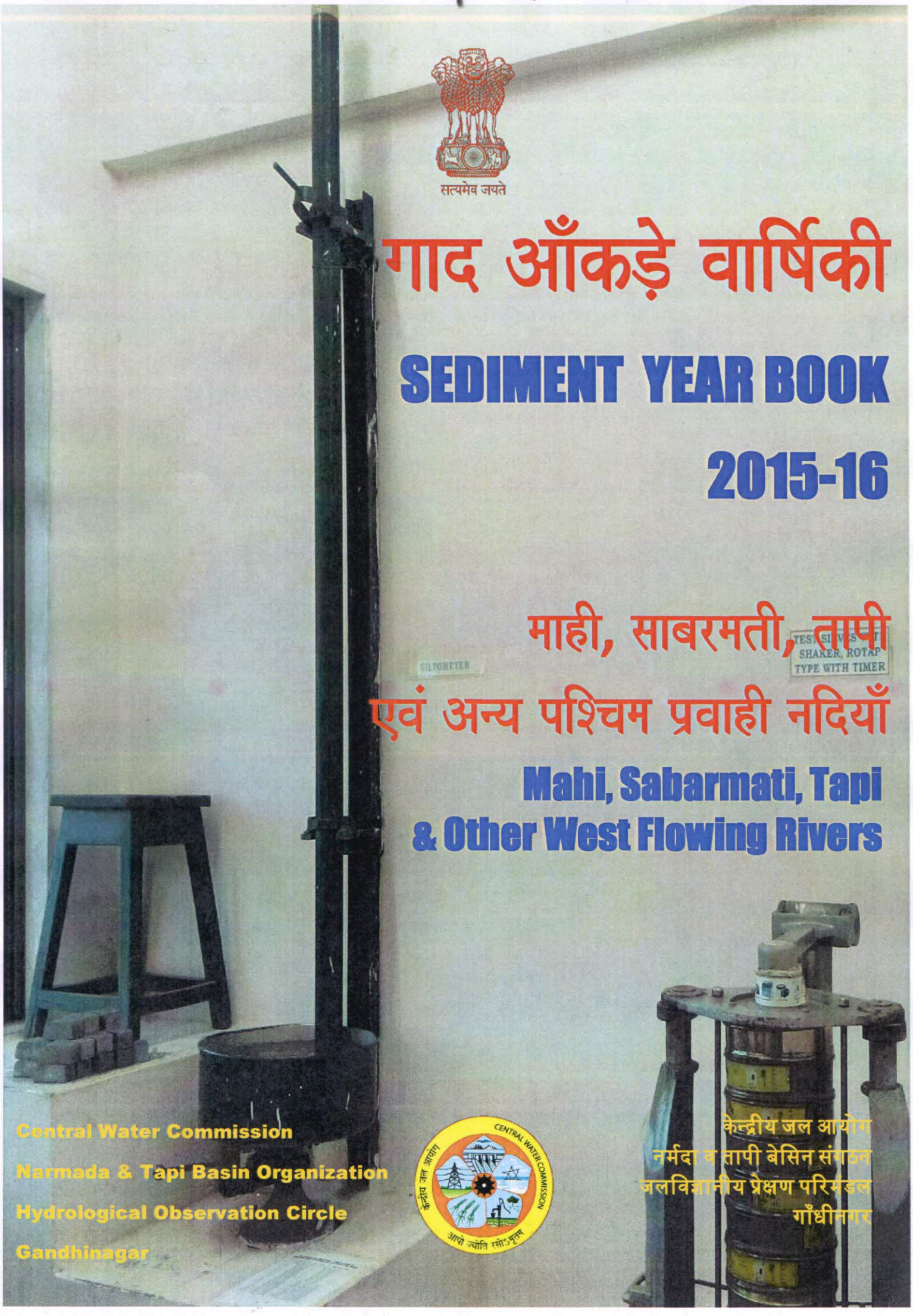


सत्यमेव जयते

गाद आँकड़े वार्षिकी

SEDIMENT YEAR BOOK

2015-16

माही, साबरमती, तापी एवं अन्य पश्चिम प्रवाही नदियाँ

Mahi, Sabarmati, Tapi & Other West Flowing Rivers

Central Water Commission
Narmada & Tapi Basin Organization
Hydrological Observation Circle
Gandhinagar

केन्द्रीय जल आयोग
नर्मदा व तापी बेसिन संगठन
जलविज्ञानीय प्रेक्षण परिमंडल
गाँधीनगर

आमुख

भूक्षरण पर्यावरण संतुलन को प्रभावित करने वाला एक मुख्य घटक है। यह अन्य कारकों जैसे जलवायु भौगोलिक स्थिति वनस्पति तथा भूमि के प्रकार तथा प्रकृति आदि पर निर्भर करता है। तीव्र वर्षा के फलस्वरूप क्षरित भूमि के कण वहते हुए जल के साथ नदियों में चले जाते हैं। इस तरह नदियों में गाद की मात्रा में वृद्धि होती है। अतः गाद की मात्रा की उपस्थिति के अनुसार किसी नदी वेसिन में होने वाले भूक्षरण का गुणात्मक अनुमान लगाया जा सकता है। नदियों में पहुँचने वाली क्षरित मिट्टी अर्थात गाद निलंवित भार के रूप में पानी के साथ वहती है तथा नदी की स्थलाकृति तथा वहाव के अनुसार जगह - जगह तल में वैठ जाती है। इस तरह भूक्षरण नदियों के वहाव एवं प्रवृत्ति को भी प्रभावित करता है। नदी में पाए जाने वाले गाद कणों के शैल वर्गीय अभिलक्षण तथा आकार जल संसाधन परियोजनाओं कें नियोजन का एक अभिन्न अंग है। उपरोक्त तथा अन्य कारणों से गाद की मात्रा का प्रेक्षण तथा आकलन वहुत महत्वपूर्ण हो जाता है।

जल विज्ञानीय प्रेक्षण परिमंडल, गाँधीनगर, नर्मदा तापी वेसिन संगठन के अन्तर्गत केन्द्रीय जल आयोग की एक क्षेत्रीय ईकाई है जिसके अन्तर्गत माही मंडल, गाँधीनगर एवं तापी मंडल, सूरत द्वारा गुजरात, मध्य प्रदेश, राजस्थान, महाराष्ट्र, दादरा नगर हवेली (केन्द्र शासित प्रदेश) एवं दमन तथा दीव (केन्द्र शासित प्रदेश) से होकर पश्चिम की ओर वहने वाली नदियों पर **16** अधिसूचित महत्वपूर्ण स्थलों पर नदियों के तलछट पदार्थ एवं गाद के नमूने एकत्रित किए जा रहे हैं। नमूनों का परीक्षण / विश्लेषण भारतीय मानक व्यूरो द्वारा निर्धारित रीति एवं मानकों के अनुसार किया जाता है।

इनमें से तलछट के नमूनों का परीक्षण तथा विश्लेषण, मण्डल मुख्यालय स्थित स्तर–II (Level –II) प्रयोगशालाओं में किया जाता है। निलंवित गाद के नमूनों का परीक्षण तथा विश्लेषण कार्यस्थल स्थित प्रयोगशालाओं में किया जाता है। निलंवित गाद तथा तलछट पदार्थ की नदियों में उपस्थिति के प्रभावी प्रवोधन हेतु, माही, सावरमती, तापी एवं पश्चिम प्रवाही, कुल **9** नदी वेसिनों पर स्थापित कुल **14** कार्य स्थलों (माही मंण्डल की **7** स्थलों एवं तापी मंण्डल की **7** स्थलों) के वर्ष **2015-16** के आँकड़े इस वार्षिकी द्वारा प्रकाशित किए जा रहे हैं। शेष **2** कार्य स्थलों के आँकड़े जो नर्मदा नदी से संवंधित हैं, नर्मदा वेसिन संगठन, केन्द्रीय जल आयोग, भोपाल को भेज दिए जाते हैं जहाँ से उनका प्रकाशन किया जाता है। इसके अतिरिक्त प्रेक्षण तकनीक, विश्लेषण रीति, आदि का वर्णन इस वार्षिकी में उल्लेखित हैं।

इस वार्षिकी में दी गयी सूचना एवं संकलित आंकडे, जल संसाधन परियोजनाओं के नियोजन अभिकल्पन विकास एवं अन्य जलवायवीय अध्ययनों के लिये उपयोगी होंगे। इसे और उपयोगी वनाने हेतु सुझाव आमंत्रित हैं।

वार्षिकी में प्रकाशित आंकडों के संकलन, विश्लेषण तथा प्रकाशन हेतु नर्मदा - तापी वेसिन संगठन के अधीनस्थ जल विज्ञानीय प्रेक्षण परिमंडल, गाँधीनगर, माही मंण्डल, गाँधीनगर एवं तापी मंण्डल, सूरत के अधिकारियों एवं कर्मचारियों ने जिस समर्पण एवं लगन से कार्य संपादित किया है, वह प्रशंसनीय है।

सितम्बर 2017
गाँधीनगर

विमल कुमार
अधीक्षण अभियंता

PREFACE

Soil erosion is one of the main factors affecting the environment. It depends upon factors like weather, geographical location, vegetation and type and ecological balance of soil etc. Fractions of top soil of a river basin are dislodged with the impact of rain water and are carried by water, flowing on surface, into the river. Thus quantity of silt in the river may lead to a qualitative assessment of soil erosion in the river basin. The eroded soil reaching the river is transported as suspended load till it is deposited in various reaches of river, which in turn, affects the characteristics of river flow and regime. Petrographic characteristics and size of silt particles in flowing water are extensively used for design of water resources structures especially penstocks and turbines.

Hydrological Observation Circle, Gandhinagar, a field unit in Narmada Tapi Basin Organization of the Central Water Commission, is entrusted with the assessment of Sediment load data and Bed material data of west flowing rivers draining through the states of Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Daman & Diu (UT) and DNH (UT). Mahi Division, Gandhinagar and Tapi Division, Surat are collecting samples of sediment load data and bed material data at 16 identified sites. Samples of river bed material, collected at sites, are tested and analysed at level-II, Divisional laboratories and the suspended sediment samples are tested and analysed at site laboratories. All these tests and analyses including sample collection are carried out as per the standards laid down by Bureau of Indian Standards.

This annual publication presents the Sediment Load and Bed Material data for 14 sites (7 stations under Mahi Division and 7 stations under Tapi Division) from 9 west flowing river basins including the Mahi, Sabarmati and Tapi for the year 2015-16. Such data of 2 sites, located in Narmada basin are sent to Narmada Basin Organisation, C.W.C. Bhopal, which publishes them separately. Short notes on methodology adopted, basin description, site history and index map are also described in this volume.

It is hoped that the information and data compiled herein will be useful for planning, design and development of water resources as well as other climatic studies. Comments and suggestions for improvement of this volume are welcome. The efforts put in by all the concerned officers and staffs of Mahi Division, Tapi Division and Hydrological Observation Circle, Gandhinagar under NTBO, Central Water Commission is gratefully acknowledged.

Vimal Kumar

(Vimal Kumar)

Superintending Engineer

September 2017

Gandhinagar

List of Officers

1	Shri M.P. Singh	:	Chief Engineer, NTBO, Gandhinagar
2	Shri. Vimal Kumar	:	Superintending Engineer, HOC, Gandhinagar
3	Shri. Vishnu Sharma	:	Executive Engineer, Mahi Division, Gandhinagar
4	Dr. U.P.Gupta	:	Executive Engineer, Tapi Division, Surat
5	Shri. T.K. Chakraborty	:	Assistant Director II, HOC, Gandhinagar
6	Shri. Satish Dave	:	Assistant Director II, HOC, Gandhinagar
7	Shri. K. P. Gireendran	:	Assistant Research Officer, Mahi Division, Gandhinagar
8	Shri. D.K.Jawale	:	Scientific Assistant, Tapi Division, Surat
9	Shri. D.S. Rajput	:	Observer Gr- II, Tapi Division, Surat

Contents

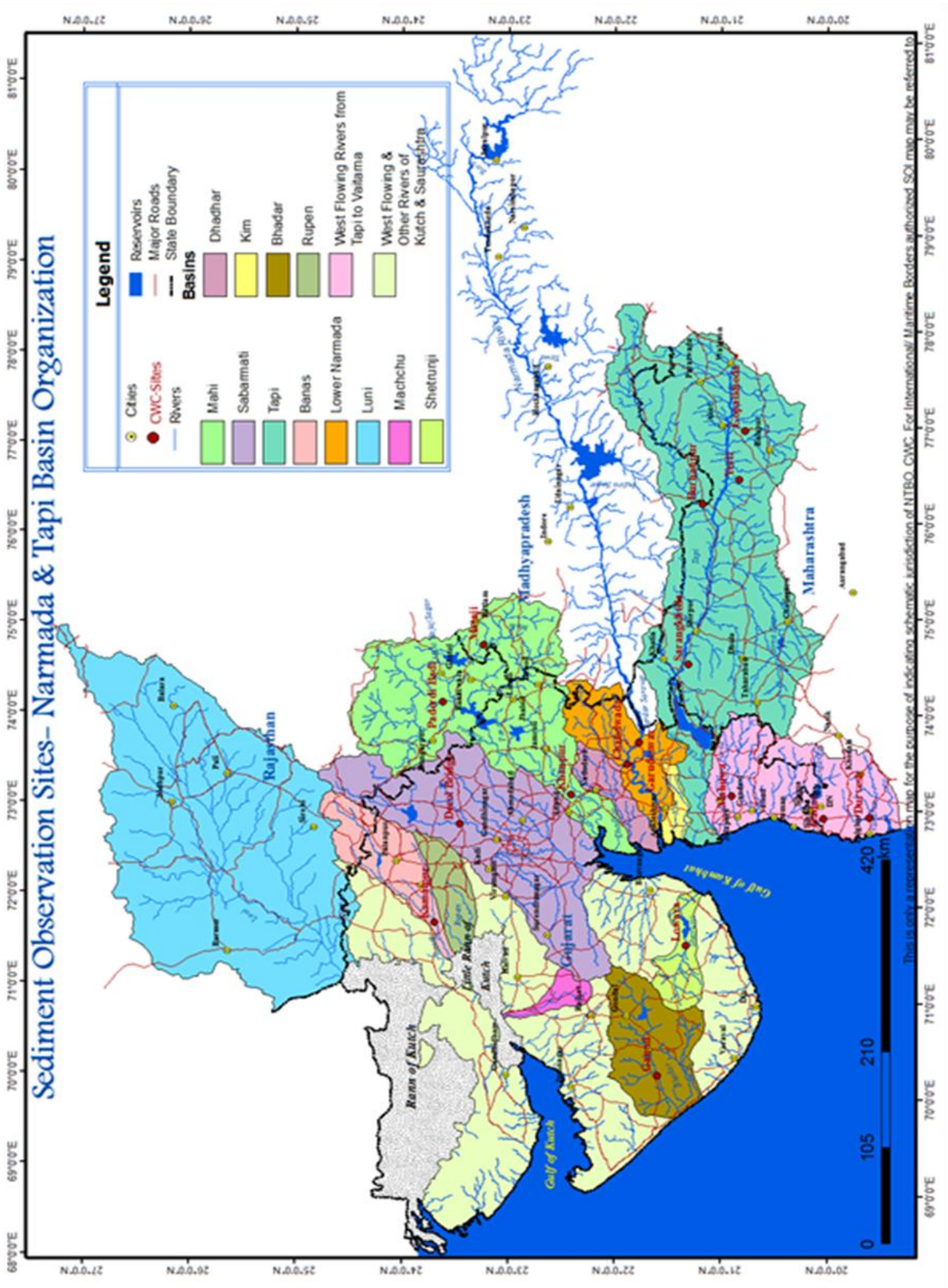
List of Plates

Abbreviations and Symbols

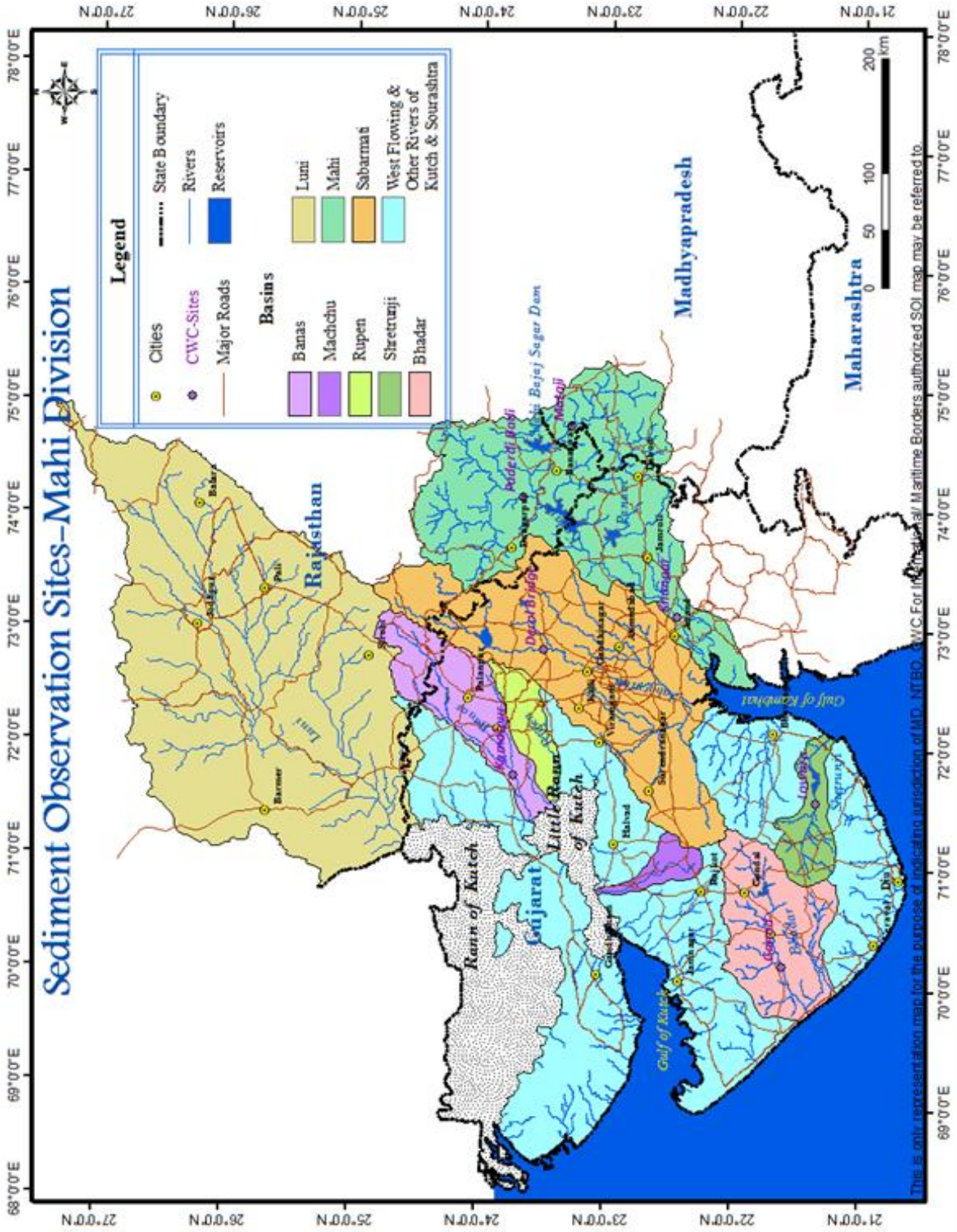
AV	:	Average
C	:	Coarse Sediment
Con.	:	Concentration
cumec , m^3/s	:	Cubic meter per second
cum, m^3	:	Cubic meter
D	:	Day
Dis, Q	:	Discharge
F	:	Fine Sediment
G	:	Gauge
GD	:	Gauge and Discharge
GDS	:	Gauge, Discharge and Sediment
MDN, MD	:	Mahi Division
MSD	:	Mahi Sub Division
SSD	:	Sabarmati Sub Division
NWRSD	:	North Western River Sub Division
BLSD	:	Banas Luni Sub Division
TDN, TD	:	Tapi Division
UTSD	:	Upper Tapi Sub Division
MTSD	:	Middle Tapi Sub Division
LTSD	:	Lower Tapi Sub Division
DSD	:	Damanganga Sub Division
LNSD	:	Lower Narmada Sub Division
g/l	:	Gramm per liter
km	:	Kilometer
M	:	Medium Sediment
m	:	Meter

mm	:	Millimeter
%	:	Percentage
R. Days	:	Remaining Days
RL	:	Reduced Level
sec., S	:	Second
Sed.	:	Sediment
T/ D	:	Tonnes per Day
W.L.	:	Water Level
WY	:	Water Year
WQ	:	Water Quality
RB	:	Right Bank
sq m	:	Square Meter
A	:	Area of section
V	:	Mean velocity
P	:	Wetted Perimeter
R	:	Hydraulic Mean Depth
f	:	Average Silt Factor
LB	:	Left Bank
RD	:	Reduced Distance
S/G	:	Station Gauge Line
°	:	Degree
'	:	Minute

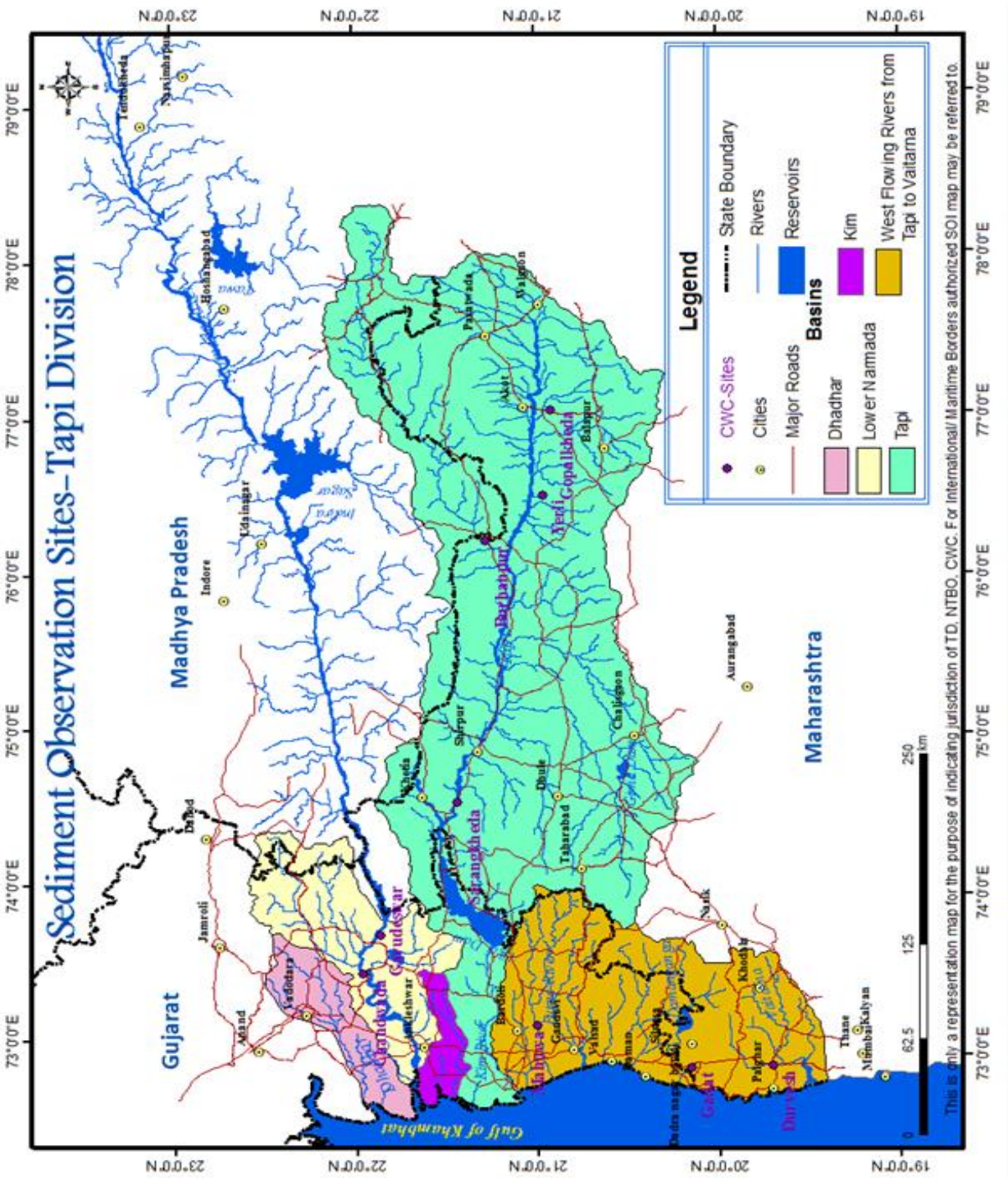
Sediment Observation Sites under NTBO



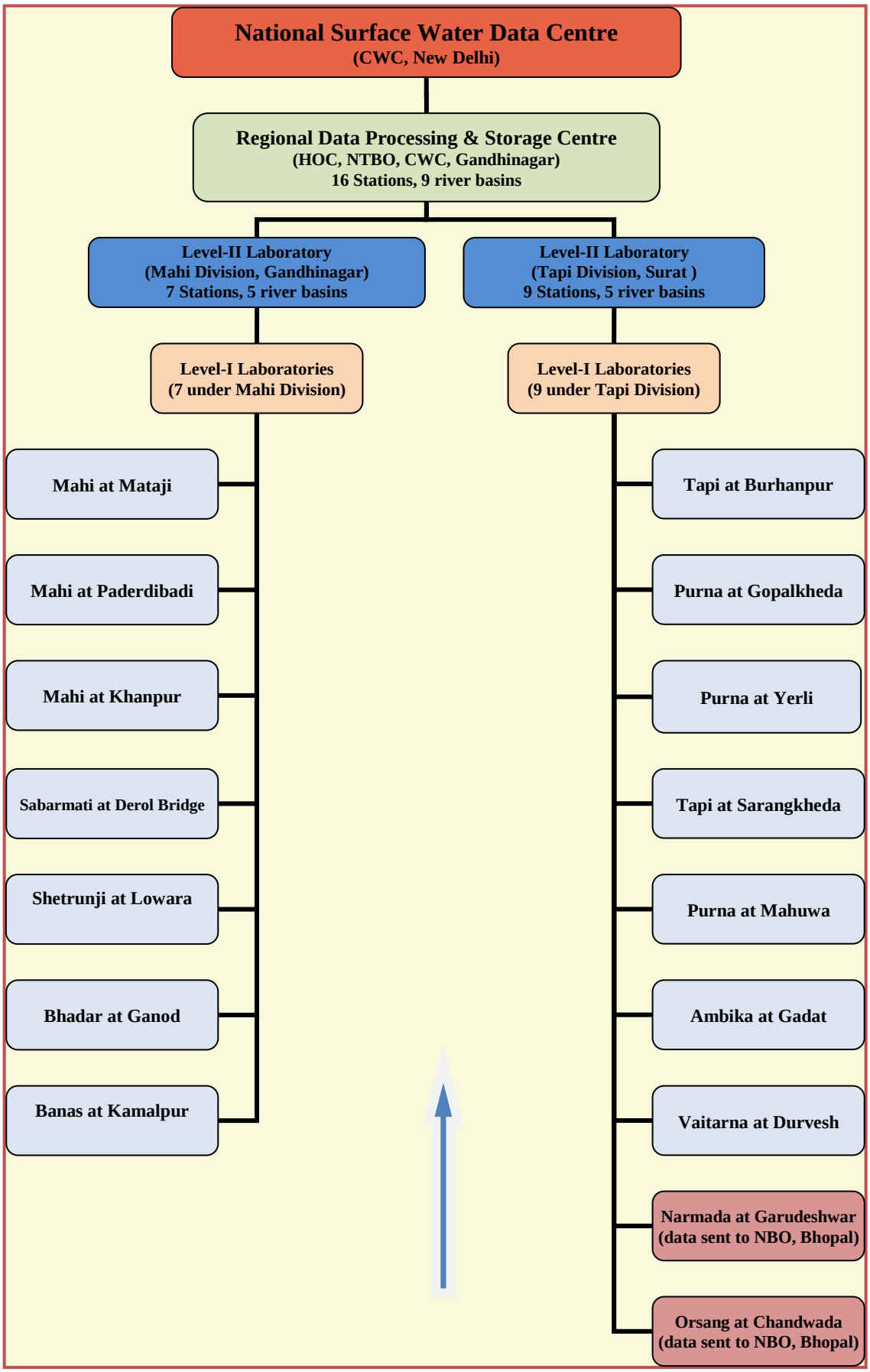
Sediment Observation Sites under Mahi Division



Sediment Observation Sites under Tapi Division



Sediment Analysis- Flow of Data



1.0 Introduction

1.1 Scope

Central Water Commission conducts observations of Suspended Sediment and bed material loads at selected locations on river along with discharge and water quality observations. During the year 2015-16, sediment observations were carried out at 16 stations under the jurisdiction of Hydrological Observation Circle, Narmada Tabi Basin Organisation, Gandhinagar. These stations were opened under three schemes viz. National Network (NNW), 80-key hydrological stations (80-key) and flood forecasting (FF) Scheme. These stations are located on ten west flowing river basins in the States of Madhya Pradesh, Maharashtra, Gujarat and Rajasthan. Data collected from these stations is compiled and presented in this Year Book with analysis consisting of sediment rating curves, annual sediment yields, trends, etc.

The data has been compiled basin-wise. Names of the stations where suspended sediment and bed material load observation were conducted during the year 2015-16 are given, in **Table-1** and their location is shown in respective maps.

Table-1: Stations where suspended sediment observations and bed material studies were conducted during the water year 2015-16

Sl. No.	Name of station	Station Code No	Scheme
1.	Mahi at Mataji	01 02 13 001	NNW
2.	Mahi at Paderdibadi	01 02 13 006	80Key
3.	Mahi at Khanpur	01 02 13 012	80Key
4.	Sabarmati at Derol Bridge	01 02 12 006	FF
5.	Shetrunji at Luwara	01 02 09 001	NNW
6.	Bhadar at Ganod	01 02 07 001	NNW
7.	Banas at Kamalpur	01 02 02 007	NNW
8.	Tapi at Burhanpur	01 02 17 002	NNW
9.	Purna at Gopalkheda	01 02 17 004	80 Key

10.	Purna at Yerli	01 02 17 005	80 Key
11.	Tapi at Sarangkheda	01 02 17 015	80 Key
12.	Purna at Mahuwa	01 02 19 001	NNW
13.	Ambika at Gadat	01 02 20 001	80 Key
14.	Vaitarna at Durvesh	01 02 25 001	NNW
15.	Narmada at Garudeshwar	01 02 15 030	NNW
16.	Orsang at Chandwada	01 02 15 032	80 Key

1.2 Source of information

Data has been collected by the field offices of two divisions, viz. Mahi Division, Gandhinagar and Tapi Division, Surat under the Hydrological Observation Circle, Gandhinagar. The Division wise distribution of stations is as under:

Sl.No.	Name of Division	No. of Stations
1.	Mahi Division, Gandhinagar	7
2.	Tapi Division, Surat	9 *

(* Data of two sites at Garudeshwar and Chandwada collected by Tapi Division are being published by NBO, CWC, Bhopal**)**

Division wise list of the sediment monitoring stations is as under

A: Mahi Division, Gandhinagar		**B: Tapi Division, Surat**	
Sl. No.	Name of Station	Sl. No.	Name of Station
1.	Mahi at Mataji	1.	Tapi at Burhanpur
2.	Mahi at Paderdibadi	2.	Purna at Gopalkheda
3.	Mahi at Khanpur	3.	Purna at Yerli
4.	Sabarmati at Derol Bridge	4.	Tapi at Sarangkheda
5.	Shetrunji at Luwara	5.	Purna at Mahuwa
6.	Bhadar at Ganod	6.	Ambika at Gadat
7.	Banas at Kamalpur	7.	Vaitarna at Durvesh
		8	Narmada at Garudeshwar *
		9	Orsang at Chandwada *

(* Data of Garudeshwar and Chandwada sites are being published by NBO, CWC, Bhopal**)**

2.0 Suspended Sediment Observation and analysis

2.1 Observation Technique

2.1.1 Collection of Sediment Samples

Suspended sediment observations are conducted simultaneously with discharge observation once a day starting at 08:00 hours except on Sundays and holidays. The observations are conducted at station gauge line under normal conditions. However, when the conditions become unsuitable for observations, say due to pooling, shallow depths, multi channel formation etc, 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 depth from each vertical where velocity observation is done for computation of discharge, provided depth of flow is greater than 0.3m. The samples thus collected from each vertical are grouped in 1, 2, 3, 4 or 5 composite groups depending on the width of river in such a way that each composite group discharge is almost nearly equal or within the limit of average discharge $\pm$10 % of the total discharge. Punjab type bottle sampler is commonly used for collection of water sample for suspended sediment analysis. A uniform practice of holding the bottle in vertical position only is adopted. The samples from shallow depths (water depth less than 0.8m but more than 0.3m) are collected from the surface. These surface samples, at shallow depths are presumed to be of 0.6 depth sampling. The water samples collected are kept in composite groups based on the data observed on previous day and carried to the site office for analysis. Sometimes these observations at higher stages may not be made as per standard procedure due to infeasibility of observation by boat under such circumstances water samples are collected at the surface.

2.1.2 Analysis of Suspended Sediment samples

Analysis of the suspended sediment samples is carried out for three different grades viz. coarse sediment with 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. Sediment samples from each group (as stated in section- 2.1.1) is passed through 212- micron mesh sieve. Residue on the sieve is washed with clean water several times, transferred to a pre-weighted crucible and its oven- dried weight is

determined. This gives the course sediment from which sediment intensity in g/l for a groups is worked out.

After removal of coarse sediment, the filtrate and washings which now contain medium and fine sediment is similarly passed through 75-micron mesh sieve. Residue on the sieve is washed with clean water several times and is transferred to pre-weighted crucible. After drying, the quantity is measured to work out the sediment intensity in g/l for that particular group.

The filtrate and washings after separation of coarse and medium grade now contain only fine sediment. All the filtrate and washings from different composite groups are kept overnight to allow them to settle down. About 5 to 10 ml of 10% alum solution is added to hasten the coagulation of colloidal silt. After the settlement, the supernatant liquid is siphoned off carefully and the remaining volume of suspension is filtered in pre-weighted filter paper (Whatman grade 2) and the transfer of entire settled silt is ensured by additional washing with clean water. The filter paper along with the sediment is dried and weighed to obtain the amount of sediment intensity in g/l for the composite group.

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

2.2 Explanatory Notes

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

1. Water year covers the period from 1st June of one calendar year to 31st May of the next calendar year and includes one complete hydrological cycle

2. The water year is further subdivided as

(a) Monsoon Period from June to November

(b) Non-monsoon period From December to May

3. Discharge

(a) Discharge is given in cubic meters per second.

(b) Discharges given are daily actual observed / estimated at 08.00 hours

4. Discharges are rounded off to

(a) Nearest full integer when more than 1000.

(b) Nearest first decimal figures when between 100 and 1000.

(c) Nearest two decimal figures when between 10 and 100.

(d) Nearest three decimal figures when less than 10.

5. Measuring authority refers to the field division responsible for the operation of the gauging station.

6. The gauging station code number is a unique nine figures numeric reference number, which facilitates storage and retrieval of flow data in data banks. The first two digit indicates the measuring authority who is hole responsible for R & M of sites, next two digit indicates the Basin/Zone and the river identification i.e. 01 for West coast of Gujarat, and 02 for West coast Maharastra, the next two digits indicates the name of river in basin like 13 is for Mahi basin, the last three digits will represents the site number, viz 001 is for Mataji site of Mahi basin.

7. Sediment is classified as coarse, medium and fine according to diameter as indicated below.

Coarse	- Sediment above 0.20 mm diameter.
Medium	- Sediment between 0.20 & 0.075 mm diameter.
Fine	- Sediment below 0.075 mm diameter.

8. The sediment load reported in the daily observed sediment data sheet indicates daily sediment load, 10 daily mean and monthly sediment load

9. When the sediment samples collected give non-measurable sediment, it is presumed to be of nil value.

10. In daily observed sediment data sheet, values are rounded off to

a) – Nearest full integer when more than 1000.

b) – Nearest first decimal figure when between 100 and 1000.

c) – Nearest two decimal figures when less than 100.

11. Annual / seasonal sediment yield in mm is the notional depths of soil in millimeters over the catchment equivalent to annual/seasonal suspended sediment run off calculated at the sediment observation station. It is computed using the relation

$$\text{Sediment yield (mm)} = \frac{\text{Total suspended Load (T)}}{\text{1400 x catchment area (sq km)}}$$

This is only an approximation as no specific consideration has been given to intercepted catchment.

2.3 Method of Presentation

In the succeeding pages, station wise suspended sediment data is presented as Section 4.0 of this year book which comprises history sheet and Daily Observed Sediment Datasheet and Seasonal Sediment load tables. Suspended sediment observation stations are arranged beginning from the origin of the river to downstream giving inter-se priority to an intermediate tributary station in similar fashion

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

1. Daily observed sediment flow tables for the period from June to May.

2. Ten daily mean of coarse, medium and fine sediment for the full year.

3. Monthly sediment load and Annual Sediment load are shown in the Daily Observed Sediment Datasheet.

4. Seasonal Sediment load for the year are shown in the form of pie chart.

2.4 Summary- Suspended Sediment

A summary at a glance for the year 2015-16 for all sites for suspended sediment data is shown in the Table-2 Annual sediment load at these sites is also shown by an

adjoining chart on the following page. Detailed data are given in Section-4 of this Year Book.

Table 2: Sediment Load at a Glance for the water year 2015-16

Sl. No	Name of Site	Catchment Area	Maximum Sediment Concentration Observed		Annual Sediment Load	Sediment Yield in mm	% in Mon-soon
		in sq km	g/l	Date	in metric tonnes		
1	Mahi at Mataji	3880	0.587	22.07.2015	261965	0.0482	100.0
2	Mahi at Paderdibadi	16247	0.111	06.08.2015	78848	0.0035	99.22
3	Mahi at Khanpur	32510	0.131	29.07.2015	124721	0.0027	100.0
5	Derol Bridge at Sabarmati	6724	0.038	02.08.2015	10796	0.0011	100.0
6	Shetrunji at Luwara	3953	5.925	25.06.2015	1584507	0.2863	100.0
7	Bhadar at Ganod	6266	0.013	26.06.2015	3853	0.0004	100.0
8	Banas at Kamalpur	6960	2.209	29.07.2015	430901	0.0442	100.0
9	Tapi at Burhanpur	8487	1.644	26.07.2015	760676	0.0640	100.0
10	Purna at Gopalkheda	9500	4.900	06.08.2015	2570194	0.1932	100.0
11	Purna at Yerli	16517	6.600	07.08.2015	6623182	0.2864	100.0
12	Purna at Mahuwa	1995	0.500	26.07.2015	31108	0.0111	100.0
13	Ambika at Gadat	1510	0.330	19.09.2015	45906	0.0217	100.0
14	Vaitarna at Durvesh	2019	0.896	22.07.2015	335014	0.1185	100.0

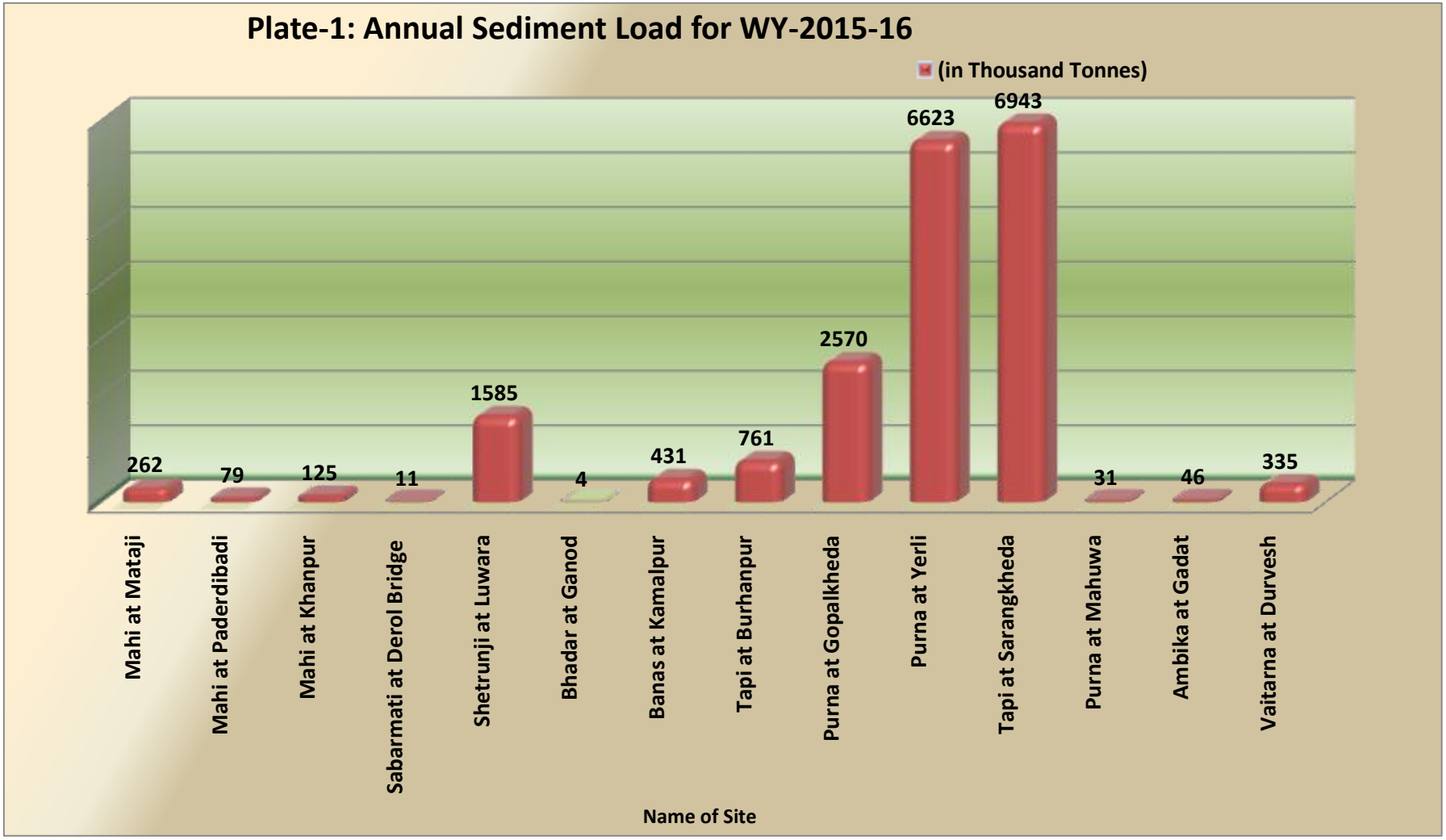


Plate-1: Annual Sediment Load for WY-2015-16
(in Thousand Tonnes)
262
79
125
11
1585
4
431
761
2570
6623
6943
31
46
335
Mahi at Mataji
Mahi at Paderdibadi
Mahi at Khanpur
Sabarmati at Derol Bridge
Shetrunji at Luwara
Bhadar at Ganod
Banas at Kamalpur
Tapi at Burhanpur
Purna at Gopalkheda
Purna at Yerli
Tapi at Sarangkheda
Purna at Mahuwa
Ambika at Gadat
Vaitarna at Durvesh
Name of Site

3. Bed Material collection and Analysis

3.1 Collection of Samples

Bed material surveys are being carried out at the suspended sediment observation sites regularly thrice a year pre- monsoon, monsoon and post monsoon periods. 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 samples from flowing portion of the channel and where the bed is dry, samples are collected manually after scraping the upper layer of the bed to avoid local surface contamination. After drying the samples, about 1 kg of the sample is taken by coning and quartering process.

3.2 Packing of Samples

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

3.3 Analysis of Samples

In the laboratory, analysis of samples is done by two methods:

i) Analysis by sieve for Bed material Particles above 0.6 mm size and
ii) Analysis by wet process using Puri's Siltometer for Particles below 0.6 mm size.

3.3.1 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 sieve. The portion of the materials 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.

3.3.2 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 deposited 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 down.

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 the formula:

$$\mathbf{f = 1.76 \sqrt{m}}$$

Where, 'm' is the mean diameter of the particles in mm.

3.4 Presentation of Bed Material Data

The bed material data is presented in section 5.0 of this year book that gives average mean diameter and silt factor for the pre, monsoon and post monsoon periods.

4.0 Basin Description and Suspended Sediment Data

4.1 MAHI BASIN

4.1 Mahi Basin

The river Mahi is third major west flowing interstate river of India, draining into the Gulf of Cambay. It originates in the northern slopes of Vindhya hill range near village Sardarpur in Dhar district of Madhya Pradesh at an elevation of 500 m above mean sea level. Its length is 583 km, traversing 167 km in Madhya Pradesh, 174 km in Rajasthan and the remaining 242 km in Gujarat. It flows initially in North West direction through Dhar and Jhabua districts of Madhya Pradesh. Thereafter, it takes turn to the left and flows in south – west direction through Banswara district of Rajasthan, Panchmahal and Kheda districts of Gujarat State before draining into Gulf of Cambay. It drains an area of 34,842 sq.km, spread over Rajasthan (47%), Madhya Pradesh (19%) and Gujarat (34%). The basin lies between the geographical co-ordinates of 73^0 00' to 74^0 20' east longitudes and 22^0 30' to 24^0 20' north latitudes. The basin is bounded by the Aravalli hills in north and north-west, by the ridge separating it from Chambal basin in the east, by the Vindhya hill range in the south and finally by Gulf of Cambay in the west. In Rajasthan, the basin consists of hills, forests and eroded terrain. In Gujarat upto the confluence of Mahi and Panam, the basin comprises semi developed lands. Below Wanakbori Weir and up to the mouth, the basin is flat, fertile and well developed alluvial track.

The Mahi river receives several tributaries on both banks out of which the main tributaries are Som, Anas and Panam. The Som River joins the main river on the right Bank in Rajasthan. The Anas and Panam join the main river on the left Bank in the Rajasthan & Gujarat respectively.

The average rainfall in Mahi basin 785 mm. In the dry cool winter,the minimum temperature varies from 5°C to 20°C. Maximum temperature varies from 30°c to 50°c during the hottest month of May.

At present there are 15 completed major / medium projects in Mahi basin. The two main projects across Mahi are Mahi Bajaj Sagar and Kadana reservoir. A weir at Wanakbori is also constructed across the main river. Other 11 projects are on different tributaries of Mahi River. There are three Silt Monitoring Station in this basin, all the three stations are located on main river Mahi and a brief of the Sediment stations is given in the section- 4.1.1 to 4.1.3.

4.1.1. Mahi at Mataji

The station has a Catchment area of 3,880 sq km. The maximum sediment concentration of 0.587 g/l was observed on 27.07.2015. The total sediment load during the year is 2619654 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0482 mm.

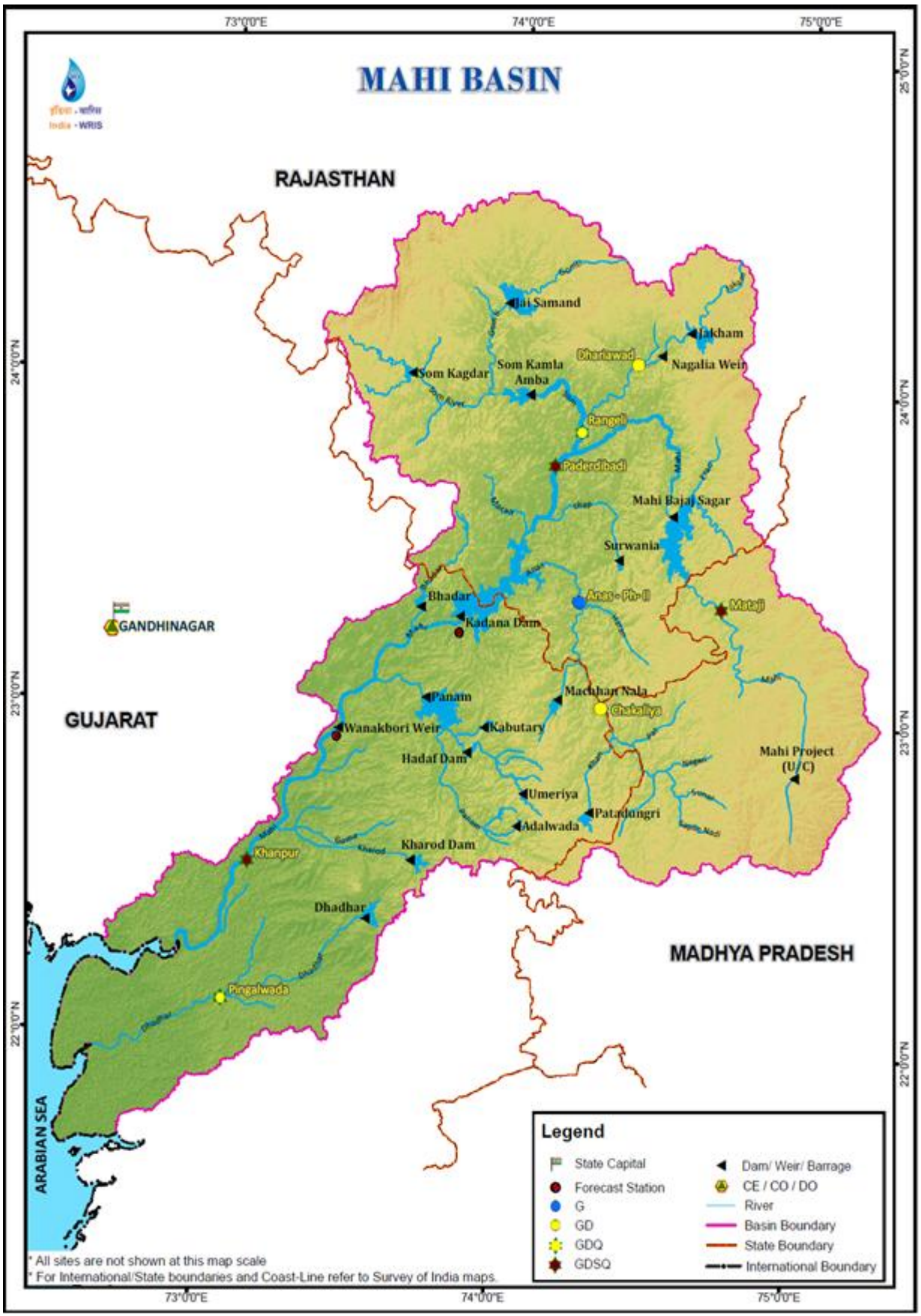
4.1.2. Mahi at Paderdibadi

The station has a Catchment area of 16,247 sq km. The maximum sediment concentration of 0.111 g/l was observed on 06.08.2015. The total sediment load during the year is 78848 metric tonnes. The monsoon load constitutes 99.22 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0035 mm.

4.1.3 Mahi at Khanpur

The station has a Catchment area of 32,510 sq km. The maximum sediment concentration of 0.131 g/l was observed on 29.07.2015. The total sediment load during the year is 124721 metric tons. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0027 mm.

Plate - 4.1 Mahi Basin



HISTORY SHEET

		Water Year	**: 2015-16**
Site	**: Mahi at Mataji**	**Code**	**: 01 02 13 001**
State	: Madhya Pradesh	District	Ratlam
Basin	: Mahi	Independent River	: Mahi
Tributary	: Mahi	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Mahi
Division	: Mahi Division, Gandhinagar	Sub-Division	: Mahi Sub Divn., Kadana
Drainage Area	: 3880 Sq. Km.	Bank	: Left
Latitude	: 23°20'57" N	Longitude	: 74°43'31" E
Zero of Gauge (m)	: 295 (m.s.l) 284 (m.s.l)	01-01-1982 01-01-2004	- 31-12-2003
	Opening Date	Closing Date	
Gauge	: 21-07-1982		
Discharge	: 21-07-1982		
Sediment	: 21-07-1982		
Water Quality	: 21-07-1982		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	4.867	0.000	0.000	0.000	0.000	0	5.007	0.000	0.000	0.000	0.000	0	374.0	0.000	0.000	0.058	0.058	1865
2	4.840	0.000	0.000	0.000	0.000	0	5.015	0.000	0.000	0.000	0.000	0	269.3	0.000	0.000	0.050	0.050	1163
3	4.683	0.000	0.000	0.000	0.000	0	0.723	0.000	0.000	0.000	0.000	0	332.9	0.000	0.000	0.051	0.051	1458
4	0.723	0.000	0.000	0.000	0.000	0	0.732	0.000	0.000	0.000	0.000	0	312.2	0.000	0.000	0.048	0.048	1287
5	0.687	0.000	0.000	0.000	0.000	0	1.140	0.000	0.000	0.000	0.000	0	317.2	0.000	0.000	0.058	0.058	1579
6	0.691	0.000	0.000	0.000	0.000	0	0.619	0.000	0.000	0.000	0.000	0	1260	0.000	0.000	0.051	0.051	5528
7	1.140	0.000	0.000	0.000	0.000	0	0.607	0.000	0.000	0.000	0.000	0	421.4	0.000	0.000	0.065	0.065	2359
8	0.586	0.000	0.000	0.000	0.000	0	0.544	0.000	0.000	0.000	0.000	0	266.3	0.000	0.000	0.058	0.058	1328
9	0.563	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	170.9	0.000	0.000	0.049	0.049	724
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	252.3	0.000	0.000	0.050	0.050	1090
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	209.7	0.000	0.000	0.022	0.022	402
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	133.7	0.000	0.000	0.015	0.015	173
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	275.7	0.000	0.000	0.015	0.015	360
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	263.4	0.000	0.000	0.022	0.022	505
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	218.8	0.000	0.000	0.022	0.022	412
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	204.1	0.000	0.000	0.021	0.021	370
17	0.010	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	221.8	0.000	0.000	0.019	0.019	370
18	0.699	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	252.4	0.000	0.000	0.121	0.121	2634
19	0.698	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	262.8	0.000	0.000	0.015	0.015	336
20	0.653	0.000	0.000	0.000	0.000	0	581.8	0.000	0.000	0.343	0.343	17262	250.9	0.000	0.000	0.015	0.015	325
21	1.140	0.000	0.000	0.000	0.000	0	452.6	0.000	0.000	0.244	0.244	9521	187.4	0.000	0.000	0.015	0.015	240
22	4.526	0.000	0.000	0.000	0.000	0	533.8	0.000	0.000	0.587	0.587	27050	131.5	0.000	0.000	0.015	0.015	172
23	0.696	0.000	0.000	0.000	0.000	0	387.8	0.000	0.000	0.072	0.072	2417	120.1	0.000	0.000	0.015	0.015	154
24	5.100	0.000	0.000	0.000	0.000	0	280.3	0.000	0.000	0.201	0.201	4863	108.1	0.000	0.000	0.014	0.014	128
25	5.248	0.000	0.000	0.000	0.000	0	296.9	0.000	0.000	0.258	0.258	6618	93.86	0.000	0.000	0.001	0.001	6
26	4.823	0.000	0.000	0.000	0.000	0	2643	0.003	0.010	0.259	0.272	62054	87.90	0.000	0.000	0.001	0.001	6
27	4.810	0.000	0.000	0.000	0.000	0	1546	0.003	0.009	0.244	0.256	34181	33.98	0.000	0.000	0.000	0.000	1
28	6.490	0.000	0.000	0.000	0.000	0	1911	0.000	0.001	0.301	0.301	49757	32.56	0.000	0.000	0.000	0.000	1
29	5.050	0.000	0.000	0.000	0.000	0	901.5	0.000	0.000	0.136	0.136	10624	28.43	0.000	0.000	0.001	0.001	1
30	4.921	0.000	0.000	0.000	0.000	0	652.5	0.000	0.000	0.144	0.144	8107	25.35	0.000	0.000	0.001	0.001	1
31							455.1	0.000	0.000	0.115	0.115	4518	26.35	0.000	0.000	0.001	0.001	1
Ten Daily Mean																		
Ten Daily I	1.878	0.000	0.000	0.000	0.000	0	1.439	0.000	0.000	0.000	0.000	0	397.6	0.000	0.000	0.054	0.054	1838
Ten Daily II	0.206	0.000	0.000	0.000	0.000	0	58.18	0.000	0.000	0.034	0.034	1726	229.3	0.000	0.000	0.029	0.029	589
Ten Daily III	4.280	0.000	0.000	0.000	0.000	0	914.6	0.001	0.002	0.233	0.235	19974	79.59	0.000	0.000	0.006	0.006	65
Monthly Total						**0**						**236973**						**24979**

Annual Sediment Load (Metric Tonnes) : 261965

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	22.17	0.000	0.000	0.001	0.001	1	3.828	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	22.86	0.000	0.000	0.000	0.000	1	3.440	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	22.08	0.000	0.000	0.000	0.000	1	2.968	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	21.39	0.000	0.000	0.001	0.001	2	3.080	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	20.77	0.000	0.000	0.001	0.001	2	1.025	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	10.51	0.000	0.000	0.001	0.001	1	0.985	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	19.72	0.000	0.000	0.001	0.001	2	0.934	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	19.22	0.000	0.000	0.000	0.000	1	0.592	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	8.217	0.000	0.000	0.000	0.000	0	0.496	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	7.458	0.000	0.000	0.000	0.000	0	0.471	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	5.387	0.000	0.000	0.000	0.000	0	0.080	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	5.233	0.000	0.000	0.000	0.000	0	0.470	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	6.490	0.000	0.000	0.001	0.001	0	0.478	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	5.403	0.000	0.000	0.001	0.001	0	0.471	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	5.335	0.000	0.000	0.000	0.000	0	0.471	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	5.414	0.000	0.000	0.000	0.000	0	0.485	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	5.520	0.000	0.000	0.000	0.000	0	0.470	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	5.214	0.000	0.000	0.000	0.000	0	0.010	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	5.576	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	5.990	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	5.214	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	5.194	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	5.414	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	5.403	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	5.990	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	4.764	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	5.520	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	5.033	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	4.260	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	4.224	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	17.44	0.000	0.000	0.001	0.001	1	1.782	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	5.556	0.000	0.000	0.000	0.000	0	0.293	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	5.102	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**12**						**0**						**0**

16

Annual Sediment Load (Metric Tonnes) : 261965

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 261965

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 261965

Annual Sediment Load for period : 2005-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

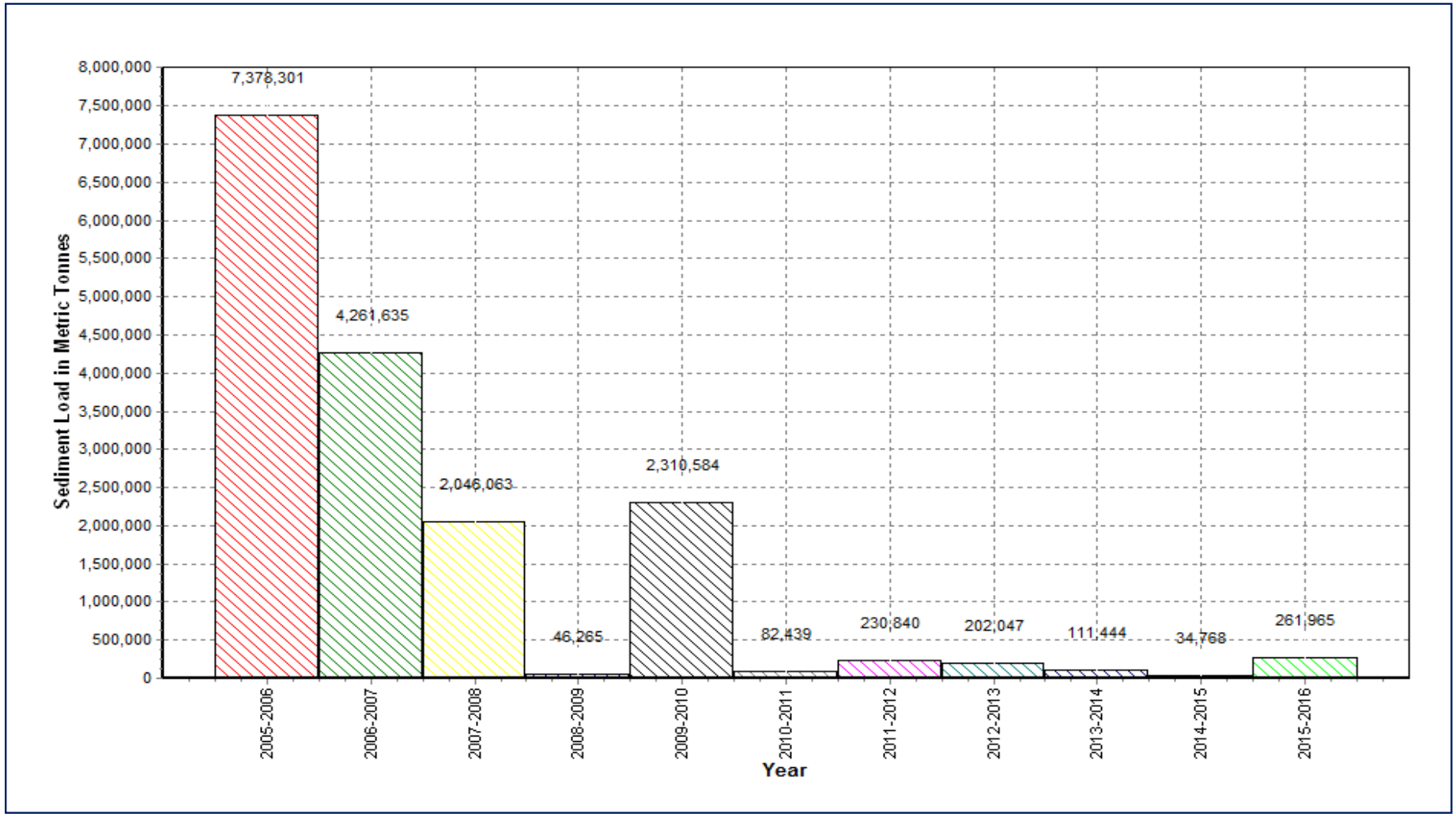
Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	7378301	0	7378301	1019
2006-2007	4261635	0	4261635	4055
2007-2008	2046059	4	2046063	2160
2008-2009	46265	0	46265	278
2009-2010	2310584	0	2310584	1067
2010-2011	82439	0	82439	623
2011-2012	230840	0	230840	3001
2012-2013	202047	0	202047	2230
2013-2014	111444	0	111444	3488
2014-2015	34768	0	34768	704
2015-2016	261965	0	261965	1570

Annual Sediment Load for the period: 2005-2016

Station Name : Mahi at Mataji (01 02 13 001) **Division : Mahi Division, Gandhinagar**

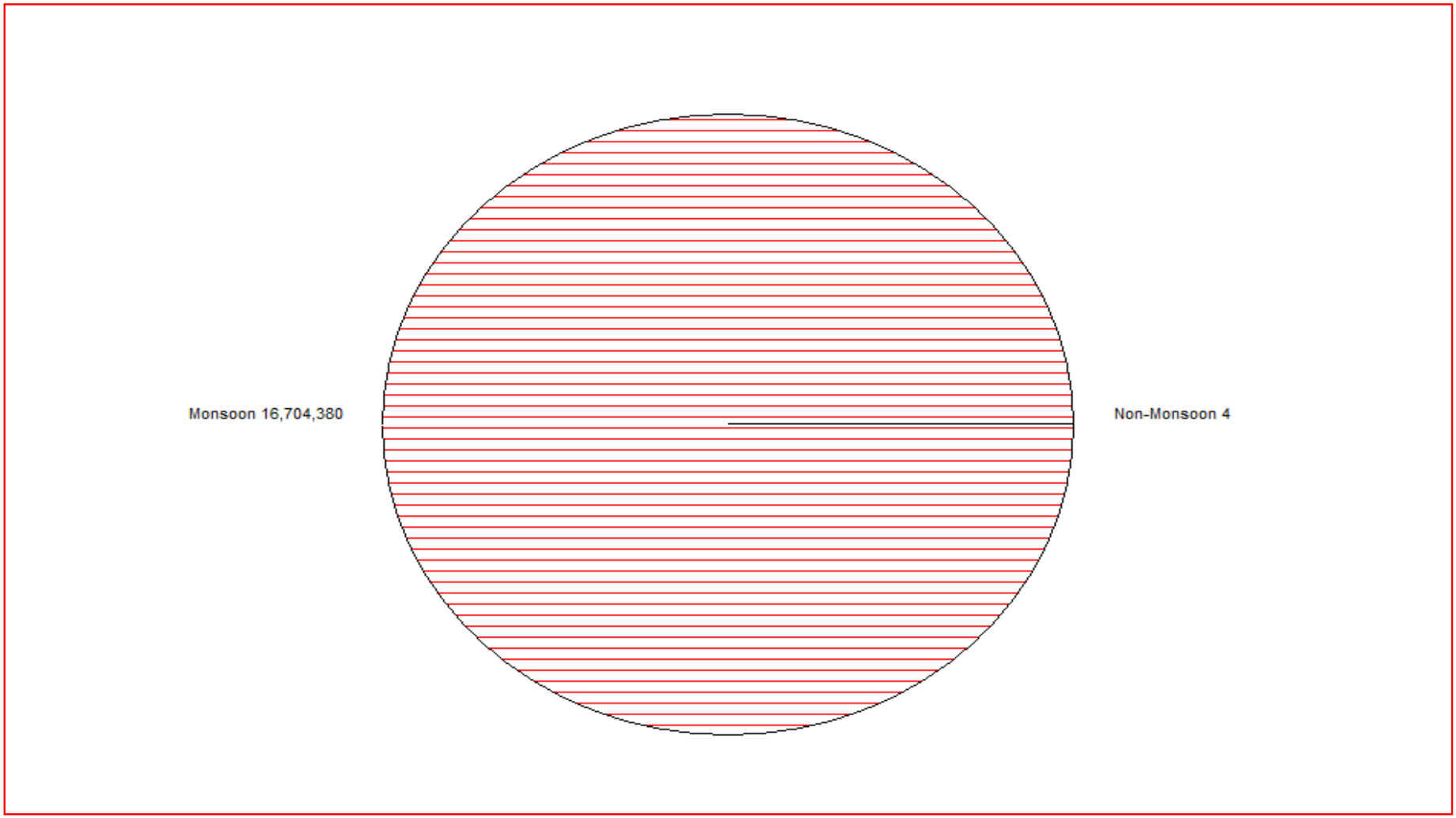
Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Mahi at Mataji (01 02 13 001)
Local River : Mahi

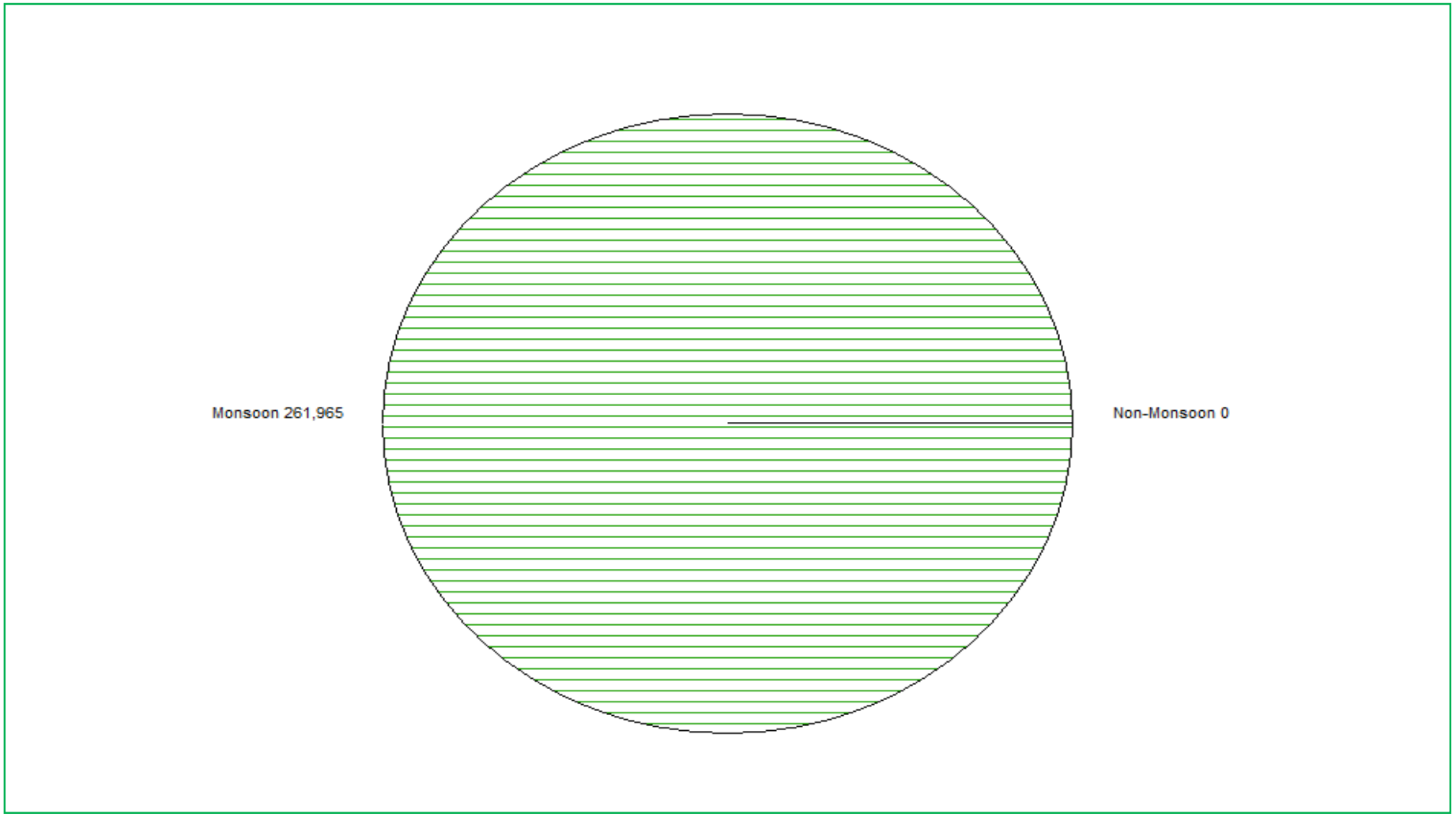
Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Mahi at Mataji (01 02 13 001)
Local River : Mahi

Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Mahi at Paderdibadi**	**Code**	**:**	**01 02 13 006**
State	:	Rajasthan	District		Dungarpur
Basin	:	Mahi	Independent River	:	Mahi
Tributary	:	Mahi	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Mahi
Division	:	Mahi Division, Gandhinagar	Sub-Division	:	Mahi Sub Divn., Kadana
Drainage Area	:	16247 Sq. Km.	Bank	:	Right
Latitude	:	23°46'02" N	Longitude	:	74°08'12" E
Zero of Gauge (m)	:	131 (m.s.l)	17-09-1977		
		Opening Date	Closing Date		
Gauge	:	17-09-1977			
Discharge	:	24-06-1978			
Sediment	:	21-07-1980			
Water Quality	:	01-07-1978			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	1.744	0.000	0.000	0.000	0.000	0	6.077	0.000	0.000	0.000	0.000	0	391.5	0.000	0.000	0.108	0.108	3656
2	1.590	0.000	0.000	0.000	0.000	0	5.538	0.000	0.000	0.000	0.000	0	352.3	0.000	0.000	0.010	0.010	304
3	1.590	0.000	0.000	0.000	0.000	0	5.357	0.000	0.000	0.000	0.000	0	391.4	0.000	0.000	0.049	0.049	1650
4	1.590	0.000	0.000	0.000	0.000	0	4.173	0.000	0.000	0.000	0.000	0	197.8	0.000	0.000	0.007	0.007	113
5	1.510	0.000	0.000	0.000	0.000	0	3.180	0.000	0.000	0.000	0.000	0	187.2	0.000	0.000	0.006	0.006	94
6	1.510	0.000	0.000	0.000	0.000	0	3.125	0.000	0.000	0.000	0.000	0	2180	0.000	0.000	0.111	0.111	20906
7	1.430	0.000	0.000	0.000	0.000	0	2.748	0.000	0.000	0.000	0.000	0	501.5	0.000	0.000	0.057	0.057	2453
8	1.430	0.000	0.000	0.000	0.000	0	2.635	0.000	0.000	0.000	0.000	0	231.2	0.000	0.000	0.026	0.026	521
9	1.360	0.000	0.000	0.000	0.000	0	2.495	0.000	0.000	0.000	0.000	0	215.3	0.000	0.000	0.027	0.027	493
10	1.280	0.000	0.000	0.000	0.000	0	2.350	0.000	0.000	0.000	0.000	0	325.3	0.000	0.000	0.037	0.037	1034
11	1.210	0.000	0.000	0.000	0.000	0	2.214	0.000	0.000	0.000	0.000	0	206.5	0.000	0.000	0.026	0.026	455
12	1.210	0.000	0.000	0.000	0.000	0	2.130	0.000	0.000	0.000	0.000	0	124.7	0.000	0.000	0.014	0.014	151
13	1.140	0.000	0.000	0.000	0.000	0	1.940	0.000	0.000	0.000	0.000	0	650.3	0.000	0.000	0.021	0.021	1180
14	1.140	0.000	0.000	0.000	0.000	0	1.783	0.000	0.000	0.000	0.000	0	397.7	0.000	0.000	0.010	0.010	351
15	1.070	0.000	0.000	0.000	0.000	0	1.590	0.000	0.000	0.000	0.000	0	319.0	0.000	0.000	0.008	0.008	223
16	1.070	0.000	0.000	0.000	0.000	0	1.590	0.000	0.000	0.000	0.000	0	439.4	0.000	0.000	0.024	0.024	892
17	1.000	0.000	0.000	0.000	0.000	0	1.430	0.000	0.000	0.000	0.000	0	362.4	0.000	0.000	0.019	0.019	607
18	1.000	0.000	0.000	0.000	0.000	0	1.280	0.000	0.000	0.000	0.000	0	320.2	0.000	0.000	0.017	0.017	459
19	1.000	0.000	0.000	0.000	0.000	0	1.210	0.000	0.000	0.000	0.000	0	264.4	0.000	0.000	0.015	0.015	339
20	1.590	0.000	0.000	0.000	0.000	0	1.210	0.000	0.000	0.000	0.000	0	177.0	0.000	0.000	0.007	0.007	111
21	3.780	0.000	0.000	0.000	0.000	0	1.210	0.000	0.000	0.000	0.000	0	201.7	0.000	0.000	0.020	0.020	343
22	5.639	0.000	0.000	0.000	0.000	0	2.334	0.000	0.000	0.000	0.000	0	240.5	0.000	0.000	0.010	0.010	209
23	3.889	0.000	0.000	0.000	0.000	0	1.590	0.000	0.000	0.000	0.000	0	131.6	0.000	0.000	0.005	0.005	57
24	3.244	0.000	0.000	0.000	0.000	0	1.590	0.000	0.000	0.000	0.000	0	100.3	0.000	0.000	0.005	0.005	39
25	3.925	0.000	0.000	0.000	0.000	0	18.57	0.000	0.000	0.000	0.000	0	119.6	0.000	0.000	0.005	0.005	49
26	7.049	0.000	0.000	0.000	0.000	0	109.0	0.000	0.000	0.005	0.005	47	86.97	0.000	0.000	0.004	0.004	32
27	51.03	0.000	0.000	0.000	0.000	0	430.8	0.000	0.001	0.080	0.081	3011	65.54	0.000	0.000	0.004	0.004	23
28	30.21	0.000	0.000	0.000	0.000	0	2250	0.013	0.000	0.076	0.089	17261	47.08	0.000	0.000	0.004	0.004	16
29	7.799	0.000	0.000	0.000	0.000	0	949.2	0.000	0.000	0.068	0.068	5593	58.27	0.000	0.000	0.005	0.005	26
30	6.835	0.000	0.000	0.000	0.000	0	1426	0.012	0.003	0.070	0.085	10471	68.05	0.000	0.000	0.006	0.006	36
31							704.1	0.000	0.000	0.069	0.069	4197	61.85	0.000	0.000	0.006	0.006	30
Ten Daily Mean																		
Ten Daily I	1.503	0.000	0.000	0.000	0.000	0	3.768	0.000	0.000	0.000	0.000	0	497.4	0.000	0.000	0.044	0.044	3123
Ten Daily II	1.143	0.000	0.000	0.000	0.000	0	1.638	0.000	0.000	0.000	0.000	0	326.1	0.000	0.000	0.016	0.016	477
Ten Daily III	12.34	0.000	0.000	0.000	0.000	0	535.8	0.002	0.000	0.033	0.036	3689	107.4	0.000	0.000	0.007	0.007	78
Monthly Total						**0**						**40581**						**36852**

Annual Sediment Load (Metric Tonnes) : 78848

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	113.5	0.000	0.000	0.000	0.000	4	17.00	0.000	0.000	0.009	0.009	13	6.630	0.000	0.000	0.006	0.006	3
2	60.64	0.000	0.000	0.001	0.001	5	16.53	0.000	0.000	0.008	0.008	11	5.699	0.000	0.000	0.005	0.005	2
3	108.7	0.000	0.000	0.002	0.002	19	16.21	0.000	0.000	0.002	0.002	3	5.604	0.000	0.000	0.005	0.005	2
4	27.29	0.000	0.000	0.005	0.005	12	14.68	0.000	0.000	0.002	0.002	3	6.365	0.000	0.000	0.006	0.006	3
5	26.38	0.000	0.000	0.003	0.003	8	15.17	0.000	0.000	0.003	0.003	4	6.465	0.000	0.000	0.006	0.006	3
6	31.62	0.000	0.000	0.004	0.004	11	15.18	0.000	0.000	0.007	0.007	9	6.921	0.000	0.000	0.006	0.006	4
7	23.01	0.000	0.000	0.005	0.005	10	15.01	0.000	0.000	0.005	0.005	6	6.662	0.000	0.000	0.006	0.006	3
8	22.29	0.000	0.000	0.003	0.003	5	13.51	0.000	0.000	0.003	0.003	4	7.050	0.000	0.000	0.005	0.005	3
9	21.44	0.000	0.000	0.011	0.011	20	14.60	0.000	0.000	0.004	0.004	5	7.957	0.000	0.000	0.005	0.005	3
10	20.97	0.000	0.000	0.005	0.005	10	14.42	0.000	0.000	0.004	0.004	5	8.133	0.000	0.000	0.006	0.006	4
11	25.01	0.000	0.000	0.006	0.006	13	12.38	0.000	0.000	0.002	0.002	2	8.360	0.000	0.000	0.004	0.004	3
12	25.01	0.000	0.000	0.006	0.006	13	13.88	0.000	0.000	0.004	0.004	4	8.360	0.000	0.000	0.004	0.004	3
13	25.01	0.000	0.000	0.006	0.006	12	13.26	0.000	0.000	0.003	0.003	4	6.630	0.000	0.000	0.004	0.004	2
14	19.91	0.000	0.000	0.007	0.007	12	12.18	0.000	0.000	0.003	0.003	3	5.470	0.000	0.000	0.004	0.004	2
15	19.99	0.000	0.000	0.019	0.019	32	11.69	0.000	0.000	0.002	0.002	2	5.470	0.000	0.000	0.005	0.005	2
16	20.78	0.000	0.000	0.005	0.005	9	11.12	0.000	0.000	0.003	0.003	3	5.446	0.000	0.000	0.008	0.008	4
17	26.59	0.000	0.000	0.005	0.005	11	10.75	0.000	0.000	0.005	0.005	4	5.370	0.000	0.000	0.007	0.007	3
18	21.63	0.000	0.000	0.002	0.002	4	9.770	0.000	0.000	0.003	0.003	3	5.796	0.000	0.000	0.007	0.007	4
19	21.64	0.000	0.000	0.003	0.003	5	10.05	0.000	0.000	0.005	0.005	5	5.897	0.000	0.000	0.007	0.007	4
20	32.49	0.000	0.000	0.004	0.004	11	9.434	0.000	0.000	0.005	0.005	4	5.934	0.000	0.000	0.007	0.007	4
21	125.5	0.000	0.000	0.014	0.014	146	9.147	0.000	0.000	0.006	0.006	5	6.097	0.000	0.000	0.007	0.007	4
22	39.94	0.000	0.000	0.011	0.011	36	8.820	0.000	0.000	0.003	0.003	2	7.050	0.000	0.000	0.008	0.008	5
23	40.93	0.000	0.000	0.007	0.007	25	8.432	0.000	0.000	0.002	0.002	2	6.372	0.000	0.000	0.016	0.016	9
24	188.0	0.000	0.000	0.003	0.003	49	7.910	0.000	0.000	0.002	0.002	1	7.467	0.000	0.000	0.009	0.009	6
25	73.23	0.000	0.000	0.001	0.001	7	7.470	0.000	0.000	0.002	0.002	1	8.360	0.000	0.000	0.009	0.009	7
26	46.03	0.000	0.000	0.003	0.003	14	7.909	0.000	0.000	0.001	0.001	1	7.564	0.000	0.000	0.007	0.007	5
27	46.03	0.000	0.000	0.003	0.003	13	7.712	0.000	0.000	0.000	0.000	0	10.81	0.000	0.000	0.009	0.009	8
28	23.03	0.000	0.000	0.010	0.010	20	7.349	0.000	0.000	0.000	0.000	0	11.23	0.000	0.000	0.009	0.009	9
29	19.04	0.000	0.000	0.008	0.008	12	6.997	0.000	0.000	0.007	0.007	4	7.470	0.000	0.000	0.008	0.008	5
30	17.29	0.000	0.000	0.005	0.005	7	6.576	0.000	0.000	0.006	0.006	3	5.991	0.000	0.000	0.003	0.003	1
31							6.646	0.000	0.000	0.011	0.011	6						
Ten Daily Mean																		
Ten Daily I	45.59	0.000	0.000	0.004	0.004	10	15.23	0.000	0.000	0.005	0.005	6	6.749	0.000	0.000	0.006	0.006	3
Ten Daily II	23.81	0.000	0.000	0.006	0.006	12	11.45	0.000	0.000	0.003	0.003	3	6.273	0.000	0.000	0.006	0.006	3
Ten Daily III	61.90	0.000	0.000	0.006	0.006	33	7.724	0.000	0.000	0.004	0.004	2	7.842	0.000	0.000	0.008	0.008	6
Monthly Total						**554**						**123**						**120**

Annual Sediment Load (Metric Tonnes) : 78848

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	3.351	0.000	0.000	0.003	0.003	1	16.73	0.000	0.000	0.015	0.015	22	16.14	0.000	0.000	0.001	0.001	2
2	3.667	0.000	0.000	0.003	0.003	1	16.30	0.000	0.000	0.015	0.015	22	15.32	0.000	0.000	0.011	0.011	15
3	3.800	0.000	0.000	0.003	0.003	1	19.17	0.000	0.000	0.017	0.017	28	17.29	0.000	0.000	0.001	0.001	2
4	3.655	0.000	0.000	0.003	0.003	1	16.11	0.000	0.000	0.003	0.003	5	16.53	0.000	0.000	0.001	0.001	2
5	5.276	0.000	0.000	0.004	0.004	2	17.12	0.000	0.000	0.003	0.003	4	15.04	0.000	0.000	0.001	0.001	1
6	4.420	0.000	0.000	0.004	0.004	2	17.12	0.000	0.000	0.003	0.003	5	15.37	0.000	0.000	0.001	0.001	2
7	5.151	0.000	0.000	0.003	0.003	2	17.09	0.000	0.000	0.003	0.003	4	19.86	0.000	0.000	0.002	0.002	3
8	5.103	0.000	0.000	0.003	0.003	1	16.97	0.000	0.000	0.003	0.003	5	17.70	0.000	0.000	0.002	0.002	3
9	1.920	0.000	0.000	0.001	0.001	0	19.86	0.000	0.000	0.003	0.003	6	17.69	0.000	0.000	0.002	0.002	2
10	1.920	0.000	0.000	0.001	0.001	0	19.17	0.000	0.000	0.004	0.004	6	15.88	0.000	0.000	0.001	0.001	2
11	1.920	0.000	0.000	0.001	0.001	0	16.01	0.000	0.000	0.001	0.001	2	14.17	0.000	0.000	0.001	0.001	1
12	1.710	0.000	0.000	0.001	0.001	0	13.04	0.000	0.000	0.001	0.001	1	13.09	0.000	0.000	0.001	0.001	1
13	21.27	0.000	0.000	0.016	0.016	29	12.65	0.000	0.000	0.001	0.001	1	12.38	0.000	0.000	0.001	0.001	1
14	15.30	0.000	0.000	0.016	0.016	21	23.48	0.000	0.000	0.002	0.002	5	11.83	0.000	0.000	0.001	0.001	1
15	11.71	0.000	0.000	0.014	0.014	14	18.92	0.000	0.000	0.002	0.002	3	12.23	0.000	0.000	0.001	0.001	1
16	11.34	0.000	0.000	0.012	0.012	12	13.86	0.000	0.000	0.002	0.002	2	13.83	0.000	0.000	0.001	0.001	1
17	11.07	0.000	0.000	0.011	0.011	11	12.94	0.000	0.000	0.012	0.012	13	15.07	0.000	0.000	0.001	0.001	1
18	10.86	0.000	0.000	0.010	0.010	9	11.85	0.000	0.000	0.001	0.001	1	13.42	0.000	0.000	0.001	0.001	1
19	11.81	0.000	0.000	0.010	0.010	10	11.38	0.000	0.000	0.001	0.001	1	9.165	0.000	0.000	0.000	0.000	0
20	16.53	0.000	0.000	0.014	0.014	20	13.52	0.000	0.000	0.001	0.001	1	8.657	0.000	0.000	0.001	0.001	0
21	21.27	0.000	0.000	0.015	0.015	28	13.23	0.000	0.000	0.001	0.001	1	10.78	0.000	0.000	0.001	0.001	1
22	20.56	0.000	0.000	0.016	0.016	28	20.11	0.000	0.000	0.001	0.001	2	14.94	0.000	0.000	0.003	0.003	3
23	19.17	0.000	0.000	0.018	0.018	30	17.85	0.000	0.000	0.001	0.001	2	14.45	0.000	0.000	0.003	0.003	3
24	17.17	0.000	0.000	0.017	0.017	25	16.53	0.000	0.000	0.001	0.001	2	10.70	0.000	0.000	0.001	0.001	1
25	17.17	0.000	0.000	0.016	0.016	24	11.60	0.000	0.000	0.002	0.002	2	11.15	0.000	0.000	0.001	0.001	1
26	17.17	0.000	0.000	0.016	0.016	24	13.51	0.000	0.000	0.002	0.002	2	11.48	0.000	0.000	0.001	0.001	1
27	17.17	0.000	0.000	0.015	0.015	22	19.71	0.000	0.000	0.002	0.002	3	10.99	0.000	0.000	0.001	0.001	1
28	16.53	0.000	0.000	0.014	0.014	20	19.30	0.000	0.000	0.002	0.002	3	9.770	0.000	0.000	0.001	0.001	1
29	16.53	0.000	0.000	0.014	0.014	20	21.27	0.000	0.000	0.002	0.002	4	9.770	0.000	0.000	0.001	0.001	1
30	16.85	0.000	0.000	0.014	0.014	20	19.86	0.000	0.000	0.002	0.002	3						
31	17.10	0.000	0.000	0.015	0.015	22	19.86	0.000	0.000	0.002	0.002	4						
Ten Daily Mean																		
Ten Daily I	3.826	0.000	0.000	0.003	0.003	1	17.56	0.000	0.000	0.007	0.007	11	16.68	0.000	0.000	0.002	0.002	3
Ten Daily II	11.35	0.000	0.000	0.011	0.011	13	14.76	0.000	0.000	0.003	0.003	3	12.38	0.000	0.000	0.001	0.001	1
Ten Daily III	17.88	0.000	0.000	0.015	0.015	24	17.53	0.000	0.000	0.002	0.002	2	11.56	0.000	0.000	0.001	0.001	1
Monthly Total						**400**						**165**						**52**

Annual Sediment Load (Metric Tonnes) : 78848

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	19.59	0.000	0.000	0.000	0.000	0	9.312	0.000	0.000	0.000	0.000	0	6.630	0.000	0.000	0.000	0.000	0
2	12.50	0.000	0.000	0.000	0.000	0	9.102	0.000	0.000	0.000	0.000	0	6.583	0.000	0.000	0.000	0.000	0
3	11.74	0.000	0.000	0.000	0.000	0	7.910	0.000	0.000	0.000	0.000	0	6.259	0.000	0.000	0.000	0.000	0
4	22.73	0.000	0.000	0.000	0.000	0	7.470	0.000	0.000	0.000	0.000	0	6.552	0.000	0.000	0.000	0.000	0
5	15.90	0.000	0.000	0.000	0.000	0	8.734	0.000	0.000	0.000	0.000	0	6.750	0.000	0.000	0.000	0.000	0
6	15.29	0.000	0.000	0.000	0.000	0	7.470	0.000	0.000	0.000	0.000	0	6.147	0.000	0.000	0.000	0.000	0
7	14.68	0.000	0.000	0.000	0.000	0	8.523	0.000	0.000	0.000	0.000	0	5.445	0.000	0.000	0.000	0.000	0
8	13.19	0.000	0.000	0.000	0.000	0	8.149	0.000	0.000	0.000	0.000	0	5.110	0.000	0.000	0.000	0.000	0
9	14.09	0.000	0.000	0.000	0.000	0	7.585	0.000	0.000	0.000	0.000	0	5.592	0.000	0.000	0.000	0.000	0
10	14.68	0.000	0.000	0.000	0.000	0	6.230	0.000	0.000	0.000	0.000	0	5.851	0.000	0.000	0.000	0.000	0
11	15.60	0.000	0.000	0.000	0.000	0	6.280	0.000	0.000	0.000	0.000	0	5.573	0.000	0.000	0.000	0.000	0
12	14.42	0.000	0.000	0.000	0.000	0	6.114	0.000	0.000	0.000	0.000	0	5.705	0.000	0.000	0.000	0.000	0
13	14.68	0.000	0.000	0.000	0.000	0	5.981	0.000	0.000	0.000	0.000	0	6.025	0.000	0.000	0.000	0.000	0
14	13.51	0.000	0.000	0.000	0.000	0	6.230	0.000	0.000	0.000	0.000	0	5.850	0.000	0.000	0.000	0.000	0
15	13.51	0.000	0.000	0.000	0.000	0	5.957	0.000	0.000	0.000	0.000	0	5.470	0.000	0.000	0.000	0.000	0
16	11.83	0.000	0.000	0.000	0.000	0	4.915	0.000	0.000	0.000	0.000	0	5.214	0.000	0.000	0.000	0.000	0
17	11.83	0.000	0.000	0.000	0.000	0	5.470	0.000	0.000	0.000	0.000	0	5.506	0.000	0.000	0.000	0.000	0
18	12.38	0.000	0.000	0.000	0.000	0	4.941	0.000	0.000	0.000	0.000	0	5.850	0.000	0.000	0.000	0.000	0
19	12.38	0.000	0.000	0.000	0.000	0	8.603	0.000	0.000	0.000	0.000	0	5.626	0.000	0.000	0.000	0.000	0
20	11.83	0.000	0.000	0.000	0.000	0	7.470	0.000	0.000	0.000	0.000	0	5.350	0.000	0.000	0.000	0.000	0
21	11.83	0.000	0.000	0.000	0.000	0	8.455	0.000	0.000	0.000	0.000	0	5.110	0.000	0.000	0.000	0.000	0
22	11.30	0.000	0.000	0.000	0.000	0	7.569	0.000	0.000	0.000	0.000	0	5.110	0.000	0.000	0.000	0.000	0
23	10.78	0.000	0.000	0.000	0.000	0	5.749	0.000	0.000	0.000	0.000	0	4.942	0.000	0.000	0.000	0.000	0
24	10.27	0.000	0.000	0.000	0.000	0	6.230	0.000	0.000	0.000	0.000	0	4.704	0.000	0.000	0.000	0.000	0
25	9.770	0.000	0.000	0.000	0.000	0	8.432	0.000	0.000	0.000	0.000	0	4.498	0.000	0.000	0.000	0.000	0
26	9.290	0.000	0.000	0.000	0.000	0	8.081	0.000	0.000	0.000	0.000	0	4.344	0.000	0.000	0.000	0.000	0
27	8.820	0.000	0.000	0.000	0.000	0	7.869	0.000	0.000	0.000	0.000	0	4.284	0.000	0.000	0.000	0.000	0
28	10.20	0.000	0.000	0.000	0.000	0	7.869	0.000	0.000	0.000	0.000	0	3.780	0.000	0.000	0.000	0.000	0
29	8.820	0.000	0.000	0.000	0.000	0	7.038	0.000	0.000	0.000	0.000	0	3.180	0.000	0.000	0.000	0.000	0
30	9.775	0.000	0.000	0.000	0.000	0	6.720	0.000	0.000	0.000	0.000	0	1.920	0.000	0.000	0.000	0.000	0
31	8.360	0.000	0.000	0.000	0.000	0							1.920					
Ten Daily Mean																		
Ten Daily I	15.44	0.000	0.000	0.000	0.000	0	8.048	0.000	0.000	0.000	0.000	0	6.092	0.000	0.000	0.000	0.000	0
Ten Daily II	13.20	0.000	0.000	0.000	0.000	0	6.196	0.000	0.000	0.000	0.000	0	5.617	0.000	0.000	0.000	0.000	0
Ten Daily III	9.929	0.000	0.000	0.000	0.000	0	7.401	0.000	0.000	0.000	0.000	0	3.981	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 78848

Annual Sediment Load for period : 2005-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

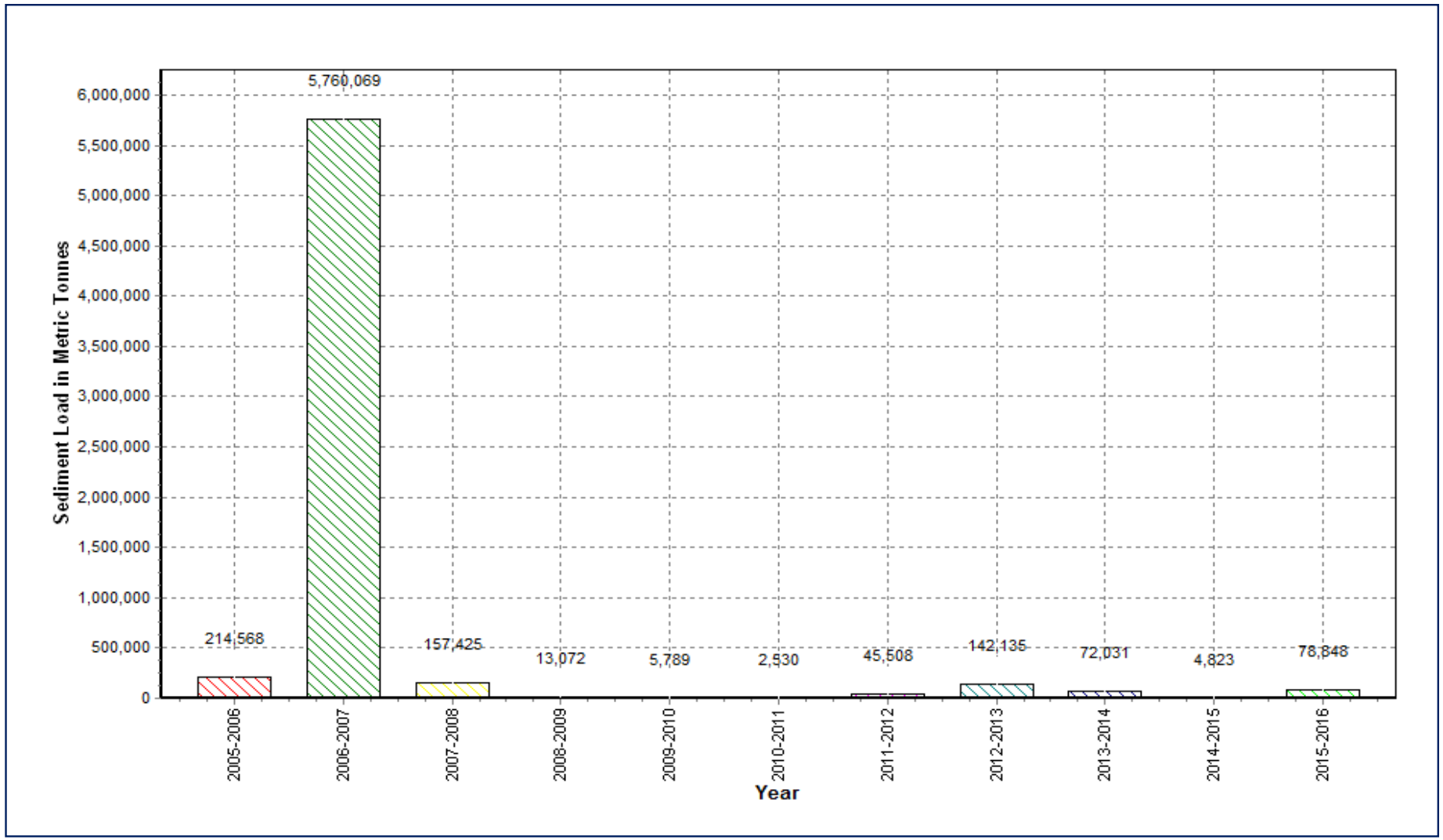
Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	214390	178	214568	930
2006-2007	5759652	418	5760069	10946
2007-2008	157170	255	157425	1600
2008-2009	13064	8	13072	314
2009-2010	5751	38	5789	552
2010-2011	2525	5	2530	407
2011-2012	45508	0	45508	3777
2012-2013	142133	3	142135	2949
2013-2014	72031	0	72031	3003
2014-2015	4811	12	4823	1360
2015-2016	78230	618	78848	1678

Annual Sediment Load for the period: 2005-2016

Station Name : Mahi at Paderdibadi (01 02 13 006) **Division : Mahi Division, Gandhinagar**

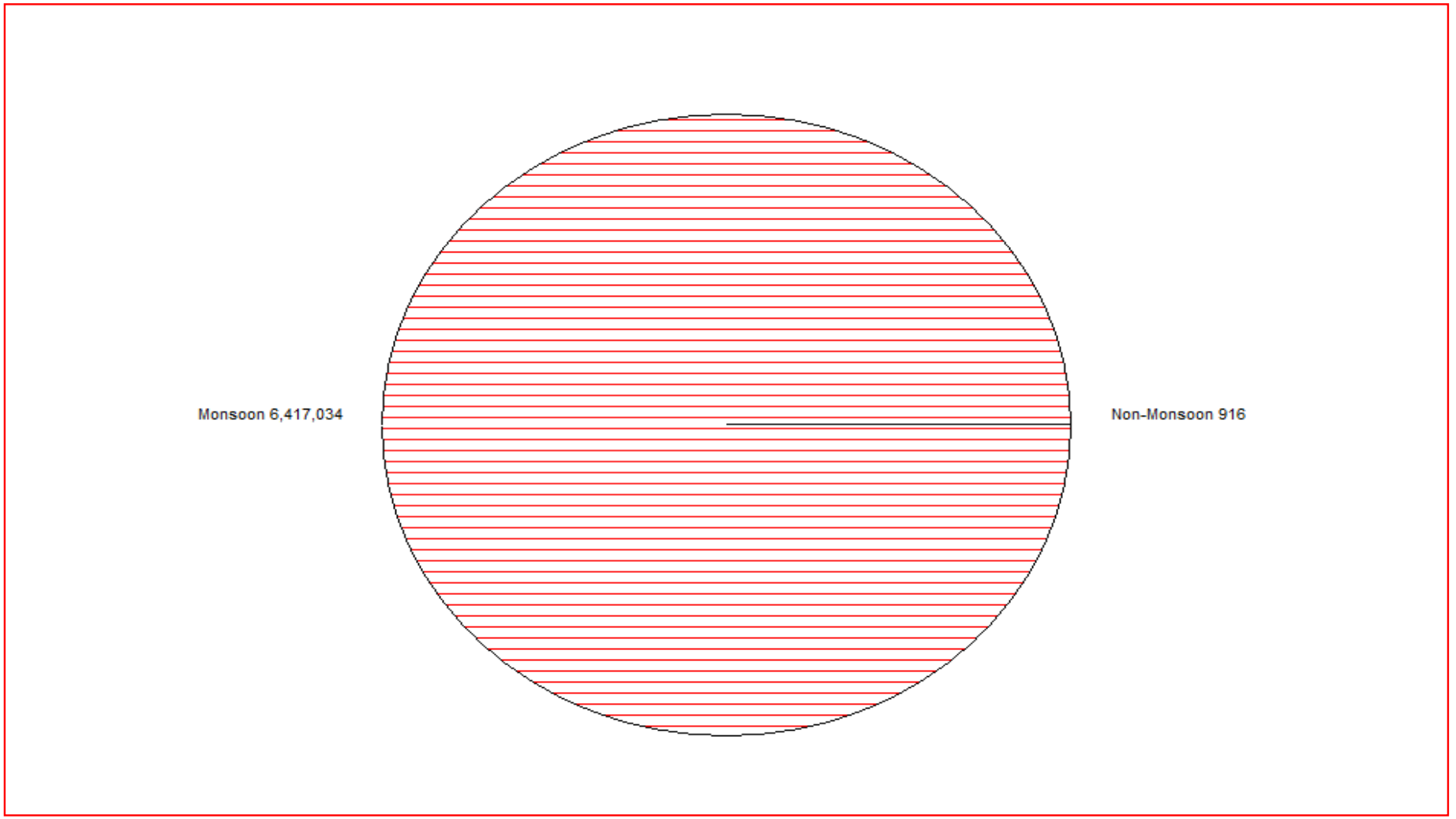
Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Mahi at Paderdibadi (01 02 13 006)
Local River : Mahi

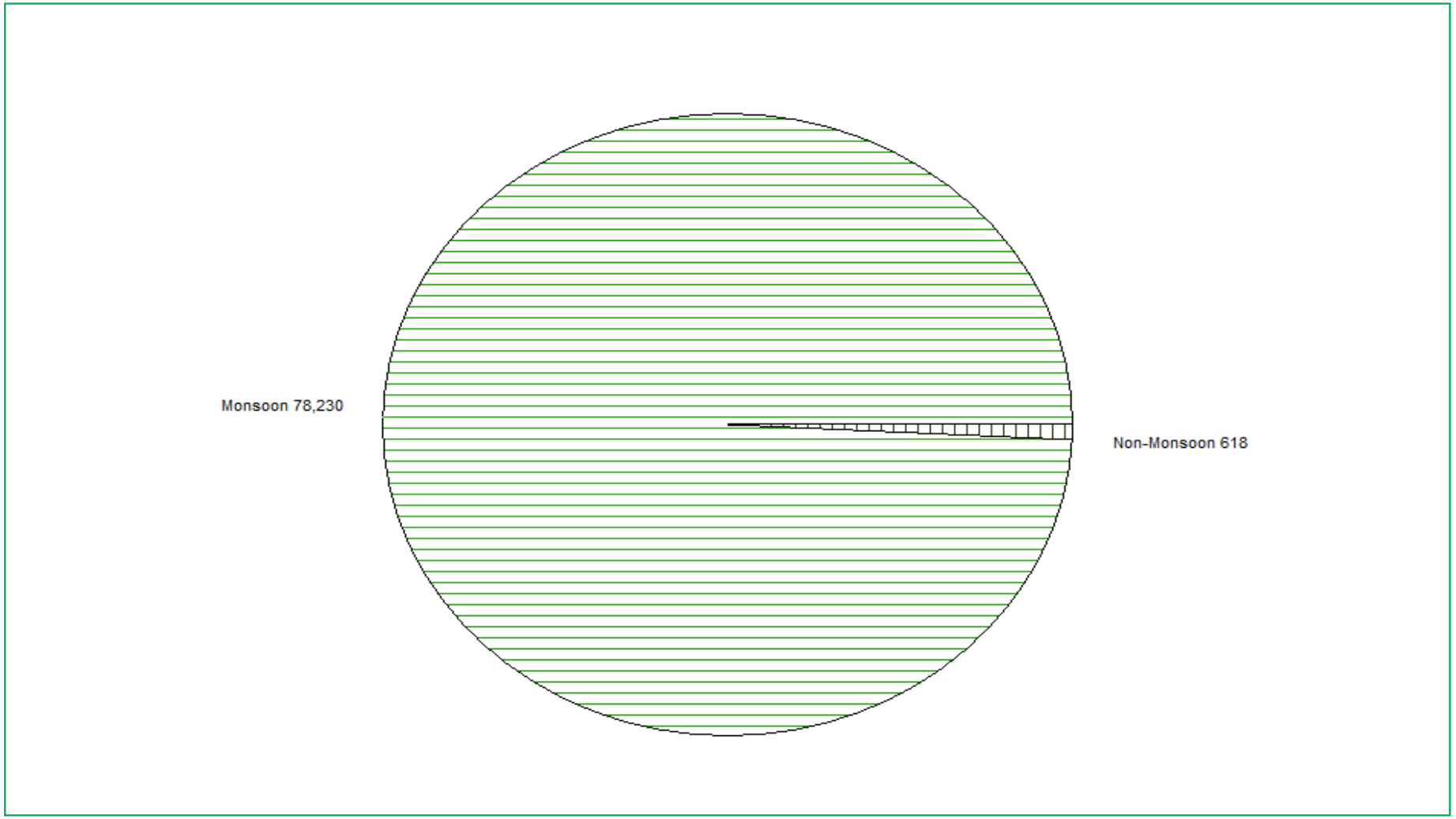
Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Mahi at Paderdibadi (01 02 13 006)
Local River : Mahi

Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



HISTORY SHEET

		Water Year	**: 2015-16**
Site	**: Mahi at Khanpur**	**Code**	**: 01 02 13 012**
State	: Gujarat	District	Anand
Basin	: Mahi	Independent River	: Mahi
Tributary	: Mahi	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Mahi
Division	: Mahi Division, Gandhinagar	Sub-Division	: Mahi Sub Divn., Kadana
Drainage Area	: 32510 Sq. Km.	Bank	: Right
Latitude	: 22°31'55" N	Longitude	: 73°08'27" E
Zero of Gauge (m)	: 8.22 (m.s.l)	21-12-1978	
	Opening Date	Closing Date	
Gauge	: 21-12-1978		
Discharge	: 21-12-1978		
Sediment	: 01-05-1988		
Water Quality	: 01-01-1979		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Khanpur (01 02 13 012) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	11.98	0.000	0.000	0.000	0.000	0	42.22	0.000	0.000	0.000	0.000	0	1087	0.000	0.000	0.070	0.070	6611
2	13.07	0.000	0.000	0.000	0.000	0	25.84	0.000	0.000	0.000	0.000	0	549.8	0.000	0.000	0.036	0.036	1691
3	12.34	0.000	0.000	0.000	0.000	0	19.09	0.000	0.000	0.000	0.000	0	483.9	0.000	0.000	0.013	0.013	556
4	12.27	0.000	0.000	0.000	0.000	0	17.40	0.000	0.000	0.000	0.000	0	584.2	0.000	0.000	0.013	0.013	646
5	14.32	0.000	0.000	0.000	0.000	0	15.41	0.000	0.000	0.000	0.000	0	554.5	0.000	0.000	0.010	0.010	498
6	15.12	0.000	0.000	0.000	0.000	0	14.77	0.000	0.000	0.000	0.000	0	673.4	0.000	0.000	0.023	0.023	1356
7	13.46	0.000	0.000	0.000	0.000	0	17.77	0.000	0.000	0.000	0.000	0	1339	0.000	0.000	0.022	0.022	2569
8	14.61	0.000	0.000	0.000	0.000	0	17.98	0.000	0.000	0.000	0.000	0	627.6	0.000	0.000	0.012	0.012	667
9	14.06	0.000	0.000	0.000	0.000	0	16.48	0.000	0.000	0.000	0.000	0	355.4	0.000	0.000	0.007	0.007	200
10	14.02	0.000	0.000	0.000	0.000	0	15.24	0.000	0.000	0.000	0.000	0	234.3	0.000	0.000	0.010	0.010	206
11	14.18	0.000	0.000	0.000	0.000	0	15.20	0.000	0.000	0.000	0.000	0	138.9	0.000	0.000	0.005	0.005	59
12	14.54	0.000	0.000	0.000	0.000	0	28.34	0.000	0.000	0.000	0.000	0	87.14	0.000	0.000	0.006	0.006	44
13	15.56	0.000	0.000	0.000	0.000	0	28.38	0.000	0.000	0.000	0.000	0	558.8	0.000	0.000	0.008	0.008	377
14	15.41	0.000	0.000	0.000	0.000	0	33.21	0.000	0.000	0.000	0.000	0	582.9	0.000	0.000	0.008	0.008	418
15	16.73	0.000	0.000	0.000	0.000	0	41.18	0.000	0.000	0.000	0.000	0	643.7	0.000	0.000	0.001	0.001	67
16	16.49	0.000	0.000	0.000	0.000	0	39.71	0.000	0.000	0.000	0.000	0	603.2	0.000	0.000	0.001	0.001	57
17	15.22	0.000	0.000	0.000	0.000	0	25.90	0.000	0.000	0.000	0.000	0	694.4	0.000	0.000	0.002	0.002	138
18	15.34	0.000	0.000	0.000	0.000	0	22.99	0.000	0.000	0.000	0.000	0	608.8	0.000	0.000	0.004	0.004	226
19	15.07	0.000	0.000	0.000	0.000	0	19.00	0.000	0.000	0.000	0.000	0	344.4	0.000	0.000	0.001	0.001	27
20	15.11	0.000	0.000	0.000	0.000	0	18.03	0.000	0.000	0.000	0.000	0	636.5	0.000	0.000	0.002	0.002	88
21	14.09	0.000	0.000	0.000	0.000	0	19.28	0.000	0.000	0.000	0.000	0	468.4	0.000	0.000	0.001	0.001	32
22	14.43	0.000	0.000	0.000	0.000	0	26.86	0.000	0.000	0.000	0.000	0	318.2	0.000	0.000	0.001	0.001	22
23	13.20	0.000	0.000	0.000	0.000	0	94.83	0.000	0.000	0.000	0.000	0	208.8	0.000	0.000	0.001	0.001	9
24	17.41	0.000	0.000	0.000	0.000	0	78.73	0.000	0.000	0.000	0.000	0	188.0	0.000	0.000	0.002	0.002	28
25	24.99	0.000	0.000	0.000	0.000	0	91.61	0.000	0.000	0.000	0.000	0	113.2	0.000	0.000	0.000	0.000	0
26	248.7	0.000	0.000	0.003	0.003	64	90.43	0.000	0.000	0.000	0.000	0	75.53	0.000	0.000	0.001	0.001	4
27	143.1	0.000	0.000	0.009	0.009	111	93.21	0.000	0.000	0.000	0.000	0	66.71	0.000	0.000	0.002	0.002	9
28	109.1	0.000	0.000	0.007	0.007	66	339.6	0.000	0.000	0.032	0.032	939	60.09	0.000	0.000	0.001	0.001	3
29	53.92	0.000	0.000	0.000	0.000	0	7091	0.000	0.020	0.111	0.131	80263	59.18	0.000	0.000	0.001	0.001	3
30	43.96	0.000	0.000	0.000	0.000	0	2377	0.000	0.002	0.112	0.114	23412	37.52	0.000	0.000	0.000	0.000	1
31							1405	0.000	0.000	0.026	0.026	3132	29.22	0.000	0.000	0.001	0.001	2
Ten Daily Mean																		
Ten Daily I	13.53	0.000	0.000	0.000	0.000	0	20.22	0.000	0.000	0.000	0.000	0	648.9	0.000	0.000	0.022	0.022	1500
Ten Daily II	15.37	0.000	0.000	0.000	0.000	0	27.19	0.000	0.000	0.000	0.000	0	489.9	0.000	0.000	0.004	0.004	150
Ten Daily III	68.28	0.000	0.000	0.002	0.002	24	1064	0.000	0.002	0.026	0.028	9795	147.7	0.000	0.000	0.001	0.001	10
Monthly Total						**242**						**107746**						**16614**

Annual Sediment Load (Metric Tonnes) : 124721

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Khanpur (01 02 13 012) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	24.62	0.000	0.000	0.001	0.001	1	30.19	0.000	0.000	0.001	0.001	2	16.80	0.000	0.000	0.001	0.001	1
2	24.75	0.000	0.000	0.001	0.001	2	22.16	0.000	0.000	0.001	0.001	1	17.02	0.000	0.000	0.001	0.001	1
3	27.64	0.000	0.000	0.001	0.001	1	20.87	0.000	0.000	0.001	0.001	1	18.66	0.000	0.000	0.001	0.001	1
4	24.49	0.000	0.000	0.000	0.000	0	21.35	0.000	0.000	0.001	0.001	1	17.25	0.000	0.000	0.001	0.001	1
5	24.11	0.000	0.000	0.000	0.000	0	23.74	0.000	0.000	0.002	0.002	4	18.89	0.000	0.000	0.000	0.000	1
6	27.41	0.000	0.000	0.000	0.000	0	24.14	0.000	0.000	0.000	0.000	1	17.15	0.000	0.000	0.001	0.001	1
7	32.43	0.000	0.000	0.000	0.000	1	23.77	0.000	0.000	0.001	0.001	1	17.57	0.000	0.000	0.001	0.001	1
8	22.79	0.000	0.000	0.001	0.001	2	22.61	0.000	0.000	0.001	0.001	2	18.25	0.000	0.000	0.001	0.001	1
9	23.18	0.000	0.000	0.001	0.001	2	23.41	0.000	0.000	0.001	0.001	1	16.85	0.000	0.000	0.000	0.000	0
10	24.48	0.000	0.000	0.001	0.001	2	22.22	0.000	0.000	0.001	0.001	2	17.75	0.000	0.000	0.001	0.001	1
11	23.76	0.000	0.000	0.001	0.001	2	20.55	0.000	0.000	0.001	0.001	1	18.25	0.000	0.000	0.001	0.001	1
12	23.18	0.000	0.000	0.001	0.001	2	22.76	0.000	0.000	0.001	0.001	1	17.55	0.000	0.000	0.001	0.001	1
13	18.25	0.000	0.000	0.001	0.001	2	20.21	0.000	0.000	0.001	0.001	1	19.78	0.000	0.000	0.001	0.001	1
14	19.29	0.000	0.000	0.000	0.000	0	19.16	0.000	0.000	0.000	0.000	0	17.01	0.000	0.000	0.001	0.001	1
15	17.04	0.000	0.000	0.001	0.001	1	22.48	0.000	0.000	0.001	0.001	2	18.25	0.000	0.000	0.001	0.001	1
16	24.36	0.000	0.000	0.000	0.000	0	25.12	0.000	0.000	0.001	0.001	2	17.89	0.000	0.000	0.001	0.001	1
17	27.41	0.000	0.000	0.000	0.000	0	19.83	0.000	0.000	0.001	0.001	2	17.66	0.000	0.000	0.000	0.000	0
18	22.14	0.000	0.000	0.000	0.000	1	18.25	0.000	0.000	0.001	0.001	2	17.95	0.000	0.000	0.000	0.000	0
19	50.78	0.000	0.000	0.001	0.001	5	17.88	0.000	0.000	0.001	0.001	1	15.74	0.000	0.000	0.000	0.000	0
20	136.2	0.000	0.000	0.001	0.001	11	18.24	0.000	0.000	0.001	0.001	1	17.45	0.000	0.000	0.000	0.000	1
21	76.39	0.000	0.000	0.001	0.001	4	17.55	0.000	0.000	0.001	0.001	2	16.69	0.000	0.000	0.001	0.001	1
22	39.59	0.000	0.000	0.001	0.001	3	17.51	0.000	0.000	0.001	0.001	2	17.51	0.000	0.000	0.000	0.000	1
23	40.60	0.000	0.000	0.001	0.001	2	20.19	0.000	0.000	0.001	0.001	1	17.97	0.000	0.000	0.000	0.000	0
24	29.87	0.000	0.000	0.000	0.000	1	19.00	0.000	0.000	0.001	0.001	1	14.94	0.000	0.000	0.001	0.001	1
25	28.34	0.000	0.000	0.000	0.000	1	17.51	0.000	0.000	0.001	0.001	1	17.51	0.000	0.000	0.001	0.001	1
26	24.22	0.000	0.000	0.001	0.001	1	17.22	0.000	0.000	0.000	0.000	1	16.10	0.000	0.000	0.001	0.001	1
27	43.22	0.000	0.000	0.001	0.001	3	19.36	0.000	0.000	0.001	0.001	2	16.29	0.000	0.000	0.001	0.001	1
28	46.03	0.000	0.000	0.000	0.000	2	18.29	0.000	0.000	0.001	0.001	1	16.41	0.000	0.000	0.001	0.001	1
29	36.32	0.000	0.000	0.000	0.000	1	19.63	0.000	0.000	0.001	0.001	1	17.51	0.000	0.000	0.001	0.001	1
30	28.94	0.000	0.000	0.000	0.000	0	19.04	0.000	0.000	0.001	0.001	1	16.64	0.000	0.000	0.001	0.001	1
31							17.13	0.000	0.000	0.001	0.001	1						
Ten Daily Mean																		
Ten Daily I	25.59	0.000	0.000	0.001	0.001	1	23.45	0.000	0.000	0.001	0.001	2	17.62	0.000	0.000	0.001	0.001	1
Ten Daily II	36.24	0.000	0.000	0.001	0.001	2	20.45	0.000	0.000	0.001	0.001	1	17.75	0.000	0.000	0.000	0.000	1
Ten Daily III	39.35	0.000	0.000	0.000	0.000	2	18.40	0.000	0.000	0.001	0.001	1	16.76	0.000	0.000	0.001	0.001	1
Monthly																		
Total						**55**						**42**						**23**

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Annual Sediment Load (Metric Tonnes) : 124721

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Khanpur (01 02 13 012) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	16.95	0.000	0.000	0.000	0.000	0	17.20	0.000	0.000	0.000	0.000	0	16.91	0.000	0.000	0.000	0.000	0
2	17.56	0.000	0.000	0.000	0.000	0	16.83	0.000	0.000	0.000	0.000	0	15.57	0.000	0.000	0.000	0.000	0
3	17.34	0.000	0.000	0.000	0.000	0	16.10	0.000	0.000	0.000	0.000	0	15.53	0.000	0.000	0.000	0.000	0
4	18.19	0.000	0.000	0.000	0.000	0	16.64	0.000	0.000	0.000	0.000	0	15.67	0.000	0.000	0.000	0.000	0
5	17.21	0.000	0.000	0.000	0.000	0	17.79	0.000	0.000	0.000	0.000	0	15.45	0.000	0.000	0.000	0.000	0
6	17.51	0.000	0.000	0.000	0.000	0	17.15	0.000	0.000	0.000	0.000	0	15.47	0.000	0.000	0.000	0.000	0
7	15.92	0.000	0.000	0.000	0.000	0	17.26	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0
8	17.18	0.000	0.000	0.000	0.000	0	17.65	0.000	0.000	0.000	0.000	0	15.58	0.000	0.000	0.000	0.000	0
9	16.70	0.000	0.000	0.000	0.000	0	17.45	0.000	0.000	0.000	0.000	0	14.39	0.000	0.000	0.000	0.000	0
10	16.62	0.000	0.000	0.000	0.000	0	16.10	0.000	0.000	0.000	0.000	0	13.70	0.000	0.000	0.000	0.000	0
11	16.15	0.000	0.000	0.000	0.000	0	16.99	0.000	0.000	0.000	0.000	0	13.44	0.000	0.000	0.000	0.000	0
12	15.82	0.000	0.000	0.000	0.000	0	17.53	0.000	0.000	0.000	0.000	0	13.89	0.000	0.000	0.000	0.000	0
13	16.80	0.000	0.000	0.000	0.000	0	16.40	0.000	0.000	0.000	0.000	0	13.77	0.000	0.000	0.000	0.000	0
14	15.71	0.000	0.000	0.000	0.000	0	16.10	0.000	0.000	0.000	0.000	0	15.41	0.000	0.000	0.000	0.000	0
15	15.64	0.000	0.000	0.000	0.000	0	16.66	0.000	0.000	0.000	0.000	0	15.17	0.000	0.000	0.000	0.000	0
16	16.62	0.000	0.000	0.000	0.000	0	17.11	0.000	0.000	0.000	0.000	0	18.40	0.000	0.000	0.000	0.000	0
17	16.83	0.000	0.000	0.000	0.000	0	16.10	0.000	0.000	0.000	0.000	0	17.49	0.000	0.000	0.000	0.000	0
18	16.67	0.000	0.000	0.000	0.000	0	15.87	0.000	0.000	0.000	0.000	0	17.05	0.000	0.000	0.000	0.000	0
19	16.95	0.000	0.000	0.000	0.000	0	16.27	0.000	0.000	0.000	0.000	0	16.97	0.000	0.000	0.000	0.000	0
20	16.10	0.000	0.000	0.000	0.000	0	16.11	0.000	0.000	0.000	0.000	0	16.86	0.000	0.000	0.000	0.000	0
21	16.96	0.000	0.000	0.000	0.000	0	16.16	0.000	0.000	0.000	0.000	0	16.80	0.000	0.000	0.000	0.000	0
22	16.87	0.000	0.000	0.000	0.000	0	16.38	0.000	0.000	0.000	0.000	0	17.03	0.000	0.000	0.000	0.000	0
23	16.86	0.000	0.000	0.000	0.000	0	16.04	0.000	0.000	0.000	0.000	0	16.36	0.000	0.000	0.000	0.000	0
24	16.10	0.000	0.000	0.000	0.000	0	15.41	0.000	0.000	0.000	0.000	0	16.27	0.000	0.000	0.000	0.000	0
25	16.10	0.000	0.000	0.000	0.000	0	16.12	0.000	0.000	0.000	0.000	0	17.07	0.000	0.000	0.000	0.000	0
26	16.90	0.000	0.000	0.000	0.000	0	15.41	0.000	0.000	0.000	0.000	0	17.25	0.000	0.000	0.000	0.000	0
27	16.10	0.000	0.000	0.000	0.000	0	16.93	0.000	0.000	0.000	0.000	0	16.23	0.000	0.000	0.000	0.000	0
28	16.97	0.000	0.000	0.000	0.000	0	17.07	0.000	0.000	0.000	0.000	0	16.80	0.000	0.000	0.000	0.000	0
29	17.67	0.000	0.000	0.000	0.000	0	16.56	0.000	0.000	0.000	0.000	0	15.51	0.000	0.000	0.000	0.000	0
30	16.93	0.000	0.000	0.000	0.000	0	16.78	0.000	0.000	0.000	0.000	0						
31	17.45	0.000	0.000	0.000	0.000	0	15.41	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	17.12	0.000	0.000	0.000	0.000	0	17.02	0.000	0.000	0.000	0.000	0	15.30	0.000	0.000	0.000	0.000	0
Ten Daily II	16.33	0.000	0.000	0.000	0.000	0	16.51	0.000	0.000	0.000	0.000	0	15.84	0.000	0.000	0.000	0.000	0
Ten Daily III	16.81	0.000	0.000	0.000	0.000	0	16.21	0.000	0.000	0.000	0.000	0	16.59	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 124721

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mahi at Khanpur (01 02 13 012) **Division : Mahi Division, Gandhinagar**

Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

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	14.57	0.000	0.000	0.000	0.000	0	17.36	0.000	0.000	0.000	0.000	0	12.84	0.000	0.000	0.000	0.000	0
2	14.18	0.000	0.000	0.000	0.000	0	16.81	0.000	0.000	0.000	0.000	0	12.34	0.000	0.000	0.000	0.000	0
3	15.43	0.000	0.000	0.000	0.000	0	16.10	0.000	0.000	0.000	0.000	0	12.34	0.000	0.000	0.000	0.000	0
4	15.65	0.000	0.000	0.000	0.000	0	16.81	0.000	0.000	0.000	0.000	0	12.49	0.000	0.000	0.000	0.000	0
5	13.88	0.000	0.000	0.000	0.000	0	16.37	0.000	0.000	0.000	0.000	0	12.41	0.000	0.000	0.000	0.000	0
6	14.74	0.000	0.000	0.000	0.000	0	16.47	0.000	0.000	0.000	0.000	0	13.35	0.000	0.000	0.000	0.000	0
7	13.06	0.000	0.000	0.000	0.000	0	16.76	0.000	0.000	0.000	0.000	0	13.16	0.000	0.000	0.000	0.000	0
8	14.04	0.000	0.000	0.000	0.000	0	15.12	0.000	0.000	0.000	0.000	0	14.09	0.000	0.000	0.000	0.000	0
9	15.14	0.000	0.000	0.000	0.000	0	12.79	0.000	0.000	0.000	0.000	0	14.95	0.000	0.000	0.000	0.000	0
10	15.52	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0	14.95	0.000	0.000	0.000	0.000	0
11	16.28	0.000	0.000	0.000	0.000	0	15.17	0.000	0.000	0.000	0.000	0	18.00	0.000	0.000	0.000	0.000	0
12	16.30	0.000	0.000	0.000	0.000	0	14.78	0.000	0.000	0.000	0.000	0	17.45	0.000	0.000	0.000	0.000	0
13	16.80	0.000	0.000	0.000	0.000	0	14.83	0.000	0.000	0.000	0.000	0	15.92	0.000	0.000	0.000	0.000	0
14	16.30	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0	14.04	0.000	0.000	0.000	0.000	0
15	16.24	0.000	0.000	0.000	0.000	0	15.04	0.000	0.000	0.000	0.000	0	14.09	0.000	0.000	0.000	0.000	0
16	16.42	0.000	0.000	0.000	0.000	0	14.97	0.000	0.000	0.000	0.000	0	14.07	0.000	0.000	0.000	0.000	0
17	15.94	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0	10.55	0.000	0.000	0.000	0.000	0
18	15.37	0.000	0.000	0.000	0.000	0	14.44	0.000	0.000	0.000	0.000	0	10.59	0.000	0.000	0.000	0.000	0
19	14.74	0.000	0.000	0.000	0.000	0	14.17	0.000	0.000	0.000	0.000	0	9.978	0.000	0.000	0.000	0.000	0
20	16.10	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0	10.36	0.000	0.000	0.000	0.000	0
21	15.22	0.000	0.000	0.000	0.000	0	14.22	0.000	0.000	0.000	0.000	0	9.970	0.000	0.000	0.000	0.000	0
22	15.29	0.000	0.000	0.000	0.000	0	14.50	0.000	0.000	0.000	0.000	0	11.07	0.000	0.000	0.000	0.000	0
23	15.06	0.000	0.000	0.000	0.000	0	14.00	0.000	0.000	0.000	0.000	0	13.11	0.000	0.000	0.000	0.000	0
24	16.10	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0	13.46	0.000	0.000	0.000	0.000	0
25	16.10	0.000	0.000	0.000	0.000	0	13.99	0.000	0.000	0.000	0.000	0	13.66	0.000	0.000	0.000	0.000	0
26	15.48	0.000	0.000	0.000	0.000	0	10.85	0.000	0.000	0.000	0.000	0	13.29	0.000	0.000	0.000	0.000	0
27	16.10	0.000	0.000	0.000	0.000	0	11.45	0.000	0.000	0.000	0.000	0	13.16	0.000	0.000	0.000	0.000	0
28	15.90	0.000	0.000	0.000	0.000	0	11.04	0.000	0.000	0.000	0.000	0	13.29	0.000	0.000	0.000	0.000	0
29	16.15	0.000	0.000	0.000	0.000	0	11.30	0.000	0.000	0.000	0.000	0	14.74	0.000	0.000	0.000	0.000	0
30	16.28	0.000	0.000	0.000	0.000	0	12.40	0.000	0.000	0.000	0.000	0	13.59	0.000	0.000	0.000	0.000	0
31	16.38	0.000	0.000	0.000	0.000	0							13.49	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	14.62	0.000	0.000	0.000	0.000	0	15.93	0.000	0.000	0.000	0.000	0	13.29	0.000	0.000	0.000	0.000	0
Ten Daily II	16.05	0.000	0.000	0.000	0.000	0	14.76	0.000	0.000	0.000	0.000	0	13.50	0.000	0.000	0.000	0.000	0
Ten Daily III	15.82	0.000	0.000	0.000	0.000	0	12.85	0.000	0.000	0.000	0.000	0	12.98	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 124721

Annual Sediment Load for period : 2005-2016

Station Name : Mahi at Khanpur (01 02 13 012) **Division : Mahi Division, Gandhinagar**

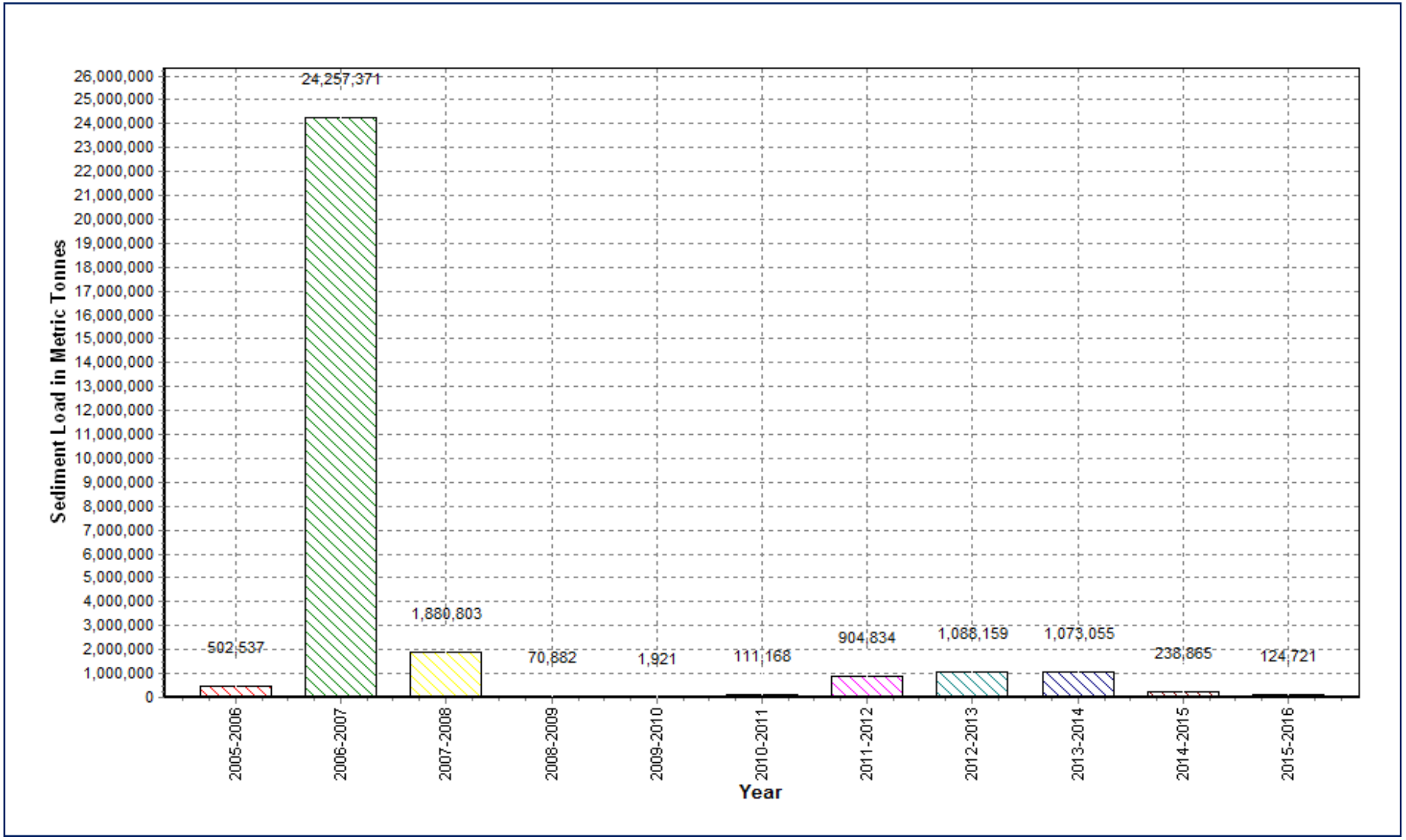
Local River : Mahi **Sub-Division : Mahi Sub Divn., Kadana**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	497519	5018	502537	2779
2006-2007	24257371	0	24257371	21880
2007-2008	1876145	4657	1880803	6737
2008-2009	68954	1928	70882	868
2009-2010	1776	145	1921	553
2010-2011	111057	111	111168	1078
2011-2012	904816	19	904834	5014
2012-2013	1088159	0	1088159	7039
2013-2014	1073055	0	1073055	8787
2014-2015	238865	0	238865	2204
2015-2016	124721	0	124721	2692

Annual Sediment Load for the period: 2005-2016

Station Name : Mahi at Khanpur (01 02 13 012)
Local River : Mahi

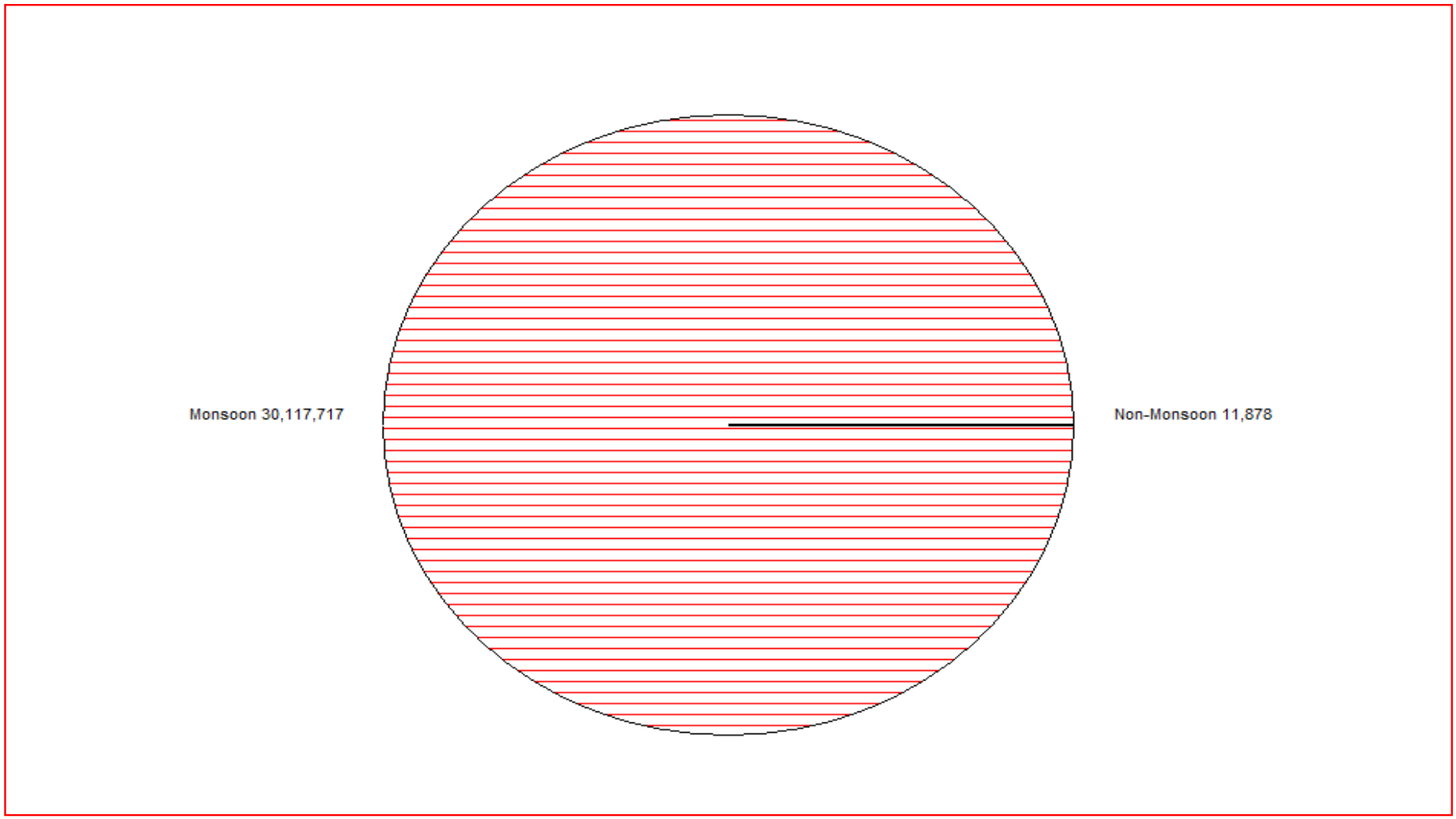
Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



Seasonal Sediment Load for the period : 2005-2015

Station Name : Mahi at Khanpur (01 02 13 012)
Local River : Mahi

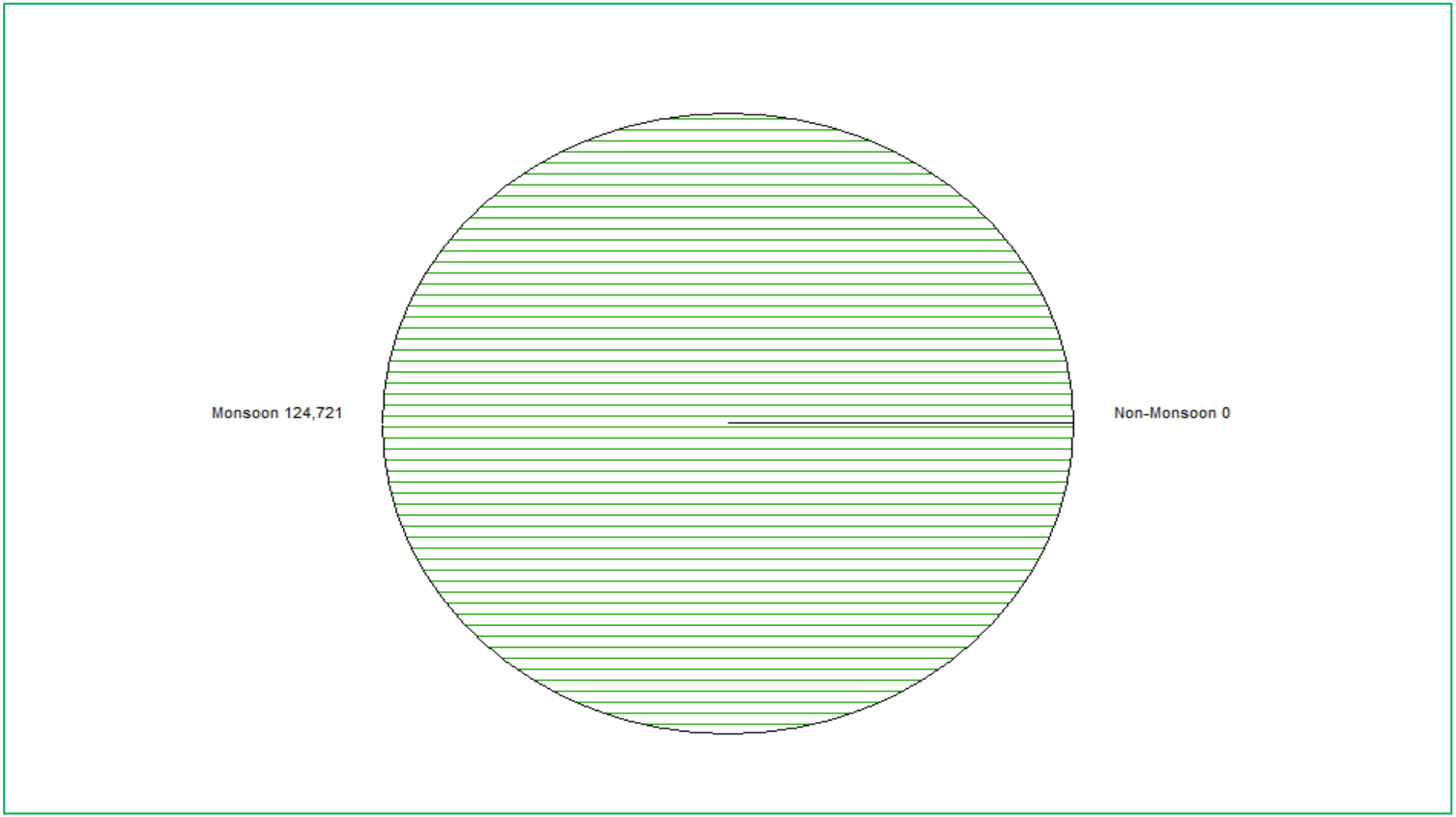
Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Mahi at Khanpur (01 02 13 012)
Local River : Mahi

Division : Mahi Division, Gandhinagar
Sub-Division : Mahi Sub Divn., Kadana



4.2 SABARMATI BASIN

4.2 Sabarmati Basin

The Sabarmati is one of the major west flowing interstate rivers in India. It originates in the foothills of Aravalli range at an elevation of 762 m above mean sea level. It traverses a length of 371 km in southwest direction. It flows initially in Rajasthan for about 48 km and enters Gujarat where it flows for 323 km to join Gulf of Cambay in the Arabian sea. The river drains an area of 21,674 sq.km. The basin is triangular in shape with the main river as the base and Watrak as the apex point. The basin lies in between 72^0 20' and 73^0 30' east longitudes and 20^0 and 25^0 north latitudes

The important tributaries are Sai, Wakal, Harnav, Hathmati and Watrak. The left bank tributary Wakal joins the river at 51 km of its run from the origin. It receives the Sai, a major right bank tributary near Mahuri and then Harnav on the left bank at about 103 km. Below this confluence, the Sabarmati flows through the Dharoi gorge. Emerging from the gorge, it passes through the plains. Two major tributaries viz. Hathmati and Watrak joins on the left bank of main stream at a distance of 170 km and 235 km respectively from the origin

The average annual rainfall in the Sabarmati basin is about 787 mm. The climate varies widely. In winter, the minimum temperature generally varies from 9 ^{0}C to14 ^{0}C. However, lower temperatures have also been recorded in several areas. The maximum temperature in the basin varies from 40 ^{0}C to 48 ^{0}C.

At present, there are 13 major/medium irrigation schemes. However, Dharoi Dam and Watrak project have 80 percent of the storage capacity of all the projects of the basin.

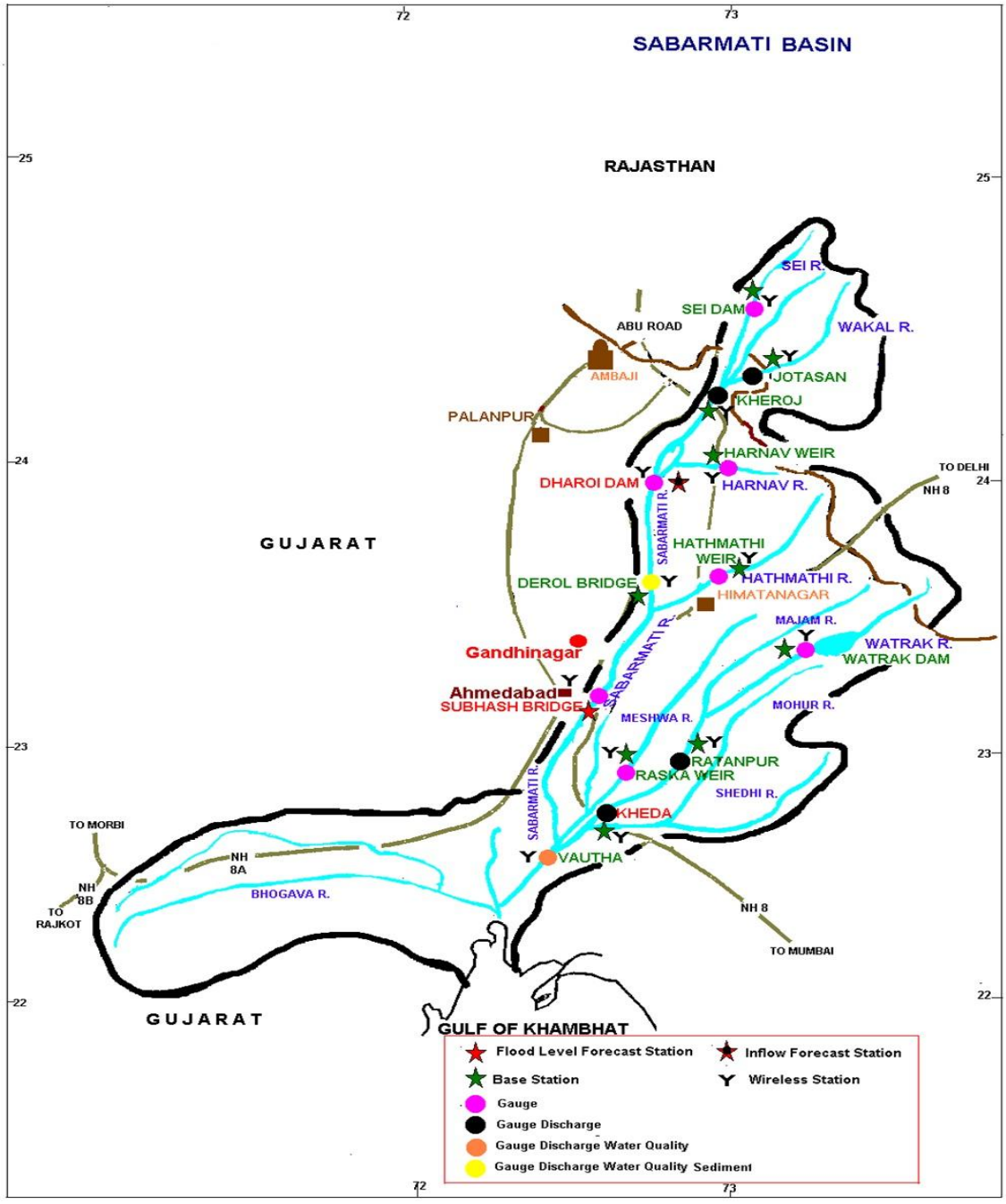
Dharoi Dam is located at Dharoi village, which is about 70km from Mehsana. In the Gujarat State the direct benefits of this project are water supply to Ahmedabad city and providing irrigation facilities. There is provision for 1.4 MW hydropower generations also.

There is only one monitoring station on main river Sabarmati for sediment analysis at Derol Bridge in Sabarkantha district. A brief about the station is given in section-4.2.1

4.2.1 Sabarmati at Derol Bridge

The station has a Catchment area of 6,724 sq km. The maximum sediment concentration of 0.038 g/l was observed on 02.08.2015. The total sediment load during the year is 10796 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0011 mm.

Plate – 4.2 Sabarmati Basin



HISTORY SHEET

		Water Year	**: 2015-16**
Site	**: Sabarmati at Derol Bridge**	**Code**	**: 01 02 12 006**
State	: Gujarat	District	Sabarkantha
Basin	: Sabarmati	Independent River	: Sabarmati
Tributary	: Sabarmati	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Sabarmati
Division	: Mahi Division, Gandhinagar	Sub-Division	: N.W.R.Sub Div., Himatnagar
Drainage Area	: 6724 Sq. Km.	Bank	: Left
Latitude	: 23°34'24" N	Longitude	: 72°48'25" E
Zero of Gauge (m)	: 89 (m.s.l) 87 (m.s.l)	19-08-1980 01-06-2005	- 31-05-2005
	Opening Date	Closing Date	
Gauge	: 19-08-1980		
Discharge	: 01-06-1991		
Sediment	: 25-09-1992		
Water Quality	: 15-07-1992		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**

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	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0	87.37	0.000	0.000	0.018	0.018	136
2	0.000	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	198.4	0.000	0.000	0.038	0.038	643
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	116.5	0.000	0.000	0.022	0.022	221
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	79.29	0.000	0.000	0.016	0.016	110
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	58.57	0.000	0.000	0.021	0.021	106
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	55.96	0.000	0.000	0.013	0.013	63
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	65.75	0.000	0.000	0.020	0.020	114
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	60.17	0.000	0.000	0.022	0.022	114
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	39.90	0.000	0.000	0.020	0.020	69
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.32	0.000	0.000	0.018	0.018	44
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	18.08	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	139.4	0.000	0.000	0.016	0.016	193
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	330.7	0.000	0.000	0.014	0.014	400
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	289.2	0.000	0.000	0.014	0.014	350
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	136.6	0.000	0.000	0.014	0.014	165
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	62.19	0.000	0.000	0.012	0.012	64
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	76.58	0.000	0.000	0.013	0.013	86
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	70.04	0.000	0.000	0.011	0.011	67
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	53.98	0.000	0.000	0.010	0.010	47
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	26.26	0.000	0.000	0.011	0.011	25
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	16.58	0.000	0.000	0.014	0.014	20
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	14.00	0.000	0.000	0.012	0.012	15
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	14.47	0.000	0.000	0.012	0.012	15
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.40	0.000	0.000	0.011	0.011	13
25	25.88	0.000	0.000	0.011	0.011	23	0.000	0.000	0.000	0.000	0.000	0	12.85	0.000	0.000	0.014	0.014	16
26	12.56	0.000	0.000	0.020	0.020	22	0.240	0.000	0.000	0.000	0.000	0	12.09	0.000	0.000	0.013	0.013	14
27	5.070	0.000	0.000	0.000	0.000	0	22.00	0.000	0.000	0.025	0.025	48	10.80	0.000	0.000	0.012	0.012	11
28	1.690	0.000	0.000	0.020	0.020	3	24.87	0.000	0.000	0.024	0.024	52	10.25	0.000	0.000	0.016	0.016	14
29	0.850	0.000	0.000	0.020	0.020	1	314.2	0.000	0.000	0.021	0.021	570	9.971	0.000	0.000	0.013	0.013	11
30	0.520	0.000	0.000	0.000	0.000	0	3129	0.000	0.000	0.023	0.023	6217	10.52	0.000	0.000	0.014	0.014	13
31							422.1	0.000	0.000	0.019	0.019	693	9.771	0.000	0.000	0.012	0.012	10
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.034	0.000	0.000	0.000	0.000	0	79.02	0.000	0.000	0.021	0.021	162
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	120.3	0.000	0.000	0.012	0.012	140
Ten Daily III	4.657	0.000	0.000	0.007	0.007	5	355.6	0.000	0.000	0.010	0.010	689	12.25	0.000	0.000	0.013	0.013	14
Monthly Total						**50**						**7579**						**3167**

Annual Sediment Load (Metric Tonnes) : 10796

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**

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	9.725	0.000	0.000	0.000	0.000	0	1.517	0.000	0.000	0.000	0.000	0	0.370	0.000	0.000	0.000	0.000	0
2	9.564	0.000	0.000	0.000	0.000	0	1.290	0.000	0.000	0.000	0.000	0	0.370	0.000	0.000	0.000	0.000	0
3	9.511	0.000	0.000	0.000	0.000	0	1.380	0.000	0.000	0.000	0.000	0	0.350	0.000	0.000	0.000	0.000	0
4	9.297	0.000	0.000	0.000	0.000	0	1.110	0.000	0.000	0.000	0.000	0	0.350	0.000	0.000	0.000	0.000	0
5	9.159	0.000	0.000	0.000	0.000	0	1.257	0.000	0.000	0.000	0.000	0	0.350	0.000	0.000	0.000	0.000	0
6	9.230	0.000	0.000	0.000	0.000	0	0.943	0.000	0.000	0.000	0.000	0	0.320	0.000	0.000	0.000	0.000	0
7	10.15	0.000	0.000	0.000	0.000	0	1.037	0.000	0.000	0.000	0.000	0	0.320	0.000	0.000	0.000	0.000	0
8	8.945	0.000	0.000	0.000	0.000	0	0.894	0.000	0.000	0.000	0.000	0	0.320	0.000	0.000	0.000	0.000	0
9	8.890	0.000	0.000	0.000	0.000	0	0.879	0.000	0.000	0.000	0.000	0	0.290	0.000	0.000	0.000	0.000	0
10	8.823	0.000	0.000	0.000	0.000	0	0.624	0.000	0.000	0.000	0.000	0	0.290	0.000	0.000	0.000	0.000	0
11	8.429	0.000	0.000	0.000	0.000	0	0.850	0.000	0.000	0.000	0.000	0	0.290	0.000	0.000	0.000	0.000	0
12	8.320	0.000	0.000	0.000	0.000	0	0.746	0.000	0.000	0.000	0.000	0	0.290	0.000	0.000	0.000	0.000	0
13	8.050	0.000	0.000	0.000	0.000	0	0.659	0.000	0.000	0.000	0.000	0	0.250	0.000	0.000	0.000	0.000	0
14	7.851	0.000	0.000	0.000	0.000	0	0.622	0.000	0.000	0.000	0.000	0	0.250	0.000	0.000	0.000	0.000	0
15	7.188	0.000	0.000	0.000	0.000	0	0.412	0.000	0.000	0.000	0.000	0	0.250	0.000	0.000	0.000	0.000	0
16	7.097	0.000	0.000	0.000	0.000	0	0.503	0.000	0.000	0.000	0.000	0	0.250	0.000	0.000	0.000	0.000	0
17	7.310	0.000	0.000	0.000	0.000	0	0.615	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
18	6.887	0.000	0.000	0.000	0.000	0	0.600	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
19	6.786	0.000	0.000	0.000	0.000	0	0.632	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
20	7.310	0.000	0.000	0.000	0.000	0	0.631	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
21	6.062	0.000	0.000	0.000	0.000	0	0.621	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
22	8.756	0.000	0.000	0.000	0.000	0	0.520	0.000	0.000	0.000	0.000	0	0.240	0.000	0.000	0.000	0.000	0
23	8.296	0.000	0.000	0.000	0.000	0	0.619	0.000	0.000	0.000	0.000	0	0.220	0.000	0.000	0.000	0.000	0
24	8.112	0.000	0.000	0.000	0.000	0	0.520	0.000	0.000	0.000	0.000	0	0.220	0.000	0.000	0.000	0.000	0
25	8.050	0.000	0.000	0.000	0.000	0	0.490	0.000	0.000	0.000	0.000	0	0.220	0.000	0.000	0.000	0.000	0
26	6.975	0.000	0.000	0.000	0.000	0	0.615	0.000	0.000	0.000	0.000	0	0.220	0.000	0.000	0.000	0.000	0
27	2.890	0.000	0.000	0.000	0.000	0	0.460	0.000	0.000	0.000	0.000	0	0.220	0.000	0.000	0.000	0.000	0
28	1.948	0.000	0.000	0.000	0.000	0	0.460	0.000	0.000	0.000	0.000	0	0.200	0.000	0.000	0.000	0.000	0
29	1.823	0.000	0.000	0.000	0.000	0	0.420	0.000	0.000	0.000	0.000	0	0.200	0.000	0.000	0.000	0.000	0
30	1.604	0.000	0.000	0.000	0.000	0	0.420	0.000	0.000	0.000	0.000	0	0.200	0.000	0.000	0.000	0.000	0
31							0.390	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	9.329	0.000	0.000	0.000	0.000	0	1.093	0.000	0.000	0.000	0.000	0	0.333	0.000	0.000	0.000	0.000	0
Ten Daily II	7.523	0.000	0.000	0.000	0.000	0	0.627	0.000	0.000	0.000	0.000	0	0.254	0.000	0.000	0.000	0.000	0
Ten Daily III	5.452	0.000	0.000	0.000	0.000	0	0.503	0.000	0.000	0.000	0.000	0	0.218	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 10796

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**

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	0.200	0.000	0.000	0.000	0.000	0	0.160	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.200	0.000	0.000	0.000	0.000	0	0.160	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.200	0.000	0.000	0.000	0.000	0	0.160	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.200	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.200	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.200	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.170	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.160	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.160	0.000	0.000	0.000	0.000	0	0.130	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.160	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.160	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
18	0.160	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
19	0.160	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
20	0.160	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
21	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
22	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
23	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
24	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
25	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
26	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
27	0.150	0.000	0.000	0.000	0.000	0	0.100	0.000	0.000	0.000	0.000	0	0.000					
28	0.150	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000					
29	0.150	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
30	0.150	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.150	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.188	0.000	0.000	0.000	0.000	0	0.139	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.163	0.000	0.000	0.000	0.000	0	0.115	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.150	0.000	0.000	0.000	0.000	0	0.064	0.000	0.000	0.000	0.000	0	0.000					
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 10796

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**

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	0.000						0.000						0.000					
2	0.000						0.000						0.000					
3	0.000						0.000						0.000					
4	0.000						0.000						0.000					
5	0.000						0.000						0.000					
6	0.000						0.000						0.000					
7	0.000						0.000						0.000					
8	0.000						0.000						0.000					
9	0.000						0.000						0.000					
10	0.000						0.000						0.000					
11	0.000						0.000						0.000					
12	0.000						0.000						0.000					
13	0.000						0.000						0.000					
14	0.000						0.000						0.000					
15	0.000						0.000						0.000					
16	0.000						0.000						0.000					
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	0.000						0.000						0.000					
24	0.000						0.000						0.000					
25	0.000						0.000						0.000					
26	0.000						0.000						0.000					
27	0.000						0.000						0.000					
28	0.000						0.000						0.000					
29	0.000						0.000						0.000					
30	0.000						0.000						0.000					
31	0.000												0.000					
Ten Daily Mean																		
Ten Daily I	0.000						0.000						0.000					
Ten Daily II	0.000						0.000						0.000					
Ten Daily III	0.000						0.000						0.000					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 10796

Annual Sediment Load for period : 2005-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

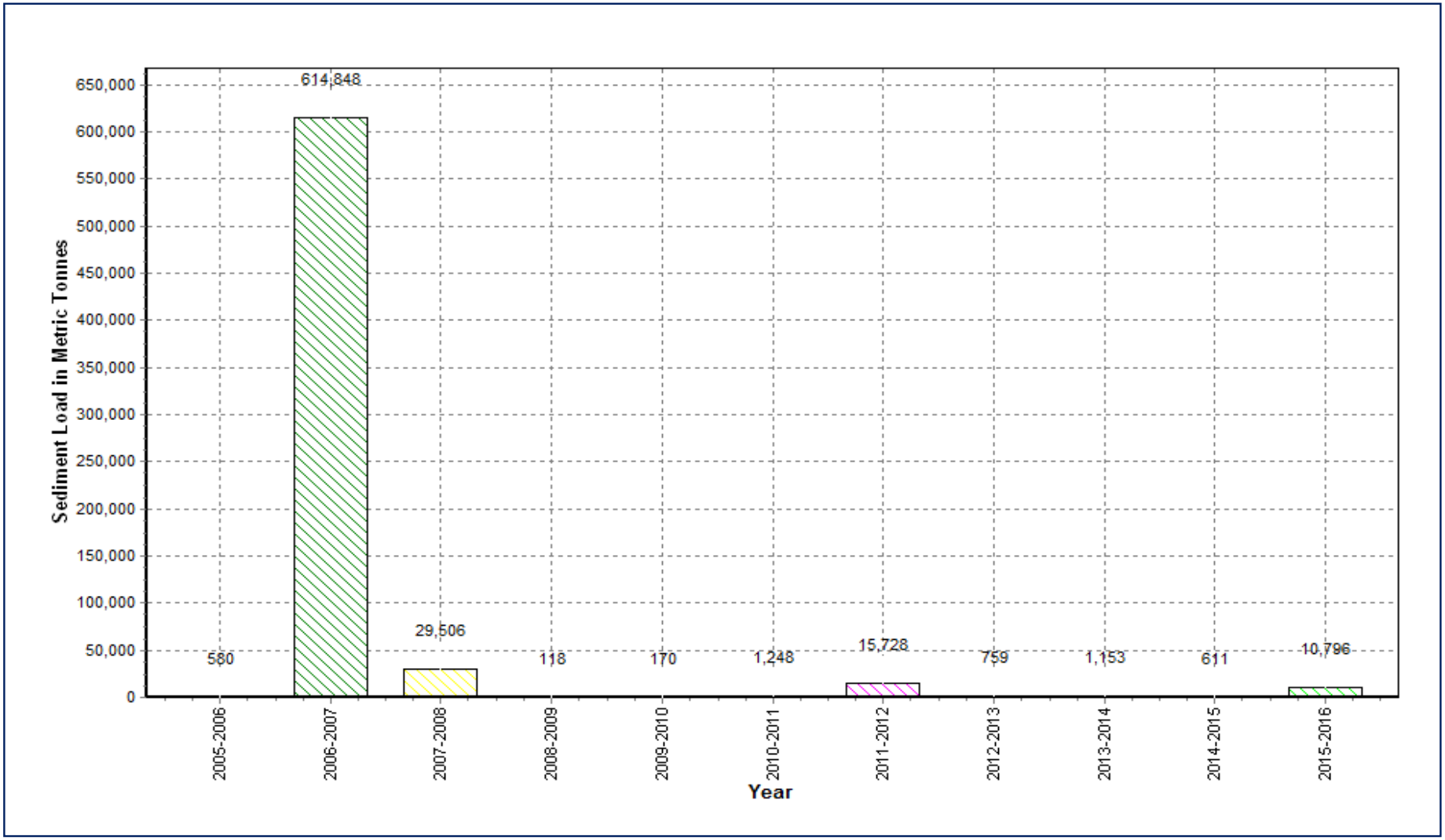
Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	580	0	580	157
2006-2007	614848	0	614848	2864
2007-2008	29506	0	29506	693
2008-2009	118	0	118	26
2009-2010	170	0	170	14
2010-2011	1248	0	1248	32
2011-2012	15728	0	15728	326
2012-2013	759	0	759	50
2013-2014	1153	0	1153	61
2014-2015	611	0	611	38
2015-2016	10796	0	10796	549

Annual Sediment Load for the period: 2005-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006) **Division : Mahi Division, Gandhinagar**

Local River : Sabarmati **Sub-Division : N.W.R.Sub Div., Himatnagar**



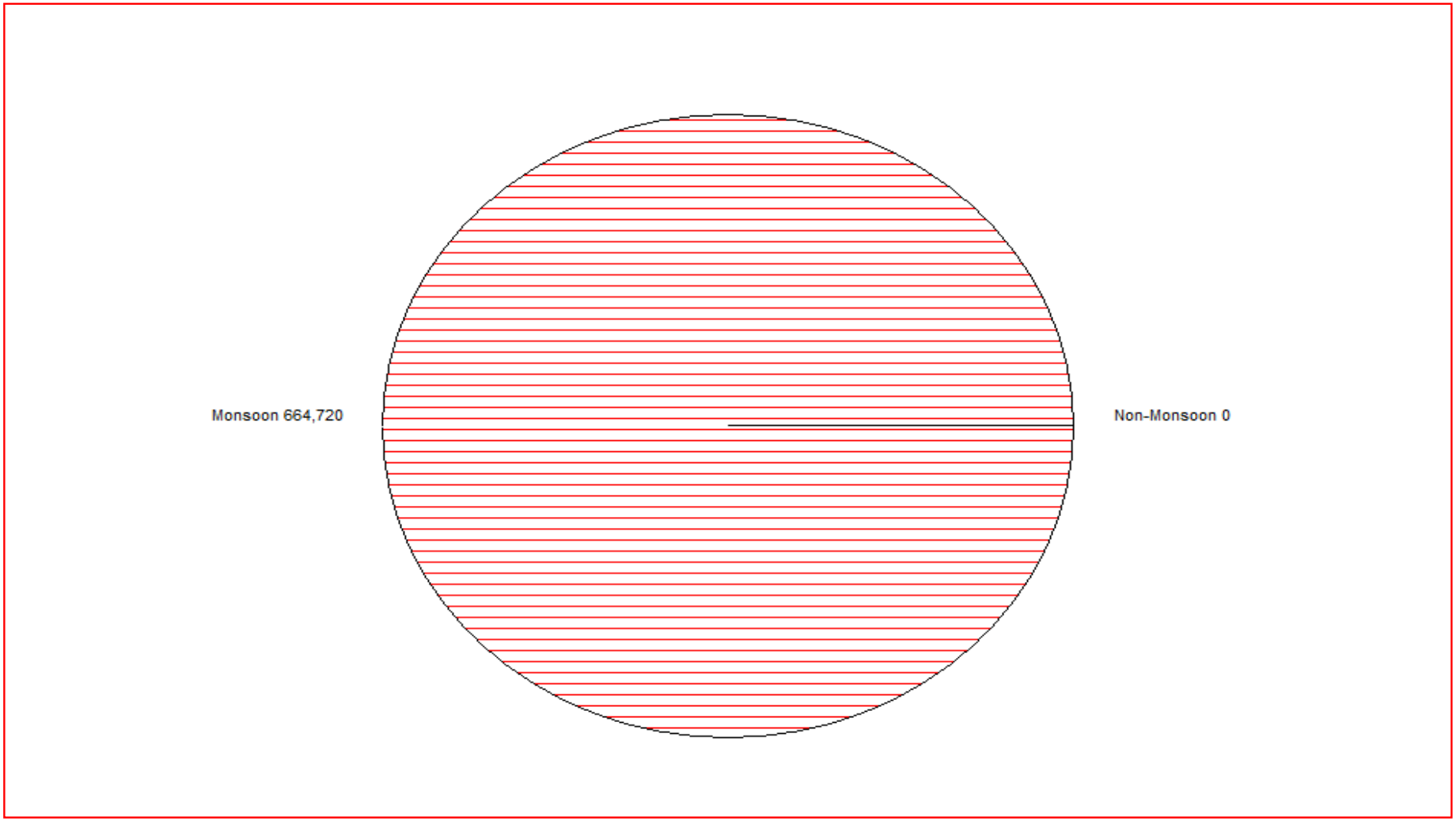
Seasonal Sediment Load for the period : 2005-2015

Station Name : Sabarmati at Derol Bridge (01 02 12 006)

Local River : Sabarmati

Division : Mahi Division, Gandhinagar

Sub-Division : N.W.R.Sub Div., Himatnagar



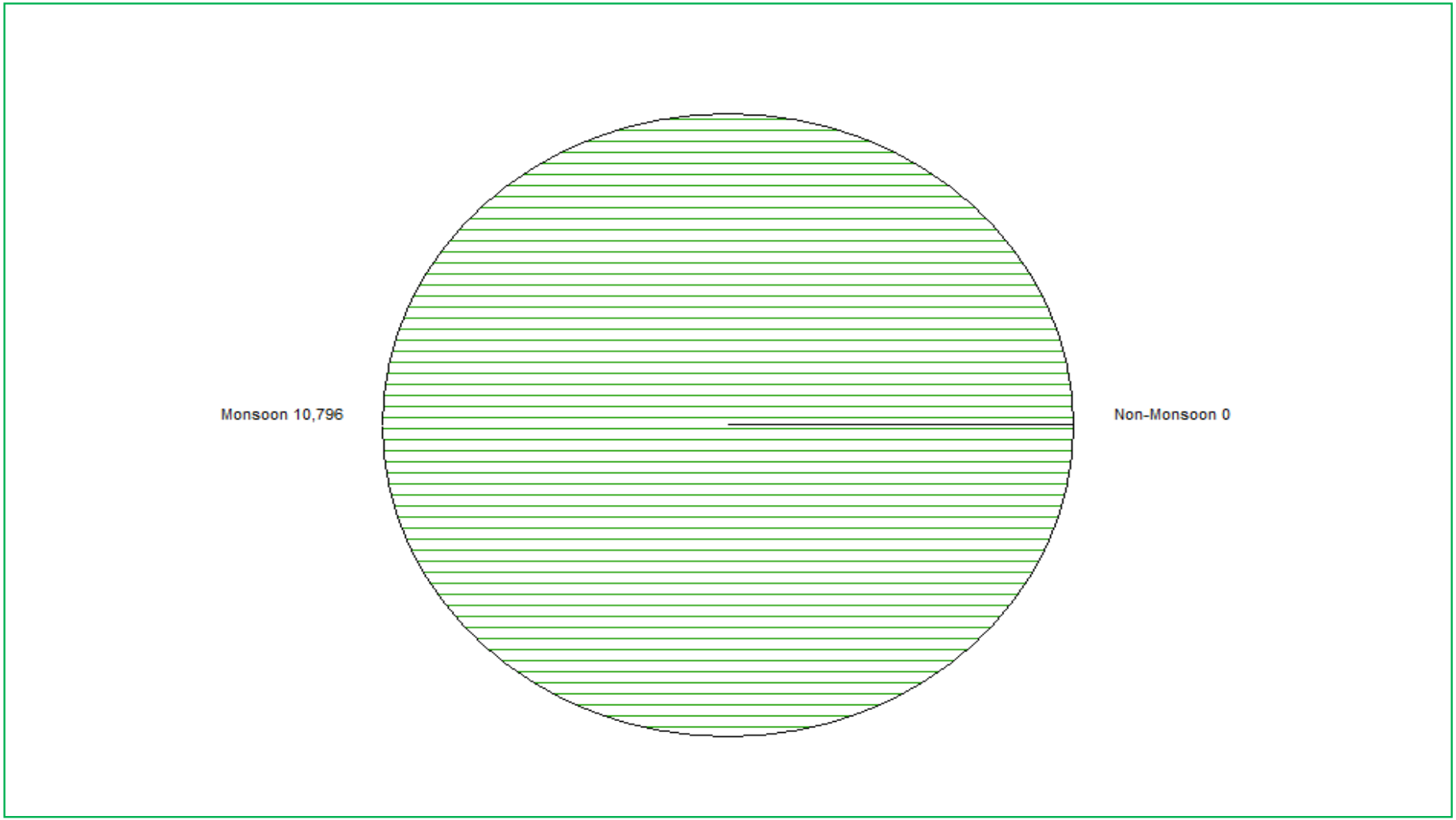
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Sabarmati at Derol Bridge (01 02 12 006)

Local River : Sabarmati

Division : Mahi Division, Gandhinagar

Sub-Division : N.W.R.Sub Div., Himatnagar



4.3 SHETRUNJI BASIN

4.3 Shetrunji Basin

The Shetrunji is one of the major rivers of Saurashtra. It rises at Chachai hills in Gir Forest of Junagadh district of Gujarat at an elevation of 380 m above mean sea level. It flows towards east direction and empties into the gulf of Cambay. The total length of this east flowing river from its origin to the outfall is 182 km. The river drains an area of 5514 sq.km. The basin is situated approximately between east longitudes of 700 50' and 72^0 10' and between north latitudes of 21^0 00' and 21^0 47'.

The Shetrunji receives several tributaries on both the banks. There are 9 tributaries having length more than 15 km. Out of which Safara, Shel, Kharai and Talaji are four tributaries on the right bank and remaining five tributaries viz. Stali, Thebu, Gagadia, Rajawal and Kharo are on the left bank. The drainage system on left bank of Shetrunji is more extensive as compared to the right bank area.

The average rainfall in the Shetrunji basin is 604 mm. In winter, the minimum temperature varies form 6 ^oC to 18 ^oC.

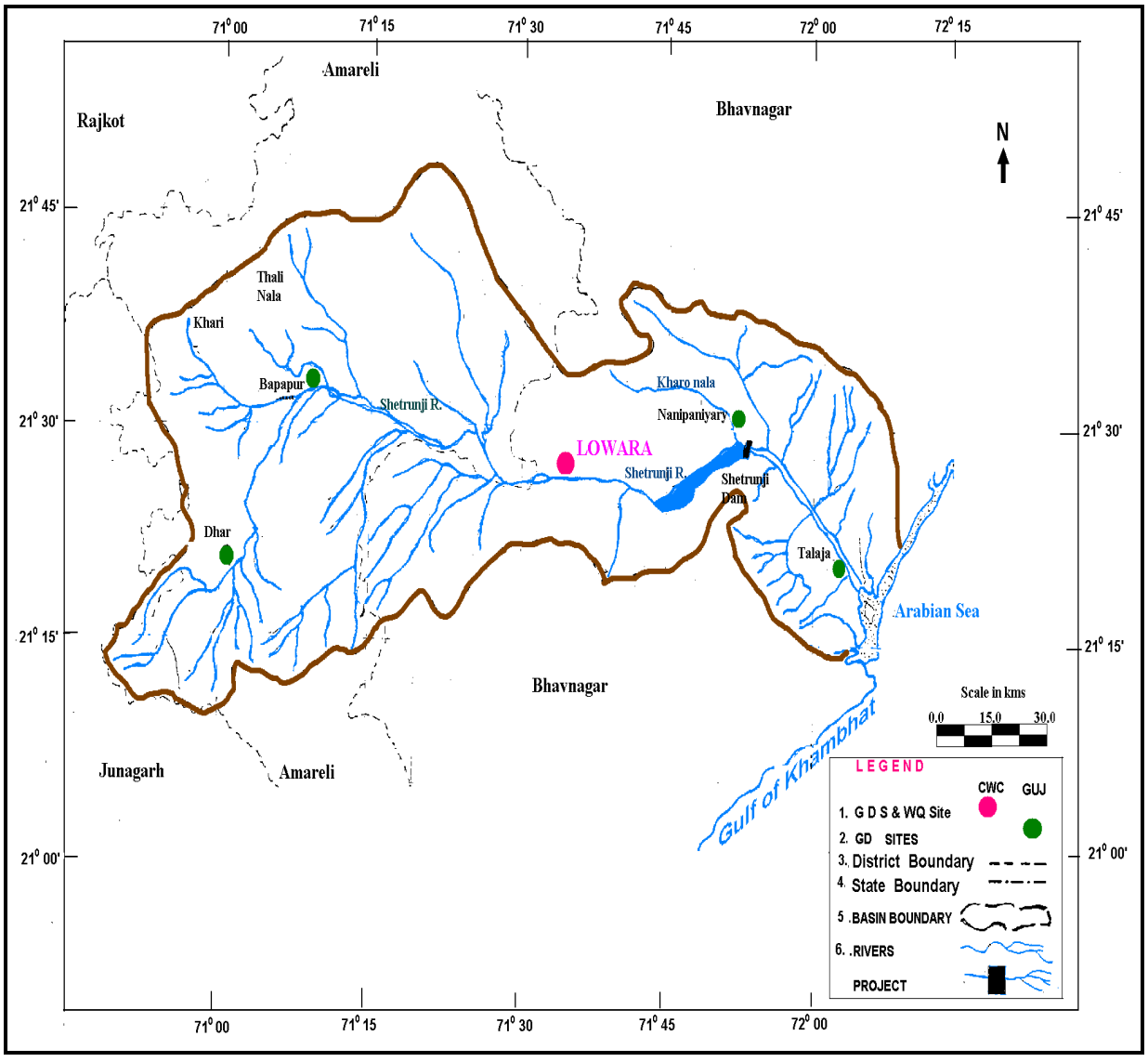
At present, there are 16 completed irrigation schemes. "Shetrunji Irrigation Scheme" is a major project and remaining 15 projects are medium irrigation schemes.

The only one monitoring station for sediment analysis is selected at Luwara. A brief about the station is given in section- 4.5.1

4.5.1 Shetrunji at Lowara

The station has a Catchment area of 3,953 sq km. The maximum sediment concentration of 5.925 g/l was observed on 25.06.2015. The total sediment load during the year is 1584507 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.2863 mm.

Plate – 4.3 Shetrunji Basin



HISTORY SHEET

		Water Year	**: 2015-16**
Site	**: Shetrunji at Lowara**	**Code**	**: 01 02 09 001**
State	: Gujarat	District	Bhavnagar
Basin	: WFR of Kach.-Saur. & Luni	Independent River	: Shetrunji
Tributary	: Shetrunji	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Shetrunji
Division	: Mahi Division, Gandhinagar	Sub-Division	: Sabarmati Sub Divn., Ahmedabad
Drainage Area	: 3953 Sq. Km.	Bank	: Left
Latitude	: 21°26'36" N	Longitude	: 71°33'42" E
Zero of Gauge (m)	: 57 (m.s.l) 56 (m.s.l)	14-11-1970 01-02-1991	- 31-01-1991
	Opening Date	Closing Date	
Gauge	: 29-11-1970		
Discharge	: 29-11-1970		
Sediment	: 25-07-1973		
Water Quality	: 01-07-1977		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Shetrunji at Lowara (01 02 09 001) **Division : Mahi Division, Gandhinagar**

Local River : Shetrunji **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0	1.218	0.000	0.000	0.000	0.000	0	2.494	0.000	0.000	0.013	0.013	3
2	0.000	0.000	0.000	0.000	0.000	0	0.896	0.000	0.000	0.000	0.000	0	2.210	0.000	0.000	0.012	0.012	2
3	0.000	0.000	0.000	0.000	0.000	0	0.775	0.000	0.000	0.000	0.000	0	1.468	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.714	0.000	0.000	0.000	0.000	0	1.351	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.830	0.000	0.000	0.000	0.000	0	1.195	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.565	0.000	0.000	0.000	0.000	0	1.145	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.545	0.000	0.000	0.000	0.000	0	1.086	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.542	0.000	0.000	0.000	0.000	0	1.101	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.523	0.000	0.000	0.000	0.000	0	1.110	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.547	0.000	0.000	0.000	0.000	0	0.989	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.484	0.000	0.000	0.000	0.000	0	0.959	0.000	0.000	0.000	0.000	0
12	11.57	0.000	0.000	0.090	0.090	90	0.550	0.000	0.000	0.000	0.000	0	0.942	0.000	0.000	0.000	0.000	0
13	0.270	0.000	0.000	0.000	0.000	0	0.415	0.000	0.000	0.000	0.000	0	0.942	0.000	0.000	0.000	0.000	0
14	76.81	0.000	0.000	0.233	0.233	1546	0.411	0.000	0.000	0.000	0.000	0	1.177	0.000	0.000	0.000	0.000	0
15	5.630	0.000	0.000	0.002	0.002	1	0.379	0.000	0.000	0.000	0.000	0	35.28	0.000	0.000	0.190	0.190	579
16	44.95	0.000	0.000	0.180	0.180	699	0.374	0.000	0.000	0.000	0.000	0	8.500	0.000	0.000	0.048	0.048	35
17	9.970	0.000	0.000	0.089	0.089	77	0.317	0.000	0.000	0.000	0.000	0	2.871	0.000	0.000	0.016	0.016	4
18	6.683	0.000	0.000	0.060	0.060	35	0.330	0.000	0.000	0.000	0.000	0	1.635	0.000	0.000	0.010	0.010	1
19	1.429	0.000	0.000	0.000	0.000	0	0.330	0.000	0.000	0.000	0.000	0	1.337	0.000	0.000	0.008	0.008	1
20	0.060	0.000	0.000	0.000	0.000	0	0.313	0.000	0.000	0.000	0.000	0	1.133	0.000	0.000	0.008	0.008	1
21	0.000	0.000	0.000	0.000	0.000	0	0.282	0.000	0.000	0.000	0.000	0	1.074	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.281	0.000	0.000	0.000	0.000	0	0.920	0.000	0.000	0.000	0.000	0
23	0.240	0.000	0.000	0.000	0.000	0	190.6	0.000	0.000	0.476	0.476	7841	0.990	0.000	0.000	0.000	0.000	0
24	407.4	0.000	0.000	0.348	0.348	12251	6.850	0.000	0.001	0.032	0.033	20	0.848	0.000	0.000	0.000	0.000	0
25	2218	0.000	0.675	5.250	5.925	1135275	3.293	0.000	0.000	0.015	0.015	4	0.793	0.000	0.000	0.000	0.000	0
26	28.62	0.000	0.000	0.188	0.188	464	2.040	0.000	0.000	0.012	0.012	2	0.750	0.000	0.000	0.000	0.000	0
27	5.905	0.000	0.000	0.066	0.066	34	2.001	0.000	0.000	0.010	0.010	2	0.728	0.000	0.000	0.000	0.000	0
28	3.820	0.000	0.000	0.061	0.061	20	155.2	0.000	0.000	0.383	0.383	5136	0.726	0.000	0.000	0.000	0.000	0
29	2.002	0.000	0.000	0.015	0.015	3	26.55	0.000	0.000	0.064	0.064	147	0.737	0.000	0.000	0.000	0.000	0
30	1.500	0.000	0.000	0.010	0.010	1	5.893	0.000	0.000	0.030	0.030	15	0.730	0.000	0.000	0.000	0.000	0
31							3.192	0.000	0.000	0.018	0.018	5	0.952	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.715	0.000	0.000	0.000	0.000	0	1.415	0.000	0.000	0.003	0.003	1
Ten Daily II	15.74	0.000	0.000	0.065	0.065	245	0.390	0.000	0.000	0.000	0.000	0	5.478	0.000	0.000	0.028	0.028	62
Ten Daily III	266.7	0.000	0.068	0.594	0.661	114805	36.02	0.000	0.000	0.095	0.095	1197	0.841	0.000	0.000	0.000	0.000	0
Monthly Total						1150494						13172						626

Annual Sediment Load (Metric Tonnes) : 1584507

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Shetrunji at Lowara (01 02 09 001) **Division : Mahi Division, Gandhinagar**

Local River : Shetrunji **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.719	0.000	0.000	0.000	0.000	0	1.556	0.000	0.000	0.008	0.008	1	0.360	0.000	0.000	0.000	0.000	0
2	0.615	0.000	0.000	0.000	0.000	0	1.640	0.000	0.000	0.007	0.007	1	0.402	0.000	0.000	0.000	0.000	0
3	0.573	0.000	0.000	0.000	0.000	0	1.500	0.000	0.000	0.006	0.006	1	0.442	0.000	0.000	0.000	0.000	0
4	0.519	0.000	0.000	0.000	0.000	0	1.430	0.000	0.000	0.005	0.005	1	0.419	0.000	0.000	0.000	0.000	0
5	0.505	0.000	0.000	0.000	0.000	0	1.394	0.000	0.000	0.004	0.004	0	0.414	0.000	0.000	0.000	0.000	0
6	0.390	0.000	0.000	0.000	0.000	0	1.308	0.000	0.000	0.003	0.003	0	0.400	0.000	0.000	0.000	0.000	0
7	0.385	0.000	0.000	0.000	0.000	0	1.168	0.000	0.000	0.003	0.003	0	0.394	0.000	0.000	0.000	0.000	0
8	0.374	0.000	0.000	0.000	0.000	0	1.060	0.000	0.000	0.002	0.002	0	0.330	0.000	0.000	0.000	0.000	0
9	0.377	0.000	0.000	0.000	0.000	0	1.036	0.000	0.000	0.001	0.001	0	0.342	0.000	0.000	0.000	0.000	0
10	0.357	0.000	0.000	0.000	0.000	0	0.993	0.000	0.000	0.000	0.000	0	0.299	0.000	0.000	0.000	0.000	0
11	2.892	0.000	0.000	0.000	0.000	0	0.930	0.000	0.000	0.000	0.000	0	0.214	0.000	0.000	0.000	0.000	0
12	0.738	0.000	0.000	0.000	0.000	0	0.941	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
13	35.90	0.000	0.000	0.201	0.201	624	0.906	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
14	26.06	0.060	0.008	0.169	0.237	533	0.900	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
15	3.783	0.002	0.000	0.065	0.067	22	0.860	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
16	1.693	0.000	0.000	0.009	0.009	1	0.809	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
17	1.430	0.000	0.000	0.008	0.008	1	0.801	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
18	0.897	0.000	0.000	0.000	0.000	0	0.730	0.000	0.000	0.000	0.000	0	0.214	0.000	0.000	0.000	0.000	0
19	1.786	0.000	0.000	0.008	0.008	1	0.770	0.000	0.000	0.000	0.000	0	0.214	0.000	0.000	0.000	0.000	0
20	1557	0.000	0.000	3.110	3.110	418340	0.754	0.000	0.000	0.000	0.000	0	0.214	0.000	0.000	0.000	0.000	0
21	75.80	0.013	0.015	0.059	0.086	565	0.582	0.000	0.000	0.000	0.000	0	0.190	0.000	0.000	0.000	0.000	0
22	11.12	0.004	0.050	0.045	0.099	95	0.630	0.000	0.000	0.000	0.000	0	0.167	0.000	0.000	0.000	0.000	0
23	4.862	0.000	0.000	0.030	0.030	13	0.576	0.000	0.000	0.000	0.000	0	0.140	0.000	0.000	0.000	0.000	0
24	3.287	0.000	0.000	0.017	0.017	5	0.550	0.000	0.000	0.000	0.000	0	0.120	0.000	0.000	0.000	0.000	0
25	3.380	0.000	0.000	0.015	0.015	4	0.550	0.000	0.000	0.000	0.000	0	0.120	0.000	0.000	0.000	0.000	0
26	1.998	0.000	0.000	0.010	0.010	2	0.545	0.000	0.000	0.000	0.000	0	0.120	0.000	0.000	0.000	0.000	0
27	2.380	0.000	0.000	0.009	0.009	2	0.505	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	1.704	0.000	0.000	0.008	0.008	1	0.495	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	1.522	0.000	0.000	0.007	0.007	1	0.471	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	1.572	0.000	0.000	0.006	0.006	1	0.466	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.439	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.481	0.000	0.000	0.000	0.000	0	1.309	0.000	0.000	0.004	0.004	0	0.380	0.000	0.000	0.000	0.000	0
Ten Daily II	163.2	0.006	0.001	0.357	0.364	41952	0.840	0.000	0.000	0.000	0.000	0	0.200	0.000	0.000	0.000	0.000	0
Ten Daily III	10.76	0.002	0.007	0.021	0.029	69	0.528	0.000	0.000	0.000	0.000	0	0.086	0.000	0.000	0.000	0.000	0
Monthly Total						420210						5						0

Annual Sediment Load (Metric Tonnes) : 1584507

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Shetrunji at Lowara (01 02 09 001) **Division : Mahi Division, Gandhinagar**

Local River : Shetrunji **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						0						0						0

Annual Sediment Load (Metric Tonnes) : 1584507

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Shetrunji at Lowara (01 02 09 001) | **Division : Mahi Division, Gandhinagar**

Local River : Shetrunji | **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000					
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000					
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000					
4	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
5	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
6	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
7	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
8	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
9	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
10	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
11	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
12	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
13	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
14	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
15	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
16	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
17	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
18	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
19	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
20	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
21	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
22	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
23	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
24	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
25	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
26	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
27	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
28	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
29	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
30	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
31	0.000	0.000	0.000	0.000	0.000	0							0.000					
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000					
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
Monthly Total						0						0						

Annual Sediment Load (Metric Tonnes) : 1584507

Annual Sediment Load for period : 2005-2016

Station Name : Shetrunji at Lowara (01 02 09 001) **Division : Mahi Division, Gandhinagar**

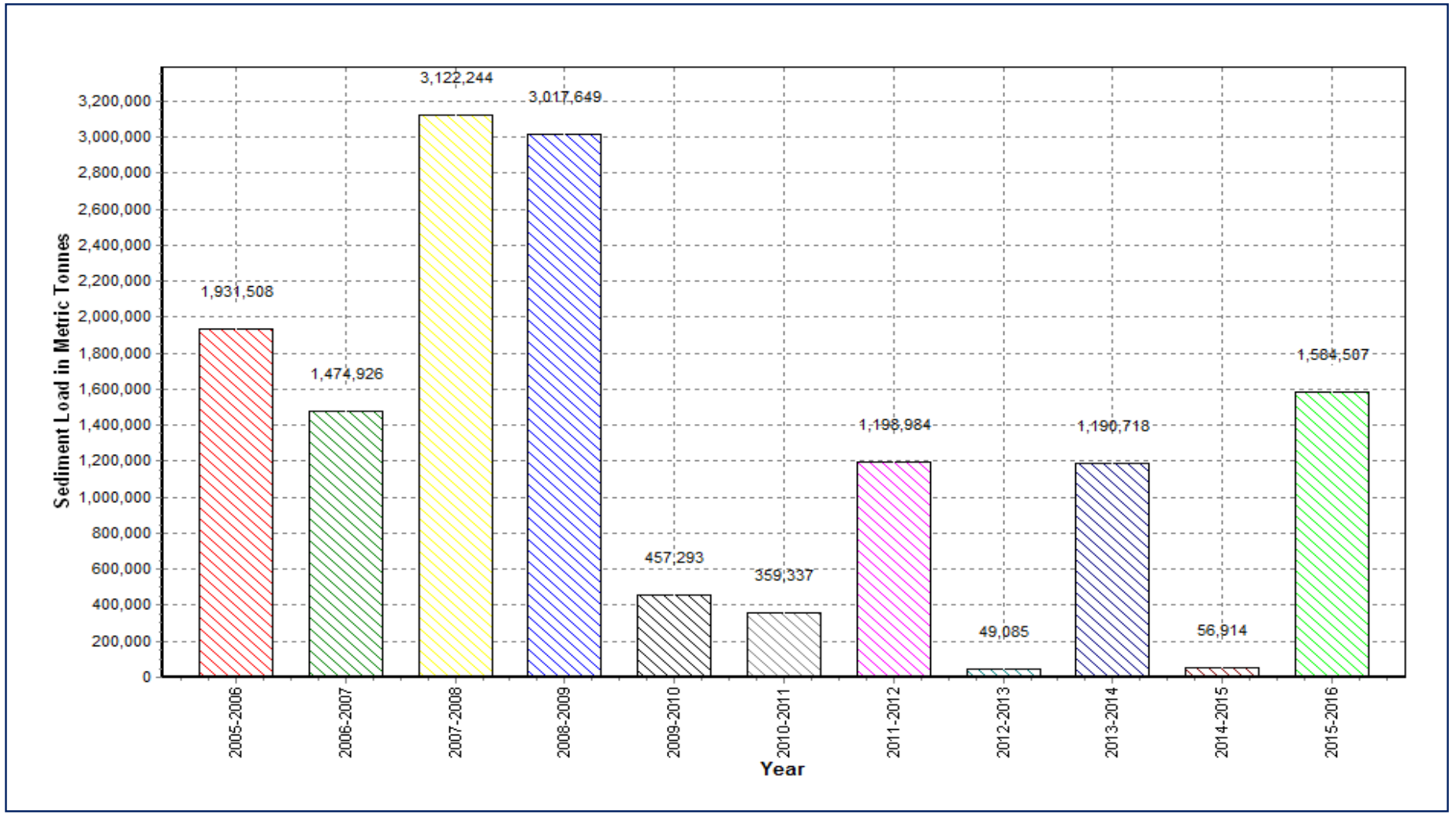
Local River : Shetrunji **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	1931508	0	1931508	1055
2006-2007	1474926	0	1474926	629
2007-2008	3122244	0	3122244	1269
2008-2009	3017649	0	3017649	1061
2009-2010	457293	0	457293	177
2010-2011	359337	0	359337	572
2011-2012	1198984	0	1198984	506
2012-2013	49085	0	49085	54
2013-2014	1190718	0	1190718	426
2014-2015	56914	0	56914	127
2015-2016	1584507	0	1584507	440

Annual Sediment Load for the period: 2005-2016

Station Name : Shetrunji at Lowara (01 02 09 001) **Division : Mahi Division, Gandhinagar**

Local River : Shetrunji **Sub-Division : Sabarmati Sub Divn., Ahmedabad**



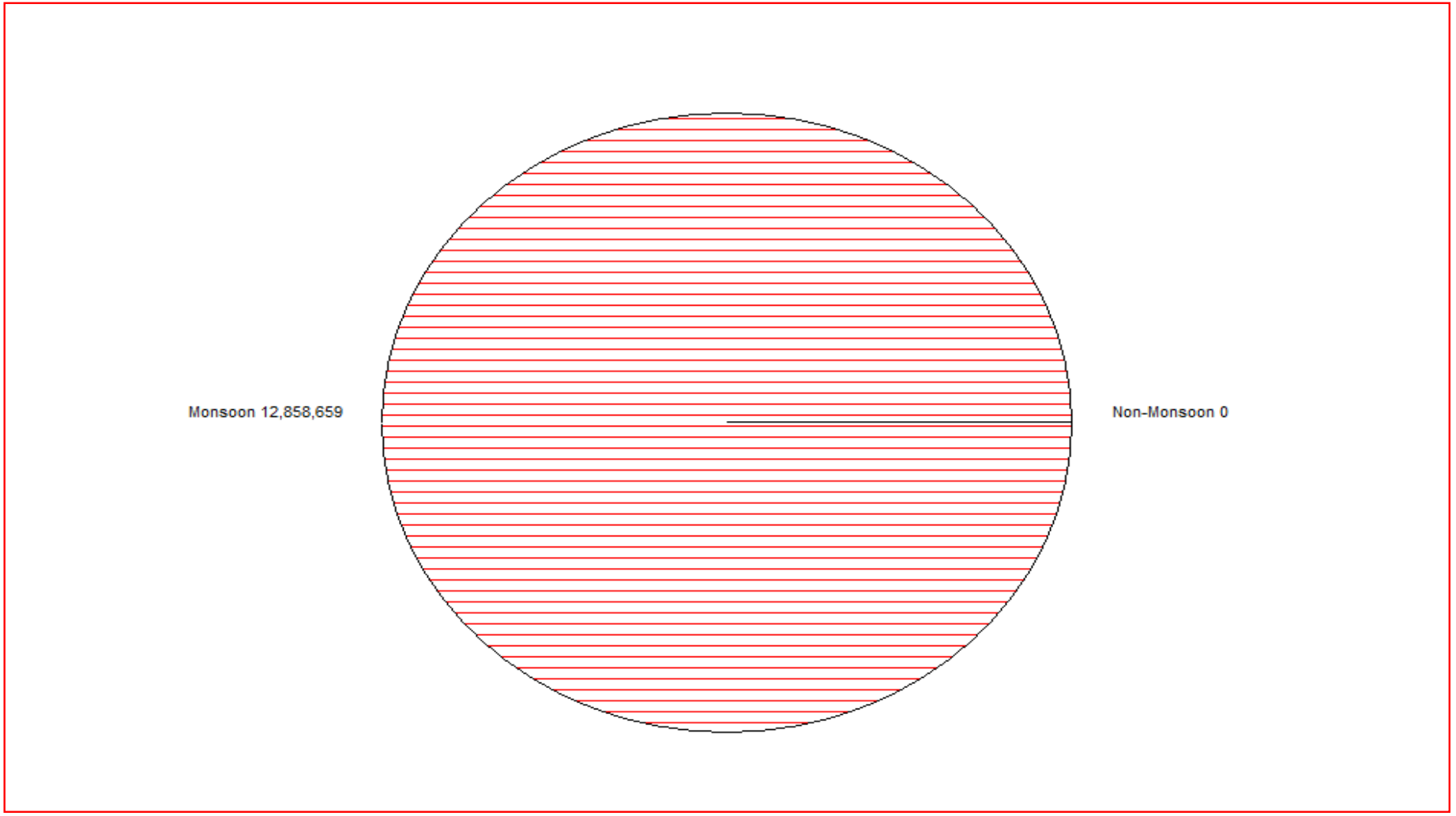
Seasonal Sediment Load for the period : 2005-2015

Station Name : Shetrunji at Lowara (01 02 09 001)

Local River : Shetrunji

Division : Mahi Division, Gandhinagar

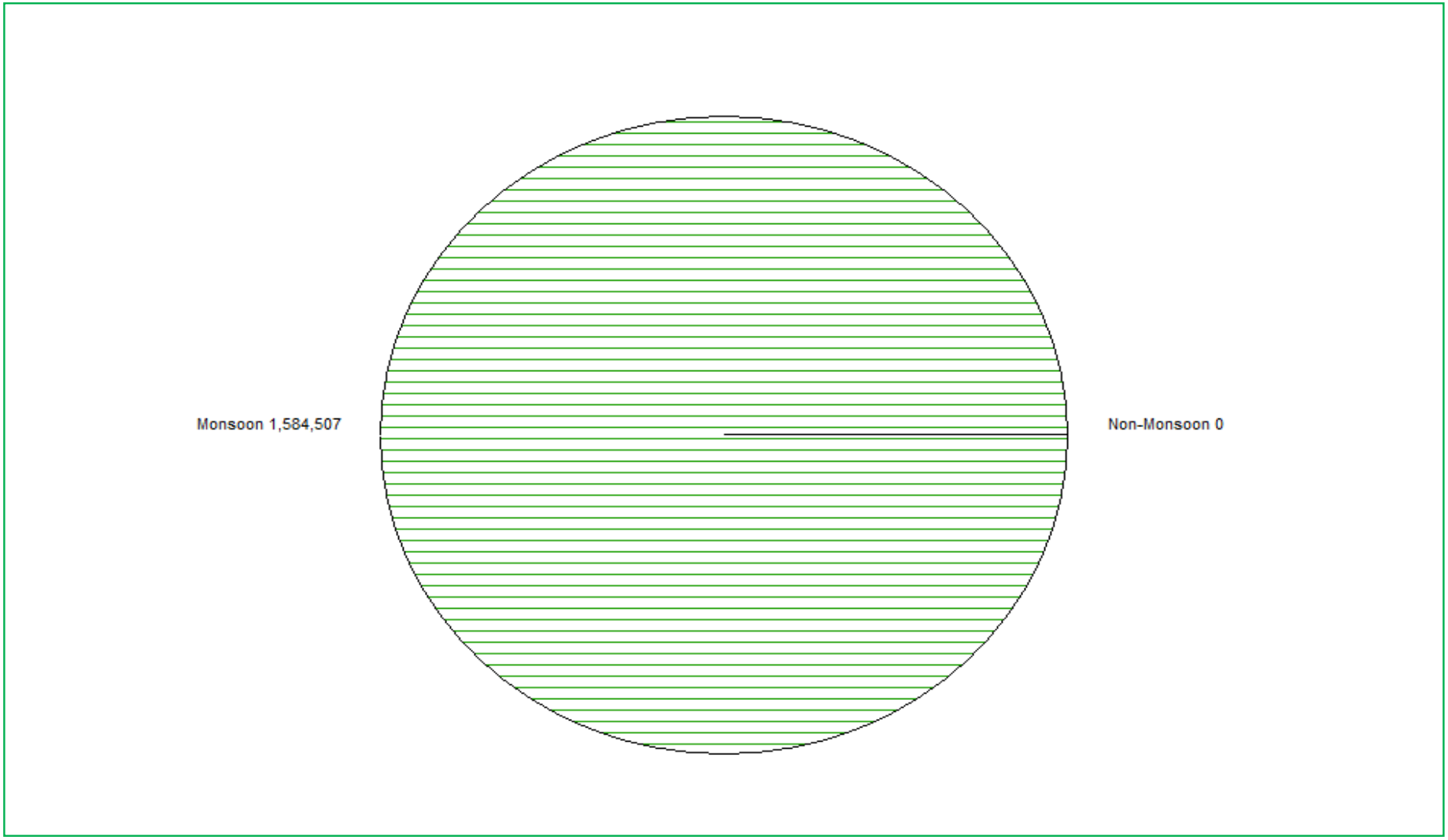
Sub-Division : Sabarmati Sub Divn., Ahmedabad



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Shetrunji at Lowara (01 02 09 001)
Local River : Shetrunji

Division : Mahi Division, Gandhinagar
Sub-Division : Sabarmati Sub Divn., Ahmedabad



4.4 BHADAR BASIN

4.4 Bhadar Basin

The Bhadar is one of the major rivers of Kathaiwar (Saurashtra) peninsula in Gujarat. It originates near Vaddi (Aniali Village) about 26 km north – west of Jasdan in Rajkot district at an elevation of 261 m above mean sea level.

It flows towards South up to Jasdan and turns towards south - west upto Jetpur and finally changes its direction towards west till its confluence with Arabian sea at Naviobandar (Porbandar). The total length of this river is 198 km. It has a drainage area of 7094 sq.km out of which 706 sq km is in hilly and the rest in plain regions of Saurashtra. The basin lies between geographical co-ordinates of 21^0 25' and 22^0 10' north latitudes and 69^0 45' and 71^0 20' east longitudes. It drains about $1/7^{th}$ of the area of Saurashtra.

The Bhadar receives several tributaries on both the banks. There are 9 major tributaries having lengths more than 25 km out of which 6 tributaries namely Gandali, Chapparwadi, Phopal, Utawali, Moj and Venu are feeding from the right and the remaining 3 tributaries namely Vasavadi, Surwa and Galolio from the left. The drainage system of the river on right bank is more extensive as compared to the left bank.

The average rainfall in Bhadar basin is 625 mm. In winter the temperature vary between 4 ^{0}C and 15 ^{0}C in different Parts of the region. May is the hottest month. Maximum temperature varies between 40 ^{0}C and 45 ^{0}C.

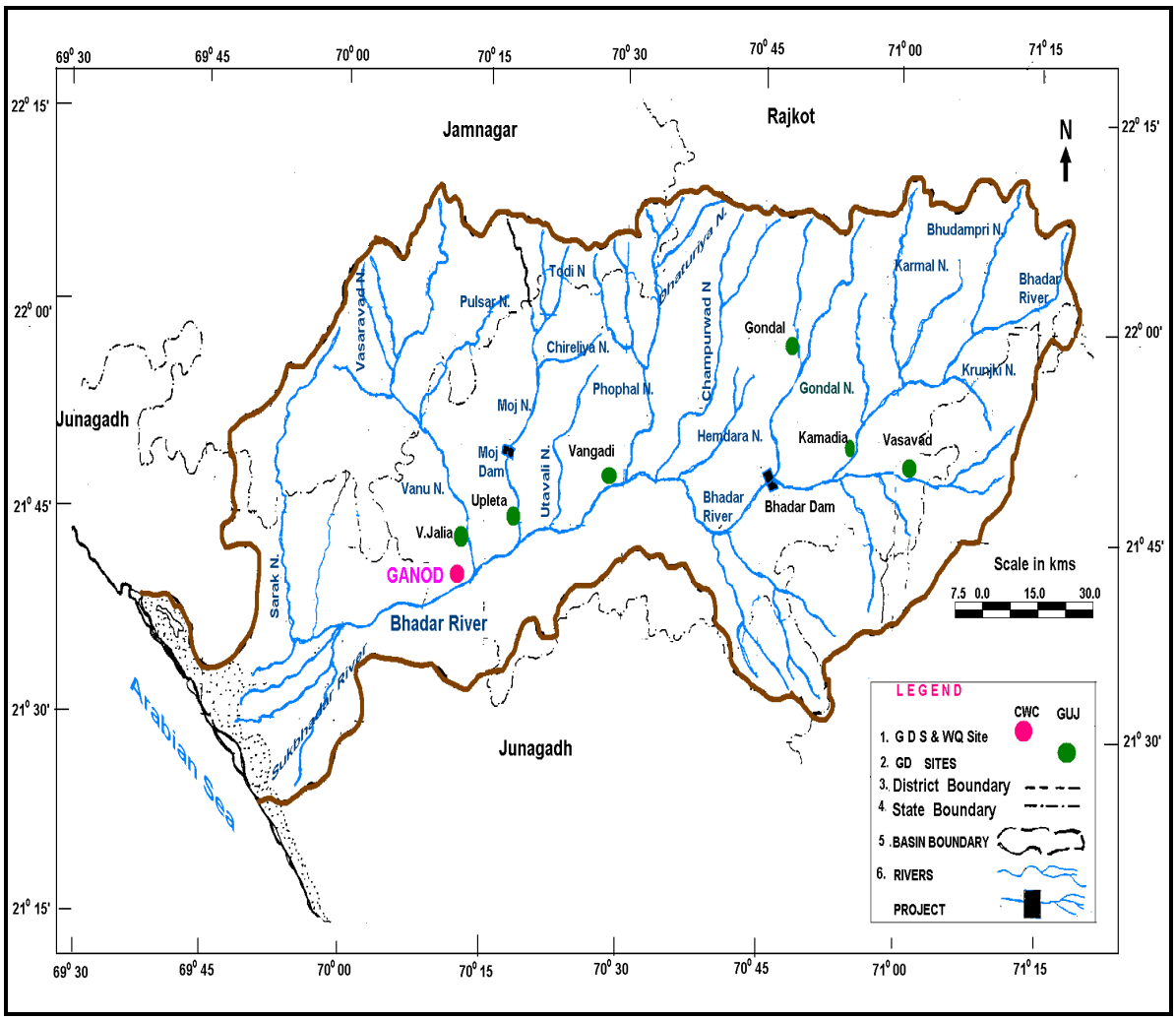
At present, there are 12 completed structures, either reservoirs or weirs, in Bhadar catchment.

There is only one monitoring station for gauge-discharge and sediment load analysis in this basin, which is near the mouth of river in plains of Rajkot district at Ganod. A brief about the station is given in section- 4.4.1

4.4.1. Bhadar at Ganod

The station has a Catchment area of 6,266 sq km. The maximum sediment concentration of 0.013 g/l was observed on 26.06.2015. The total sediment load during the year is 3853 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0004 mm.

Plate – 4.4 Bhadar Basin



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Bhadar at Ganod**	**Code**	**:**	**01 02 07 001**
State	:	Gujarat	District		Rajkot
Basin	:	WFR of Kach.-Saur. & Luni	Independent River	:	Bhadar
Tributary	:	Bhadar	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Bhadar
Division	:	Mahi Division, Gandhinagar	Sub-Division	:	Sabarmati Sub Divn., Ahmedabad
Drainage Area	:	6266 Sq. Km.	Bank	:	Right
Latitude	:	21°39'53" N	Longitude	:	70°10'52" E
Zero of Gauge (m)	:	26 (m.s.l)	14-11-1970		
		Opening Date	Closing Date		
Gauge	:	14-11-1970			
Discharge	:	14-11-1970			
Sediment	:	07-07-1973			
Water Quality	:	01-07-1977			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bhadar at Ganod (01 02 07 001) **Division : Mahi Division, Gandhinagar**

Local River : Bhadar **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	2030	0.000	0.000	0.008	0.008	1456	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	1922	0.000	0.000	0.013	0.013	2076	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	453.0	0.000	0.000	0.008	0.008	321	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.008	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	440.5	0.000	0.001	0.003	0.003	385	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**3853**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 3853

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bhadar at Ganod (01 02 07 001) **Division : Mahi Division, Gandhinagar**

Local River : Bhadar **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 3853

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bhadar at Ganod (01 02 07 001) **Division : Mahi Division, Gandhinagar**

Local River : Bhadar **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000					
25	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000					
26	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000					
27	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000					
28	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000					
29	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000							
30	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000							
31								0.000	0.000	0.000	0.000							
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0		0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						**0**						**0**						**0**

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Annual Sediment Load (Metric Tonnes) : 3853

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bhadar at Ganod (01 02 07 001) **Division : Mahi Division, Gandhinagar**

Local River : Bhadar **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

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	0.000						0.000						0.000					
2	0.000						0.000						0.000					
3	0.000						0.000						0.000					
4	0.000						0.000						0.000					
5	0.000						0.000						0.000					
6	0.000						0.000						0.000					
7	0.000						0.000						0.000					
8	0.000						0.000						0.000					
9	0.000						0.000						0.000					
10	0.000						0.000						0.000					
11	0.000						0.000						0.000					
12	0.000						0.000						0.000					
13	0.000						0.000						0.000					
14	0.000						0.000						0.000					
15	0.000						0.000						0.000					
16	0.000						0.000						0.000					
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	0.000						0.000						0.000					
24	0.000						0.000						0.000					
25	0.000						0.000						0.000					
26	0.000						0.000						0.000					
27	0.000						0.000						0.000					
28	0.000						0.000						0.000					
29	0.000						0.000						0.000					
30	0.000						0.000						0.000					
31	0.000												0.000					
Ten Daily Mean																		
Ten Daily I	0.000						0.000						0.000					
Ten Daily II	0.000						0.000						0.000					
Ten Daily III	0.000						0.000						0.000					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 3853

Annual Sediment Load for period : 2005-2016

Station Name : Bhadar at Ganod (01 02 07 001) **Division : Mahi Division, Gandhinagar**

Local River : Bhadar **Sub-Division : Sabarmati Sub Divn., Ahmedabad**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	38970	0	38970	252
2006-2007	433886	0	433886	795
2007-2008	1329625	0	1329625	2052
2008-2009	502740	459	503198	800
2009-2010	48969	71	49041	201
2010-2011	69812	0	69812	703
2011-2012	6547	0	6547	632
2012-2013	0	0	0	0
2013-2014	9784	0	9784	1089
2014-2015	0	0	0	0
2015-2016	3853	0	3853	381

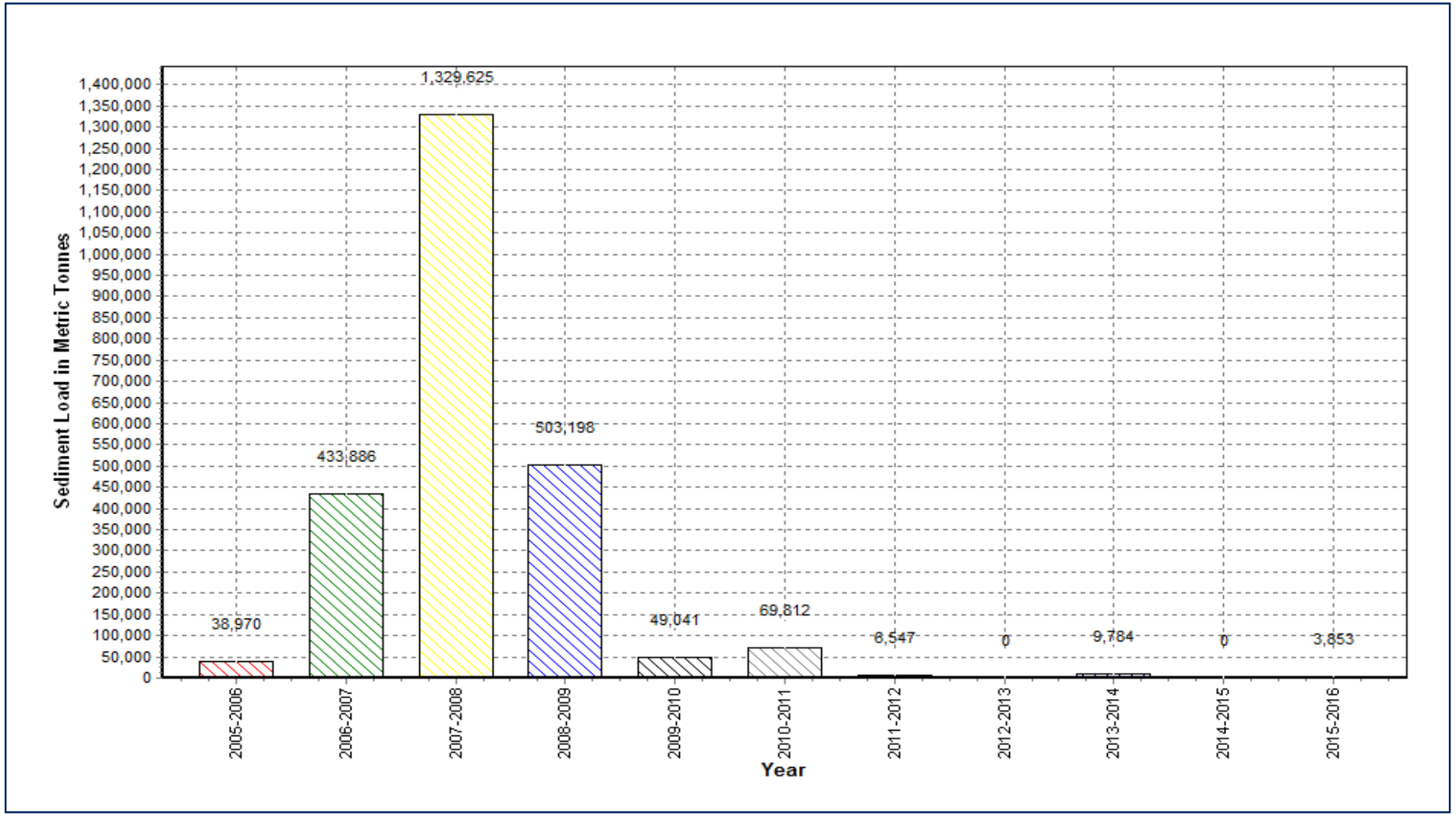
Annual Sediment Load for the period: 2005-2016

Station Name : Bhadar at Ganod (01 02 07 001)

Local River : Bhadar

Division : Mahi Division, Gandhinagar

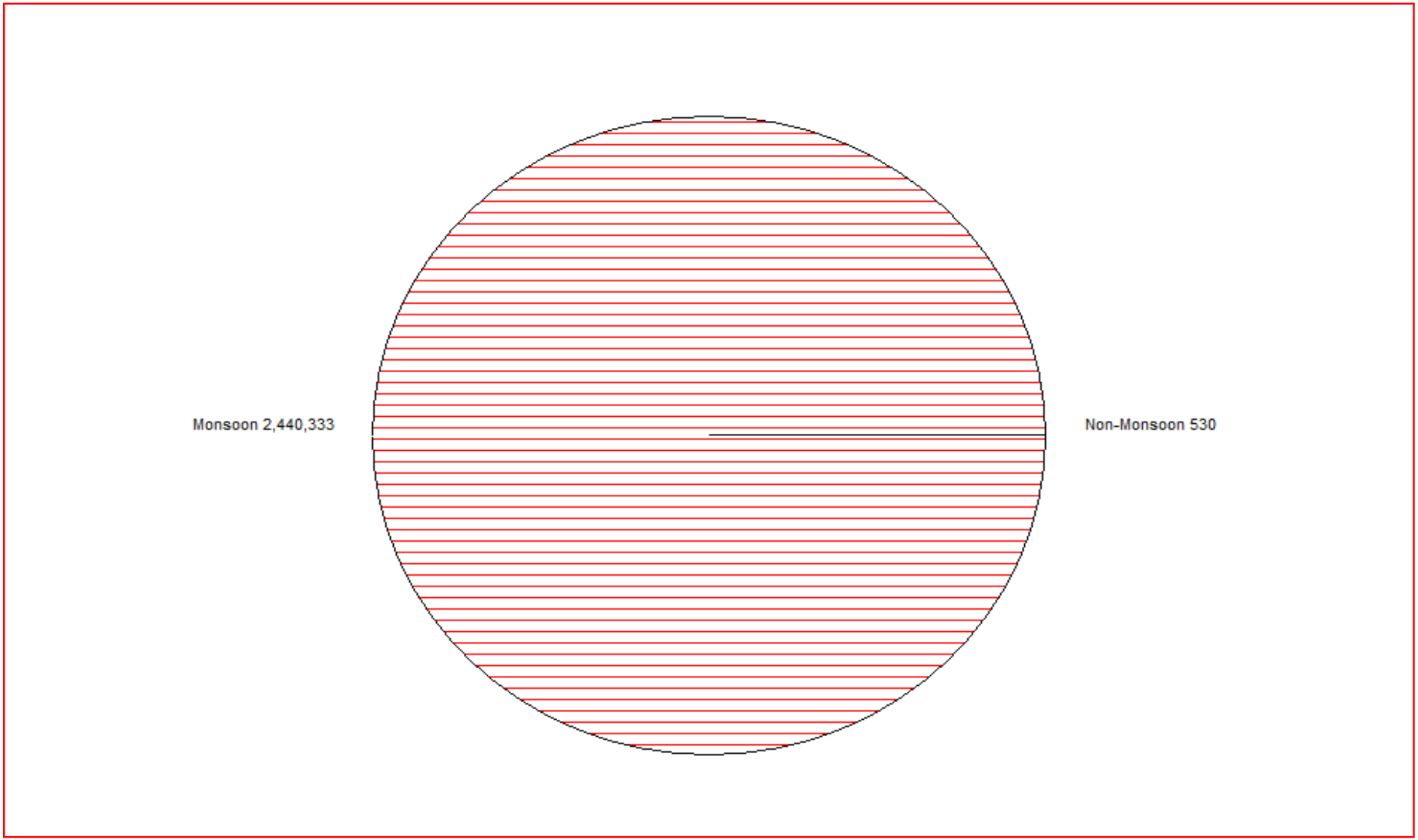
Sub-Division : Sabarmati Sub Divn., Ahmedabad



Seasonal Sediment Load for the period : 2005-2015

Station Name : Bhadar at Ganod (01 02 07 001)
Local River : Bhadar

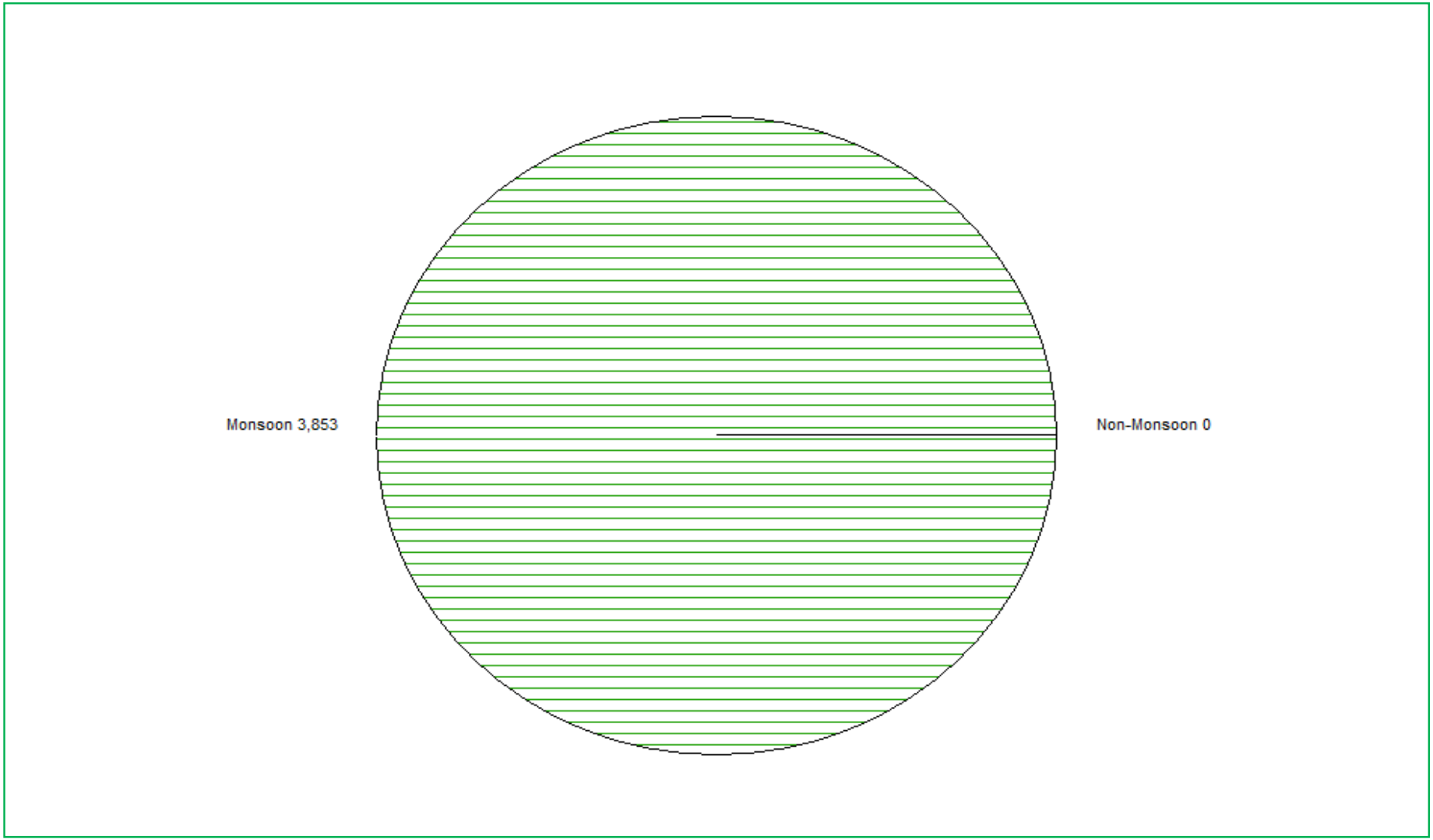
Division : Mahi Division, Gandhinagar
Sub-Division : Sabarmati Sub Divn., Ahmedabad



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Bhadar at Ganod (01 02 07 001)
Local River : Bhadar

Division : Mahi Division, Gandhinagar
Sub-Division : Sabarmati Sub Divn., Ahmedabad



4.5 BANAS BASIN

4.5 Banas Basin

The Banas river rises near Pindwara village in Sirohi district of Rajasthan at an elevation of 372.5 m above mean sea level. The total length of the river from origin to its outfall into the little Rann of Kachchh It drains an area of 8,674 sq km out of which nearly 38 % lies in Rajasthan State and the remaining 62 % falls in Gujarat state. The basin lies between the geographical co-ordinates of $71^0$15' to 73^0 15' east longitudes and 23^0 30' to 24^0 55' north latitudes. The river flows in a south – westerly direction and empties into little Rann of Kachchh. It is bounded by Luni basin in the north, Sarasvati basin in the south, Aravalli Hill ranges in the east and finally, Arabian Sea in the west.

The number of principal tributaries, which contribute significantly, is seven. Sipu is the only major tributary on the right bank. The other six tributaries namely Batria, Sukli, Sewaran, Suket, Balaram and Khari drain into the main channel from left bank. Hence draining system on the left bank of the Banas river is more extensive as compared to the right bank area.

The average rainfall in the Banas basin is 921 mm. Owing to topographical characteristics, the climate is variable. The Mount Abu is one of the coldest regions and is one of the famous hill stations of India.

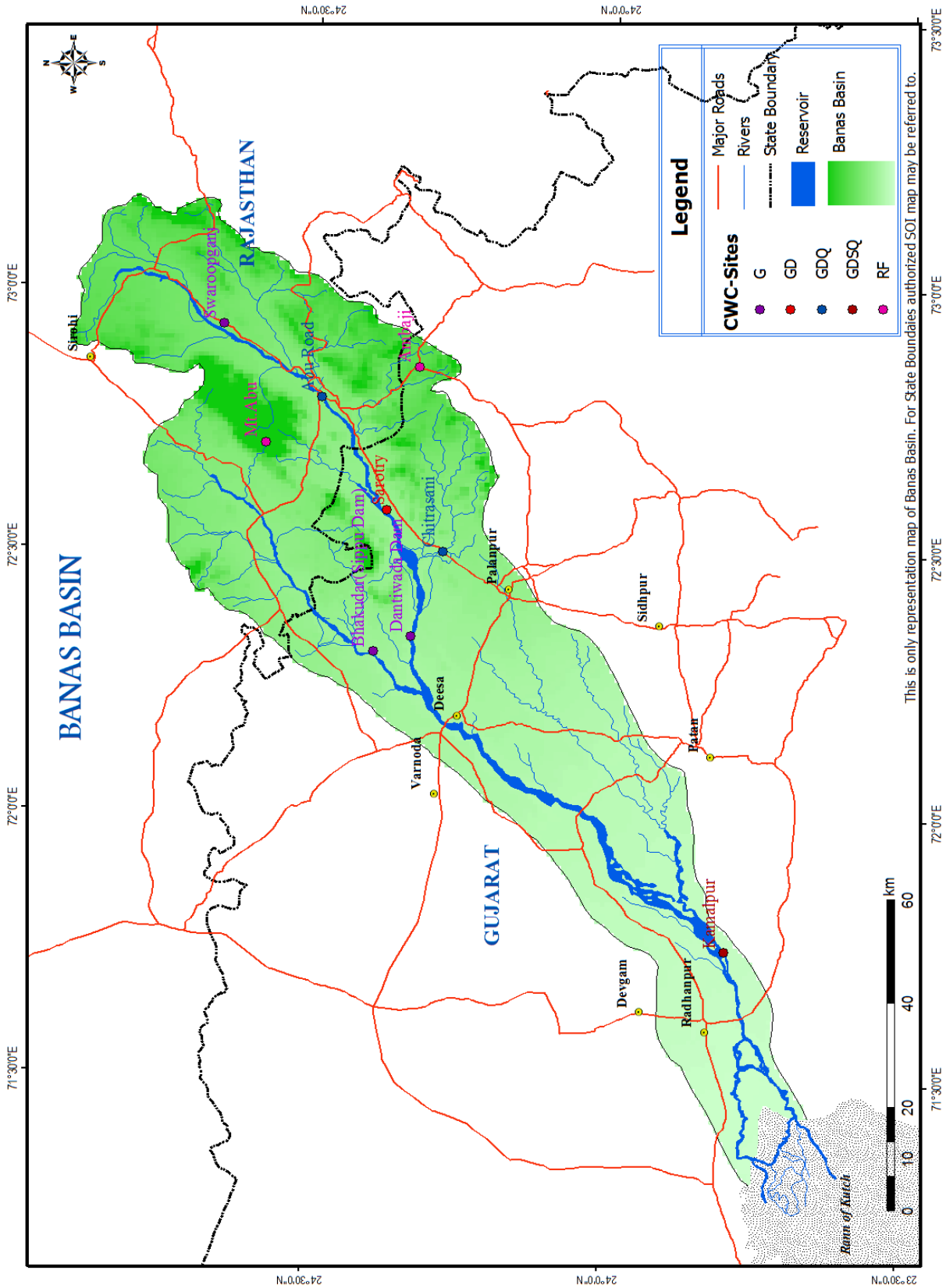
The Dantiwada dam and Swaroopganj dam are two main irrigation structures existing on the main channel of Banas river. The earthen dam on river Sipu, a tributary of Banas, is another project, which is under progress.

There is one monitoring station at Kamalpur for analysis of sediment load of river Banas. A brief about the station is given in section- 4.5.1.

4.5.1. Banas at Kamalpur

The station has a Catchment area of 6,960 sq km. The maximum sediment concentration of 2.209 g/l was observed on 29.07.2015. The total sediment load during the year is 430901 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0442 mm.

Plate – 4.5 Banas Basin



HISTORY SHEET

		Water Year	**: 2015-16**
Site	**: Banas at Kamalpur**	**Code**	**: 01 02 02 007**
State	: Gujarat	District	Banaskantha
Basin	: WFR of Kach.-Saur. & Luni	Independent River	: Banas
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Banas
Division	: Mahi Division, Gandhinagar	Sub-Division	: B.L.Sub Divn, Palanpur
Drainage Area	: 6960 Sq. Km.	Bank	: Right
Latitude	: 23°47'59" N	Longitude	: 71°45'00" E
Zero of Gauge (m)	: 34 (m.s.l)	01-06-1970	
	Opening Date	Closing Date	
Gauge	: 21-07-1971		
Discharge	: 25-07-1971		
Sediment	: 25-08-1973		
Water Quality	: 01-06-1977		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Banas at Kamalpur (01 02 02 007) **Division : Mahi Division, Gandhinagar**

Local River : Banas **Sub-Division : B.L.Sub Divn, Palanpur**

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						108.1	0.000	0.000	0.421	0.421	3928
2	0.000						0.000						17.10	0.000	0.000	0.061	0.061	90
3	0.000						0.000						1.884	0.000	0.000	0.006	0.006	1
4	0.000						0.000						0.000	0.000	0.000	0.000	0.000	0
5	0.000						0.000						0.000	0.000	0.000	0.000	0.000	0
6	0.000						0.000						1.488	0.000	0.000	0.000	0.000	0
7	0.000						0.000						0.858	0.000	0.000	0.000	0.000	0
8	0.000						0.000						0.631	0.000	0.000	0.000	0.000	0
9	0.000						0.000						0.000	0.000	0.000	0.000	0.000	0
10	0.000						0.000						0.555	0.000	0.000	0.000	0.000	0
11	0.000						0.000						0.559	0.000	0.000	0.000	0.000	0
12	0.000						0.000						0.000	0.000	0.000	0.000	0.000	0
13	0.000						0.000						0.000	0.000	0.000	0.000	0.000	0
14	0.000						0.000						1.142	0.000	0.000	0.000	0.000	0
15	0.000						0.000						1.218	0.000	0.000	0.000	0.000	0
16	0.000						0.000						0.199	0.000	0.000	0.000	0.000	0
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	0.000						0.000						0.000					
24	0.000						13.61	0.000	0.000	0.048	0.048	56	0.000					
25	0.000						10.48	0.000	0.000	0.035	0.035	32	0.000					
26	0.000						10.60	0.000	0.000	0.037	0.037	34	0.000					
27	0.000						122.8	0.000	0.035	0.786	0.821	8716	0.000					
28	0.000						333.7	0.107	0.091	1.951	2.149	61954	0.000					
29	0.000						1071	0.012	0.165	2.032	2.209	204334	0.000					
30	0.000						987.2	0.007	0.004	1.554	1.565	133449	0.000					
31							242.8	0.000	0.057	0.810	0.866	18168	0.000					
Ten Daily Mean																		
Ten Daily I	0.000						0.000						13.06	0.000	0.000	0.049	0.049	402
Ten Daily II	0.000						0.000						0.312	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000						253.8	0.016	0.044	0.906	0.966	53343	0.000					
Monthly Total												**426743**						**4019**

Annual Sediment Load (Metric Tonnes) : 430901

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Banas at Kamalpur (01 02 02 007) **Division : Mahi Division, Gandhinagar**

Local River : Banas **Sub-Division : B.L.Sub Divn, Palanpur**

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	0.000						4.686	0.000	0.000	0.000	0.000	0	0.000					
2	0.000						0.000						0.000					
3	0.000						0.000						0.000					
4	0.000						0.000						0.000					
5	0.000						0.000						0.000					
6	0.000						0.000						0.000					
7	0.000						0.000						0.000					
8	0.000						0.000						0.000					
9	0.000						0.000						0.000					
10	0.000						0.000						0.000					
11	0.000						0.000						0.000					
12	0.000						0.000						0.000					
13	0.000						0.000						0.000					
14	0.000						0.000						0.000					
15	0.000						0.000						0.000					
16	0.000						0.000						0.000					
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	21.13	0.000	0.000	0.076	0.076	139	0.000						0.000					
24	6.665	0.000	0.000	0.000	0.000	0	0.000						0.000					
25	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
26	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
27	0.000	0.000	0.000	0.000	0.000	0	0.000						0.000					
28	5.192	0.000	0.000	0.000	0.000	0	0.000						0.000					
29	5.041	0.000	0.000	0.000	0.000	0	0.000						0.000					
30	4.919	0.000	0.000	0.000	0.000	0	0.000						0.000					
31							0.000											
Ten Daily Mean																		
Ten Daily I	0.000						0.469	0.000	0.000	0.000	0.000	0	0.000					
Ten Daily II	0.000						0.000						0.000					
Ten Daily III	4.295	0.000	0.000	0.010	0.010	17	0.000						0.000					
Monthly Total						**139**						**0**						

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Annual Sediment Load (Metric Tonnes) : 430901

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Banas at Kamalpur (01 02 02 007) **Division : Mahi Division, Gandhinagar**

Local River : Banas **Sub-Division : B.L.Sub Divn, Palanpur**

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	0.000						0.000						0.000					
2	0.000						0.000						0.000					
3	0.000						0.000						0.000					
4	0.000						0.000						0.000					
5	0.000						0.000						0.000					
6	0.000						0.000						0.000					
7	0.000						0.000						0.000					
8	0.000						0.000						0.000					
9	0.000						0.000						0.000					
10	0.000						0.000						0.000					
11	0.000						0.000						0.000					
12	0.000						0.000						0.000					
13	0.000						0.000						0.000					
14	0.000						0.000						0.000					
15	0.000						0.000						0.000					
16	0.000						0.000						0.000					
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	0.000						0.000						0.000					
24	0.000						0.000						0.000					
25	0.000						0.000						0.000					
26	0.000						0.000						0.000					
27	0.000						0.000						0.000					
28	0.000						0.000						0.000					
29	0.000						0.000						0.000					
30	0.000						0.000											
31	0.000						0.000											
Ten Daily Mean																		
Ten Daily I	0.000						0.000						0.000					
Ten Daily II	0.000						0.000						0.000					
Ten Daily III	0.000						0.000						0.000					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 430901

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Banas at Kamalpur (01 02 02 007) **Division : Mahi Division, Gandhinagar**

Local River : Banas **Sub-Division : B.L.Sub Divn, Palanpur**

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	0.000						0.000						0.000					
2	0.000						0.000						0.000					
3	0.000						0.000						0.000					
4	0.000						0.000						0.000					
5	0.000						0.000						0.000					
6	0.000						0.000						0.000					
7	0.000						0.000						0.000					
8	0.000						0.000						0.000					
9	0.000						0.000						0.000					
10	0.000						0.000						0.000					
11	0.000						0.000						0.000					
12	0.000						0.000						0.000					
13	0.000						0.000						0.000					
14	0.000						0.000						0.000					
15	0.000						0.000						0.000					
16	0.000						0.000						0.000					
17	0.000						0.000						0.000					
18	0.000						0.000						0.000					
19	0.000						0.000						0.000					
20	0.000						0.000						0.000					
21	0.000						0.000						0.000					
22	0.000						0.000						0.000					
23	0.000						0.000						0.000					
24	0.000						0.000						0.000					
25	0.000						0.000						0.000					
26	0.000						0.000						0.000					
27	0.000						0.000						0.000					
28	0.000						0.000						0.000					
29	0.000						0.000						0.000					
30	0.000						0.000						0.000					
31	0.000												0.000					
Ten Daily Mean																		
Ten Daily I	0.000						0.000						0.000					
Ten Daily II	0.000						0.000						0.000					
Ten Daily III	0.000						0.000						0.000					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 430901

Annual Sediment Load for period : 2005-2016

Station Name : Banas at Kamalpur (01 02 02 007) **Division : Mahi Division, Gandhinagar**

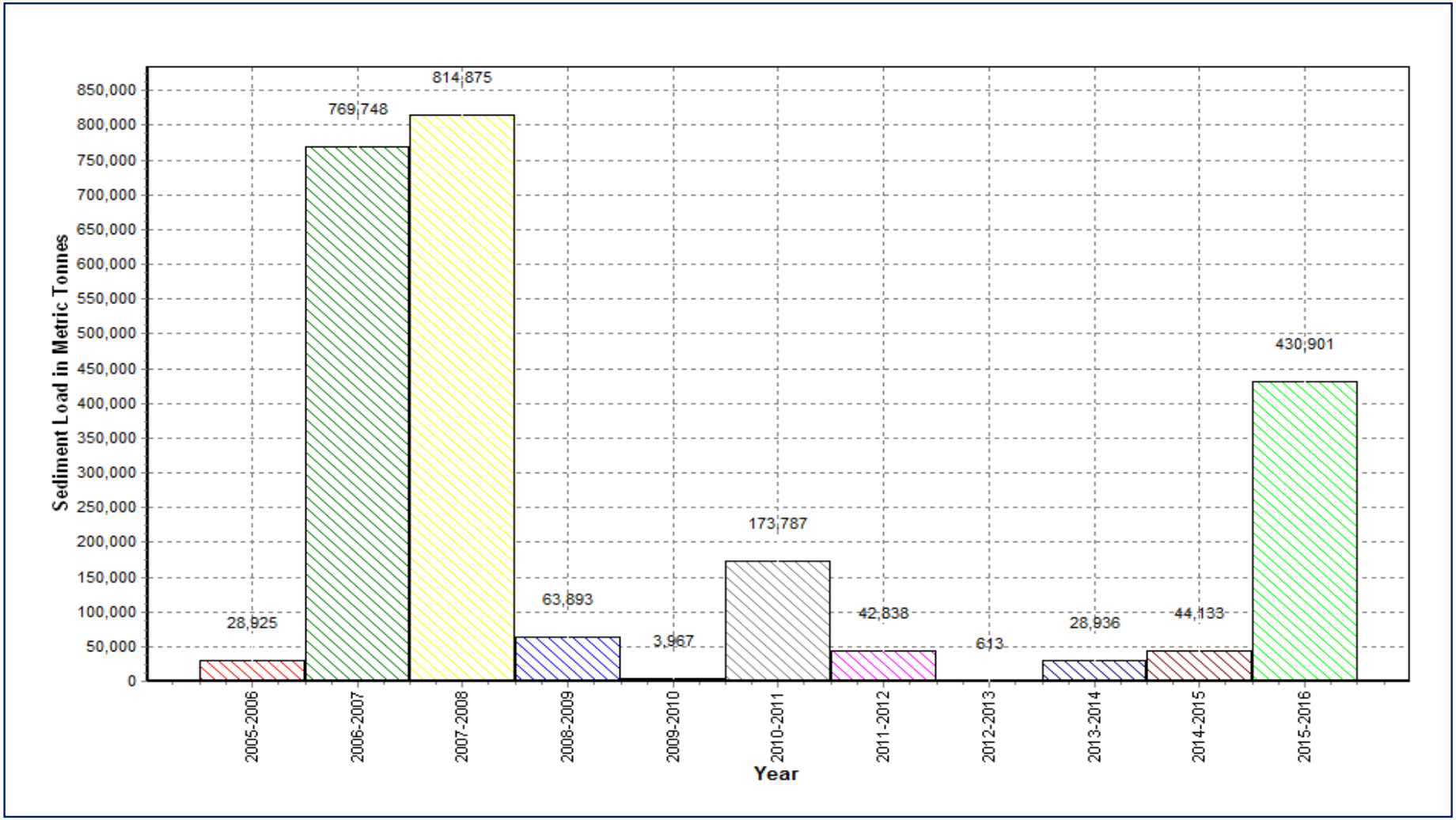
Local River : Banas **Sub-Division : B.L.Sub Divn, Palanpur**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	28925	0	28925	11
2006-2007	769748	0	769748	551
2007-2008	814875	0	814875	214
2008-2009	63893	0	63893	18
2009-2010	3560	407	3967	42
2010-2011	173787	0	173787	78
2011-2012	42838	0	42838	96
2012-2013	613	0	613	117
2013-2014	28936	0	28936	104
2014-2015	44133	0	44133	94
2015-2016	430901	0	430901	257

Annual Sediment Load for the period: 2005-2016

Station Name : Banas at Kamalpur (01 02 02 007)
Local River : Banas

Division : Mahi Division, Gandhinagar
Sub-Division : B.L.Sub Divn, Palanpur



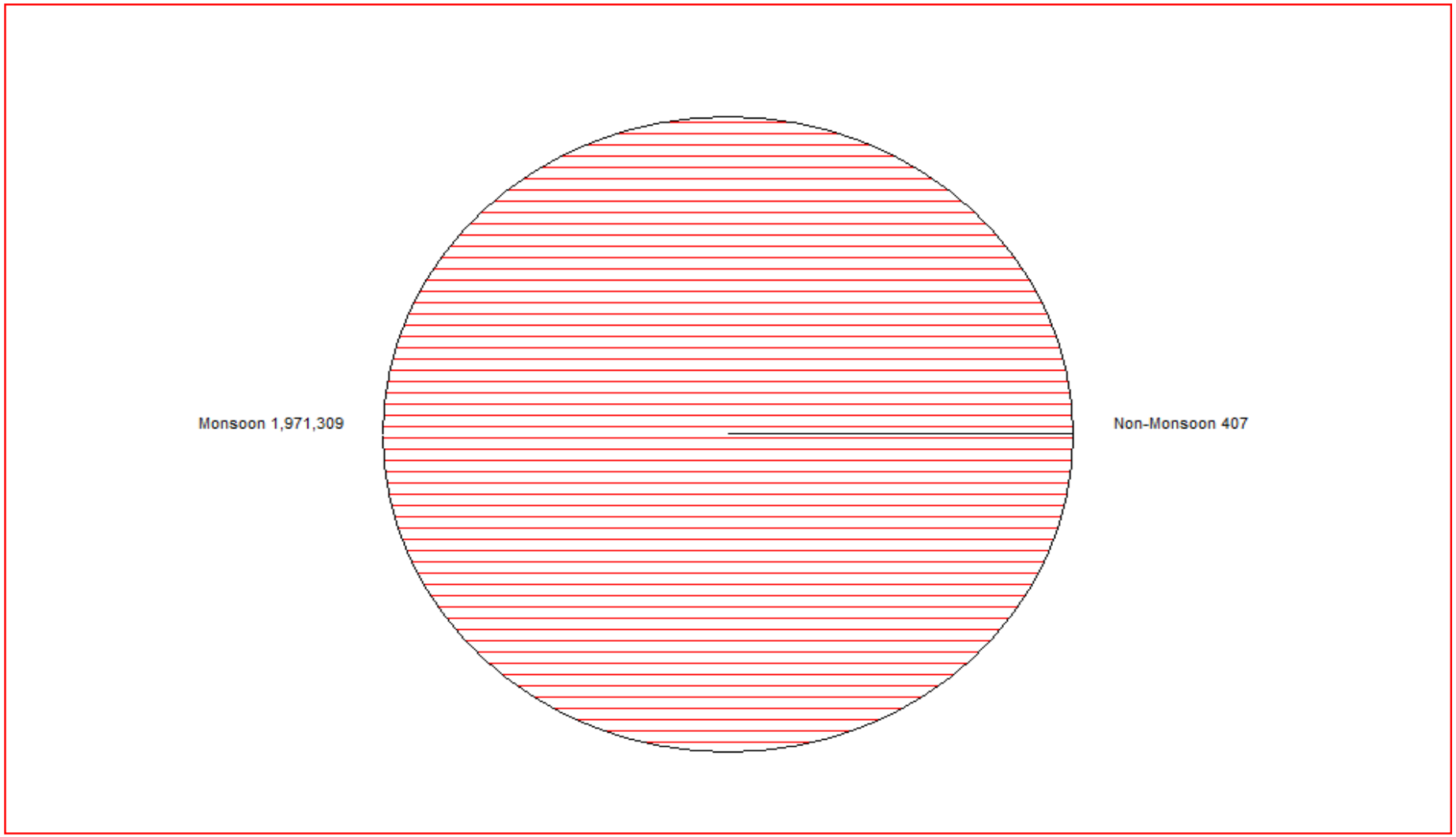
Seasonal Sediment Load for the period : 2005-2015

Station Name : Banas at Kamalpur (01 02 02 007)

Local River : Banas

Division : Mahi Division, Gandhinagar

Sub-Division : B.L.Sub Divn, Palanpur



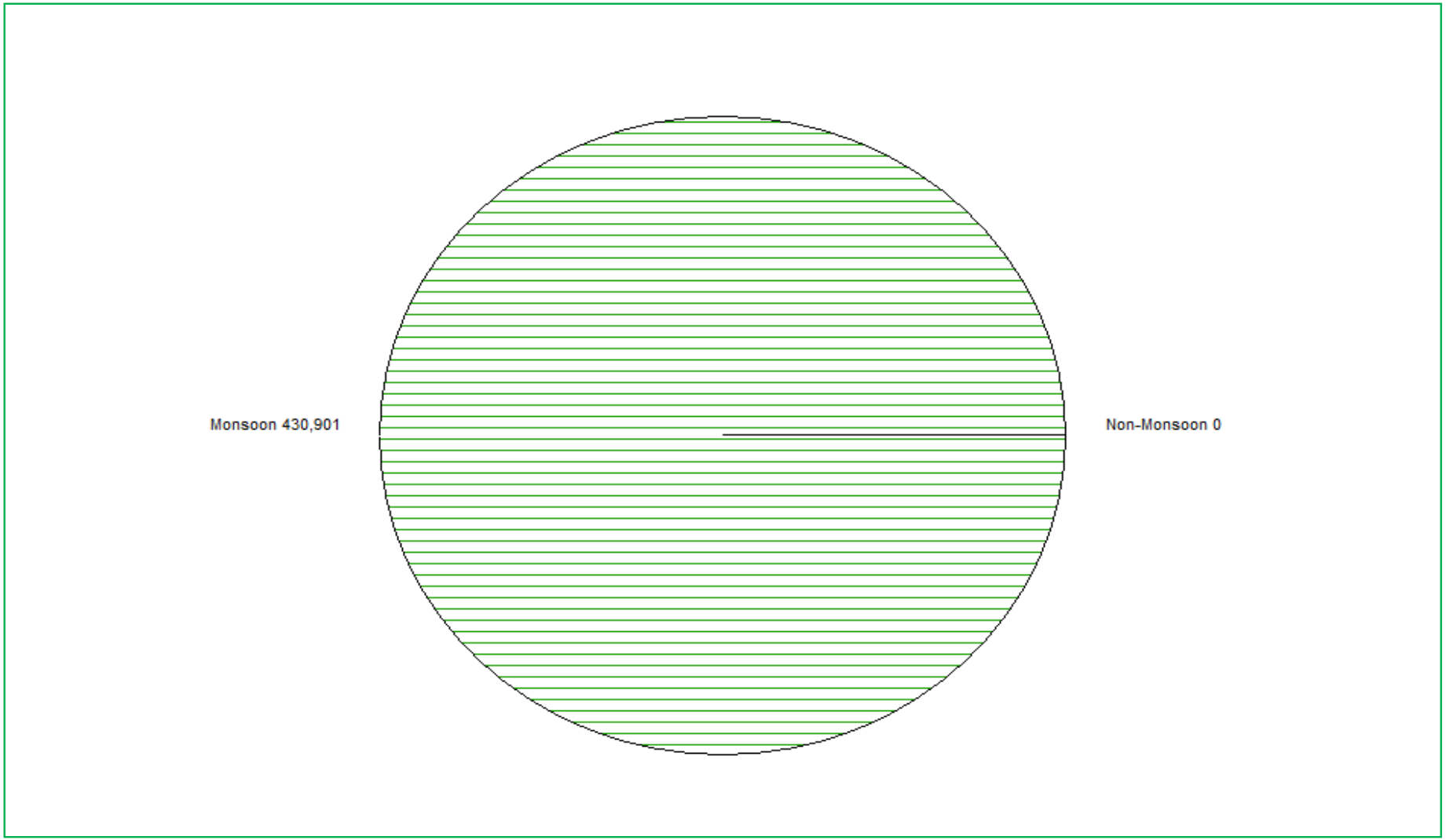
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Banas at Kamalpur (01 02 02 007)

Local River : Banas

Division : Mahi Division, Gandhinagar

Sub-Division : B.L.Sub Divn, Palanpur



4.6 TAPI BASIN

4.6 Tapi Basin

The Tapi is the second largest westward draining interstate river basin. It originates near Multai in Betul district at an elevation of 752 m above *msl*. The total length of this west flowing river from its origin to its out- fall into gulf of Cambay is 724 km. It drains an area of 65,145 sq.km, out of which nearly 80% lies in Maharashtra, 15% in Madhya Pradesh and rest 5% in Gujarat .The Tapi basin is the northern most basin of Deccan Plateau and is situated between latitudes 20°N to 22°N approximately. The Satpura range forms its northern boundary and the Ajanta and Satmala hills forms its southern extremity. Mahadeo hills form its eastern boundary and its outlet into the Arabian sea is in the west. Bounded by three sides by the hill ranges, the river Tapi, along with its tributaries flows more or less over the plains of Vidarbha, Khandesh and Gujarat

The Tapi receives several tributaries on both the banks. There are 14 major tributaries having length more than 50 km. Out of which 4 tributaries viz. Vaki, Gomi, Arunavati and Aner join on the right bank. Other 10 tributaries viz. Nesu, Amaravati, Buray, Panjhra, Bori, Girna, Vaghur, Purna, Mona and Sipna drain on left bank of the main channel. The drainage system on the left bank of Tapi is, therefore, more extensive as compared to the right bank area

The Purna and Girna, two important left bank tributaries, together account for nearly 45% of the total catchment area of the Tapi. The Purna is the principal tributary of the Tapi and originates in Betul district near Gawilgarh hills of Satpura range at an elevation of 900 m. It traverses 274 km having catchments area of about 18929 sq km. The Girna, another major tributary, rises in the hill ranges of Western Ghats at an elevation of 900 m. It traverses a distance of about 260 km having a catchment area about 10061 sq km.

The average rainfall in the Tapi basin is 830 mm, Owing to topographical characteristics, the climate is variable. The Purna Sub catchment in the upper half of the Tapi basin is one of the hottest regions in India

At present, there are 40 major and medium Irrigation schemes completed and 15 ongoing schemes in the form of reservoirs or weirs in the Tapi catchment. The main projects on main river are Kakrapar weir, Ukai Dam and Hathnur Dam. The upper Tapi Stage- II project is under progress at Nawtha.

There are four silt monitoring stations in this basin, out of which two stations are on the main river and the other two stations are located on tributary of Purna. A brief of the Sediment stations is given in section- 4.6.1 to 4.6.4.

4.6.1. Tapi at Burhanpur

The station has a Catchment area of 8487 sq.km. The maximum sediment concentration of 1.644 g/l was observed on 26.07.2015. The total sediment load during the year is 760676 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.064 mm.

4.6.2. Purna at Gopalkheda

The station has a Catchment area of 9,500 sq km. The maximum sediment concentration of 4.900 g/l was observed on 06.08.2015. The total sediment load during the year is 2570194 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.1932 mm.

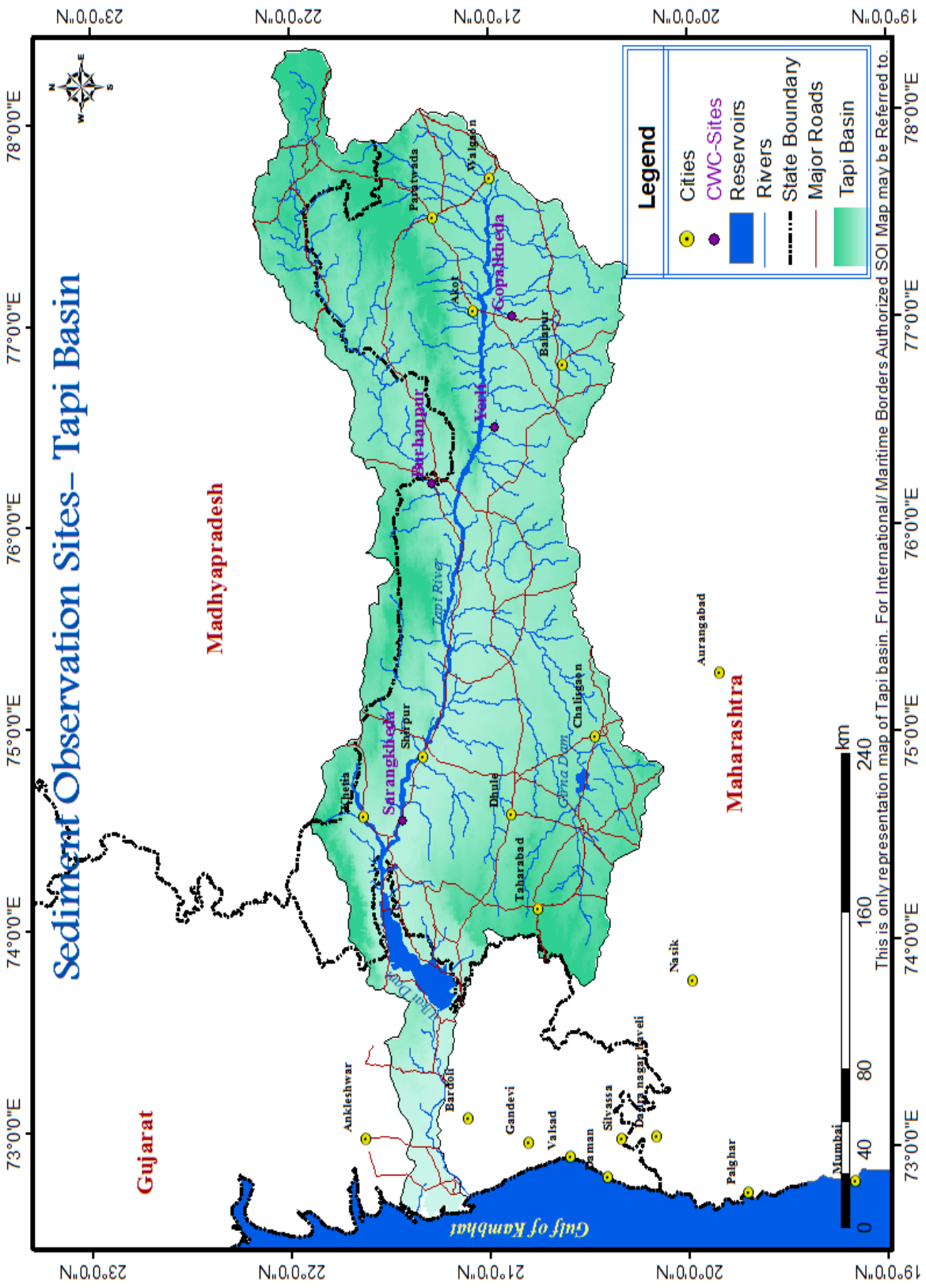
4.6.3. Purna at Yerli

The station has a Catchment area of 16,517 sq km. The maximum sediment concentration of 6.600 g/l was observed on 07.08.2015. The total sediment load during the year is 6623182 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.2864 mm.

4.6.4. Tapi at Sarangkheda

The station has a Catchment area of 58,400 sq km. The maximum sediment concentration of 3.700 g/l was observed on 06.08.2015. The total sediment load during the year is 6943386 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0849 mm.

Plate – 4.6 Tapi Basin



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Tapi at Burhanpur**	**Code**	**:**	**01 02 17 002**
State	:	Madhya Pradesh	District		Khandwa
Basin	:	Tapi	Independent River	:	Tapi
Tributary	:	Tapi	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Tapi
Division	:	Tapi Div., Surat	Sub-Division	:	UTSD, Bhusawal
Drainage Area	:	8487 Sq. Km.	Bank	:	Right Bank
Latitude	:	21°17'12" N	Longitude	:	76°13'18" E
Zero of Gauge (m)	:	213 (m.s.l)	16-06-1972		-
		Opening Date	Closing Date		
Gauge	:	16-06-1972			
Discharge	:	14-09-1972			
Sediment	:	23-12-1972			
Water Quality	:	01-06-1977			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**

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	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	137.2	0.000	0.000	0.153	0.153	1814
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	110.6	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	98.05	0.000	0.000	0.120	0.120	1017
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	110.4	0.000	0.000	0.204	0.204	1946
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12938	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5197	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1930	0.000	0.000	0.328	0.328	54682
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1166	0.000	0.000	0.168	0.168	16932
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1125	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1420	0.000	0.000	0.320	0.320	39263
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1108	0.000	0.000	0.974	0.974	93223
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1081	0.000	0.000	0.494	0.494	46154
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1290	0.000	0.000	0.184	0.184	20512
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	978.2	0.000	0.000	0.398	0.398	33636
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1199	0.000	0.000	0.000	0.000	0
16	241.7	0.000	0.000	0.025	0.025	522	0.000	0.000	0.000	0.000	0.000	0	971.9	0.000	0.000	0.000	0.000	0
17	36.35	0.000	0.000	0.008	0.008	25	0.000	0.000	0.000	0.000	0.000	0	781.6	0.000	0.000	0.190	0.190	12831
18	30.72	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	656.5	0.000	0.000	0.118	0.118	6693
19	135.4	0.000	0.000	0.018	0.018	211	0.000	0.000	0.000	0.000	0.000	0	598.8	0.000	0.000	0.158	0.158	8174
20	90.54	0.000	0.000	0.072	0.072	563	0.000	0.000	0.000	0.000	0.000	0	487.4	0.000	0.000	0.143	0.143	6022
21	70.13	0.000	0.000	0.000	0.000	0	530.7	0.000	0.000	0.868	0.868	39801	377.3	0.000	0.000	0.137	0.137	4466
22	73.58	0.000	0.000	0.246	0.246	1564	492.1	0.000	0.000	1.473	1.473	62623	351.0	0.000	0.000	0.163	0.163	4944
23	210.4	0.000	0.000	0.651	0.651	11834	389.9	0.000	0.000	1.001	1.001	33718	277.5	0.000	0.000	0.000	0.000	0
24	185.3	0.000	0.000	0.795	0.795	12728	642.0	0.000	0.000	1.644	1.644	91194	237.1	0.000	0.000	0.069	0.069	1414
25	102.1	0.000	0.000	0.838	0.838	7392	973.8	0.000	0.000	0.976	0.976	82118	220.9	0.000	0.000	0.055	0.055	1050
26	87.91	0.000	0.000	0.000	0.000	0	677.5	0.000	0.000	0.000	0.000	0	199.8	0.000	0.000	0.049	0.049	846
27	51.07	0.000	0.000	0.454	0.454	2003	369.4	0.000	0.000	0.412	0.412	13150	191.1	0.000	0.000	0.000	0.000	0
28	50.51	0.000	0.000	0.000	0.000	0	303.6	0.000	0.000	0.551	0.551	14452	160.5	0.000	0.000	0.038	0.038	527
29	36.39	0.000	0.000	0.282	0.282	887	224.9	0.000	0.000	0.132	0.132	2565	154.6	0.000	0.000	0.037	0.037	494
30	25.11	0.000	0.000	0.248	0.248	538	174.5	0.000	0.000	0.148	0.148	2231	184.5	0.000	0.000	0.000	0.000	0
31							179.6	0.000	0.000	0.114	0.114	1769	204.1	0.000	0.000	0.025	0.025	441
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2423	0.000	0.000	0.129	0.129	11565
Ten Daily II	53.48	0.000	0.000	0.012	0.012	132	0.000	0.000	0.000	0.000	0.000	0	915.3	0.000	0.000	0.266	0.266	22725
Ten Daily III	89.25	0.000	0.000	0.351	0.351	3695	450.7	0.000	0.000	0.665	0.665	31238	232.6	0.000	0.000	0.052	0.052	1289
Monthly Total						**38267**						**343622**						**357079**

Annual Sediment Load (Metric Tonnes) : 760676

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**

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	338.4	0.000	0.000	0.054	0.054	1579	66.40	0.000	0.000	0.036	0.036	207	0.000	0.000	0.000	0.000	0.000	0
2	211.2	0.000	0.000	0.051	0.051	931	57.21	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	160.8	0.000	0.000	0.059	0.059	820	58.13	0.000	0.000	0.077	0.077	387	0.000	0.000	0.000	0.000	0.000	0
4	150.9	0.000	0.000	0.059	0.059	769	49.60	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	134.2	0.000	0.000	0.050	0.050	580	52.34	0.000	0.000	0.075	0.075	339	0.000	0.000	0.000	0.000	0.000	0
6	113.6	0.000	0.000	0.000	0.000	0	46.43	0.000	0.000	0.038	0.038	152	0.000	0.000	0.000	0.000	0.000	0
7	125.7	0.000	0.000	0.066	0.066	717	37.09	0.000	0.000	0.044	0.044	141	0.000	0.000	0.000	0.000	0.000	0
8	111.7	0.000	0.000	0.052	0.052	502	34.64	0.000	0.000	0.079	0.079	236	0.000	0.000	0.000	0.000	0.000	0
9	109.5	0.000	0.000	0.051	0.051	482	31.64	0.000	0.000	0.064	0.064	175	0.000	0.000	0.000	0.000	0.000	0
10	113.9	0.000	0.000	0.055	0.055	541	29.26	0.000	0.000	0.064	0.064	162	0.000	0.000	0.000	0.000	0.000	0
11	110.4	0.000	0.000	0.046	0.046	439	32.91	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	106.2	0.000	0.000	0.022	0.022	202	34.54	0.000	0.000	0.050	0.050	149	0.000	0.000	0.000	0.000	0.000	0
13	81.47	0.000	0.000	0.000	0.000	0	26.10	0.000	0.000	0.027	0.027	61	0.000	0.000	0.000	0.000	0.000	0
14	69.22	0.000	0.000	0.008	0.008	48	27.09	0.000	0.000	0.056	0.056	131	0.000	0.000	0.000	0.000	0.000	0
15	69.89	0.000	0.000	0.108	0.108	652	26.12	0.000	0.000	0.044	0.044	99	0.000	0.000	0.000	0.000	0.000	0
16	70.34	0.000	0.000	0.043	0.043	261	23.87	0.000	0.000	0.031	0.031	64	0.000	0.000	0.000	0.000	0.000	0
17	129.0	0.000	0.000	0.000	0.000	0	24.10	0.000	0.000	0.013	0.013	27	0.000	0.000	0.000	0.000	0.000	0
18	191.7	0.000	0.000	0.061	0.061	1010	22.08	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	410.0	0.000	0.000	0.139	0.139	4924	21.74	0.000	0.000	0.025	0.025	47	0.000	0.000	0.000	0.000	0.000	0
20	307.7	0.000	0.000	0.000	0.000	0	20.94	0.000	0.000	0.045	0.045	81	0.000	0.000	0.000	0.000	0.000	0
21	208.4	0.000	0.000	0.000	0.000	0	18.67	0.000	0.000	0.050	0.050	81	0.000	0.000	0.000	0.000	0.000	0
22	161.7	0.000	0.000	0.086	0.086	1201	14.22	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	154.8	0.000	0.000	0.137	0.137	1832	12.39	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	149.6	0.000	0.000	0.071	0.071	918	10.62	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	110.6	0.000	0.000	0.000	0.000	0	8.920	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	107.5	0.000	0.000	0.038	0.038	353	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	92.86	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	78.68	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	76.97	0.000	0.000	0.023	0.023	153	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	73.67	0.000	0.000	0.040	0.040	255	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	157.0	0.000	0.000	0.050	0.050	692	46.27	0.000	0.000	0.048	0.048	180	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	154.6	0.000	0.000	0.043	0.043	754	25.95	0.000	0.000	0.029	0.029	66	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	121.5	0.000	0.000	0.040	0.040	471	5.892	0.000	0.000	0.005	0.005	7	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**19169**						**2540**						**0**

90

Annual Sediment Load (Metric Tonnes) : 760676

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

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Annual Sediment Load (Metric Tonnes) : 760676

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 760676

Annual Sediment Load for period : 2005-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

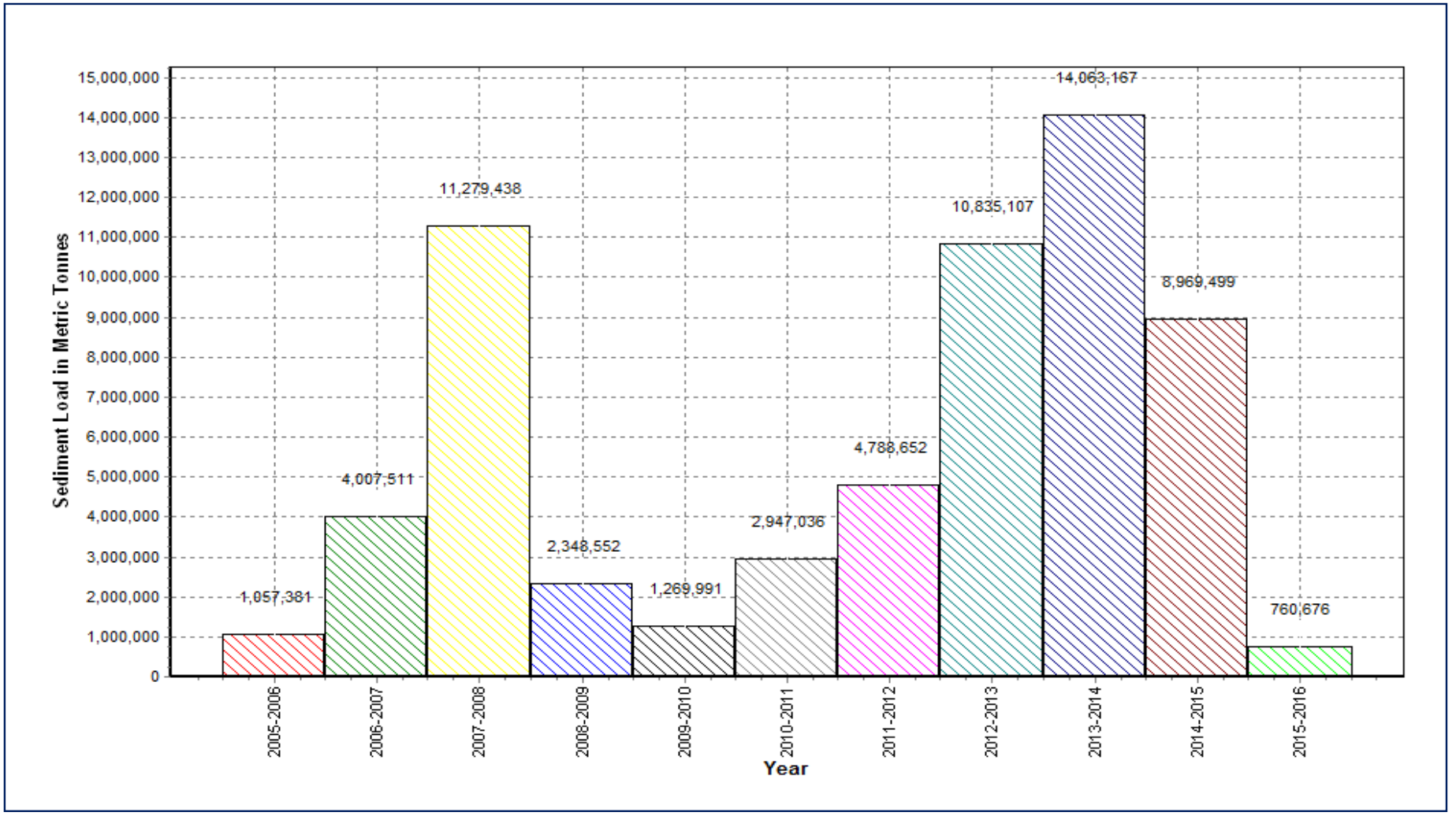
Local River : Tapi **Sub-Division : UTSD, Bhusawal**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	1056270	1110	1057381	3328
2006-2007	4006855	656	4007511	4905
2007-2008	11278315	1122	11279438	9797
2008-2009	2348162	390	2348552	2307
2009-2010	1268880	1111	1269991	2028
2010-2011	2946752	284	2947036	3983
2011-2012	4788652	0	4788652	5039
2012-2013	10835043	64	10835107	8033
2013-2014	14063060	106	14063167	8925
2014-2015	8969482	17	8969499	5192
2015-2016	760676	0	760676	4099

Annual Sediment Load for the period: 2005-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**



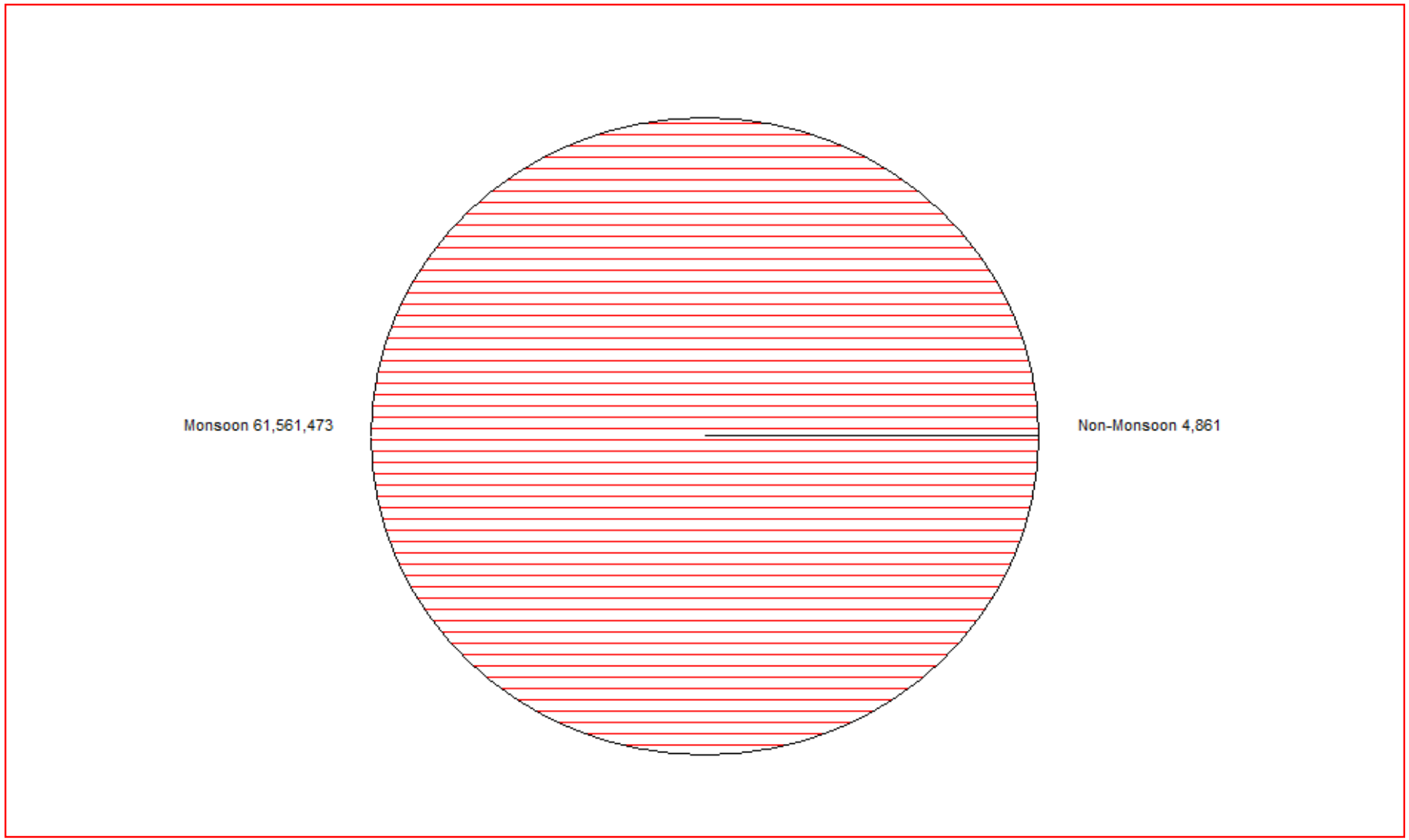
Seasonal Sediment Load for the period : 2005-2015

Station Name : Tapi at Burhanpur (01 02 17 002)

Division : Tapi Div., Surat

Local River : Tapi

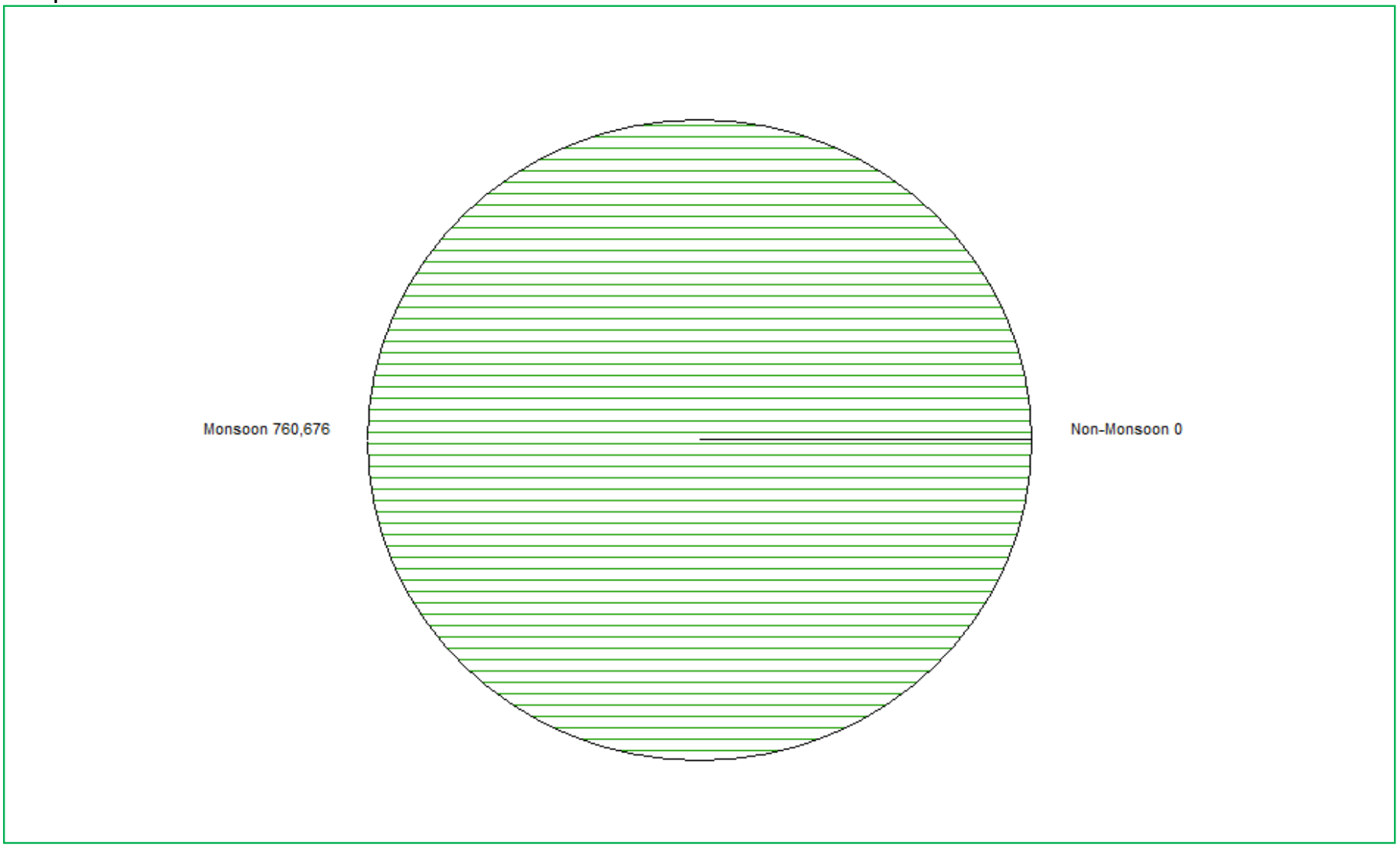
Sub-Division : UTSD, Bhusawal



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Tapi at Burhanpur (01 02 17 002) **Division : Tapi Div., Surat**

Local River : Tapi **Sub-Division : UTSD, Bhusawal**



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Purna at Gopalkheda**	**Code**	**:**	**01 02 17 004**
State	:	Maharashtra	District		Akola
Basin	:	Tapi	Independent River	:	Tapi
Tributary	:	Purna	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Purna
Division	:	Surat	Sub-Division	:	Bhusawal
Drainage Area	:	9500 Sq. Km.	Bank	:	Left
Latitude	:	20°52'35" N	Longitude	:	76°59'14" E
Zero of Gauge (m)	:	236 (m.s.l)	17-02-1977		-
		Opening Date	Closing Date		
Gauge	:	17-02-1977			
Discharge	:	17-02-1977			
Sediment	:	30-07-1979			
Water Quality	:	01-08-1979			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

Local River : Purna **Sub-Division : Bhusawal**

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	0.000	0.000	0.000	0	7.068	0.000	0.000	0.138	0.138	84	5.431	0.000	0.000	0.140	0.140	66
2	0.000	0.000	0.000	0.000	0.000	0	7.318	0.000	0.000	0.148	0.148	94	5.120	0.000	0.000	0.130	0.130	58
3	0.000	0.000	0.000	0.000	0.000	0	8.008	0.000	0.000	0.215	0.215	149	2.651	0.000	0.000	0.135	0.135	31
4	0.000	0.000	0.000	0.000	0.000	0	6.679	0.000	0.000	0.106	0.106	61	2.688	0.000	0.000	0.168	0.168	39
5	0.000	0.000	0.000	0.000	0.000	0	5.841	0.000	0.000	0.000	0.000	0	2137	0.050	0.700	2.650	3.400	627706
6	0.000	0.000	0.000	0.000	0.000	0	5.555	0.000	0.000	0.083	0.083	40	3598	0.100	1.000	3.800	4.900	1523296
7	0.000	0.000	0.000	0.000	0.000	0	3.943	0.000	0.000	0.054	0.054	18	1149	0.000	0.300	1.800	2.100	208413
8	0.000	0.000	0.000	0.000	0.000	0	3.522	0.000	0.000	0.026	0.026	8	131.3	0.000	0.000	1.200	1.200	13615
9	0.000	0.000	0.000	0.000	0.000	0	1.597	0.000	0.000	0.015	0.015	2	111.1	0.000	0.000	1.000	1.000	9598
10	0.000	0.000	0.000	0.000	0.000	0	1.265	0.000	0.000	0.015	0.015	2	67.99	0.000	0.000	0.905	0.905	5316
11	0.000	0.000	0.000	0.000	0.000	0	0.205	0.000	0.000	0.010	0.010	0	172.1	0.000	0.000	1.250	1.250	18584
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	184.6	0.000	0.000	1.450	1.450	23123
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	111.3	0.000	0.000	0.750	0.750	7209
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	254.9	0.000	0.000	1.640	1.640	36116
15	187.6	0.000	0.000	1.000	1.000	16209	0.000	0.000	0.000	0.000	0.000	0	128.0	0.000	0.000	1.000	1.000	11060
16	36.22	0.000	0.000	0.518	0.518	1621	0.000	0.000	0.000	0.000	0.000	0	93.95	0.000	0.000	0.850	0.850	6900
17	9.473	0.000	0.000	0.057	0.057	47	0.000	0.000	0.000	0.000	0.000	0	58.40	0.000	0.000	0.638	0.638	3219
18	238.4	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	50.38	0.000	0.000	0.637	0.637	2773
19	211.5	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	23.10	0.000	0.000	0.473	0.473	944
20	120.6	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	20.72	0.000	0.000	0.438	0.438	784
21	36.58	0.000	0.000	0.350	0.350	1106	0.000	0.000	0.000	0.000	0.000	0	24.53	0.000	0.000	0.298	0.298	632
22	70.25	0.000	0.000	0.633	0.633	3842	0.000	0.000	0.000	0.000	0.000	0	23.40	0.000	0.000	0.140	0.140	283
23	106.6	0.000	0.000	0.000	0.000	0	6.422	0.000	0.000	0.107	0.107	59	18.18	0.000	0.000	0.140	0.140	220
24	125.3	0.000	0.000	0.000	0.000	0	13.33	0.000	0.000	0.298	0.298	343	20.63	0.000	0.000	0.079	0.079	141
25	63.25	0.000	0.000	0.483	0.483	2639	131.6	0.000	0.250	1.650	1.900	21597	19.82	0.000	0.000	0.165	0.165	283
26	27.94	0.000	0.000	0.415	0.415	1002	46.35	0.000	0.000	0.700	0.700	2803	17.80	0.000	0.000	0.160	0.160	246
27	21.20	0.000	0.000	0.290	0.290	531	16.48	0.000	0.000	0.315	0.315	448	16.35	0.000	0.000	0.610	0.610	862
28	19.51	0.000	0.000	0.150	0.150	253	14.93	0.000	0.000	0.285	0.285	368	13.57	0.000	0.000	0.165	0.165	193
29	10.74	0.000	0.000	0.261	0.261	242	8.162	0.000	0.000	0.228	0.228	161	14.46	0.000	0.000	0.170	0.170	212
30	7.513	0.000	0.000	0.190	0.190	123	6.438	0.000	0.000	0.205	0.205	114	11.74	0.000	0.000	0.160	0.160	162
31							5.873	0.000	0.000	0.205	0.205	104	13.73	0.000	0.000	1.700	1.700	2016
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	5.080	0.000	0.000	0.080	0.080	46	721.0	0.015	0.200	1.193	1.408	238814
Ten Daily II	80.37	0.000	0.000	0.158	0.158	1788	0.021	0.000	0.000	0.001	0.001	0	109.7	0.000	0.000	0.913	0.913	11071
Ten Daily III	48.88	0.000	0.000	0.277	0.277	974	22.69	0.000	0.023	0.363	0.386	2363	17.66	0.000	0.000	0.344	0.344	477
Monthly Total						**27615**						**26455**						**2504100**

Annual Sediment Load (Metric Tonnes) : 2570194

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

Local River : Purna **Sub-Division : Bhusawal**

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	13.51	0.000	0.000	0.185	0.185	216	11.50	0.000	0.000	0.140	0.140	139						
2	14.18	0.000	0.000	0.169	0.169	207	7.690	0.000	0.000	0.130	0.130	86						
3	12.27	0.000	0.000	0.163	0.163	173	11.12	0.000	0.000	0.141	0.141	135						
4	11.78	0.000	0.000	0.162	0.162	165	6.210	0.000	0.000	0.100	0.100	54						
5	11.55	0.000	0.000	0.160	0.160	160	9.846	0.000	0.000	0.144	0.144	123						
6	7.690	0.000	0.000	0.000	0.000	0	9.395	0.000	0.000	0.146	0.146	119						
7	10.15	0.000	0.000	0.150	0.150	132	8.713	0.000	0.000	0.140	0.140	105						
8	19.62	0.000	0.000	0.140	0.140	237	4.886	0.000	0.000	0.138	0.138	58						
9	13.13	0.000	0.000	0.000	0.000	0	3.492	0.000	0.000	0.134	0.134	40						
10	13.03	0.000	0.000	0.093	0.093	105	3.174	0.000	0.000	0.128	0.128	35						
11	13.08	0.000	0.000	0.094	0.094	106	3.210	0.000	0.000	0.125	0.125	35						
12	12.60	0.000	0.000	0.096	0.096	105	2.894	0.000	0.000	0.141	0.141	35						
13	8.640	0.000	0.000	0.150	0.150	112	2.501	0.000	0.000	0.145	0.145	31						
14	12.22	0.000	0.000	0.124	0.124	131	2.322	0.000	0.000	0.286	0.286	57						
15	12.36	0.000	0.000	0.201	0.201	215	2.233	0.000	0.000	0.278	0.278	54						
16	21.88	0.000	0.000	0.168	0.168	318	2.077	0.000	0.000	0.248	0.248	45						
17	8.640	0.000	0.000	0.150	0.150	112	1.973	0.000	0.000	0.247	0.247	42						
18	60.48	0.000	0.000	0.242	0.242	1265	1.850	0.000	0.000	0.250	0.250	40						
19	92.67	0.000	0.000	0.527	0.527	4220	1.911	0.000	0.000	0.215	0.215	36						
20	36.58	0.000	0.000	0.180	0.180	569	1.753	0.000	0.000	0.184	0.184	28						
21	21.99	0.000	0.000	0.253	0.253	481	1.193	0.000	0.000	0.184	0.184	19						
22	16.83	0.000	0.000	0.165	0.165	240	1.210	0.000	0.000	0.180	0.180	19						
23	15.33	0.000	0.000	0.173	0.173	229	0.381	0.000	0.000	0.195	0.195	6						
24	14.26	0.000	0.000	0.174	0.174	214	0.000	0.000	0.000	0.000	0.000	0						
25	11.74	0.000	0.000	0.170	0.170	172	0.000	0.000	0.000	0.000	0.000	0						
26	13.53	0.000	0.000	0.165	0.165	193	0.000	0.000	0.000	0.000	0.000	0						
27	10.67	0.000	0.000	0.120	0.120	111	0.000	0.000	0.000	0.000	0.000	0						
28	13.59	0.000	0.000	0.152	0.152	178												
29	13.10	0.000	0.000	0.148	0.148	168												
30	11.80	0.000	0.000	0.148	0.148	151												
31																		
Ten Daily Mean																		
Ten Daily I	12.69	0.000	0.000	0.122	0.122	139	7.602	0.000	0.000	0.134	0.134	89						
Ten Daily II	27.92	0.000	0.000	0.193	0.193	715	2.272	0.000	0.000	0.212	0.212	40						
Ten Daily III	14.28	0.000	0.000	0.167	0.167	214	0.398	0.000	0.000	0.080	0.080	6						
Monthly Total						**10682**						**1341**						

Annual Sediment Load (Metric Tonnes) : 2570194

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

Local River : Purna **Sub-Division : Bhusawal**

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							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

100

Annual Sediment Load (Metric Tonnes) : 2570194

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

Local River : Purna **Sub-Division : Bhusawal**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0												
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 2570194

Annual Sediment Load for period : 2005-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

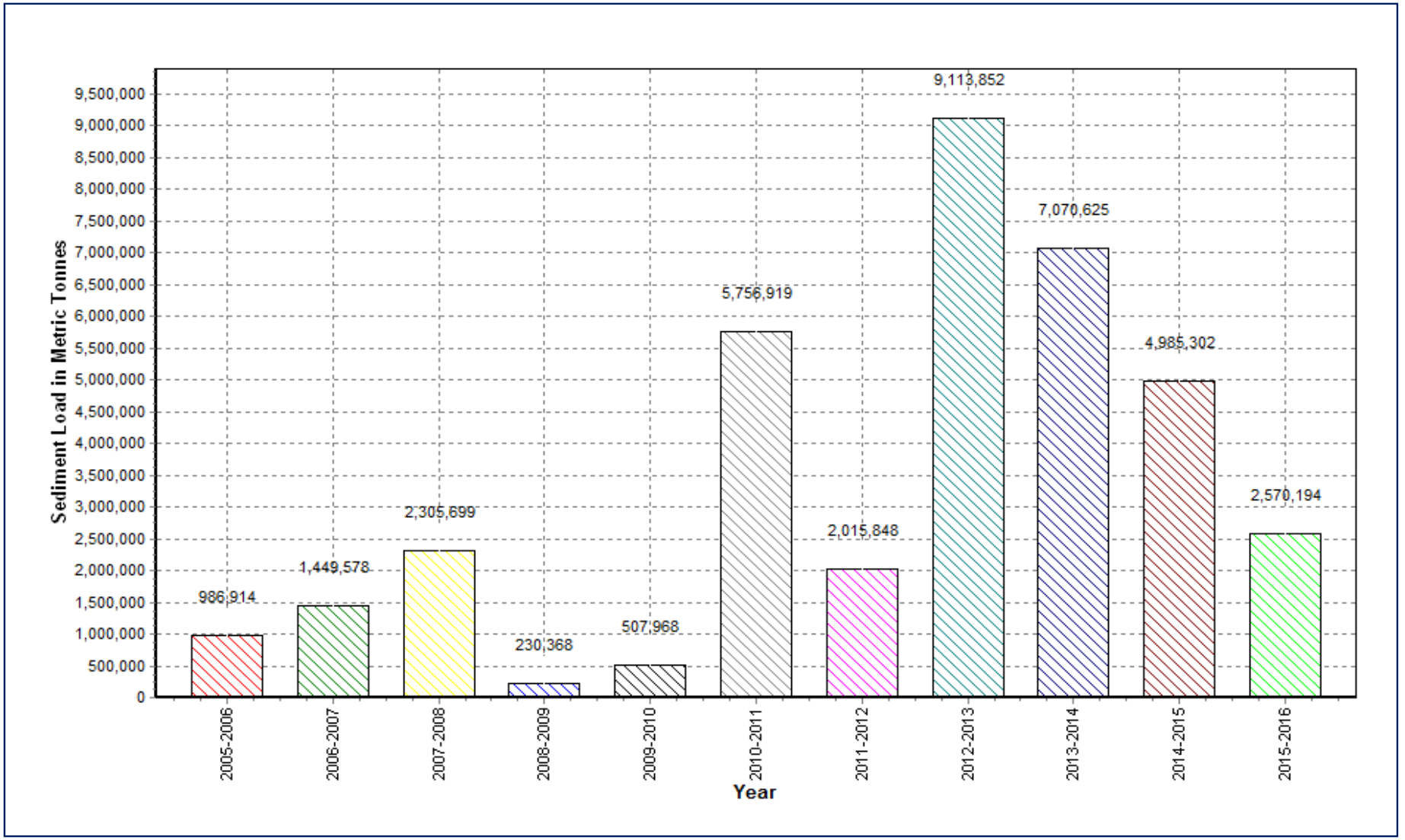
Local River : Purna **Sub-Division : Bhusawal**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	986687	227	986914	630
2006-2007	1449485	93	1449578	1986
2007-2008	2299615	6085	2305699	2827
2008-2009	230368	0	230368	211
2009-2010	507967	1	507968	295
2010-2011	5756871	48	5756919	1400
2011-2012	2015848	0	2015848	601
2012-2013	9113852	0	9113852	1359
2013-2014	7070396	229	7070625	2374
2014-2015	4985302	0	4985302	1204
2015-2016	2570194	0	2570194	928

Annual Sediment Load for the period: 2005-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

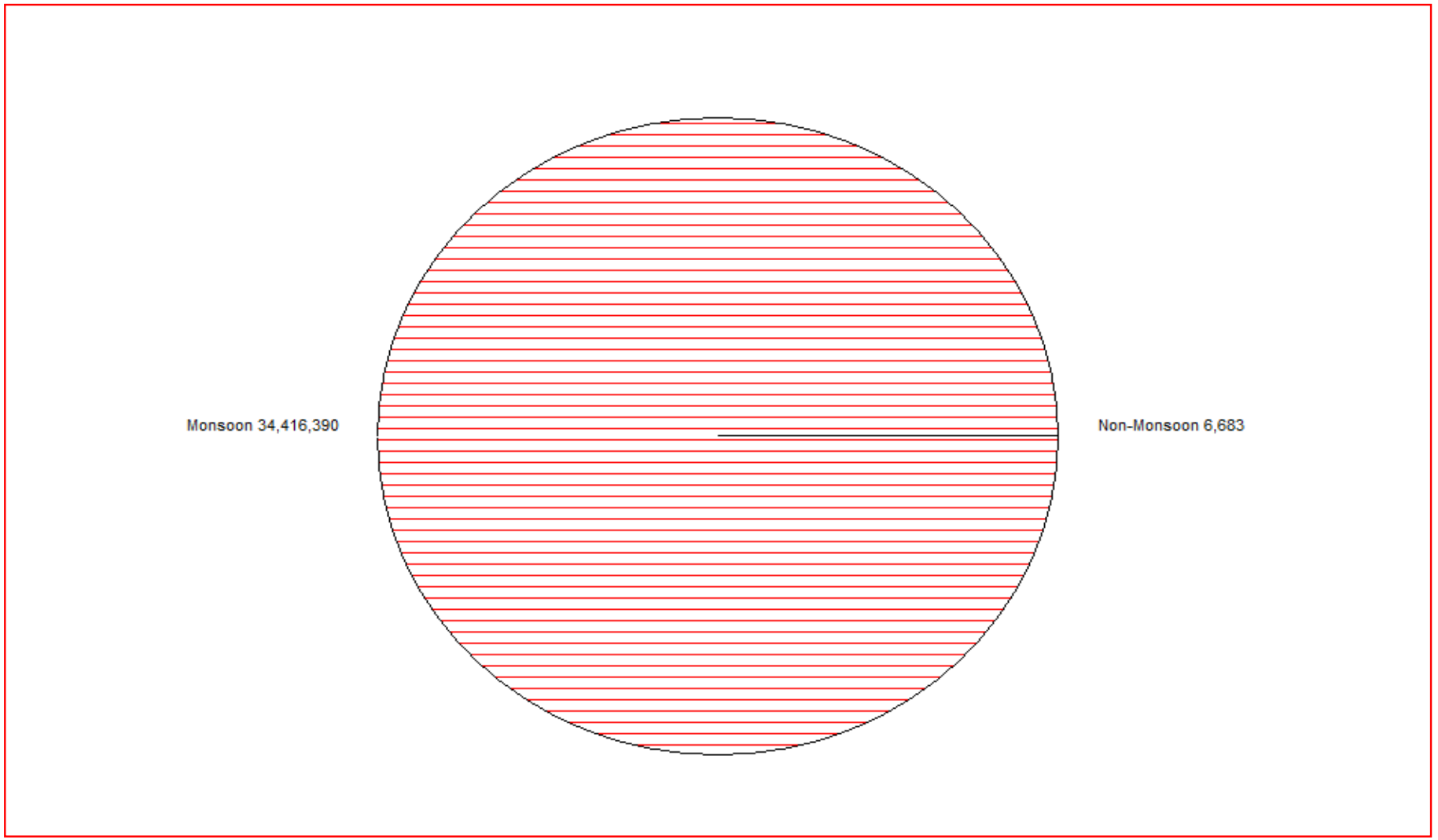
Local River : Purna **Sub-Division : Bhusawal**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

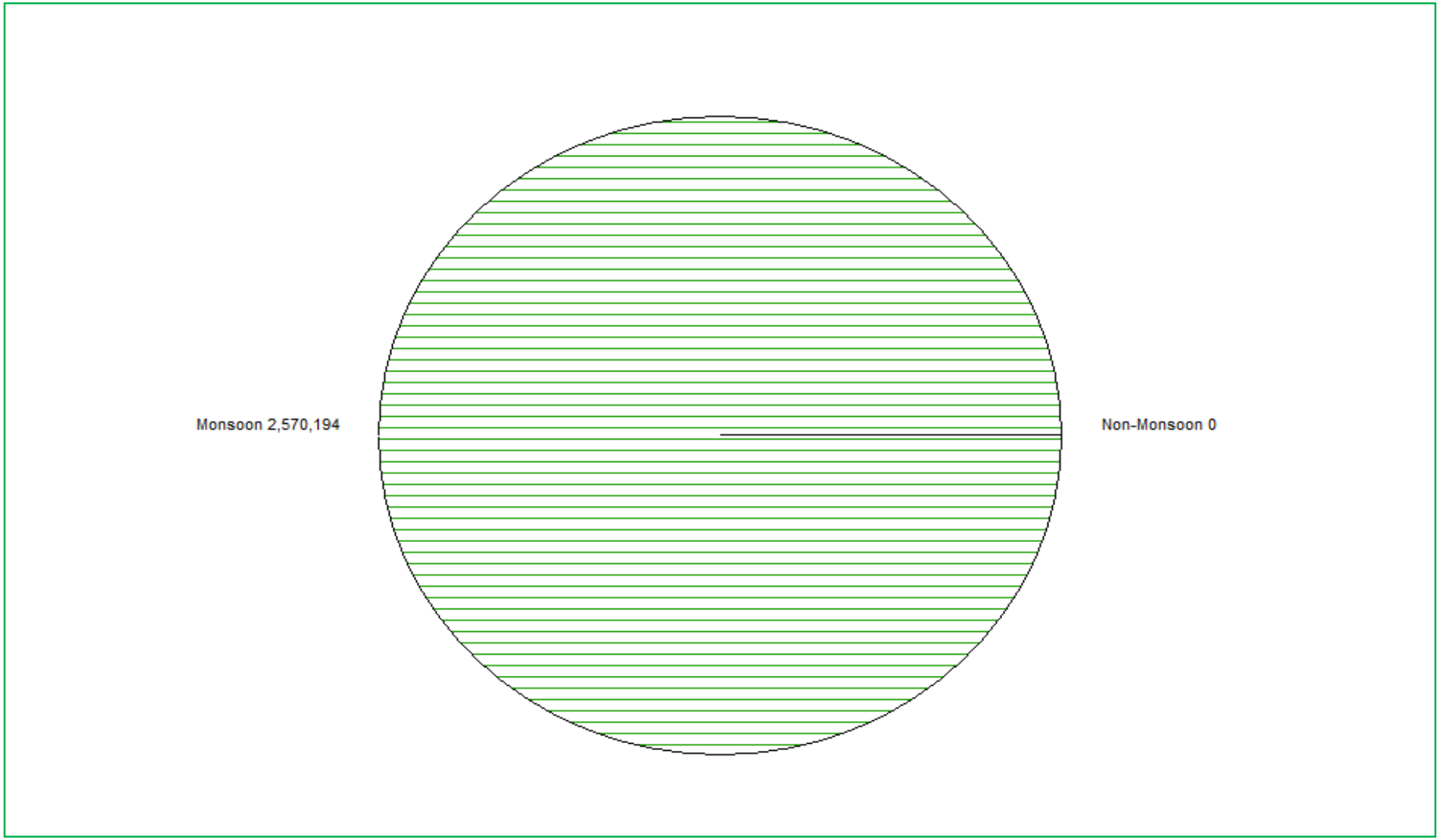
Local River : Purna **Sub-Division : Bhusawal**



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Purna at Gopalkheda (01 02 17 004) **Division : Surat**

Local River : Purna **Sub-Division : Bhusawal**



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Purna at Yerli**	**Code**	**:**	**01 02 17 005**
State	:	Maharashtra	District		Buldana
Basin	:	Tapi	Independent River	:	Tapi
Tributary	:	Purna	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Surat	Sub-Division	:	Bhusawal
Drainage Area	:	16517 Sq. Km.	Bank	:	
Latitude	:	20°56'11" N	Longitude	:	76°28'27" E
Zero of Gauge (m)	:	213 (m.s.l)	11-11-1971		-
		Opening Date	Closing Date		
Gauge	:	11-11-1971			
Discharge	:	01-03-1972			
Sediment	:	09-04-1973			
Water Quality	:	01-06-1977	31-05-2005		

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

Local River : **Sub-Division : Bhusawal**

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							10.78	0.000	0.000	0.100	0.100	93	8.005	0.000	0.000	0.000	0.000	0
2							6.532	0.000	0.000	0.045	0.045	25	5.500	0.000	0.000	0.200	0.200	95
3							5.957	0.000	0.000	0.005	0.005	3	3.016	0.000	0.000	0.015	0.015	4
4							4.260	0.000	0.000	0.000	0.000	0	2.952	0.000	0.000	0.005	0.005	1
5							4.260	0.000	0.000	0.000	0.000	0	2698	0.278	0.603	2.970	3.851	897706
6							4.365	0.000	0.000	0.000	0.000	0	4654	0.500	1.000	3.600	5.100	2050840
7							3.003	0.000	0.000	0.000	0.000	0	4996	0.600	1.500	4.500	6.600	2848731
8							2.768	0.000	0.000	0.000	0.000	0	673.0	0.011	0.049	2.374	2.434	141529
9							0.000	0.000	0.000	0.000	0.000	0	258.3	0.000	0.000	2.000	2.000	44639
10							0.000	0.000	0.000	0.000	0.000	0	187.4	0.000	0.000	1.747	1.747	28282
11							0.000	0.000	0.000	0.000	0.000	0	243.8	0.000	0.000	1.950	1.950	41077
12							0.000	0.000	0.000	0.000	0.000	0	316.1	0.000	0.000	1.398	1.398	38187
13							0.000	0.000	0.000	0.000	0.000	0	365.8	0.051	0.093	1.504	1.648	52087
14							0.000	0.000	0.000	0.000	0.000	0	298.9	0.000	0.000	0.708	0.708	18287
15	11.95	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	329.1	0.000	0.000	1.300	1.300	36959
16	82.80	0.000	0.000	0.485	0.485	3470	0.000	0.000	0.000	0.000	0.000	0	213.9	0.000	0.000	1.000	1.000	18478
17	3.524	0.000	0.000	0.250	0.250	76	0.000	0.000	0.000	0.000	0.000	0	144.4	0.000	0.000	0.561	0.561	6999
18	337.0	0.000	0.120	2.506	2.626	76455	0.000	0.000	0.000	0.000	0.000	0	128.1	0.000	0.000	1.492	1.492	16507
19	408.0	0.000	0.096	1.800	1.896	66842	0.000	0.000	0.000	0.000	0.000	0	78.84	0.000	0.000	0.399	0.399	2718
20	389.7	0.000	0.104	1.756	1.860	62632	0.000	0.000	0.000	0.000	0.000	0	59.32	0.000	0.000	0.232	0.232	1189
21	93.56	0.000	0.000	0.500	0.500	4042	0.000	0.000	0.000	0.000	0.000	0	48.29	0.000	0.000	0.226	0.226	943
22	76.72	0.000	0.000	0.361	0.361	2393	0.000	0.000	0.000	0.000	0.000	0	45.39	0.000	0.000	0.079	0.079	310
23	215.9	0.000	0.000	0.632	0.632	11789	0.000	0.000	0.000	0.000	0.000	0	38.21	0.000	0.000	0.050	0.050	165
24	156.0	0.000	0.000	0.575	0.575	7750	95.11	0.000	0.000	0.496	0.496	4076	32.24	0.000	0.000	0.032	0.032	89
25	143.7	0.000	0.000	0.520	0.520	6457	43.64	0.000	0.000	0.441	0.441	1663	26.01	0.000	0.000	0.031	0.031	70
26	111.4	0.000	0.000	0.483	0.483	4648	143.7	0.000	0.000	1.250	1.250	15521	26.59	0.000	0.000	0.030	0.030	69
27	36.63	0.000	0.000	0.394	0.394	1247	50.96	0.000	0.000	0.474	0.474	2087	20.06	0.000	0.000	0.020	0.020	35
28	22.59	0.000	0.000	0.260	0.260	507	19.04	0.000	0.000	0.300	0.300	494	22.59	0.000	0.000	0.025	0.025	49
29	17.45	0.000	0.000	0.256	0.256	386	21.07	0.000	0.000	0.176	0.176	320	17.36	0.000	0.000	0.020	0.020	30
30	11.82	0.000	0.000	0.248	0.248	253	15.17	0.000	0.000	0.151	0.151	198	18.15	0.000	0.000	0.020	0.020	31
31							14.76	0.000	0.000	0.132	0.132	168	17.03	0.000	0.000	0.020	0.020	29
Ten Daily Mean																		
Ten Daily I							4.193	0.000	0.000	0.015	0.015	12	1349	0.139	0.315	1.741	2.195	601183
Ten Daily II	205.5	0.000	0.053	1.133	1.186	34912	0.000	0.000	0.000	0.000	0.000	0	217.8	0.005	0.009	1.054	1.069	23249
Ten Daily III	88.58	0.000	0.000	0.423	0.423	3947	36.68	0.000	0.000	0.311	0.311	2230	28.36	0.000	0.000	0.050	0.050	165
Monthly Total						**248946**						**24648**						**6246135**

Annual Sediment Load (Metric Tonnes) : 6623182

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

Local River : **Sub-Division : Bhusawal**

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	16.12	0.000	0.000	0.020	0.020	28	11.36	0.000	0.000	0.005	0.005	5	0.000	0.000	0.000	0.000	0.000	0
2	15.52	0.000	0.000	0.015	0.015	20	11.66	0.000	0.000	0.005	0.005	5	0.000	0.000	0.000	0.000	0.000	0
3	14.79	0.000	0.000	0.015	0.015	19	9.861	0.000	0.000	0.005	0.005	4	0.000	0.000	0.000	0.000	0.000	0
4	68.19	0.000	0.000	0.724	0.724	4266	9.940	0.000	0.000	0.005	0.005	4	0.000	0.000	0.000	0.000	0.000	0
5	15.64	0.000	0.000	0.180	0.180	243	7.446	0.000	0.000	0.005	0.005	3	0.000	0.000	0.000	0.000	0.000	0
6	9.940	0.000	0.000	0.008	0.008	7	5.349	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	9.572	0.000	0.000	0.075	0.075	62	4.541	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	19.81	0.000	0.000	0.364	0.364	623	4.223	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	31.60	0.000	0.000	0.567	0.567	1548	4.071	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	33.77	0.000	0.000	0.382	0.382	1115	3.858	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	28.20	0.000	0.000	0.198	0.198	482	3.510	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	14.89	0.000	0.000	0.124	0.124	159	2.794	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	11.07	0.000	0.000	0.080	0.080	77	2.508	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	10.11	0.000	0.000	0.112	0.112	98	1.313	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	9.322	0.000	0.000	0.096	0.096	77	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	28.62	0.000	0.000	0.202	0.202	499	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	31.74	0.000	0.000	0.250	0.250	686	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	249.0	0.000	0.000	1.565	1.565	33663	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	353.8	0.000	0.000	1.620	1.620	49515	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	112.3	0.000	0.000	0.700	0.700	6789	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	49.89	0.000	0.000	0.416	0.416	1793	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	25.32	0.000	0.000	0.204	0.204	446	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	21.38	0.000	0.000	0.196	0.196	362	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	19.21	0.000	0.000	0.178	0.178	295	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	17.45	0.000	0.000	0.085	0.085	128	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	16.47	0.000	0.000	0.094	0.094	134	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	16.76	0.000	0.000	0.090	0.090	130	0.000	0.000	0.000	0.000	0.000	0						
28	15.20	0.000	0.000	0.050	0.050	66	0.000	0.000	0.000	0.000	0.000	0						
29	11.73	0.000	0.000	0.050	0.050	51	0.000	0.000	0.000	0.000	0.000	0						
30	11.38	0.000	0.000	0.050	0.050	49	0.000	0.000	0.000	0.000	0.000	0						
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	23.50	0.000	0.000	0.235	0.235	793	7.231	0.000	0.000	0.003	0.003	2	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	84.89	0.000	0.000	0.495	0.495	9205	1.013	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	20.48	0.000	0.000	0.141	0.141	345	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						**103432**						**22**						**0**

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Annual Sediment Load (Metric Tonnes) : 6623182

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Yerli (01 02 17 005)

Division : Surat

Local River :

Sub-Division : Bhusawal

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																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
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25																		
26																		
27																		
28																		
29																		
30																		
31																		
Ten Daily Mean																		
Ten Daily I																		
Ten Daily II																		
Ten Daily III																		
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 6623182

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

Local River : **Sub-Division : Bhusawal**

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																		
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29																		
30																		
31																		
Ten Daily Mean																		
Ten Daily I																		
Ten Daily II																		
Ten Daily III																		
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 6623182

Annual Sediment Load for period : 2005-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

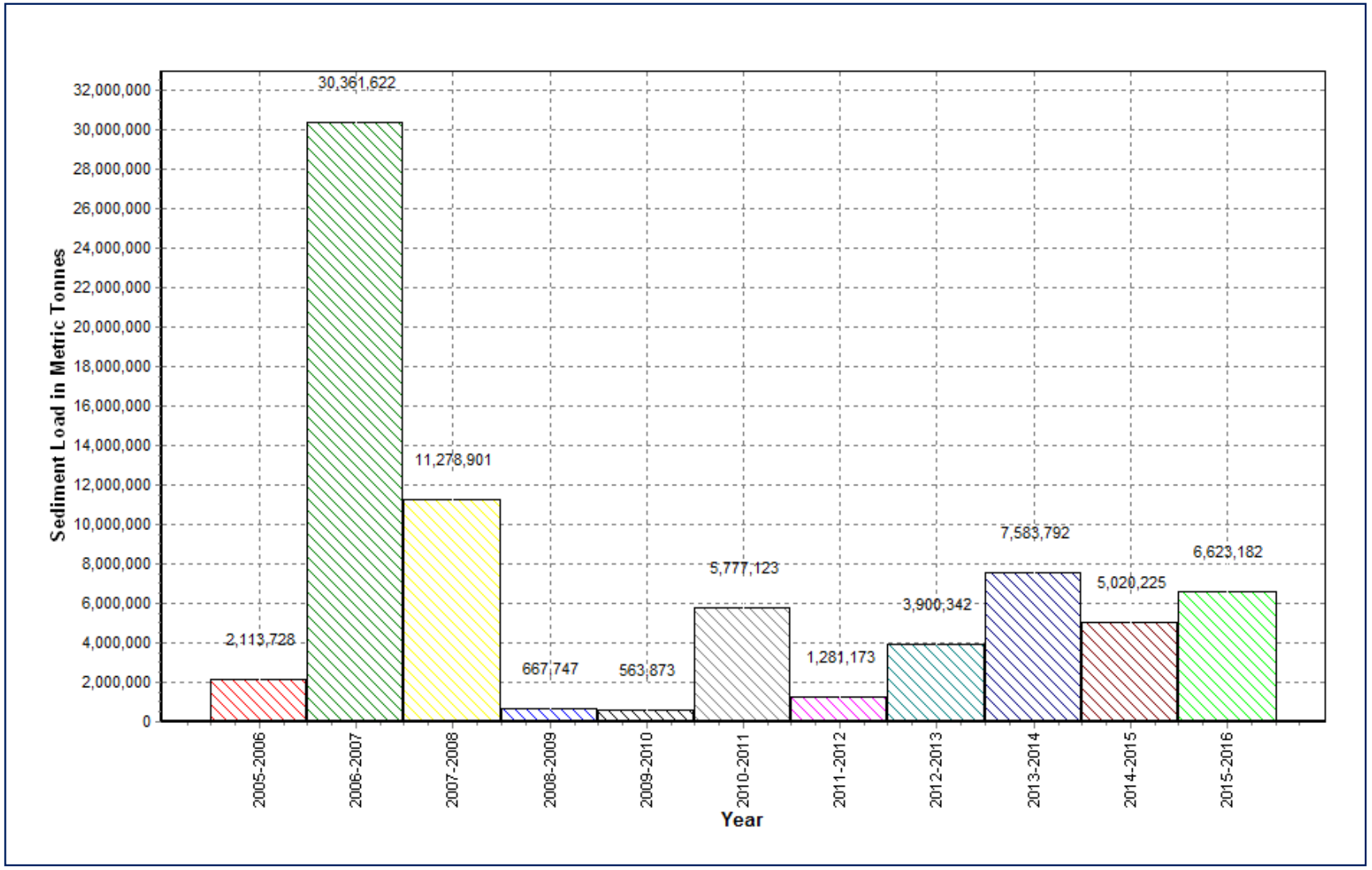
Local River : **Sub-Division : Bhusawal**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	2110313	3415	2113728	1041
2006-2007	30361621	2	30361622	3518
2007-2008	11278856	45	11278901	3340
2008-2009	667747	0	667747	365
2009-2010	557587	6286	563873	640
2010-2011	5777103	20	5777123	2433
2011-2012	1281173	0	1281173	855
2012-2013	3900342	0	3900342	1832
2013-2014	7583548	244	7583792	3822
2014-2015	4978972	41253	5020225	1787
2015-2016	6623182	0	6623182	1720

Annual Sediment Load for the period: 2005-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

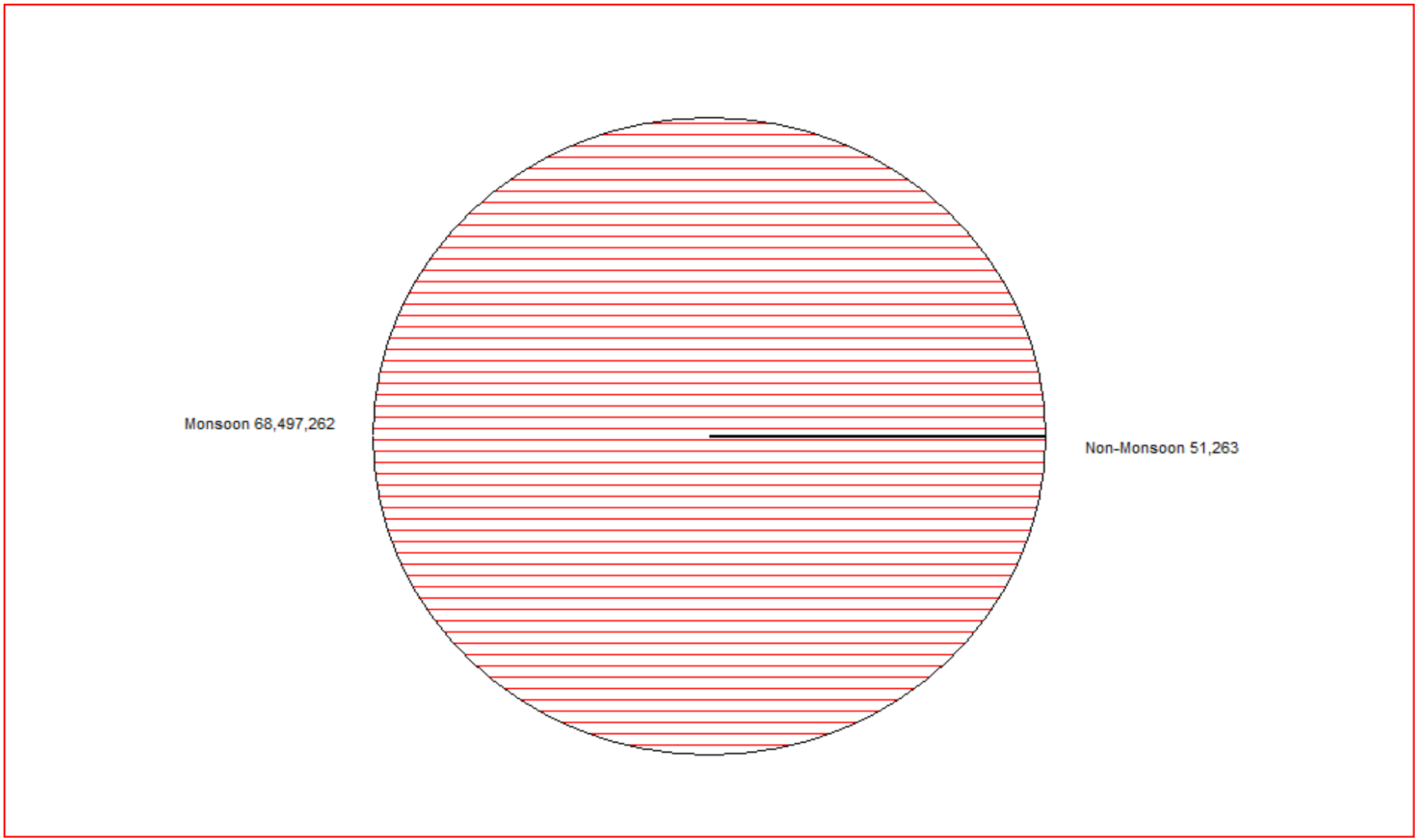
Local River : **Sub-Division : Bhusawal**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

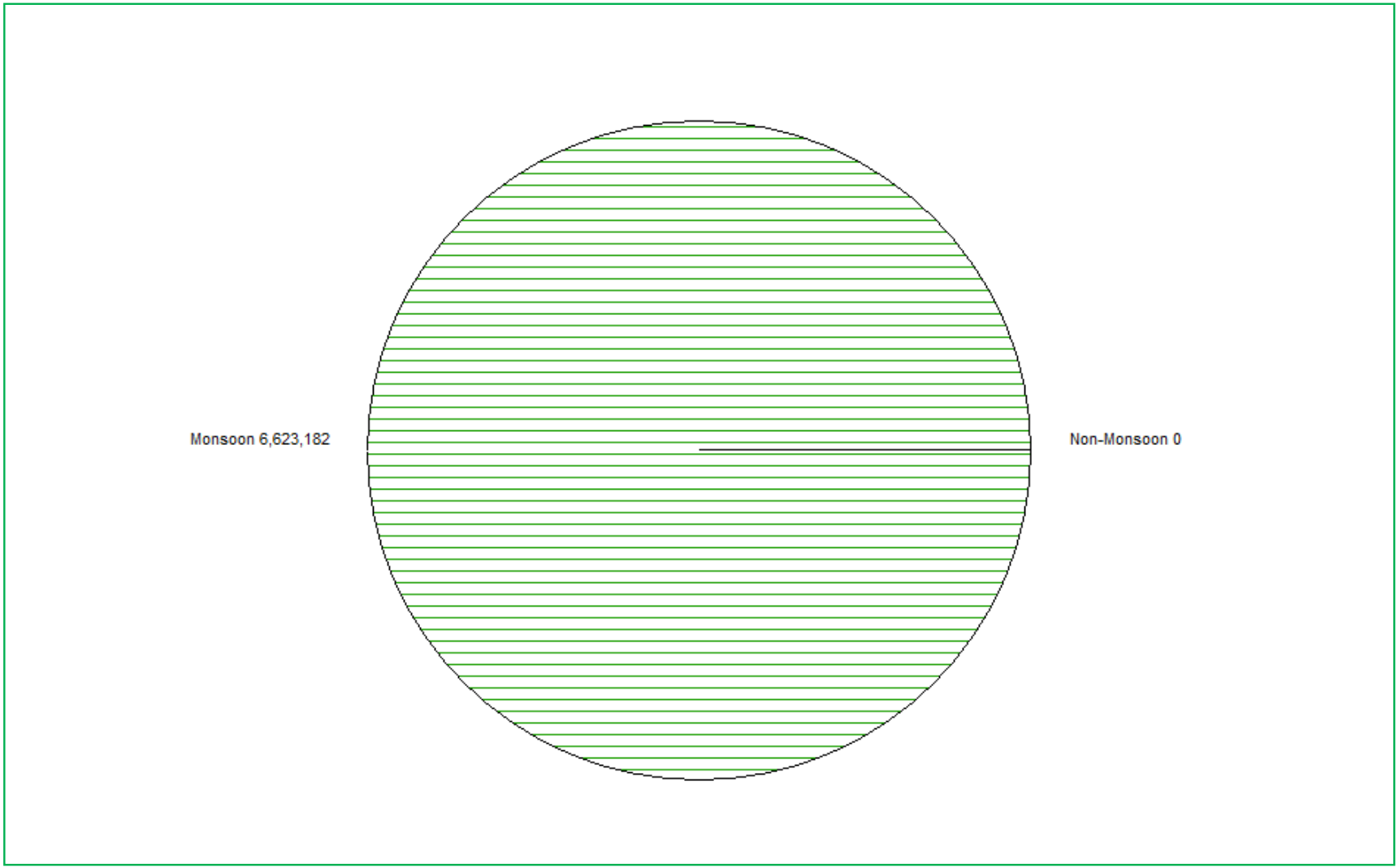
Local River : **Sub-Division : Bhusawal**



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Purna at Yerli (01 02 17 005) **Division : Surat**

Local River : **Sub-Division : Bhusawal**



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Tapi at Sarangkheda**	**Code**	**:**	**01 02 17 015**
State	:	Maharashtra	District		Nandurbar
Basin	:	Tapi	Independent River	:	Tapi
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Surat	Sub-Division	:	MTSD, Dhule
Drainage Area	:	58400 Sq. Km.	Bank	:	Right
Latitude	:	21°25'55" N	Longitude	:	74°31'37" E
Zero of Gauge (m)	:	108 (m.s.l)	21-09-1971		-
		Opening Date	Closing Date		
Gauge	:	29-07-1976			
Discharge	:	19-10-1977			
Sediment	:	13-07-1984			
Water Quality	:	01-01-1980			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**

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	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	658.2	0.000	0.000	0.808	0.808	45950
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7553	0.000	0.000	3.700	3.700	2414569
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4925	0.000	0.000	3.510	3.510	1493575
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4193	0.000	0.000	3.288	3.288	1191161
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2328	0.000	0.000	2.000	2.000	402194
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	985.4	0.000	0.000	0.654	0.654	55681
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1115	0.000	0.000	0.802	0.802	77261
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1137	0.000	0.000	0.704	0.704	69159
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1123	0.000	0.000	0.660	0.660	64038
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1264	0.000	0.000	0.676	0.676	73826
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1105	0.000	0.000	0.450	0.450	42948
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1170	0.000	0.000	0.500	0.500	50530
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	841.2	0.000	0.000	0.278	0.278	20205
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	476.0	0.000	0.000	0.243	0.243	9994
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	503.5	0.000	0.000	0.206	0.206	8961
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	303.8	0.000	0.000	0.070	0.070	1837
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	269.0	0.000	0.000	0.060	0.060	1395
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	132.4	0.000	0.000	0.046	0.046	526
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	403.6	0.000	0.000	0.570	0.570	19876	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	745.8	0.000	0.000	1.500	1.500	96660	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	1197	0.000	0.000	0.780	0.780	80692	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	308.9	0.000	0.000	0.200	0.200	5337	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	306.6	0.000	0.000	0.147	0.147	3895	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0	180.1	0.000	0.000	0.046	0.046	716
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2064	0.000	0.000	1.396	1.396	560313
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	903.8	0.000	0.000	0.459	0.459	41876
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	269.3	0.000	0.000	0.291	0.291	18769	52.87	0.000	0.000	0.014	0.014	240
Monthly Total						**0**						**206460**						**6024525**

Annual Sediment Load (Metric Tonnes) : 6943386

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**

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	272.8	0.000	0.000	0.073	0.073	1721	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	239.7	0.000	0.000	0.062	0.062	1284	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	3070	0.000	0.000	2.510	2.510	665772	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	885.8	0.000	0.000	0.570	0.570	43624	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	51.25	0.000	0.000	0.014	0.014	300	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	395.6	0.000	0.000	0.308	0.308	70940	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						**712401**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 6943386

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

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Annual Sediment Load (Metric Tonnes) : 6943386

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 6943386

Annual Sediment Load for period : 2005-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

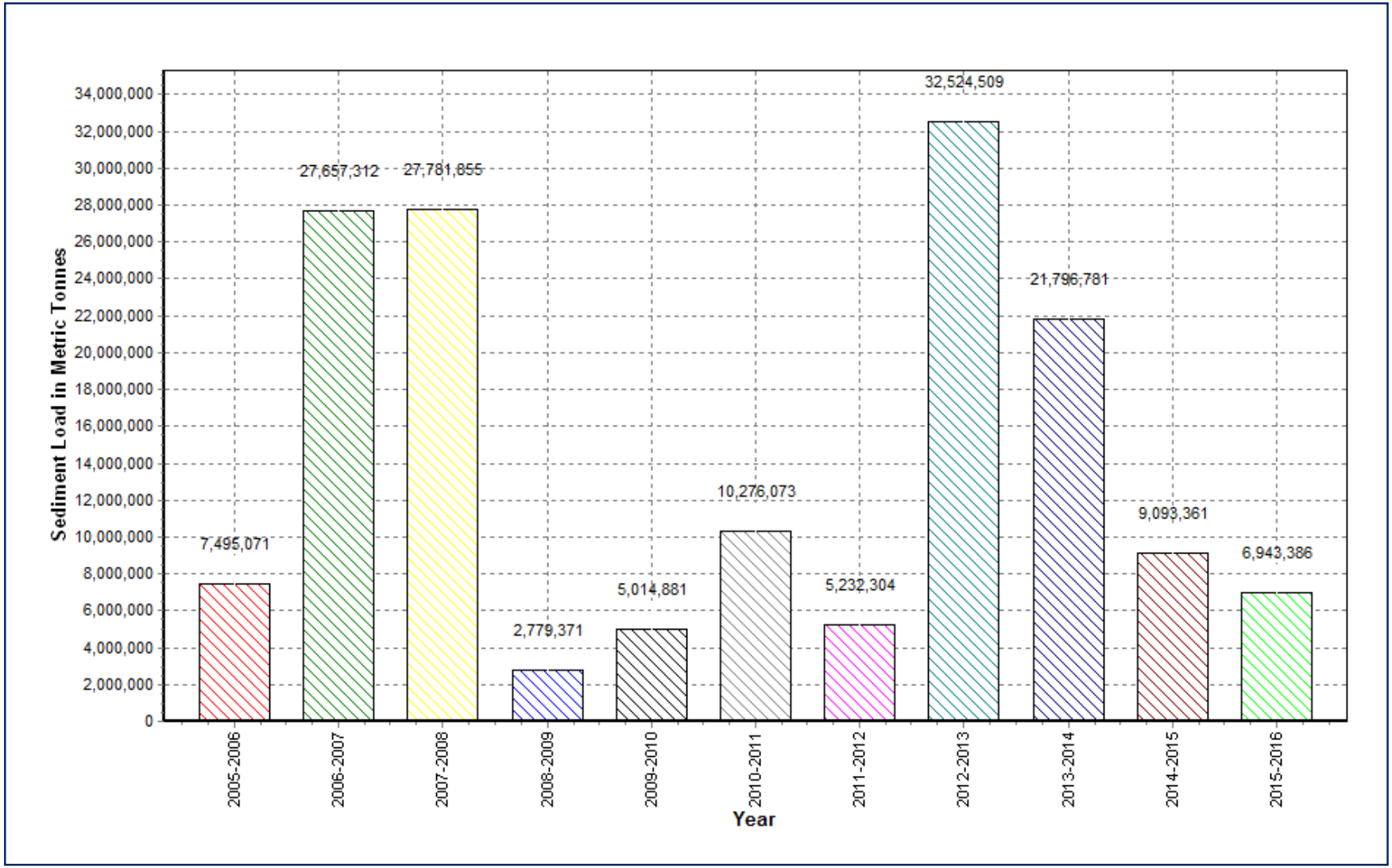
Local River : **Sub-Division : Dhule**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	7495071	0	7495071	5043
2006-2007	27657085	227	27657312	17486
2007-2008	27781784	71	27781855	11414
2008-2009	2779371	0	2779371	3443
2009-2010	5014881	0	5014881	3071
2010-2011	10276073	0	10276073	7001
2011-2012	5232304	0	5232304	6202
2012-2013	32524509	0	32524509	8298
2013-2014	21796781	0	21796781	12353
2014-2015	9093361	0	9093361	3852
2015-2016	6943386	0	6943386	3257

Annual Sediment Load for the period: 2005-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**



Seasonal Sediment Load for the period : 2005-2015

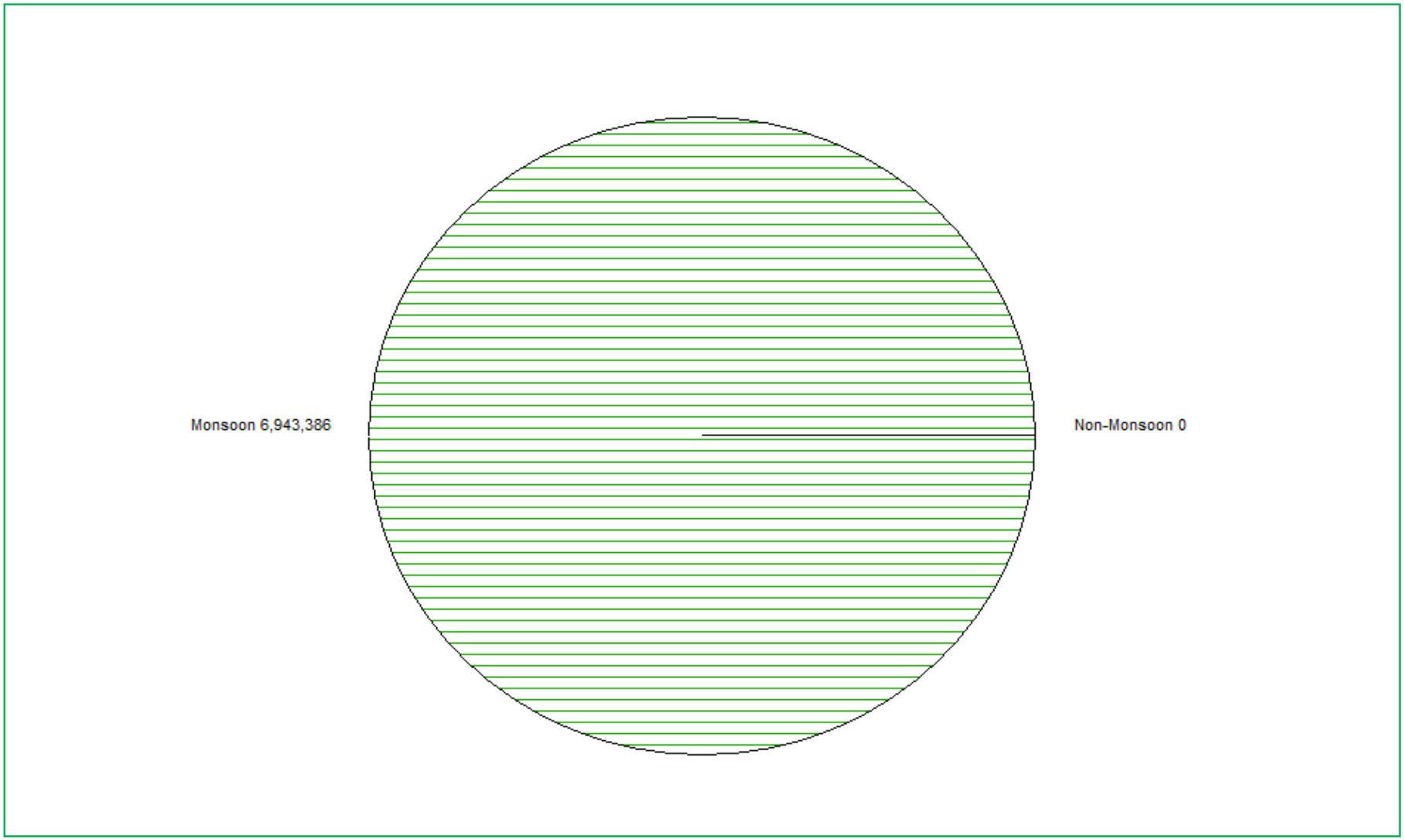
Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**

Seasonal Sediment Load for the Year: 2015-2016

Station Name : Tapi at Sarangkheda (01 02 17 015) **Division : Surat**

Local River : **Sub-Division : Dhule**



4.7 PURNA BASIN

4.7 Purna Basin

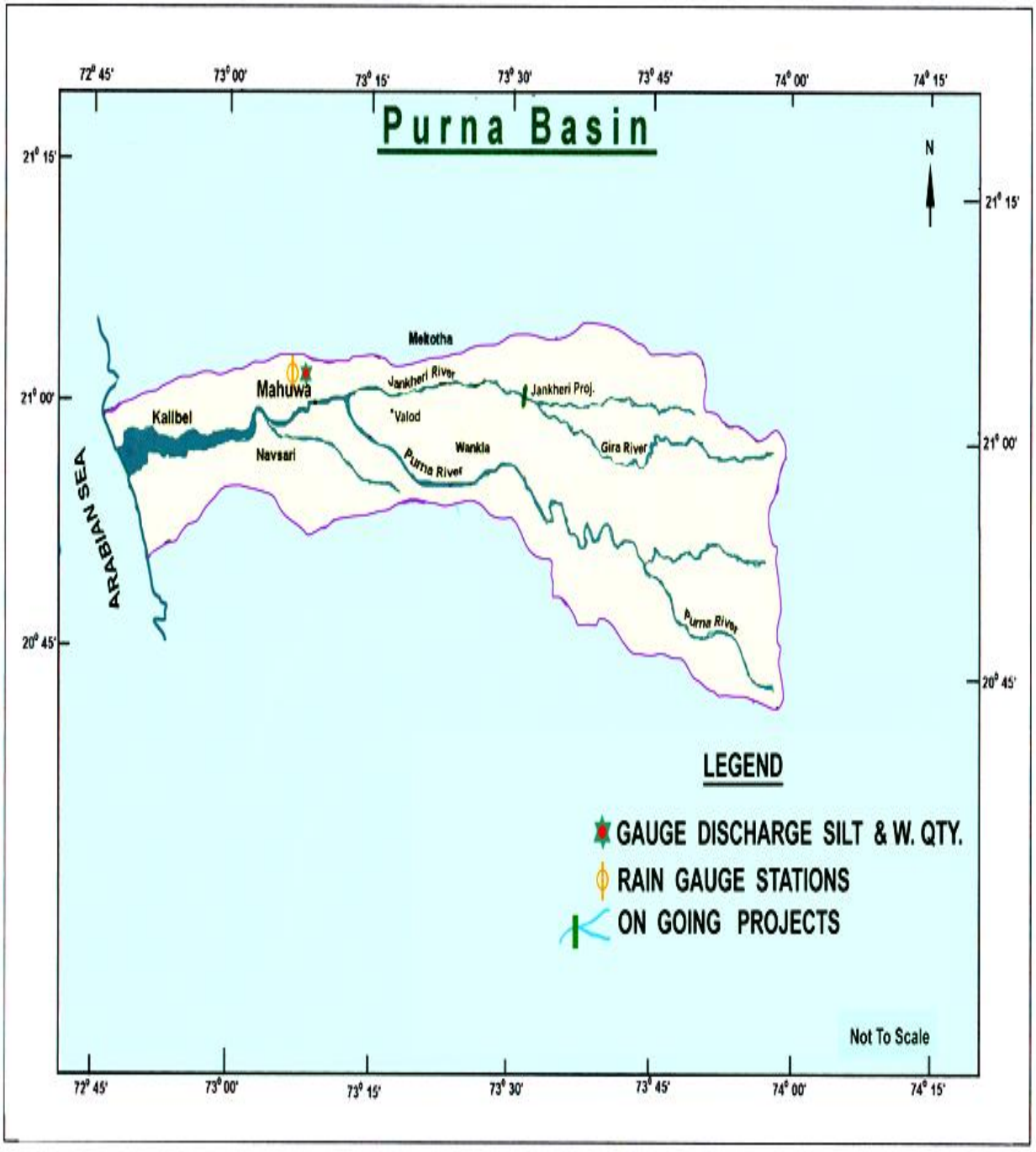
The river Purna is one of the important west flowing rivers in Gujarat state. It originates from Saputara hill ranges and after flowing in Dang, Valsad and Surat districts of Gujarat state for a length of 142-km falls into the Arabian sea. The catchment area of the Purna basin is 2431 sq.km. It lies between 72^0 45' and 74^0 east longitudes and 20^0 40' and 21^0 15' north latitudes. It has only one main tributary namely Jankhari.

There is only one monitoring station near the mouth of the river at Mahuwa in Surat district of Gujarat state. A brief about the station is given in section- 4.7.1

4.7.1 Purna at Mahuwa

The station has a Catchment area of 1,995 sq km. The maximum sediment concentration of 0.500 g/l was observed on 26.07.2015. The total sediment load during the year is 31108 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0111 mm.

Plate -4.7 Purna Basin



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Purna at Mahuwa**	**Code**	**:**	**01 02 19 001**
State	:	Gujarat	District		Surat
Basin	:	WFR South of Tapi	Independent River	:	Purna
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Tapi Division, Surat	Sub-Division	:	LTSD,CWC,Surat
Drainage Area	:	1995 Sq. Km.	Bank	:	Right
Latitude	:	21°00'52" N	Longitude	:	73°08'25" E
Zero of Gauge (m)	:	9 (m.s.l)	04-10-1970		-
		Opening Date	Closing Date		
Gauge	:	04-10-1970			
Discharge	:	12-11-1970			
Sediment	:	18-06-1973			
Water Quality	:	15-06-1977			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : LTSD,CWC,Surat**

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	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	56.58	0.000	0.006	0.097	0.103	504
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	32.86	0.000	0.000	0.050	0.050	142
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	24.02	0.000	0.000	0.028	0.028	58
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	11.52	0.000	0.000	0.030	0.030	30
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	10.15	0.000	0.000	0.009	0.009	8
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.772	0.000	0.000	0.021	0.021	18
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	10.10	0.000	0.000	0.015	0.015	13
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.828	0.000	0.000	0.028	0.028	24
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.52	0.000	0.000	0.060	0.060	70
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.976	0.000	0.000	0.013	0.013	10
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.234	0.000	0.000	0.005	0.005	4
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.125	0.000	0.000	0.010	0.010	6
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.292	0.000	0.000	0.011	0.011	6
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.279	0.000	0.000	0.006	0.006	3
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.500	0.000	0.000	0.006	0.006	3
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.500	0.000	0.000	0.006	0.006	3
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5.902	0.000	0.000	0.016	0.016	8
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5.218	0.000	0.000	0.018	0.018	8
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4.633	0.000	0.000	0.011	0.011	4
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	3.573	0.000	0.000	0.014	0.014	4
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	3.461	0.000	0.000	0.004	0.004	1
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2.966	0.000	0.000	0.002	0.002	1
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2.670	0.000	0.000	0.002	0.002	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2.798	0.000	0.000	0.003	0.003	1
25	0.000	0.000	0.000	0.000	0.000	0	137.6	0.000	0.003	0.121	0.124	1474	2.986	0.000	0.000	0.011	0.011	3
26	0.000	0.000	0.000	0.000	0.000	0	247.2	0.000	0.000	0.500	0.500	10680	3.079	0.000	0.000	0.003	0.003	1
27	0.000	0.000	0.000	0.000	0.000	0	92.59	0.000	0.004	0.100	0.104	832	2.764	0.000	0.000	0.002	0.002	0
28	0.000	0.000	0.000	0.000	0.000	0	454.3	0.000	0.012	0.189	0.201	7889	2.584	0.000	0.000	0.002	0.002	0
29	0.000	0.000	0.000	0.000	0.000	0	404.0	0.000	0.008	0.123	0.131	4573	2.675	0.000	0.000	0.002	0.002	0
30	0.000	0.000	0.000	0.000	0.000	0	133.2	0.000	0.007	0.101	0.108	1243	1.950	0.000	0.000	0.002	0.002	0
31							73.67	0.000	0.006	0.120	0.126	802	2.193	0.000	0.000	0.001	0.001	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	18.73	0.000	0.001	0.035	0.036	88
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.026	0.000	0.000	0.010	0.010	5
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	140.2	0.000	0.004	0.114	0.118	2499	2.739	0.000	0.000	0.003	0.003	1
Monthly Total						**0**						**27494**						**935**

Annual Sediment Load (Metric Tonnes) : 31108

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : LTSD,CWC,Surat**

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	2.028	0.000	0.000	0.000	0.000	0	5.029	0.000	0.000	0.021	0.021	9	0.000	0.000	0.000	0.000	0.000	0
2	2.063	0.000	0.000	0.000	0.000	0	4.240	0.000	0.000	0.015	0.015	5	0.000	0.000	0.000	0.000	0.000	0
3	1.988	0.000	0.000	0.000	0.000	0	2.871	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
4	1.692	0.000	0.000	0.000	0.000	0	3.520	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	1.499	0.000	0.000	0.000	0.000	0	4.824	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	4.157	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	2.941	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	2.343	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	2.230	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	2.145	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	2.120	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	1.546	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.340	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	3.436	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	3.643	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	2.723	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	2.480	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	2.773	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	548.0	0.000	0.006	0.031	0.037	1752	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	125.3	0.000	0.000	0.050	0.050	541	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	72.69	0.000	0.003	0.031	0.034	214	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	63.70	0.000	0.001	0.019	0.020	110	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	52.63	0.000	0.000	0.006	0.006	27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	23.94	0.000	0.000	0.004	0.004	8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	21.47	0.000	0.000	0.004	0.004	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	17.52	0.000	0.000	0.002	0.002	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	13.99	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	9.345	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	8.346	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	6.600	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.927	0.000	0.000	0.000	0.000	0	3.430	0.000	0.000	0.004	0.004	2	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	68.87	0.000	0.001	0.008	0.009	229	0.367	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	29.02	0.000	0.000	0.007	0.007	37	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**2663**						**16**						**0**

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Annual Sediment Load (Metric Tonnes) : 31108

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : LTSD,CWC,Surat**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 31108

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : LTSD,CWC,Surat**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 31108

Annual Sediment Load for period : 2005-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

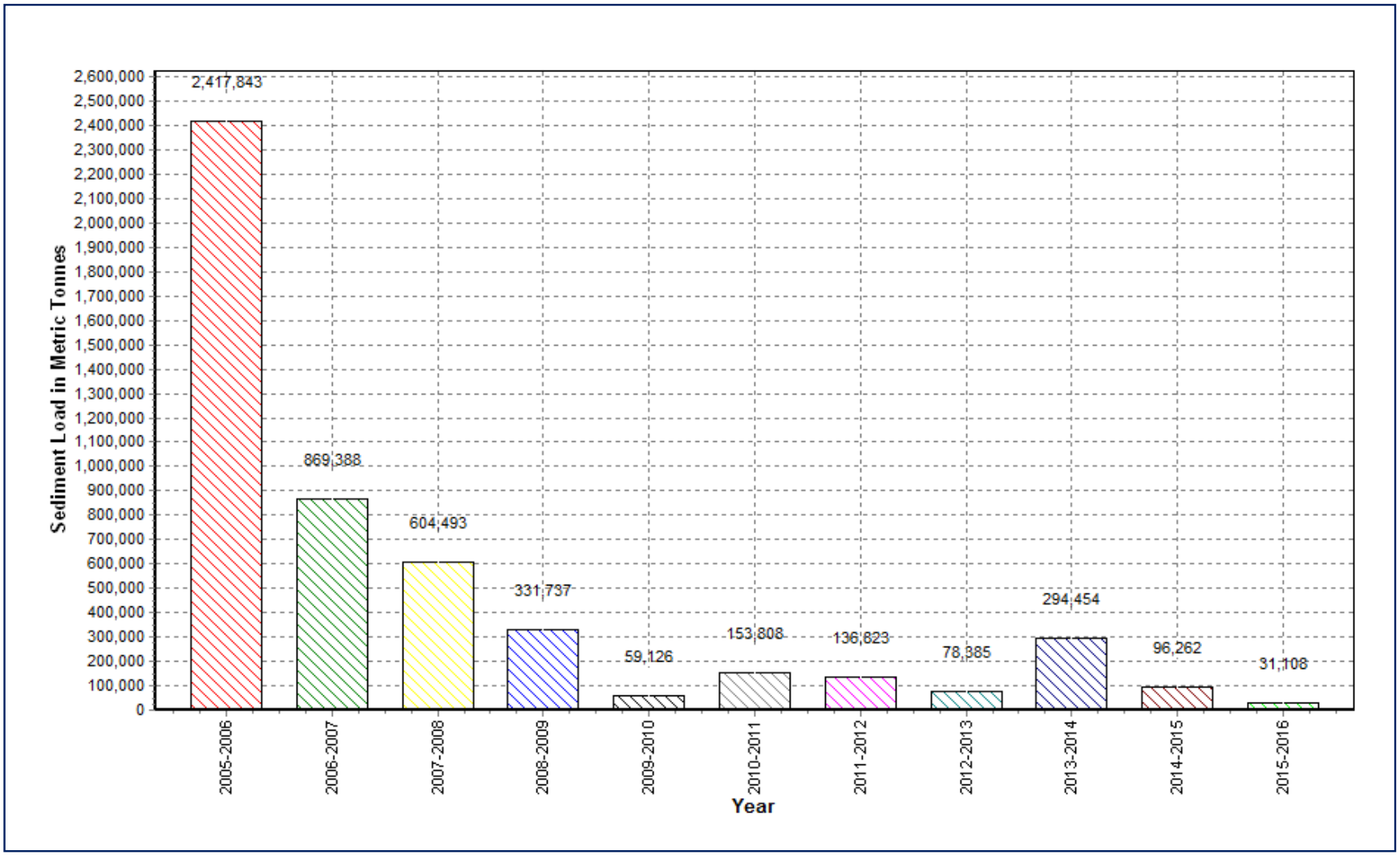
Local River : **Sub-Division : LTSD,CWC,Surat**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	2417792	51	2417843	3395
2006-2007	869388	0	869388	2552
2007-2008	604493	0	604493	1755
2008-2009	331705	32	331737	2023
2009-2010	59126	0	59126	571
2010-2011	153808	0	153808	926
2011-2012	136823	0	136823	860
2012-2013	78385	0	78385	525
2013-2014	294454	0	294454	1547
2014-2015	96262	0	96262	512
2015-2016	31108	0	31108	246

Annual Sediment Load for the period: 2005-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

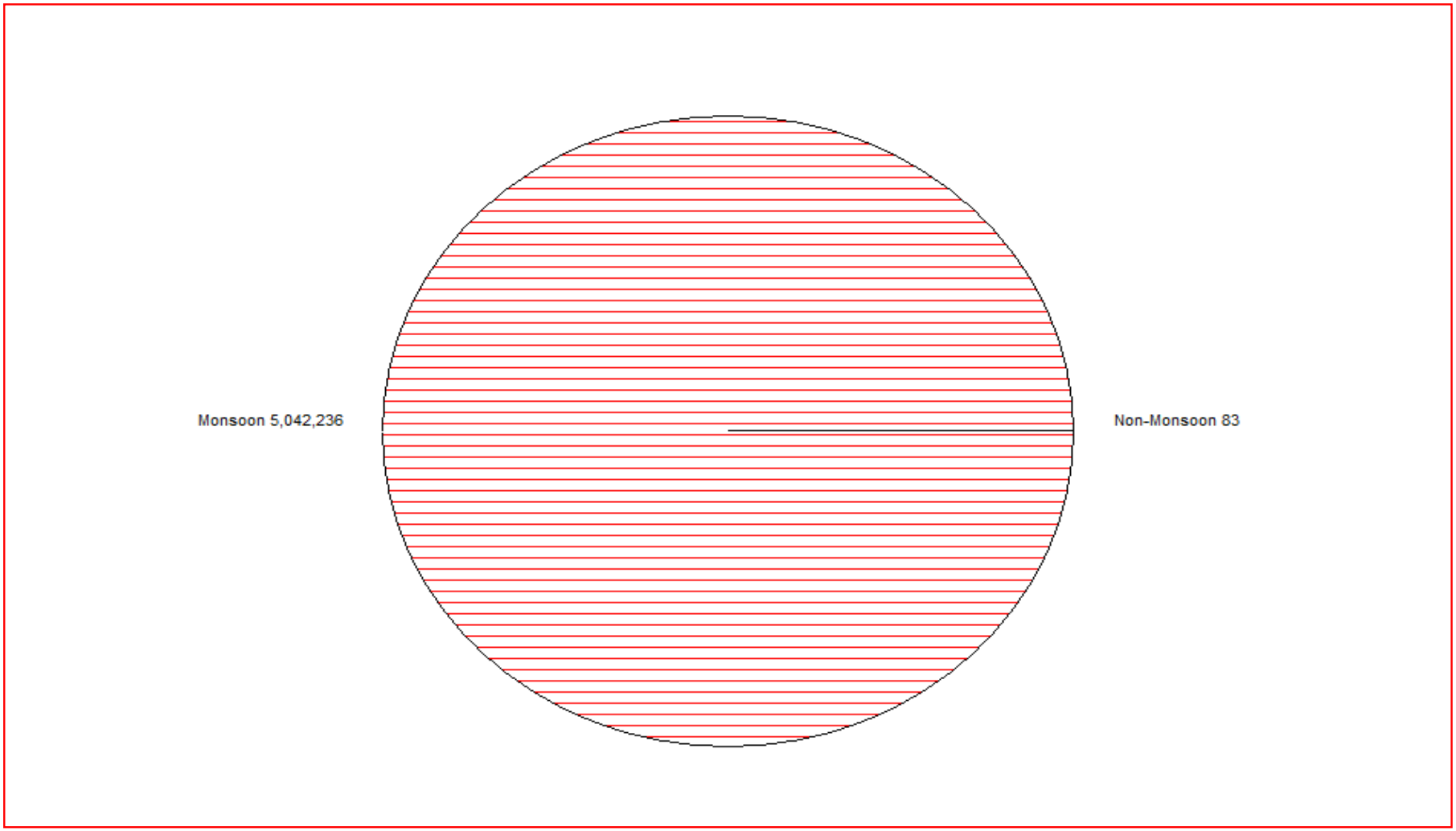
Local River : **Sub-Division : LTSD,CWC,Surat**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

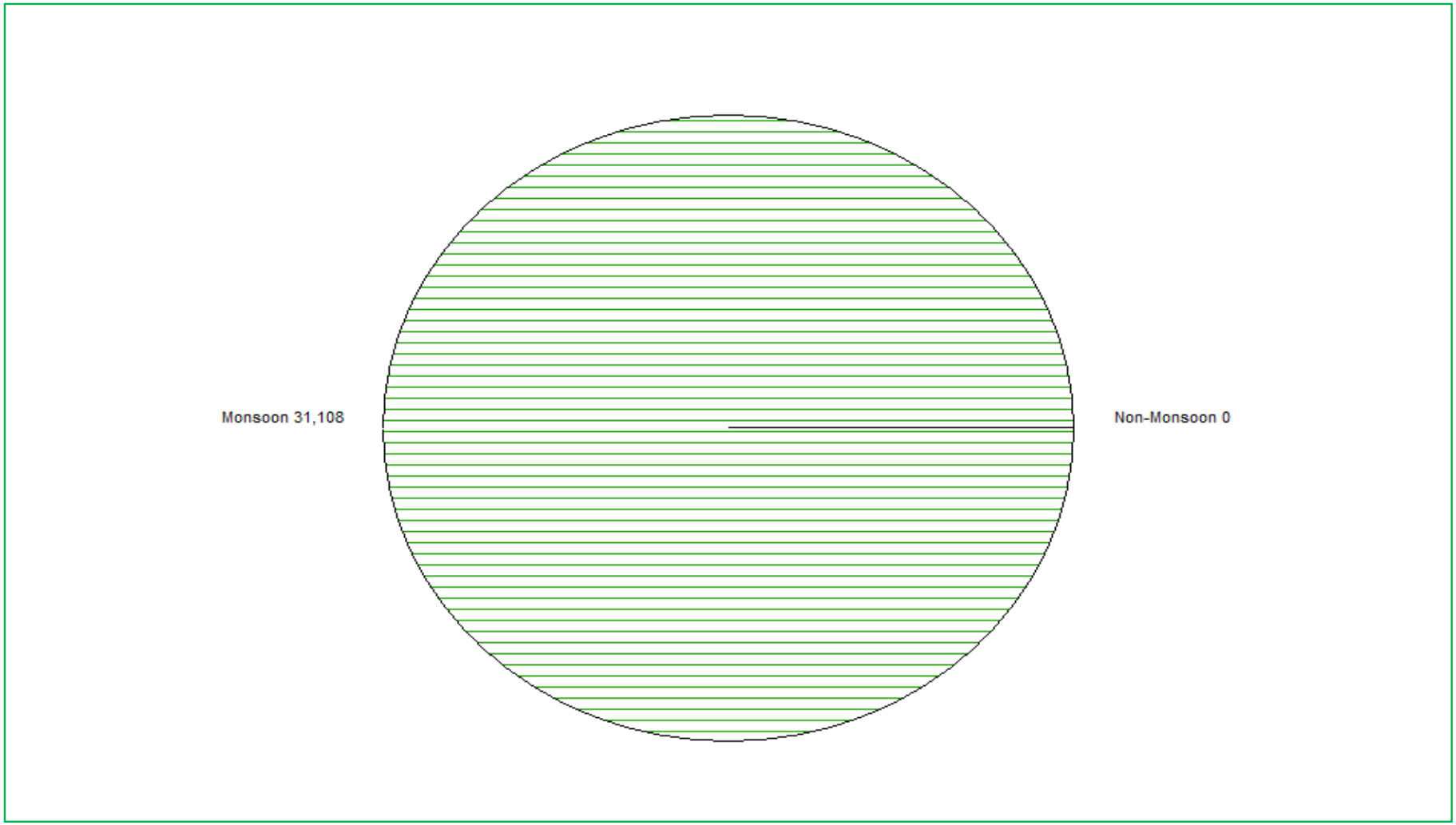
Local River : **Sub-Division : LTSD,CWC,Surat**



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Purna at Mahuwa (01 02 19 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : LTSD,CWC,Surat**



4.8 AMBIKA BASIN

4.8 Ambika Basin

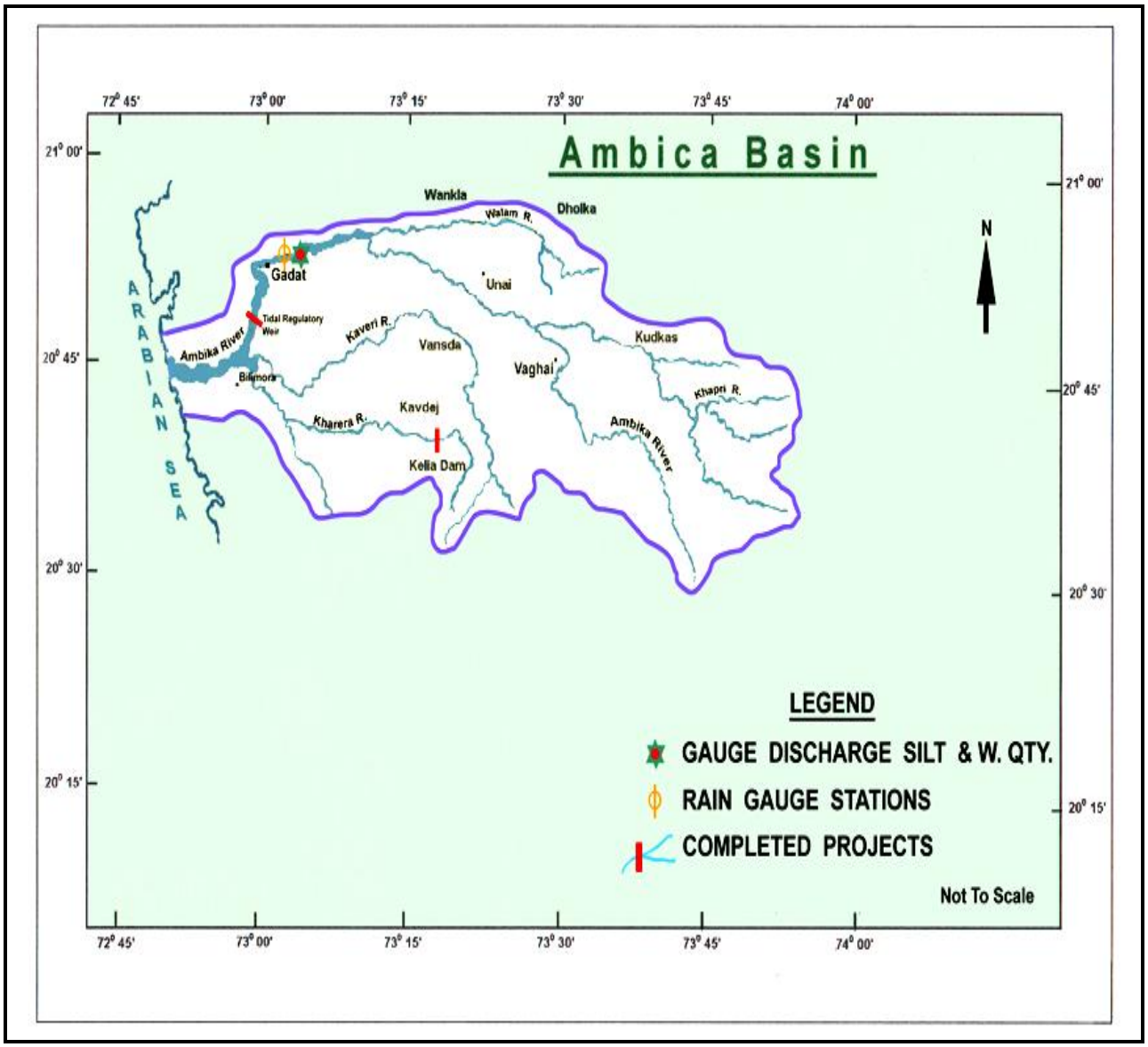
The river Ambika is one of the west flowing rivers in Gujarat State. It originates from Satapura hill ranges and flows through Dangs and Valsad districts of Gujarat. After flowing for a length of 136 km, it falls into the Arabian Sea. The catchment area of Ambika basin is 2715 sq.km. The basin lies between $72^0$50' and 73^0 50' east longitudes and 20^0 03' and 21^0 08' north latitudes. The important tributaries of Ambika are Khapri and Walam.

There is only one monitoring station at Gadat for analysis of sediment load in Ambika basin. A brief about the station is given in section- 4.8.1

4.8.1. Ambika at Gadat

The station has a Catchment area of 1,510 sq km. The maximum sediment concentration of 0.330 g/l was observed on 19.09.2015. The total sediment load during the year is 45906 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.0217 mm.

Plate - 4.8 Ambika Basin



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Ambica at Gadat**	**Code**	**:**	**01 02 20 001**
State	:	Gujarat	District		Valsad
Basin	:	WFR South of Tapi	Independent River	:	Ambika
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Surat	Sub-Division	:	Surat
Drainage Area	:	1510 Sq. Km.	Bank	:	Left
Latitude	:	20°51'22" N	Longitude	:	72°59'05" E
Zero of Gauge (m)	:	1.5 (m.s.l)	14-01-1979		-
		Opening Date	Closing Date		
Gauge	:	14-01-1979			
Discharge	:	12-03-1979			
Sediment	:	01-02-1985			
Water Quality	:	01-04-1980			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

Local River : **Sub-Division : Surat**

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	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	90.42	0.000	0.000	0.028	0.028	215
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	64.88	0.000	0.000	0.025	0.025	140
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	53.25	0.000	0.000	0.023	0.023	104
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	47.65	0.000	0.000	0.030	0.030	124
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	37.01	0.000	0.000	0.024	0.024	76
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.73	0.000	0.000	0.025	0.025	69
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	34.91	0.000	0.000	0.023	0.023	68
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.18	0.000	0.000	0.263	0.263	798
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	27.70	0.000	0.000	0.250	0.250	598
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	30.16	0.000	0.000	0.280	0.280	730
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.01	0.000	0.000	0.021	0.021	51
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	26.69	0.000	0.000	0.020	0.020	46
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.30	0.000	0.000	0.023	0.023	56
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	26.27	0.000	0.000	0.026	0.026	59
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	21.07	0.000	0.000	0.015	0.015	27
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	21.07	0.000	0.000	0.006	0.006	11
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	26.25	0.000	0.000	0.025	0.025	57
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	25.63	0.000	0.000	0.023	0.023	51
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	24.91	0.000	0.000	0.027	0.027	58
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	18.46	0.000	0.000	0.026	0.026	41
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4.675	0.000	0.000	0.027	0.027	11
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.92	0.000	0.000	0.050	0.050	56
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	14.24	0.000	0.000	0.020	0.020	25
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	23.70	0.000	0.000	0.028	0.028	57
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	15.93	0.000	0.000	0.018	0.018	25
27	0.000	0.000	0.000	0.000	0.000	0	225.0	0.000	0.000	0.040	0.040	777	14.60	0.000	0.000	0.025	0.025	32
28	0.000	0.000	0.000	0.000	0.000	0	627.6	0.000	0.000	0.035	0.035	1898	14.63	0.000	0.000	0.023	0.023	29
29	0.000	0.000	0.000	0.000	0.000	0	361.1	0.000	0.000	0.030	0.030	936	8.740	0.000	0.000	0.025	0.025	19
30	0.000	0.000	0.000	0.000	0.000	0	195.7	0.000	0.000	0.025	0.025	423	13.57	0.000	0.000	0.050	0.050	59
31							137.7	0.000	0.000	0.028	0.028	327	11.84	0.000	0.000	0.045	0.045	46
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	45.29	0.000	0.000	0.097	0.097	292
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	24.67	0.000	0.000	0.021	0.021	46
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	140.6	0.000	0.000	0.014	0.014	396	12.26	0.000	0.000	0.028	0.028	33
Monthly Total						**0**						**4361**						**3735**

Annual Sediment Load (Metric Tonnes) : 45906

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

Local River : **Sub-Division : Surat**

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	11.70	0.000	0.000	0.025	0.025	25	23.97	0.000	0.000	0.021	0.021	44	0.000	0.000	0.000	0.000	0.000	0
2	8.362	0.000	0.000	0.024	0.024	17	21.07	0.000	0.000	0.025	0.025	46	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	23.85	0.000	0.000	0.028	0.028	57	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	42.90	0.000	0.000	0.035	0.035	130	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	36.07	0.000	0.000	0.024	0.024	74	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	20.75	0.000	0.000	0.026	0.026	47	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	21.49	0.000	0.000	0.023	0.023	42	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	17.34	0.000	0.000	0.019	0.019	28	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	12.33	0.000	0.000	0.021	0.021	23	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	10.47	0.000	0.000	0.023	0.023	20	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	10.42	0.000	0.000	0.020	0.020	18	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	10.05	0.000	0.000	0.025	0.025	22	0.000	0.000	0.000	0.000	0.000	0
13	1.950	0.000	0.000	0.000	0.000	0	10.23	0.000	0.000	0.028	0.028	24	0.000	0.000	0.000	0.000	0.000	0
14	27.39	0.000	0.000	0.028	0.028	65	11.92	0.000	0.000	0.019	0.019	19	0.000	0.000	0.000	0.000	0.000	0
15	32.66	0.000	0.000	0.035	0.035	99	22.79	0.000	0.000	0.016	0.016	32	0.000	0.000	0.000	0.000	0.000	0
16	27.11	0.000	0.000	0.024	0.024	56	13.06	0.000	0.000	0.020	0.020	23	0.000	0.000	0.000	0.000	0.000	0
17	19.65	0.000	0.000	0.015	0.015	25	10.48	0.000	0.000	0.023	0.023	20	0.000	0.000	0.000	0.000	0.000	0
18	6.538	0.000	0.000	0.030	0.030	17	8.050	0.000	0.000	0.015	0.015	10	0.000	0.000	0.000	0.000	0.000	0
19	1227	0.000	0.000	0.330	0.330	34976	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	373.2	0.000	0.000	0.010	0.010	322	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	187.1	0.000	0.000	0.023	0.023	364	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	177.7	0.000	0.000	0.020	0.020	307	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	108.8	0.000	0.000	0.020	0.020	188	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	80.20	0.000	0.000	0.024	0.024	165	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	62.13	0.000	0.000	0.025	0.025	134	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	56.10	0.000	0.000	0.026	0.026	127	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	42.90	0.000	0.000	0.020	0.020	74	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	41.31	0.000	0.000	0.024	0.024	85	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	43.24	0.000	0.000	0.023	0.023	84	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30							0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	2.007	0.000	0.000	0.005	0.005	4	23.02	0.000	0.000	0.024	0.024	51	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	171.5	0.000	0.000	0.047	0.047	3556	9.700	0.000	0.000	0.017	0.017	17	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	88.84	0.000	0.000	0.023	0.023	170	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						**37131**						**679**						**0**

Annual Sediment Load (Metric Tonnes) : 45906

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

Local River : **Sub-Division : Surat**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

140

Annual Sediment Load (Metric Tonnes) : 45906

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

Local River : **Sub-Division : Surat**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 45906

Annual Sediment Load for period : 2005-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

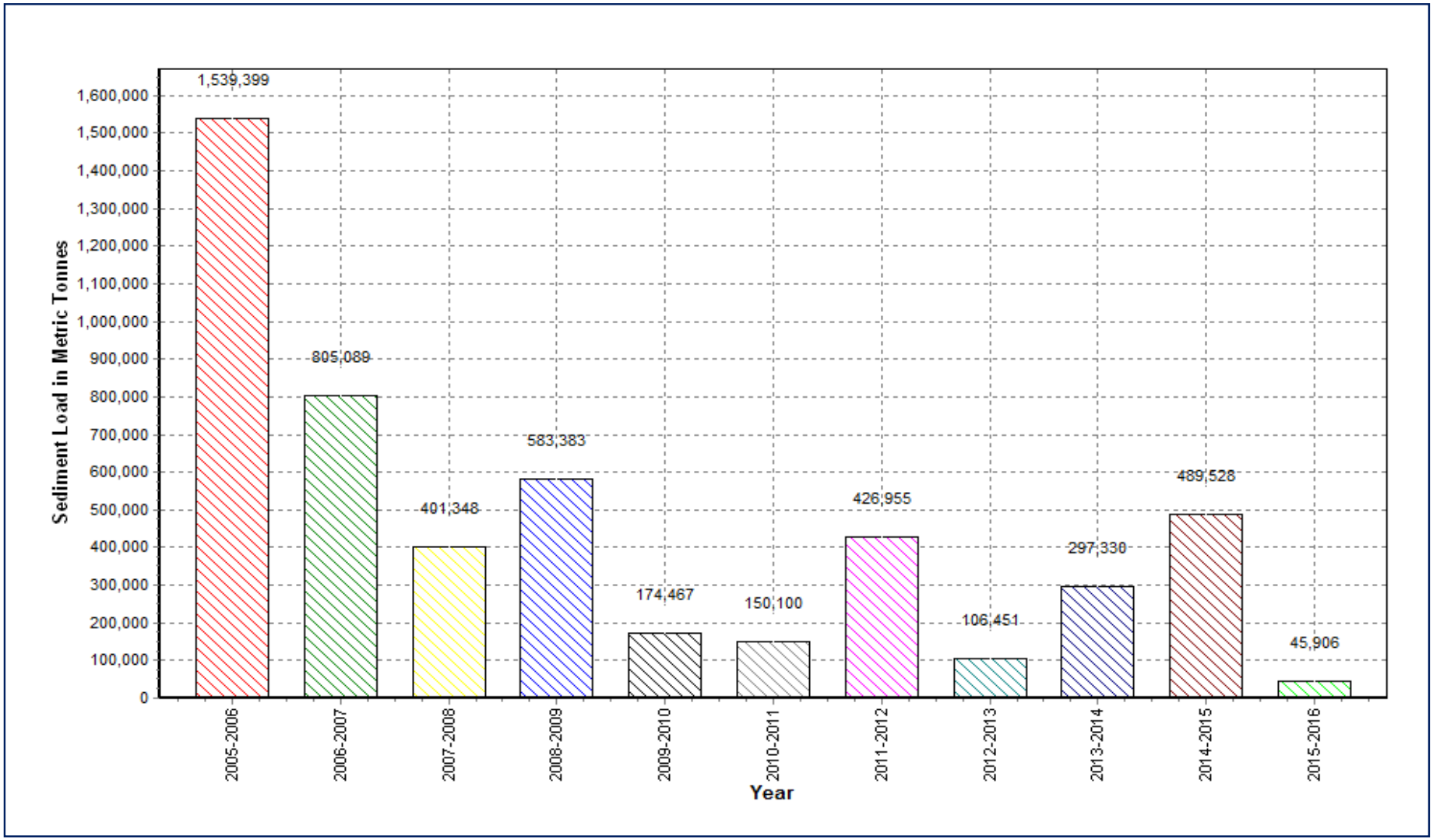
Local River : **Sub-Division : Surat**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	1539399	0	1539399	3010
2006-2007	805089	0	805089	2126
2007-2008	401348	0	401348	1734
2008-2009	583383	0	583383	1794
2009-2010	174467	0	174467	704
2010-2011	150100	0	150100	1199
2011-2012	426955	0	426955	1299
2012-2013	106451	0	106451	635
2013-2014	297330	0	297330	2152
2014-2015	489528	0	489528	1161
2015-2016	45906	0	45906	453

Annual Sediment Load for the period: 2005-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

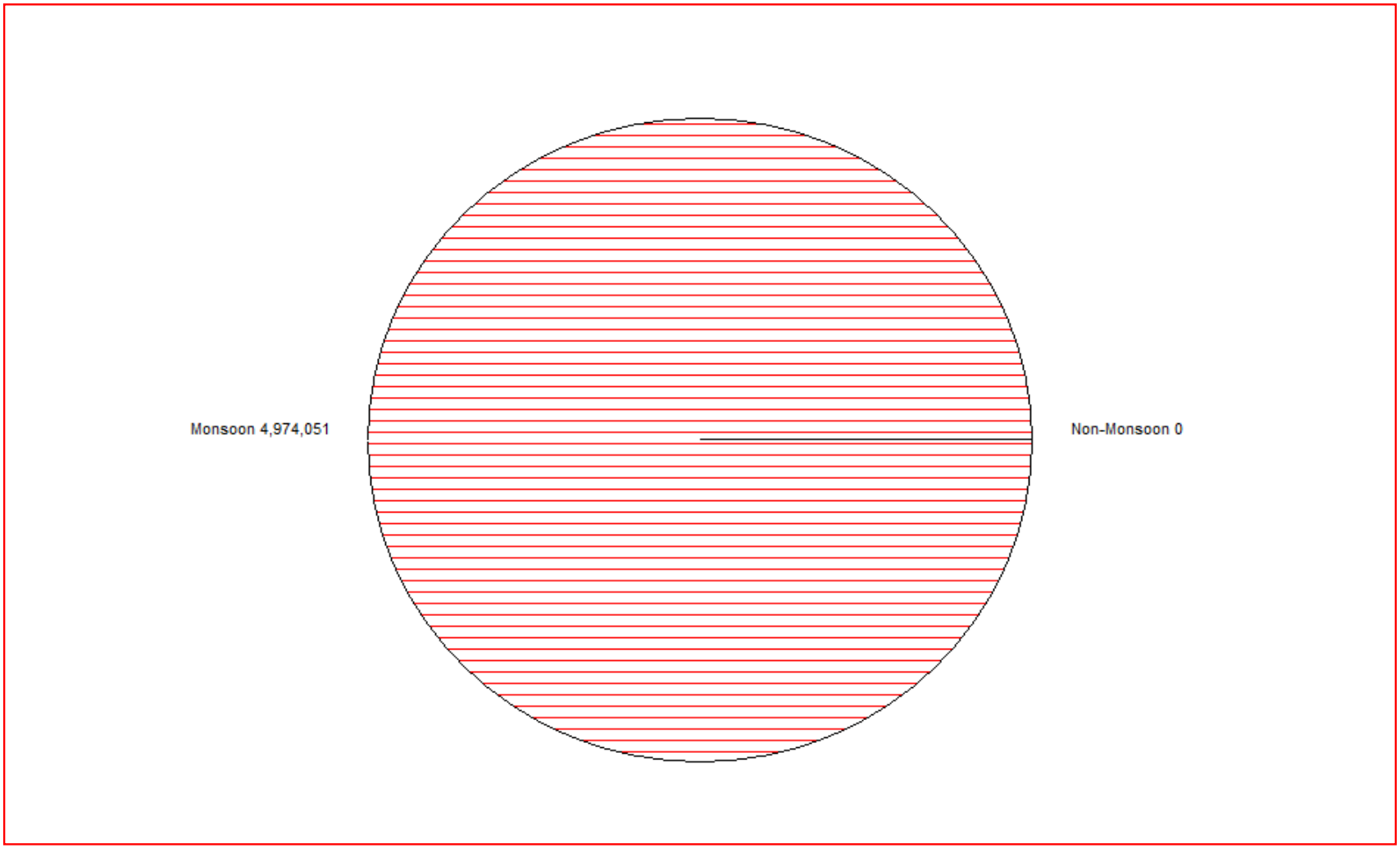
Local River : **Sub-Division : Surat**



Seasonal Sediment Load for the period : 2005-2015

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

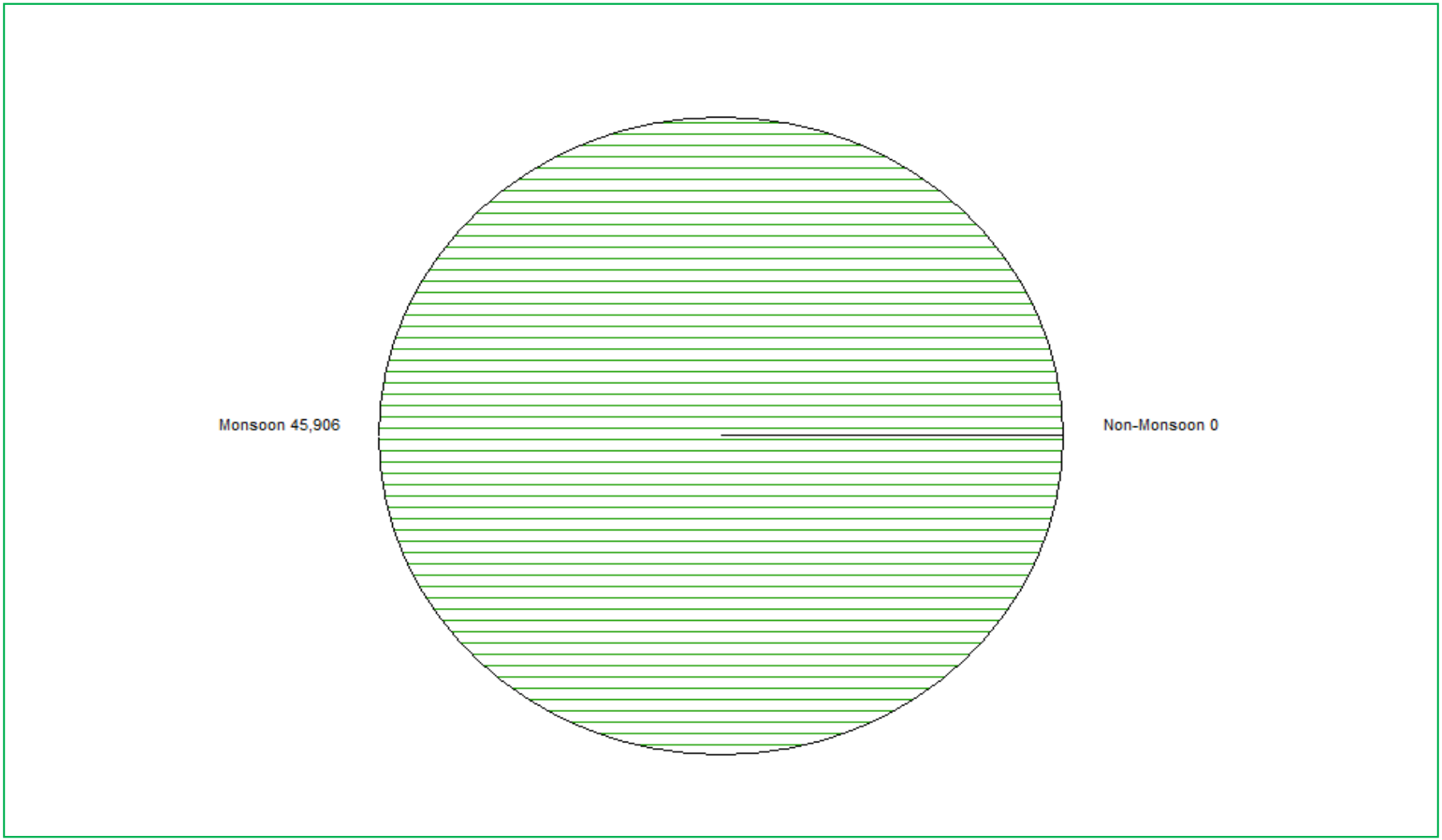
Local River : **Sub-Division : Surat**



Seasonal Sediment Load for the Year: 2015-2016

Station Name : Ambica at Gadat (01 02 20 001) **Division : Surat**

Local River : **Sub-Division : Surat**



4.9 VAITARNA BASIN

4.9 Vaitarna Basin

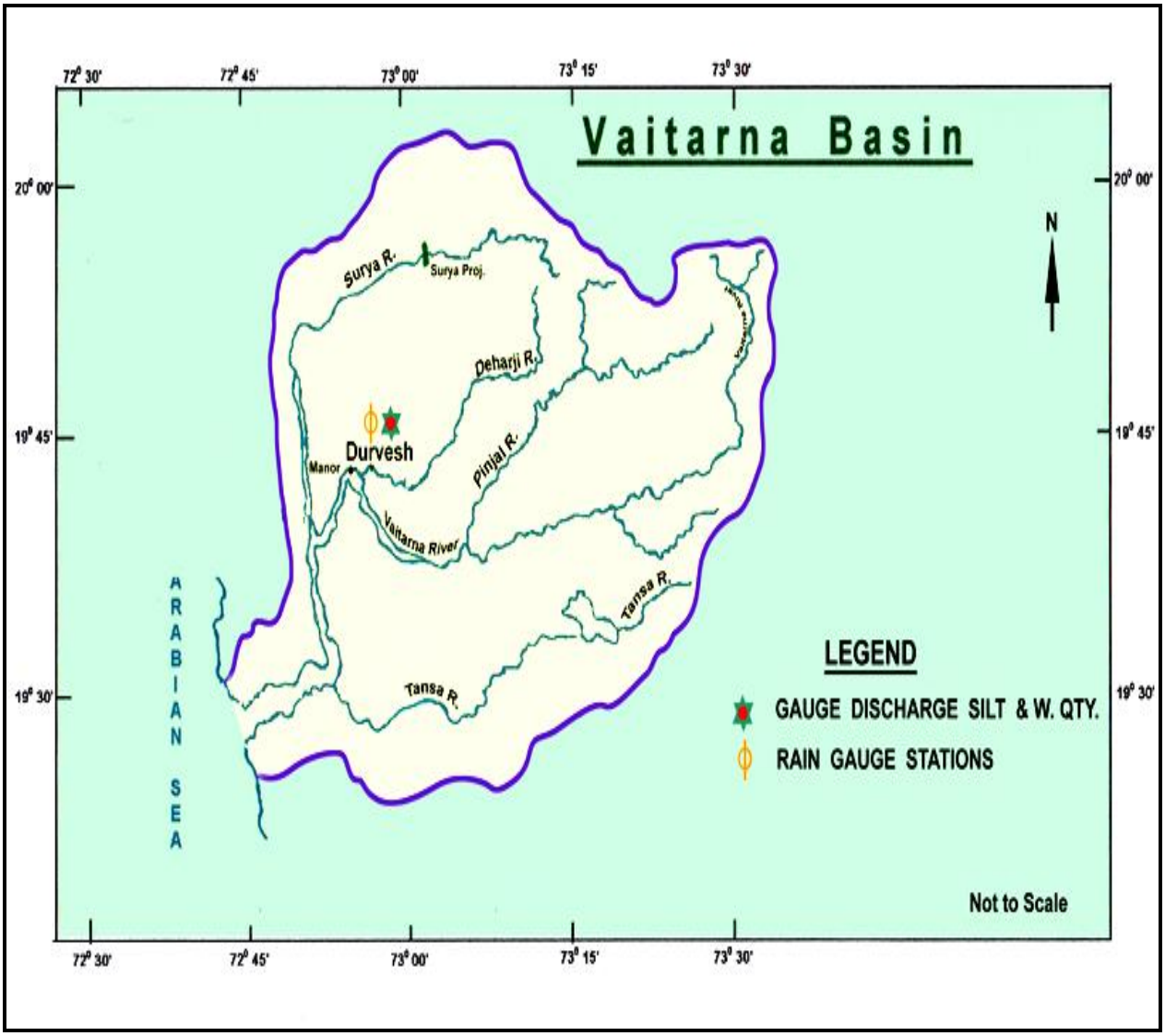
The river Vaitarna originates from hilly terrain of Maharashtra at Trimbak in Nasik district. After running for 120 km in Maharashtra towards west, it falls into the Arabian Sea. The catchment area of the basin is 3,637 sq.km. This drainage area is located between east longitudes of 72° 45' and 73° 35' and north latitudes of 19° 30' and 20° 20'. The main tributaries of this river are Pinjal, Garjal, Surya, Daharji and Tansa. There are some irrigation projects under construction namely Surya and Wandri on the tributaries of the Vaitarna river

There is only one hydrological observation site on Vaitarna river at Durvesh which is situated at the upstream of confluence of Surya and Tansa tributaries. A brief about the station is given in section- 4.9.1

4.9.1. Vaitarna at Durvesh

The station has a Catchment area of 2,019 sq km. The maximum sediment concentration of 0.896 g/l was observed on 22.07.2015. The total sediment load during the year is 335014 metric tonnes. The monsoon load constitutes 100 % of the total load. The annual sediment yield over the catchment during water year 2015-16 is 0.1185 mm.

Plate – 4.9 Vaitarna Basin



HISTORY SHEET

			Water Year	**:**	**2015-16**
Site	**:**	**Vaitarna at Durvesh**	**Code**	**:**	**01 02 25 001**
State	:	Maharashtra	District		Thane
Basin	:	WFR South of Tapi	Independent River	:	Vaitarna
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Tapi Division, Surat	Sub-Division	:	DGSD,CWC,Silvassa
Drainage Area	:	2019 Sq. Km.	Bank	:	Left
Latitude	:	19°42'45" N	Longitude	:	72°55'50" E
Zero of Gauge (m)	:	0 (m.s.l)	26-10-1970		-
		Opening Date	Closing Date		
Gauge	:	26-10-1970			
Discharge	:	26-01-1971			
Sediment	:	26-01-1971			
Water Quality	:	01-06-1977			

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : DGSD,CWC,Silvassa**

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	0.000	0.000	0.000	0	41.74	0.000	0.000	0.024	0.024	85	189.7	0.000	0.000	0.225	0.225	3684
2	0.000	0.000	0.000	0.000	0.000	0	36.23	0.000	0.000	0.026	0.026	81	111.9	0.000	0.000	0.170	0.170	1643
3	0.000	0.000	0.000	0.000	0.000	0	32.64	0.000	0.000	0.027	0.027	75	86.08	0.000	0.000	0.124	0.124	918
4	0.000	0.000	0.000	0.000	0.000	0	26.25	0.000	0.000	0.025	0.025	57	60.55	0.000	0.000	0.075	0.075	391
5	0.000	0.000	0.000	0.000	0.000	0	17.43	0.000	0.000	0.015	0.015	23	44.58	0.000	0.000	0.049	0.049	187
6	0.000	0.000	0.000	0.000	0.000	0	38.89	0.000	0.000	0.026	0.026	86	51.42	0.000	0.000	0.050	0.050	222
7	0.000	0.000	0.000	0.000	0.000	0	27.02	0.000	0.000	0.025	0.025	59	75.38	0.000	0.000	0.076	0.076	494
8	0.000	0.000	0.000	0.000	0.000	0	20.75	0.000	0.000	0.025	0.025	45	50.73	0.000	0.000	0.049	0.049	216
9	0.000	0.000	0.000	0.000	0.000	0	20.30	0.000	0.000	0.025	0.025	44	55.95	0.000	0.000	0.050	0.050	242
10	0.000	0.000	0.000	0.000	0.000	0	21.78	0.000	0.000	0.025	0.025	47	49.31	0.000	0.000	0.050	0.050	212
11	0.000	0.000	0.000	0.000	0.000	0	18.86	0.000	0.000	0.025	0.025	41	40.08	0.000	0.000	0.049	0.049	170
12	0.000	0.000	0.000	0.000	0.000	0	11.18	0.000	0.000	0.010	0.010	10	52.78	0.000	0.000	0.050	0.050	229
13	0.000	0.000	0.000	0.000	0.000	0	20.93	0.000	0.000	0.025	0.025	45	60.09	0.000	0.000	0.050	0.050	261
14	0.000	0.000	0.000	0.000	0.000	0	19.66	0.000	0.000	0.025	0.025	42	46.81	0.000	0.000	0.050	0.050	202
15	0.000	0.000	0.000	0.000	0.000	0	22.60	0.000	0.000	0.025	0.025	49	81.82	0.000	0.000	0.080	0.080	566
16	0.000	0.000	0.000	0.000	0.000	0	21.55	0.000	0.000	0.025	0.025	47	46.62	0.000	0.000	0.070	0.070	282
17	0.000	0.000	0.000	0.000	0.000	0	20.77	0.000	0.000	0.025	0.025	44	46.99	0.000	0.000	0.074	0.074	302
18	0.000	0.000	0.000	0.000	0.000	0	11.55	0.000	0.000	0.023	0.023	23	51.21	0.000	0.000	0.074	0.074	328
19	0.000	0.000	0.000	0.000	0.000	0	10.46	0.000	0.000	0.023	0.023	21	40.09	0.000	0.000	0.050	0.050	174
20	0.000	0.000	0.000	0.000	0.000	0	21.55	0.000	0.000	0.025	0.025	47	28.91	0.000	0.000	0.050	0.050	125
21	0.000	0.000	0.000	0.000	0.000	0	765.2	0.049	0.087	0.573	0.709	46896	34.06	0.000	0.000	0.050	0.050	147
22	648.7	0.000	0.000	0.000	0.000	0	1475	0.019	0.102	0.775	0.896	114185	29.17	0.000	0.000	0.050	0.050	126
23	197.1	0.000	0.000	0.025	0.025	417	494.9	0.044	0.055	0.276	0.375	16017	25.83	0.000	0.000	0.040	0.040	89
24	379.7	0.016	0.044	0.202	0.261	8572	193.2	0.000	0.000	0.150	0.150	2507	16.16	0.000	0.000	0.073	0.073	102
25	237.2	0.000	0.000	0.028	0.028	570	758.0	0.000	0.000	0.525	0.525	34352	21.02	0.000	0.000	0.074	0.074	135
26	129.7	0.000	0.000	0.018	0.018	202	186.2	0.000	0.000	0.200	0.200	3217	395.3	0.012	0.022	0.174	0.208	7107
27	80.10	0.000	0.000	0.024	0.024	166	153.4	0.000	0.000	0.099	0.099	1309	133.2	0.000	0.000	0.125	0.125	1432
28	45.82	0.000	0.000	0.010	0.010	40	672.2	0.000	0.000	0.473	0.473	27469	71.16	0.000	0.000	0.125	0.125	765
29	59.38	0.000	0.000	0.024	0.024	122	567.2	0.000	0.000	0.275	0.275	13491	80.11	0.000	0.000	0.051	0.051	350
30	51.88	0.000	0.000	0.024	0.024	108	467.3	0.000	0.000	0.276	0.276	11135	58.66	0.000	0.000	0.070	0.070	355
31							187.9	0.000	0.000	0.151	0.151	2444	62.90	0.000	0.000	0.074	0.074	404
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	28.30	0.000	0.000	0.024	0.024	60	77.56	0.000	0.000	0.092	0.092	821
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	17.91	0.000	0.000	0.023	0.023	37	49.54	0.000	0.000	0.060	0.060	264
Ten Daily III	183.0	0.002	0.004	0.035	0.041	1020	538.2	0.010	0.022	0.343	0.375	24820	84.32	0.001	0.002	0.082	0.085	1001
Monthly Total						**10195**						**273992**						**21859**

Annual Sediment Load (Metric Tonnes) : 335012

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : DGSD,CWC,Silvassa**

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	46.64	0.000	0.000	0.050	0.050	202	14.77	0.000	0.000	0.100	0.100	127	2.870	0.000	0.000	0.000	0.000	0
2	40.45	0.000	0.000	0.050	0.050	173	16.06	0.000	0.000	0.100	0.100	139	1.742	0.000	0.000	0.000	0.000	0
3	31.93	0.000	0.000	0.049	0.049	136	25.66	0.000	0.000	0.075	0.075	167	1.087	0.000	0.000	0.000	0.000	0
4	20.90	0.000	0.000	0.049	0.049	88	23.01	0.000	0.000	0.060	0.060	119	0.525	0.000	0.000	0.000	0.000	0
5	20.83	0.000	0.000	0.049	0.049	87	14.86	0.000	0.000	0.075	0.075	97	0.000	0.000	0.000	0.000	0.000	0
6	20.88	0.000	0.000	0.040	0.040	72	18.28	0.000	0.000	0.074	0.074	117	0.000	0.000	0.000	0.000	0.000	0
7	23.40	0.000	0.000	0.076	0.076	153	17.19	0.000	0.000	0.074	0.074	110	0.000	0.000	0.000	0.000	0.000	0
8	22.39	0.000	0.000	0.075	0.075	144	14.91	0.000	0.000	0.050	0.050	64	0.000	0.000	0.000	0.000	0.000	0
9	20.00	0.000	0.000	0.050	0.050	86	14.47	0.000	0.000	0.049	0.049	61	0.000	0.000	0.000	0.000	0.000	0
10	18.78	0.000	0.000	0.049	0.049	79	13.82	0.000	0.000	0.049	0.049	58	0.000	0.000	0.000	0.000	0.000	0
11	16.09	0.000	0.000	0.099	0.099	137	18.38	0.000	0.000	0.055	0.055	87	0.000	0.000	0.000	0.000	0.000	0
12	22.16	0.000	0.000	0.100	0.100	191	12.00	0.000	0.000	0.050	0.050	52	0.000	0.000	0.000	0.000	0.000	0
13	26.42	0.000	0.000	0.150	0.150	342	14.03	0.000	0.000	0.051	0.051	61	0.000	0.000	0.000	0.000	0.000	0
14	20.13	0.000	0.000	0.074	0.074	128	13.15	0.000	0.000	0.050	0.050	57	0.000	0.000	0.000	0.000	0.000	0
15	32.94	0.000	0.000	0.075	0.075	213	15.76	0.000	0.000	0.026	0.026	35	0.000	0.000	0.000	0.000	0.000	0
16	21.11	0.000	0.000	0.074	0.074	134	13.35	0.000	0.000	0.025	0.025	28	0.000	0.000	0.000	0.000	0.000	0
17	20.88	0.000	0.000	0.070	0.070	126	12.03	0.000	0.000	0.024	0.024	25	0.000	0.000	0.000	0.000	0.000	0
18	18.77	0.000	0.000	0.051	0.051	82	12.70	0.000	0.000	0.020	0.020	22	0.000	0.000	0.000	0.000	0.000	0
19	70.63	0.000	0.000	0.075	0.075	455	7.011	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
20	262.6	0.000	0.000	0.180	0.180	4084	5.166	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
21	503.8	0.042	0.074	0.274	0.391	17007	7.235	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	218.8	0.000	0.000	0.100	0.100	1887	5.880	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	98.01	0.000	0.000	0.075	0.075	637	5.380	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	67.22	0.000	0.000	0.050	0.050	287	5.140	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	50.75	0.000	0.000	0.035	0.035	153	4.670	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	37.50	0.000	0.000	0.049	0.049	158	5.928	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	33.34	0.000	0.000	0.040	0.040	115	2.413	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	22.87	0.000	0.000	0.049	0.049	96	2.287	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	20.10	0.000	0.000	0.026	0.026	45	2.121	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	17.30	0.000	0.000	0.026	0.026	38	1.695	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							1.908	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	26.62	0.000	0.000	0.054	0.054	122	17.30	0.000	0.000	0.071	0.071	106	0.622	0.000	0.000	0.000	0.000	0
Ten Daily II	51.17	0.000	0.000	0.095	0.095	589	12.36	0.000	0.000	0.030	0.030	37	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	107.0	0.004	0.007	0.072	0.084	2042	4.060	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						**27538**						**1428**						**0**

150

Annual Sediment Load (Metric Tonnes) : 335012

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : DGSD,CWC,Silvassa**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 335012

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : DGSD,CWC,Silvassa**

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	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						**0**						**0**						**0**

Annual Sediment Load (Metric Tonnes) : 335012

Annual Sediment Load for period : 2005-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

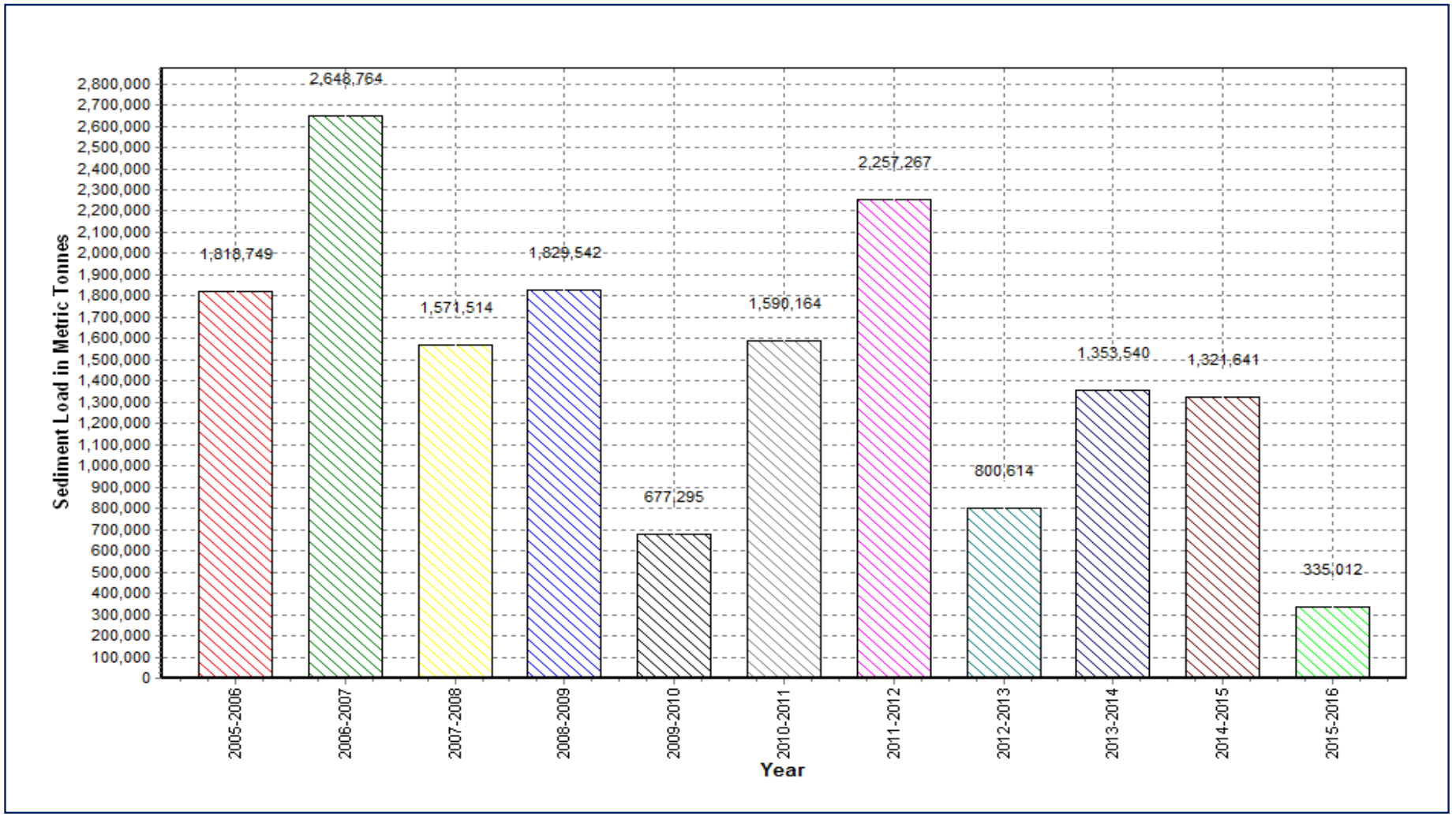
Local River : **Sub-Division : DGSD,CWC,Silvassa**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2005-2006	1818690	59	1818749	5338
2006-2007	2648735	28	2648764	5038
2007-2008	1571174	339	1571514	4082
2008-2009	1829311	231	1829542	4360
2009-2010	676991	305	677295	2076
2010-2011	1589061	1104	1590164	3829
2011-2012	2257267	0	2257267	3701
2012-2013	800614	0	800614	2466
2013-2014	1353540	0	1353540	3745
2014-2015	1321641	0	1321641	2970
2015-2016	335012	0	335012	1089

Annual Sediment Load for the period: 2005-2016

Station Name : Vaitarna at Durvesh (01 02 25 001) **Division : Tapi Division, Surat**

Local River : **Sub-Division : DGSD,CWC,Silvassa**



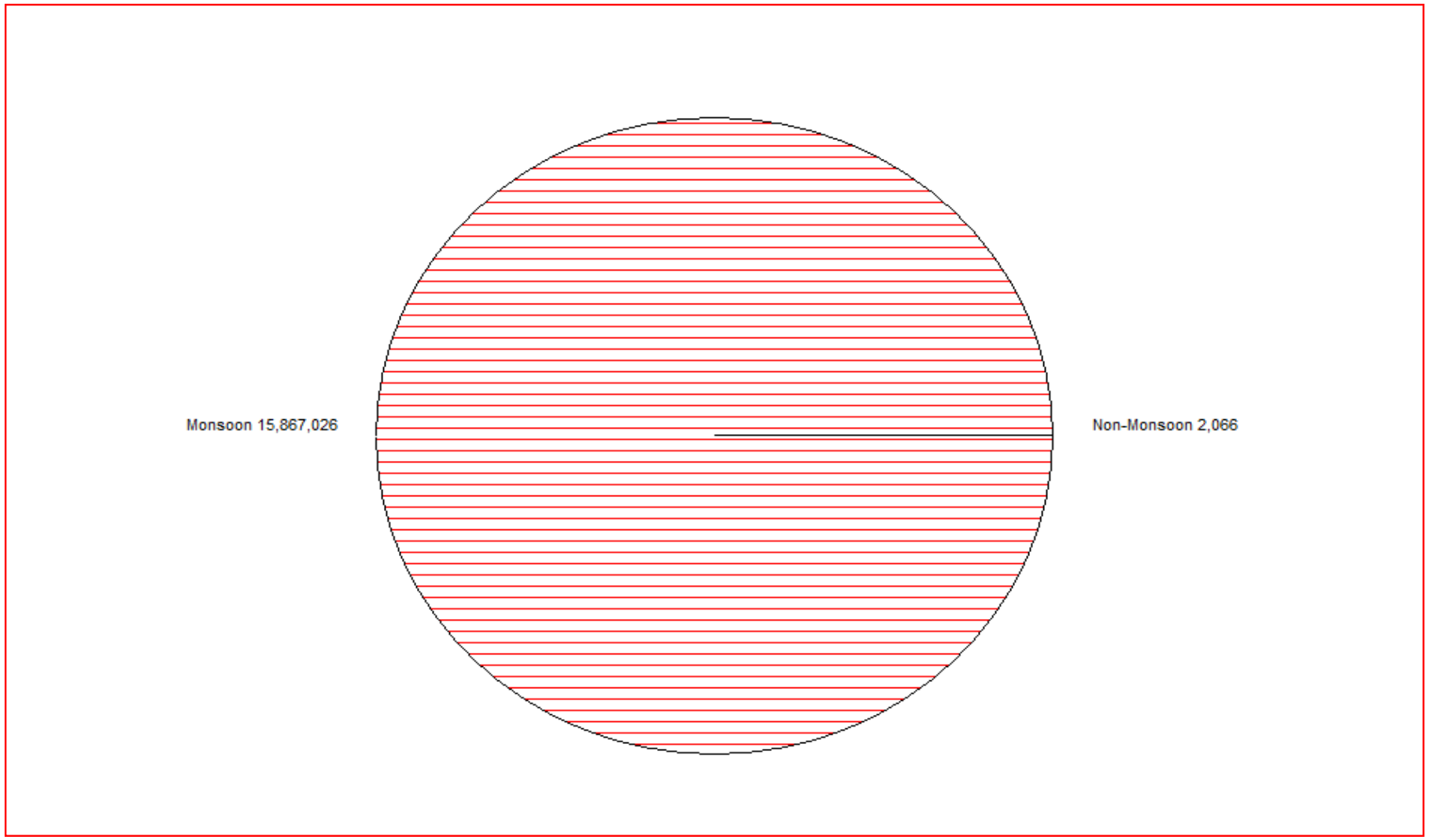
Seasonal Sediment Load for the period : 2005-2015

Station Name : Vaitarna at Durvesh (01 02 25 001)

Local River :

Division : Tapi Division, Surat

Sub-Division : DGSD,CWC,Silvassa



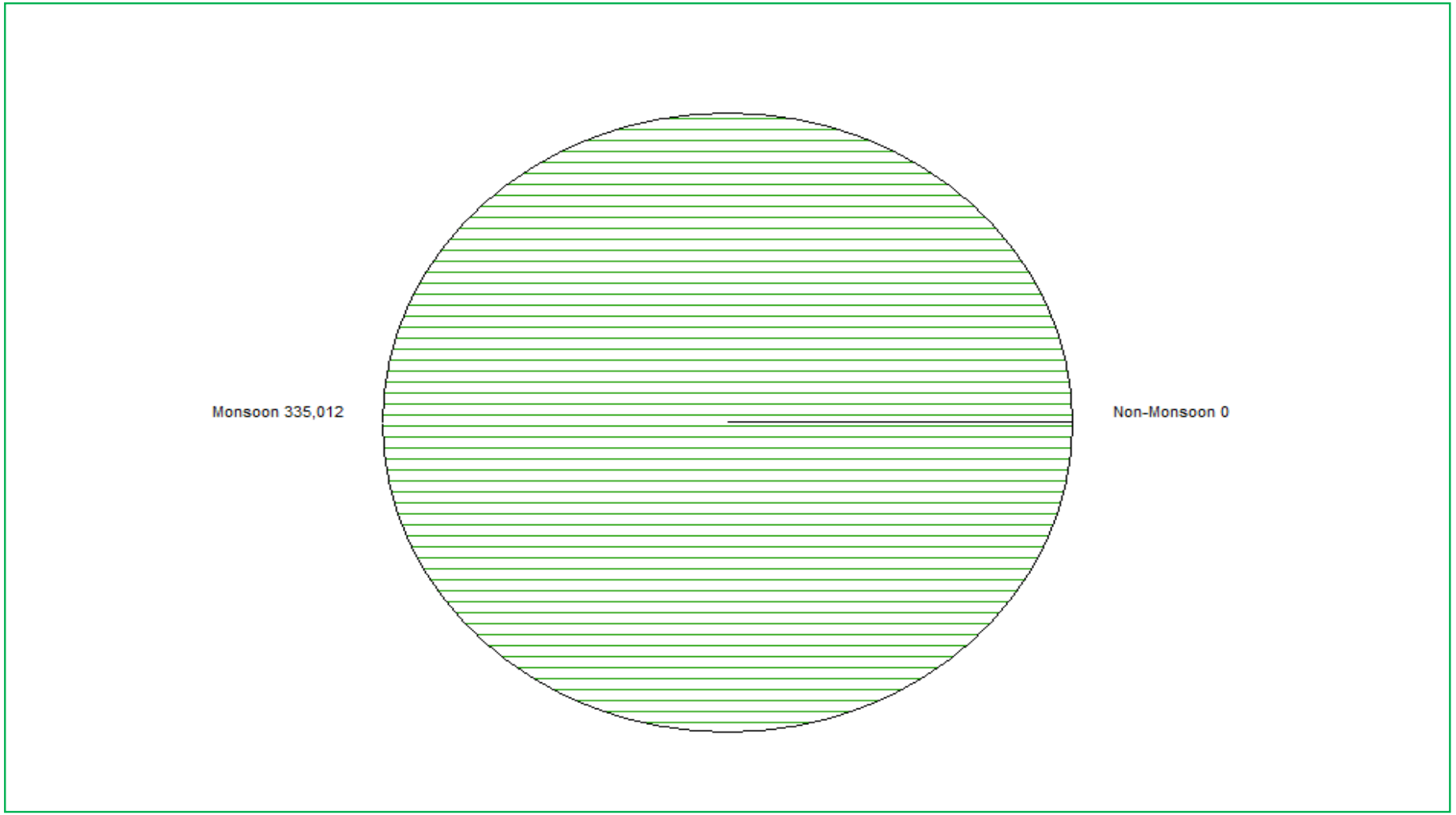
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Vaitarna at Durvesh (01 02 25 001)

Local River :

Division : Tapi Division, Surat

Sub-Division : DGSD,CWC,Silvassa



5.0 BED MATERIAL DATA

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**MATAJI**	**CODE**	**01 02 13 001**
RIVER	**MAHI**	**BASIN**	**MAHI**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 18.05.2015)

Discharge 'Q'	4.443	Cumecs	Water edge R.B.	174.00	m.	L.B.	66.00 m.
Area of Section 'A	121.9	Sq.m.	Mean velocity 'V'	0.036	m/Sec		
Wetted Perimeter	103.33	m.	Hydraulic Mean Depth 'R'	1.180	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	10.00	298.430	1.95	**Av.mean dia."m" =**	**7.32**	**mm**
2	50.00	290.590	3.13			
3	100.00	285.440	1.09		**4.76**	
4	150.00	285.740	1.63			
5	200.00	287.500	28.82			

Note 1. Flowing water.

MONSOON SURVEY (DATE 16.10.2015)

Discharge 'Q'	0.485	Cumecs	Water edge R.B.	171.50	m.	L.B.	68.00 m.
Area of Section 'A	121.92	Sq.m.	Mean velocity 'V'	0.0040	m/Sec		
Wetted Perimeter	103.04	m.	Hydraulic Mean Depth 'R'	1.181	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	10.00	298.295	2.26	**Av.mean dia."m" =**	**7.98**	**mm**
2	50.00	290.425	5.14			
3	100.00	285.630	1.30	**Silt factor "f " =**	**4.97**	
4	150.00	285.720	1.26			
5	200.00	287.510	29.92			

Note 1. Flowing water.

POST MONSOON SURVEY (DATE 18.01.2016)

Discharge 'Q'	0.000	Cumecs	Water edge R.B.	171.30	m.	L.B.	71.20 m.
Area of Section 'A	0	Sq.m.	Mean velocity 'V'	0.000	m/Sec		
Wetted Perimeter	100.10	m.	Hydraulic Mean Depth 'R'	0.000	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	10.00	298.250	2.43	**Av.mean dia."m" =**	**7.19**	**mm** Neg.
2	50.00	290.430	3.17			Flow
3	100.00	285.600	0.59	**Silt factor "f " =**	**4.72**	
4	150.00	285.700	0.68			
5	200.00	287.500	29.08			

Note 1. Flowing water.

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**PADARDIBADI**	**CODE**	**01 02 13 006**
RIVER	**MAHI**	**BASIN**	**MAHI**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE/ TEMP.GAUGE**

PRE MONSOON SURVEY (DATE 07.05.2015)

Discharge 'Q'	4.312	Cumecs	Water edge	R.B.	44.97	m.	L.B. 39.00 m.
Area of Section 'A	160.4	Sq.m.	Mean velocity	'V'	0.027	m/Sec	
Wetted Perimeter	225.93	m.	Hydraulic Mean Depth	'R'	0.709	m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	20.00	141.700	4.20	**Av.mean dia."m" =**	**4.22**	**mm**
2	34.00	135.685	1.91			
3	110.00	132.180	11.36	**Silt factor "f " =**	**3.61**	
4	210.00	132.530	1.56			
5	293.00	135.650	2.05			

Note 1. Flowing water.

MONSOON SURVEY (DATE 08.10.2015)

Discharge 'Q'	13.51 *	Cumecs	Water edge	R.B.	41.70	m.	L.B. 269.30 m.
Area of Section 'A	205.99	Sq.m.	Mean velocity	'V'	0.066	m/Sec	
Wetted Perimeter	230.63	m.	Hydraulic Mean Depth	'R'	0.893	m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	20.00	141.670	1.34	**Av.mean dia."m" =**	**2.83**	**mm** * Estimated
2	35.00	135.065	0.67			discharge
3	110.00	132.145	7.08	**Silt factor "f " =**	**2.96**	
4	210.00	132.425	4.44			
5	293.00	139.565	0.64			

Note 1. Flowing water.

POST MONSOON SURVEY (DATE 29.02.2016)

Discharge 'Q'	9.770 *	Cumecs	Water edge	R.B.	43.700	m.	L.B. 279.20 m.
Area of Section 'A	NA	Sq.m.	Mean velocity	'V'	NA	m/Sec	
Wetted Perimeter	NA	m.	Hydraulic Mean Depth	'R'	NA	m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	20.00	141.720	1.56	**Av.mean dia."m" =**	**6.38**	**mm** * Estimated
2	34.90	135.050	1.60			discharge
3	110.00	132.070	15.81	**Silt factor "f " =**	**4.45**	
4	210.00	132.400	7.96			
5	290.00	134.000	4.97			

Note 1. Flowing water.

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**KHANPUR**	**CODE**	**01 02 13 012**
RIVER	**MAHI**	**BASIN**	**MAHI**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 19.05.2015)

Discharge 'Q'	11.507	Cumecs	Water edge R.B.	58.20	m.	L.B.	455.0	m.
Area of Section 'A'	120.14	Sq.m.	Mean velocity 'V'	0.096	m/Sec			
Wetted Perimeter '	384.46	m.	Hydraulic Mean Depth 'R'	0.313	m.			

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	60.00	7.950	1.04	**Av.mean dia."m" =**	**2.05**	**mm**
2	160.00	8.050	2.34			
3	260.00	8.290	2.46	**Silt factor "f " =**	**2.52**	
4	360.00	8.280	2.96			
5	460.00	9.885	1.46			

Note 1. Flowing water.

MONSOON SURVEY (DATE :21.09.2015)

Discharge 'Q'	76.39	Cumecs	Water edge R.B.	51.60	m.	L.B.	455.30	m.
Area of Section 'A'	151.67	Sq.m.	Mean velocity 'V'	0.504	m/Sec			
Wetted Perimeter '	219.33	m.	Hydraulic Mean Depth 'R'	0.691	m.			

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	60.00	8.050	1.44	**Av.mean dia."m" =**	**1.57**	**mm**
2	160.00	8.370	3.87			
3	260.00	8.230	0.67	**Silt factor "f " =**	**2.21**	
4	360.00	8.410	1.33			
5	460.00	9.765	0.54			

Note 1. Flowing water.

POST MONSOON SURVEY (DATE: 17.12.2015)

Discharge 'Q'	16.83	Cumecs	Water edge R.B.	57.70	m.	L.B.	455.00	m.
Area of Section 'A'	147.29	Sq.m.	Mean velocity 'V'	0.114	m/Sec			
Wetted Perimeter '	397.30	m.	Hydraulic Mean Depth 'R'	0.371	m.			

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	60.00	8.040	1.64	**Av.mean dia."m" =**	**2.34**	**mm**
2	160.00	8.370	3.05			
3	260.00	8.190	2.41	**Silt factor "f " =**	**2.69**	
4	360.00	8.290	2.93			
5	460.00	9.780	1.67			

Note 1. Flowing water.

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**DEROL BRIDGE**	**CODE**	**01 02 12 006**
RIVER	**SABARMATI**	**BASIN**	**SABARMATI**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE : 22.06.2015)

Discharge 'Q' 0.000 Cumecs — Water edge R. — m. — L.B. — m.
Area of Section ' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	70.00	90.990	1.08	**Av.mean dia."m" =**	**1.12 mm**	River dry
2	120.00	88.150	0.81			
3	180.00	86.690	1.01	**Silt factor "f " =**	**1.86**	
4	240.00	87.660	1.03			
5	320.00	88.210	1.68			

Note 1 River Bed Dry

MONSOON SURVEY (DATE : 26.09.2015)

Discharge 'Q' 6.975 Cumecs — Water edge R.B. — 254.0 m. — L.B. — 117.0 m.
Area of Section ' 81.890 Sq.m. — Mean velocity 'V' — 0.085 m/Sec
Wetted Perimete 137.03 m. — Hydraulic Mean Depth 'R' — 0.598 m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	70.00	90.920	0.78	**Av.mean dia."m" =**	**0.93 mm**	
2	120.00	87.820	1.10			
3	180.00	86.550	0.83	**Silt factor "f " =**	**1.70**	
4	240.00	87.450	0.63			
5	320.00	88.170	1.30			

Note 1. Flowing water.

POST MONSOON SURVEY (DATE :20.11.2015)

Discharge 'Q' 0.000 Cumecs — Water edge R.B. — 250.9 m. — L.B. — 124 m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	70.00	90.925	1.82	**Av.mean dia."m" =**	**1.38 mm**	Pooling
2	120.00	87.340	1.66			Water
3	180.00	86.520	0.66	**Silt factor "f " =**	**2.07**	
4	240.00	87.430	1.08			
5	320.00	88.150	1.68			

Note 1 Stagnated water .

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**LUWARA**	**CODE**	**01 02 09 001**
RIVER	**SHETRUNJI**	**BASIN**	**SHETRUNJI**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE:21.05.2015)

Discharge 'Q' 0.000 Cumecs — Water edge R.B. — m. — L.B. — m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	0.00	63.305	0.68	**Av.mean dia."m" =**	**4.02**	**mm**	River dry
2	20.00	56.480	4.08				
3	40.00	57.325	12.92	**Silt factor "f " =**	**3.53**		
4	60.00	57.390	1.95				
5	80.00	63.360	0.45				

Note 1 River Bed Dry

MONSOON SURVEY (DATE)

Discharge 'Q' — Cumecs — Water edge R.B. — m. — L.B. — m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**	
				Silt factor "f " =			

POST MONSOON SURVEY (DATE :20.01.2016)

Discharge 'Q' 0.000 Cumecs — Water edge R.B. — 0.00 m. — L.B. — 80.00 m.
Area of Section — Sq.m. — Mean velocity — 0 m/Sec
Wetted Perimete — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	0.00	63.305	0.83	**Av.mean dia."m" =**	**3.73**	**mm**	Neg.
2	20.00	56.425	6.46				Flow
3	40.00	56.240	5.13	**Silt factor "f " =**	**3.40**		
4	60.00	56.560	4.33				
5	80.00	62.325	1.89				

Note 1 Stagnated water .

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**GANOD**	**CODE**	**01 02 07 001**
RIVER	**BHADAR**	**BASIN**	**BHADAR**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE : 19.05.2015)

Discharge 'Q' 0.000 Cumecs Water edge R.B. 42.00 m. L.B. 215.00 m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	33.435	1.42	**Av.mean dia."m" =**	**2.01** **mm**	Pooling
2	70.00	23.230	2.45			Water
3	130.00	24.010	2.49	**Silt factor "f " =**	**2.50**	
4	210.00	33.850	2.04			
5	237.00	32.350	1.67			

Note 1 Stagnated water .

MONSOON SURVEY (DATE)

Discharge 'Q' Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**	**mm**	
				Silt factor "f " =		

MONSOON SURVEY (DATE)

Discharge 'Q' Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**	**mm**	
				Silt factor "f " =		

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**KAMALPUR**	**CODE**	**01 02 02 007**
RIVER	**BANAS**	**BASIN**	**BANAS**
MEASURING AUTHORITY	**MAHI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 09.06.2015)

Discharge 'Q' 0.000 Cumecs — Water edge R.B. — m. — L.B. — m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	38.070	0.39	**Av.mean dia."m" =**	**0.31 mm**	River dry
2	240.00	36.050	0.32			
3	480.00	34.810	0.27	**Silt factor "f " =**	**0.99**	
4	600.00	37.275	0.29			
5	840.00	37.710	0.30			

Note 1 River Bed Dry

MONSOON SURVEY (DATE)

Discharge 'Q' — Cumecs — Water edge R.B. — m. — L.B. — m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**	**mm**	
				Silt factor "f " =		

POST MONSOON SURVEY (DATE 16.04.2016)

Discharge 'Q' 0.000 Cumecs — Water edge R.B. — m. — L.B. — m.
Area of Section 'A' — Sq.m. — Mean velocity 'V' — m/Sec
Wetted Perimeter 'P' — m. — Hydraulic Mean Depth 'R' — m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	38.070	0.17	**Av.mean dia."m" =**	**0.28 mm**	River dry
2	240.00	36.520	0.33			
3	480.00	34.520	0.33	**Silt factor "f " =**	**0.93**	
4	600.00	37.920	0.33			
5	840.00	36.360	0.23			

Note 1 River Bed Dry

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**BURHANPUR**	**CODE**	**01 02 17 002**
RIVER	**TAPI**	**BASIN**	**TAPI**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**TEMP.SECTION**

PRE MONSOON SURVEY (DATE 03.05.2015)

Discharge 'Q'	No flow	Cumecs	Water edge	R.B.	m.	L.B.	m.
Area of Section 'A'		Sq.m.	Mean velocity	'V'	m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth	'R'	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	237.925	3.34	**Av.mean dia."m" =**	**3.50**	**mm**
2	70.00	219.470	5.43			
3	140.00	215.450	4.49	**Silt factor "f " =**	**3.29**	
4	210.00	212.130	1.60			
5	280.00	225.480	2.64			

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q'		Cumecs	Water edge	R.B.	m.		m.
Area of Section 'A'		Sq.m.	Mean velocity	'V'	m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth	'R'	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**
				Silt factor "f " =		

POST MONSOON SURVEY (DATE 26.12.2015)

Discharge 'Q'	0.000	Cumecs	Water edge	R.B.	130.0 m.	L.B.	237.0 m.
Area of Section 'A'	0.0	Sq.m.	Mean velocity	'V'	0.000 m/Sec		
Wetted Perimeter 'P'	0.0	m.	Hydraulic Mean Depth	'R'	0.000 m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	237.925	2.41	**Av.mean dia."m" =**	**4.11**	**mm**
2	70.00	219.250	4.74			
3	140.00	215.430	3.86	**Silt factor "f " =**	**3.57**	
4	210.00	212.050	5.85			
5	280.00	225.025	3.68			

Note 1. Stagnated water

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**GOPALKHEDA**	**CODE**	**01 02 17 004**
RIVER	**PURNA**	**BASIN**	**TAPI**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 07.05.2015)

Discharge 'Q' Nil flow Cumecs Water ed m. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	40.00	239.050	4.83	**Av.mean dia."m" =**	**8.10 mm**	Pooling water
2	80.00	235.800	12.67			
3	120.00	244.180	6.79	**Silt factor "f " =**	**5.01**	

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q' Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**	**mm**	
				Silt factor "f " =		

POST MONSOON SURVEY (DATE 11.01.2016)

Discharge 'Q' NIL Cumecs Water edge R.B. 95.50 m. L.B. 56.60 m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	40.00	238.910	6.75	**Av.mean dia."m" =**	**7.62 mm**	
2	80.00	235.820	10.00			
3	120.00	244.610	6.12	**Silt factor "f " =**	**4.86**	

Note 1. Stagnated water

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**YERLI**	**CODE**	**01 02 17 005**
RIVER	**PURNA**	**BASIN**	**TAPI**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**TEMP.SECTION**

PRE MONSOON SURVEY (DATE 13.05.2015)

Discharge 'Q' River Dry Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	0.00	225.775	1.88	**Av.mean dia."m" =**	**2.76**	**mm**	River dry
2	50.00	220.045	2.56				
3	100.00	214.490	2.95	**Silt factor "f " =**	**2.92**		
4	150.00	214.580	4.32				
5	200.00	224.800	2.08				

Note 1 River Bed Dry

MONSOON SURVEY 2015-16

Discharge 'Q' Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**	
				Silt factor "f " =			

POST MONSOON SURVEY (DATE 23.12.2015)

Discharge 'Q' NIL Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	0.00	225.715	3.39	**Av.mean dia."m" =**	**3.58**	**mm**	River
2	50.00	219.895	4.44				Dry
3	100.00	213.045	3.59	**Silt factor "f " =**	**3.33**		
4	150.00	214.435	2.76				
5	200.00	224.735	3.70				

Note 1. Stagnated water

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**SARANGKHEDA**	**CODE**	**01 02 17 015**
RIVER	**TAPI**	**BASIN**	**TAPI**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 15.05.2015)

Discharge 'Q'	No Flow	Cumecs	Water edge	R.B.	m.	L.B.	m.
Area of Section 'A'		Sq.m.	Mean velocity	'V'	m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth	'R'	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	120.620	5.84	**Av.mean dia."m" =**	**5.03**	**mm**
2	80.00	111.125	8.90			
3	160.00	109.750	5.60	**Silt factor "f " =**	**3.95**	
4	240.00	108.650	3.48			
5	320.00	108.815	4.06			
6	400.00	109.845	5.65			
7	480.00	109.835	4.26			
8	560.00	117.130	2.48			

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q'		Cumecs	Water edge	R.B.	m.	L.B.	m.
Area of Section 'A'		Sq.m.	Mean velocity	'V'	m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth	'R'	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**
				Silt factor "f " =		

POST MONSOON SURVEY 2015-16

Discharge 'Q'		Cumecs	Water edge	R.B.	m.	L.B.	m.
Area of Section 'A'		Sq.m.	Mean velocity	'V'	m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth	'R'	m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**
				Silt factor "f " =		

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**MAHUWA**	**CODE**	**01 02 19 001**
RIVER	**PURNA**	**BASIN**	**PURNA**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 26.05.2015)

Discharge 'Q'	NIL Cumecs	Water edge R.B.		m.	L.B. m.
Area of Section 'A'	Sq.m.	Mean velocity 'V'		m/Sec	
Wetted Perimeter 'P'	m.	Hydraulic Mean Depth 'R'		m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
1	0.00	20.090	5.37	**Av.mean dia."m**	**3.17**	**mm**
2	60.00	14.310	1.88			
3	90.00	9.590	2.75	**Silt factor "f "**	**3.13**	
4	120.00	8.285	3.40			
5	210.00	12.300	2.43			

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q'	Cumecs	Water edge R.B.		m.	L.B. m.
Area of Section 'A'	Sq.m.	Mean velocity 'V'		m/Sec	
Wetted Perimeter 'P'	m.	Hydraulic Mean Depth 'R'		m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**
				Silt factor "f " =		

POST MONSOON SURVEY 2015-16

Discharge 'Q'	NIL Cumecs	Water edge R.B.		m.	L.B. m.
Area of Section 'A'	Sq.m.	Mean velocity 'V'		m/Sec	
Wetted Perimeter 'P'	m.	Hydraulic Mean Depth 'R'		m.	

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**
				Silt factor "f " =		

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**GADAT**	**CODE**	**01 02 20 001**
RIVER	**AMBIKA**	**BASIN**	**AMBIKA**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**STATION GAUGE LINE**

PRE MONSOON SURVEY (DATE 13.05.2015)

Discharge 'Q' NIL flow Cumecs Water edge R.B. 200.50 m. L.B. 80.50 m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	70.00	6.050	5.04	**Av.mean dia."m" =**	**5.95**	**mm**	Pooling water
2	100.00	3.450	8.67				
3	130.00	2.100	2.74	**Silt factor "f " =**	**4.29**		
4	160.00	1.020	10.86				
5	190.00	3.680	2.45				

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q' Cumecs Water edge R.B. m. L.B. m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)			Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**	**mm**	
				Silt factor "f " =		

POST MONSOON SURVEY (DATE 06.02.2016)

Discharge 'Q' No flow Cumecs Water edge R.B. 205.00 m. L.B. 80.00 m.
Area of Section 'A' Sq.m. Mean velocity 'V' m/Sec
Wetted Perimeter 'P' m. Hydraulic Mean Depth 'R' m.

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	70.00	6.070	3.98	**Av.mean dia."m" =**	**5.27**	**mm**	Pooling water
2	100.00	3.400	7.37				
3	130.00	2.080	3.20	**Silt factor "f " =**	**4.04**		
4	160.00	1.070	9.28				
5	190.00	3.640	2.51				

Note 1. Stagnated water

BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015 -2016

SITE	**DURVESH**	**CODE**	**01 02 25 001**
RIVER	**VAITARNA**	**BASIN**	**VAITARNA**
MEASURING AUTHORITY	**TAPI DIVISION**	**CROSS SECTION**	**TEMP.SECTION**

PRE MONSOON SURVEY (DATE 28.05.2015)

Discharge 'Q'	NIL	Cumecs	Water edge R.B.	227.0	m.	L.B.	123.0 m.
Area of Section 'A'		Sq.m.	Mean velocity 'V'		m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth 'R'		m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	40.00	11.600	7.80	**Av.mean dia."m" =**	**8.10**	**mm**	Pooling water
2	80.00	12.635	5.26				
3	110.00	3.145	6.71	**Silt factor "f " =**	**5.01**		
4	180.00	0.200	7.05				
5	210.00	0.195	13.70				

Note 1. Stagnated water

MONSOON SURVEY 2015-16

Discharge 'Q'		Cumecs	Water edge R.B.		m.	L.B.	m.
Area of Section 'A'		Sq.m.	Mean velocity 'V'		m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth 'R'		m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
	SURVEY NOT DONE			**Av.mean dia."m" =**		**mm**	
				Silt factor "f " =			

POST MONSOON SURVEY (DATE 25.02.2016

Discharge 'Q'	NIL	Cumecs	Water edge R.B.	227.00	m.	L.B.	123.00 m.
Area of Section 'A'		Sq.m.	Mean velocity 'V'		m/Sec		
Wetted Perimeter 'P'		m.	Hydraulic Mean Depth 'R'		m.		

Sl. No.	R.D. of sampling point (m)	R.L. of bed (m)	Mean dia. (mm)				Remarks
1	40.00	11.680	7.64	**Av.mean dia."m" =**	**6.20**	**mm**	
2	80.00	12.635	4.55				
3	110.00	3.145	5.49	**Silt factor "f " =**	**4.38**		
4	180.00	0.210	5.60				
5	210.00	0.500	7.70				

Note 1. Stagnated water