

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 303 of 2023

Karnvir Thamman

.....Petitioner/Applicant

Versus

State of Punjab and Others

.....Respondents

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Deponent

LN

Place: Chandigarh

Dated:

(Krishan Kumar)
Principal Secretary to
Government of Punjab,
Department of Water Resources,

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 303 of 2023

Karnvir Thamman (aged about 52 years) S/o Sh. Sham Lal Thamman, R/o Imli Wala Mohalla, Banur, Tehsil & District SAS Nagar, Mohali (Punjab), Mobile No. 9872305234, Email Address: shentythamman@gmail.com

.....Applicant

Versus

1. State of Punjab through its Chief Secretary, Punjab Civil Secretariat, Chandigarh, Contact No. 0172-2740156, Email Address:- cs@punjab.gov.in .
2. Department of Water Resources, Government of Punjab, through its Principal Secretary, Room no. 606, 6th floor, sector-9, Mini Secretariat, Chandigarh. 16009, Email- ps@punjab.gov.in Contact no-0172-2742307.
3. Director, Department of Rural Development and Panchayat, Government of Punjab, Vikas Bhawan, Sarovar Path, Phase 8, Sector 62, SAS Nagar (Mohali)- 160062, Contact No. 0172-5062522, Email Address:- dir.rdp@punjab.gov.in
4. Punjab Pollution Control Board, Punjab Zonal Office-1, Vatavaran Bhawan, Nabha Road, Patiala through its Secretary, Contact no. 0175-2215793, Email chairman.ptl.ppcb@punjab.gov.in
5. Deputy Commissioner cum District Magistrate Ferozepur, Deputy Commissioner Office 1st Floor, DC Office, District Administrative



3111

Complex, Ferozpur Cantt 152001, Contact no. 01632-244054,
email- dc.frz@punjab.gov.in

6. Deputy Commissioner, Tarn Taran, District Administrative
Complex, Harike Road, Tarn Taran, Punjab. Pin Code- 143401,
Contact no. 01852-2241101, email- dc.ttn@punjab.gov.in

.....Respondents

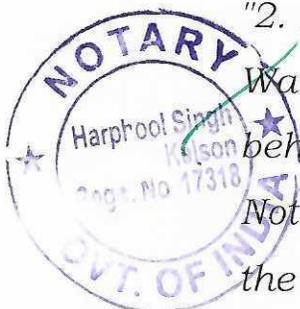
Affidavit of Krishan Kumar,
Principal Secretary to Government
of Punjab, Department of Water
Resources, Chandigarh on behalf
of Respondent No. 1 & 2.

RESPECTFULLY SHOWETH:-

I, the above named deponent do hereby solemnly affirm
and declare as under:-

1. That the present Original Application is pending adjudication
before this Hon'ble Tribunal and is listed for hearing on
27.05.2024.
2. That the present matter came up for hearing on 14.03.2024 when
this Hon'ble Tribunal was pleased to issue directions, the operative
part of which reads as under:-

"2. Principal Secretary, Government of Punjab, Department of
Water Resources has filed the affidavit dated 04.03.2024 on
behalf of Respondents No. 1 and 2 enclosing therewith the
Notification dated 04.03.2024 as Annexure R-3 stated to be
the Notification notifying the flood plains of River Sutlej in
District Ferozpur and Tarn Taran. The Notification prima-
facie indicates that the flood plain zone of River Sutlej in the
two concerned districts has been notified on the basis of the



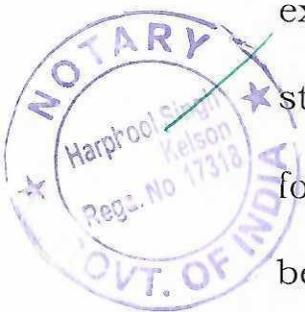
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bund which was constructed earlier. As per the report "the flood plains have already been defined by construction of permanent raised embankments as per design discharge along the three main rivers." We find that no material has been placed on record indicating the exercise for demarcating the flood plain zone as per the applicable norms.

3. Hence, we direct the Respondents No. 1 and 2 to place on record all the relevant material justifying the issuance of the Notification, Annexure R-3 and the material on the basis of which the flood plain zone have been notified."

3. That the Water Resources Department, Punjab has calculated water way for river Sutlej in the mentioned stretch of 47 km in districts Ferozepur and Tarn-taran for 100 year frequency discharge i.e. 534441 cusecs and this water way corresponding to 100 year frequency has been calculated as 0.58 kms based on the lacey's water width formula. Discharge of 534441 cusecs has been taken from approved L-sections and the revised L-sections of these permanent raised embankments were approved in year 2019. The copy of above Calculations is annexed herewith as Annexure-R-1.

4. That the average existing width available between the already existing permanent raised embankments on both side in this stretch is 4.50 km, which is more than the water way calculated for 100-year frequency discharge i.e 0.58 kMs. Therefore, this land between these existing permanent raised embankments on both side has been declared as Flood Plain Zone of river Sutlej in District Ferozepur and Tarantaran.

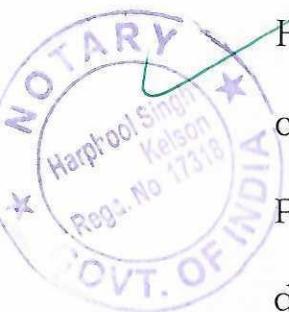


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The copy of google images showing distance between the permanent raised embankments is annexed herewith as Annexure-R-2.

Copy of the Notification is being appended at Annexure R-3

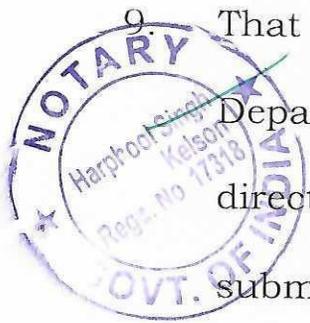
5. That the L-Section of these Permanent Raised Embankments date back to year 1976, therefore, no old record pertaining to these L-Sections of these embankments could be found. But these embankments have been constructed after conducting proper surveys and design studies, as these embankments have also been marked on the contour sheets prepared by office of Surveyor General of India under the program Sutlej River Flood Management Surveys in year 1984. These surveys date back to year 1984 and the name of these surveys 'Sutlej River Flood Management Surveys' itself reflects that these surveys were specifically considered for management of floods in river Sutlej. Therefore, the Notification dated 04.03.2024 is justified as these embankments have served the purpose of their design and incidents of breaches in these embankments have been rare and isolated. Copy of the Contour Sheet is attached as Annexure R-4.
6. That it is respectfully submitted that two major headworks i.e. Harike Head works and Hussainiwala Head Works have been constructed on river Sutlej in this area. These Head-Works feed Punjab as well as some parts of Rajasthan for irrigation and drinking purpose by diverting/managing the flow of river water and it has been possible only after construction of the Permanent Raised Embankments.



7. That it is further submitted that the method used by the Department to demarcate flood plain zone corresponding to 100 year return frequency is Empirical Formula of Lacey's Water Width. However, the Department has also requested Central Water Commission (CWC) to share the methodology being adopted by them for calculating water ways and demarcating Flood Plain Zones. **Copy of the email written to CWC is attached as Annexure- R-5.** The reply from the CWC is awaited, however, Chief Engineer, Drainage of Water Resources Department, Punjab also held a meeting on 14.05.2024 with officers of CWC, New Delhi with a request to share methodology and guidelines for Flood Plain Zoning being adopted by Government of India. During the meeting it was informed that CWC, Government of India is in process of formulating revised detailed guidelines for Flood Plain Zoning and these guidelines will be finalized very soon.

8. That the department is ready to adopt any methodology/ guidelines as guided by CWC. Moreover, if necessary, the Department will make changes in the already Notified notification declaring Flood Plain Zones.

9. That it is respectfully submitted that the authorities of the Department have made every possible endeavor to carry out the directions of this Hon'ble Tribunal. It is further respectfully submitted that the deponent holds this Hon'ble Tribunal in the highest esteem and cannot even dare to think of disobeying or flouting any order or direction of this Hon'ble Tribunal or any other courts of law. For any lapse on the part of the deponent, the deponent tenders an unquestionable apology in sincerity with a



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sense of remorse and repentance for the same and is ready to take any other such corrective measures as this Hon'ble Court may deem fit in the facts and circumstances of the present matter.

In view of the submissions made herein above, it is respectfully submitted that the above information may kindly be taken on the record of this Hon'ble Tribunal and the present application may kindly be dismissed in interest of justice.

Deponent



Place: Chandigarh

(Krishan Kumar)

Dated:

Principal Secretary to
Government of Punjab,
Department of Water Resources,
Chandigarh.

VERIFICATION:-



Verified that the contents of para-No. 1 to 9 of the above affidavit are true and correct to my knowledge as per information derived from the official record. No part of it is false and nothing material has been kept concealed therein.



Deponent



Place: Chandigarh

(Krishan Kumar)

Dated:

ATTESTED



Notary
Estate Office, Chandigarh

Principal Secretary to
Government of Punjab,
Department of Water Resources,
Chandigarh.

16 MAY 2024

Design Calculations

Lacey water width formula = $4.75 (Q)^{1/2}$

Q for 100 years return period = 534441 cusecs

Lacey's wetted perimeter come out to be

P = 584.3 m

Width = 584 m or 0.58 km

Width from center line = 0.29 km

Our bundhs are avg 4.5 – 5 km apart so this discharge can be easily accommodated inside flood protection bundh on each side.

DISTANCE MAP

BETWEEN HARIKE, PATTI & FP BANDH

Annexure R-2

3117

HARIKE BANDH

Legend

-  BANDH
-  Feature 1
-  harike bandh
-  KM
-  Patti bandh

5.56KM

5.12KM

4.99KM

6.72KM

4.80KM

4.84 KM

6.45KM



DISTANCE MAP

BETWEEN HARIKE, PATTI & FP BANDH

PATTI BANDH

3118

4.80KM

Legend

-  BANDH
-  Feature 1
-  harike bandh
-  KM
-  Patti bandh

6.72KM

6.27KM

6.45KM

5.93KM

6.60KM

FP BANDH FZR

9



1 mi

GOVERNMENT OF PUNJAB

Department of water Resources

(Works Branch)

NOTIFICATION

No. WR-IRWR04/21/2023-IW3/1369

Dated: 04-03-2024

In continuation to the notification no. WR-IRWR-04/22/2023-IW3/319 dated 25.09.2023 and WR-IRWR-04/21/2023-IW3/317 dated 25.09.2023, In exercise of the powers conferred by section 55 Part VIII of the Northern India Canal and Drainage Act No. VII of 1873 read with section 3 of the aforesaid Act, the Government of Punjab hereby declares the area mentioned in previous notifications as Flood plains of river Sutlej in District Tarantaran and Ferozepur and authorizes the Executive Engineer, Drainage Cum Mining & Geology Division, Ferozepur/Tarantaran and his officials/ workmen to prevent all the public /autonomous bodies or persons from creating any obstruction by making any type of construction passing through these areas mentioned in previous notifications.

Dated:

L.)
Principal Secretary, Govt of Punjab
Water Resources Punjab.

Endst. No WR-IRWR04/21/2023-IW3/1370

Dated 04-03-2024

A copy is forwarded to Controller, Printing and Stationary, Department of Punjab, Chandigarh with that the notification may be published in the Punjab Government Extra-ordinary Gazette.

S. Kaur
Under Secretary, Water Resources

Endst. No WR-IRWR04/21/2023-IW3/1371-1375

Dated 04-03-2024

A copy is forwarded to following for information and necessary action:-

1. Chief Engineer, Drainage cum Mining, Water Resources Department Punjab.
2. Deputy Commissioner, Ferozepur
3. Deputy Commissioner, Tarantaran
4. Executive Engineer, Drainage-cum-Mining Division, Tarantaran
5. Executive Engineer, Drainage-cum-Mining Division, Ferozepur

S. Kaur
Under Secretary, Water Resources



3121

Chief Engineer Drainage <cedrainage2008@gmail.com>

Subject: Flood plain zoning in state of Punjab.

1 message

Chief Engineer Drainage <cedrainage2008@gmail.com>

Thu, May 2, 2024 at 6:57 PM

To: fmdte@cw.cdelhi.nic.in, Rakesh Kashyap ceibocwc <ceibo-cwc@nic.in>, cepd cwc <cepd-cwc@nic.in>, Chairman cwc <chairman-cwc@nic.in>

Subject: Flood plain zoning in the state of Punjab.

In reference to the subject cited above, it is being apprised that the state of Punjab is carrying out the flood plain zoning of various rivers/Choe's/drains falling under the state of Punjab and subsequently notifying the area of waterway thus calculated corresponding to 100-year return period discharge under section 55 of Canal and Drainage Act, 1873.

The standard practice being followed by the department in flood plain zoning is as under:

1. Firstly, calculating the discharge through Gumbel's method corresponding to a 5-, 25- and 100-year return period.
2. For defining the flood plain, the department is using a 100-year discharge in which no construction is to be allowed. So, 100-year discharge is taken as reference for defining flood plain.
3. Secondly, the waterway of the flood plain discharge is calculated with an empirical formula of Lacey's waterway width.

The department requires guidance on finding the accuracy of the practice being followed by the department of Water resources for executing flood plain zoning in the state of Punjab. The Department is also defending a case O A 303/2023 Karanvir Thaman Versus State of Punjab in Hon'ble NGT wherein the hon 'able court has directed that "we find that no material has been placed on record indicating the exercise for demarcating the flood plain zone as per the applicable zone".

Considering above, the methods used by this department in calculating the flood plain zone of the said reach of Sutlej is attached along and is being shared with you and to which you are requested to share the method of calculation being followed by CWC and other state departments for calculating the width of water way with Punjab Water Resources Department, so that the department can accordingly file a reply with NGT and take any other measure, if required.

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Thanks & Regards
O/o Chief Engineer/ Drainage-
Cum - Mining & Geology,
Water Resources Department,
Punjab, Chandigarh.

2 attachments **2024-05-02 18-06.pdf**

47K

 **2024-05-02 18-08.pdf**

146K