BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH AT PUNE
ORIGINAL APPLICATION NO 28 OF 2020(WZ)

Sarang Yadwadkar & ors … Applicants

Versus

Pune Municipal Corporation & ors. … Respondents

INDEX

Sr. No.	Particulars	Pg. No.
1.	Additional Affidavit memo on behalf of Respondent No 6 - MMRCL	829-836
2.	**Exhibit 1** Communication dated 24 August 2021 addressed by Respondent No 6 to CWPRS	837
3.	**Exhibit 2** Reply dated 1 October 2021 addressed by CWPRS to MMRCL	838
4.	**Exhibit 3** Letter dated 4 October 2021 addressed by MMRCL to CWPRS to the Commissioner, Pune Municipal Corporation	839-846

Last page - 846

Advocate for Respondent No 6

BEFORE THE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH AT PUNE
ORIGINAL APPLICATION NO. 28 OF 2020

Sarang Yadwakar & Ors ...Applicants

Versus

Pune Municipal Corporation and Ors ...Respondents

ADDITIONAL AFFIDAVIT ON BEHALF OF THE RESPONDENT NO.6 TO THE O.A. NO. 28/2020 TO BRING ON RECORD THE LATEST DEVELOPMENTS:

I, Kumkum Mishra, the Senior AGM-Legal and authorised signatory of the Respondent No.6 – Maharashtra Metro Rail Corporation Limited having my office at Metro Bhawan, Opposite Deeksha Bhoomi, Ramdaspeth, Nagpur 440010 do hereby state on solemn affirmation as under :

1. I say that the Applicant has preferred this Additional Affidavit in the above captioned Original Application to bring on record certain important facts and events which have transpired post the filing of the present Original Application and which are required for the purpose of effective adjudication of the present Original

NOTARY BRAJESH N. PRASAD DIST NAGPUR (M.S.) INDIA Regn. No. 7266 GOVT OF INDIA

Application. I say that the matter was last heard on 31 August 2021 and thereafter the matter was posted on 6 October 2021. The Applicant had also moved an Interim Application for seeking urgent listing of the matter and accordingly the matter was directed to be placed on 6 October 2021.

2. In the meanwhile in reply to the Interim Application No.13/2021 filed by the Original Applicants, the answering Respondent has annexed the Report prepared by the Central Water Power Research Station (CWPRS) along with recommendations of the Expert Committee meeting dated 8 March 2021 (received on 12 May 2021).

3. I say that thereafter the answering Respondent with a view to further take inputs from the CWPRS, the answering Respondent communicated to the CWPRS on 24 August 2021 drawing its attention to Table No.7 wherein water spread at Metro pier No.167 was shown to be 55.76 metre at a discharge of 1,00,000 cusecs(m). I say that the water spread only at this pier was much more in comparison to the water spread at pier No.166 and 168.

Therefore, the answering Respondent requested the CWPRS to provide an add on study to elucidate the reason for such spread and suggest possible flood protection measures to contain the eventuality. Hereto annexed and marked as **Exhibit "1"** is a copy of the communication dated 24 August 2021 addressed by the answering Respondent to the CWPRS.

4. I say that thereafter only on 1 October 2021, the CWPRS has responded that the Mathematical Model Studies for estimating the afflux and increase in water spread width of Mutha river in Pune City area due to construction of metro piers were already carried out by CWPRS and the CWPRS had accordingly submitted a Report and that again on the request of the answering Respondent, CWPRS had critically examined the data ground conditions and simulations to find out the exact cause of for the sudden increase in water spread at Pier No.167. It was observed by CWPRS that at the cross section on the right bank a road connecting the low level river bank road to the Kelkar road was existing. It was further observed that there were high level retaining walls on the right bank of upstream and

downstream cross sections excepts on the road width. It was stated that during the high floods, water might spread along the connecting road upto the road level where the water surface elevation was meeting and this was the reason for the exceptionally high water spread according to the CWPRS.

5. It was suggested by CWPRS that if the road was blocked by continuing the upstream and downstream retaining walls, the water spread could be contained. The simulations were conducted for the above scenario and it was observed that the increase in water spread was of the order of less than 4.0 metres along the left bank and that there was no significant change in water levels and afflux. Hereto annexed and marked as **Exhibit "2"** is a copy of the reply of the CWPRS dated 1 October 2021.

6. In view of receipt of the said letter on 1 October 2021, and with a view to understand the situation further and to take appropriate measures, the answering Respondent has further on 4 October 2021 communicated to the Respondent No.1 Pune Municipal Corporation bringing on record the aspect of letter of CWPRS dated 1 October 2021 and the answering Respondent has

4

brought it to the attention of Respondent No.1 Pune Municipal Corporation that at four Piers as stated in the CWPRS Report, the water afflux at discharge of 60,000 cusecs(m) was marginal, however, water afflux at discharge of 1,00,000 cusecs(m) was higher. The answering Respondent therefore suggested that the matter may be examined by the Respondent No.1 Pune Municipal Corporation and necessary inputs in that regard for the purpose of construction of retaining wall at the location suggested by the CWPRS was sought. It has also been pointed out to the Respondent No.1 by the answering Respondent that this may permanently block the access to the Kelkar Road.

7. Even as regards other piers where there was marginal increase the answering Respondent requested the Respondent No.1 to examine whether the height of the existing retaining wall could be increased to contain the water spread which would be an effective measure to avoid any untoward incidents. The answering Respondent has also requested the Respondent No.1 Pune Municipal Corporation to consider incorporating it in the River Rejuvenation project which is underway and if the

Respondent No.1 could incorporate the suggestions of CWPRS for containing water spread at Pier No.167 as part of their mitigating measures. Hereto annexed and marked as **Exhibit "3"** is a copy of the letter/representation dated 4 October 2021 along with photographs.

8. The answering Respondent submits that, on the last occasion it was argued by the Applicants that the alignment of the Metro Rail ought to be changed in view of prayer clause B. However, it is important to note that as stated in its Affidavit-in-Reply to the Original Application the alignment of the Metro Rail has been sanctioned under Section 32 of The Metro Railways (Construction of Works) Act, 1978 and has been notified on 5 January 2018 and last modified on 14 October 2019. Although the present Applicants are aware of sanctioning of alignment of Metro rail under Section 32 of The Metro Railways (Construction of Works) Act, 1978, the Applicants have not challenged the alignment of Metro. In the absence of challenge to the notification of alignment of Metro rail the request and prayer for shifting the alignment cannot be considered. In any

event it is submitted that the challenge of the Applicants is also time barred as the alignment was fixed in 2018 itself and therefore there cannot be any shift in the Metro rail alignment.

9. It is also submitted that this is the third round of litigation and the Applicants are time and again seeking a stay to the project. As explained in the earlier Affidavit-in-Replies, the Metro project is a project of great public importance which will have far reaching effects in reducing pollution, traffic situations and other issues within the City of Pune and therefore it is necessary that the project be continued.

Dated this 5 October 2021

Respondent No.6

Mrs. Kumkum Mishra
Sr. AGM (Legal)
Maharashtra Metro Rail Corp. Ltd.

Advocate for the Respondent No.6

VERIFICATION

I, Kumkum Mishra, the AGM-Legal and the authorized signatory of the Respondent No.6 abovenamed do hereby solemnly declare that what is stated in paragraphs Nos.1 to 10 is true to my own knowledge and based on documents available with me in relation to the same and I believe the same to be true.

This 5 day of October, 2021

Before me,

NOTARIAL REG.
ENTRY NO. 5152
DATE 5.OCT.2021

NOTARY BRAJESH N. PRASAD DIST NAGPUR (M.S.) INDIA Regn. No.7266 GOVT OF INDIA

Identified by me

NOTARY BRAJESH N. PRASAD DIST NAGPUR (M.S.) INDIA Regn. No.7266 GOVT OF INDIA NOTARIAL NOTARIAL NOTARIAL

NOTARY BRAJESH N. PRASAD DIST NAGPUR (M.S.) INDIA Regn. No.7266 GOVT OF INDIA NOTARIAL NOTARIAL

URN SOLEMNLY AFFIRME
ABOVE NAMED DEPONEN
HO IS PERSONALLY KNOWN
O ME / IDENTIFIED BY

EFORE ME THIS THE 5
AY OF OCT 2021.
T NAGPUR

ADVOCATE & NOTARY
AGPUR DIST (M.S.) IN

8

CIN: U60100MH2015SGC262054
महा मेट्रो
PUNE METRO

महाराष्ट्र मेट्रो रेल कॉर्पोरेशन लिमिटेड
MAHARASHTRA METRO RAIL CORPORATION LIMITED
(भारत सरकार आणि महाराष्ट्र शासनाचा संयुक्त उपक्रम)
Joint Venture of Govt. of India & Govt. of Maharashtra
PUNE METRO RAIL PROJECT

Maha-Metro/Pune/EMD/C17

Date: 24/08/2021

To,
The Director
Central Water and Power Research Station (CW&PRS)
Khadakwasla, Pune - 411024, Maharashtra, India

Subject: Mathematical Model Studies of River Mutha regarding.

Ref: Technical Report No. 5886 January, 2021 submitted to Maha Metro Rail Corporation vide your office letter no. HAPT/Maha-Metro/2021-46/23 dated 22nd January, 2021.

Dear Sir,

Reference to above cited subject matter we would like to draw your attention specifically on Table no. 7 of the report wherein water spread at metro pier no. 167 is derived to 55.76 m. Since this water spread is sudden increase, in comparison to nearby pier no. 166 (3.16 m) and Pier no. 168 (1.23 m) hence requesting you to conduct add-on study to elucidate the reason in detail and also suggest us the flood protection measures to contain the resultant flood.

24/08/21

(Ratnakar Pandey)
DGM/Environment

सत्यमेव जयते
भारत सरकार / Government of India
जल शक्ति मंत्रालय / Ministry of Jal Shakti
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
Department of Water Resources, River Development and Ganga Rejuvenation
केन्द्रीय जल और विद्युत अनुसंधान शाला
खड़कवासला, पुणे - 411 024
CENTRAL WATER & POWER RESEARCH STATION
Khadakwasla, Pune – 411 024

No. CWPRS/RAS/HAPT/MMRCL/2019-1/2021 Date:01/10/2021

To,
Shri Ratnakar Pandey,
DGM/ Environment,
MMRCL, Pune

Sub: Mathematical Model Studies of River Mutha - reg
Ref: Your letter no. Maha-Metro/Pune/EMD/C17 dated 24/08/2021

Sir,

The Mathematical model studies for estimating the afflux and increase in water spread width of Mutha river in Pune city area due to construction of metro pier are being carried out at CWPRS. The model developed is for the entire reach of Mutha river from Khadakwasla to Sangam bridge. The computed water surface elevation, afflux and water spread width at each bridge/ metro pier were reported vide CWPRS Technical Report No. 5886 of January 2021.

In this connection, clarifications were sought by DGM/ Environment, MMRCL vide letter referred above. In Table No. 7 of the above Technical Report, increase in water spread of 55.76 m is reported at Metro Pier No. 167. Since there is sudden increase in water spread at this particular cross section, it was requested to conduct an add-on study. Accordingly, the data ground conditions and simulations has been critically examined by CWPRS to find out the exact cause of this phenomenon. It was observed that, at this cross section on the right bank, a road connecting the low level river bank road to the Kelkar road is existing. There are high level retaining walls on the right bank of upstream and downstream cross sections except for the road width. During high floods, water will spread along the **connecting road** upto the road level where the water surface elevation meets. This is the reason for the exceptionally high water spread of 55.76 m. If the road is blocked by continuing the upstream and downstream retaining walls, the water spread can be contained. The simulations were conducted for the above scenario and it was observed that the increase in water spread is of the order of less than 4.0 m along the left bank. There is no significant change in water levels and afflux.

Thanking you,

Yours Sincerely
01/10/2021
Dr. (Mrs) Neena Isaac
Scientist E

टेलीफोन : 020-24103331 ई-मेल : n_isaac@rediffmail.com
फैक्स : 020-24381004 वेबसाइट : www.jalshakti-dowr.gov.in, www.cwprs.gov.in

CIN: U60100MH2015SGC262054
महा मेट्रो
PUNE METRO
महाराष्ट्र मेट्रो रेल कॉर्पोरेशन लिमिटेड
MAHARASHTRA METRO RAIL CORPORATION LIMITED
(भारत सरकार आणि महाराष्ट्र शासनाचा संयुक्त उपक्रम)
Joint Venture of Govt. of India & Govt. of Maharashtra
PUNE METRO RAIL PROJECT

Maha Metro/PMRP/DW/2021/21 04/10/2021

To,
The Commissioner
Pune Municipal Corporation
4th Floor, PMC Bhavan
Main Building, Shivajinagar
Pune – 411005

Ref: i. OA 28/2020 in NGT (WZ) titled Sarang Yadwadkar & Ors. vs. PMC & Ors.
ii. CWPRS letter no. HAPT/Maha- Metro/2021-46/23
iii. Maha Metro letter no. Maha-Metro/Pune/EMD/C17
iv. CWPRS letter no. CWPRS/RAS/HAPT/MMRCL/2019-1/2021

Sub: OA 28/2020 in National Green Tribunal (WZ) titled Sarang Yadwadkar & Ors. vs. Pune Municipal Corporation & Ors.

Dear Sir,

In view of the ongoing litigation at NGT (WZ) in the above referred matter, a mathematical model study was conducted by Central Water and Power Research Station (hereinafter CWPRS) of the Mutha river to assess the impact of metro piers, footings and pile cap on afflux and submergence and the same was submitted by CWPRS vide its Technical Report No. 5886 dated 22nd January 2021 (**Ref ii**). The report mentioned in its Table no. 7 that Pier no. 159 saw a water spread of 22.20m; Pier no. 160 saw a spread of 20.61m and Z-bridge saw a spread of 29.84m, corresponding to a discharge of 1,00,000 cusec. The alarming observation was with respect to water spread at Pier no. 167 which was derived at 55.76m. It may be noted that this case scenario pertains to possible flood inundation extent for discharge of 1,00,000 cusecs of water, which the city of Pune has never witnessed in its known history of monsoons. The table hereinunder summarizes the position with respect to water spread at both 60,000 cusecs (blue line of the Mutha river) and 1,00,000 cusecs (red line of the Mutha river) discharge-

Bridge name & Pier No	Water spread at discharge of 60,000 cusecs (m)	Water spread at discharge of 1,00,000 cusecs (m)
P-159	0.11	22.20
P-160	0.11	20.61
Z-Bridge	0.31	29.84
P-167	0.77	55.76

.....2

It may be seen from the above table that the water spread at 60,000 cusec discharge is negligible at the concerned piers whereas at the discharge of 1,00,000 cusecs there is an abrupt spread of 55m at P-167. The spread is marginal at the other three locations.

In pursuance to such study, Maha- Metro sought specific clarification for pier no. 167 since the water spread therein was a sudden increase compared to pier no. 166 (3.16m) and pier no. 168 (1.23m) and requested for an add on study to elucidate the reason for such spread and suggest possible protection measures (**Ref iii**).

In response to Maha-Metro letter, at Ref iii, CWPRS vide their letter no. CWPRS/RAS/HAPT/MMRCL/2019-1/2021, dated 1st October 2021 (**Ref iv**), suggested that if the existing road connecting the low level river bank road to Kelkar road is blocked, by continuing the upstream and downstream retaining walls, then the water spread can be contained. Annexed hereto are the photographs taken of the roads corresponding to the concerned piers. At this point, PMC may also examine whether the existing retaining wall may be increased appropriately to contain the water spread at P-159, P-160 and Z-Bridge.

At the behest of the gravity of the matter, you are requested to examine the given situation and give your necessary inputs with respect to the construction of the new retaining wall at this location as suggested by CWPRS. It is pertinent to point out that the construction as such will permanently block the access to Kelkar Road.

It is also learnt that there is a River Rejuvenation project by the PMC which is underway that will effectively contribute towards the development of the river front. It may please be communicated if PMC can incorporate the suggestions of CWPRS for containment of water spread at Pier no. 167 in their project as a part of their mitigation measure.

Thanking you,

Yours faithfully,

Encl: 1. Above letters
2. Site photographs

Atul Gadgil
Director (works)

CIN: U60100MH2015SGC262054
महा मेट्रो
PUNE METRO

महाराष्ट्र मेट्रो रेल कॉर्पोरेशन लिमिटेड
MAHARASHTRA METRO RAIL CORPORATION LIMITED
(भारत सरकार आणि महाराष्ट्र शासनाचा संयुक्त उपक्रम)
Joint Venture of Govt. of India & Govt. of Maharashtra
PUNE METRO RAIL PROJECT

Maha-Metro/Pune/EMD/C17

Date: 24/08/2021

To,
The Director
Central Water and Power Research Station (CW&PRS)
Khadakwasla, Pune - 411024, Maharashtra, India

Subject: Mathematical Model Studies of River Mutha regarding.

Ref: Technical Report No. 5886 January, 2021 submitted to Maha Metro Rail Corporation vide your office letter no. HAPT/Maha-Metro/2021-46/23 dated 22nd January, 2021.

Dear Sir,

Reference to above cited subject matter we would like to draw your attention specifically on Table no. 7 of the report wherein water spread at metro pier no. 167 is derived to 55.76 m. Since this water spread is sudden increase, in comparison to nearby pier no. 166 (3.16 m) and Pier no. 168 (1.23 m) hence requesting you to conduct add-on study to elucidate the reason in detail and also suggest us the flood protection measures to contain the resultant flood.

24/08/21

(Ratnakar Pandey)
DGM/Environment

सत्यमेव जयते
भारत सरकार / Government of India
जल शक्ति मंत्रालय / Ministry of Jal Shakti
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
Department of Water Resources, River Development and Ganga Rejuvenation
केन्द्रीय जल और विद्युत अनुसंधान शाला
खड़कवासला, पुणे - 411 024
CENTRAL WATER & POWER RESEARCH STATION
Khadakwasla, Pune – 411 024

No. CWPRS/RAS/HAPT/MMRCL/2019-1/2021 Date:01/10/2021

To,
Shri Ratnakar Pandey,
DGM/ Environment,
MMRCL, Pune

Sub: Mathematical Model Studies of River Mutha - reg
Ref: Your letter no. Maha-Metro/Pune/EMD/C17 dated 24/08/2021

Sir,

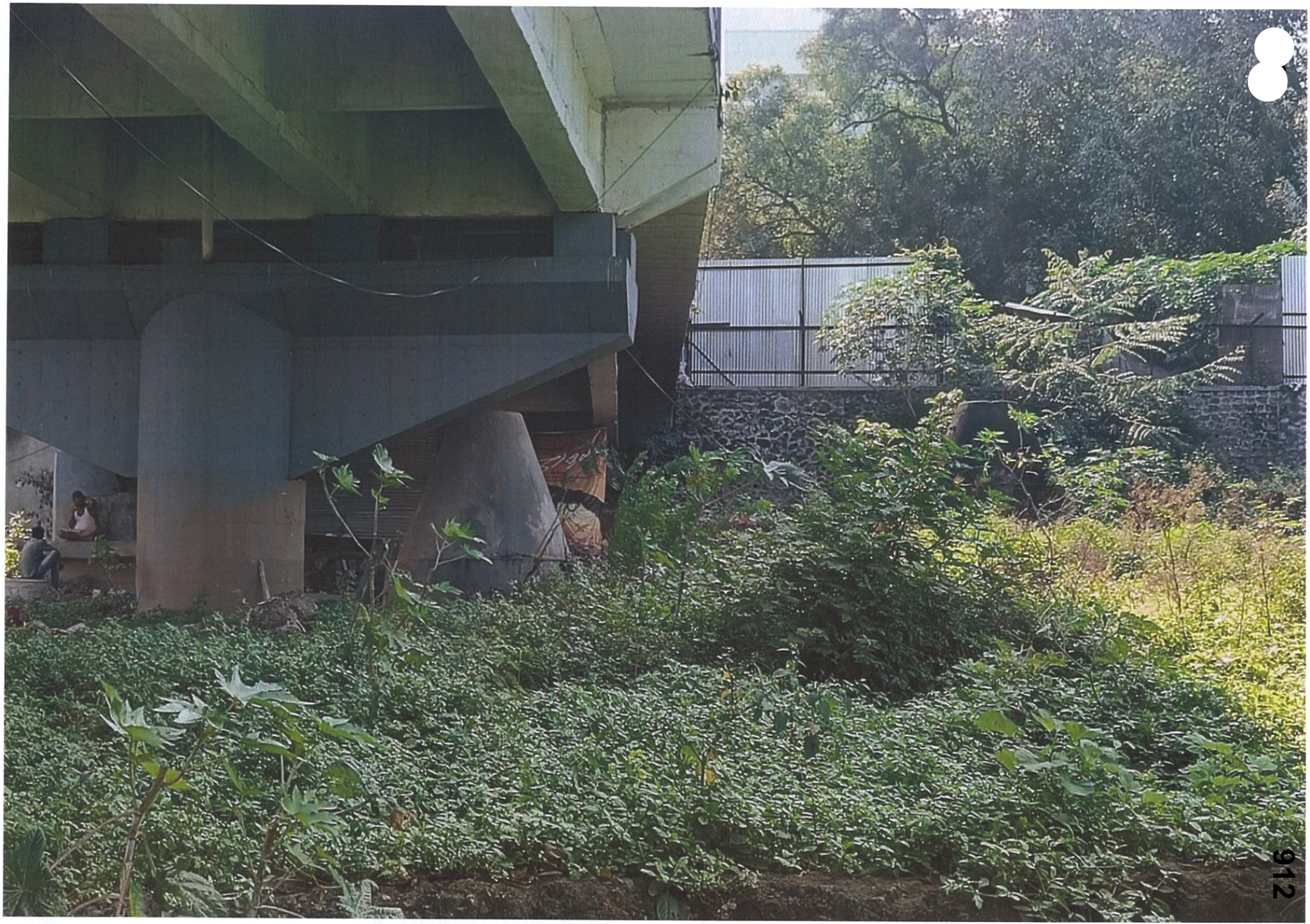
The Mathematical model studies for estimating the afflux and increase in water spread width of Mutha river in Pune city area due to construction of metro pier are being carried out at CWPRS. The model developed is for the entire reach of Mutha river from Khadakwasla to Sangam bridge. The computed water surface elevation, afflux and water spread width at each bridge/ metro pier were reported vide CWPRS Technical Report No. 5886 of January 2021.

In this connection, clarifications were sought by DGM/ Environment, MMRCL vide letter referred above. In Table No. 7 of the above Technical Report, increase in water spread of 55.76 m is reported at Metro Pier No. 167. Since there is sudden increase in water spread at this particular cross section, it was requested to conduct an add-on study. Accordingly, the data ground conditions and simulations has been critically examined by CWPRS to find out the exact cause of this phenomenon. It was observed that, at this cross section on the right bank, a road connecting the low level river bank road to the Kelkar road is existing. There are high level retaining walls on the right bank of upstream and downstream cross sections except for the road width. During high floods, water will spread along the **connecting road** upto the road level where the water surface elevation meets. This is the reason for the exceptionally high water spread of 55.76 m. If the road is blocked by continuing the upstream and downstream retaining walls, the water spread can be contained. The simulations were conducted for the above scenario and it was observed that the increase in water spread is of the order of less than 4.0 m along the left bank. There is no significant change in water levels and afflux.

Thanking you,

Yours Sincerely
01/10/2021
Dr. (Mrs) Neena Isaac
Scientist E

टेलीफोन : 020-24103331
फैक्स : 020-24381004
ई-मेल : n_isaac@rediffmail.com
वेबसाइट : www.jalshakti-dowr.gov.in, www.cwprs.gov.in


8
912

913