	0.02	0.02	284.93
27	711.9	0	0	0.21	0.21	12732.19	286.3	0	0	0.05	0.05	1286.29	135	0	0	0.02	0.02	209.95
28	684.5	0	0	0.11	0.11	6623.77	286	0	0	0.07	0.07	1630.89	125.4	0	0	0.02	0.02	216.69
29	627.2	0	0	0.1	0.1	5473.2	276.2	0	0	0.03	0.03	739.77	135	0	0	0.02	0.02	233.28
30	692.1	0	0	0.12	0.12	7056.1	270	0	0	0.03	0.03	676.51	136.2	0	0	0.02	0.02	258.89
31							260.6	0	0	0.04	0.04	855.6						
TenDaily I	1215.02	0	0	0.23	0.23	26911.6	1076.65	0	0	0.2	0.2	24400.55	240.91	0	0	0.07	0.07	1429.24
TenDaily II	577.81	0	0	0.2	0.2	10830.39	571.4	0	0	0.14	0.14	6952.91	235.66	0	0	0.04	0.04	861.02
TenDaily III	649.71	0	0	0.14	0.14	7786.46	305.55	0	0	0.06	0.06	1782.5	154.81	0	0	0.02	0.02	325.84
Total	September					455284.48	October					333142.04	November					26160.91

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Sandia (010215013)

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	145.1	0	0	0.02	0.02	263.27	157	0	0	0.02	0.02	339.12	163.9	0	0	0.04	0.04	566.44
2	168.6	0	0	0.02	0.02	364.18	152.9	0	0	0.04	0.04	515.21	164	0	0	0.04	0.04	566.78
3	174.8	0	0	0.03	0.03	392.67	154.4	0	0	0.04	0.04	533.61	163.7	0	0	0.04	0.04	565.75
4	150	0	0	0.02	0.02	285.12	144.3	0	0	0.04	0.04	473.77	157.6	0	0	0.04	0.04	517.43
5	137	0	0	0.01	0.01	106.53	129.5	0	0	0.03	0.03	380.42	157	0	0	0.04	0.04	515.46
6	131.8	0	0	0.01	0.01	113.88	158.8	0	0	0.04	0.04	576.25	151.2	0	0	0.03	0.03	378.85
7	151.7	0	0	0.01	0.01	144.18	200.4	0	0	0.05	0.05	900.36	151	0	0	0.03	0.03	391.39
8	150.9	0	0	0.01	0.01	143.42	185	0	0	0.05	0.05	767.23	150.3	0	0	0.03	0.03	389.58
9	166.1	0	0	0.01	0.01	172.21	172.2	0	0	0.04	0.04	615.86	148.9	0	0	0.03	0.03	385.95
10	162.2	0	0	0.01	0.01	168.17	152.1	0	0	0.03	0.03	446.81	158.3	0	0	0.03	0.03	423.99
11	182	0	0	0.01	0.01	204.42	130.3	0	0	0.03	0.03	326.48	156.4	0	0	0.03	0.03	418.9
12	190	0	0	0.01	0.01	229.82	127.3	0	0	0.03	0.03	318.96	156	0	0	0.03	0.03	417.83
13	216.7	0	0	0.03	0.03	542.96	124.1	0	0	0.03	0.03	300.22	156.4	0	0	0.05	0.05	702.67
14	194.9	0	0	0.03	0.03	454.66	132.6	0	0	0.03	0.03	343.7	158.7	0	0	0.05	0.05	699.3
15	185.2	0	0	0.03	0.03	416.03	145	0	0	0.03	0.03	413.42	161.9	0	0	0.05	0.05	727.38
16	157.4	0	0	0.02	0.02	299.19	172.3	0	0	0.05	0.05	803.88	160.6	0	0	0.05	0.05	707.67
17	147.4	0	0	0.02	0.02	254.71	163.8	0	0	0.05	0.05	679.31	159.9	0	0	0.05	0.05	704.58
18	152	0	0	0.02	0.02	275.79	162.5	0	0	0.05	0.05	659.88	159.4	0	0	0.05	0.05	702.38
19	219.4	0	0	0.02	0.02	398.08	162.6	0	0	0.05	0.05	660.29	150	0	0	0.05	0.05	622.08
20	200.5	0	0	0.02	0.02	311.82	160.3	0	0	0.05	0.05	650.95	133.8	0	0	0.02	0.02	196.53
21	181.2	0	0	0.02	0.02	266.15	162.1	0	0	0.05	0.05	658.26	141.6	0	0	0.02	0.02	256.92
22	165	0	0	0.02	0.02	213.84	160	0	0	0.05	0.05	635.9	120.2	0	0	0.02	0.02	186.94
23	168.6	0	0	0.02	0.02	218.51	158.4	0	0	0.06	0.06	766.4	119.4	0	0	0.02	0.02	185.69
24	172.1	0	0	0.02	0.02	237.91	160.1	0	0	0.06	0.06	843.79	117	0	0	0.02	0.02	171.85
25	172	0	0	0.02	0.02	237.77	160.7	0	0	0.06	0.06	846.95	118.8	0	0	0.02	0.02	184.76
26	185.8	0	0	0.03	0.03	481.59	160	0	0	0.06	0.06	843.26	145	0	0	0.02	0.02	275.62
27	165	0	0	0.03	0.03	384.91	161.1	0	0	0.06	0.06	849.06	118.6	0	0	0.01	0.01	112.72
28	158.8	0	0	0.03	0.03	356.73	161.3	0	0	0.06	0.06	850.12	110.6	0	0	0.01	0.01	86
29	173.5	0	0	0.03	0.03	419.73	160	0	0	0.06	0.06	843.26						
30	166.2	0	0	0.03	0.03	387.71	165	0	0	0.04	0.04	598.75						
31	164	0	0	0.03	0.03	368.41	164.2	0	0	0.04	0.04	567.48						
TenDaily I	153.82	0	0	0.02	0.02	215.36	161.26	0	0	0.04	0.04	554.86	156.59	0	0	0.03	0.03	470.16
TenDaily II	184.55	0	0	0.02	0.02	338.75	148.08	0	0	0.04	0.04	515.71	155.31	0	0	0.04	0.04	589.93
TenDaily III	170.2	0	0	0.02	0.02	324.84	161.17	0	0	0.05	0.05	754.84	123.9	0	0	0.02	0.02	182.56
Total	December					9114.36	January					19008.97	February					12061.43

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Sandia (010215013)

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	118.4	0	0	0.01	0.01	102.3	125.4	0	0	0.02	0.02	260.03	90.8	0	0	0.01	0.01	86.3
2	126.9	0	0	0.01	0.01	120.61	125	0	0	0.02	0.02	259.2	99.3	0	0	0.01	0.01	94.37
3	118.3	0	0	0.01	0.01	102.21	111.6	0	0	0.01	0.01	106.06	93.1	0	0	0.01	0.01	80.44
4	113.2	0	0	0.01	0.01	97.8	100.1	0	0	0.01	0.01	77.84	83.3	0	0	0.01	0.01	64.77
5	115	0	0	0.01	0.01	99.36	99.2	0	0	0.01	0.01	77.14	73	0	0	0.01	0.01	50.46
6	109.8	0	0	0.02	0.02	189.73	91.9	0	0	0.01	0.01	63.52	72.7	0	0	0.01	0.01	50.25
7	114.9	0	0	0.02	0.02	208.47	95.8	0	0	0.01	0.01	74.49	73	0	0	0.01	0.01	50.46
8	111.6	0	0	0.02	0.02	192.84	81.8	0	0	0.01	0.01	49.47	74.8	0	0	0.02	0.02	129.25
9	103.8	0	0	0.02	0.02	170.4	75	0	0	0.01	0.01	45.36	69.8	0	0	0.02	0.02	114.58
10	86	0	0	0.02	0.02	118.89	77.3	0	0	0.02	0.02	153.61	69	0	0	0.02	0.02	107.31
11	79	0	0	0.01	0.01	95.56	111.1	0	0	0.03	0.03	278.37	64.1	0	0	0.02	0.02	94.15
12	92	0	0	0.02	0.02	135.13	115.3	0	0	0.03	0.03	298.86	72.2	0	0	0.02	0.02	118.52
13	110	0	0	0.02	0.02	190.08	121.4	0	0	0.03	0.03	325.16	86.4	0	0	0.02	0.02	171.69
14	130.4	0	0	0.03	0.03	349.26	120	0	0	0.03	0.03	321.41	90	0	0	0.02	0.02	186.62
15	129.8	0	0	0.03	0.03	336.44	124.5	0	0	0.03	0.03	344.22	85.7	0	0	0.02	0.02	170.3
16	132.9	0	0	0.03	0.03	355.96	125	0	0	0.03	0.03	345.6	86.5	0	0	0.02	0.02	149.47
17	120.9	0	0	0.03	0.03	292.48	124.3	0	0	0.02	0.02	182.57	76.1	0	0	0.02	0.02	118.35
18	106.8	0	0	0.02	0.02	230.69	124.3	0	0	0.02	0.02	214.79	77	0	0	0.02	0.02	119.75
19	120	0	0	0.03	0.03	290.3	196.9	0	0	0.03	0.03	544.39	92.9	0	0	0.02	0.02	176.58
20	141.7	0	0	0.03	0.03	404.02	126.4	0	0	0.02	0.02	218.42	94.6	0	0	0.02	0.02	179.82
21	140.4	0	0	0.03	0.03	363.92	125.5	0	0	0.02	0.02	216.86	75	0	0	0.02	0.02	116.64
22	135	0	0	0.03	0.03	338.26	125.5	0	0	0.02	0.02	216.86	69	0	0	0.02	0.02	119.23
23	130.8	0	0	0.03	0.03	316.43	115	0	0	0.02	0.02	188.78	66.8	0	0	0.02	0.02	109.66
24	128.4	0	0	0.03	0.03	299.53	98.3	0	0	0.02	0.02	169.86	78.7	0	0	0.02	0.02	156.39
25	136.5	0	0	0.03	0.03	342.01	108.4	0	0	0.02	0.02	206.05	101.4	0	0	0.03	0.03	254.07
26	132	0	0	0.03	0.03	319.33	115.6	0	0	0.02	0.02	239.71	168.4	0	0	0.05	0.05	712.94
27	106.3	0	0	0.02	0.02	211.24	97	0	0	0.02	0.02	167.62	126.4	0	0	0.04	0.04	404.08
28	98.8	0	0	0.02	0.02	162.19	80.4	0	0	0.02	0.02	111.14	115	0	0	0.03	0.03	327.89
29	125.7	0	0	0.02	0.02	260.65	82.7	0	0	0.02	0.02	121.47	86.4	0	0	0.02	0.02	171.69
30	127.7	0	0	0.02	0.02	264.8	85	0	0	0.02	0.02	124.85	74.6	0	0	0.02	0.02	109.57
31	126.1	0	0	0.02	0.02	261.48							71	0	0	0.02	0.02	98.15
TenDaily I	111.79	0	0	0.01	0.01	140.26	98.31	0	0	0.01	0.01	116.67	79.88	0	0	0.01	0.01	82.82
TenDaily II	116.35	0	0	0.03	0.03	267.99	128.92	0	0	0.03	0.03	307.38	82.55	0	0	0.02	0.02	148.53
TenDaily III	126.15	0	0	0.03	0.03	285.44	103.34	0	0	0.02	0.02	176.32	93.88	0	0	0.03	0.03	234.57
Total	March					7222.38	April					6003.72						4893.77

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Sandia (010215013) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division:MNSD-I, Hoshangabad

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	7529140.177	0	7529140.177	6886.964
1988-1989	16266196.89	0	16266196.89	14519.183
1989-1990	4764959.278	0	4764959.278	6212.518
1990-1991	16499578.833	0	16499578.833	20837.866
1991-1992	31100237.292	0	31100237.292	14450.195
1992-1993	7506724.172	0	7506724.172	10887.274
1993-1994	11324633.026	0	11324633.026	12061.073
1994-1995	43941942.275	0	43941942.275	34413.841
1995-1996	11257938.334	0	11257938.334	13275.058
1996-1997	2415022.747	0	2415022.747	5763.672
1997-1998	7382982.424	0	7382982.424	11395.807
1998-1999	5939963.358	0	5939963.358	9874.673
1999-2000	34685472.309	0	34685472.309	28910.323
2000-2001	10300013.963	0	10300013.963	7673.681
2001-2002	18040558.078	0	18040558.078	11842.629
2002-2003	13837434.362	0	13837434.362	9241.703
2003-2004	36417061.914	0	36417061.914	19362.194
2004-2005	11432445.117	0	11432445.117	10323.986
2005-2006	26940023.775	200264.781	27140288.556	24422.526
2006-2007	17843015.667	125369.915	17968385.582	13936.422
2007-2008	225891.694	11152.435	237044.129	9304.596
2008-2009	1249337.485	49464.412	1298801.896	9913.655
2009-2010	47170094.293	42441.388	47212535.68	11271.35
2010-2011	4083187.304	422459.486	4505646.79	9112.393
2011-2012	28905207.841	0	28905207.841	14915.998
2012-2013	15153224.045	153016.803	15306240.848	13589.215
2016-2017	5051534.423	58304.638	5109839.061	15068.687

Annual Sediment Load for period : 2007-2017

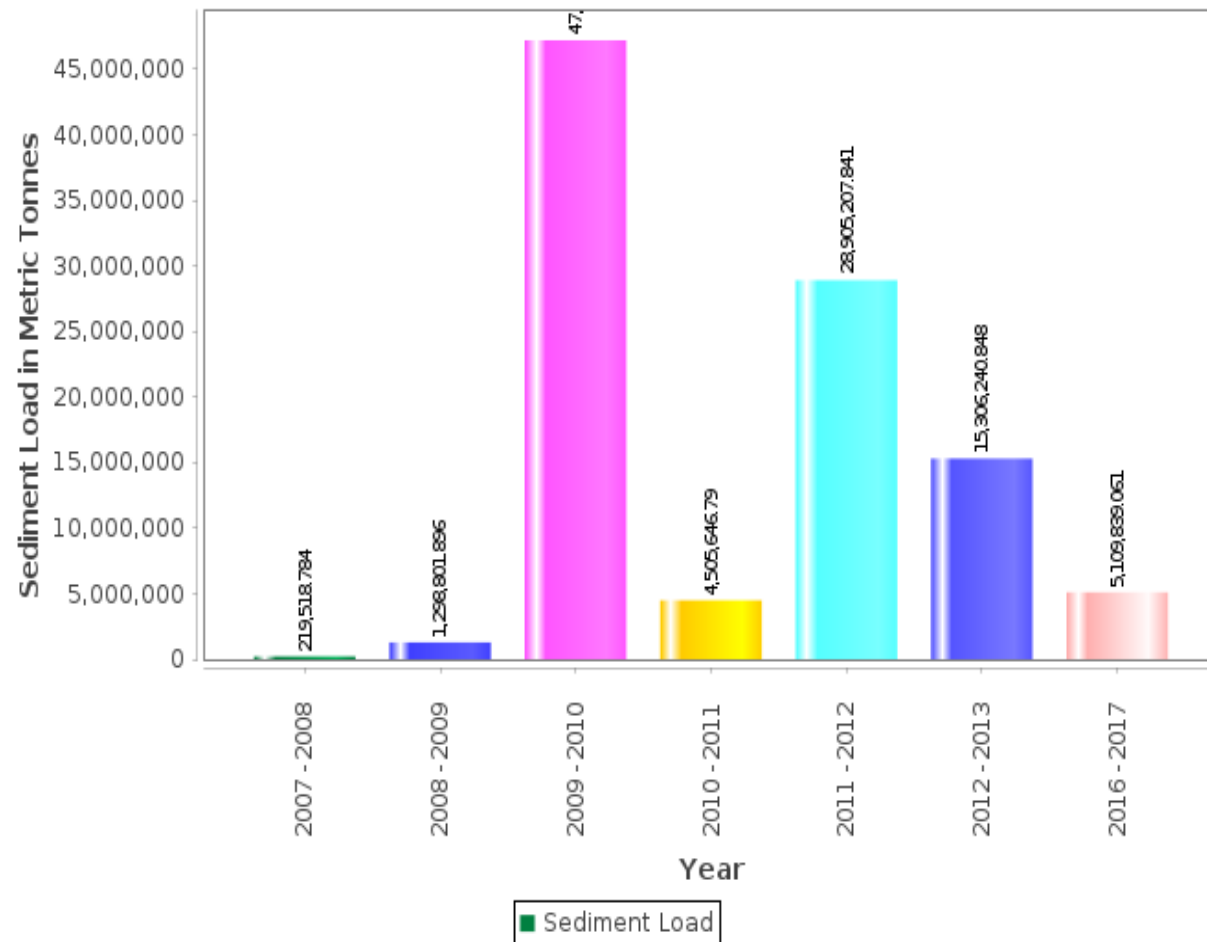
Station Name : Narmada at Sandia (010215013)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Annual Summary



Seasonal Sediment Load for period : 2007-2017

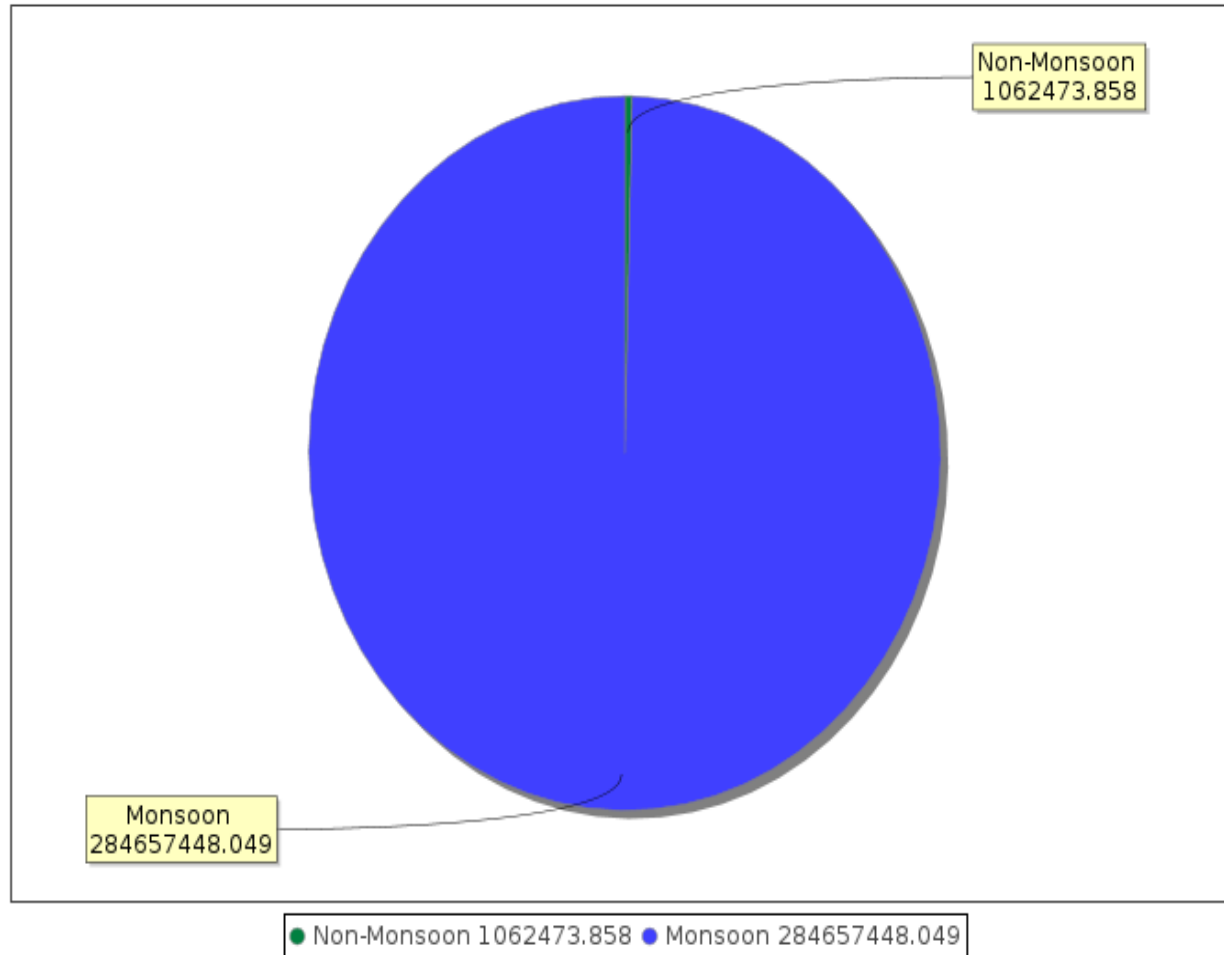
Station Name : Narmada at Sandia (010215013)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Historical Data



Seasonal Sediment Load for period : 2016-2017

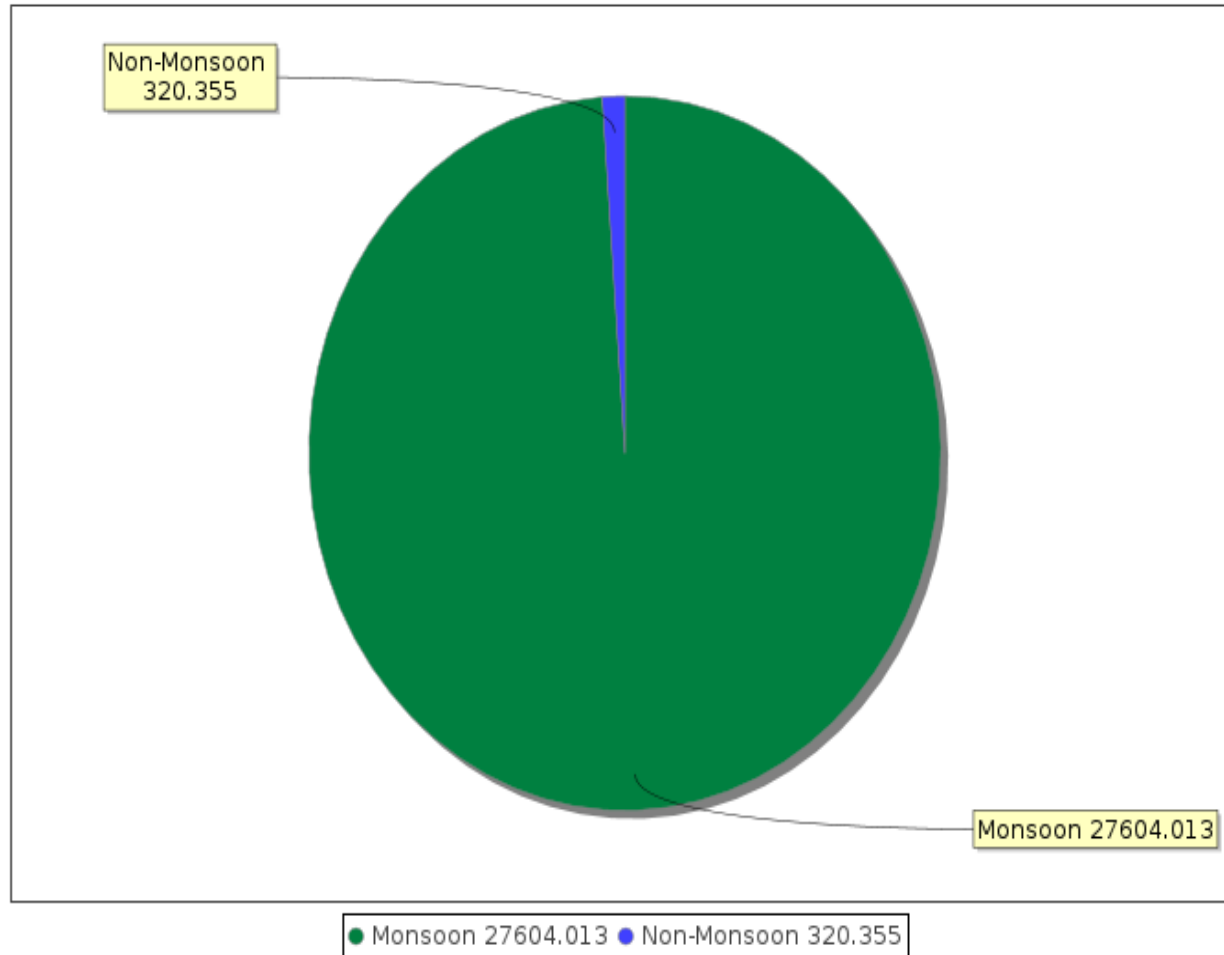
Station Name : Narmada at Sandia (010215013)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-1 Hoshangabad

Sediment Water Year: 2016-2017



6.7 Shakkar at Gadarwara**History sheet**

		Water Year	: 2016-2017
Site	: Shakkar at Gadarwara	Code	: 010215012
State	: Madhya Pradesh	District	Narsinghpur
Basin	: Narmada	Independent River	: Narmada
Tributary	: Shakkar	Local River	: Shakkar
Division	: Narmada Division, Bhopal	Sub-Division	: MNSD-I, Hoshangabad
Drainage Area	: 2270 Sq. Km.	Bank	: Left
Latitude	: 22°55'26"	Longitude	: 78°47'20"
Zero of Gauge (m)	: 321 .000(M.S.L.)	01/02/1977	
	Opening Date	Closing Date	
Gauge	: 01/02/1977		
Discharge	: 01/02/1977		
Sediment	: 15/06/1978		
Water Quality	: 16/08/1979		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Shakkar at Gadarwara (010215012)

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	0	0	0	0	52.41	0	0	0.15	0.15	670.16	186.8	0	0	0.66	0.67	10813.3
2		0	0	0	0	0	52.22	0	0	0.16	0.16	735.45	198.33	0	0	0.93	0.94	16022.13
3		0	0	0	0	0	45.5	0	0	0.14	0.14	546.44	235.99	0	0	1	1.01	20633.86
4		0	0	0	0	0	179.7	0	0	0.47	0.47	7297.3	377.8	0	0	1.12	1.12	36722.16
5		0	0	0	0	0	162.71	0	0	0.42	0.43	6002.83	186.88	0	0	0.71	0.72	11544.82
6		0	0	0	0	0	245.5	0	0.1	0.6	0.7	14953.71	188.18	0	0	0.8	0.81	13153.68
7		0	0	0	0	0	370.5	0	0.15	0.9	1.06	33803.83	235.68	0	0	1	1	20403.91
8		0	0	0	0	0	376.01	0	0	0.7	0.71	22968.31	180.3	0	0	0.01	0.01	186.94
9		0	0	0	0	0	387.62	0	0	0.71	0.72	24179.98	172.04	0	0	0.58	0.59	8740.13
10		0	0	0	0	0	380	0	0	0.7	0.7	22851.07	160.84	0	0	0.42	0.42	5850.28
11		0	0	0	0	0	488.38	0	0.01	1.34	1.35	56795.98	177.61	0	0	0.59	0.59	9099.68
12		0	0	0	0	0	567.16	0	0.01	1.68	1.69	82911.71	156.67	0	0	0.44	0.44	5942.51
13		0	0	0	0	0	510.17	0	0	1.36	1.36	59991.09	151.2	0	0	0.31	0.31	4023.69
14		0	0	0	0	0	220.42	0	0	0.7	0.71	13521.44	158.8	0	0	0.33	0.33	4472.82
15		0	0	0	0	0	196.69	0	0	0.06	0.07	1189.58	156.76	0	0	0.32	0.32	4347.64
16		0	0	0	0	0	176.16	0	0	0.67	0.68	10289.16	198.79	0	0	1.1	1.11	19064.37
17		0	0	0	0	0	182.5	0	0	0.69	0.69	10942.99	153.75	0	0	0.23	0.23	3015.53
18		0	0	0	0	0	177.18	0	0	0.69	0.7	10639.06	137.45	0	0	0.2	0.2	2410.78
19		0	0	0	0	0	162.93	0	0	0.63	0.64	8967.37	95.48	0	0	0.18	0.18	1484.95
20		0	0	0	0	0	156.76	0	0	0.42	0.43	5796.97	102.17	0	0	0.2	0.2	1739
21		0	0	0	0	0	85.54	0	0	0.25	0.25	1847.77	98.5	0	0	0.19	0.19	1642.51
22		0	0	0	0	0	197.43	0	0	0.68	0.68	11684.7	79.14	0	0	0.2	0.2	1347.01
23		0	0	0	0	0	386.82	0	0.01	0.84	0.86	28575.24	74.92	0	0	0.16	0.16	1003.26
24		0	0	0	0	0	383.5	0	0.01	0.83	0.84	27932.3	107.16	0	0	0.17	0.17	1610.97
25		0	0	0	0	0	197.62	0	0	0.69	0.7	11951.94	97.21	0	0	0.15	0.15	1276.63
26		0	0	0	0	0	179.78	0	0	0.67	0.68	10531.54	471.74	0	0	1.16	1.16	47401.54
27		0	0	0	0	0	516.62	0	0	1.34	1.35	60213.34	201.27	0	0	0.68	0.69	11999.03
28		0	0	0	0	0	387.34	0	0	1.28	1.29	43305.34	174.5	0	0	0.59	0.59	8895.31
29	97.87	0	0	0	0	0	485.89	0	0	1.37	1.38	57892.13	179.91	0	0	0.58	0.59	9109.02
30	90.67	0	0	0	0	0	206.36	0	0	0.73	0.74	13104.62	197.88	0	0	0.84	0.85	14481.16
31							179.78	0	0	0.64	0.64	9878.98	471.8	0	0.01	1.49	1.5	61185.65
TenDaily I	0	0	0	0	0	0	225.22	0	0.03	0.5	0.52	13400.91	212.28	0	0	0.72	0.73	14407.12
TenDaily II	0	0	0	0	0	0	283.84	0	0	0.82	0.83	26104.54	148.87	0	0	0.39	0.39	5560.1
TenDaily III	18.85	0	0	0	0	0	291.52	0	0	0.85	0.85	25174.36	195.82	0	0	0.57	0.57	14541.1
Total		June				0		July				671972.35		August				359624.29

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

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	362.51	0	0	1	1.01	31634.16	55.93	0	0	0.17	0.17	831.16	8.71	0	0	0.05	0.05	37.63
2	203.89	0	0	0.72	0.72	12683.65	56.5	0	0	0.17	0.17	839.64	8.71	0	0	0.05	0.05	39.88
3	156.18	0	0	0.39	0.39	5276.1	56.47	0	0	0.18	0.18	892.86	7.93	0	0	0.05	0.05	34.25
4	101	0	0	0.25	0.25	2199.05	52.77	0	0	0.21	0.21	957.5	7.98	0	0	0.06	0.06	37.93
5	79.14	0	0	0.2	0.2	1353.86	51.31	0	0	0.18	0.18	820.2	7.99	0	0	0.05	0.05	34.52
6	144.83	0	0	0.31	0.31	3879.18	156.84	0	0	0.28	0.28	3753.62	7.97	0	0	0.05	0.05	34.43
7	97.97	0	0	0.35	0.35	2937.13	187.06	0	0	0.78	0.78	12671.06	7.8	0	0	0.04	0.04	30.33
8	90.87	0	0	0.19	0.19	1515.23	145.94	0	0	0.22	0.22	2811.84	7.82	0	0	0.04	0.04	30.41
9	85.71	0	0	0.18	0.18	1295.92	115.5	0	0	0.17	0.17	1736.38	7.5	0	0	0.04	0.04	27.86
10	76.38	0	0	0.16	0.16	1022.93	127.41	0	0	0.24	0.24	2697.01	7.49	0	0	0.04	0.04	27.83
11	70.23	0	0	0.15	0.15	891.98	120.5	0	0	0.23	0.23	2363.34	7.46	0	0	0.04	0.04	25.76
12	73.11	0	0	0.13	0.13	808.55	105	0	0	0.2	0.2	1796.26	7.14	0	0	0.04	0.04	24.69
13	66.8	0	0	0.12	0.12	686.81	49.24	0	0	0.18	0.18	744.49	7.15	0	0	0.04	0.04	24.71
14	67	0	0	0.16	0.16	897.24	48.36	0	0	0.15	0.15	639.21	7.15	0	0	0.04	0.04	24.71
15	70.89	0	0	0.15	0.15	912.58	19.87	0	0	0.13	0.13	228.3	7.16	0	0	0.04	0.04	23.49
16	65.96	0	0	0.13	0.13	718.05	17	0	0	0.11	0.11	163.04	6.71	0	0	0.04	0.04	22.02
17	63.85	0	0	0.13	0.13	706.13	15.06	0	0	0.12	0.12	162.64	6.72	0	0	0.04	0.04	20.32
18	71	0	0	0.14	0.14	889.49	14.79	0	0	0.12	0.12	146.94	6.54	0	0	0.04	0.04	19.77
19	71.31	0	0	0.15	0.15	899.56	13.91	0	0	0.12	0.12	144.26	6.51	0	0	0.04	0.04	21.37
20	64.43	0	0	0.13	0.13	718.16	13.47	0	0	0.12	0.12	137.32	6.35	0	0	0.04	0.04	21.4
21	74.34	0	0	0.16	0.16	995.63	13.39	0	0	0.12	0.12	133.04	6.18	0	0	0.04	0.04	18.69
22	77.48	0	0	0.17	0.17	1144.76	12.7	0	0	0.11	0.11	118.49	6.14	0	0	0.03	0.03	17.51
23	85.61	0	0	0.18	0.18	1353.63	11.5	0	0	0.1	0.1	99.36	6.12	0	0	0.03	0.03	17.44
24	78.45	0	0	0.15	0.15	1037.07	10.75	0	0	0.08	0.08	74.33	5.93	0	0	0.03	0.03	15.38
25	85.7	0	0	0.16	0.16	1214.33	10.5	0	0	0.07	0.07	63.53	5.94	0	0	0.03	0.03	15.39
26	112.08	0	0	0.03	0.03	309.89	10138	0	0	0.06	0.06	56935.01	5.94	0	0	0.03	0.03	15.39
27	182.03	0	0	0.81	0.82	12865.15	9.82	0	0	0.06	0.06	53.44	5.93	0	0	0.03	0.03	15.37
28	163.22	0	0	0.48	0.48	6797.1	9.51	0	0	0.06	0.06	49.29	5.76	0	0	0.03	0.03	13.94
29	51.44	0	0	0.17	0.17	759.92	9.3	0	0	0.06	0.06	46.58	5.78	0	0	0.03	0.03	13.98
30	49.11	0	0	0.13	0.13	551.63	8.72	0	0	0.06	0.06	42.19	5.76	0	0	0.03	0.03	14.93
31							8.72	0	0	0.06	0.06	41.42						
TenDaily I	139.85	0	0	0.37	0.38	6379.72	100.57	0	0	0.26	0.26	2801.13	7.99	0	0	0.05	0.05	33.51
TenDaily II	68.46	0	0	0.14	0.14	812.85	41.72	0	0	0.15	0.15	652.58	6.89	0	0	0.04	0.04	22.82
TenDaily III	95.95	0	0	0.25	0.25	2702.91	931.17	0	0	0.08	0.08	5241.52	5.95	0	0	0.03	0.03	15.8
Total	September					98954.87	October					92193.75	November					721.33

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Division : MNSD-I, Hoshangabad

Days	December						January						February						Days
	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	5.57	0	0	0.03	0.03	13.97	4.01	0	0	0.02	0.02	6.58	0.97	0	0	0	0	0	1
2	5.56	0	0	0.03	0.03	13.92	3.9	0	0	0.02	0.02	7.75	0.97	0	0	0	0	0	2
3	5.55	0	0	0.03	0.03	13.9	3.88	0	0	0.02	0.02	6.7	0.92	0	0	0	0	0	3
4	5.54	0	0	0.03	0.03	13.89	3.89	0	0	0.02	0.02	6.72	0.91	0	0	0	0	0	4
5	5.54	0	0	0.03	0.03	13.4	3.77	0	0	0.02	0.02	6.18	0.92	0	0	0	0	0	5
6	5.41	0	0	0.03	0.03	13.55	3.77	0	0	0.02	0.02	6.19	0.92	0	0	0	0	0	6
7	5.4	0	0	0.03	0.03	13.54	3.65	0	0	0.02	0.02	6	0.92	0	0	0	0	0	7
8	5.4	0	0	0.03	0.03	13.52	3.65	0	0	0.02	0.02	5.99	0.88	0	0	0	0	0	8
9	5.38	0	0	0.03	0.03	13.48	3.65	0	0	0.02	0.02	6.3	0.86	0	0	0	0	0	9
10	5.13	0	0	0.03	0.03	12.42	3.52	0	0	0.02	0.02	5.78	0.86	0	0	0	0	0	10
11	5.12	0	0	0.03	0.03	12.4	3.53	0	0	0.02	0.02	5.79	0.8	0	0	0	0	0	11
12	5.12	0	0	0.03	0.03	12.37	3.27	0	0	0.02	0.02	5.09	0.8	0	0	0	0	0	12
13	5.11	0	0	0.02	0.02	11.04	3.19	0	0	0.02	0.02	4.69	0.82	0	0	0	0	0	13
14	4.98	0	0	0.02	0.02	8.17	2.75	0	0	0.02	0.02	3.56	0.8	0	0	0	0	0	14
15	4.99	0	0	0.02	0.02	8.62	1.8	0	0	0.01	0.01	1.56	0.8	0	0	0	0	0	15
16	4.97	0	0	0.02	0.02	8.15	1.36	0	0	0.01	0.01	0.82	0.88	0	0	0	0	0	16
17	4.94	0	0	0.02	0.02	8.1	1.21	0	0	0.01	0.01	0.73	0.87	0	0	0	0	0	17
18	4.75	0	0	0.02	0.02	7.8	0.97	0	0	0.01	0.01	0.5	0.87	0	0	0	0	0	18
19	4.64	0	0	0.02	0.02	10.03	0.97	0	0	0.01	0.01	0.5	0.87	0	0	0	0	0	19
20	4.64	0	0	0.02	0.02	8.01	0.96	0	0	0.01	0.01	0.5	0.82	0	0	0	0	0	20
21	4.63	0	0	0.02	0.02	8	0.92	0	0	0.01	0.01	0.47	0.81	0	0	0	0	0	21
22	4.62	0	0	0.02	0.02	7.99	0.92	0	0	0.01	0.01	0.48	0.81	0	0	0	0	0	22
23	4.43	0	0	0.02	0.02	7.27	0.91	0	0	0.01	0.01	0.47	0.75	0	0	0	0	0	23
24	4.43	0	0	0.02	0.02	7.27	0.96	0	0	0.01	0.01	0.5	0.75	0	0	0	0	0	24
25	4.43	0	0	0.02	0.02	7.27	0.96	0	0	0.01	0.01	0.5	0.75	0	0	0	0	0	25
26	4.24	0	0	0.02	0.02	8.43	0.96	0	0	0.01	0.01	0.5	0.75	0	0	0	0	0	26
27	4.23	0	0	0.02	0.02	7.3	0.97	0	0	0.01	0.01	0.5	0.75	0	0	0	0	0	27
28	4.22	0	0	0.02	0.02	7.3	1.22	0	0	0.01	0.01	0.74	0.75	0	0	0	0	0	28
29	4.04	0	0	0.02	0.02	6.64	1.23	0	0	0.01	0.01	0.74							29
30	4.03	0	0	0.02	0.02	6.61	1.2	0	0	0.01	0.01	0.73							30
31	4.02	0	0	0.02	0.02	6.59	0.98	0	0	0.01	0.01	0.51							31
TenDaily I	5.45	0	0	0.03	0.03	13.56	3.77	0	0	0.02	0.02	6.42	0.91	0	0	0	0	0	TenDaily I
TenDaily II	4.92	0	0	0.02	0.02	9.47	2	0	0	0.01	0.01	2.37	0.83	0	0	0	0	0	TenDaily II
TenDaily III	4.3	0	0	0.02	0.02	7.34	1.02	0	0	0.01	0.01	0.56	0.77	0	0	0	0	0	TenDaily III
Total	December					310.96	January					94.07	February					0	Total

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Shakkar at Gadarwara (010215012)

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	0.7	0	0	0	0	0	0.06	0	0	0	0	0	0	0	0	0	0	0
2	0.71	0	0	0	0	0	0.06	0	0	0	0	0	0	0	0	0	0	0
3	0.71	0	0	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0
4	0.7	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
5	0.7	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
6	0.62	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
7	0.62	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
8	0.62	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
9	0.57	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
10	0.57	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
11	0.56	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
12	0.56	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
13	0.56	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
14	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0.4	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
17	0.26	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
18	0.25	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
19	0.26	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
20	0.24	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
21	0.19	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
22	0.19	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
23	0.19	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
24	0.16	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
25	0.15	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
26	0.16	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
27	0.1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
28	0.09	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
29	0.09	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
30	0.06	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
31	0.06	0	0	0	0	0							0	0	0	0	0	0
TenDaily I	0.65	0	0	0	0	0	0.02	0	0	0	0	0	0	0	0	0	0	0
TenDaily II	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TenDaily III	0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	March					0	April					0						0

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Division : MNSD-I, Hoshangabad

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	558684.253	0	558684.253	469.396
1988-1989	2457908.178	0	2457908.178	1489.964
1989-1990	1131617.595	0	1131617.595	1056.038
1990-1991	2403872.667	0	2403872.667	2143.985
1991-1992	869282.892	0	869282.892	694.184
1992-1993	1509931.334	0	1509931.334	1102.191
1993-1994	1449469.403	0	1449469.403	1357.023
1994-1995	6473197.328	0	6473197.328	2994.978
1995-1996	1704168.019	0	1704168.019	868.314
1996-1997	343576.431	0	343576.431	642.709
1997-1998	1511294.428	0	1511294.428	1064.626
1998-1999	310187.005	0	310187.005	768.642
1999-2000	3802365.72	0	3802365.72	3620.84
2000-2001	524430.17	0	524430.17	701.089
2001-2002	421505.347	0	421505.347	575.166
2002-2003	814769.264	0	814769.264	1193.794
2003-2004	728251.178	0	728251.178	1567.57
2004-2005	157004.08	0	157004.08	637.78
2005-2006	745497.821	160.108	745657.929	1411.114
2006-2007	2654320.914	38.345	2654359.259	2307.027
2007-2008	739549.333	12.563	739561.896	1627.422
2008-2009	115482.481	2.097	115484.577	788.828
2009-2010	5461673.612	78.738	5461752.349	2151.559
2010-2011	629850.001	19.048	629869.05	1314.56
2012-2013	1228999.91	45.976	1229045.886	2214.788
2015-2016	0	0	0	0
2016-2017	1223466.599	405.032	1223871.631	2542.201

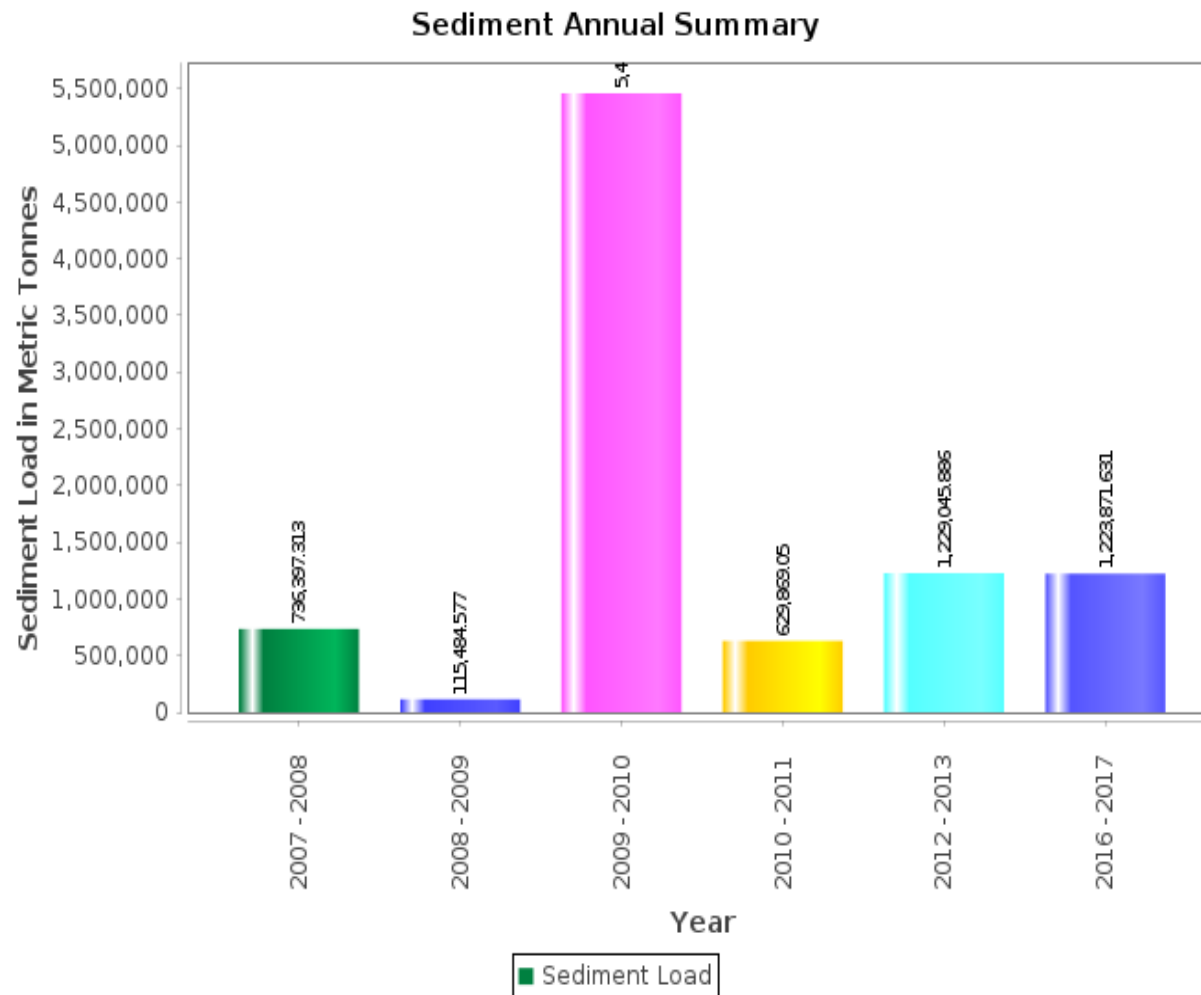
Annual Sediment Load for period : 2007-2017

Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Div : MNSD-I, Hoshangabad



Seasonal Sediment Load for the period : 2007-2017

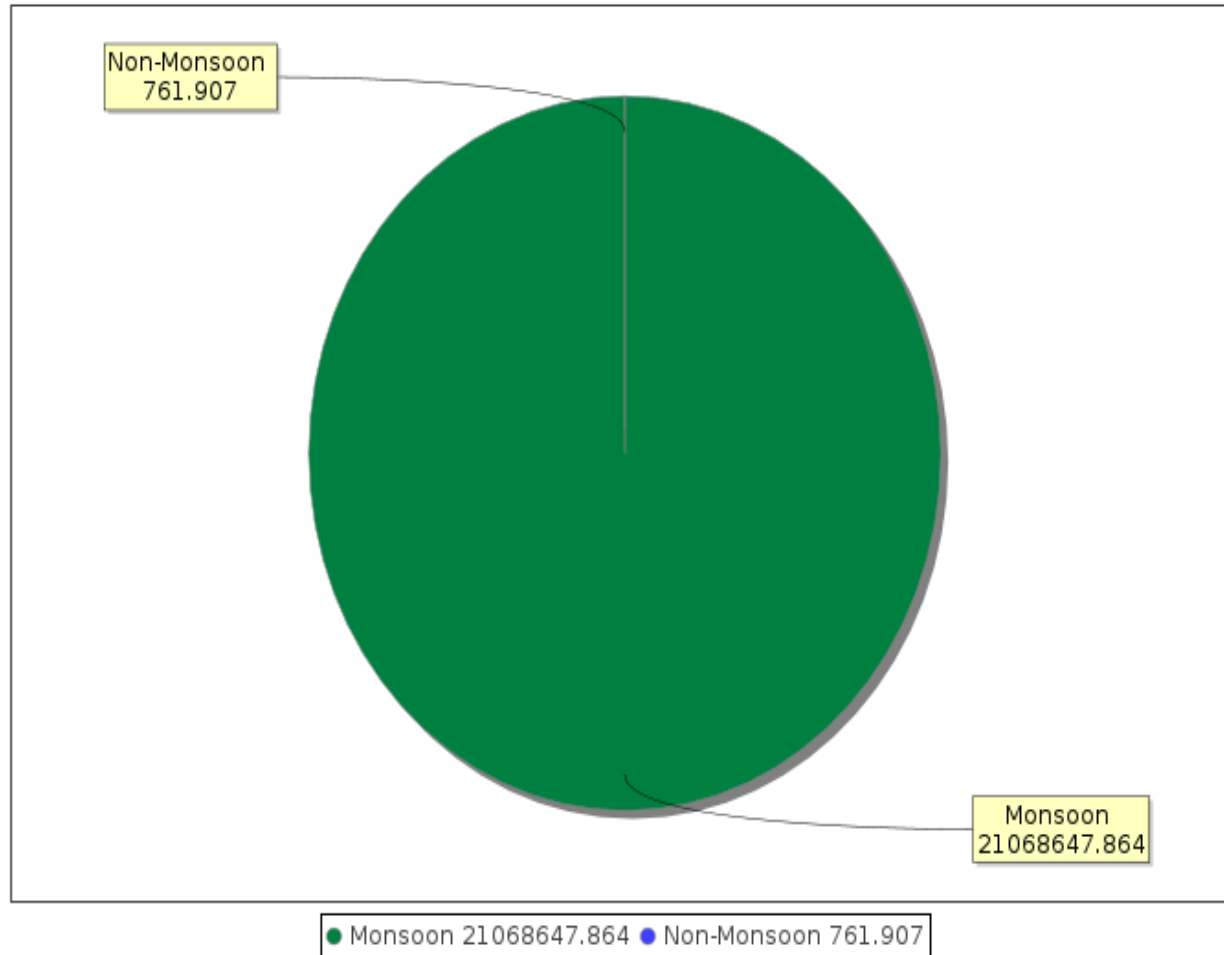
Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Div : MNSD-I, Hoshangabad

Sediment Historical Data



Seasonal Sediment Load for the period : 2016-2017

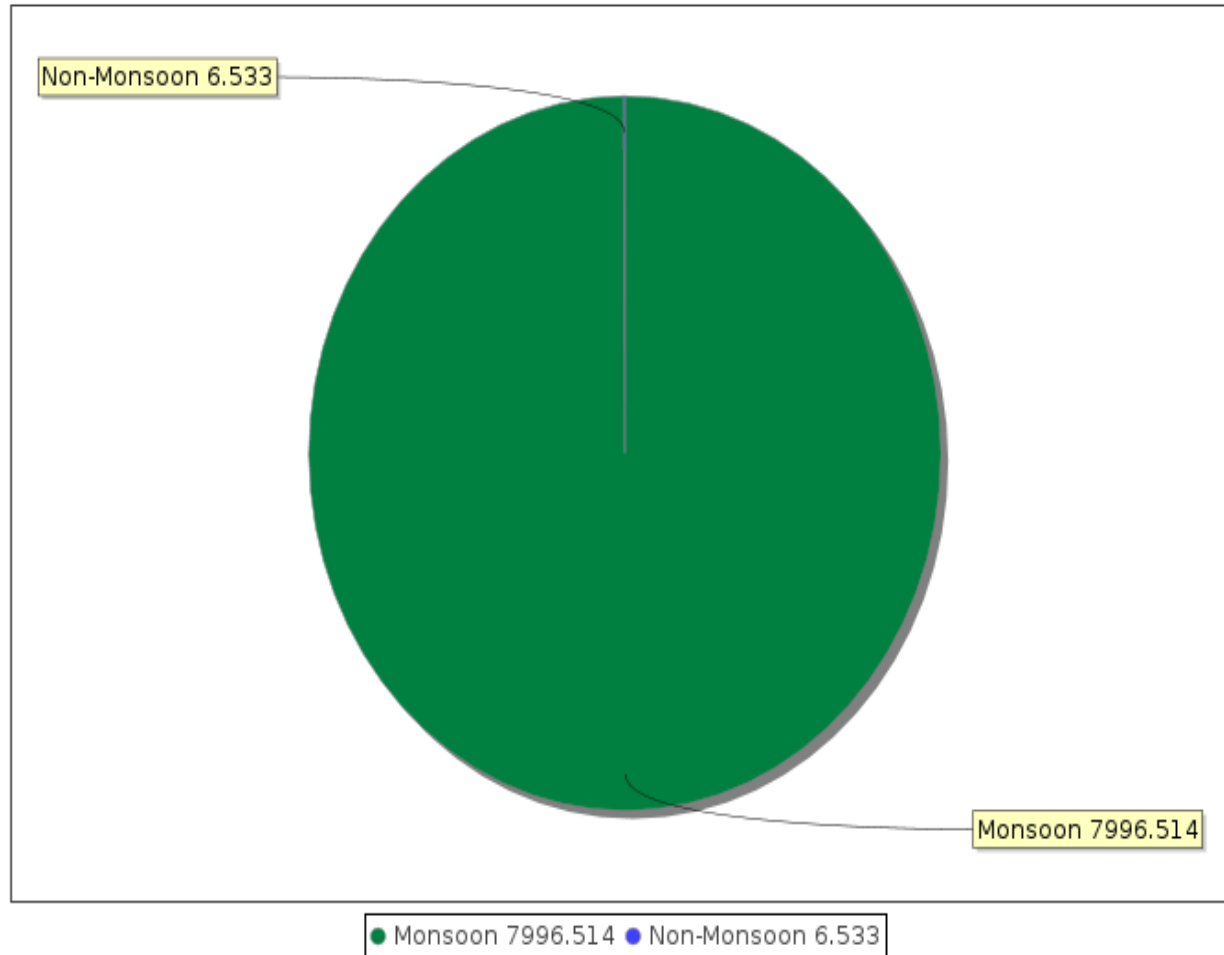
Station Name : Shakkar at Gadarwara (010215012)

Division : Narmada Division, Bhopal

Local River : Shakkar

Sub-Div : MNSD-I, Hoshangabad

Sediment Water Year: 2016-2017



6.8 Narmada at Barman**History Sheet**

		Water Year	: 2016-2017
Site	: Narmada at Barman	Code	: 010215011
State	: Madhya Pradesh	District	Narsinghpur
Basin	: Narmada	Independent River	: Narmada
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Narmada
Division	: Narmada Division, Bhopal	Sub-Division	: MNSD-I, Hoshangabad
Drainage Area	: 26453 Sq. Km.	Bank	: Right
Latitude	: 23°01'52"	Longitude	: 79°00'56"
Zero of Gauge (m)	: 306 .000(M.S.L.)	09/12/1970	
	Opening Date	Closing Date	
Gauge	: 09/12/1970		
Discharge	: 20/11/1971		
Sediment	: 27/08/1972		
Water Quality	: 01/06/1979		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Barman (010215011)

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	49.7	0	0	0.01	0.01	55.82	97.5	0	0	0.02	0.02	126.36	1015	0	0	0.62	0.62	54546.91
2	31.9	0	0	0.01	0.01	33.07	108	0	0	0.13	0.13	1222.39	1098	0	0	1.83	1.83	173512.11
3	49.2	0	0	0.01	0.01	55.26	117	0	0	0.14	0.14	1425.34	670.7	0	0	0.63	0.63	36333.7
4	72	0	0	0.01	0.01	80.87	134	0	0	0.06	0.06	717.81	945.5	0	0	0.78	0.78	64127.59
5	93	0	0	0.01	0.01	104.46	154	0	0	0.42	0.42	5628.27	949.9	0	0	0.52	0.52	42512.96
6	75.4	0	0	0.01	0.01	84.69	1587	0	0	1.92	1.92	263538.49	1020	0	0	2.65	2.65	233451.07
7	79	0	0	0.01	0.01	88.73	460	0	0	0.56	0.56	22137.41	1380	0	0	3.58	3.58	427446.72
8	74.2	0	0	0.01	0.01	76.93	1075	0	0	2.28	2.28	211302	6091	0	0	1.02	1.02	537840.17
9	48.2	0	0	0.01	0.01	49.97	2093	0	0	2.73	2.73	494041.77	6074	0	0	0.5	0.5	263446.39
10	33.8	0	0	0.01	0.01	32.12	3020	0	0	3.94	3.94	1027795.39	3164	0	0	0.28	0.28	77363.6
11	44.7	0	0	0.01	0.01	46.34	1416	0	0	2.35	2.35	287015.27	1081	0	0	0.29	0.29	26805.34
12	95	0	0	0.02	0.02	172.37	2349	0	0	2.05	2.05	416054.88	947.5	0	0	0.2	0.2	16700.26
13	42.8	0	0	0.01	0.01	40.68	1480	0	0	1.22	1.22	155875.97	1669	0	0	0.31	0.31	44125.69
14	69.6	0	0	0.01	0.01	78.17	604.2	0	0	0.88	0.88	45781.93	1740	0	0	0.32	0.32	48558.53
15	88.3	0	0	0.01	0.01	99.18	361.3	0	0	0.43	0.43	13516.67	1741	0	0	0.32	0.32	48586.44
16	68.7	0	0	0.01	0.01	77.16	339.3	0	0	1.23	1.23	36175.35	1680	0	0	0.27	0.27	38610.43
17	60.6	0	0	0.01	0.01	62.83	260	0	0	0.94	0.94	21183.55	1400	0	0	0.44	0.44	53464.32
18	74.8	0	0	0.01	0.01	84.02	265	0	0	0.28	0.28	6433.78	1231	0	0	0.28	0.28	30312.14
19	92	0	0	0.01	0.01	95.39	254	0	0	0.2	0.2	4279.39	991.1	0	0	0.26	0.26	22092.81
20	48.1	0	0	0.01	0.01	54.03	250	0	0	0.1	0.1	2268	1023	0	0	0.37	0.37	32614.88
21	65.2	0	0	0.01	0.01	78.87	231	0	0	0.14	0.14	2714.34	1191	0	0	0.43	0.43	44350.93
22	91.3	0	0	0.02	0.02	134.1	400.8	0	0	5.74	5.74	198944.29	1343	0	0	0.29	0.29	33186.07
23	64.4	0	0	0.02	0.02	83.46	614	0	0	2.3	2.3	122067.13	1231	0	0	0.14	0.14	14783.82
24	69.6	0	0	0.02	0.02	96.22	940	0	0	3.52	3.52	285961.54	898.2	0	0	0.22	0.22	17305.8
25	61.5	0	0	0.02	0.02	79.7	589.4	0	0	2.11	2.11	107297.21	1325	0	0	0.24	0.24	27704.16
26	68.13	0	0	0	0	11.77	481.9	0	0	1.91	1.91	79608.34	1458	0	0	2.72	2.72	342515.69
27	59	0	0	0.02	0.02	76.46	969	0	0	0.38	0.38	31897.93	1343	0	0	0.41	0.41	47226.33
28	72.1	0	0	0.02	0.02	93.44	973.7	0	0	0.26	0.26	21704.94	1320	0	0	0.4	0.4	45961.34
29	89.3	0	0	0.02	0.02	131.16	998.3	0	0	0.28	0.28	24150.87	898.2	0	0	3.87	3.87	300329.34
30	100	0	0	0.02	0.02	138.24	879.2	0	0	0.87	0.87	65859.82	1325	0	0	0.59	0.59	67543.2
31							1180	0	0	1.17	1.17	119079.94	1458	0	0	0.54	0.54	67646.53
TenDaily I	60.64	0	0	0.01	0.01	66.19	884.55	0	0	1.22	1.22	202793.52	2240.81	0	0	1.24	1.24	191058.12
TenDaily II	68.46	0	0	0.01	0.01	81.02	757.88	0	0	0.97	0.97	98858.48	1350.36	0	0	0.31	0.31	36187.08
TenDaily III	74.05	0	0	0.01	0.01	92.34	750.66	0	0	1.7	1.7	96298.76	1253.67	0	0	0.9	0.9	91686.66
Total	June					2395.53	July					4075806.35	August					3281005.27

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Barman (010215011)

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	2430	0	0	0.5	0.5	106025.76	1672	0	0	0.29	0.29	42327.01	222	0	0	0.05	0.05	1016.58
2	1894	0	0	0.25	0.25	40583.12	1830	0	0	0.32	0.32	50121.5	213	0	0	0.05	0.05	956.97
3	1534	0	0	0.14	0.14	18555.26	1572	0	0	0.23	0.23	31238.78	200	0	0	0.05	0.05	864
4	1120	0	0	0.1	0.1	9870.34	734	0	0	0.27	0.27	16869.08	221	0	0	0.05	0.05	935.63
5	820	0	0	0.08	0.08	5313.6	656.2	0	0	0.16	0.16	8957.92	196	0	0	0.05	0.05	812.85
6	677.5	0	0	0.1	0.1	5795.06	508.4	0	0	0.1	0.1	4612.2	193	0	0	0.05	0.05	817.08
7	423	0	0	0.07	0.07	2521.76	494.8	0	0	0.14	0.14	5771.35	185	0	0	0.04	0.04	719.28
8	388.4	0	0	0.06	0.06	1879.23	506.7	0	0	0.15	0.15	6391.72	215	0	0	0.04	0.04	761.62
9	373.2	0	0	0.06	0.06	1773.45	530	0	0	0.16	0.16	7189.34	221	0	0	0.04	0.04	668.3
10	341	0	0	0.05	0.05	1561.51	508.9	0	0	0.18	0.18	8046.32	218	0	0	0.03	0.03	583.89
11	325	0	0	0.05	0.05	1347.84	653	0	0	0.23	0.23	13032.84	223	0	0	0.03	0.03	635.82
12	319.9	0	0	0.05	0.05	1492.53	675	0	0	0.24	0.24	13938.48	217	0	0	0.03	0.03	618.71
13	310	0	0	0.05	0.05	1285.63	654.5	0	0	0.15	0.15	8425.77	214	0	0	0.03	0.03	554.69
14	302.9	0	0	0.06	0.06	1465.55	653.4	0	0	0.14	0.14	8185.8	215	0	0	0.03	0.03	557.28
15	299.6	0	0	0.06	0.06	1423.7	307	0	0	0.12	0.12	3209.5	200	0	0	0.03	0.03	483.84
16	298.3	0	0	0.06	0.06	1417.52	296	0	0	0.12	0.12	2966.63	201	0	0	0.03	0.03	468.89
17	294.8	0	0	0.27	0.27	6851.62	286.9	0	0	0.1	0.1	2602.76	216	0	0	0.03	0.03	541.21
18	295	0	0	0.27	0.27	6881.76	279	0	0	0.09	0.09	2169.5	199	0	0	0.03	0.03	481.42
19	292.7	0	0	0.39	0.39	9761.66	284.7	0	0	0.08	0.08	1967.85	186	0	0	0.03	0.03	433.9
20	304	0	0	0.34	0.34	8825.24	285.9	0	0	0.08	0.08	1951.44	184	0	0	0.03	0.03	476.93
21	317.6	0	0	0.32	0.32	8890.77	280.1	0	0	0.07	0.07	1718.25	183	0	0	0.03	0.03	426.9
22	398.4	0	0	0.37	0.37	12632.79	267.4	0	0	0.64	0.64	14786.15	187	0	0	0.03	0.03	452.39
23	397.5	0	0	0.36	0.36	12260.81	265	0	0	0.63	0.63	14516.06	157	0	0	0.03	0.03	366.25
24	348.6	0	0	0.34	0.34	10270.59	250	0	0	0.06	0.06	1274.4	108	0	0	0.03	0.03	242.61
25	335	0	0	0.33	0.33	9464.69	250	0	0	0.05	0.05	1036.8	107	0	0	0.03	0.03	249.61
26	479.3	0	0	0.27	0.27	11222.52	243	0	0	0.06	0.06	1154.74	99.8	0	0	0.03	0.03	224.19
27	404.1	0	0	0.28	0.28	9845.82	244	0	0	0.06	0.06	1180.57	98	0	0	0.03	0.03	220.15
28	376	0	0	0.22	0.22	7017.06	243	0	0	0.06	0.06	1238.72	102	0	0	0.03	0.03	273.2
29	359.8	0	0	0.17	0.17	5346.92	237	0	0	0.06	0.06	1167.18	108	0	0	0.03	0.03	307.93
30	1088	0	0	0.26	0.26	24252.83	235	0	0	0.06	0.06	1197.94	109	0	0	0.03	0.03	244.86
31							221	0	0	0.05	0.05	973.81						
TenDaily I	1000.11	0	0	0.14	0.14	19387.91	901.3	0	0	0.2	0.2	18152.52	208.4	0	0	0.05	0.05	813.62
TenDaily II	304.22	0	0	0.16	0.16	4075.31	437.54	0	0	0.14	0.14	5845.06	205.5	0	0	0.03	0.03	525.27
TenDaily III	450.43	0	0	0.29	0.29	11120.48	248.68	0	0	0.16	0.16	3658.6	125.88	0	0	0.03	0.03	300.81
Total	September					345836.93	October					280220.4	November					16396.97

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Barman (010215011)

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	150	0	0	0.04	0.04	531.36	153	0	0	0.02	0.02	317.26	134	0	0	0.02	0.02	219.97
2	154	0	0	0.04	0.04	558.84	119	0	0	0.02	0.02	205.63	134	0	0	0.02	0.02	219.97
3	149	0	0	0.04	0.04	527.82	110	0	0	0.02	0.02	171.07	134	0	0	0.02	0.02	219.97
4	144	0	0	0.04	0.04	497.66	107	0	0	0.02	0.02	166.41	128	0	0	0.02	0.02	199.07
5	97.5	0	0	0.03	0.03	227.45	98.7	0	0	0.02	0.02	144.97	127	0	0	0.02	0.02	197.51
6	151	0	0	0.04	0.04	547.95	94.9	0	0	0.02	0.02	131.19	134	0	0	0.02	0.02	219.97
7	165	0	0	0.04	0.04	641.52	112	0	0	0.02	0.02	183.86	136	0	0	0.02	0.02	223.26
8	136	0	0	0.04	0.04	434.76	127	0	0	0.02	0.02	230.43	132	0	0	0.02	0.02	216.69
9	132	0	0	0.04	0.04	410.57	105	0	0	0.02	0.02	181.44	138	0	0	0.02	0.02	238.46
10	116	0	0	0.03	0.03	320.72	86.5	0	0	0.02	0.02	119.58	136	0	0	0.02	0.02	223.26
11	108	0	0	0.03	0.03	279.94	86	0	0	0.02	0.02	118.89	138	0	0	0.02	0.02	238.46
12	214	0	0	0.06	0.06	1090.89	67.7	0	0	0.01	0.01	76.04	136	0	0	0.02	0.02	223.26
13	218	0	0	0.02	0.02	433.21	113	0	0	0.02	0.02	214.79	138	0	0	0.02	0.02	238.46
14	187	0	0	0.02	0.02	274.67	109	0	0	0.02	0.02	197.77	135	0	0	0.02	0.02	221.62
15	155	0	0	0.01	0.01	187.49	105	0	0	0.02	0.02	181.44	137	0	0	0.02	0.02	236.74
16	121	0	0	0.01	0.01	115	134	0	0	0.02	0.02	231.55	135	0	0	0.02	0.02	221.62
17	112	0	0	0.01	0.01	96.77	135	0	0	0.02	0.02	233.28	135	0	0	0.02	0.02	221.62
18	106	0	0	0.01	0.01	91.58	134	0	0	0.02	0.02	231.55	136	0	0	0.02	0.02	223.26
19	168	0	0	0.02	0.02	319.33	134	0	0	0.02	0.02	231.55	134	0	0	0.02	0.02	219.97
20	219	0	0	0.03	0.03	491.96	134	0	0	0.02	0.02	231.55	98	0	0	0.02	0.02	160.88
21	200	0	0	0.02	0.02	414.72	138	0	0	0.02	0.02	250.39	97.6	0	0	0.02	0.02	168.65
22	182	0	0	0.02	0.02	345.95	144	0	0	0.02	0.02	261.27	79.5	0	0	0.02	0.02	109.9
23	168	0	0	0.02	0.02	290.3	137	0	0	0.02	0.02	224.9	72.3	0	0	0.02	0.02	93.7
24	144	0	0	0	0	24.88	136	0	0	0.02	0.02	235.01	128	0	0	0.03	0.03	287.54
25	144	0	0	0.02	0.02	211.51	135	0	0	0.02	0.02	233.28	113	0	0	0.02	0.02	224.55
26	127	0	0	0.02	0.02	241.4	133	0	0	0.02	0.02	218.33	92.9	0	0	0.02	0.02	152.5
27	126	0	0	0.02	0.02	217.73	138	0	0	0.02	0.02	238.46	80.7	0	0	0.02	0.02	125.5
28	119	0	0	0.02	0.02	195.35	135	0	0	0.02	0.02	233.28	91.2	0	0	0.02	0.02	181.23
29	114	0	0	0.02	0.02	177.29	136	0	0	0.02	0.02	235.01						
30	143	0	0	0.02	0.02	284.17	140	0	0	0.02	0.02	241.92						
31	165	0	0	0.03	0.03	370.66	138	0	0	0.02	0.02	238.46						
TenDaily I	139.45	0	0	0.04	0.04	469.86	111.31	0	0	0.02	0.02	185.18	133.3	0	0	0.02	0.02	217.81
TenDaily II	160.8	0	0	0.02	0.02	338.08	115.17	0	0	0.02	0.02	194.84	132.2	0	0	0.02	0.02	220.59
TenDaily III	148.36	0	0	0.02	0.02	252.18	137.27	0	0	0.02	0.02	237.3	94.4	0	0	0.02	0.02	167.95
Total	December					10853.44	January					6410.57	February					5727.61

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Barman (010215011)

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	96	0	0	0.02	0.02	190.77	109	0	0	0.01	0.01	94.18	90.4	0	0	0.01	0.01	109.35
2	79.8	0	0	0.02	0.02	137.89	102	0	0	0.01	0.01	88.13	95.8	0	0	0.01	0.01	91.05
3	63.1	0	0	0.02	0.02	87.23	66.6	0	0	0.02	0.02	92.07	95.9	0	0	0.01	0.01	91.14
4	61	0	0	0.02	0.02	79.06	67.7	0	0	0.02	0.02	116.99	79.5	0	0	0.01	0.01	61.82
5	59	0	0	0.02	0.02	76.46	80.7	0	0	0.02	0.02	167.34	63.3	0	0	0.01	0.01	38.28
6	67.7	0	0	0.02	0.02	99.44	79.8	0	0	0.02	0.02	165.47	64.4	0	0	0.01	0.01	38.95
7	74.2	0	0	0.02	0.02	115.4	51.1	0	0	0.02	0.02	66.23	62.7	0	0	0.01	0.01	37.92
8	57.6	0	0	0.01	0.01	69.67	61	0	0	0.02	0.02	94.87	59	0	0	0.13	0.13	662.69
9	44.8	0	0	0.01	0.01	42.58	55.6	0	0	0.02	0.02	81.67	58.1	0	0	0.13	0.13	642.54
10	59	0	0	0.02	0.02	76.46	125	0	0	0.06	0.06	648	48.1	0	0	0.11	0.11	440.52
11	97.3	0	0	0.02	0.02	201.76	112	0	0	0.05	0.05	522.55	47.1	0	0	0.1	0.1	423.22
12	95.6	0	0	0.02	0.02	198.24	113	0	0	0.05	0.05	527.21	49.7	0	0	0.11	0.11	472.35
13	94	0	0	0.02	0.02	186.8	114	0	0	0.06	0.06	541.73	51	0	0	0.11	0.11	493.52
14	103	0	0	0.01	0.01	106.79	126	0	0	0.06	0.06	653.18	58	0	0	0.13	0.13	641.43
15	112	0	0	0.01	0.01	106.44	113	0	0	0.05	0.05	527.21	74.2	0	0	0.01	0.01	89.75
16	110	0	0	0.01	0.01	104.54	107	0	0	0.05	0.05	471.48	61	0	0	0.01	0.01	42.16
17	101	0	0	0.01	0.01	87.26	109	0	0	0.02	0.02	141.26	66.7	0	0	0.01	0.01	51.87
18	109	0	0	0.01	0.01	103.59	108	0	0	0.02	0.02	186.62	87.4	0	0	0.01	0.01	90.62
19	117	0	0	0.01	0.01	111.2	121	0	0	0.02	0.02	230	109	0	0	0.02	0.02	141.26
20	125	0	0	0.01	0.01	108	115	0	0	0.02	0.02	208.66	109	0	0	0.02	0.02	141.26
21	121	0	0	0.01	0.01	104.54	116	0	0	0.02	0.02	210.47	103	0	0	0.01	0.01	124.59
22	126	0	0	0.01	0.01	108.86	111	0	0	0.02	0.02	191.81	91.9	0	0	0.01	0.01	95.28
23	124	0	0	0.01	0.01	107.14	109	0	0	0.02	0.02	188.35	86	0	0	0.01	0.01	96.6
24	151	0	0	0.01	0.01	156.56	108	0	0	0.02	0.02	186.62	68.3	0	0	0.01	0.01	47.21
25	95.8	0	0	0.01	0.01	66.22	103	0	0	0.02	0.02	169.08	110	0	0	0.01	0.01	123.55
26	93.6	0	0	0.01	0.01	56.61	101	0	0	0.02	0.02	165.8	109	0	0	0.01	0.01	122.43
27	104	0	0	0.01	0.01	107.83	91.9	0	0	0.01	0.01	111.16	67.7	0	0	0.01	0.01	46.79
28	114	0	0	0.01	0.01	108.35	79.5	0	0	0.01	0.01	61.82	61	0	0	0.01	0.01	36.89
29	113	0	0	0.01	0.01	107.4	75.4	0	0	0.01	0.01	52.12	49.7	0	0	0.01	0.01	60.12
30	113	0	0	0.01	0.01	107.4	72.1	0	0	0.01	0.01	49.84	43.5	0	0	0.01	0.01	33.83
31	116	0	0	0.01	0.01	110.25							63.3	0	0	0.01	0.01	71.1
TenDaily I	66.22	0	0	0.02	0.02	97.5	79.85	0	0	0.02	0.02	161.49	71.72	0	0	0.04	0.04	221.43
TenDaily II	106.39	0	0	0.01	0.01	131.46	113.8	0	0	0.04	0.04	400.99	71.31	0	0	0.05	0.05	258.74
TenDaily III	115.58	0	0	0.01	0.01	103.74	96.69	0	0	0.02	0.02	138.71	77.58	0	0	0.01	0.01	78.03
Total	March					3430.73	April					7011.91						5660.09

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Barman (010215011) Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division: MNSD-I, Hoshangabad

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	4381713.257	0	4381713.257	7218.112
1988-1989	8267376.125	0	8267376.125	12306.841
1989-1990	1419707.173	0	1419707.173	3539.779
1990-1991	20391794.476	0	20391794.476	16171.228
1991-1992	16865568.647	0	16865568.647	12532.341
1992-1993	9827989.923	0	9827989.923	8121.385
1993-1994	7409792.468	0	7409792.468	8252.504
1994-1995	60655648.903	0	60655648.903	26240.699
1995-1996	13038553.804	0	13038553.804	10345.601
1996-1997	733589.545	0	733589.545	4254.206
1997-1998	6005110.89	0	6005110.89	8409.892
1998-1999	1253537.407	0	1253537.407	6845.878
1999-2000	12801168.91	0	12801168.91	20564.292
2000-2001	1591161.9	0	1591161.9	6223.503
2001-2002	2438049.899	0	2438049.899	10661.064
2002-2003	8769326.438	0	8769326.438	6764.866
2003-2004	9592151.926	0	9592151.926	14842.884
2004-2005	2583377.561	0	2583377.561	8770.906
2005-2006	15179014.837	79829.981	15258844.818	21037.633
2006-2007	3190311.386	40541.337	3230852.722	9267.536
2007-2008	1070163.992	77034.658	1147198.65	6153.631
2008-2009	2081124.176	58625.304	2139749.479	8569.486
2009-2010	18820922.044	78877.995	18899800.04	5717.654
2010-2011	1663068.172	160331.963	1823400.135	7788.372
2012-2013	1576090.846	35014.788	1611105.634	10312.87
2013-2014	0	0	0	0
2014-2015	0	6103.348	6103.348	1063.048
2015-2016	748211.061	9753.748	757964.809	2940.628
2016-2017	8001661.452	39094.35	8040755.802	11706.218

Sediment Data Year Book 2016-17

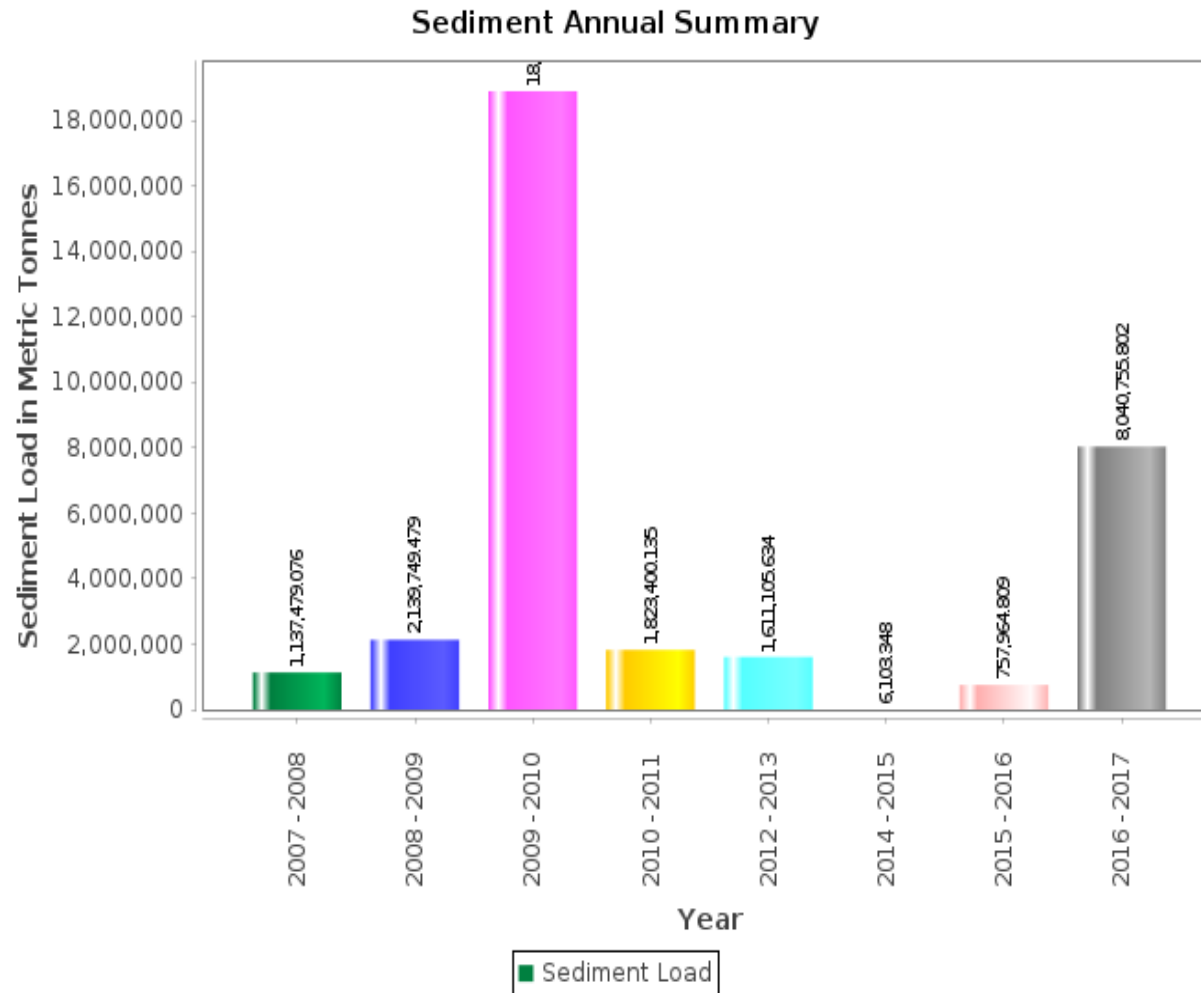
Annual Sediment Load for period : 2007-2017

Station Name : Narmada at Barman (010215011)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad



Seasonal Sediment Load for period : 2007-2017

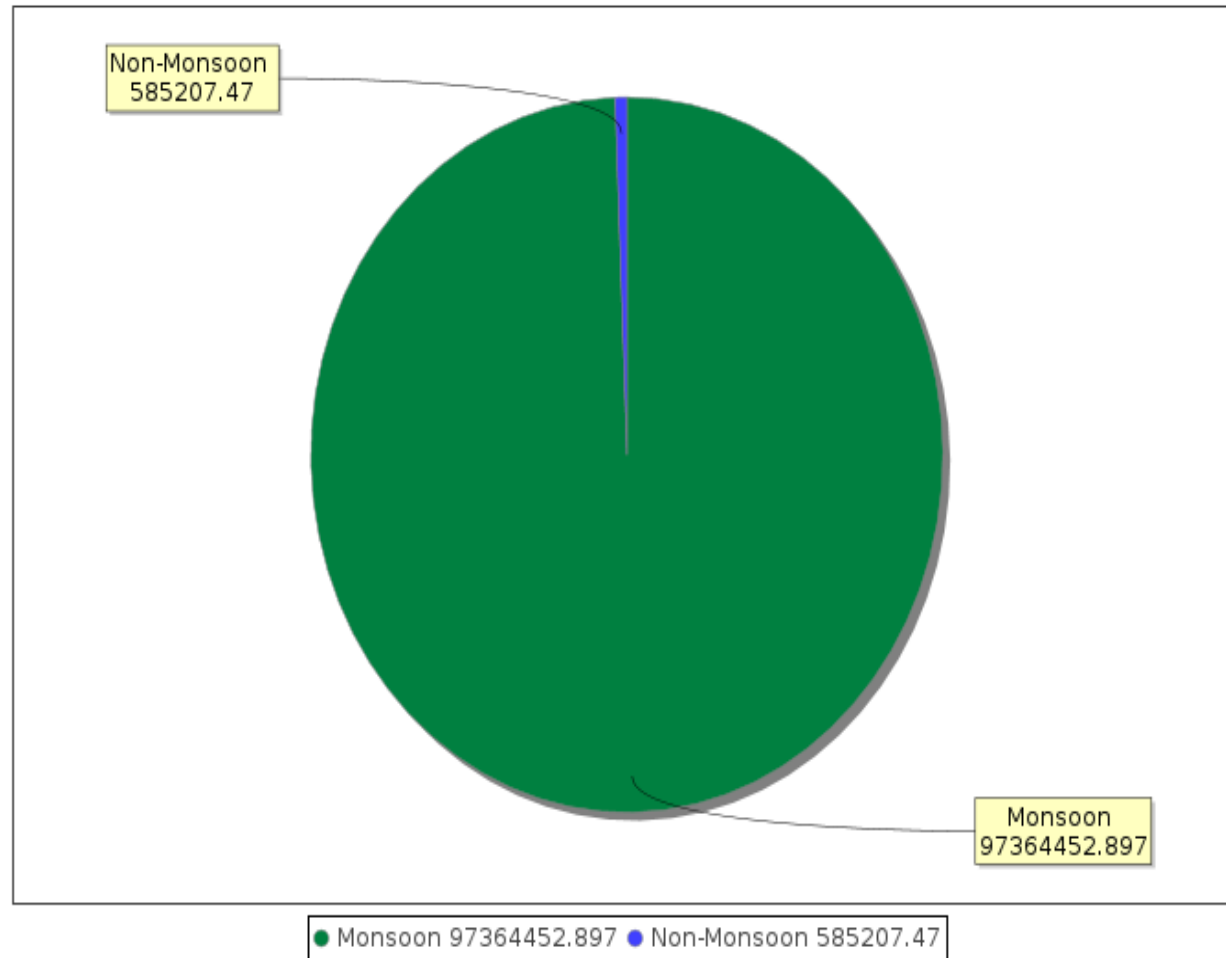
Station Name : Narmada at Barman (010215011)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Historical Data



Sediment Data Year Book 2016-17

Seasonal Sediment Load for period : 2016-2017

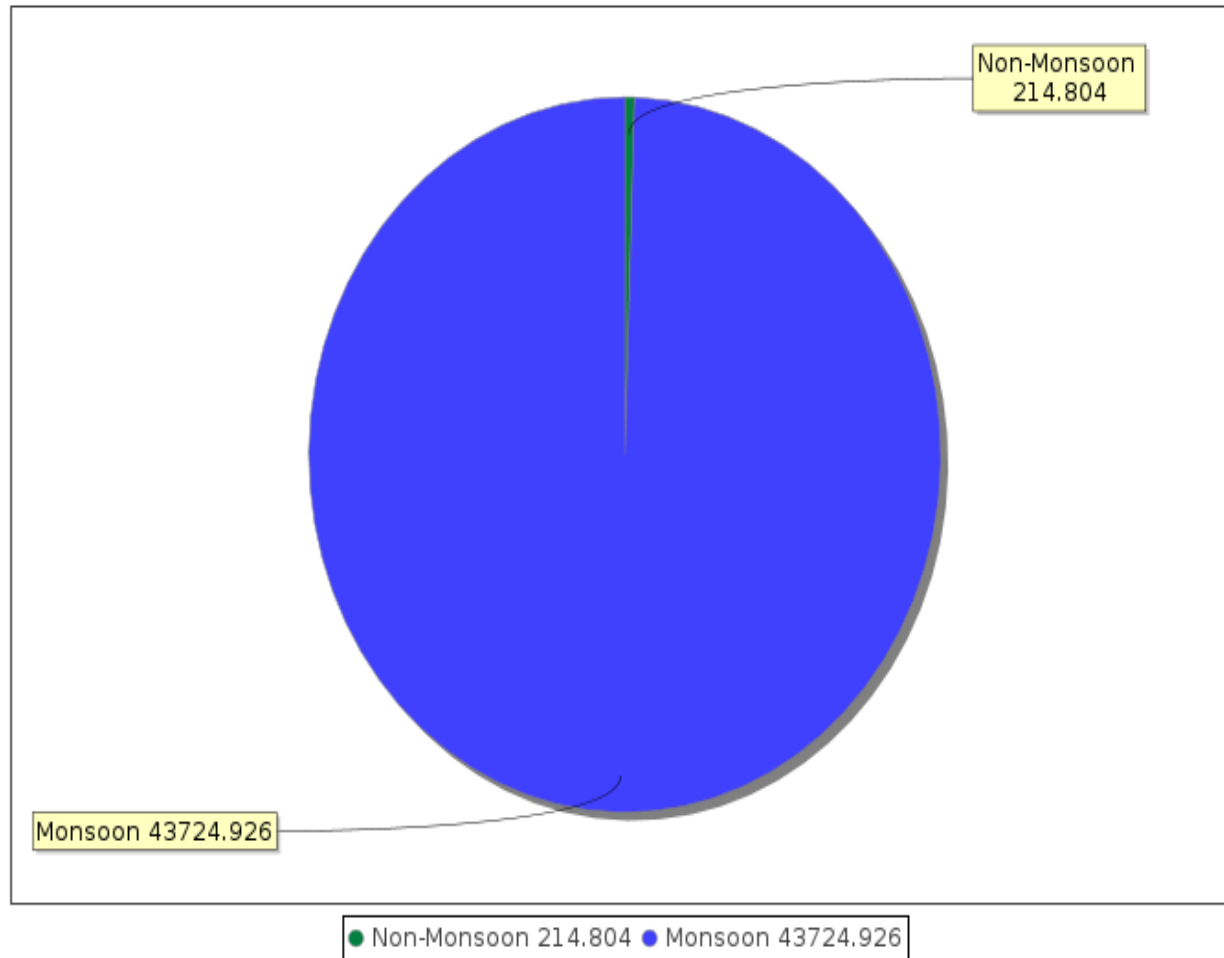
Station Name : Narmada at Barman (010215011)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : MNSD-I, Hoshangabad

Sediment Water Year: 2016-2017



6.9 Banjar at Bamni**History sheet**

		Water Year	: 2016-2017
Site	: Banjar at Bamni	Code	: CWC SITE
State	: Madhya Pradesh	District	Mandla
Basin	: Narmada	Independent River	: Narmada
Tributary	: Banjar	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Banjar
Division	: Narmada Division, Bhopal	Sub-Division	: UNSD, Jabalpur
Drainage Area	: 1864 Sq. Km.	Bank	: Left
Latitude	: 22°29'06"	Longitude	: 80°22'58"
Zero of Gauge (m)	: 440 .000(M.S.L.)	20/06/1999	
	Opening Date	Closing Date	
Gauge	: 20/06/1999		
Discharge	: 30/11/1999		
Sediment	: 01/07/2002		
Water Quality	: 01/07/2002		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Banjar at Bamni

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	53.6	0	0	0.1	0.1	449.21			
2						0						0	62.43	0	0	0.1	0.1	555.58			
3						0						0	73.93	0	0	0.12	0.12	753.73			
4						0						0	76.59	0	0	0.12	0.12	787.47			
5						0						0	73.19	0	0	0.12	0.12	739.86			
6						0						0	257.1	0	0	0.15	0.15	3265.38			
7						0						0	550.5	0	0	0.32	0.32	15267.79			
8						0	29.84	0	0	0.09	0.09	229.46	405.9	0.03	0.03	0.16	0.22	7540			
9						0	364.6	0.02	0.02	0.16	0.2	6363.29	250.4	0.02	0.02	0.14	0.18	3980.76			
10						0	74.5	0	0	0.03	0.04	263.91	130.2	0.02	0.02	0.13	0.16	1777.39			
11						0	160.9	0.02	0.02	0.13	0.16	2265.99	110	0.02	0.02	0.12	0.15	1444.61			
12						0	107.9	0.02	0.01	0.12	0.15	1407.71	125	0.02	0.02	0.13	0.16	1695.6			
13						0	68.15	0	0	0.11	0.11	665.36	108.3	0.02	0.02	0.12	0.16	1459.71			
14						0	62.46	0	0	0.11	0.11	577.43	62.5	0.01	0.01	0.07	0.09	502.2			
15						0	60.13	0	0	0.1	0.1	529.91	55.6	0.01	0.01	0.06	0.08	393.91			
16						0	57.66	0	0	0.1	0.1	498.18	53.06	0	0	0.1	0.1	440.1			
17						0	61.15	0	0	0.11	0.11	560.04	52.56	0	0	0.1	0.1	431.41			
18						0	62.17	0	0	0.1	0.1	553.26	51.84	0	0	0.09	0.09	421.02			
19						0	244.6	0.02	0.02	0.14	0.18	3804.02	50.92	0	0	0.09	0.09	409.15			
20						0	71.38	0	0	0.12	0.12	715.4	55.77	0	0	0.1	0.1	467.4			
21						0	61.65	0	0	0.1	0.1	553.96	54.3	0	0	0.1	0.1	455.08			
22						0	72.19	0	0	0.12	0.12	729.75	52.8	0	0	0.1	0.1	437.94			
23						0	120.2	0.02	0.02	0.12	0.16	1620.1	53.97	0	0	0.1	0.1	452.31			
24						0	110.5	0.02	0.02	0.11	0.15	1393.89	73.59	0	0	0.12	0.12	743.91			
25						0	70.78	0	0	0.12	0.12	703.27	70.35	0	0	0.12	0.12	699			
26						0	64.48	0	0	0.11	0.11	607.25	75	0	0	0.12	0.12	764.64			
27						0	66.54	0	0	0.11	0.11	632.4	69.63	0	0	0.11	0.11	685.83			
28						0	62.87	0	0	0.11	0.11	575.79	64.5	0	0	0.1	0.1	568.43			
29						0	59.09	0	0	0.1	0.1	515.64	70.96	0	0	0.12	0.12	711.19			
30						0	56.75	0	0	0.1	0.1	480.51	71.81	0	0	0.12	0.12	725.91			
31						0	54.5	0	0	0.1	0.1	452.04	126.9	0.02	0.02	0.13	0.16	1721.37			
TenDaily I	0	0	0	0	0	0	46.89	0	0	0.03	0.03	685.67	193.38	0.01	0.01	0.15	0.16	3511.72			
TenDaily II	0	0	0	0	0	0	95.65	0.01	0	0.11	0.12	1157.73	72.55	0.01	0.01	0.1	0.11	766.51			
TenDaily III	0	0	0	0	0	0	72.69	0	0	0.11	0.11	751.33	71.26	0	0	0.11	0.11	724.15			
Total	June						0	July						26698.57	August						50747.88

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Banjar at Bamni

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	96.73	0.02	0.01	0.12	0.15	1245.26	177	0.02	0.02	0.13	0.17	2584.48	32.2	0	0	0.08	0.08	208.66
2	104.6	0.02	0.01	0.12	0.15	1355.62	171.5	0	0	0.13	0.13	1867.02	30.75	0	0	0.08	0.08	201.92
3	71.54	0	0	0.12	0.12	717	66.65	0	0	0.11	0.11	639.2	29.33	0	0	0.07	0.07	182.46
4	67.65	0	0	0.11	0.11	660.48	63.79	0	0	0.11	0.11	600.75	29	0	0	0.07	0.07	172.89
5	64.5	0	0	0.11	0.11	601.86	62.03	0	0	0.1	0.1	562.74	28.1	0	0	0.07	0.07	162.67
6	62.78	0	0	0.11	0.11	574.96	61	0	0	0.1	0.1	548.12	28	0	0	0.07	0.07	162.09
7	61.05	0	0	0.1	0.1	553.85	60.05	0	0	0.1	0.1	534.4	26.86	0	0	0.07	0.07	162.45
8	59.31	0	0	0.1	0.1	527.81	59	0	0	0.1	0.1	519.96	26.66	0	0	0.07	0.07	158.94
9	57.98	0	0	0.1	0.1	510.97	60	0	0	0.1	0.1	528.77	25.18	0	0	0.07	0.07	147.94
10	57.03	0	0	0.1	0.1	492.74	70.49	0	0	0.12	0.12	700.39	24.68	0	0	0.07	0.07	142.87
11	55.8	0	0	0.1	0.1	472.47	66.5	0	0	0.11	0.11	649.25	23.5	0	0	0.07	0.07	136.04
12	54.62	0	0	0.1	0.1	462.48	64.5	0	0	0.11	0.11	613.01	23	0	0	0.06	0.06	129.17
13	54.5	0	0	0.1	0.1	470.88	63.52	0	0	0.11	0.11	592.72	21.5	0	0	0.06	0.06	113.31
14	59.73	0	0	0.1	0.1	536.71	62.61	0	0	0.11	0.11	578.82	21	0	0	0.06	0.06	108.86
15	105.5	0.02	0.01	0.12	0.15	1376.4	61.99	0	0	0.11	0.11	567.73	19.5	0	0	0.06	0.06	92.66
16	63.93	0	0	0.11	0.11	596.54	60.95	0	0	0.11	0.11	568.74	19	0	0	0.05	0.05	88.65
17	54.23	0	0	0.1	0.1	454.49	59.92	0	0	0.1	0.1	533.24	17.5	0	0	0.05	0.05	75.6
18	51.5	0	0	0.1	0.1	422.71	57.53	0	0	0.1	0.1	497.06	17	0	0	0.05	0.05	70.5
19	50.3	0	0	0.09	0.09	399.82	55.5	0	0	0.1	0.1	465.13	15.4	0	0	0.06	0.06	83.83
20	48.92	0	0	0.09	0.09	384.63	53	0	0	0.09	0.09	430.44	15.05	0	0	0.06	0.06	76.72
21	48.42	0	0	0.09	0.09	380.7	51.95	0	0	0.09	0.09	412.94	14.72	0	0	0.06	0.06	77.58
22	47.32	0	0	0.09	0.09	367.96	50.22	0	0	0.09	0.09	390.51	14.3	0	0	0.06	0.06	71.66
23	47.09	0	0	0.09	0.09	362.1	47	0	0	0.08	0.08	341.11	13.91	0	0	0.06	0.06	72.11
24	46.24	0	0	0.09	0.09	351.57	45.83	0	0	0.09	0.09	348.45	13.17	0	0	0.06	0.06	67.14
25	46.5	0	0	0.09	0.09	361.99	43.55	0	0	0.09	0.09	323.59	12.01	0	0	0.06	0.06	59.15
26	50.78	0	0	0.09	0.09	403.64	41.52	0	0	0.08	0.08	297.75	11.51	0	0	0.06	0.06	55.69
27	63.64	0	0	0.11	0.11	593.84	40.22	0	0	0.08	0.08	284.95	11.02	0	0	0.06	0.06	54.27
28	76.98	0	0	0.12	0.12	791.48	39.16	0	0	0.08	0.08	274.06	10.52	0	0	0.06	0.06	49.99
29	109.2	0	0	0.12	0.12	1179.36	37.53	0	0	0.08	0.08	259.41	10.16	0	0	0.05	0.05	47.4
30	76.75	0	0	0.12	0.12	789.11	35.64	0	0	0.08	0.08	234.03	9.35	0	0	0.05	0.05	42.01
31							33.75	0	0	0.08	0.08	224.53						
TenDaily I	70.32	0	0	0.11	0.12	724.06	85.15	0	0	0.11	0.11	908.58	28.08	0	0	0.07	0.07	170.29
TenDaily II	59.9	0	0	0.1	0.1	557.71	60.6	0	0	0.1	0.1	549.61	19.24	0	0	0.06	0.06	97.53
TenDaily III	61.29	0	0	0.1	0.1	558.17	42.4	0	0	0.08	0.08	308.3	12.07	0	0	0.06	0.06	59.7
Total	September					18399.43	October					17973.28	November					3275.19

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Banjar at Bamni

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	8.85	0	0	0.05	0.05	38.22	1.99	0	0	0	0	0	0.57	0	0	0	0	0
2	8.23	0	0	0.05	0.05	32.7	1.9	0	0	0	0	0	0.56	0	0	0	0	0
3	7.94	0	0	0.04	0.04	30.86	1.78	0	0	0	0	0	0.56	0	0	0	0	0
4	7.7	0	0	0.04	0.04	29.29	1.72	0	0	0	0	0	0.54	0	0	0	0	0
5	7.47	0	0	0.05	0.05	31	1.67	0	0	0	0	0	0.52	0	0	0	0	0
6	7.17	0	0	0.05	0.05	29.72	1.61	0	0	0	0	0	0.49	0	0	0	0	0
7	6.65	0	0	0.04	0.04	25.87	1.46	0	0	0	0	0	0.48	0	0	0	0	0
8	6.37	0	0	0.04	0.04	23.65	1.44	0	0	0	0	0	0.47	0	0	0	0	0
9	5.77	0	0	0.04	0.04	19.45	1.43	0	0	0	0	0	0.46	0	0	0	0	0
10	5.5	0	0	0.04	0.04	17.59	1.21	0	0	0	0	0	0.46	0	0	0	0	0
11	5.22	0	0	0.04	0.04	15.79	1.16	0	0	0	0	0	0.43	0	0	0	0	0
12	4.95	0	0	0.03	0.03	14.11	1.11	0	0	0	0	0	0.42	0	0	0	0	0
13	4.94	0	0	0.04	0.04	17.06	0.97	0	0	0	0	0	0.42	0	0	0	0	0
14	4.7	0	0	0.04	0.04	15.43	0.94	0	0	0	0	0	0.4	0	0	0	0	0
15	4.16	0	0	0.03	0.03	12.21	0.92	0	0	0	0	0	0.4	0	0	0	0	0
16	4.01	0	0	0.03	0.03	11.08	0.9	0	0	0	0	0	0.38	0	0	0	0	0
17	3.38	0	0	0.03	0.03	7.89	0.86	0	0	0	0	0	0.37	0	0	0	0	0
18	3.67	0	0	0.03	0.03	9.51	0.84	0	0	0	0	0	0.36	0	0	0	0	0
19	3.52	0	0	0.03	0.03	8.81	0.8	0	0	0	0	0		0	0	0	0	0
20	3.35	0	0	0.03	0.03	7.81	0.78	0	0	0	0	0		0	0	0	0	0
21	3.12	0	0	0.02	0.02	6.73	0.76	0	0	0	0	0		0	0	0	0	0
22	3.03	0	0	0.02	0.02	6.54	0.75	0	0	0	0	0		0	0	0	0	0
23	2.8	0	0	0.02	0.02	5.57	0.73	0	0	0	0	0		0	0	0	0	0
24	2.74	0	0	0.02	0.02	5.21	0.71	0	0	0	0	0		0	0	0	0	0
25	2.72	0	0	0.02	0.02	5.18	0.7	0	0	0	0	0		0	0	0	0	0
26	2.7	0	0	0.02	0.02	5.14	0.68	0	0	0	0	0		0	0	0	0	0
27	2.63	0	0	0.02	0.02	4.78	0.66	0	0	0	0	0		0	0	0	0	0
28	2.5	0	0	0.02	0.02	4.32	0.64	0	0	0	0	0		0	0	0	0	0
29	2.28	0	0	0.02	0.02	3.54	0.62	0	0	0	0	0						
30	2.19	0	0	0.02	0.02	3.41	0.6	0	0	0	0	0						
31	2.1	0	0	0.02	0.02	3.09	0.58	0	0	0	0	0						
TenDaily I	7.17	0	0	0.04	0.04	27.83	1.62	0	0	0	0	0	0.51	0	0	0	0	0
TenDaily II	4.19	0	0	0.03	0.03	11.97	0.93	0	0	0	0	0	0.32	0	0	0	0	0
TenDaily III	2.62	0	0	0.02	0.02	4.86	0.68	0	0	0	0	0	0	0	0	0	0	0
Total	December					451.58	January					0	February					0

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Banjar at Bamni

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		0	0	0	0	0		0	0	0	0	0
2						0		0	0	0	0	0		0	0	0	0	0
3						0		0	0	0	0	0		0	0	0	0	0
4						0		0	0	0	0	0		0	0	0	0	0
5						0		0	0	0	0	0		0	0	0	0	0
6						0		0	0	0	0	0		0	0	0	0	0
7						0		0	0	0	0	0		0	0	0	0	0
8						0		0	0	0	0	0		0	0	0	0	0
9						0		0	0	0	0	0		0	0	0	0	0
10						0		0	0	0	0	0		0	0	0	0	0
11						0		0	0	0	0	0		0	0	0	0	0
12						0		0	0	0	0	0		0	0	0	0	0
13						0		0	0	0	0	0		0	0	0	0	0
14						0		0	0	0	0	0		0	0	0	0	0
15						0		0	0	0	0	0		0	0	0	0	0
16						0		0	0	0	0	0		0	0	0	0	0
17						0		0	0	0	0	0		0	0	0	0	0
18						0		0	0	0	0	0		0	0	0	0	0
19						0		0	0	0	0	0		0	0	0	0	0
20						0		0	0	0	0	0		0	0	0	0	0
21						0		0	0	0	0	0		0	0	0	0	0
22						0		0	0	0	0	0		0	0	0	0	0
23						0		0	0	0	0	0		0	0	0	0	0
24						0		0	0	0	0	0		0	0	0	0	0
25						0		0	0	0	0	0		0	0	0	0	0
26						0		0	0	0	0	0		0	0	0	0	0
27						0		0	0	0	0	0		0	0	0	0	0
28						0		0	0	0	0	0		0	0	0	0	0
29						0		0	0	0	0	0		0	0	0	0	0
30						0		0	0	0	0	0		0	0	0	0	0
31						0								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	0	0	0	0	0	0
Total	March					0	April					0						0

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 2002-2017

Station Name : Banjar at Bamni

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
2016-0017	117094.362	451.582	117545.944	888.597

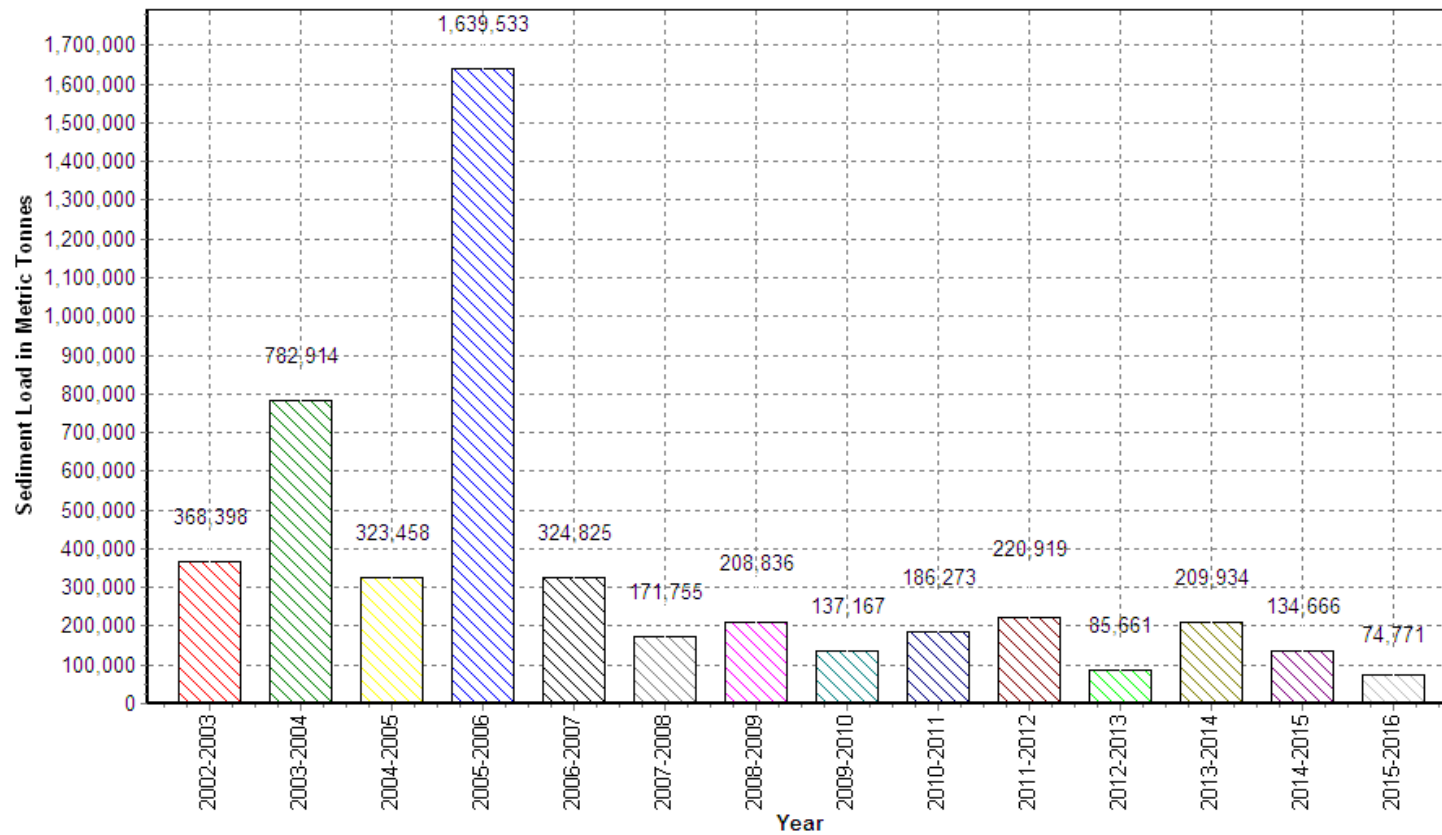
Annual Sediment Load for period : 2002-2016

Station Name : Banjar at Bamni

Division : Narmada Division, Bhopal

Local River : Banjar

Sub-Division : UNSD, Jabalpur



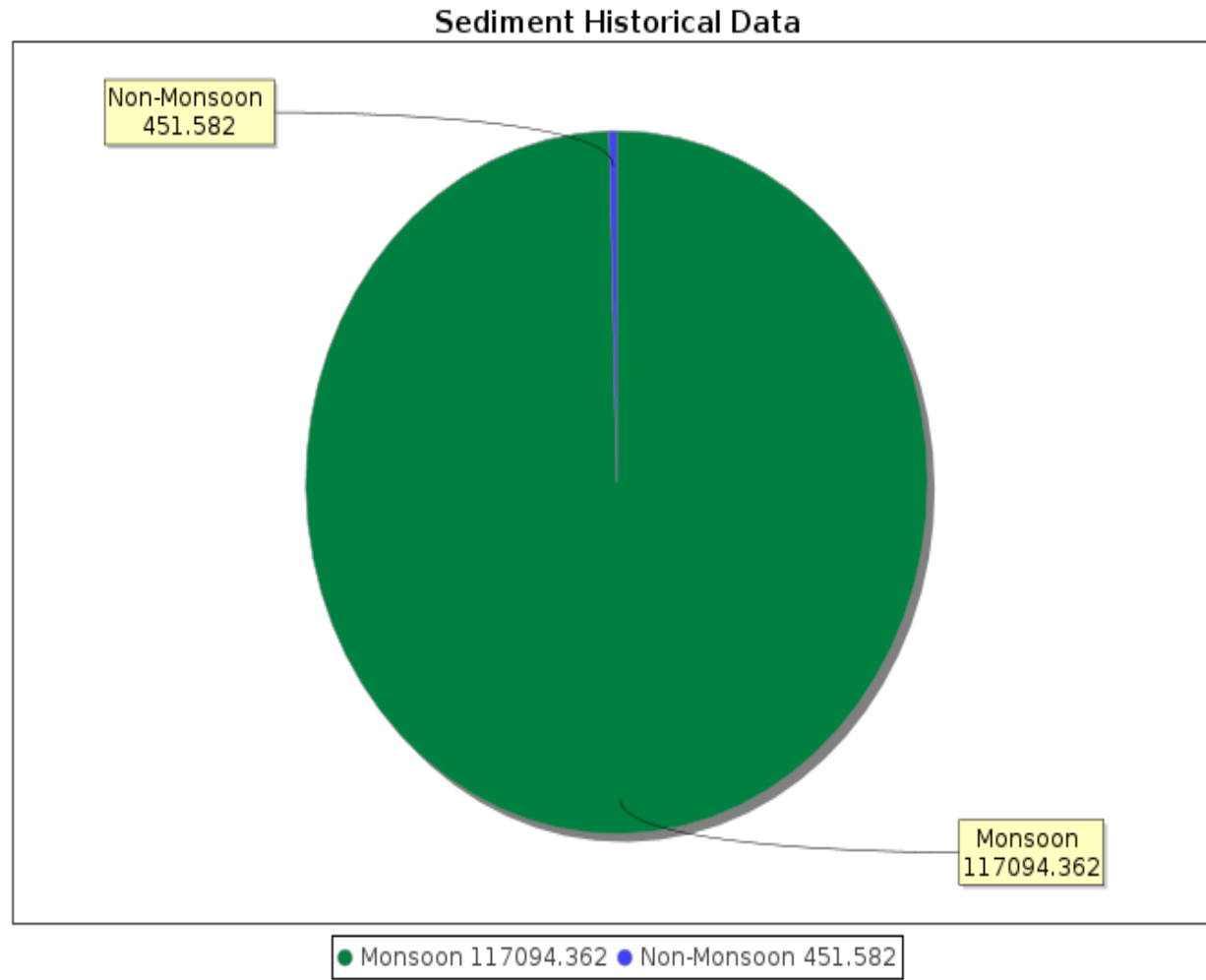
Station Name : Banjar at Bamni

Local River : Banjar

Seasonal Sediment Load for period : 2002-2017

Division : Narmada Division, Bhopal

Sub-Division : UNSD, Jabalpur



Seasonal Sediment Load for period : 2016-2017

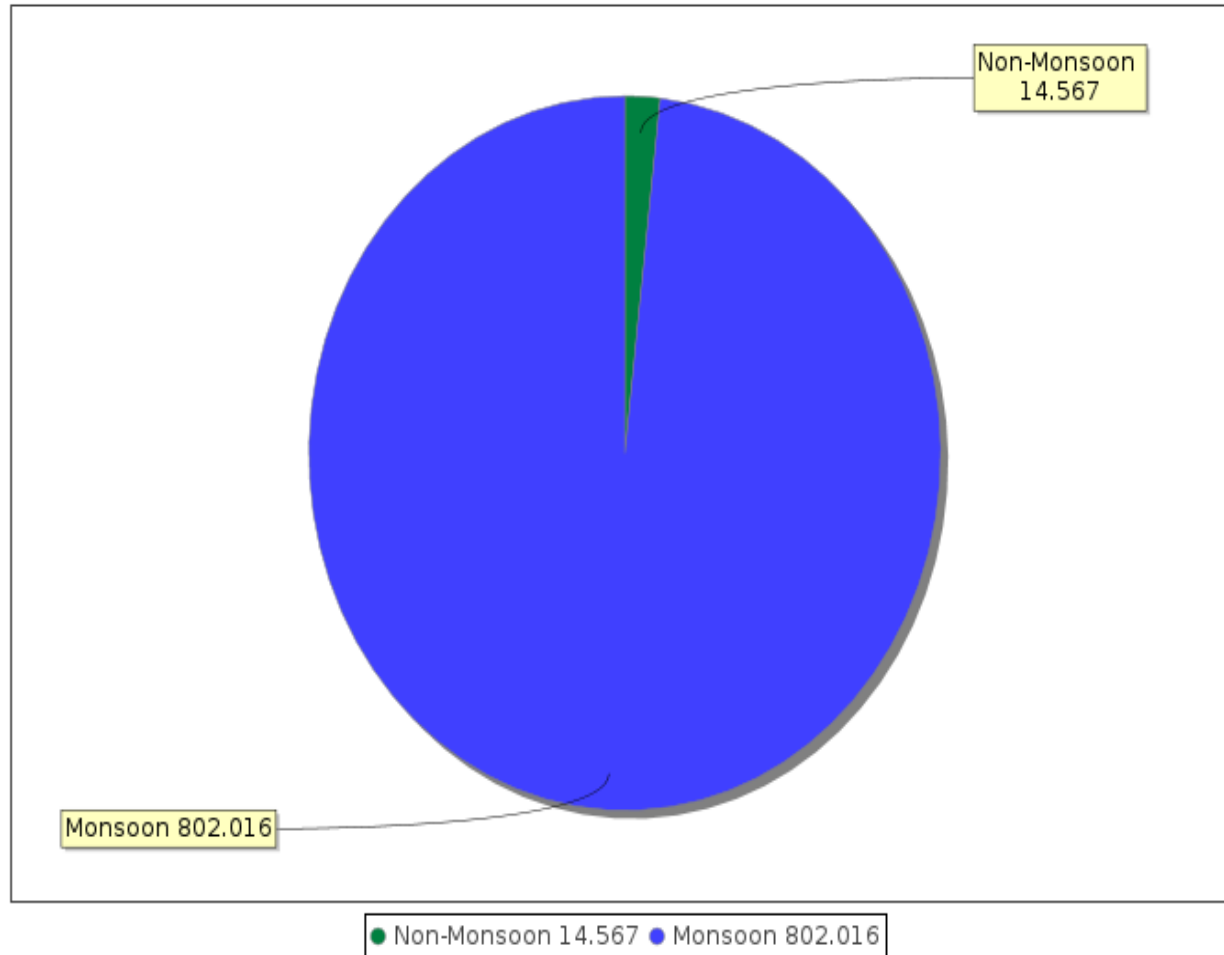
Station Name : Banjar at Bamni

Local River : Banjar

Division : Narmada Division, Bhopal

Sub-Division : UNSD, Jabalpur

Sediment Water Year: 2016-2017



6.10 Burhner at Mohgaon**History Sheet**

		Water Year	: 2016-2017
Site	: Burhner at Mohgaon	Code	: 010215004
State	: Madhya Pradesh	District	Mandla
Basin	: Narmada	Independent River	: Narmada
Tributary	: Burhner	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Burhner
Division	: Narmada Division, Bhopal	Sub-Division	: UNSD, Jabalpur
Drainage Area	: 3919 Sq. Km.	Bank	: Right
Latitude	: 22°45'57"	Longitude	: 80°37'22"
Zero of Gauge (m)	: 447 .000(M.S.L.)	13/01/1977	
	Opening Date	Closing Date	
Gauge	: 13/01/1977		
Discharge	: 13/01/1977		
Sediment	: 27/08/1992		
Water Quality	: 16/09/1986		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Burhner at Mohgaon (010215004)

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	0.18					0	25.45	0	0	0.41	0.41	903.74	542.18	0	0.03	1.05	1.08	50638.74			
2	0.18					0	75.88	0	0	0.96	0.96	6306.9	258.17	0	0	0.84	0.84	18848.48			
3	0.16					0	100	0	0	1.26	1.26	10929.6	475.81	0	0.02	0.71	0.73	30133.62			
4	0.15					0	74.83	0	0	0.67	0.67	4357.62	410.57	0	0.02	1.04	1.06	37672.41			
5	0.12					0	90.3	0	0	0.9	0.9	7013.93	560.68	0.02	0.03	0.77	0.81	39383.75			
6	0.12					0	110.49	0	0	0.9	0.9	8562.75	670.25	0.01	0.04	0.99	1.04	59994.7			
7	0.19					0	110	0	0	0.55	0.55	5246.21	1551.26	0.06	0.26	1.66	1.98	265243.12			
8	0.25					0	138.15	0	0.01	1.48	1.49	17808.75	592.48	0.01	0.03	0.91	0.95	48630.68			
9	0.25					0	295.42	0	0.02	3.16	3.19	81320.38	336.18	0	0	0.23	0.23	6680.65			
10	0.21					0	780	0	0.06	8.36	8.41	566901.5	1084.41	0.04	0.21	0.98	1.23	115148.62			
11	0.18					0	583.55	0.02	0.03	1.83	1.88	94988.87	407.17	0	0.02	0.56	0.59	20579.8			
12	0.18					0	277.06	0	0	1.19	1.19	28485.69	322.04	0	0	0.16	0.16	4535.33			
13	0.16					0	274.08	0	0	0.58	0.58	13781.96	273.56	0	0	0.13	0.13	3119.91			
14	0.21					0	176.64	0	0	0.54	0.54	8180.04	240	0	0	0.11	0.11	2363.9			
15	0.25					0	116.72	0	0	0.39	0.39	3902.74	250	0	0	0.12	0.12	2570.4			
16	0.2					0	258.36	0	0	0.74	0.74	16496.37	224.85	0	0	0.11	0.11	2098.09			
17	0.18					0	300	0	0	0.86	0.86	22265.28	237.07	0	0	0.06	0.06	1331.37			
18	0.33					0	399.93	0.01	0.02	1.54	1.57	54180.6	280.4	0	0	0.13	0.13	3100.97			
19	1.4					0	312.05	0	0	1.17	1.17	31490.18	256.42	0	0	0.1	0.1	2126.89			
20	10.9	0	0	0.14	0.14	136.57	235.22	0	0	0.42	0.42	8454.37	233.07	0	0	0.06	0.06	1248.51			
21	9.19	0	0	0.09	0.09	68.26	141.41	0	0	0.25	0.25	3103.24	170	0	0	0.04	0.04	652.15			
22	8.91	0	0	0.11	0.11	81.59	303.1	0	0	0.51	0.51	13277.45	113.82	0	0	0.05	0.05	531.02			
23	5.15	0	0	0.14	0.14	60.12	292.9	0	0	0.88	0.88	22219.16	149.58	0	0	0.04	0.04	465.25			
24	85.75	0	0	0.77	0.77	5719.46	230	0	0	0.69	0.69	13731.55	402.34	0	0.03	0.38	0.41	14252.32			
25	22.06	0	0	0.27	0.27	508.9	131.69	0	0	0.59	0.59	6758.64	220.68	0	0	0.33	0.33	6272.96			
26	16	0	0	0.2	0.2	270.95	142.23	0	0	0.7	0.7	8651.23	446.07	0	0.05	0.9	0.96	36883.04			
27	9.95	0	0	0.17	0.17	142.71	327.62	0	0.02	2.01	2.04	57631.59	477.86	0	0.05	0.56	0.61	25267.71			
28	25.6	0	0	0.46	0.46	1024.08	256.81	0	0	0.66	0.66	14688.54	250	0	0	0.29	0.29	6328.8			
29	230.94	0.04	0.24	3.28	3.56	71013.5	107.46	0	0	0.63	0.63	5839.76	155.57	0	0	0.28	0.28	3723.27			
30	61.58	0	0	0.88	0.88	4655.15	83.7	0	0	0.57	0.57	4107.5	159.46	0	0	0.22	0.22	2975.98			
31							190	0	0	1.29	1.29	21242.3	141.17	0	0	0.51	0.51	6220.56			
TenDaily I	0.18	0	0	0	0	0	180.05	0	0.01	1.87	1.88	70935.14	648.2	0.01	0.06	0.92	1	67237.48			
TenDaily II	1.4	0	0	0.01	0.01	13.66	293.36	0	0.01	0.92	0.93	28222.61	272.46	0	0	0.15	0.16	4307.52			
TenDaily III	47.51	0	0.02	0.63	0.66	8354.47	200.63	0	0	0.8	0.8	15568.27	244.23	0	0.01	0.33	0.34	9415.73			
Total	June						83681.28	July						1162828.45	August						819022.99

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Burhner at Mohgaon (010215004)

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	172.2	0	0	0.16	0.16	2440.05	327.18	0	0	0.45	0.45	12777.45	32.49	0	0	0.01	0.01	30.88
2	139.6	0	0	0.18	0.18	2158.98	250	0	0	0.34	0.34	7430.4	32.27	0	0	0.01	0.01	30.67
3	130.55	0	0	0.16	0.16	1748.34	224.21	0	0	0.09	0.09	1801.57	31.8	0	0	0.01	0.01	30.22
4	167	0	0	0.2	0.2	2957.9	141.44	0	0	0.05	0.05	598.79	31.1	0	0	0.01	0.01	29.56
5	280	0	0	0.34	0.34	8297.86	111.82	0	0	0.04	0.04	434.74	30.21	0	0	0.01	0.01	28.71
6	134.16	0	0	0.54	0.54	6247.64	108.16	0	0	0.04	0.04	364.46	30	0	0	0.01	0.01	25.92
7	103.34	0	0	0.11	0.11	955.36	164.12	0	0	0.06	0.06	836.63	29.13	0	0	0.01	0.01	27.69
8	87.46	0	0	0.07	0.07	498.75	123	0	0	0.31	0.31	3336.83	27.77	0	0	0.01	0.01	26.39
9	84.76	0	0	0.04	0.04	307.6	123	0	0	0.31	0.31	3294.43	26.87	0	0	0.01	0.01	25.54
10	91.43	0	0	0.13	0.13	1050.62	142.16	0	0	0.05	0.05	577.29	25.79	0	0	0.01	0.01	22.28
11	78	0	0	0.11	0.11	748.05	140	0	0	0.05	0.05	592.7	25.02	0	0	0.01	0.01	21.62
12	76.8	0	0	0.06	0.06	411.41	100	0	0	0.04	0.04	302.4	24.35	0	0	0.01	0.01	23.14
13	80	0	0	0.06	0.06	435.46	87.68	0	0	0.02	0.02	113.64	24.3	0	0	0.01	0.01	21
14	84.83	0	0	0.06	0.06	403.1	82.15	0	0	0.01	0.01	99.37	23.7	0	0	0.01	0.01	20.48
15	155.04	0	0	0.44	0.44	5907.4	77.4	0	0	0.01	0.01	86.93	23.71	0	0	0.01	0.01	20.49
16	113.66	0	0	0.2	0.2	1954.19	69	0	0	0.01	0.01	53.65	22.92	0	0	0.01	0.01	19.8
17	97.73	0	0	0.05	0.05	439.07	58.76	0	0	0.01	0.01	60.93	22.66	0	0	0.01	0.01	19.58
18	76	0	0	0.04	0.04	256.09	51.05	0	0	0.01	0.01	48.52	21.5	0	0	0.01	0.01	18.58
19	114.19	0	0	0.13	0.13	1312.13	46.15	0	0	0.01	0.01	43.86	21.36	0	0	0.01	0.01	18.46
20	88.86	0	0	0.09	0.09	691.01	44.66	0	0	0.01	0.01	42.44	20.5	0	0	0.01	0.01	17.71
21	142.6	0	0	0.41	0.41	5051.5	42.14	0	0	0.01	0.01	40.05	19.91	0	0	0.01	0.01	17.2
22	103.6	0	0	0.12	0.12	1056.2	40.94	0	0	0.01	0.01	38.91	19.41	0	0	0.01	0.01	16.77
23	81.11	0	0	0.07	0.07	504.55	40	0	0	0.01	0.01	34.56	18.82	0	0	0.01	0.01	16.26
24	74.28	0	0	0.06	0.06	417.15	39.22	0	0	0.01	0.01	37.27	18.58	0	0	0.01	0.01	16.05
25	85	0	0	0.07	0.07	506.74	37.87	0	0	0.01	0.01	35.99	17.94	0	0	0.01	0.01	15.5
26	247.78	0	0	0.45	0.45	9547.9	36.54	0	0	0.01	0.01	31.57	16.74	0	0	0.01	0.01	14.46
27	545.34	0	0	0.66	0.66	30861.99	35.41	0	0	0.01	0.01	33.65	16.5	0	0	0.01	0.01	14.26
28	332.47	0	0	0.43	0.43	12294.44	34.33	0	0	0.01	0.01	32.63	16.02	0	0	0.01	0.01	12.46
29	541.41	0.01	0.07	0.07	0.15	6829.57	33.76	0	0	0.01	0.01	32.09	15.76	0	0	0.01	0.01	13.62
30	874.86	0.01	0.13	1.36	1.5	113306.27	33.5	0	0	0.01	0.01	28.94	14.69	0	0	0.01	0.01	12.69
31							32.82	0	0	0.01	0.01	28.36						
TenDaily I	139.05	0	0	0.19	0.19	2666.31	171.51	0	0	0.18	0.18	3145.26	29.74	0	0	0.01	0.01	27.79
TenDaily II	96.51	0	0	0.12	0.12	1255.79	75.69	0	0	0.02	0.02	144.44	23	0	0	0.01	0.01	20.08
TenDaily III	302.84	0	0.02	0.37	0.39	18037.63	36.96	0	0	0.01	0.01	34	17.44	0	0	0.01	0.01	14.93
Total	September					219597.3	October					33271.07	November					627.98

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Burhner at Mohgaon (010215004)

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	13.99	0	0	0.01	0.01	10.88	7.3	0	0	0.01	0.01	5.68	5.12	0	0	0.01	0.01	4.42
2	13.94	0	0	0.01	0.01	12.04	7.24	0	0	0.01	0.01	5.63	5.08	0	0	0.01	0.01	4.38
3	13.22	0	0	0.01	0.01	10.28	7.14	0	0	0.01	0.01	6.17	5.05	0	0	0.01	0.01	4.36
4	13	0	0	0.01	0.01	10.11	6.77	0	0	0.01	0.01	5.27	5.03	0	0	0.01	0.01	4.35
5	12.44	0	0	0.01	0.01	9.67	6.71	0	0	0.01	0.01	5.22	5	0	0	0.01	0.01	3.89
6	12.33	0	0	0.01	0.01	10.65	6.54	0	0	0.01	0.01	5.09	4.86	0	0	0.01	0.01	4.2
7	12.22	0	0	0.01	0.01	10.56	6.51	0	0	0.01	0.01	5.06	4.79	0	0	0.01	0.01	4.14
8	11.49	0	0	0.01	0.01	8.94	6.5	0	0	0.01	0.01	5.05	4.73	0	0	0.01	0.01	4.09
9	11.44	0	0	0.01	0.01	8.9	6.39	0	0	0.01	0.01	4.97	4.69	0	0	0.01	0.01	4.05
10	11.36	0	0	0.01	0.01	8.83	6.4	0	0	0.01	0.01	5.53	4.5	0	0	0.01	0.01	3.5
11	11.3	0	0	0.01	0.01	8.79	6.36	0	0	0.01	0.01	5.49	4.42	0	0	0.01	0.01	3.44
12	10.5	0	0	0.01	0.01	7.26	6.18	0	0	0.01	0.01	5.34	4.4	0	0	0.01	0.01	3.42
13	10.49	0	0	0.01	0.01	8.16	6.14	0	0	0.01	0.01	5.31	4.35	0	0	0.01	0.01	3.76
14	10.32	0	0	0.01	0.01	8.92	6.12	0	0	0.01	0.01	5.29	4.16	0	0	0.01	0.01	3.59
15	9.69	0	0	0.01	0.01	7.53	6.1	0	0	0.01	0.01	5.27	5.58	0	0	0.01	0.01	6.27
16	9.59	0	0	0.01	0.01	7.46	5.91	0	0	0.01	0.01	4.59	4.05	0	0	0.01	0.01	3.15
17	9.56	0	0	0.01	0.01	7.43	5.87	0	0	0.01	0.01	5.07	4	0	0	0.01	0.01	3.11
18	9.5	0	0	0.01	0.01	7.39	5.84	0	0	0.01	0.01	5.04	3.88	0	0	0.01	0.01	3.02
19	8.96	0	0	0.01	0.01	6.97	5.73	0	0	0.01	0.01	4.95	3.87	0	0	0.01	0.01	3.01
20	8.92	0	0	0.01	0.01	7.71	5.67	0	0	0.01	0.01	4.9	3.85	0	0	0.01	0.01	2.66
21	8.9	0	0	0.01	0.01	6.92	5.64	0	0	0.01	0.01	4.87	3.85	0	0	0.01	0.01	3.33
22	8.72	0	0	0.01	0.01	7.54	5.6	0	0	0.01	0.01	4.35	3.77	0	0	0.01	0.01	3.26
23	8.83	0	0	0.01	0.01	7.63	5.52	0	0	0.01	0.01	3.81	3.78	0	0	0.01	0.01	3.27
24	8.6	0	0	0.01	0.01	7.43	5.49	0	0	0.01	0.01	4.75	3.7	0	0	0.01	0.01	3.2
25	8.5	0	0	0.01	0.01	7.34	5.48	0	0	0.01	0.01	4.73	3.68	0	0	0.01	0.01	3.18
26	8.47	0	0	0.01	0.01	6.59	5.45	0	0	0.01	0.01	4.71	3.6	0	0	0.01	0.01	3.11
27	8.45	0	0	0.01	0.01	7.3	5.32	0	0	0.01	0.01	4.6	3.58	0	0	0.01	0.01	2.78
28	8.31	0	0	0.01	0.01	7.18	5.3	0	0	0.01	0.01	4.58	3.53	0	0	0.01	0.01	3.05
29	7.94	0	0	0.01	0.01	6.86	5.3	0	0	0.01	0.01	4.58						
30	7.66	0	0	0.01	0.01	5.96	5.29	0	0	0.01	0.01	4.57						
31	7.35	0	0	0.01	0.01	5.71	5.25	0	0	0.01	0.01	4.54						
TenDaily I	12.54	0	0	0.01	0.01	10.09	6.75	0	0	0.01	0.01	5.37	4.88	0	0	0.01	0.01	4.14
TenDaily II	9.88	0	0	0.01	0.01	7.76	5.99	0	0	0.01	0.01	5.12	4.26	0	0	0.01	0.01	3.54
TenDaily III	8.34	0	0	0.01	0.01	6.95	5.42	0	0	0.01	0.01	4.55	3.69	0	0	0.01	0.01	3.15
Total	December					254.93	January					155.01	February					101.97

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Burhner at Mohgaon (010215004)

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	3.43	0	0	0.01	0.01	2.97	1.2					0	0.23					0
2	3.4	0	0	0.01	0.01	2.94	1.2					0	0.22	0	0	0	0	0
3	3.35	0	0	0.01	0.01	2.89	1.16					0	0.22	0	0	0	0	0
4	3.28	0	0	0.01	0.01	2.83	1.14					0	0.18					0
5	3.2	0	0	0.01	0.01	2.49	1.09					0	0.14					0
6	3.09	0	0	0.01	0.01	2.67	1.07					0	0.11					0
7	3.06	0	0	0.01	0.01	2.65	1.04					0	0.1	0	0	0	0	0
8	2.98	0	0	0.01	0.01	2.58	0.98					0	0.08					0
9	2.78	0	0	0.01	0.01	2.16	0.98					0	0.08					0
10	2.73	0	0	0.01	0.01	2.12	0.93					0	0.08	0	0	0	0	0
11	2.68	0	0	0.01	0.01	2.31	0.9					0	0.07	0	0	0	0	0
12	2.6	0	0	0.01	0.01	2.25	0.88					0	0.07					0
13	2.6	0	0	0.01	0.01	2.25	0.84					0	0.06					0
14	2.48	0	0	0.01	0.01	2.15	0.81	0	0	0	0	0	0.05	0	0	0	0	0
15	2.45	0	0	0.01	0.01	2.12	0.78					0	0.04					0
16	2.38	0	0	0.01	0.01	2.05	0.73	0	0	0	0	0	0.04					0
17	2.31	0	0	0.01	0.01	1.8	0.7					0	0.03					0
18	2.26	0	0	0.01	0.01	1.75	0.66					0	0.03					0
19	2.2	0	0	0.01	0.01	1.71	0.61					0	0.02					0
20	2.18	0	0	0.01	0.01	1.89	0.69					0	0.02					0
21	2.12	0	0	0.01	0.01	1.83	0.51					0	0.02	0	0	0	0	0
22	1.81	0	0	0.01	0.01	1.41	0.36					0	0	0	0	0	0	0
23	1.77	0	0	0.01	0.01	1.23	0.43	0	0	0	0	0	0	0	0	0	0	0
24	1.72	0	0	0.01	0.01	1.19	0.41					0	0	0	0	0	0	0
25	1.68	0	0	0.01	0.01	1.16	0.36					0	0	0	0	0	0	0
26	1.5	0	0	0.01	0.01	0.91	0.34					0	0	0	0	0	0	0
27	1.48	0	0	0.01	0.01	1.27	0.32					0	0	0	0	0	0	0
28	1.43	0	0	0.01	0.01	1.24	0.3					0	0	0	0	0	0	0
29	1.4	0	0	0.01	0.01	1.08	0.28					0	0	0	0	0	0	0
30	1.27	0	0	0.01	0.01	0.99	0.28	0	0	0	0	0	0	0	0	0	0	0
31	1.19	0	0	0.01	0.01	0.83						0	0	0	0	0	0	0
TenDaily I	3.13	0	0	0.01	0.01	2.63	1.08	0	0	0	0	0	0.14	0	0	0	0	0
TenDaily II	2.41	0	0	0.01	0.01	2.03	0.76	0	0	0	0	0	0.04	0	0	0	0	0
TenDaily III	1.58	0	0	0.01	0.01	1.19	0.36	0	0	0	0	0	0	0	0	0	0	0
Total	March					59.7	April					0						0

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1992-2017

Station Name : Burhner at Mohgaon (010215004)

Division : Narmada Division Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1992-1993	605097.971	0	605097.971	1022.521
1993-1994	2614918.882	0	2614918.882	2015.962
1994-1995	10303377.012	0	10303377.012	4417.321
1995-1996	4828059.7	0	4828059.7	2475.423
1996-1997	1409800.543	0	1409800.543	1337.381
1997-1998	4380350.988	0	4380350.988	2072.017
1998-1999	2103433.398	0	2103433.398	2106.899
1999-2000	3021685.762	0	3021685.762	3110.297
2000-2001	1855837.04	0	1855837.04	1549.747
2001-2002	2744673.287	0	2744673.287	2797.996
2002-2003	949968.187	0	949968.187	1292.666
2003-2004	4909520.959	0	4909520.959	3497.515
2004-2005	3346347.46	0	3346347.46	2981.943
2005-2006	9693524.016	2164.287	9695688.303	3698.568
2006-2007	3637424.88	3056.179	3640481.059	2304.517
2007-2008	1020925.303	1009.607	1021934.909	1532.209
2008-2009	705272.352	1919.724	707192.075	1315.694
2009-2010	645909.885	118.366	646028.251	635.45
2010-2011	2985567.956	482.571	2986050.527	2013.966
2012-2013	1718997.308	903.174	1719900.482	2124.718
2016-2017	2319029.067	571.601	2319600.668	2504.241

Sediment Data Year Book 2016-17

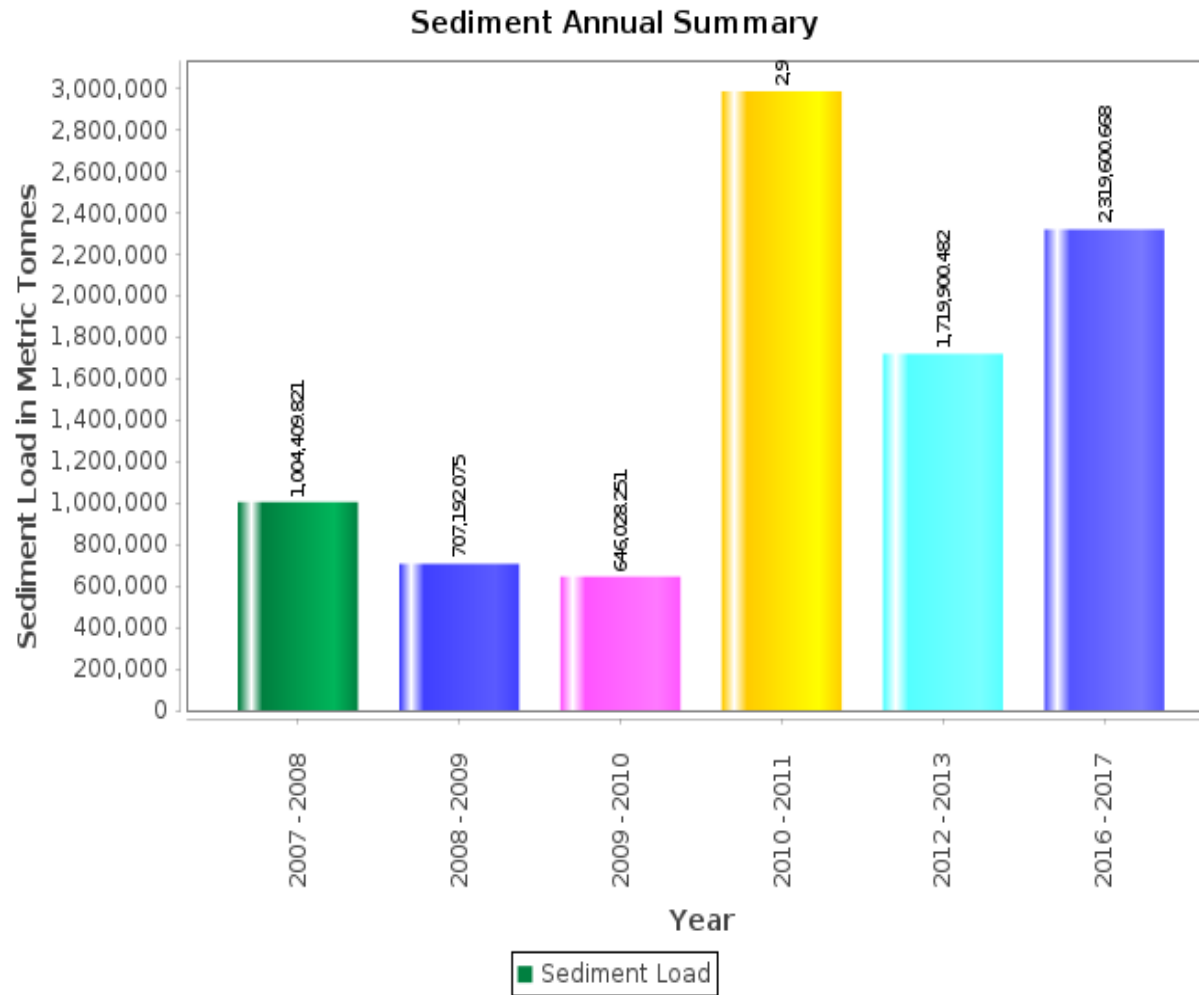
Annual Sediment Load for period : 2007-2017

Station Name : Burhner at Mohgaon (010215004)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur



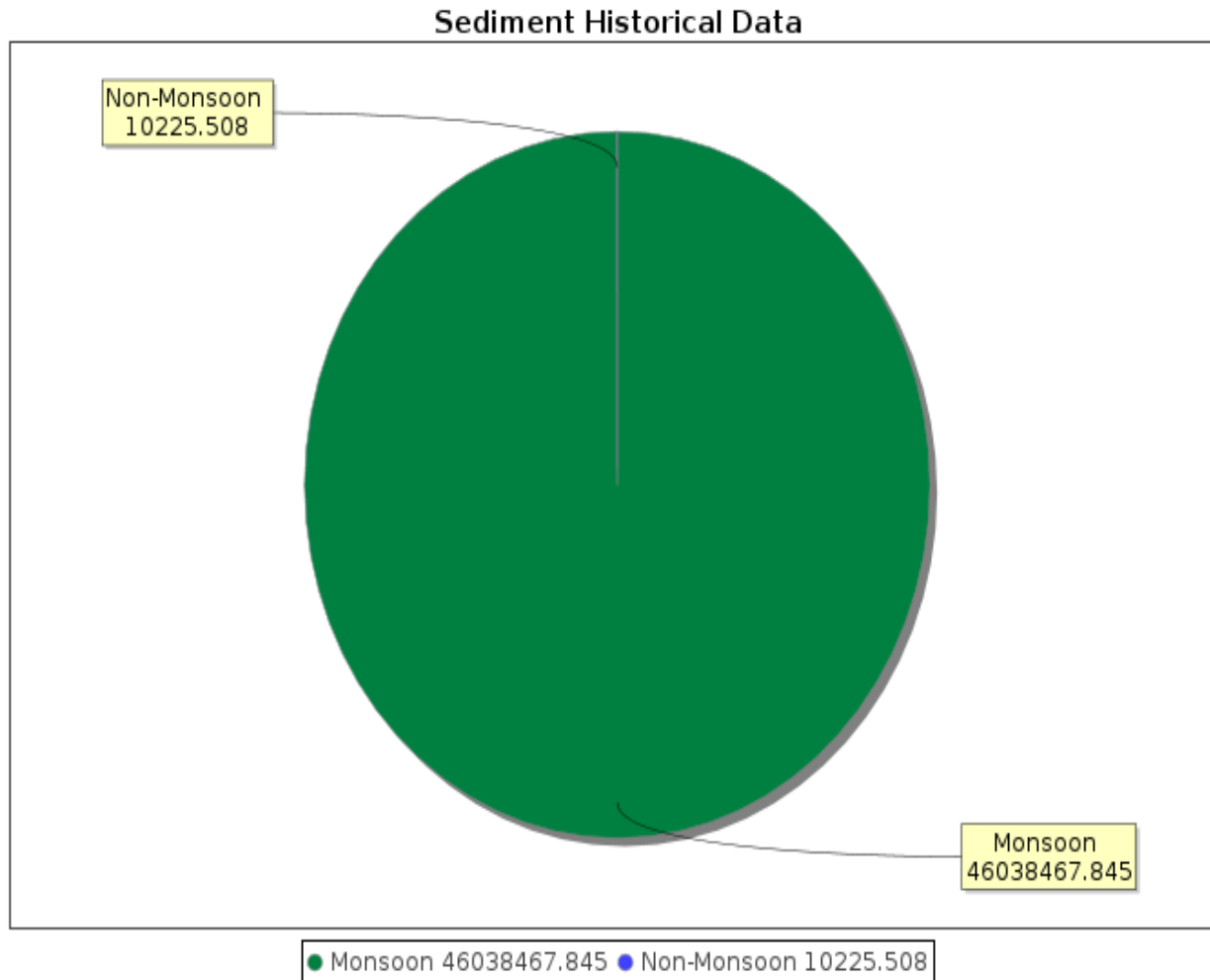
Seasonal Sediment Load for period : 2007-2017

Station Name : Burhner at Mohgaon (010215004)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur



Sediment Data Year Book 2016-17

Seasonal Sediment Load for period : 2016-2017

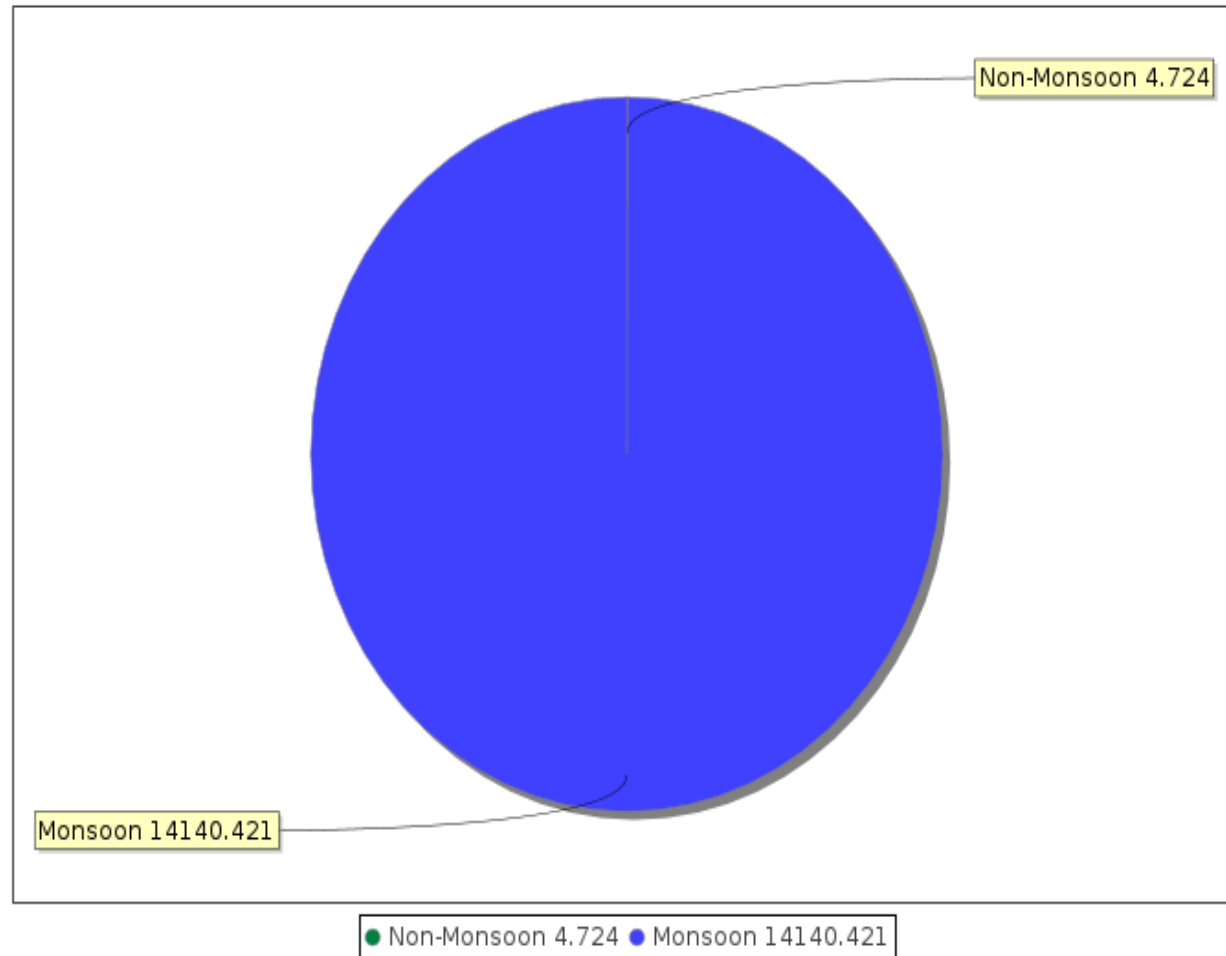
Station Name : Burhner at Mohgaon (010215004)

Division : Narmada Division, Bhopal

Local River : Burhner

Sub-Division : UNSD, Jabalpur

Sediment Water Year: 2016-2017



6.11 Narmada at Manot**History Sheet**

		Water Year	: 2016-2017
Site	: Narmada at Manot	Code	: 010215002
State	: Madhya Pradesh	District	Mandla
Basin	: Narmada	Independent River	: Narmada
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Narmada
Division	: Narmada Division, Bhopal	Sub-Division	: UNSD, Jabalpur
Drainage Area	: 4667 Sq. Km.	Bank	: Right
Latitude	: 22°44'08"	Longitude	: 80°30'44"
Zero of Gauge (m)	: 442 .000(M.S.L.)	16/12/1976	
	Opening Date	Closing Date	
Gauge	: 16/12/1976		
Discharge	: 16/12/1976		
Sediment	: 09/11/1979		
Water Quality	: 01/01/1980		

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Manot (010215002)

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						0	27.68	0	0	0.08	0.08	200.41	287.2	0	0	0.79	0.79	19697.42
2						0	16.32	0	0	0.08	0.08	110.69	228	0	0	0.5	0.5	9885.06
3						0	14	0	0	0.07	0.07	83.46	256.1	0	0	0.52	0.52	11439.68
4						0	31.46	0	0	0.11	0.11	289.48	296.7	0	0	0.56	0.56	14260.68
5						0	48.15	0	0	0.13	0.13	537.91	349	0	0	0.74	0.74	22343.82
6						0	231.7	0	0	1.06	1.06	21149.95	900.3	0	0	0.88	0.88	68474.95
7						0	170	0	0	0.78	0.78	11427.26	950	0	0	0.93	0.93	76252.32
8						0	153.3	0	0	1.06	1.06	13980.22	918.9	0	0	0.99	0.99	78360.85
9						0	132.9	0	0	1.06	1.06	12142.81	295.4	0	0	0.56	0.56	14185.44
10						0	270	0	0	2.15	2.15	50225.18	327.6	0	0	0.78	0.78	22162.53
11						0	268.8	0	0	0.48	0.48	11089.61	308.2	0	0	0.53	0.53	14166.35
12						0	137	0	0	0.26	0.26	3110.71	229.6	0	0	0.46	0.46	9164.9
13						0	127.9	0	0	0.37	0.37	4092.02	209.5	0	0	0.46	0.46	8326.37
14						0	96.64	0	0	0.15	0.15	1242.43	190	0	0	0.42	0.42	6845.47
15						0	90.88	0	0	0.11	0.11	830.74	228	0	0	0.5	0.5	9869.3
16						0	89.38	0	0	0.12	0.12	917.42	228.7	0	0	0.46	0.46	9128.97
17						0	125	0	0	0.17	0.17	1814.4	229.1	0	0	0.46	0.46	9121.19
18						0	263.7	0	0	0.61	0.61	13893.49	287.8	0	0	0.79	0.79	19763.43
19						0	252.2	0	0	0.6	0.6	12965.1	259.7	0	0	0.49	0.49	11039.54
20						0	150.6	0	0	0.45	0.45	5881.35	245.9	0	0	0.45	0.45	9460.74
21	1.27	0	0	0.01	0.01	0.66	149.6	0	0	0.45	0.45	5822.91	209	0	0	0.38	0.38	6898
22	7.87	0	0	0.01	0.01	4.08	160.7	0	0	0.57	0.57	7900.27	157.6	0	0	0.36	0.36	4933.31
23	12.57	0	0	0.01	0.01	14.44	261.8	0	0	0.61	0.61	13861.24	152.2	0	0	0.36	0.36	4757.7
24	15.2	0	0	0.02	0.02	21.41	235	0	0	0.55	0.55	11126.59	164.3	0	0	0.37	0.37	5199.82
25	14.3	0	0	0.01	0.01	11.49	152.5	0	0	0.56	0.56	7408.86	154	0	0	0.36	0.36	4827.27
26	16	0	0	0.01	0.01	15.21	154.3	0	0	0.57	0.57	7536.31	226.6	0	0	0.56	0.56	10944.24
27	15.42	0	0	0.01	0.01	12.39	138.4	0	0	0.36	0.36	4314.36	322.6	0	0	0.59	0.59	16542.41
28	29.26	0	0	0.04	0.04	93.03	141.7	0	0	0.36	0.36	4429.47	245	0	0	0.45	0.45	9483.26
29	26.44	0	0	0.03	0.03	73.1	136.9	0	0	0.34	0.34	4057.06	161.5	0	0	0.36	0.36	5065.16
30	29.23	0	0	0.04	0.04	97.23	96.61	0	0	0.15	0.15	1227.02	154.6	0	0	0.36	0.36	4828.71
31							90	0	0	0.14	0.14	1088.64	224.9	0	0	0.45	0.45	8666.39
TenDaily I	0	0	0	0	0	0	109.55	0	0	0.66	0.66	11014.74	480.92	0	0	0.72	0.72	33706.27
TenDaily II	0	0	0	0	0	0	160.21	0	0	0.33	0.33	5583.73	241.65	0	0	0.5	0.5	10688.63
TenDaily III	16.76	0	0	0.02	0.02	34.3	156.14	0	0	0.42	0.42	6252.07	197.48	0	0	0.42	0.42	7467.84
Total	June					343.04	July					234757.41	August					526095.27

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Manot (010215002)

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	228.4	0	0	0.4	0.4	7909.29	268	0	0	0.38	0.38	8822.13	32.49	0	0	0.18	0.18	508.09
2	161.3	0	0	0.37	0.37	5142.5	229	0	0	0.32	0.32	6430.32	30.4	0	0	0.17	0.17	456.5
3	159.5	0	0	0.37	0.37	5043.77	197.6	0	0	0.38	0.38	6492.72	28.84	0	0	0.17	0.17	427.34
4	145	0	0	0.34	0.34	4209.41	164.8	0	0	0.38	0.38	5382.24	28.45	0	0	0.17	0.17	419.84
5	209	0	0	0.48	0.48	8757.94	196.4	0	0	0.38	0.38	6456.69	27.81	0	0	0.16	0.16	395.26
6	157.3	0	0	0.37	0.37	4974.2	162	0	0	0.38	0.38	5294.99	26	0	0	0.15	0.15	336.96
7	128.5	0	0	0.38	0.38	4174.5	165.3	0	0	0.38	0.38	5405.71	25.77	0	0	0.12	0.12	278.32
8	101.6	0	0	0.36	0.36	3142.61	214.7	0	0	0.4	0.4	7434.87	25.18	0	0	0.13	0.13	288.26
9	98.06	0	0	0.36	0.36	3024.64	143	0	0	0.27	0.27	3286.48	24.77	0	0	0.13	0.13	272.87
10	96.93	0	0	0.35	0.35	2964.66	141.9	0	0	0.33	0.33	4000.49	24.39	0	0	0.14	0.14	284.48
11	96	0	0	0.35	0.35	2878.16	129	0	0	0.3	0.3	3343.68	23.62	0	0	0.12	0.12	255.1
12	95.7	0	0	0.33	0.33	2728.6	101	0	0	0.24	0.24	2050.7	23.27	0	0	0.13	0.13	256.34
13	91	0	0	0.31	0.31	2468.79	98.55	0	0	0.36	0.36	3025.28	22	0	0	0.12	0.12	233.8
14	92.44	0	0	0.32	0.32	2579.74	14	0	0	0.35	0.35	421.91	21.5	0	0	0.12	0.12	222.91
15	153.4	0	0	0.33	0.33	4347.23	96.74	0	0	0.35	0.35	2896.16	21.02	0	0	0.14	0.14	245.18
16	152.6	0	0	0.33	0.33	4337.75	95.28	0	0	0.34	0.34	2840.11	20.69	0	0	0.13	0.13	227.92
17	139.2	0	0	0.31	0.31	3774.03	94	0	0	0.34	0.34	2780.02	19.71	0	0	0.13	0.13	221.38
18	138	0	0	0.31	0.31	3660.42	93.74	0	0	0.32	0.32	2582	19.29	0	0	0.14	0.14	225
19	138.1	0	0	0.31	0.31	3704.84	67.93	0	0	0.32	0.32	1854.65	18.94	0	0	0.13	0.13	211.1
20	145.6	0	0	0.32	0.32	4060.77	65.44	0	0	0.31	0.31	1778.19	18.6	0	0	0.13	0.13	205.7
21	263.6	0	0	0.38	0.38	8615.8	52.94	0	0	0.28	0.28	1275.24	18.3	0	0	0.13	0.13	199.22
22	212.6	0	0	0.33	0.33	6043.28	49.56	0	0	0.27	0.27	1155.28	18.21	0	0	0.13	0.13	199.03
23	158.1	0	0	0.31	0.31	4275.53	48	0	0	0.26	0.26	1086.57	17.94	0	0	0.13	0.13	199.95
24	129.3	0	0	0.31	0.31	3410.67	46.6	0	0	0.27	0.27	1079.03	17.66	0	0	0.12	0.12	189.97
25	129	0	0	0.31	0.31	3443.99	42.03	0	0	0.27	0.27	968.6	17.6	0	0	0.12	0.12	182.48
26	288.8	0	0	0.38	0.38	9526.8	39.88	0	0	0.25	0.25	877.95	17.4	0	0	0.12	0.12	177.4
27	320.4	0	0	0.39	0.39	10749.14	37.12	0	0	0.25	0.25	810.77	17.4	0	0	0.12	0.12	177.4
28	285.9	0	0	0.38	0.38	9349.62	35.08	0	0	0.25	0.25	760.15	17.2	0	0	0.12	0.12	173.87
29	250.5	0	0	0.38	0.38	8122.69	34.32	0	0	0.25	0.25	740.72	17.01	0	0	0.13	0.13	187.82
30	363.6	0	0	0.53	0.53	16690.81	34	0	0	0.25	0.25	728.52	16.78	0	0	0.12	0.12	179.77
31							33.17	0	0	0.25	0.25	714.47						
TenDaily I	148.56	0	0	0.38	0.38	4934.35	188.27	0	0	0.36	0.36	5900.66	27.41	0	0	0.15	0.15	366.79
TenDaily II	124.2	0	0	0.32	0.32	3454.03	85.57	0	0	0.32	0.32	2357.27	20.86	0	0	0.13	0.13	230.44
TenDaily III	240.18	0	0	0.37	0.37	8022.83	41.15	0	0	0.26	0.26	927.03	17.55	0	0	0.12	0.12	186.69
Total	September					164112.18	October					92776.65	November					7839.25

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Manot (010215002)

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	16.7	0	0	0.01	0.01	18.04	11.45	0	0	0.01	0.01	8.9	6.12	0	0	0	0	2.38	
2	16.6	0	0	0.01	0.01	14.34	11.36	0	0	0.01	0.01	9.81	6.01	0	0	0.01	0.01	3.64	
3	16.6	0	0	0.01	0.01	14.34	11.34	0	0	0.01	0.01	9.8	5.9	0	0	0.01	0.01	3.57	
4	16.5	0	0	0.01	0.01	14.26	11.06	0	0	0.01	0.01	9.56	5.62	0	0	0.01	0.01	2.92	
5	16.3	0	0	0.01	0.01	14.08	10.75	0	0	0.01	0.01	8.36	5.54	0	0	0.01	0.01	2.87	
6	16.09	0	0	0.01	0.01	13.9	10.52	0	0	0.01	0.01	8.18	5.44	0	0	0.01	0.01	2.82	
7	15.93	0	0	0.01	0.01	13.76	10.38	0	0	0.01	0.01	8.07	5.33	0	0	0.01	0.01	2.76	
8	15.82	0	0	0.01	0.01	13.67	10.3	0	0	0.01	0.01	8.01	5.17	0	0	0.01	0.01	2.68	
9	15.56	0	0	0.01	0.01	13.44	10.04	0	0	0.01	0.01	8.68	5.08	0	0	0.01	0.01	2.63	
10	15.29	0	0	0.01	0.01	11.89	9.9	0	0	0.01	0.01	8.55	4.99	0	0	0.01	0.01	2.58	
11	15.2	0	0	0.01	0.01	11.82	9.77	0	0	0.01	0.01	8.44	4.88	0	0	0.01	0.01	2.53	
12	15.1	0	0	0.01	0.01	11.74	9.38	0	0	0.01	0.01	8.11	4.8	0	0	0.01	0.01	2.49	
13	14.82	0	0	0.01	0.01	15.75	9.42	0	0	0.01	0.01	8.14	4.73	0	0	0.01	0.01	2.45	
14	14.71	0	0	0.01	0.01	12.71	9.09	0	0	0.01	0.01	7.85	4.66	0	0	0.01	0.01	2.41	
15	14.62	0	0	0.01	0.01	13.89	9	0	0	0.01	0.01	7.78	5.58	0	0	0.01	0.01	2.89	
16	14.34	0	0	0.01	0.01	12.39	8.81	0	0	0.01	0.01	7.61	5.93	0	0	0.01	0.01	3.59	
17	14.18	0	0	0.01	0.01	12.25	8.64	0	0	0.01	0.01	7.47	7.42	0	0	0.01	0.01	5.13	
18	14	0	0	0.01	0.01	12.1	8.52	0	0	0.01	0.01	7.36	7.78	0	0	0.01	0.01	6.05	
19	13.77	0	0	0.01	0.01	13.09	8.38	0	0	0.01	0.01	7.24	8.5	0	0	0.01	0.01	7.34	
20	13.62	0	0	0.01	0.01	11.77	8.05	0	0	0.01	0.01	6.26	9.37	0	0	0.01	0.01	8.9	
21	13.43	0	0	0.01	0.01	11.6	7.88	0	0	0.01	0.01	6.13	7.39	0	0	0.01	0.01	5.11	
22	13.12	0	0	0.01	0.01	11.34	7.78	0	0	0.01	0.01	6.05	6.65	0	0	0.01	0.01	4.6	
23	12.92	0	0	0.01	0.01	11.16	7.46	0	0	0.01	0.01	5.15	6.68	0	0	0.01	0.01	4.62	
24	12.73	0	0	0.01	0.01	9.9	7.33	0	0	0.01	0.01	5.07	6.2	0	0	0.01	0.01	3.75	
25	12.6	0	0	0.01	0.01	9.8	7.21	0	0	0.01	0.01	4.99	5.2	0	0	0.01	0.01	2.7	
26	12.29	0	0	0.01	0.01	10.09	7.1	0	0	0.01	0.01	4.91	5.7	0	0	0.01	0.01	3.45	
27	12.2	0	0	0.01	0.01	10.54	6.81	0	0	0.01	0.01	4.71	5.6	0	0	0.01	0.01	2.91	
28	12.11	0	0	0.01	0.01	10.46	6.71	0	0	0.01	0.01	4.64	5.57	0	0	0.01	0.01	2.89	
29	11.81	0	0	0.01	0.01	10.2	6.6	0	0	0.01	0.01	3.99							
30	11.74	0	0	0.01	0.01	10.14	6.49	0	0	0.01	0.01	3.93							
31	11.62	0	0	0.01	0.01	9.04	6.22	0	0	0.01	0.01	3.76							
TenDaily I	16.14	0	0	0.01	0.01	14.17	10.71	0	0	0.01	0.01	8.79	5.52	0	0	0.01	0.01	2.89	
TenDaily II	14.44	0	0	0.01	0.01	12.75	8.91	0	0	0.01	0.01	7.63	6.36	0	0	0.01	0.01	4.38	
TenDaily III	12.42	0	0	0.01	0.01	10.39	7.05	0	0	0.01	0.01	4.85	6.12	0	0	0.01	0.01	3.75	
Total	December					383.51	January					217.49	February						102.65

Sediment Data Year Book 2016-17

Daily Observed Sediment Datasheet for period : 2016-2017

Station Name : Narmada at Manot (010215002)

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	5.52	0	0	0.01	0.01	2.86	2.65					0	0.8					0
2	5.36	0	0	0.01	0.01	2.78	2.61	0	0			0	0.74					0
3	5.29	0	0	0.01	0.01	2.74	2.53					0	0.69					0
4	5.14	0	0	0.01	0.01	2.67	2.49					0	0.63					0
5	5.1	0	0	0.01	0.01	2.64	2.39					0	0.57					0
6	4.97	0	0	0.01	0.01	2.58	2.33					0	0.55					0
7	4.82	0	0	0.01	0.01	2.5	2.19					0	0.46	0	0			0
8	4.73	0	0	0	0	0	2.05					0	0.4	0	0			0
9	4.58	0	0	0	0	0	1.98	0	0			0	0.35					0
10	4.45	0	0	0	0	0	1.86					0	0.3	0	0			0
11	4.44	0	0	0	0	0	1.79					0	0.25					0
12	4.4	0	0	0	0	0	1.74					0	0.2					0
13	4.35	0	0	0	0	0	1.68					0	0.41	0	0			0
14	4.18	0	0	0	0	0	1.65	0	0			0	0.17	0	0			0
15	4.1	0	0	0	0	0	1.6					0	0.16	0	0			0
16	4.04	0	0	0	0	0	1.56	0	0			0	0.2					0
17	3.86	0	0	0	0	0	1.51					0	0.15	0	0			0
18	3.82	0	0	0	0	0	1.47					0	0.15	0	0			0
19	3.7	0	0	0	0	0	1.44					0	0.14	0	0			0
20	3.57	0	0	0	0	0	1.39					0	0.13	0	0			0
21	3.48	0	0	0	0	0	1.49					0	0	0	0			0
22	3.31	0	0	0	0	0	1.29					0	0	0	0			0
23	3.16	0	0	0	0	0	1.25	0	0			0	0	0	0			0
24	3.17	0	0	0	0	0	1.19					0	0	0	0			0
25	3.02	0	0	0	0	0	1.17					0	0	0	0			0
26	3	0	0	0	0	0	1.1					0	0	0	0			0
27	2.97	0	0	0	0	0	1.03					0	0	0	0			0
28	2.84	0	0	0	0	0	0.95					0	0	0	0			0
29	2.79	0	0	0	0	0	0.92					0	0	0	0			0
30	2.77	0	0	0	0	0	0.86	0	0			0	0	0	0			0
31	2.72	0	0	0	0	0						0	0	0	0			0
TenDaily I	5	0	0	0	0	1.88	2.31	0	0	0	0	0	0.55	0	0	0	0	0
TenDaily II	4.05	0	0	0	0	0	1.58	0	0	0	0	0	0.2	0	0	0	0	0
TenDaily III	3.02	0	0	0	0	0	1.13	0	0	0	0	0	0	0	0	0	0	0
Total	March					18.76	April					0						0

Sediment Data Year Book 2016-17

Annual Sediment Load for period : 1987-2017

Station Name : Narmada at Manot (010215002) 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	1966444	746	1967190	2225
2009-2010	820714	2009	822722	1223
2010-2011	876002	2005	878007	2023
2011-2012	2758553	2653	2761206	3878
2012-2013	1085095	1391	1086486	2178
2013-2014	1628948	4325	1633274	2874
2014-2015	990486	1352	991839	2158
2015-2016	617184	280	617465	1438
2016-2017	1025923.802	722.404	1026646.206	2070.746

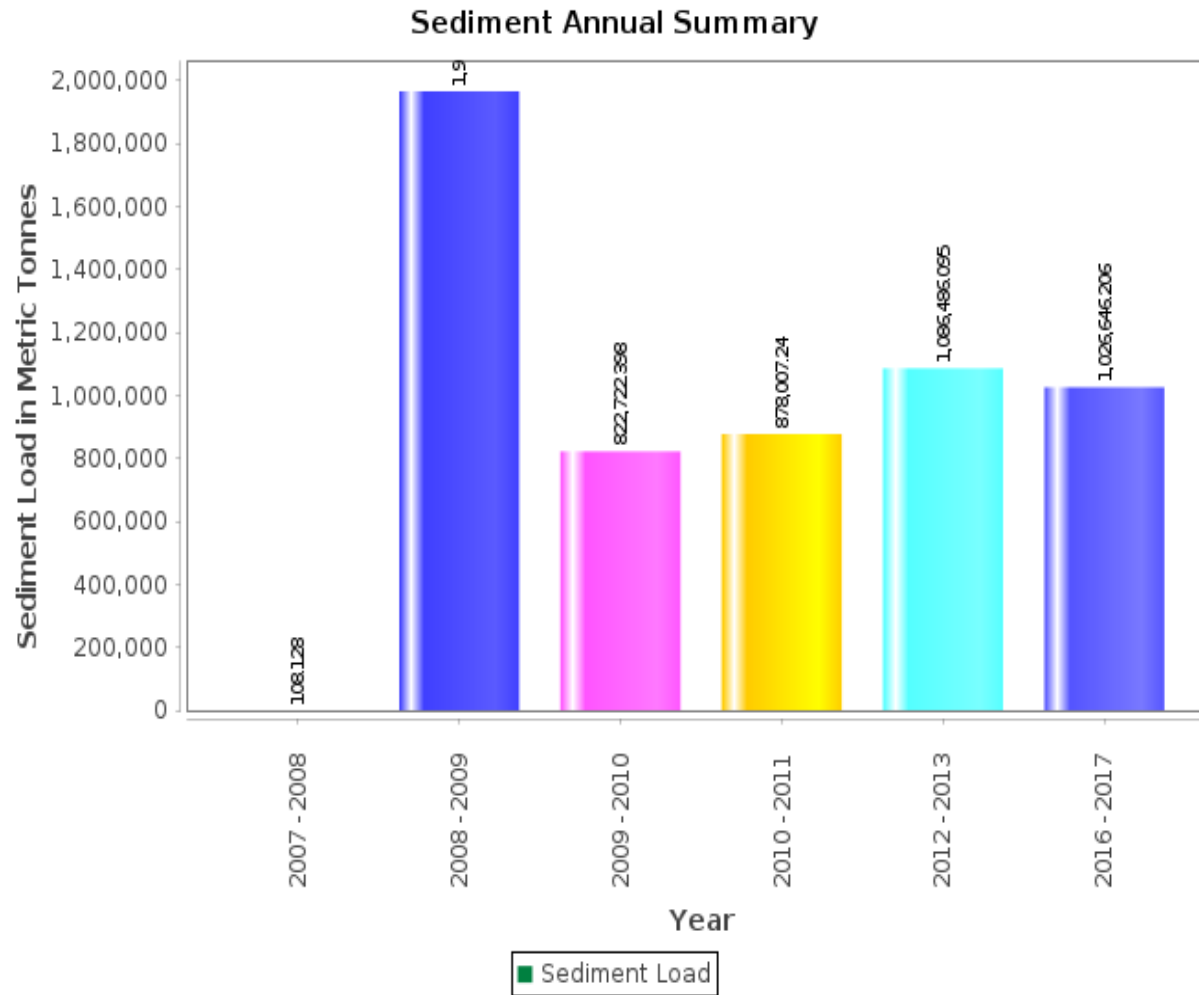
Annual Sediment Load for period : 2007-2017

Station Name : Narmada at Manot (010215002)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur



Seasonal Sediment Load for period : 2007-2017

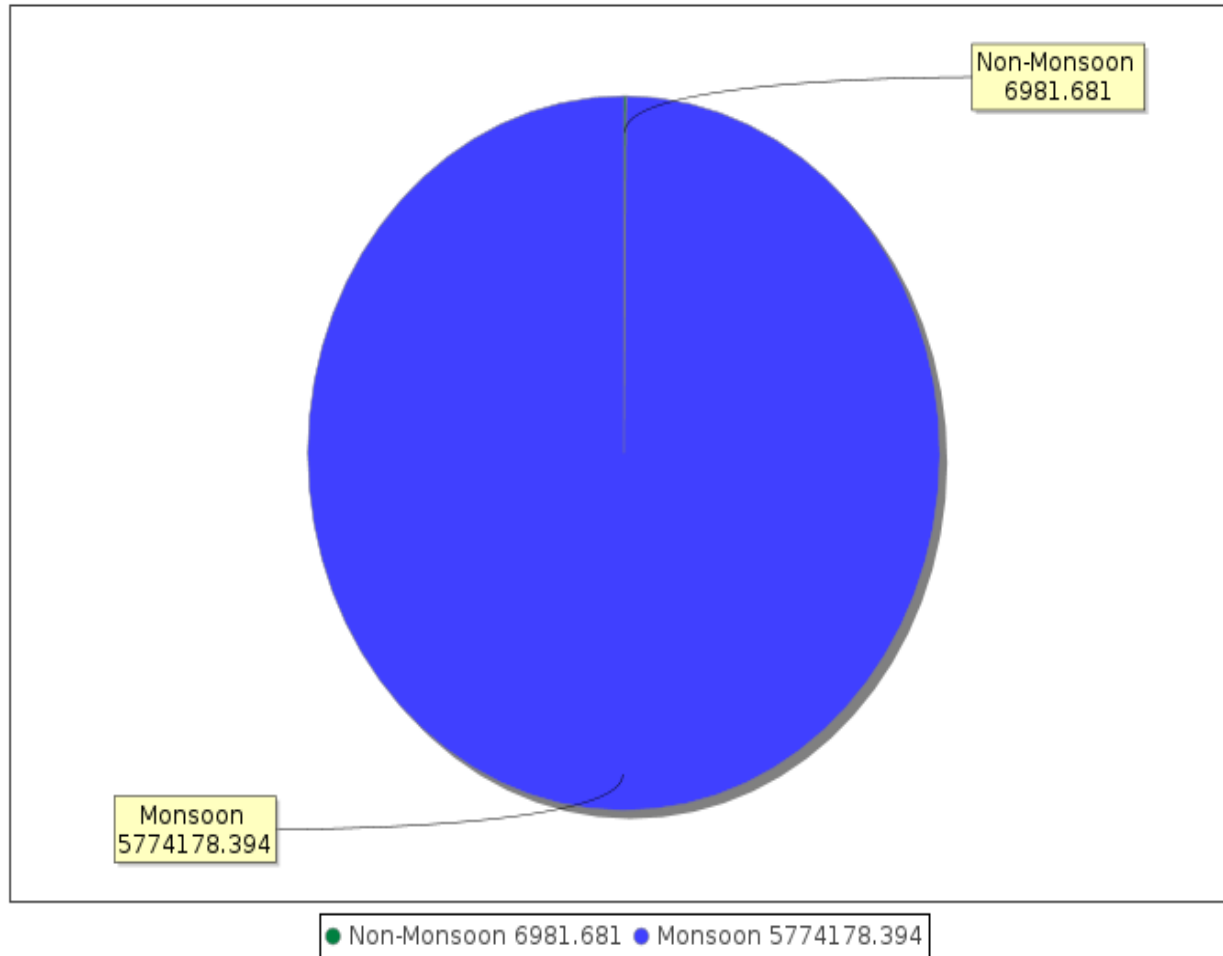
Station Name : Narmada at Manot (010215002)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Sediment Historical Data



Sediment Data Year Book 2016-17

Seasonal Sediment Load for period : 2016-2017

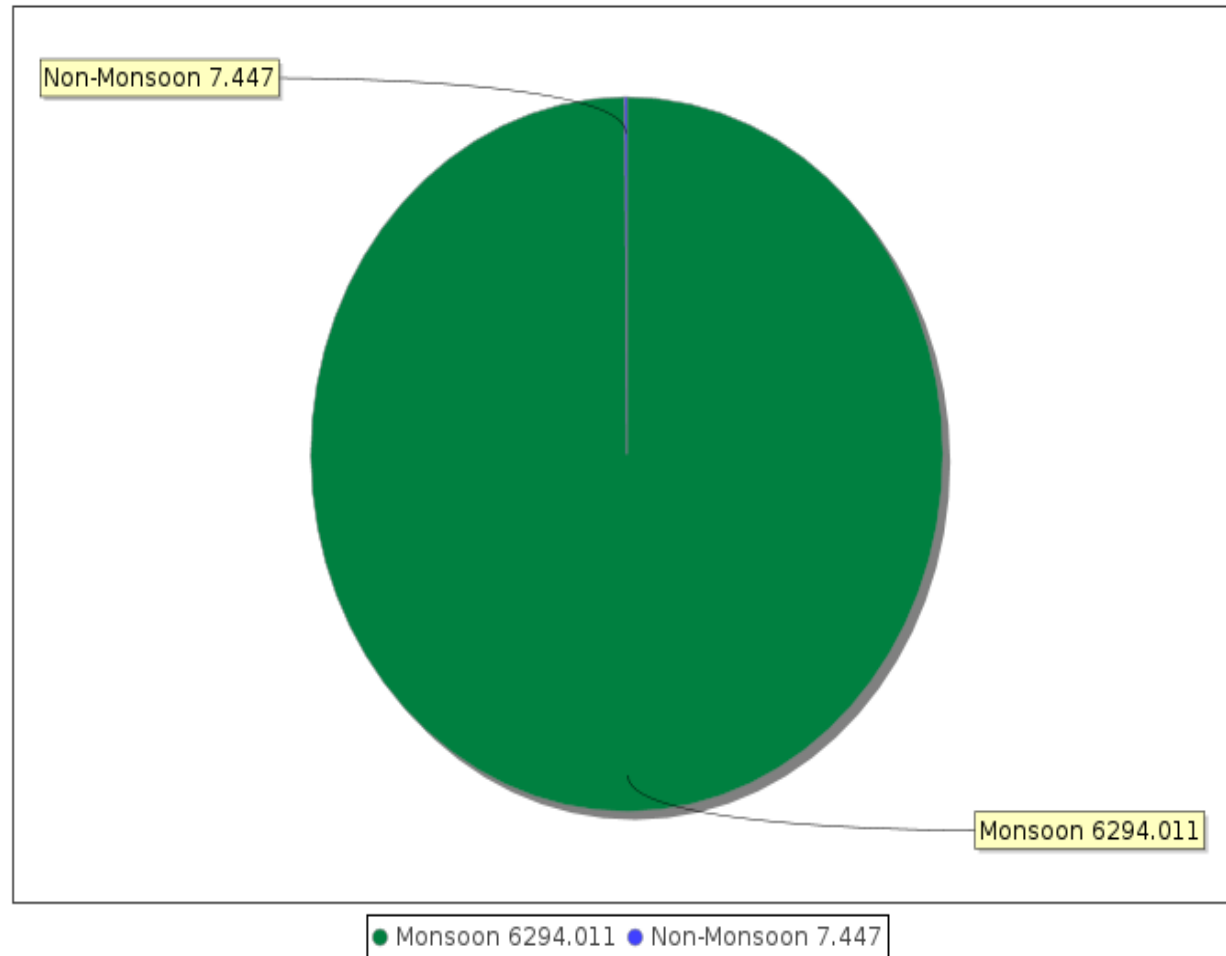
Station Name : Narmada at Manot (010215002)

Division : Narmada Division, Bhopal

Local River : Narmada

Sub-Division : UNSD, Jabalpur

Sediment Water Year: 2016-2017



7 Part – II Bed material Data

7.1 Orsang at Chandwada

BED MATERIAL DATA FOR THE YEAR 2016-2017

SITE : ORSANG AT CHANDWADA

CODE : 010215032

MEASURING AUTHORITY : TAPI DIVISION

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 27.04.2016)

Discharge 'Q' : Nil - DRY 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	0	30.590	1.85	RIVER DRY
2	80	28.200	2.79	Av . Mean Dia "d"= 3.22 mm
3	165	18.600	2.64	
4	240	17.840	2.67	Av .Silt Factor " f " = 3.16
5	360	19.100	3.29	
6	420	25.725	6.19	
7	480	26.435	3.84	
8	570	31.140	2.51	

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
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Av . Mean Dia "d" = mm

SURVEY NOT DONE

Av .Silt Factor " f " =

POST MONSOON SURVEY (DATE 15.12.2016)

Discharge 'Q' : 0.73 m³/sec

Water edge: L.B.398 m, R.B.0 m

Area of Section 'A' : 48.66m²

Mean Velocity' V ' : 0.015 m/ sec

Wetted Perimeter 'P': 89 m

Hydraulic Mean Depth'R' : 0.55 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	0	30.590	2.62	
2	80	28.500	2.83	Av . Mean Dia "d" = 3.42 mm
3	165	18.345	4.35	
4	240	17.240	3.50	Av .Silt Factor " f " = 3.25
5	360	18.600	3.08	
6	420	24.940	4.54	
7	480	26.510	3.98	
8	570	29.485	2.45	

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

7.2 Narmada at Garudeshwar

BED MATERIAL DATA FOR THE YEAR 2016-2017

SITE : NARMADA AT GARUDESHWAR

CODE : 010215030

MEASURING AUTHORITY : TAPI DIVISION

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 09.05.2016)

Discharge 'Q' :26.89M³/sec

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

Area of Section 'A' :577.900 m²

Mean Velocity' V ' :0.047 m/ sec

Wetted Perimeter 'P' :325.22 m

Hydraulic Mean Depth 'R' :1.777 m

Sample. No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	0.00	42.100	2.81	
2	240.00	12.050	16.51	Av . Mean Dia "d"=12.54 mm
3	270.00	11.810	16.63	
4	300.00	11.900	15.68	Av .Silt Factor " f " = 6.23
5	360.00	11.970	14.45	
6	390.00	12.300	12.89	
7	420.00	12.110	14.21	
8	450.00	12.200	13.29	
9	570.00	19.480	16.43	
10	650.00	39.950	2.53	

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
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Av . Mean Dia "d" = mm

SURVEY NOT TAKEN

Av .Silt Factor " f " =

POST MONSOON SURVEY (DATE 20.12.2016)

Discharge 'Q' :27.170 m³/sec

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

Area of Section 'A' : 497.300 m²

Mean Velocity' V ' :0.055 m/ sec

Wetted Perimeter 'P':321.20 m

Hydraulic Mean Depth'R': 1.550 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	0.00	42.100	3.32	
2	240.00	12.050	13.86	Av . Mean Dia "d" = 11.36 mm
3	270.00	12.905	13.36	
4	300.00	12.456	16.46	Av .Silt Factor " f " = 5.93
5	360.00	12.555	12.87	
6	390.00	12.805	13.85	
7	420.00	12.655	9.61	
8	450.00	12.185	15.74	
9	570.00	19.115	12.31	
10	645.00	39.950	2.2	

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

7.3 Narmada at Mandleshwar

BED MATERIAL DATA FOR THE YEAR 2016-2017

SITE : NARMADA AT MANDLESHWER

CODE : 010215026

MEASURING AUTHORITY : NDN

W.YEAR : 2016-17

PRE 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	50			
2	100			Av . Mean Dia "d"= mm
3	200			
4	300	NOT COLLECTED		Av .Silt Factor " f " =
5	400			
6	500			
7	600			
8	700			

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	50			
2	100			
3	200			Av . Mean Dia "d"= mm
4	300	NOT COLLECTED		Av .Silt Factor " f " =
5	400			
6	500			
7	600			
8	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	50			
2	100			Av . Mean Dia "d"= mm
3	200			
4	300	NOT COLLECTED		Av .Silt Factor " f " =
5	400			
6	500			
7	600			
8	700			

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

7.4 Narmada at Handia**BED MATERIAL DATA FOR THE YEAR 2016-2017****SITE :NARMADA AT HANDIA**

CODE :010215022

MEASURING AUTHORITY :

NDN

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 16.05.2016)Discharge 'Q' : 135.0 m³/sec

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

Area of Section 'A' :370.30 m²

Mean Velocity' V ' : 0.348m/ sec

Wetted Perimeter 'P': 228.80
mHydraulic Mean Depth'R' :
1.70m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	260.190	0.8	
2	180	258.390	0.85	Av . Mean Dia "d"= 1.16 mm
3	300	260.900	0.98	
4	420	260.440	1.23	Av .Silt Factor " f " = 1.90
5	540	260.970	1.77	
6	660	263.390	1.30	

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

MONSOON SURVEY (DATE 01.08.2016)Discharge 'Q' :1600 m³/sec

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

Area of Section 'A' :690.40 m²

Mean Velocity' V ' :0.639 m/ sec

Wetted Perimeter 'P':580.00 m

Hydraulic Mean Depth'R' :2.20
m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	260.140	0.78	
2	120	260.020	0.96	Av . Mean Dia "d"=1.13 mm
3	312	260.790	0.94	
4	416	260.030	1.16	Av .Silt Factor " f " = 1.87
5	520	260.770	1.77	
6	624	262.460	1.20	

POST MONSOON SURVEY (DATE 21.11.2016)Discharge 'Q' : 396.0 m³/sec

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

Area of Section 'A' :366.60 m²

Mean Velocity' V ' : 0.426 m/ sec

Wetted Perimeter 'P':200.61 m

Hydraulic Mean Depth'R' :1.89 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	260.140	0.84	
2	120	260.020	1.39	Av . Mean Dia "d"= 1.19 mm
3	312	260.790	0.94	
4	416	260.040	1.15	Av .Silt Factor " f " = 1.91
5	520	260.780	1.74	
6	624	262.470	1.09	

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

7.5 Narmada at Hoshangabad

BED MATERIAL DATA FOR THE YEAR 2016-17

SITE:NARMADA AT HOSHANGABAD

CODE : 010215019

MEASURING AUTHORITY : NDN

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 07.05.2016)

Discharge 'Q' :172.5m³/secArea of Section 'A' :557.38m²

Wetted Perimeter 'P':417.10m

Water edge: L.B

48.00m,R.B.:465.00m

Mean Velocity' V ':0.323m/sec

Hydraulic Mean Depth'R' :1.290 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	283.920	1.42	
2	200	282.820	0.07	Av . Mean Dia "d" = 1.04 mm
3	300	282.890	0.88	
4	400	283.720	0.93	Av .Silt Factor " f " = 1.80
5	500	284.900	0.66	
6	600	286.600	2.30	
7	700	286.900	0.35	

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

MONSOON SURVEY (DATE 25.10.2016)

Discharge 'Q':407.2m³/secArea of Section 'A':536.34m²

Wetted Perimeter 'P':462.9m

Water

edge:L.B:48.40m,R.B:452.00m

Mean Velocity' V ':0.545m/sec

Hydraulic Mean Depth'R':1.62 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	284.060	1.33	
2	200	282.040	0.86	Av . Mean Dia "d"= 1.20 mm
3	300	283.060	0.34	
4	400	284.060	0.64	Av .Silt Factor " f " = 2.00
5	500	284.560	0.63	
6	600	286.600	4.24	
7	700	286.900	1.00	

POST MONSOON SURVEY (DATE 22.12.2016)

Discharge 'Q' :115.48m³/secArea of Section 'A':439.11m²

Wetted Perimeter 'P' :390.02 m

Water

edge:L.B.:49.90m,R.B.:439.80m

Mean Velocity' V ':0.263m/sec

Hydraulic Mean Depth'R':1.126m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	284.220	1.00	
2	200	282.160	1.00	Av . Mean Dia "d"= 1.50 mm
3	300	282.860	0.84	
4	400	284.080	0.65	Av .Silt Factor " f " = 2.16
5	500	284.560	0.65	
6	600	286.600	2.15	
7	700	286.900	4.24	

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

7.6 Narmada at Sandia

BED MATERIAL DATA FOR THE YEAR 2016-2017**SITE :NARMADA AT SANDIA**

CODE : 010215013

MEASURING AUTHORITY : NDN

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 26.05.2016)Discharge 'Q' : 128.2 m³/sec

Water edge: L.B.:166.40m, R.B.:442.70 m

Area of Section 'A' :241.65 m²

Mean Velocity' V ' : 0.560 m/ sec

Wetted Perimeter 'P':

254.6m

Hydraulic Mean Depth'R' : 0.90 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	306.620	0.86	
2	200	298.900	0.65	Av . Mean Dia "d"= 0.90 mm
3	300	298.550	0.82	
4	400	299.000	1.07	Av .Silt Factor " f " =1.67
5	500	301.960	0.96	
6	600	301.920	0.99	
7	700	309.810	0.98	

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

MONSOON SURVEY (DATE 31.10.2016)

Discharge 'Q' : 260.6

Water edge: L.B.:195.80m,

m³/sec

R.B.:450.00 m

Area of Section 'A' :139.64

m²

Mean Velocity' V ' : 0.787 m/ sec

Wetted Perimeter

'P':225.20 m

Hydraulic Mean Depth'R' : 1.47m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	306.850	0.86	
2	200	296.810	0.61	Av . Mean Dia "d"= 0.85 mm
3	300	298.640	0.78	
4	400	300.420	1.05	Av .Silt Factor " f " = 1.62
5	500	302.550	0.92	
6	600	302.610	0.93	
7	700	309.650	0.82	

POST MONSOON SURVEY (DATE 28.12.2016)Discharge 'Q' : 158.4 m³/sec

Water edge: L.B.:194.00 m,

Area of Section 'A' :179.63 m²

R.B.:445.20m

Wetted Perimeter 'P': 192.70 m

Mean Velocity' V ' : 0.690 m/ sec

Hydraulic Mean Depth'R' : 1.19 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	100	306.850	0.80	
2	200	297.320	0.62	Av . Mean Dia "d"= 0.82 mm
3	300	299.020	0.70	
4	400	300.460	1.03	Av .Silt Factor " f " = 1.60
5	500	302.960	0.89	
6	600	302.760	0.88	
7	700	309.680	0.84	

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

7.7 Shakkar at Gadarwara

BED MATERIAL DATA FOR THE YEAR 2016-2017

SITE :SHAKKAR AT GADARWARA

CODE : 010215012

MEASURING AUTHORITY :

NDN

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 25.05.2016)

Discharge 'Q' : 0.0 m/ sec

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

Area of Section 'A': m²

Mean Velocity 'V' :0.0 m/ sec

Wetted Perimeter 'P': m

Hydraulic Mean Depth'R':0. m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	322.560	2.76	
2	60	323.270	2.94	Av . Mean Dia "d"= 2.16 mm
3	90	323.540	2.82	
4	120	322.670	2.77	Av .Silt Factor " f " = 2.59
5	150	322.390	2.31	
6	180	322.390	1.03	
7	210	322.990	0.47	

MONSOON SURVEY (DATE 24.10.2016)

Discharge 'Q' :

10.904m³/sec

Water edge: L.B.:116.00 m,

R.B.:197.00 m

Area of Section 'A' :24.72 m²

Mean Velocity 'V' : 0.299 m/ sec

Wetted Perimeter 'P': 58.05m

Hydraulic Mean Depth'R' : 0.63 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	322.540	1.79	
2	60	323.290	4.04	Av . Mean Dia "d"= 1.91 mm
3	90	323.580	2.05	
4	120	322.980	3.44	Av .Silt Factor " f " = 2.43
5	150	322.870	0.91	
6	180	321.790	0.66	
7	210	322.980	0.45	

POST MONSOON SURVEY (DATE 31.12.2016)

Discharge 'Q' : 4.010 m³/sec

Water edge: L.B.:158.60 m,

R.B.:198.50m

Area of Section 'A' :14.92 m²

Mean Velocity 'V' : 0.269 m/ sec

Wetted Perimeter 'P' : 39.93 m

Hydraulic Mean Depth'R' : 0.37m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	30	322.550	4.07	
2	60	323.330	3.33	Av . Mean Dia "d"= 3.19 mm
3	90	323.570	3.13	
4	120	323.050	4.59	Av .Silt Factor " f " = 3.14
5	150	322.610	2.57	
6	180	321.770	1.42	
7	210	322.860	3.25	

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

7.8 Narmada at Barman**BED MATERIAL DATA FOR THE YEAR 2016-2017****SITE :NARMADA AT BARMAN**

MEASURING AUTHORITY : NDN

CODE : 010215011

W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 23.05.2016)Discharge 'Q' :105.00 m³/secArea of Section 'A' :228.70 m²

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

Mean Velocity' V ' : 0.529m/ sec

Hydraulic Mean Depth'R':1.656

Wetted Perimeter 'P':138.10m

m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	312.077	0.16	
2	120	310.705	4.62	Av . Mean Dia "d" = 1.90 mm
3	180	307.020	0.60	
4	240	306.720	0.97	Av .Silt Factor " f " = 2.43
5	300	307.920	1.31	
6	350	322.425	4.29	
7	400	327.860	1.34	

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

MONSOON SURVEY (DATE- 24.10.2016)Discharge 'Q' :250.0 m³/secArea of Section 'A' : m²

Wetted Perimeter 'P' m

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

Mean Velocity' V ' : 0.593 m/ sec

Hydraulic Mean Depth'R':2.12 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60	312.075	1.97	
2	120	310.000	3.71	Av . Mean Dia "d" = 2.32 mm
3	180	307.310	2.42	
4	240	306.850	1.17	Av .Silt Factor " f " =2.68
5	300	307.800	1.59	
6	350	322.425	3.95	
7	400	327.860	1.44	

POST MONSOON SURVEY (DATE 30.12.2016)Discharge 'Q':143.0 m³/secArea of Section 'A' :172.90 m²

Wetted Perimeter 'P':

134.40m

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

Mean Velocity' V ' : 0.609 m/ sec

Hydraulic Mean Depth'R' : 1.65

m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	60.00	312.080	2	
2	120.00	310.010	4.14	Av . Mean Dia "d" = 2.52 mm
3	180.00	307.350	2.74	
4	240.00	306.300	1.82	Av .Silt Factor " f " = 2.80
5	300.00	307.900	1.83	
6	350.00	322.425	3.91	
7	400.00	327.870	1.23	

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

7.9 Banjar at Bamni**BED MATERIAL DATA FOR THE YEAR 2016-2017****SITE :BANJAR AT BAMNI****CODE : 010215006****MEASURING AUTHORITY :****NDN****W.YEAR :2016-17****PRE MONSOON SURVEY (DATE 12.05.2016)**Discharge 'Q' : 0.0 m³/sec

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

Area of Section 'A' : m²

Mean Velocity' V ' : 0.0 m/ sec

Wetted Perimeter 'P':0.0 m

Hydraulic Mean Depth'R' : 0.0 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	440.030	0.81	
2	100	440.070	1.01	Av . Mean Dia "d"= 0.95 mm
3	150	439.960	0.88	
4	200	439.990	1.08	Av .Silt Factor " f " = 1.71

Note : River Dry

MONSOON SURVEY (DATE 15.10.2016)

Discharge 'Q' : 61.99

Water edge: L.B.:31.90m,

m³/sec

R.B.:197.50m

Area of Section 'A' :30.51

Mean Velocity' V ' : 0.468m/ sec

m²

Wetted Perimeter

Hydraulic Mean Depth'R' : 0.76 m

'P':173.83 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	440.120	0.83	
2	100	440.210	1.03	Av .Mean Dia"d" = 0.95 mm
3	150	440.050	0.86	
4	200	440.420	1.07	Av .Silt Factor " f " = 1.71

POST MONSOON SURVEY (DATE 17.02.2017)

Discharge 'Q' :0.3741

Water edge: L.B.:169.55 m,

m³/sec

R.B.:195.55m

Area of Section 'A' :5.37 m²

Mean Velocity' V ' :0.069 m/ sec

Wetted Perimeter 'P' :

Hydraulic Mean Depth'R' :0.16 m

32.77 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	440.120	0.87	
2	100	440.320	1.19	Av . Mean Dia "d"= 1.01 mm
3	150	440.280	0.87	
4	200	440.450	1.11	Av .Silt Factor " f " = 1.77

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

7.10 Burhner at Mohgaon**BED MATERIAL DATA FOR THE YEAR 2016-2017****SITE :BURHNER AT MOHGAON****CODE : 010215004****MEASURING AUTHORITY :****NDN****W.YEAR :2016-17****PRE MONSOON SURVEY (DATE 18.05.2016)**Discharge 'Q' :0.1787
m³/secWater edge: L.B.:103.00m,
R.B.:123.50mArea of Section 'A' :5.18 m²

Mean Velocity 'V' :0.015 m/ sec

Wetted Perimeter 'P' :20.64
m

Hydraulic Mean Depth 'R' :0.58 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	450.370	6.69	
2	100	448.980	1.38	Av . Mean Dia "d"= 2.40 mm
3	150	451.990	0.84	
4	200	462.060	0.69	Av .Silt Factor " f " = 2.72

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

MONSOON SURVEY (DATE 24.11.2016)Discharge 'Q' :18.61 m³/sec
Area of Section 'A' :24.10
m²Water edge: L.B.:60.00 m,
R.B.:125.00mWetted Perimeter 'P':37.28
m

Mean Velocity 'V' : 0.0590 m/ sec

Hydraulic Mean Depth 'R' : 0.065m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	450.620	7.36	
2	100	449.190	1.26	Av . Mean Dia "d" =2.54 mm
3	150	452.100	0.83	
4	200	464.190	0.72	Av .Silt Factor " f " = 2.80

POST MONSOON SURVEY (DATE 22.02.2017)Discharge 'Q' :3.771 m³/sec
Area of Section 'A' :18.79
m²Water edge: L.B.:103.50 m,
R.B.:124.50 mWetted Perimeter 'P' :
:24.64 m

Mean Velocity 'V' :0.244 m/ sec

Hydraulic Mean Depth 'R' :0.684 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	450.625	7.35	
2	100	449.180	1.26	Av . Mean Dia "d" =2.52 mm
3	150	452.110	0.77	
4	200	464.210	0.71	Av .Silt Factor " f " = 2.80

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

7.11 Narmada at Manot**BED MATERIAL DATA FOR THE YEAR 2016-2017**

SITE :NARMADA AT MANOT
MEASURING AUTHORITY : NDN

CODE : 010215002
W.YEAR :2016-17

PRE MONSOON SURVEY (DATE 27.05.2016)

Discharge 'Q' :0.024 m³/sec

Water edge: L.B.:64.00m, R.B.:106.40m

Area of Section 'A' :21.78 m²

Mean Velocity' V ' : 0.020m/ sec

Wetted Perimeter 'P':12.01 m

Hydraulic Mean Depth 'R' :0.10 m

Sample. No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.260	4.60	
2	100	443.620	3.92	Av . Mean Dia "d"= 2.50mm
3	150		ROCKY BED	
4	200	455.950	0.70	Av .Silt Factor " f " = 2.78
5	250	459.590	0.78	

MONSOON SURVEY (DATE 23.11.2016)

Discharge 'Q' : 11.66 m³/sec

Water edge: L.B.:54.00 m, R.B.:108.00m

Area of Section 'A' :30.22 m²

Mean Velocity' V ' :0.596 m/ sec

Wetted Perimeter 'P':72.08 m

Hydraulic Mean Depth 'R' :0.41 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.250	2.53	
2	100	443.720	3.62	Av . Mean Dia "d" = 1.89 mm
3	150		ROCKY BED	
4	200	455.800	0.56	Av .Silt Factor " f " = 2.41
5	250	459.350	0.79	

POST MONSOON SURVEY (DATE 23.02.2017)

Discharge 'Q' : 6.685m³/sec

Water edge: L.B.:64.00m, R.B.:105.40m

Area of Section 'A' :10.37 m²

Mean Velocity' V ' : 0.427 m/ sec

Wetted Perimeter 'P': 40.04 m

Hydraulic Mean Depth 'R' : 0.39 m

Sample No	R.D. sampling point (m)	R.L.of Bed (m)	Mean Diameter (mm)	Remarks
1	50	444.520	1.89	
2	100	444.810	1.68	Av . Mean Dia "d" = 1.22 mm
3	150		ROCKY BED	
4	200	452.160	0.82	Av .Silt Factor " f " = 1.94
5	250	459.350	0.49	

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

Plate 1: Line Diagram of Narmada Basin

Silt observation stations under Narmada Basin Organisation, Bhopal

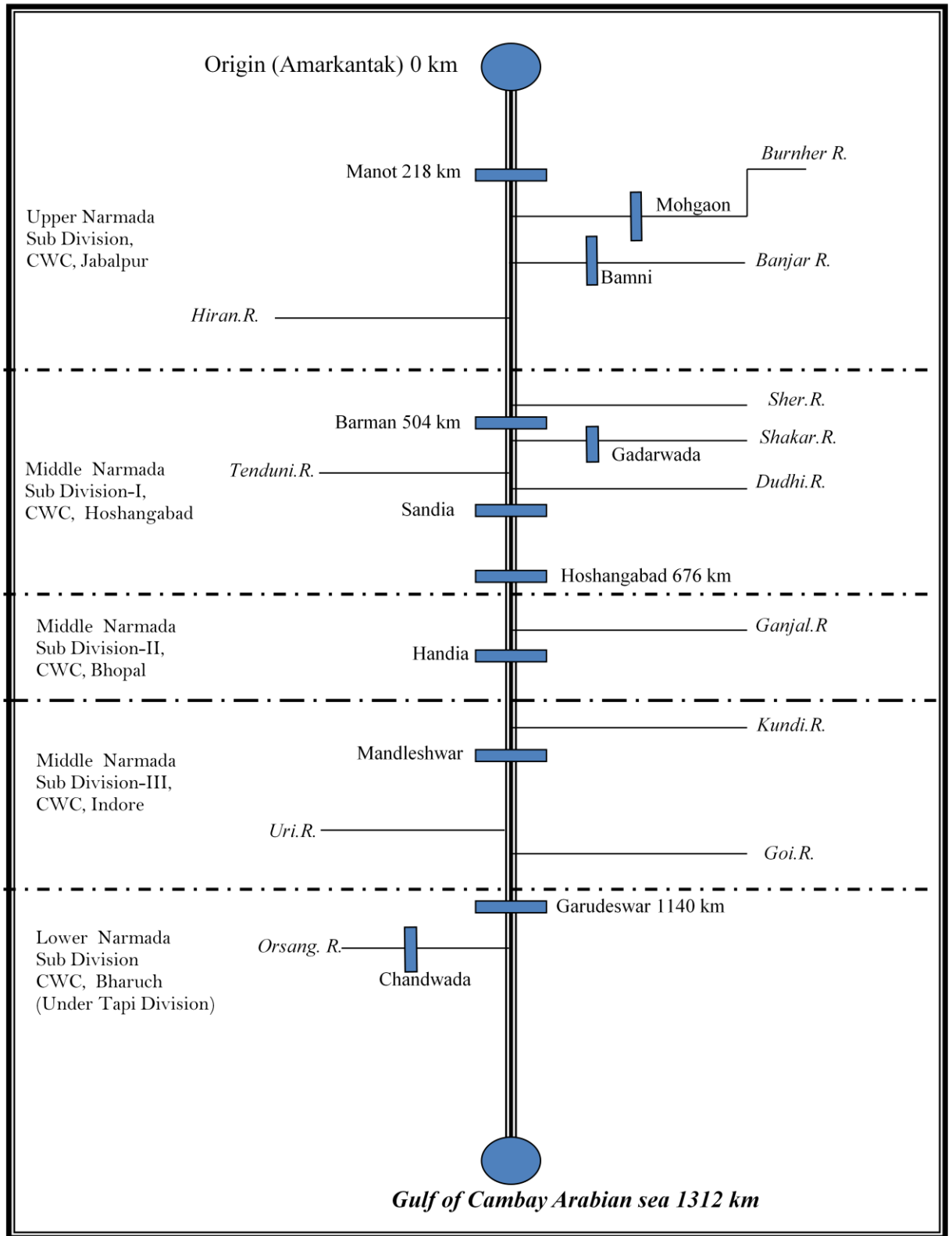


Plate 2: Index Map of Narmada Basin

