

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
ORIGINAL APPLICATION NO. 632/2022**

**IN THE MATTER OF:**

V K TYAGI

...APPLICANT(s)

VERSUS

STATE OF UTTARAKHAND &amp; ORS.

...RESPONDENT(s)

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| 2.     | THE COPY OF LETTER DATED 16.11.2024 AND LETTER DATED 13.11.2024 IS ANNEXED HEREIN AND MARKED AS ANNEXURE R1. |          |
| 3.     | A COPY OF LETTERS DATED 11.12.2024 IS ANNEXED HERewith AND MARKED AS ANNEXURE R2.                            |          |
| 4.     | A COPY OF THE REPORT IS ANNEXED HERewith AND MARKED AS ANNEXURE R3.  |          |

THROUGH



BHANWAR PAL SINGH JADON  
STANDING COUNSEL FOR THE STATE OF U.P.

EMAIL- [bhanwar09jadon@gmail.com](mailto:bhanwar09jadon@gmail.com)

**DATE:** 20.12.2024**PLACE:** NOIDA



BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
ORIGINAL APPLICATION NO. 632/2022



IN THE MATTER OF:

V/K T...

VERSUS

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...RESPONDENT(S)

PROGRESS REPORT ON BEHALF OF THE RESPONDENT NO. 7,

STATE OF UTTAR PRADESH

Gyan Prakash Srivastava, aged about 55 years, S/o Naval Kishore Srivastava, posted as Chief Engineer (Ganga), Irrigation and Water Resources Department, State of Uttar Pradesh, do hereby solemnly affirm and state as under:

1. Gyan Prakash Srivastava, am fully conversant with the facts of the case and am competent and authorized to swear the present Affidavit.
2. That the present matter pertains to the District Haridwar, State of Uttarakhand, wherein River Sonali, which is a tributary of River Ganga has large scale encroachment and discharge of sewage directly in the river causing pollution.
3. That in the present matter the delineation and demarcation of the Flood Plain Zone (hereinafter referred to as "FPZ") of River Sonali, a tributary of River Ganga, is to be completed by the responsible authorities.

Mallika

APPLICANT  
No. 10, Sohan Niwas, Gurudwara Road,  
Khumi Pul, Meerut (M-9837010143)



*(Handwritten signature)*

4. That vide Order dated 15.10.2024, the Hon'ble Tribunal directed as stated below:

*"...4. In respect of area of river in State of UP, we are informed that survey of area of river in District Saharanpur will be completed by 15.11.2024 and in District Muzaffarnagar by 15.12.2024 and progress report shall be submitted at least two days before the next date..."*

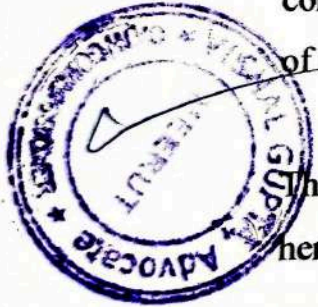
5. That in compliance of the directions issued by the Hon'ble Tribunal it is submitted that the Delineation of the FPZ of the District Saharanpur and District Muzaffarnagar has been carried out by the Hydrology Division, Bhadrabad.

6. It is most humbly submitted that vide letter dated 16.11.2024, the office of Chief Engineer (Yamuna), New Delhi informed that the survey work of delineation of the FPZ of river Solani in District Saharanpur has been completed on date 13.11.2024, as per the letter no 1050/ dated 13-11-2024 of Executive Engineer, Jal Vigyan Khand, Bhadrabad.

The copy of letter dated 16.11.2024 and letter dated 13.11.2024 is annexed herein and marked as ANNEXURE R1.

7. That vide letter dated 11.12.2024 from the office of Superintending Engineer, Ganga Nahar Sanchalan Mandal, Meerut, it was informed that the delineation work of the River Sonali, tributary of River Ganga in District Muzaffarnagar has been completed on 11.12.2024, as per the letter of Executive Engineer, Jal Vigyan Khand, Bhadrabad.

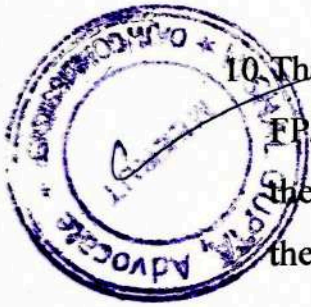
A copy of letters dated 11.12.2024 is annexed herewith and marked as ANNEXURE R2.



8. It is submitted before the Tribunal that the delineation of the FPZ in the District Saharanpur and District Muzaffarnagar has been carried out by the Hydrology Division, Bhadrabad in the total stretch of Solani River. The marking of the extent of flood lines has been done for 100-year flood frequencies. Additionally, map and report(15-41) has been provided by the Hydrology Division to the Irrigation Department for the Delineation carried out in both the aforementioned Districts.

A copy of the report is annexed herewith and marked as **ANNEXURE R3**.

9. That it is humbly submitted that the delineation of the FPZ of District Saharanpur and District Muzaffarnagar has been completed within the time allotted by the Hon'ble Tribunal vide Order dated 15.10.2024, therefore, the Order issued by the Tribunal has been complied with by the Deponent.



10. That furthermore, it is submitted that subsequent to the delineation of the FPZ of River Sonali in Saharanpur and Muzaffarnagar, the demarcation of the Sonali River in the above- mentioned Districts will be completed by the Deponent and the concerned authorities by the end of March, 2025.

11. Hence, the present affidavit is being filed for the kind consideration and perusal of this Hon'ble Tribunal.

12. I state that everything stated above has been stated by me in my official capacity on and derived from the official records and I state that nothing material has been concealed therefrom.

**DEPONENT**

**VERIFICATION**

Verified at Meerut on this 20 day of December, 2024, that the contents of the above affidavit from paragraphs 1 to 12 are believed to be true and correct to the best of my knowledge and belief. No part of it is false and nothing material has been concealed therefrom.



**DEPONENT**

*Identified*

**Mallika Bhatnagar**

Advocate

Ba. No. UP-5219/16, COP No.-193538  
18, Sohan Niwas, Gurudwara Road  
Khuni Pul, Meerut (M-9837010143)

Serial No. 1 Coupon No. 1521129  
Certified that Shri Gyan Prakash Khurana  
Identified by Shri Mallika Bhatnagar  
Made this affidavit before me on 20  
at ..... a.m./p.m.

Oath Commissioner, Meerut

20/12/24

कार्यालय मुख्य अभियन्ता (यमुना)  
सिंचाई एवं जल संसाधन विभाग, उ०प्र०  
ओखला, नई दिल्ली-25

कार्यालय मुख्य अभियन्ता (गंगा), मेरठ  
आदेश सं० 11434  
पत्रावली सं०  
दिनांक 18/11/24

पत्रांक 10604 / 19428

/ मु०अ०य० / कोर्ट केस / एन०जी०टी०

दिनांक 16.11.2024

विषय: मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० संख्या-632/2022 वी० के० त्यागी बनाम उत्तराखण्ड राज्य व अन्य में पारित आदेशों की अनपालना में फलड प्लेन निर्धारण/चिन्हांकन के सम्बन्ध में।

संदर्भ: आपका अ०शा०पत्रांक नि 2180/मु.अ.गं/एन०जी०टी० दिनां 24.10.2024

मुख्य अभियन्ता (गंगा), सिंचाई एवं जल संसाधन विभाग, उ०प्र०, मेरठ।

कृपया उपरोक्त विषयक अपने संदर्भित पत्र का अवलोकन करने कष्ट करें, जो इस कार्यालय में दिनांक 14.11.2024 में प्राप्त हुआ है। विषयक प्रकरण के सम्बन्ध में अधीक्षण अभियन्ता सिंचाई कार्य मण्डल, सहारनपुर ने अपने पत्रांक 5828/सिंकामस/एन०जी०टी० दिनांक 14.11.2024 (छायाप्रति संलग्न) द्वारा अवगत कराया है कि मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० संख्या-632/2022 वी० के० त्यागी बनाम उत्तराखण्ड राज्य व अन्य में पारित आदेश दिनांक 15.10.2024 के अनुपालन में अधिशासी अभियन्ता, सिंचाई निर्माण खण्ड, सहारनपुर के कार्यक्षेत्रान्तर्गत जनपद सहारनपुर में सोलानी नदी के फलड प्लेन जोन के निर्धारण का कार्य जल विज्ञान खण्ड, बहादुराबाद के माध्यम से पूर्ण करा लिया गया है। कृपया अवगत होना चाहें।  
संलग्नक: यथोक्त।

(दिनेश कुमार पाण्डुवाल)  
मुख्य अभियन्ता (यमुना)

पत्रांक नि / मु०अ०य० / कोर्ट केस / एन०जी०टी० / दिनांक .11.2024

1. प्रतिलिपि मुख्य अभियन्ता (जल संसाधन) कार्यालय प्रमुख अभियन्ता, सिंचाई एवं जल संसाधन विभाग, उ०प्र०, लखनऊ को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।
2. प्रतिलिपि अधीक्षण अभियन्ता सिंचाई कार्य मण्डल, सहारनपुर को उनके पत्रांक 5828/सिंकामस/ एन०जी०टी० दिनांक 14.11.2024 के कम में इस निर्देश के साथ प्रेषित है कि विषयक प्रकरण के सम्बन्ध में मुख्य अभियन्ता (गंगा) से सम्पर्क कर आवश्यक कार्यवाही करना/कराना सुनिश्चित करें।
3. प्रतिलिपि अधिशासी अभियन्ता, सिंचाई निर्माण खण्ड, सहारनपुर को इस निर्देश के साथ प्रेषित है कि विषयक प्रकरण से सम्बन्धित आवश्यक अभिलेख नोडल अधिकारी व अधिशासी अभियन्ता, ड्रेनेज खण्ड-प्रथम, मेरठ से समन्वय स्थापित कर उपलब्ध कराना सुनिश्चित करें।

श्री  
वरि०/कनि०/वै०स०  
/ जल संसाधन  
18/11/24

(दिनेश कुमार पाण्डुवाल)  
मुख्य अभियन्ता (यमुना)

कार्यालय अधीक्षण अभियन्ता  
सिंचाई कार्य मण्डल, सहारनपुर

का० मुख्य अभियन्ता (यमुना) ओखला  
झररी नं. 10604  
दिनांक 16/11/24

पत्रांक:- 5828 / सिंकामस / एन0जी0टी0,

दिनांक: 14 नवम्बर, 2024

विषय: मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली योजित ओ0ए0-संख्या-632 / 2022 श्री वी0के0 त्यागी बनाम उत्तराखण्ड राज्य एवं अन्य में पारित आदेशों की अनुपालना में फलड प्लेन निर्धारण / चिन्हांकन के सम्बन्ध में।

सन्दर्भ: आपका पत्रांक-नि-2182 / मु0अ0य0 / कोर्ट केस / एन0जी0टी0 / दिनांक 04.11.2024 मुख्य अभियन्ता(यमुना) सिंचाई एवं जल संसाधन विभाग, उ0प्र0, ओखला नई दिल्ली।

कृपया उपरोक्त विषयक सन्दर्भित पत्र का अवलोकन करने की कृपा करें, जिसके द्वारा विषयक प्रकरण में मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित आदेशों के अनुपालन में समयान्तर्गत आवश्यक कार्यवाही कराते हुए कृत कार्यवाही की आख्या की वांछना की गयी है।

उक्त के अनुपालन में इस मण्डल के नियन्त्रणाधीन अधिशासी अभियन्ता, सिंचाई निर्माण खण्ड, सहारनपुर ने अपने पत्रांक-2657 / सिं0नि0ख0स0 / दिनांक: 14.11.2024 द्वारा अवगत कराया है कि मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली योजित ओ0ए0-संख्या-632 / 2022 श्री वी0के0 त्यागी बनाम उत्तराखण्ड राज्य एवं अन्य के सम्बन्ध में पारित आदेश दिनांक 15.10.2024 के अनुपालन में अधिशासी अभियन्ता, सिंचाई निर्माण खण्ड, सहारनपुर के कार्यक्षेत्रान्तर्गत जनपद सहारनपुर में सोलानी नदी के फलड प्लेन जोन का निर्धारण का कार्य जल विज्ञान खण्ड,

बहादुराबाद के माध्यम से पूर्ण करा लिया गया है।

14/11/24  
अधीक्षण अभियन्ता  
सिंचाई कार्य मण्डल  
सहारनपुर

मु०अभि०(य०)

ओखला

6/11/24

पत्रांक: / सिंकामस / तदिनांक:

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है:-

- 1-अधीक्षण अभियन्ता, गंगा नहर संचालन मण्डल, मेरठ।
- 2-अधिशासी अभियन्ता, सिंचाई निर्माण खण्ड, सहारनपुर को उनके पत्रांक-2657 / सिं0नि0ख0स0 / दिनांक: 14.11.2024 के संदर्भ में सूचनार्थ प्रेषित है।

अधीक्षण अभियन्ता  
सिंचाई कार्य मण्डल  
सहारनपुर

कार्यालय  
अधिशारी अभियंता  
जल विज्ञान खण्ड, बहादुराबाद


पत्रांक - 1050 / ज.वि.ख./FPZ

दिनांक - 13.11.2024

विषय - सोलानी नदी के बाढ़ मैदान परिक्षेत्रण के अध्ययन कार्य के उपरांत रिपोर्ट एवं मानचित्र की हार्ड कॉपी प्रेषण के सम्बन्ध में।


अधिशारी अभियंता, सिंचाई निर्माण खंड, सहारनपुर।

उपरोक्त विषयक अवगत कराना है कि जल विज्ञान खण्ड, बहादुराबाद के द्वारा सोलानी (सहारनपुर जनपद की रीच) नदी के बाढ़ मैदान परिक्षेत्रण का अध्ययन कार्य किया जा रहा है। उक्त कार्यों के क्रम में सोलानी नदी के बाढ़ मैदान परिक्षेत्रण का Modelling सम्बन्धी कार्य पूर्ण कर लिया गया है एवं भौतिक सत्यापन ( Field Validation ) किया जा चुका है एवं रिपोर्ट एवं मानचित्र की हार्ड कॉपी इस पत्र के साथ संलग्न कर तीन प्रतियों में प्रेषित की जा रही है। सोलानी नदी की 25 वर्ष एवं 100 वर्ष की बाढ़ आवृत्ति के बाढ़ फैलाव की बाढ़ की रेखा पर प्रत्येक 200 मीटर के बिंदु को अंकित कर हार्ड कॉपी में प्रेषित की जा रही है। साथ ही रिपोर्ट में प्रत्येक बिंदु के latitude एवं longitude की सारणी भी संलग्न है।

  
अधिशारी अभियंता  
जल विज्ञान खण्ड, बहादुराबाद

पत्रांक - 1050/ ज.वि.ख./FPZ तददिनांक -13.11.2024

प्रतिलिपि अधीक्षण अभियंता, जल विज्ञान मंडल को सूचनार्थ एवं आवश्यक अग्रिम कार्यवाही हेतु प्रेषित है -

  
अधिशारी अभियंता  
जल विज्ञान खण्ड, बहादुराबाद

1509

कार्यालय मुख्य अभियन्ता

ANNEXURE R2

ANNEXURE-R2

रा. सं. 12/12

आदेश सं.

पत्रावली सं. 12/12/24

पत्रावली सं.

दिनांक 12/12/24

दिनांक



## कार्यालय अधीक्षण अभियन्ता

गंगा नहर संचालन मण्डल, सिंचाई एवं जल संसाधन विभाग,  
पल्लवपुरम फेस-1, मेरठ।

पत्रांक:- 5262/गंनसंम/एन0जी0टी0

दिनांक: 11 / 12 / 2024

विषय:- मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली में विचाराधीन ओ0ए0 संख्या- 632/2022 (IA No-499/2024) श्री वी0के0 त्यागी बनाम उत्तराखण्ड राज्य व अन्य में पारित आदेश दिनांक 08.08.2024 के अनुपालन में जल विज्ञान खण्ड बहादुराबाद द्वारा मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली के समक्ष प्रस्तुत रिपोर्ट के क्रियावयन के क्रम में फ्लड प्लेन जोन के Demarcation, Deliniation के 25 वर्ष आवृत्ति एवं 100 वर्ष आवृत्ति पर Latitude and Longitude के सम्बन्ध में।

### मुख्य अभियन्ता (गंगा), सिंचाई एवं जल संसाधन विभाग, उ0प्र0, मेरठ।

उपर्युक्त विषयक अधिशासी अभियन्ता, ड्रेनेज खण्ड-प्रथम, मेरठ ने अपने पत्रांक : 2210/डीडीएम/एन0जी0टी0 दिनांक 11.12.2024 का संदर्भ ग्रहण करने की कृपा करें, जिसके द्वारा अधिशासी अभियन्ता ने अवगत कराया है कि "मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली में विचाराधीन ओ0ए0 संख्या- 632/2022 (IA No-499/2024) श्री वी0के0 त्यागी बनाम उत्तराखण्ड राज्य व अन्य में पारित आदेश दिनांक 15.10.2024, में दिये गये निर्देशों के अनुपालन में उत्तर प्रदेश के जनपद मुजफ्फरनगर के सीमान्तर्गत सोलानी नदी पर फ्लड प्लेन जोन निर्धारण खण्ड द्वारा जल विज्ञान खण्ड, बहादुराबाद के माध्यम से पूर्ण करा लिया गया है। उनके द्वारा उपलब्ध करायी गयी रिपोर्ट 25 वर्ष व 100 वर्ष की बाढ़ आवृत्ति पर नदी के बायें व दायें किनारे पर क्रमशः 212, 212 एवं 229, 230 बिन्दुओं के Latitude and Longitude आवश्यक कार्यवाही हेतु प्रेषित है।"

अतः उपरोक्तानुसार पत्र के साथ संलग्न कर अग्रिम आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक :- उपरोक्तानुसार।

अधीक्षण अभियन्ता

गंगा नहर संचालन मण्डल, मेरठ

पत्रांक :- /गंनसंम/एन0जी0टी0 दिनांक

प्रतिलिपि अधिशासी अभियन्ता, ड्रेनेज खण्ड-प्रथम, मेरठ ने अपने पत्रांक : 2210/डीडीएम/एन0जी0टी0 दिनांक 11.12.2024 के संदर्भ में आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक

12/12/24

AO (G)

अधीक्षण अभियन्ता

गंगा नहर संचालन मण्डल, मेरठ

कार्यालय अधिशासी अभियन्ता  
जल विज्ञान खण्ड  
बहादुराबाद (हरियाणा)

पत्रांक:- 11/12/24 /ज0वि0ख0/सोलानी/FPZ

दिनांक: 11/12/24

विषय जनपद मुजफ्फरनगर में सोलानी नदी की 53 किमी० में बाढ़ नियंत्रण परिक्षेत्रण के अध्ययन कार्य के उपरान्त रिपोर्ट एवं मानचित्र की हार्ड कापी के प्रेषण के सम्बन्ध में अधिशासी अभियन्ता, डूंगेज खण्ड-प्रथम, मेरठ

उपरोक्त विषयक अवगत कराना है कि जल विज्ञान खण्ड, बहादुराबाद के द्वारा जनपद मुजफ्फरनगर में सोलानी नदी की 53 किमी० की शीघ में बाढ़ नियंत्रण परिक्षेत्रण का अध्ययन कार्य किया जा रहा है।

उक्त कार्यों के क्रम में सोलानी नदी की 53 किमी० की शीघ में बाढ़ नियंत्रण परिक्षेत्रण का Modelling सम्बन्धी कार्य पूर्ण कर लिया गया है, एवं भौतिक सत्यापन (Field Validation) किया जा चुका है एवं रिपोर्ट एवं मानचित्र की हार्ड कापी इस पत्र के साथ संलग्न कर तीन प्रतियों में प्रेषित की जा रही है।

जनपद मुजफ्फरनगर में सोलानी नदी की 25 एवं 100 वर्षों की बाढ़ आवृत्ति के बाढ़ फौलाव की बाढ़ की रेखा पर प्रत्येक 200 मीटर के विन्दु को अंकित कर हार्ड कापी में प्रेषित की जा रही है। साथ ही रिपोर्ट में प्रत्येक विन्दु के latitude एवं longitude की सारणी भी संलग्न है।

संलग्नक:- उपरोक्तानुसार

(जयेन्द्र सिंह)

अधिशासी अभियन्ता

पत्रांक:- /ज0वि0ख0बहा0/सोलानी/FPZतददिनांक

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है :-

1. अधीक्षण अभियन्ता, जल विज्ञान मण्डल, बहादुराबाद।

(जयेन्द्र सिंह)

अधिशासी अभियन्ता

**HFL Point Tables for Upper Solani Stretch  
(Saharanpur)**

25 Year HFL Points (Solani Main)

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 1      | 772077.73   | 3345858.87   | 441.71        |
| 2      | 772196.52   | 3345697.99   | 441.33        |
| 3      | 772300.30   | 3345528.55   | 441.12        |
| 4      | 772417.11   | 3345372.36   | 440.86        |
| 5      | 772465.91   | 3345178.69   | 439.73        |
| 6      | 772473.95   | 3344979.47   | 439.21        |
| 7      | 772420.55   | 3344789.54   | 437.12        |
| 8      | 772355.60   | 3344603.66   | 428.58        |
| 9      | 772324.07   | 3344408.52   | 424.46        |
| 10     | 772277.14   | 3344214.14   | 420.48        |
| 11     | 772225.13   | 3344021.11   | 417.00        |
| 12     | 772170.18   | 3343829.69   | 414.31        |
| 13     | 772096.91   | 3343643.59   | 411.48        |
| 14     | 772025.92   | 3343456.62   | 408.15        |
| 15     | 771965.16   | 3343266.12   | 406.20        |
| 16     | 771901.21   | 3343076.67   | 403.74        |
| 17     | 771845.38   | 3342885.38   | 400.65        |
| 18     | 771833.02   | 3342686.88   | 397.43        |
| 19     | 771859.33   | 3342488.77   | 394.90        |
| 20     | 771919.70   | 3342298.61   | 392.23        |
| 21     | 771984.29   | 3342109.33   | 387.87        |
| 22     | 772027.28   | 3341914.17   | 385.97        |
| 23     | 772070.95   | 3341718.99   | 384.07        |
| 24     | 772103.07   | 3341521.75   | 382.11        |
| 25     | 772115.34   | 3341322.14   | 381.10        |
| 26     | 772117.82   | 3341122.49   | 379.76        |
| 27     | 772100.51   | 3340923.31   | 376.66        |
| 28     | 772061.88   | 3340727.08   | 371.75        |

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 29     | 772078.01   | 3340528.46   | 369.34        |
| 30     | 772087.36   | 3340330.63   | 365.63        |
| 31     | 772052.96   | 3340137.46   | 363.15        |
| 32     | 772038.42   | 3339941.06   | 362.62        |
| 33     | 772054.69   | 3339741.82   | 358.73        |
| 34     | 772077.19   | 3339543.17   | 355.62        |
| 35     | 772109.27   | 3339346.78   | 352.69        |
| 36     | 772200.52   | 3339171.11   | 347.10        |
| 37     | 772231.09   | 3338974.82   | 346.74        |
| 38     | 772218.09   | 3338776.42   | 345.00        |
| 39     | 772146.07   | 3338590.28   | 344.23        |
| 40     | 772065.13   | 3338407.45   | 343.60        |
| 41     | 771996.36   | 3338219.73   | 343.03        |
| 42     | 771946.99   | 3338025.92   | 340.71        |
| 43     | 771876.14   | 3337841.20   | 339.34        |
| 44     | 771787.66   | 3337662.47   | 338.82        |
| 45     | 771690.59   | 3337488.69   | 337.31        |
| 46     | 771589.09   | 3337316.63   | 334.95        |
| 47     | 771504.37   | 3337137.05   | 333.35        |
| 48     | 771433.56   | 3336952.62   | 329.98        |
| 49     | 771419.95   | 3336753.15   | 328.55        |
| 50     | 771397.15   | 3336554.91   | 327.90        |
| 51     | 771284.06   | 3336397.33   | 326.19        |
| 52     | 771208.21   | 3336219.36   | 325.16        |
| 53     | 771118.13   | 3336042.94   | 324.30        |
| 54     | 771097.41   | 3335845.89   | 322.59        |
| 55     | 771089.46   | 3335650.35   | 321.51        |
| 56     | 770997.87   | 3335475.18   | 320.26        |

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 57     | 770922.80   | 3335302.64   | 319.13        |
| 58     | 770905.85   | 3335109.13   | 316.55        |
| 59     | 770805.24   | 3334938.07   | 315.15        |
| 60     | 770681.48   | 3334781.20   | 314.07        |
| 61     | 770617.02   | 3334594.74   | 312.98        |
| 62     | 770577.71   | 3334407.75   | 312.80        |
| 63     | 770585.15   | 3334223.31   | 310.70        |
| 64     | 770628.66   | 3334028.89   | 308.81        |
| 65     | 770616.45   | 3333835.74   | 308.75        |
| 66     | 770616.48   | 3333639.37   | 307.38        |
| 67     | 770643.82   | 3333442.07   | 306.96        |
| 68     | 770691.13   | 3333248.99   | 306.94        |
| 69     | 770704.26   | 3333049.82   | 305.89        |
| 70     | 770683.94   | 3332859.92   | 304.08        |
| 71     | 770778.41   | 3332685.95   | 304.07        |
| 72*    | 770895.45   | 3332524.77   | 303.69        |
| 73     | 771047.25   | 3332395.10   | 303.11        |
| 74     | 771202.03   | 3332268.60   | 302.10        |
| 75     | 771364.57   | 3332152.10   | 302.08        |
| 76     | 771526.13   | 3332034.89   | 302.02        |
| 77     | 771639.97   | 3331871.55   | 301.71        |
| 78     | 771735.45   | 3331695.86   | 301.59        |
| 79     | 771787.24   | 3331504.00   | 301.05        |
| 80     | 771784.60   | 3331461.50   | 300.25        |

Vision of the course is to

Hydrology & Dept: *[Signature]*

Surveyor: *Lubanya Das*

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A/E

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EE

25 Year HFL Points (Sohani Main)

| S. No. | Right Bank |              | Elevation (m) |
|--------|------------|--------------|---------------|
|        | Eastng (X) | Northing (Y) |               |
| 1      | 771793.37  | 3345749.47   | 441.71        |
| 2      | 771901.71  | 3345581.38   | 441.33        |
| 3      | 771998.06  | 3345412.95   | 441.12        |
| 4      | 772019.26  | 3345229.69   | 440.86        |
| 5      | 771924.23  | 3345055.15   | 439.73        |
| 6      | 771916.27  | 3344853.24   | 439.21        |
| 7      | 772007.77  | 3344677.31   | 437.12        |
| 8      | 772011.66  | 3344484.13   | 428.58        |
| 9      | 771953.59  | 3344292.81   | 424.48        |
| 10     | 771891.15  | 3344102.86   | 420.48        |
| 11     | 771838.77  | 3343909.86   | 417.00        |
| 12     | 771790.17  | 3343715.87   | 414.31        |
| 13     | 771728.68  | 3343525.81   | 411.48        |
| 14     | 771672.44  | 3343333.89   | 411.27        |
| 15     | 771626.47  | 3343141.19   | 411.00        |
| 16     | 771583.63  | 3342945.97   | 409.37        |
| 17     | 771577.50  | 3342746.86   | 408.90        |
| 18     | 771595.15  | 3342547.82   | 408.15        |
| 19     | 771661.41  | 3342362.96   | 406.20        |
| 20     | 771745.43  | 3342184.37   | 403.74        |
| 21     | 771762.53  | 3341985.14   | 400.65        |
| 22     | 771815.03  | 3341792.19   | 397.43        |
| 23     | 771862.05  | 3341597.79   | 394.90        |
| 24     | 771910.81  | 3341404.58   | 393.52        |
| 25     | 771882.11  | 3341206.88   | 393.12        |
| 26     | 771835.43  | 3341012.66   | 392.42        |
| 27     | 771810.66  | 3340815.47   | 392.23        |
| 28     | 771794.48  | 3340616.30   | 387.87        |
| 29     | 771791.61  | 3340416.70   | 385.97        |
| 30     | 771782.38  | 3340218.17   | 384.07        |

| S. No. | Right Bank |              | Elevation (m) |
|--------|------------|--------------|---------------|
|        | Eastng (X) | Northing (Y) |               |
| 31     | 771794.27  | 3340018.55   | 382.11        |
| 32     | 771825.88  | 3339821.86   | 381.10        |
| 33     | 771841.58  | 3339623.10   | 379.76        |
| 34     | 771804.60  | 3339430.72   | 376.66        |
| 35     | 771803.49  | 3339234.96   | 376.14        |
| 36     | 771813.40  | 3339035.67   | 375.44        |
| 37     | 771791.56  | 3338837.63   | 374.44        |
| 38     | 771752.99  | 3338641.43   | 371.75        |
| 39     | 771703.46  | 3338449.40   | 369.34        |
| 40     | 771613.95  | 3338270.63   | 365.63        |
| 41     | 771580.59  | 3338076.12   | 363.15        |
| 42     | 771621.23  | 3337881.52   | 362.62        |
| 43     | 771628.77  | 3337685.23   | 358.73        |
| 44     | 771462.42  | 3337659.22   | 355.62        |
| 45     | 771295.52  | 3337675.33   | 352.69        |
| 46     | 771265.51  | 3337478.44   | 347.10        |
| 47     | 771259.35  | 3337280.14   | 346.74        |
| 48     | 771191.30  | 3337093.40   | 345.00        |
| 49     | 771140.77  | 3336909.40   | 344.23        |
| 50     | 771044.60  | 3336735.05   | 343.60        |
| 51     | 771012.14  | 3336547.03   | 343.03        |
| 52     | 770912.12  | 3336374.23   | 340.71        |
| 53     | 770783.12  | 3336223.59   | 339.34        |
| 54     | 770681.89  | 3336053.99   | 338.82        |
| 55     | 770628.88  | 3335861.60   | 337.31        |
| 56     | 770522.02  | 3335695.51   | 334.95        |
| 57     | 770444.59  | 3335520.70   | 333.35        |
| 58     | 770301.68  | 3335383.87   | 329.98        |
| 59     | 770193.69  | 3335220.79   | 328.55        |
| 60     | 770219.96  | 3335044.35   | 327.90        |

| S. No. | Right Bank |              | Elevation (m) |
|--------|------------|--------------|---------------|
|        | Eastng (X) | Northing (Y) |               |
| 61     | 770124.42  | 3334869.50   | 326.19        |
| 62     | 770080.80  | 3334674.79   | 325.16        |
| 63     | 770052.04  | 3334477.80   | 324.30        |
| 64     | 770162.09  | 3334322.33   | 322.59        |
| 65     | 770144.64  | 3334123.17   | 321.51        |
| 66     | 770122.13  | 3333926.39   | 320.26        |
| 67     | 770136.09  | 3333726.90   | 319.13        |
| 68     | 770145.66  | 3333528.01   | 316.55        |
| 69     | 770177.66  | 3333330.81   | 315.15        |
| 70     | 770215.09  | 3333134.96   | 314.07        |
| 71     | 770289.87  | 3332954.32   | 312.98        |
| 72     | 770283.92  | 3332756.31   | 312.80        |
| 73     | 770126.82  | 3332714.25   | 310.70        |
| 74     | 769944.19  | 3332669.18   | 308.81        |
| 75     | 769869.08  | 3332491.01   | 308.75        |
| 76     | 769818.56  | 3332298.63   | 307.38        |
| 77     | 769876.79  | 3332115.00   | 306.96        |
| 78     | 770064.99  | 3332049.22   | 306.94        |
| 79     | 770252.42  | 3331980.16   | 305.89        |
| 80     | 770413.52  | 3332064.74   | 304.08        |
| 81     | 770490.92  | 3332242.95   | 304.07        |
| 82     | 770646.29  | 3332344.28   | 303.69        |
| 83*    | 770806.20  | 3332387.97   | 303.11        |
| 84     | 770947.16  | 3332246.45   | 302.10        |
| 85     | 771109.22  | 3332129.28   | 302.08        |
| 86     | 771269.62  | 3332009.83   | 302.02        |
| 87     | 771407.86  | 3331867.21   | 301.71        |
| 88     | 771500.98  | 3331690.97   | 301.59        |
| 89     | 771576.66  | 3331506.23   | 301.05        |
| 90     | 771604.26  | 3331367.39   | 300.25        |

Visiontek  
 Survey v/stationy!  
 Hydrology Expert: *[Signature]*  
 Surveyor: Labanyadas

*[Signature]*  
 AE

*[Signature]*  
 EE

100 Year HPL Points (Solani Main)

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 772114.89   | 3345873.90   | 442.50        |
| 2      | 772222.06   | 3345705.37   | 442.12        |
| 3      | 772315.44   | 3345529.48   | 441.91        |
| 4      | 772428.94   | 3345369.73   | 441.65        |
| 5      | 772479.87   | 3345176.45   | 440.52        |
| 6      | 772484.96   | 3344976.89   | 440.00        |
| 7      | 772436.61   | 3344785.03   | 435.25        |
| 8      | 772368.86   | 3344599.64   | 430.26        |
| 9      | 772371.56   | 3344400.01   | 421.24        |
| 10     | 772343.83   | 3344202.12   | 417.76        |
| 11     | 772296.32   | 3344008.12   | 415.06        |
| 12     | 772219.55   | 3343823.98   | 412.23        |
| 13     | 772133.75   | 3343643.50   | 408.89        |
| 14     | 772072.63   | 3343453.07   | 406.95        |
| 15     | 772013.28   | 3343262.08   | 404.48        |
| 16     | 771964.57   | 3343068.19   | 401.38        |
| 17     | 771926.12   | 3342871.98   | 398.17        |
| 18     | 771916.33   | 3342672.95   | 395.64        |
| 19     | 771945.53   | 3342475.12   | 392.96        |
| 20     | 771986.14   | 3342279.30   | 388.60        |
| 21     | 772047.62   | 3342088.99   | 386.69        |
| 22     | 772086.29   | 3341892.90   | 384.78        |
| 23     | 772130.84   | 3341697.93   | 382.83        |
| 24     | 772172.80   | 3341502.38   | 381.81        |
| 25     | 772179.31   | 3341302.84   | 380.48        |
| 26     | 772164.52   | 3341103.40   | 377.37        |
| 27     | 772144.52   | 3340904.40   | 372.45        |
| 28     | 772130.81   | 3340705.01   | 370.04        |
| 29     | 772131.62   | 3340505.18   | 366.32        |
| 30     | 772136.04   | 3340305.35   | 363.84        |

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 31     | 772099.20   | 3340109.20   | 363.31        |
| 32     | 772107.53   | 3339913.14   | 359.42        |
| 33     | 772106.85   | 3339713.30   | 356.30        |
| 34     | 772128.94   | 3339514.57   | 353.37        |
| 35     | 772171.78   | 3339320.05   | 347.77        |
| 36     | 772242.38   | 3339133.09   | 347.41        |
| 37     | 772296.22   | 3338940.57   | 345.68        |
| 38     | 772291.39   | 3338744.27   | 344.90        |
| 39     | 772217.64   | 3338560.90   | 344.27        |
| 40     | 772123.80   | 3338384.51   | 343.70        |
| 41     | 772041.18   | 3338202.63   | 341.38        |
| 42     | 771986.96   | 3338010.29   | 340.01        |
| 43     | 771939.47   | 3337816.38   | 339.49        |
| 44     | 771838.06   | 3337644.91   | 337.97        |
| 45     | 771738.47   | 3337471.48   | 335.61        |
| 46     | 771642.57   | 3337296.07   | 334.01        |
| 47     | 771553.32   | 3337117.19   | 330.63        |
| 48     | 771496.15   | 3336926.70   | 329.20        |
| 49     | 771471.95   | 3336728.30   | 328.55        |
| 50     | 771443.07   | 3336530.56   | 326.84        |
| 51     | 771356.21   | 3336352.54   | 325.81        |
| 52     | 771247.00   | 3336187.00   | 324.94        |
| 53     | 771189.33   | 3335995.57   | 323.23        |
| 54     | 771147.98   | 3335799.93   | 322.15        |
| 55     | 771106.07   | 3335604.67   | 320.90        |
| 56     | 771024.78   | 3335423.78   | 319.77        |
| 57     | 770994.80   | 3335226.82   | 317.19        |
| 58     | 770935.57   | 3335037.52   | 315.78        |
| 59     | 770824.20   | 3334872.06   | 314.71        |
| 60     | 770698.51   | 3334717.55   | 313.61        |

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 61     | 770633.32   | 3334528.62   | 313.44        |
| 62     | 770607.38   | 3334331.85   | 311.33        |
| 63     | 770632.99   | 3334134.04   | 309.44        |
| 64     | 770677.10   | 3333939.50   | 309.37        |
| 65     | 770661.92   | 3333740.59   | 308.01        |
| 66     | 770681.08   | 3333541.73   | 307.59        |
| 67     | 770709.82   | 3333343.84   | 307.57        |
| 68     | 770731.22   | 3333145.05   | 306.52        |
| 69     | 770687.75   | 3332950.91   | 304.71        |
| 70     | 770748.27   | 3332769.17   | 304.69        |
| 71     | 770858.85   | 3332602.52   | 304.31        |
| 72     | 770998.10   | 3332461.24   | 303.73        |
| 73     | 771156.21   | 3332338.77   | 302.72        |
| 74     | 771313.87   | 3332217.31   | 302.70        |
| 75     | 771474.38   | 3332100.26   | 302.64        |
| 76     | 771606.09   | 3331954.51   | 302.33        |
| 77     | 771706.96   | 3331782.10   | 302.20        |
| 78     | 771793.54   | 3331602.04   | 301.67        |
| 79     | 771822.18   | 3331472.36   | 300.87        |

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Hydrology expert ;  
surveys ;  
Sikanya Das

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100 Year HFL Points (Solani Main)

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 771767.13   | 3345723.06   | 442.50        |
| 2      | 771877.67   | 3345556.50   | 442.12        |
| 3      | 771973.68   | 3345381.42   | 441.91        |
| 4      | 771960.71   | 3345191.69   | 441.65        |
| 5      | 771864.88   | 3345016.39   | 440.52        |
| 6      | 771907.21   | 3344824.88   | 440.00        |
| 7      | 771967.16   | 3344636.01   | 435.25        |
| 8      | 771932.61   | 3344440.05   | 430.26        |
| 9      | 771876.39   | 3344248.39   | 421.24        |
| 10     | 771788.38   | 3344069.98   | 417.76        |
| 11     | 771722.92   | 3343882.47   | 415.06        |
| 12     | 771661.78   | 3343695.12   | 412.23        |
| 13     | 771608.99   | 3343504.34   | 412.02        |
| 14     | 771523.90   | 3343323.39   | 411.75        |
| 15     | 771475.26   | 3343130.53   | 410.12        |
| 16     | 771420.32   | 3342938.76   | 409.65        |
| 17     | 771416.13   | 3342739.17   | 408.89        |
| 18     | 771463.64   | 3342544.89   | 406.95        |
| 19     | 771521.17   | 3342353.67   | 404.48        |
| 20     | 771612.12   | 3342175.87   | 401.38        |
| 21     | 771675.53   | 3341986.95   | 398.17        |
| 22     | 771723.74   | 3341792.89   | 395.64        |
| 23     | 771749.05   | 3341595.06   | 394.25        |
| 24     | 771745.96   | 3341395.70   | 393.85        |
| 25     | 771688.48   | 3341204.17   | 393.15        |
| 26     | 771687.84   | 3341004.79   | 392.96        |
| 27     | 771694.27   | 3340804.92   | 388.60        |
| 28     | 771689.32   | 3340605.07   | 386.69        |
| 29     | 771681.90   | 3340405.21   | 384.78        |
| 30     | 771677.73   | 3340205.26   | 382.83        |

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 31     | 771701.70   | 3340007.30   | 381.81        |
| 32     | 771742.48   | 3339811.57   | 380.48        |
| 33     | 771756.02   | 3339612.33   | 377.37        |
| 34     | 771744.35   | 3339414.04   | 376.85        |
| 35     | 771755.81   | 3339215.09   | 376.15        |
| 36     | 771784.63   | 3339017.57   | 375.15        |
| 37     | 771760.98   | 3338820.66   | 372.45        |
| 38     | 771722.13   | 3338624.47   | 370.04        |
| 39     | 771665.57   | 3338433.15   | 366.32        |
| 40     | 771588.54   | 3338249.07   | 363.84        |
| 41     | 771562.69   | 3338052.21   | 363.31        |
| 42     | 771599.94   | 3337856.46   | 359.42        |
| 43     | 771608.48   | 3337667.64   | 356.30        |
| 44     | 771431.66   | 3337674.66   | 353.37        |
| 45     | 771283.67   | 3337653.61   | 347.77        |
| 46     | 771252.22   | 3337456.30   | 347.41        |
| 47     | 771220.70   | 3337261.45   | 345.68        |
| 48     | 771128.08   | 3337084.56   | 344.90        |
| 49     | 771044.57   | 3336902.83   | 344.27        |
| 50     | 770962.43   | 3336720.48   | 343.70        |
| 51     | 770884.32   | 3336536.38   | 341.38        |
| 52     | 770798.91   | 3336356.29   | 340.01        |
| 53     | 770685.63   | 3336192.42   | 339.49        |
| 54     | 770628.80   | 3336006.64   | 337.97        |
| 55     | 770563.24   | 3335819.05   | 335.61        |
| 56     | 770473.50   | 3335642.08   | 334.01        |
| 57     | 770373.82   | 3335473.34   | 330.63        |
| 58     | 770225.60   | 3335339.33   | 329.20        |
| 59     | 770183.91   | 3335155.40   | 328.55        |
| 60     | 770155.25   | 3334967.96   | 326.84        |

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 61     | 770080.72   | 3334783.78   | 325.81        |
| 62     | 770049.78   | 3334586.19   | 324.94        |
| 63     | 770064.82   | 3334397.65   | 323.23        |
| 64     | 770102.88   | 3334213.20   | 322.15        |
| 65     | 770065.80   | 3334017.73   | 320.90        |
| 66     | 770031.24   | 3333822.49   | 319.77        |
| 67     | 770024.01   | 3333622.75   | 317.19        |
| 68     | 770017.85   | 3333422.84   | 315.78        |
| 69     | 770005.95   | 3333223.25   | 314.71        |
| 70     | 769981.57   | 3333024.89   | 313.61        |
| 71     | 769935.36   | 3332831.55   | 313.44        |
| 72     | 769848.45   | 3332651.97   | 311.33        |
| 73     | 769767.48   | 3332470.40   | 309.44        |
| 74     | 769737.53   | 3332272.72   | 309.37        |
| 75     | 769812.46   | 3332105.88   | 308.01        |
| 76     | 770001.05   | 3332040.82   | 307.59        |
| 77     | 770189.14   | 3331973.86   | 307.57        |
| 78     | 770367.26   | 3331978.62   | 306.52        |
| 79     | 770497.15   | 3332127.89   | 304.71        |
| 80     | 770564.38   | 3332299.14   | 304.69        |
| 81     | 770731.70   | 3332385.82   | 304.31        |
| 82     | 770880.33   | 3332265.11   | 303.73        |
| 83     | 771038.40   | 3332141.92   | 302.72        |
| 84     | 771194.96   | 3332018.62   | 302.70        |
| 85     | 771348.51   | 3331892.86   | 302.64        |
| 86     | 771469.15   | 3331735.61   | 302.33        |
| 87     | 771546.61   | 3331551.40   | 302.20        |
| 88     | 771585.20   | 3331356.78   | 301.67        |
| 89     | 771585.34   | 3331354.87   | 300.87        |

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# **HFL Point Tables for Tributary 1: Laalo River (Saharapur)**

## 25 Year HFL Points (Tributary 1: Laalo River)

| S. No. | Left Bank    |              | Elevation<br>(m) |
|--------|--------------|--------------|------------------|
|        | Eastings (X) | Northing (Y) |                  |
| 1      | 775548.37    | 3341708.73   | 404.61           |
| 2      | 775349.64    | 3341716.29   | 403.17           |
| 3      | 775171.37    | 3341642.20   | 402.80           |
| 4      | 774983.35    | 3341580.56   | 402.45           |
| 5      | 774793.71    | 3341517.05   | 396.36           |
| 6      | 774614.09    | 3341430.88   | 394.20           |
| 7      | 774455.51    | 3341309.97   | 388.15           |
| 8      | 774281.10    | 3341222.17   | 385.31           |
| 9      | 774086.72    | 3341176.19   | 382.13           |
| 10     | 773909.11    | 3341115.28   | 381.90           |
| 11     | 773807.78    | 3340945.76   | 381.75           |
| 12     | 773632.47    | 3340856.83   | 377.03           |
| 13     | 773448.62    | 3340785.51   | 372.38           |
| 14     | 773319.59    | 3340634.80   | 370.44           |
| 15     | 773138.29    | 3340555.11   | 367.88           |
| 16     | 772988.43    | 3340424.71   | 367.45           |
| 17     | 772832.82    | 3340299.15   | 359.04           |
| 18*    | 772771.20    | 3340238.59   | 358.84           |

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 Hydrology Expert: *[Signature]*  
 Surveyor: *[Signature]* - Labanya Das

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25 Year HFL Points (Tributary 1: Laalo River)

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 775425.40   | 3342263.67   | 404.61        |
| 2      | 775245.91   | 3342177.89   | 403.17        |
| 3      | 775073.47   | 3342081.32   | 402.80        |
| 4      | 774905.49   | 3341980.90   | 396.36        |
| 5      | 774771.36   | 3341839.69   | 394.20        |
| 6      | 774610.43   | 3341720.95   | 388.15        |
| 7      | 774450.66   | 3341601.54   | 385.31        |
| 8      | 774267.88   | 3341521.44   | 382.13        |
| 9      | 774108.52   | 3341407.11   | 381.90        |
| 10     | 773941.29   | 3341298.03   | 381.75        |
| 11     | 773785.27   | 3341177.78   | 377.03        |
| 12     | 773638.84   | 3341045.55   | 372.38        |
| 13     | 773456.20   | 3340966.74   | 370.44        |
| 14     | 773308.91   | 3340834.51   | 367.88        |
| 15     | 773161.03   | 3340705.01   | 367.45        |
| 16     | 772966.34   | 3340670.32   | 359.04        |
| 17*    | 772843.02   | 3340635.18   | 358.84        |

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 Surveyor:- Labanya Das

  
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100 Year HFL Points (Tributary 1: Laalo River)

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 775546.90   | 3341680.49   | 405.59        |
| 2      | 775347.94   | 3341688.83   | 404.15        |
| 3      | 775161.77   | 3341620.84   | 403.78        |
| 4      | 774972.91   | 3341555.83   | 403.43        |
| 5      | 774783.51   | 3341491.61   | 397.33        |
| 6      | 774607.82   | 3341398.35   | 395.16        |
| 7      | 774447.67   | 3341279.09   | 389.10        |
| 8      | 774273.12   | 3341190.32   | 386.25        |
| 9      | 774098.05   | 3341105.61   | 383.06        |
| 10     | 773943.83   | 3340981.27   | 382.83        |
| 11     | 773768.83   | 3340885.44   | 382.68        |
| 12     | 773581.45   | 3340818.94   | 377.94        |
| 13     | 773416.91   | 3340714.84   | 373.28        |
| 14     | 773269.91   | 3340584.71   | 371.34        |
| 15     | 773102.36   | 3340477.20   | 368.78        |
| 16     | 772947.20   | 3340351.10   | 368.35        |
| 17     | 772793.20   | 3340223.64   | 359.92        |
| 18*    | 772782.32   | 3340215.85   | 359.71        |

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 Hydrology expert: *[Signature]*  
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100 Year HFL Points (Tributary 1: Laalo River)

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 775395.21   | 3342293.82   | 405.59        |
| 2      | 775217.38   | 3342202.43   | 404.15        |
| 3      | 775041.50   | 3342108.02   | 403.78        |
| 4      | 774878.89   | 3342001.46   | 397.33        |
| 5      | 774745.09   | 3341858.00   | 395.16        |
| 6      | 774585.23   | 3341737.99   | 389.10        |
| 7      | 774428.82   | 3341614.30   | 386.25        |
| 8      | 774246.07   | 3341533.72   | 383.06        |
| 9      | 774082.85   | 3341421.55   | 382.83        |
| 10     | 773913.27   | 3341315.57   | 382.68        |
| 11     | 773762.84   | 3341186.31   | 377.94        |
| 12     | 773608.70   | 3341066.48   | 373.28        |
| 13     | 773428.24   | 3340980.74   | 371.34        |
| 14     | 773289.64   | 3340838.23   | 368.78        |
| 15     | 773125.90   | 3340728.82   | 368.35        |
| 16     | 772930.00   | 3340688.99   | 359.92        |
| 17*    | 772891.22   | 3340686.40   | 359.71        |

Note: \* Marked points are subjected to representation of confluence with Tributary 2 river only, this shall not be taken as additional pillar location

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 Hydrology expert: *[Signature]*  
 Surveyor: *[Signature]* - Babanyu Das

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# HFLL Point Tables for Tributary 2 (Saharapur)

25 Year HFL Points (Tributary 2)

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 773786.85   | 3342807.24   | 384.17        |
| 2      | 773778.24   | 3342608.19   | 383.08        |
| 3      | 773865.50   | 3342438.63   | 382.54        |
| 4      | 773762.42   | 3342309.37   | 381.51        |
| 5      | 773565.25   | 3342327.91   | 378.54        |
| 6      | 773388.19   | 3342358.61   | 377.36        |
| 7      | 773410.90   | 3342168.31   | 375.96        |
| 8      | 773410.91   | 3341975.04   | 374.42        |
| 9      | 773455.20   | 3341818.93   | 373.91        |
| 10     | 773291.44   | 3341720.27   | 372.08        |
| 11     | 773218.17   | 3341538.50   | 371.22        |
| 12     | 773158.15   | 3341348.13   | 369.78        |
| 13     | 773093.77   | 3341159.05   | 368.41        |
| 14     | 772995.31   | 3340994.00   | 366.15        |
| 15     | 772926.72   | 3340807.27   | 364.47        |
| 16     | 772837.22   | 3340630.48   | 362.09        |
| 17     | 772789.58   | 3340436.43   | 359.75        |
| 18     | 772760.67   | 3340239.00   | 359.04        |
| 19     | 772703.71   | 3340048.73   | 359.02        |
| 20     | 772600.53   | 3339884.53   | 356.12        |
| 21     | 772528.93   | 3339697.90   | 353.78        |
| 22     | 772440.87   | 3339518.61   | 351.77        |
| 23     | 772366.47   | 3339333.07   | 349.61        |
| 24     | 772290.26   | 3339148.49   | 349.24        |
| 25*    | 772236.95   | 3338956.68   | 347.26        |

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 Hidrologie Export Idemul  
 S. unversitatii - Lăteanșu de Jos

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## 25 Year HFL Points (Tributary 2)

| S. No. | Right Bank  |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 1      | 773718.05   | 3342781.56   | 384.17        |
| 2      | 773739.46   | 3342587.83   | 383.08        |
| 3      | 773726.79   | 3342392.38   | 382.54        |
| 4      | 773567.43   | 3342437.47   | 381.51        |
| 5      | 773369.73   | 3342438.30   | 378.54        |
| 6      | 773234.62   | 3342296.82   | 377.36        |
| 7      | 773217.73   | 3342108.36   | 375.96        |
| 8      | 773298.64   | 3341938.37   | 374.42        |
| 9      | 773170.22   | 3341804.15   | 372.08        |
| 10     | 773110.62   | 3341631.55   | 371.22        |
| 11     | 773004.76   | 3341488.34   | 369.78        |
| 12     | 772896.71   | 3341337.02   | 368.41        |
| 13     | 772843.32   | 3341147.69   | 366.15        |
| 14     | 772775.49   | 3340959.96   | 364.47        |
| 15     | 772689.35   | 3340781.07   | 362.09        |
| 16     | 772618.75   | 3340594.58   | 359.75        |
| 17     | 772554.59   | 3340405.40   | 359.04        |
| 18     | 772531.72   | 3340210.78   | 359.02        |
| 19     | 772457.15   | 3340033.68   | 356.12        |
| 20     | 772375.39   | 3339853.56   | 353.78        |
| 21     | 772245.53   | 3339703.52   | 351.77        |
| 22     | 772199.28   | 3339509.93   | 349.61        |
| 23     | 772123.01   | 3339325.34   | 349.24        |
| 24*    | 772122.19   | 3339323.84   | 347.26        |

Visionтеле Konsultierung  
 hydrology Export i: Eland  
 Surenwarth: Labanya Des

*Surenwarth*  
 ME

*ME*

100 Year HFL Points (Tributary 2)

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 773798.58   | 3342805.61   | 384.98        |
| 2      | 773784.43   | 3342606.64   | 383.89        |
| 3      | 773874.42   | 3342438.39   | 383.35        |
| 4      | 773771.93   | 3342302.45   | 382.31        |
| 5      | 773574.66   | 3342317.73   | 379.34        |
| 6      | 773405.20   | 3342291.93   | 378.15        |
| 7      | 773406.47   | 3342096.60   | 376.75        |
| 8      | 773474.01   | 3341924.97   | 375.21        |
| 9      | 773410.54   | 3341769.06   | 374.69        |
| 10     | 773263.75   | 3341650.57   | 372.86        |
| 11     | 773205.44   | 3341459.48   | 372.00        |
| 12     | 773142.15   | 3341269.84   | 370.56        |
| 13     | 773080.75   | 3341081.15   | 369.18        |
| 14     | 772979.54   | 3340909.51   | 366.92        |
| 15     | 772898.20   | 3340728.69   | 365.23        |
| 16     | 772838.51   | 3340539.33   | 362.85        |
| 17     | 772799.51   | 3340343.39   | 360.50        |
| 18     | 772758.18   | 3340148.75   | 359.79        |
| 19     | 772691.12   | 3339961.23   | 359.77        |
| 20     | 772597.76   | 3339786.86   | 356.86        |
| 21     | 772522.71   | 3339601.49   | 354.52        |
| 22     | 772450.58   | 3339415.00   | 352.50        |
| 23     | 772370.88   | 3339231.57   | 350.33        |
| 24     | 772300.60   | 3339045.75   | 349.96        |
| 25*    | 772302.65   | 3338943.96   | 347.98        |

Vision role construction  
 hydrology report  
 surveyor; Lubunya Das

*[Handwritten signatures and initials]*



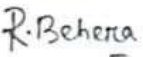
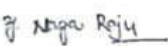



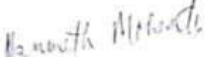

100 Year HFL Points (Tributary 2)

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 1      | 773714.03   | 3342772.87   | 384.98        |
| 2      | 773729.65   | 3342577.71   | 383.89        |
| 3      | 773676.87   | 3342409.79   | 382.31        |
| 4      | 773485.92   | 3342450.61   | 379.34        |
| 5      | 773304.84   | 3342401.13   | 378.15        |
| 6      | 773195.89   | 3342236.02   | 376.75        |
| 7      | 773250.18   | 3342059.07   | 375.21        |
| 8      | 773245.02   | 3341875.13   | 372.00        |
| 9      | 773098.38   | 3341744.24   | 370.56        |
| 10     | 773073.03   | 3341549.81   | 369.18        |
| 11     | 772913.96   | 3341431.99   | 366.92        |
| 12     | 772852.29   | 3341247.34   | 365.23        |
| 13     | 772797.52   | 3341055.71   | 362.85        |
| 14     | 772713.33   | 3340875.66   | 360.50        |
| 15     | 772646.07   | 3340687.57   | 359.79        |
| 16     | 772569.63   | 3340503.28   | 359.77        |
| 17     | 772516.52   | 3340310.99   | 356.86        |
| 18     | 772476.62   | 3340117.23   | 354.52        |
| 19     | 772393.41   | 3339935.85   | 352.50        |
| 20     | 772270.25   | 3339785.19   | 350.33        |
| 21     | 772187.59   | 3339605.66   | 349.96        |
| 22*    | 772136.60   | 3339430.23   | 347.98        |

Note: \* Marked points are subjected to representation of confluence with main river only, this shall not be taken as additional pillar location

Region for confluence  
 Mandatory Export Island  
 Surveyors - Kabanya Das  
 For IAE for  
 Hyd. Div. Bahadrapad  
 Hyd. Div. Bahadrapad

# HFL Points Table Lower Solani Reach Muzaffarnagar

| Visiontek Consultancy Services                         |  | Irrigation Department Uttarakhand  |   |
|---|--|---|---|
| <br><b>Rajalaxmi</b><br>Project Engineer             | <br><b>Nagaraju</b><br>GIS Expert | <br>Assistant Engineer            | <br>Executive Engineer |
| <br><b>Sanjeev Singh Parihar</b><br>Hydrology Expert | <br><b>Manmath Mohanty</b><br>HOD | <br>Superintending Engineer        | 11-12-24<br>Date of Signature   |

## 25 Year HFL Points

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 1      | 784499.5    | 3290409.7    | 237.43        |
| 2      | 784662.6    | 3290317.5    | 237.36        |
| 3      | 784857.4    | 3290346.6    | 237.17        |
| 4      | 785052.3    | 3290357.0    | 237.09        |
| 5      | 785205.8    | 3290258.7    | 237.08        |
| 6      | 785296.4    | 3290081.0    | 236.81        |
| 7      | 785389.2    | 3289904.3    | 236.79        |
| 8      | 785446.3    | 3289713.0    | 236.72        |
| 9      | 785526.7    | 3289531.7    | 236.67        |
| 10     | 785619.1    | 3289354.4    | 236.66        |
| 11     | 785712.3    | 3289177.6    | 236.61        |
| 12     | 785803.3    | 3288999.5    | 236.60        |
| 13     | 785896.9    | 3288823.0    | 236.52        |
| 14     | 785969.4    | 3288639.1    | 236.46        |
| 15     | 785940.8    | 3288444.3    | 236.43        |
| 16     | 785931.5    | 3288245.3    | 236.42        |
| 17     | 785883.8    | 3288051.2    | 236.42        |
| 18     | 785834.6    | 3287857.6    | 235.98        |
| 19     | 785907.5    | 3287681.7    | 235.83        |
| 20     | 786024.6    | 3287520.0    | 235.68        |
| 21     | 786197.8    | 3287425.6    | 235.62        |
| 22     | 786374.0    | 3287335.1    | 235.45        |
| 23     | 786572.1    | 3287313.1    | 235.33        |
| 24     | 786767.5    | 3287284.4    | 235.27        |
| 25     | 786921.4    | 3287157.1    | 235.23        |
| 26     | 786871.6    | 3287002.4    | 235.22        |
| 27     | 786738.5    | 3286867.4    | 235.20        |
| 28     | 786674.3    | 3286663.1    | 234.88        |

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 29     | 786714.3    | 3286692.4    | 234.77        |
| 30     | 786810.2    | 3286523.9    | 234.77        |
| 31     | 786957.7    | 3286198.6    | 234.74        |
| 32     | 787121.2    | 3286094.1    | 234.62        |
| 33     | 787289.7    | 3286004.2    | 234.54        |
| 34     | 787418.4    | 3285862.2    | 234.48        |
| 35     | 787573.9    | 3285737.3    | 234.43        |
| 36     | 787727.6    | 3285609.4    | 234.30        |
| 37     | 787884.7    | 3285486.0    | 234.29        |
| 38     | 788076.0    | 3285435.1    | 234.29        |
| 39     | 788242.2    | 3285333.8    | 234.22        |
| 40     | 788288.6    | 3285143.7    | 234.02        |
| 41     | 788250.6    | 3284969.7    | 233.69        |
| 42     | 788119.1    | 3284830.7    | 233.56        |
| 43     | 788022.9    | 3284656.3    | 233.53        |
| 44     | 787913.4    | 3284489.2    | 233.46        |
| 45     | 787733.1    | 3284447.2    | 233.40        |
| 46     | 787537.8    | 3284411.7    | 233.33        |
| 47     | 787348.7    | 3284346.6    | 233.32        |
| 48     | 787215.8    | 3284220.0    | 233.23        |
| 49     | 787185.1    | 3284023.3    | 233.07        |
| 50     | 787237.2    | 3283834.5    | 232.96        |
| 51     | 787250.6    | 3283640.2    | 232.96        |
| 52     | 787138.6    | 3283474.7    | 232.84        |
| 53     | 787137.1    | 3283288.2    | 232.71        |
| 54     | 787171.4    | 3283100.6    | 232.70        |
| 55     | 787145.0    | 3282909.0    | 232.34        |
| 56     | 787023.7    | 3282758.7    | 232.32        |

| S. No. | Left Bank   |              |               |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) | Elevation (m) |
| 57     | 786874.1    | 3282625.9    | 232.27        |
| 58     | 786724.3    | 3282493.4    | 232.07        |
| 59     | 786572.0    | 3282364.4    | 231.96        |
| 60     | 786399.4    | 3282263.3    | 231.33        |
| 61     | 786226.5    | 3282163.0    | 231.27        |
| 62     | 786032.4    | 3282114.8    | 231.22        |
| 63     | 785854.9    | 3282036.5    | 230.88        |
| 64     | 785707.2    | 3281902.0    | 230.88        |
| 65     | 785561.1    | 3281768.6    | 230.85        |
| 66     | 785433.1    | 3281614.9    | 230.84        |
| 67     | 785254.4    | 3281538.0    | 230.63        |
| 68     | 785060.5    | 3281488.6    | 230.61        |
| 69     | 784875.1    | 3281439.2    | 230.61        |
| 70     | 785038.9    | 3281329.7    | 230.24        |
| 71     | 785139.8    | 3281162.6    | 230.21        |
| 72     | 785243.0    | 3280993.3    | 230.18        |
| 73     | 785267.6    | 3280796.0    | 230.15        |
| 74     | 785273.2    | 3280596.1    | 230.13        |
| 75     | 785342.4    | 3280421.0    | 230.08        |
| 76     | 785455.5    | 3280256.8    | 229.91        |
| 77     | 785518.4    | 3280067.7    | 229.74        |
| 78     | 785529.5    | 3279869.4    | 229.46        |
| 79     | 785447.4    | 3279689.5    | 229.44        |
| 80     | 785398.4    | 3279496.0    | 229.11        |
| 81     | 785465.5    | 3279313.1    | 228.81        |
| 82     | 785574.7    | 3279147.2    | 228.65        |
| 83     | 785585.9    | 3278950.0    | 228.52        |
| 84     | 785573.0    | 3278752.6    | 228.46        |

25 Year HFL Points

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 85     | 785650.7    | 3278570.8    | 228.41        |
| 86     | 785771.7    | 3278411.6    | 227.99        |
| 87     | 785909.9    | 3278268.3    | 227.83        |
| 88     | 786054.9    | 3278130.7    | 227.27        |
| 89     | 786195.4    | 3277988.3    | 227.26        |
| 90     | 786319.1    | 3277833.1    | 226.75        |
| 91     | 786389.2    | 3277646.1    | 226.47        |
| 92     | 786407.9    | 3277448.7    | 226.41        |
| 93     | 786356.5    | 3277257.3    | 226.21        |
| 94     | 786265.5    | 3277079.5    | 226.08        |
| 95     | 786227.7    | 3276885.7    | 225.90        |
| 96     | 786269.8    | 3276691.9    | 225.88        |
| 97     | 786372.5    | 3276520.7    | 225.83        |
| 98     | 786487.4    | 3276357.7    | 225.79        |
| 99     | 786577.1    | 3276180.1    | 225.78        |
| 100    | 786609.7    | 3275986.1    | 225.67        |
| 101    | 786589.4    | 3275787.5    | 225.65        |
| 102    | 786607.2    | 3275589.1    | 225.60        |
| 103    | 786673.0    | 3275400.3    | 225.60        |
| 104    | 786720.3    | 3275206.6    | 225.60        |
| 105    | 786750.5    | 3275009.4    | 225.49        |
| 106    | 786772.5    | 3274811.3    | 225.49        |
| 107    | 786799.8    | 3274613.7    | 225.48        |
| 108    | 786839.7    | 3274417.8    | 225.44        |
| 109    | 786886.5    | 3274223.3    | 225.44        |
| 110    | 786915.3    | 3274026.1    | 225.41        |
| 111    | 786881.8    | 3273829.0    | 225.40        |
| 112    | 786771.7    | 3273665.5    | 225.33        |
| 113    | 786628.8    | 3273526.4    | 225.30        |
| 114    | 786458.2    | 3273423.9    | 225.28        |

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 115    | 786276.1    | 3273341.6    | 225.24        |
| 116    | 786128.9    | 3273208.2    | 225.22        |
| 117    | 786091.9    | 3273016.0    | 225.20        |
| 118    | 786128.7    | 3272819.4    | 225.19        |
| 119    | 786173.9    | 3272626.2    | 225.18        |
| 120    | 786291.7    | 3272465.0    | 225.17        |
| 121    | 786428.8    | 3272319.3    | 225.16        |
| 122    | 786560.9    | 3272170.0    | 225.15        |
| 123    | 786689.4    | 3272016.7    | 225.15        |
| 124    | 786808.2    | 3271856.8    | 225.13        |
| 125    | 786920.0    | 3271692.4    | 225.12        |
| 126    | 786855.6    | 3271516.5    | 225.11        |
| 127    | 786775.4    | 3271335.0    | 225.10        |
| 128    | 786742.3    | 3271140.2    | 225.09        |
| 129    | 786706.3    | 3270968.7    | 225.09        |
| 130    | 786877.4    | 3271000.0    | 225.09        |
| 131    | 787071.7    | 3270952.4    | 225.09        |
| 132    | 787260.4    | 3270893.2    | 225.07        |
| 133    | 787410.4    | 3270760.9    | 225.03        |
| 134    | 787560.5    | 3270628.7    | 225.02        |
| 135    | 787710.6    | 3270496.5    | 225.02        |
| 136    | 787860.2    | 3270363.8    | 224.98        |
| 137    | 788010.3    | 3270231.6    | 224.97        |
| 138    | 788172.1    | 3270115.4    | 224.96        |
| 139    | 788346.5    | 3270017.6    | 224.95        |
| 140    | 788519.0    | 3269916.7    | 224.95        |
| 141    | 788690.6    | 3269814.5    | 224.91        |
| 142    | 788855.1    | 3269701.0    | 224.80        |
| 143    | 789024.3    | 3269596.1    | 224.80        |
| 144    | 789223.0    | 3269579.4    | 224.76        |

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 145    | 789414.7    | 3269528.9    | 224.75        |
| 146    | 789570.5    | 3269409.7    | 224.71        |
| 147    | 789661.4    | 3269232.0    | 224.67        |
| 148    | 789738.2    | 3269047.4    | 224.67        |
| 149    | 789809.6    | 3268860.6    | 224.66        |
| 150    | 789909.0    | 3268689.5    | 224.62        |
| 151    | 790035.8    | 3268535.2    | 224.61        |
| 152    | 790127.2    | 3268357.9    | 224.56        |
| 153    | 790205.5    | 3268173.9    | 224.53        |
| 154    | 790264.9    | 3267983.0    | 224.53        |
| 155    | 790323.3    | 3267791.8    | 224.53        |
| 156    | 790376.1    | 3267598.9    | 224.50        |
| 157    | 790418.4    | 3267403.5    | 224.44        |
| 158    | 790254.3    | 3267315.2    | 224.41        |
| 159    | 790129.1    | 3267166.7    | 224.39        |
| 160    | 790109.0    | 3266968.9    | 224.35        |
| 161    | 790101.5    | 3266770.5    | 224.33        |
| 162    | 790081.4    | 3266571.6    | 224.30        |
| 163    | 790113.6    | 3266376.0    | 224.28        |
| 164    | 790161.5    | 3266184.8    | 224.06        |
| 165    | 790274.7    | 3266021.3    | 224.05        |
| 166    | 790400.6    | 3265866.0    | 224.01        |
| 167    | 790533.3    | 3265716.6    | 223.90        |
| 168    | 790656.3    | 3265559.6    | 223.88        |
| 169    | 790803.1    | 3265426.4    | 223.87        |
| 170    | 790931.6    | 3265274.1    | 223.86        |
| 171    | 791072.3    | 3265132.9    | 223.84        |
| 172    | 791223.9    | 3265002.7    | 223.84        |
| 173    | 791342.1    | 3264843.3    | 223.70        |
| 174    | 791430.2    | 3264663.8    | 223.59        |

25 Year HFL Points

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 175    | 791513.5    | 3264482.0    | 223.53        |
| 176    | 791582.3    | 3264294.6    | 223.36        |
| 177    | 791665.6    | 3264113.5    | 223.35        |
| 178    | 791760.2    | 3263937.3    | 223.34        |
| 179    | 791838.0    | 3263753.1    | 223.28        |
| 180    | 791897.6    | 3263562.2    | 223.23        |
| 181    | 791910.7    | 3263363.1    | 223.21        |
| 182    | 791913.8    | 3263163.6    | 223.15        |
| 183    | 791875.2    | 3262967.5    | 223.04        |
| 184    | 791825.3    | 3262774.0    | 223.02        |
| 185    | 791772.7    | 3262581.4    | 222.99        |
| 186    | 791718.9    | 3262388.8    | 222.91        |
| 187    | 791670.9    | 3262194.7    | 222.83        |
| 188    | 791632.3    | 3261998.7    | 222.82        |
| 189    | 791610.0    | 3261800.0    | 222.81        |
| 190    | 791598.3    | 3261600.4    | 222.80        |
| 191    | 791578.3    | 3261401.4    | 222.65        |
| 192    | 791567.4    | 3261201.8    | 222.65        |
| 193    | 791561.5    | 3261001.9    | 222.43        |
| 194    | 791541.8    | 3260802.9    | 222.39        |
| 195    | 791524.5    | 3260603.7    | 222.39        |
| 196    | 791521.5    | 3260404.2    | 222.30        |
| 197    | 791537.8    | 3260204.9    | 222.28        |
| 198    | 791569.0    | 3260007.8    | 222.27        |
| 199    | 791669.3    | 3259840.1    | 222.24        |
| 200    | 791828.2    | 3259718.6    | 222.17        |
| 201    | 791987.1    | 3259597.2    | 222.14        |
| 202    | 792161.8    | 3259500.5    | 222.13        |
| 203    | 792343.8    | 3259419.1    | 222.07        |
| 204    | 792533.9    | 3259356.9    | 222.03        |

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 205    | 792727.1    | 3259308.5    | 222.02        |
| 206    | 792923.9    | 3259277.2    | 221.96        |
| 207    | 793121.4    | 3259246.1    | 221.95        |
| 208    | 793312.0    | 3259192.3    | 221.92        |
| 209    | 793489.5    | 3259100.2    | 221.58        |
| 210    | 793652.6    | 3258984.8    | 221.56        |
| 211    | 793763.3    | 3258822.6    | 221.55        |
| 212    | 793773.0    | 3258803.7    | 221.50        |

*M. J. E.*

| S. No. | Left Bank   |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |

## 25 Year HFL Points

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 1      | 784159.9    | 3290846.1    | 237.43           |
| 2      | 784158.2    | 3290646.6    | 237.36           |
| 3      | 784121.1    | 3290450.8    | 237.17           |
| 4      | 784104.2    | 3290251.9    | 237.09           |
| 5      | 784146.4    | 3290058.8    | 237.08           |
| 6      | 784255.1    | 3289892.5    | 236.81           |
| 7      | 784385.8    | 3289741.1    | 236.79           |
| 8      | 784534.9    | 3289608.5    | 236.72           |
| 9      | 784686.8    | 3289478.6    | 236.67           |
| 10     | 784804.8    | 3289317.6    | 236.66           |
| 11     | 784917.1    | 3289152.1    | 236.61           |
| 12     | 785014.8    | 3288977.7    | 236.60           |
| 13     | 785013.6    | 3288781.7    | 236.52           |
| 14     | 785006.3    | 3288582.9    | 236.46           |
| 15     | 785077.4    | 3288400.1    | 236.43           |
| 16     | 785010.2    | 3288216.7    | 236.42           |
| 17     | 784986.5    | 3288022.0    | 236.42           |
| 18     | 785023.9    | 3287825.8    | 235.98           |
| 19     | 785087.0    | 3287636.5    | 235.83           |
| 20     | 785210.8    | 3287481.5    | 235.68           |
| 21     | 785293.0    | 3287309.1    | 235.62           |
| 22     | 785332.5    | 3287115.3    | 235.45           |
| 23     | 785425.1    | 3286938.0    | 235.33           |
| 24     | 785537.4    | 3286773.1    | 235.27           |
| 25     | 785634.8    | 3286599.0    | 235.23           |
| 26     | 785762.1    | 3286445.6    | 235.22           |
| 27     | 785906.0    | 3286306.6    | 235.20           |
| 28     | 786041.1    | 3286159.4    | 234.88           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 29     | 786177.4    | 3286014.8    | 234.77           |
| 30     | 786356.1    | 3285925.1    | 234.77           |
| 31     | 786525.5    | 3285818.8    | 234.74           |
| 32     | 786692.4    | 3285708.7    | 234.62           |
| 33     | 786858.6    | 3285597.4    | 234.54           |
| 34     | 787022.5    | 3285527.9    | 234.48           |
| 35     | 787178.4    | 3285645.3    | 234.43           |
| 36     | 787320.8    | 3285532.0    | 234.30           |
| 37     | 787456.9    | 3285388.1    | 234.29           |
| 38     | 787596.9    | 3285245.5    | 234.29           |
| 39     | 787747.9    | 3285114.7    | 234.22           |
| 40     | 787853.6    | 3284947.0    | 234.02           |
| 41     | 787843.2    | 3284763.6    | 233.69           |
| 42     | 787680.6    | 3284650.1    | 233.56           |
| 43     | 787485.6    | 3284612.5    | 233.53           |
| 44     | 787286.1    | 3284601.8    | 233.46           |
| 45     | 787095.6    | 3284542.4    | 233.40           |
| 46     | 786959.9    | 3284396.3    | 233.33           |
| 47     | 786840.4    | 3284236.1    | 233.32           |
| 48     | 786713.0    | 3284082.6    | 233.23           |
| 49     | 786577.0    | 3283935.9    | 233.07           |
| 50     | 786447.5    | 3283783.6    | 232.96           |
| 51     | 786321.0    | 3283628.7    | 232.96           |
| 52     | 786195.6    | 3283472.8    | 232.84           |
| 53     | 786063.0    | 3283323.5    | 232.71           |
| 54     | 785920.3    | 3283183.4    | 232.70           |
| 55     | 785791.2    | 3283031.3    | 232.34           |
| 56     | 785665.6    | 3282878.3    | 232.32           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 57     | 785534.6    | 3282727.8    | 232.27           |
| 58     | 785432.2    | 3282556.0    | 232.07           |
| 59     | 785335.3    | 3282381.1    | 231.96           |
| 60     | 785240.6    | 3282205.4    | 231.33           |
| 61     | 785101.9    | 3282064.2    | 231.27           |
| 62     | 784936.9    | 3281951.3    | 231.22           |
| 63     | 784778.4    | 3281830.3    | 230.88           |
| 64     | 784633.5    | 3281695.2    | 230.88           |
| 65     | 784633.4    | 3281516.0    | 230.85           |
| 66     | 784703.1    | 3281328.6    | 230.84           |
| 67     | 784774.2    | 3281141.7    | 230.63           |
| 68     | 784824.7    | 3280951.5    | 230.61           |
| 69     | 784750.4    | 3280792.3    | 230.61           |
| 70     | 784831.1    | 3280609.7    | 230.24           |
| 71     | 784920.1    | 3280433.1    | 230.21           |
| 72     | 785067.0    | 3280297.8    | 230.18           |
| 73     | 785213.1    | 3280162.2    | 230.15           |
| 74     | 785245.1    | 3279979.3    | 230.13           |
| 75     | 785147.6    | 3279806.6    | 230.08           |
| 76     | 785046.2    | 3279637.6    | 229.91           |
| 77     | 785021.3    | 3279443.7    | 229.74           |
| 78     | 785017.6    | 3279243.7    | 229.46           |
| 79     | 785014.1    | 3279043.8    | 229.44           |
| 80     | 785008.4    | 3278843.9    | 229.11           |
| 81     | 785136.3    | 3278694.7    | 228.81           |
| 82     | 785282.2    | 3278558.9    | 228.65           |
| 83     | 785407.0    | 3278402.7    | 228.52           |
| 84     | 785533.8    | 3278248.1    | 228.46           |

## 25 Year HFL Points

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 85     | 785660.1    | 3278093.5    | 228.41           |
| 86     | 785773.7    | 3277929.8    | 227.99           |
| 87     | 785910.1    | 3277784.7    | 227.83           |
| 88     | 785993.2    | 3277615.0    | 227.27           |
| 89     | 785933.8    | 3277426.1    | 227.26           |
| 90     | 785799.7    | 3277278.2    | 226.75           |
| 91     | 785665.6    | 3277131.0    | 226.47           |
| 92     | 785692.3    | 3276939.4    | 226.41           |
| 93     | 785788.8    | 3276810.9    | 226.21           |
| 94     | 785869.4    | 3276628.7    | 226.08           |
| 95     | 785947.6    | 3276444.9    | 225.90           |
| 96     | 786115.7    | 3276350.9    | 225.88           |
| 97     | 786097.0    | 3276171.3    | 225.83           |
| 98     | 786132.8    | 3275975.0    | 225.79           |
| 99     | 786167.8    | 3275778.1    | 225.78           |
| 100    | 786201.9    | 3275581.1    | 225.67           |
| 101    | 786285.0    | 3275401.4    | 225.65           |
| 102    | 786347.7    | 3275227.2    | 225.60           |
| 103    | 786401.3    | 3275034.5    | 225.60           |
| 104    | 786437.8    | 3274838.5    | 225.60           |
| 105    | 786410.6    | 3274640.5    | 225.49           |
| 106    | 786385.0    | 3274442.3    | 225.49           |
| 107    | 786437.3    | 3274276.2    | 225.48           |
| 108    | 786309.2    | 3274122.8    | 225.44           |
| 109    | 786183.0    | 3273969.1    | 225.44           |
| 110    | 786069.7    | 3273804.9    | 225.41           |
| 111    | 785990.0    | 3273623.3    | 225.40           |
| 112    | 785914.2    | 3273440.5    | 225.33           |
| 113    | 785847.6    | 3273254.2    | 225.30           |
| 114    | 785759.8    | 3273077.7    | 225.28           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 115    | 785755.3    | 3272899.7    | 225.24           |
| 116    | 785927.7    | 3272800.5    | 225.22           |
| 117    | 786033.4    | 3272631.5    | 225.20           |
| 118    | 786089.2    | 3272440.9    | 225.19           |
| 119    | 786145.0    | 3272248.9    | 225.18           |
| 120    | 786188.8    | 3272054.0    | 225.17           |
| 121    | 786267.0    | 3271870.1    | 225.16           |
| 122    | 786256.0    | 3271683.6    | 225.15           |
| 123    | 786217.0    | 3271499.2    | 225.15           |
| 124    | 786296.7    | 3271316.6    | 225.13           |
| 125    | 786386.0    | 3271137.7    | 225.12           |
| 126    | 786446.0    | 3270947.4    | 225.11           |
| 127    | 786505.0    | 3270756.4    | 225.10           |
| 128    | 786612.9    | 3270588.8    | 225.09           |
| 129    | 786767.9    | 3270462.6    | 225.09           |
| 130    | 786931.3    | 3270350.8    | 225.09           |
| 131    | 787105.4    | 3270268.1    | 225.07           |
| 132    | 787266.5    | 3270151.2    | 225.03           |
| 133    | 787290.8    | 3270023.0    | 225.02           |
| 134    | 787352.1    | 3269864.8    | 225.02           |
| 135    | 787465.5    | 3269700.8    | 224.98           |
| 136    | 787575.6    | 3269536.3    | 224.97           |
| 137    | 787680.0    | 3269371.1    | 224.96           |
| 138    | 787833.3    | 3269246.5    | 224.95           |
| 139    | 787978.8    | 3269109.2    | 224.95           |
| 140    | 788121.3    | 3268969.1    | 224.91           |
| 141    | 788262.3    | 3268827.4    | 224.80           |
| 142    | 788406.3    | 3268688.6    | 224.80           |
| 143    | 788554.5    | 3268544.4    | 224.76           |
| 144    | 788634.0    | 3268380.0    | 224.75           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 145    | 788733.7    | 3268210.2    | 224.71           |
| 146    | 788896.3    | 3268095.2    | 224.67           |
| 147    | 789006.6    | 3267931.3    | 224.67           |
| 148    | 789046.7    | 3267740.8    | 224.66           |
| 149    | 789111.5    | 3267553.1    | 224.62           |
| 150    | 789127.5    | 3267355.8    | 224.61           |
| 151    | 789069.0    | 3267166.8    | 224.56           |
| 152    | 789158.6    | 3266998.7    | 224.53           |
| 153    | 789304.6    | 3266866.4    | 224.53           |
| 154    | 789447.8    | 3266730.4    | 224.53           |
| 155    | 789504.7    | 3266551.2    | 224.50           |
| 156    | 789638.6    | 3266449.1    | 224.44           |
| 157    | 789775.0    | 3266311.7    | 224.41           |
| 158    | 789884.2    | 3266159.8    | 224.39           |
| 159    | 789977.1    | 3265982.7    | 224.35           |
| 160    | 790061.1    | 3265801.7    | 224.33           |
| 161    | 790153.1    | 3265624.2    | 224.30           |
| 162    | 790296.4    | 3265582.6    | 224.28           |
| 163    | 790397.7    | 3265411.2    | 224.06           |
| 164    | 790502.9    | 3265241.1    | 224.05           |
| 165    | 790616.7    | 3265077.1    | 224.01           |
| 166    | 790767.5    | 3264946.6    | 223.88           |
| 167    | 790921.2    | 3264819.6    | 223.87           |
| 168    | 791025.7    | 3264649.7    | 223.86           |
| 169    | 791112.7    | 3264469.6    | 223.84           |
| 170    | 791190.7    | 3264285.6    | 223.84           |
| 171    | 791251.8    | 3264095.3    | 223.70           |
| 172    | 791303.0    | 3263902.2    | 223.59           |
| 173    | 791341.7    | 3263705.9    | 223.53           |
| 174    | 791368.6    | 3263507.9    | 223.36           |

## 25 Year HFL Points

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 175    | 791375.1    | 3263308.2    | 223.35           |
| 176    | 791366.0    | 3263108.5    | 223.28           |
| 177    | 791324.6    | 3262915.6    | 223.23           |
| 178    | 791250.6    | 3262729.9    | 223.21           |
| 179    | 791145.6    | 3262564.9    | 223.15           |
| 180    | 791004.2    | 3262423.6    | 223.04           |
| 181    | 790861.0    | 3262283.9    | 223.02           |
| 182    | 790706.7    | 3262156.8    | 222.99           |
| 183    | 790548.9    | 3262033.8    | 222.91           |
| 184    | 790390.0    | 3261912.5    | 222.83           |
| 185    | 790312.4    | 3261731.0    | 222.82           |
| 186    | 790289.8    | 3261533.9    | 222.80           |
| 187    | 790288.8    | 3261333.9    | 222.65           |
| 188    | 790287.8    | 3261133.9    | 222.65           |
| 189    | 790287.9    | 3260933.9    | 222.43           |
| 190    | 790292.2    | 3260734.0    | 222.39           |
| 191    | 790302.1    | 3260534.2    | 222.39           |
| 192    | 790327.6    | 3260336.1    | 222.30           |
| 193    | 790360.2    | 3260138.7    | 222.28           |
| 194    | 790395.4    | 3259941.9    | 222.27           |
| 195    | 790438.7    | 3259746.7    | 222.24           |
| 196    | 790485.3    | 3259552.2    | 222.17           |
| 197    | 790542.4    | 3259362.5    | 222.13           |
| 198    | 790659.8    | 3259200.6    | 222.07           |
| 199    | 790778.4    | 3259039.8    | 222.03           |
| 200    | 790926.9    | 3258905.8    | 222.02           |
| 201    | 791075.4    | 3258771.8    | 221.96           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 202    | 791245.5    | 3258667.6    | 221.95           |
| 203    | 791418.9    | 3258568.0    | 221.92           |
| 204    | 791593.4    | 3258470.4    | 221.58           |
| 205    | 791774.7    | 3258386.0    | 221.56           |
| 206    | 791958.6    | 3258311.0    | 221.55           |
| 207    | 792149.6    | 3258251.4    | 221.50           |
| 208    | 792332.4    | 3258173.2    | 221.47           |
| 209    | 792515.1    | 3258092.0    | 221.45           |
| 210    | 792689.4    | 3257994.5    | 221.37           |
| 211    | 792818.5    | 3257843.6    | 221.36           |
| 212    | 792911.8    | 3257667.4    | 221.35           |
| 213    | 792977.0    | 3257480.3    | 221.23           |
| 214    | 793007.8    | 3257282.7    | 221.20           |
| 215    | 793033.9    | 3257084.6    | 221.16           |
| 216    | 793038.1    | 3256884.7    | 221.14           |
| 217    | 793042.2    | 3256684.7    | 221.14           |
| 218    | 793051.7    | 3256485.3    | 221.14           |
| 219    | 793083.7    | 3256288.7    | 221.11           |
| 220    | 793139.6    | 3256096.7    | 221.10           |
| 221    | 793195.5    | 3255904.7    | 221.10           |
| 222    | 793272.0    | 3255720.8    | 220.70           |
| 223    | 793360.5    | 3255541.4    | 220.53           |
| 224    | 793444.7    | 3255360.1    | 220.37           |
| 225    | 793565.2    | 3255201.2    | 220.22           |
| 226    | 793691.5    | 3255047.3    | 220.06           |
| 227    | 793828.9    | 3254903.9    | 219.90           |
| 228    | 793985.8    | 3254779.9    | 219.74           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 229    | 794100.2    | 3254689.5    | 219.59           |

## 100 Year HFL Points

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 1      | 784522.3    | 3290425.3    | 237.98           |
| 2      | 784681.6    | 3290328.8    | 237.90           |
| 3      | 784874.4    | 3290371.1    | 237.71           |
| 4      | 785071.8    | 3290375.7    | 237.63           |
| 5      | 785210.4    | 3290266.2    | 237.63           |
| 6      | 785297.8    | 3290086.7    | 237.36           |
| 7      | 785392.1    | 3289910.9    | 237.33           |
| 8      | 785453.2    | 3289721.0    | 237.27           |
| 9      | 785532.0    | 3289538.5    | 237.22           |
| 10     | 785623.2    | 3289360.8    | 237.21           |
| 11     | 785718.8    | 3289185.3    | 237.16           |
| 12     | 785809.8    | 3289007.3    | 237.14           |
| 13     | 785903.5    | 3288831.0    | 237.06           |
| 14     | 785975.9    | 3288646.7    | 237.01           |
| 15     | 785946.6    | 3288452.2    | 236.97           |
| 16     | 785937.1    | 3288253.1    | 236.97           |
| 17     | 785895.3    | 3288057.7    | 236.96           |
| 18     | 785847.1    | 3287863.6    | 236.52           |
| 19     | 785913.8    | 3287687.4    | 236.38           |
| 20     | 786030.4    | 3287525.4    | 236.23           |
| 21     | 786204.5    | 3287434.4    | 236.16           |
| 22     | 786381.9    | 3287344.4    | 235.99           |
| 23     | 786580.1    | 3287322.9    | 235.87           |
| 24     | 786773.3    | 3287290.2    | 235.81           |
| 25     | 786925.8    | 3287161.2    | 235.77           |
| 26     | 786879.3    | 3287010.5    | 235.76           |
| 27     | 786752.4    | 3286875.1    | 235.74           |
| 28     | 786677.6    | 3286694.0    | 235.43           |

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 29     | 786716.3    | 3286502.9    | 235.31           |
| 30     | 786810.4    | 3286332.3    | 235.31           |
| 31     | 786960.8    | 3286210.4    | 235.28           |
| 32     | 787121.1    | 3286100.6    | 235.16           |
| 33     | 787294.1    | 3286018.7    | 235.08           |
| 34     | 787418.9    | 3285873.1    | 235.02           |
| 35     | 787573.6    | 3285749.6    | 234.97           |
| 36     | 787728.5    | 3285623.2    | 234.84           |
| 37     | 787882.2    | 3285495.3    | 234.83           |
| 38     | 788073.1    | 3285447.3    | 234.83           |
| 39     | 788244.3    | 3285351.5    | 234.77           |
| 40     | 788283.6    | 3285158.2    | 234.57           |
| 41     | 788263.1    | 3284995.7    | 234.23           |
| 42     | 788142.2    | 3284850.3    | 234.10           |
| 43     | 788039.1    | 3284681.2    | 234.07           |
| 44     | 787936.0    | 3284510.3    | 234.00           |
| 45     | 787768.9    | 3284444.3    | 233.94           |
| 46     | 787572.0    | 3284419.1    | 233.87           |
| 47     | 787382.9    | 3284354.3    | 233.86           |
| 48     | 787228.4    | 3284249.4    | 233.77           |
| 49     | 787192.8    | 3284053.7    | 233.61           |
| 50     | 787237.9    | 3283866.5    | 233.50           |
| 51     | 787272.4    | 3283672.5    | 233.50           |
| 52     | 787169.6    | 3283502.8    | 233.38           |
| 53     | 787138.9    | 3283324.1    | 233.24           |
| 54     | 787184.6    | 3283135.3    | 233.24           |
| 55     | 787187.6    | 3282947.0    | 232.88           |
| 56     | 787103.3    | 3282773.1    | 232.86           |

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 57     | 786964.6    | 3282629.1    | 232.81           |
| 58     | 786824.6    | 3282486.2    | 232.61           |
| 59     | 786684.9    | 3282343.1    | 232.50           |
| 60     | 786527.9    | 3282220.2    | 231.87           |
| 61     | 786363.0    | 3282107.1    | 231.80           |
| 62     | 786179.8    | 3282040.8    | 231.75           |
| 63     | 785981.5    | 3282014.9    | 231.42           |
| 64     | 785827.1    | 3281902.4    | 231.41           |
| 65     | 785663.3    | 3281795.4    | 231.38           |
| 66     | 785514.3    | 3281662.3    | 231.37           |
| 67     | 785361.2    | 3281546.8    | 231.16           |
| 68     | 785166.0    | 3281503.2    | 231.14           |
| 69     | 784972.0    | 3281455.1    | 231.14           |
| 70     | 784964.2    | 3281391.4    | 230.78           |
| 71     | 785088.8    | 3281249.6    | 230.74           |
| 72     | 785198.1    | 3281082.7    | 230.72           |
| 73     | 785268.8    | 3280900.5    | 230.69           |
| 74     | 785280.7    | 3280701.0    | 230.66           |
| 75     | 785291.3    | 3280506.5    | 230.62           |
| 76     | 785409.6    | 3280345.6    | 230.44           |
| 77     | 785502.6    | 3280170.4    | 230.27           |
| 78     | 785546.2    | 3279975.7    | 229.99           |
| 79     | 785492.2    | 3279791.3    | 229.98           |
| 80     | 785429.6    | 3279601.4    | 229.65           |
| 81     | 785421.6    | 3279405.9    | 229.34           |
| 82     | 785533.6    | 3279241.4    | 229.19           |
| 83     | 785598.7    | 3279056.1    | 229.05           |
| 84     | 785578.3    | 3278857.9    | 228.99           |

## 100 Year HFL Points

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 85     | 785605.4    | 3278663.8    | 228.94           |
| 86     | 785717.3    | 3278499.5    | 228.52           |
| 87     | 785845.5    | 3278347.1    | 228.36           |
| 88     | 785994.9    | 3278214.1    | 227.80           |
| 89     | 786133.8    | 3278071.1    | 227.79           |
| 90     | 786272.0    | 3277926.7    | 227.28           |
| 91     | 786371.2    | 3277755.0    | 227.00           |
| 92     | 786429.1    | 3277564.3    | 226.94           |
| 93     | 786415.2    | 3277365.3    | 226.74           |
| 94     | 786340.7    | 3277181.0    | 226.61           |
| 95     | 786255.2    | 3277001.4    | 226.43           |
| 96     | 786254.4    | 3276802.9    | 226.40           |
| 97     | 786328.9    | 3276620.4    | 226.36           |
| 98     | 786444.5    | 3276457.5    | 226.32           |
| 99     | 786540.8    | 3276284.7    | 226.30           |
| 100    | 786622.7    | 3276103.3    | 226.19           |
| 101    | 786620.9    | 3275909.0    | 226.17           |
| 102    | 786609.7    | 3275709.9    | 226.13           |
| 103    | 786646.3    | 3275515.9    | 226.13           |
| 104    | 786710.5    | 3275326.5    | 226.12           |
| 105    | 786734.3    | 3275128.6    | 226.02           |
| 106    | 786778.7    | 3274933.6    | 226.01           |
| 107    | 786790.0    | 3274734.7    | 226.01           |
| 108    | 786826.0    | 3274538.0    | 225.97           |
| 109    | 786874.6    | 3274344.2    | 225.96           |
| 110    | 786917.2    | 3274148.9    | 225.93           |
| 111    | 786918.8    | 3273950.5    | 225.93           |
| 112    | 786871.1    | 3273758.0    | 225.86           |
| 113    | 786741.5    | 3273606.9    | 225.83           |
| 114    | 786592.3    | 3273473.9    | 225.81           |

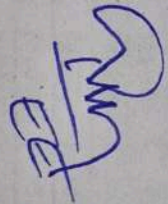
| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 115    | 786414.8    | 3273382.3    | 225.76           |
| 116    | 786235.6    | 3273298.2    | 225.75           |
| 117    | 786177.8    | 3273141.8    | 225.72           |
| 118    | 786117.0    | 3272945.3    | 225.72           |
| 119    | 786156.4    | 3272750.0    | 225.71           |
| 120    | 786225.6    | 3272572.2    | 225.69           |
| 121    | 786347.1    | 3272414.1    | 225.69           |
| 122    | 786486.3    | 3272271.2    | 225.68           |
| 123    | 786613.9    | 3272117.6    | 225.67           |
| 124    | 786745.2    | 3271966.8    | 225.66           |
| 125    | 786851.4    | 3271798.8    | 225.65           |
| 126    | 786933.3    | 3271626.8    | 225.63           |
| 127    | 786825.1    | 3271459.1    | 225.63           |
| 128    | 786756.8    | 3271272.1    | 225.62           |
| 129    | 786744.0    | 3271073.4    | 225.62           |
| 130    | 786751.2    | 3271029.9    | 225.62           |
| 131    | 786946.5    | 3270991.0    | 225.61           |
| 132    | 787140.6    | 3270942.8    | 225.59           |
| 133    | 787334.7    | 3270894.6    | 225.55           |
| 134    | 787491.8    | 3270773.6    | 225.55           |
| 135    | 787644.7    | 3270644.7    | 225.54           |
| 136    | 787797.1    | 3270515.2    | 225.51           |
| 137    | 787949.5    | 3270385.7    | 225.49           |
| 138    | 788101.7    | 3270255.9    | 225.48           |
| 139    | 788253.2    | 3270125.3    | 225.48           |
| 140    | 788424.8    | 3270023.0    | 225.47           |
| 141    | 788595.6    | 3269919.4    | 225.44           |
| 142    | 788761.2    | 3269807.6    | 225.33           |
| 143    | 788922.3    | 3269689.2    | 225.32           |
| 144    | 789099.5    | 3269600.5    | 225.28           |

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 145    | 789297.7    | 3269576.5    | 225.28           |
| 146    | 789485.4    | 3269513.7    | 225.24           |
| 147    | 789610.3    | 3269364.3    | 225.20           |
| 148    | 789700.5    | 3269185.9    | 225.20           |
| 149    | 789776.4    | 3269000.9    | 225.18           |
| 150    | 789850.8    | 3268816.1    | 225.14           |
| 151    | 789971.0    | 3268657.6    | 225.14           |
| 152    | 790088.0    | 3268497.9    | 225.08           |
| 153    | 790169.2    | 3268315.4    | 225.06           |
| 154    | 790245.5    | 3268131.2    | 225.05           |
| 155    | 790300.1    | 3267939.3    | 225.05           |
| 156    | 790351.8    | 3267746.5    | 225.03           |
| 157    | 790402.2    | 3267552.9    | 224.97           |
| 158    | 790431.2    | 3267355.4    | 224.93           |
| 159    | 790461.3    | 3267157.7    | 224.92           |
| 160    | 790505.0    | 3266963.9    | 224.87           |
| 161    | 790498.6    | 3266764.1    | 224.85           |
| 162    | 790388.7    | 3266613.5    | 224.82           |
| 163    | 790238.0    | 3266486.5    | 224.80           |
| 164    | 790124.3    | 3266322.2    | 224.58           |
| 165    | 790202.7    | 3266144.8    | 224.57           |
| 166    | 790339.8    | 3265999.5    | 224.53           |
| 167    | 790480.4    | 3265857.9    | 224.42           |
| 168    | 790590.5    | 3265691.0    | 224.41           |
| 169    | 790704.3    | 3265526.9    | 224.39           |
| 170    | 790843.7    | 3265388.1    | 224.38           |
| 171    | 790972.8    | 3265235.9    | 224.36           |
| 172    | 791123.5    | 3265104.9    | 224.36           |
| 173    | 791269.7    | 3264969.0    | 224.22           |
| 174    | 791378.6    | 3264802.9    | 224.11           |

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 175    | 791464.0    | 3264622.1    | 224.06           |
| 176    | 791545.7    | 3264439.6    | 223.89           |
| 177    | 791609.9    | 3264250.4    | 223.87           |
| 178    | 791704.4    | 3264076.2    | 223.87           |
| 179    | 791800.0    | 3263900.6    | 223.81           |
| 180    | 791864.5    | 3263711.3    | 223.76           |
| 181    | 791917.8    | 3263519.5    | 223.73           |
| 182    | 791923.4    | 3263319.6    | 223.68           |
| 183    | 791920.7    | 3263120.9    | 223.56           |
| 184    | 791885.6    | 3262924.0    | 223.55           |
| 185    | 791834.7    | 3262731.3    | 223.52           |
| 186    | 791798.6    | 3262536.6    | 223.44           |
| 187    | 791746.2    | 3262343.7    | 223.35           |
| 188    | 791699.7    | 3262149.4    | 223.34           |
| 189    | 791673.9    | 3261951.1    | 223.34           |
| 190    | 791661.8    | 3261753.0    | 223.32           |
| 191    | 791697.1    | 3261556.2    | 223.17           |
| 192    | 791679.1    | 3261358.4    | 223.17           |
| 193    | 791649.5    | 3261160.6    | 222.95           |
| 194    | 791619.2    | 3260963.0    | 222.91           |
| 195    | 791598.4    | 3260764.3    | 222.91           |
| 196    | 791582.2    | 3260566.0    | 222.82           |
| 197    | 791591.2    | 3260366.2    | 222.80           |
| 198    | 791636.1    | 3260173.0    | 222.79           |
| 199    | 791663.2    | 3259974.9    | 222.76           |
| 200    | 791778.1    | 3259829.6    | 222.69           |
| 201    | 791940.5    | 3259712.9    | 222.66           |

## 100 Year HFL Points

| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 202    | 792106.8    | 3259601.7    | 222.65           |
| 203    | 792281.9    | 3259509.1    | 222.59           |
| 204    | 792472.4    | 3259448.2    | 222.55           |
| 205    | 792662.9    | 3259387.3    | 222.54           |
| 206    | 792861.5    | 3259365.8    | 222.48           |
| 207    | 793060.6    | 3259346.6    | 222.47           |
| 208    | 793259.7    | 3259327.4    | 222.44           |
| 209    | 793436.4    | 3259239.6    | 222.10           |
| 210    | 793606.3    | 3259136.9    | 222.08           |
| 211    | 793740.8    | 3258988.9    | 222.06           |
| 212    | 793811.7    | 3258870.1    | 222.02           |



| S. No. | Left Bank   |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
|        |             |              |                  |

## 100 Year HFL Points

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 1      | 784152      | 3290846      | 237.98           |
| 2      | 784148      | 3290647      | 237.90           |
| 3      | 784108      | 3290451      | 237.71           |
| 4      | 784092      | 3290252      | 237.63           |
| 5      | 784128      | 3290058      | 237.63           |
| 6      | 784235      | 3289890      | 237.36           |
| 7      | 784367      | 3289740      | 237.33           |
| 8      | 784516      | 3289607      | 237.27           |
| 9      | 784667      | 3289477      | 237.22           |
| 10     | 784785      | 3289317      | 237.21           |
| 11     | 784895      | 3289149      | 237.16           |
| 12     | 784996      | 3288977      | 237.14           |
| 13     | 784988      | 3288783      | 237.06           |
| 14     | 784985      | 3288584      | 237.01           |
| 15     | 785057      | 3288413      | 236.97           |
| 16     | 784999      | 3288240      | 236.97           |
| 17     | 784961      | 3288049      | 236.96           |
| 18     | 784986      | 3287851      | 236.52           |
| 19     | 785040      | 3287660      | 236.38           |
| 20     | 785147      | 3287494      | 236.23           |
| 21     | 785261      | 3287346      | 236.16           |
| 22     | 785292      | 3287149      | 235.99           |
| 23     | 785383      | 3286972      | 235.87           |
| 24     | 785485      | 3286799      | 235.81           |
| 25     | 785584      | 3286626      | 235.77           |
| 26     | 785701      | 3286464      | 235.76           |
| 27     | 785822      | 3286305      | 235.74           |
| 28     | 785964      | 3286164      | 235.43           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 29     | 786106      | 3286023      | 235.31           |
| 30     | 786274      | 3285916      | 235.31           |
| 31     | 786447      | 3285816      | 235.28           |
| 32     | 786621      | 3285717      | 235.16           |
| 33     | 786795      | 3285618      | 235.08           |
| 34     | 786957      | 3285503      | 235.02           |
| 35     | 787105      | 3285609      | 234.97           |
| 36     | 787279      | 3285597      | 234.84           |
| 37     | 787395      | 3285437      | 234.83           |
| 38     | 787537      | 3285297      | 234.83           |
| 39     | 787681      | 3285158      | 234.77           |
| 40     | 787805      | 3285004      | 234.57           |
| 41     | 787844      | 3284813      | 234.23           |
| 42     | 787705      | 3284676      | 234.10           |
| 43     | 787515      | 3284624      | 234.07           |
| 44     | 787315      | 3284613      | 234.00           |
| 45     | 787120      | 3284574      | 233.94           |
| 46     | 786973      | 3284444      | 233.87           |
| 47     | 786855      | 3284283      | 233.86           |
| 48     | 786725      | 3284131      | 233.77           |
| 49     | 786590      | 3283983      | 233.61           |
| 50     | 786455      | 3283836      | 233.50           |
| 51     | 786325      | 3283684      | 233.50           |
| 52     | 786201      | 3283527      | 233.38           |
| 53     | 786075      | 3283373      | 233.24           |
| 54     | 785921      | 3283245      | 233.24           |
| 55     | 785785      | 3283100      | 232.88           |
| 56     | 785685      | 3282928      | 232.86           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 57     | 785534      | 3282803      | 232.81           |
| 58     | 785433      | 3282630      | 232.61           |
| 59     | 785344      | 3282451      | 232.50           |
| 60     | 785266      | 3282268      | 231.87           |
| 61     | 785142      | 3282113      | 231.80           |
| 62     | 784979      | 3281998      | 231.75           |
| 63     | 784824      | 3281873      | 231.42           |
| 64     | 784670      | 3281749      | 231.41           |
| 65     | 784580      | 3281587      | 231.38           |
| 66     | 784641      | 3281397      | 231.37           |
| 67     | 784701      | 3281206      | 231.16           |
| 68     | 784763      | 3281016      | 231.14           |
| 69     | 784733      | 3280850      | 231.14           |
| 70     | 784805      | 3280669      | 230.78           |
| 71     | 784873      | 3280483      | 230.74           |
| 72     | 785007      | 3280335      | 230.72           |
| 73     | 785152      | 3280198      | 230.69           |
| 74     | 785245      | 3280034      | 230.66           |
| 75     | 785162      | 3279856      | 230.62           |
| 76     | 785052      | 3279689      | 230.44           |
| 77     | 785012      | 3279503      | 230.27           |
| 78     | 785009      | 3279303      | 229.99           |
| 79     | 785004      | 3279103      | 229.98           |
| 80     | 785001      | 3278903      | 229.65           |
| 81     | 785077      | 3278731      | 229.34           |
| 82     | 785222      | 3278593      | 229.19           |
| 83     | 785352      | 3278443      | 229.05           |
| 84     | 785478      | 3278288      | 228.99           |

## 100 Year HFL Points

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 85     | 785610      | 3278137      | 228.94           |
| 86     | 785712      | 3277968      | 228.52           |
| 87     | 785851      | 3277824      | 228.36           |
| 88     | 785979      | 3277679      | 227.80           |
| 89     | 785946      | 3277487      | 227.79           |
| 90     | 785821      | 3277332      | 227.28           |
| 91     | 785681      | 3277190      | 227.00           |
| 92     | 785640      | 3277005      | 226.94           |
| 93     | 785756      | 3276848      | 226.74           |
| 94     | 785845      | 3276669      | 226.61           |
| 95     | 785918      | 3276483      | 226.43           |
| 96     | 786071      | 3276378      | 226.40           |
| 97     | 786103      | 3276213      | 226.36           |
| 98     | 786111      | 3276017      | 226.32           |
| 99     | 786147      | 3275820      | 226.30           |
| 100    | 786177      | 3275622      | 226.19           |
| 101    | 786240      | 3275434      | 226.17           |
| 102    | 786329      | 3275269      | 226.13           |
| 103    | 786381      | 3275076      | 226.13           |
| 104    | 786423      | 3274880      | 226.12           |
| 105    | 786408      | 3274682      | 226.02           |
| 106    | 786379      | 3274484      | 226.01           |
| 107    | 786449      | 3274313      | 226.01           |
| 108    | 786324      | 3274158      | 225.97           |
| 109    | 786194      | 3274007      | 225.96           |
| 110    | 786082      | 3273842      | 225.93           |
| 111    | 785997      | 3273664      | 225.93           |
| 112    | 785913      | 3273485      | 225.86           |
| 113    | 785857      | 3273295      | 225.83           |
| 114    | 785762      | 3273124      | 225.81           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 115    | 785702      | 3272936      | 225.76           |
| 116    | 785864      | 3272832      | 225.75           |
| 117    | 785994      | 3272687      | 225.72           |
| 118    | 786068      | 3272502      | 225.72           |
| 119    | 786115      | 3272308      | 225.71           |
| 120    | 786167      | 3272115      | 225.69           |
| 121    | 786231      | 3271926      | 225.69           |
| 122    | 786252      | 3271742      | 225.68           |
| 123    | 786229      | 3271548      | 225.67           |
| 124    | 786265      | 3271366      | 225.66           |
| 125    | 786353      | 3271186      | 225.65           |
| 126    | 786422      | 3270999      | 225.63           |
| 127    | 786481      | 3270808      | 225.63           |
| 128    | 786568      | 3270629      | 225.62           |
| 129    | 786714      | 3270495      | 225.62           |
| 130    | 786874      | 3270374      | 225.61           |
| 131    | 787049      | 3270299      | 225.59           |
| 132    | 787216      | 3270189      | 225.55           |
| 133    | 787337      | 3270036      | 225.55           |
| 134    | 787316      | 3269909      | 225.54           |
| 135    | 787431      | 3269746      | 225.51           |
| 136    | 787547      | 3269584      | 225.49           |
| 137    | 787643      | 3269415      | 225.48           |
| 138    | 787776      | 3269274      | 225.48           |
| 139    | 787921      | 3269138      | 225.47           |
| 140    | 788063      | 3268997      | 225.44           |
| 141    | 788201      | 3268853      | 225.33           |
| 142    | 788348      | 3268718      | 225.32           |
| 143    | 788490      | 3268578      | 225.28           |
| 144    | 788614      | 3268429      | 225.28           |

| S. No. | Right Bank  |              | Elevation<br>(m) |
|--------|-------------|--------------|------------------|
|        | Easting (X) | Northing (Y) |                  |
| 145    | 788690      | 3268247      | 225.24           |
| 146    | 788839      | 3268117      | 225.20           |
| 147    | 788972      | 3267974      | 225.20           |
| 148    | 789014      | 3267785      | 225.18           |
| 149    | 789091      | 3267602      | 225.14           |
| 150    | 789124      | 3267406      | 225.14           |
| 151    | 789065      | 3267217      | 225.08           |
| 152    | 789111      | 3267038      | 225.06           |
| 153    | 789244      | 3266892      | 225.05           |
| 154    | 789389      | 3266761      | 225.05           |
| 155    | 789461      | 3266611      | 225.03           |
| 156    | 789579      | 3266478      | 224.97           |
| 157    | 789697      | 3266344      | 224.93           |
| 158    | 789847      | 3266230      | 224.92           |
| 159    | 789932      | 3266049      | 224.87           |
| 160    | 790022      | 3265871      | 224.85           |
| 161    | 790113      | 3265692      | 224.82           |
| 162    | 790202      | 3265545      | 224.80           |
| 163    | 790347      | 3265494      | 224.58           |
| 164    | 790445      | 3265320      | 224.57           |
| 165    | 790551      | 3265150      | 224.53           |
| 166    | 790683      | 3265002      | 224.41           |
| 167    | 790840      | 3264879      | 224.39           |
| 168    | 790968      | 3264727      | 224.38           |
| 169    | 791059      | 3264549      | 224.36           |
| 170    | 791146      | 3264369      | 224.36           |
| 171    | 791210      | 3264180      | 224.22           |
| 172    | 791273      | 3263990      | 224.11           |
| 173    | 791311      | 3263794      | 224.06           |
| 174    | 791342      | 3263596      | 223.89           |

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 175    | 791361      | 3263397      | 223.87        |
| 176    | 791356      | 3263198      | 223.81        |
| 177    | 791341      | 3262999      | 223.76        |
| 178    | 791264      | 3262814      | 223.73        |
| 179    | 791183      | 3262632      | 223.68        |
| 180    | 791043      | 3262489      | 223.56        |
| 181    | 790904      | 3262346      | 223.55        |
| 182    | 790751      | 3262217      | 223.52        |
| 183    | 790594      | 3262093      | 223.44        |
| 184    | 790436      | 3261970      | 223.35        |
| 185    | 790325      | 3261812      | 223.34        |
| 186    | 790267      | 3261623      | 223.32        |
| 187    | 790265      | 3261423      | 223.17        |
| 188    | 790264      | 3261223      | 223.17        |
| 189    | 790266      | 3261023      | 222.95        |
| 190    | 790268      | 3260823      | 222.91        |
| 191    | 790270      | 3260623      | 222.91        |
| 192    | 790293      | 3260425      | 222.82        |
| 193    | 790324      | 3260227      | 222.80        |
| 194    | 790351      | 3260029      | 222.79        |
| 195    | 790373      | 3259830      | 222.76        |
| 196    | 790413      | 3259634      | 222.69        |
| 197    | 790455      | 3259439      | 222.65        |
| 198    | 790559      | 3259269      | 222.59        |
| 199    | 790669      | 3259102      | 222.55        |
| 200    | 790795      | 3258949      | 222.54        |
| 201    | 790943      | 3258815      | 222.48        |

100 Year HFL Points

| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 202    | 791092      | 3258681      | 222.47        |
| 203    | 791263      | 3258579      | 222.44        |
| 204    | 791438      | 3258481      | 222.10        |
| 205    | 791616      | 3258390      | 222.08        |
| 206    | 791802      | 3258317      | 222.06        |
| 207    | 791988      | 3258244      | 222.02        |
| 208    | 792174      | 3258170      | 221.99        |
| 209    | 792355      | 3258087      | 221.97        |
| 210    | 792536      | 3258000      | 221.89        |
| 211    | 792687      | 3257880      | 221.88        |
| 212    | 792798      | 3257714      | 221.87        |
| 213    | 792875      | 3257532      | 221.74        |
| 214    | 792928      | 3257339      | 221.71        |
| 215    | 792971      | 3257145      | 221.68        |
| 216    | 792976      | 3256945      | 221.66        |
| 217    | 792981      | 3256745      | 221.66        |
| 218    | 792986      | 3256545      | 221.65        |
| 219    | 793013      | 3256348      | 221.63        |
| 220    | 793056      | 3256153      | 221.62        |
| 221    | 793100      | 3255957      | 221.61        |
| 222    | 793151      | 3255765      | 221.22        |
| 223    | 793234      | 3255583      | 221.05        |
| 224    | 793317      | 3255401      | 220.89        |
| 225    | 793400      | 3255219      | 220.73        |
| 226    | 793514      | 3255057      | 220.57        |
| 227    | 793644      | 3254904      | 220.42        |
| 228    | 793773      | 3254752      | 220.26        |

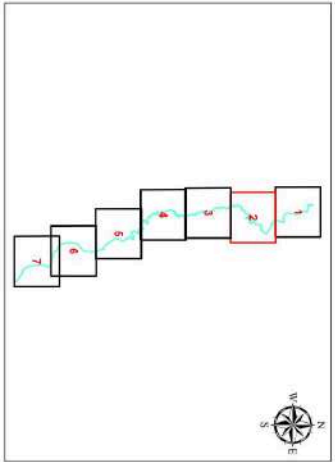
| S. No. | Right Bank  |              | Elevation (m) |
|--------|-------------|--------------|---------------|
|        | Easting (X) | Northing (Y) |               |
| 229    | 793919      | 3254616      | 220.10        |
| 230    | 793937      | 3254603      | 219.94        |

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CE, Ganga



**100 YEARS FLOOD PLAIN ZONES  
ALONG THE SOLANI RIVER  
FROM UTTARAKHAND STATE BORDER  
UP TO THE CONFLUENCE WITH GANGGA RIVER.**



**LEGEND**

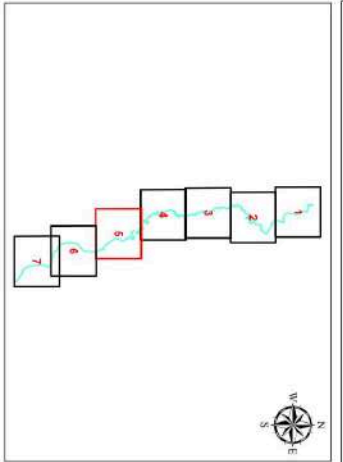
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Flood Lines - 200 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |
|---|---|
| <p><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br/><i>(Consultant for Water Resources)</i></p> <p><b>Consultant</b></p> |   |
| <p><i>R. Bhatia</i><br/>Rajabaxmi<br/><b>Project Engineer</b></p>   | <p><i>S. Anoop Rishi</i><br/>Nagaraju<br/><b>GIS Expert</b></p> |
| <p><i>Sanjay Singh Parihar</i><br/><b>Hydrology Expert</b></p>  | <p><i>Mansafit Mishra</i><br/>Manmoh Mohany<br/><b>HOD</b></p>  |
| <p> <b>Irrigation Department, Uttarakhand</b></p>   |   |
| <p><b>Assistant Engineer</b></p>  | <p><b>Executive Engineer</b></p>                                |
| <p><b>Superintending Engineer</b></p>   |   |










**100 YEARS FLOOD PLAIN ZONES  
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UP TO THE CONFLUENCE WITH GANGGA RIVER.**



**LEGEND**

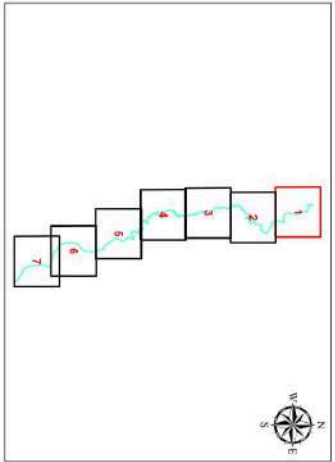
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |   |  |
|---|---|---|--|
| <br><b>Visiontek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for Water Resources)</small> |   | <b>Consultant</b>   |  |
| <br>Rajabansi<br><b>Project Engineer</b>   | <br>Naagaraju<br><b>GIS Expert</b> |   |  |
| <br>Sanjeev Singh Parihar<br><b>Hydrology Expert</b>   | <br>Manmohan Mohany<br><b>HOD</b>  |   |  |
| <br><b>Irrigation Department,<br/>Uttarakhand</b>  |   | <br><b>Uttarakhand</b> |  |
| <b>Assistant Engineer</b>   | <b>Executive Engineer</b>   |   |  |
| <b>Superintending Engineer</b>  |   |   |  |



**100 YEARS FLOOD PLAIN ZONES  
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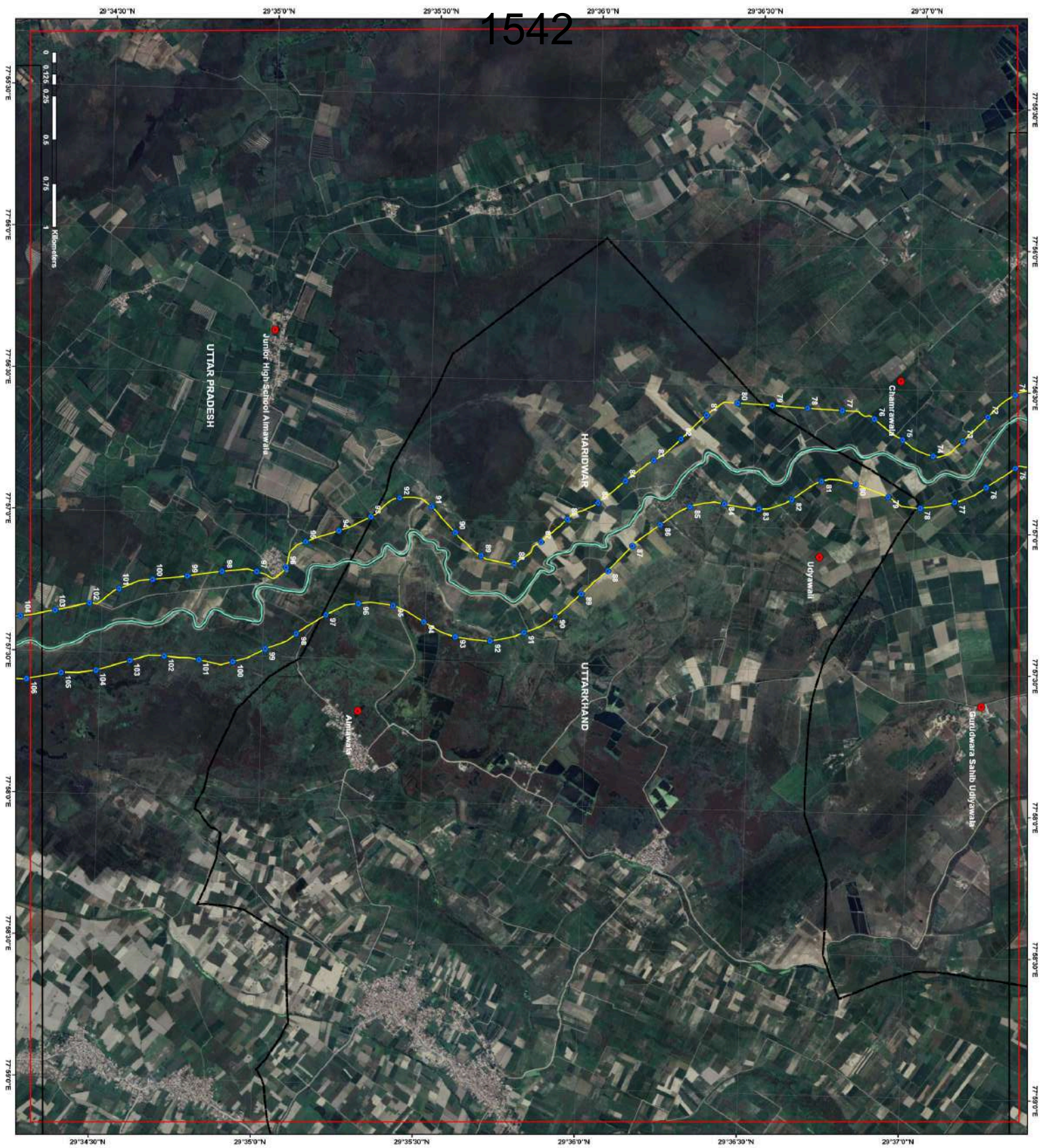


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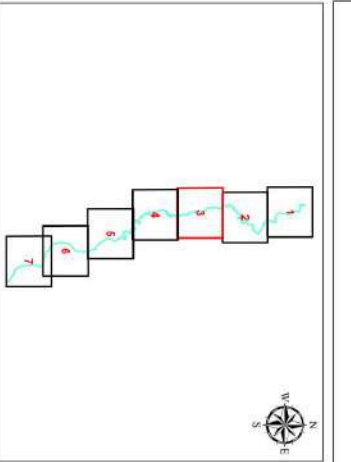
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Interval Points - 100 Meter
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|  |                                    |
|--|------------------------------------|
| <br><b>Vastek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for State Government)</small> |                                    |
| <br><b>Rajabani</b><br>Project Engineer  | <br><b>Naagaraju</b><br>GIS Expert |
| <br><b>Sanjeev Singh Parihar</b><br>Hydrology Expert   | <br><b>Manmohan Mohany</b><br>HOD  |
| <br><b>Irrigation Department,</b><br>Uttarakhand   |                                    |
| <b>Assistant Engineer</b>  | <b>Executive Engineer</b>          |
| <b>Superintending Engineer</b>   |                                    |



**100 YEARS FLOOD PLAIN ZONES  
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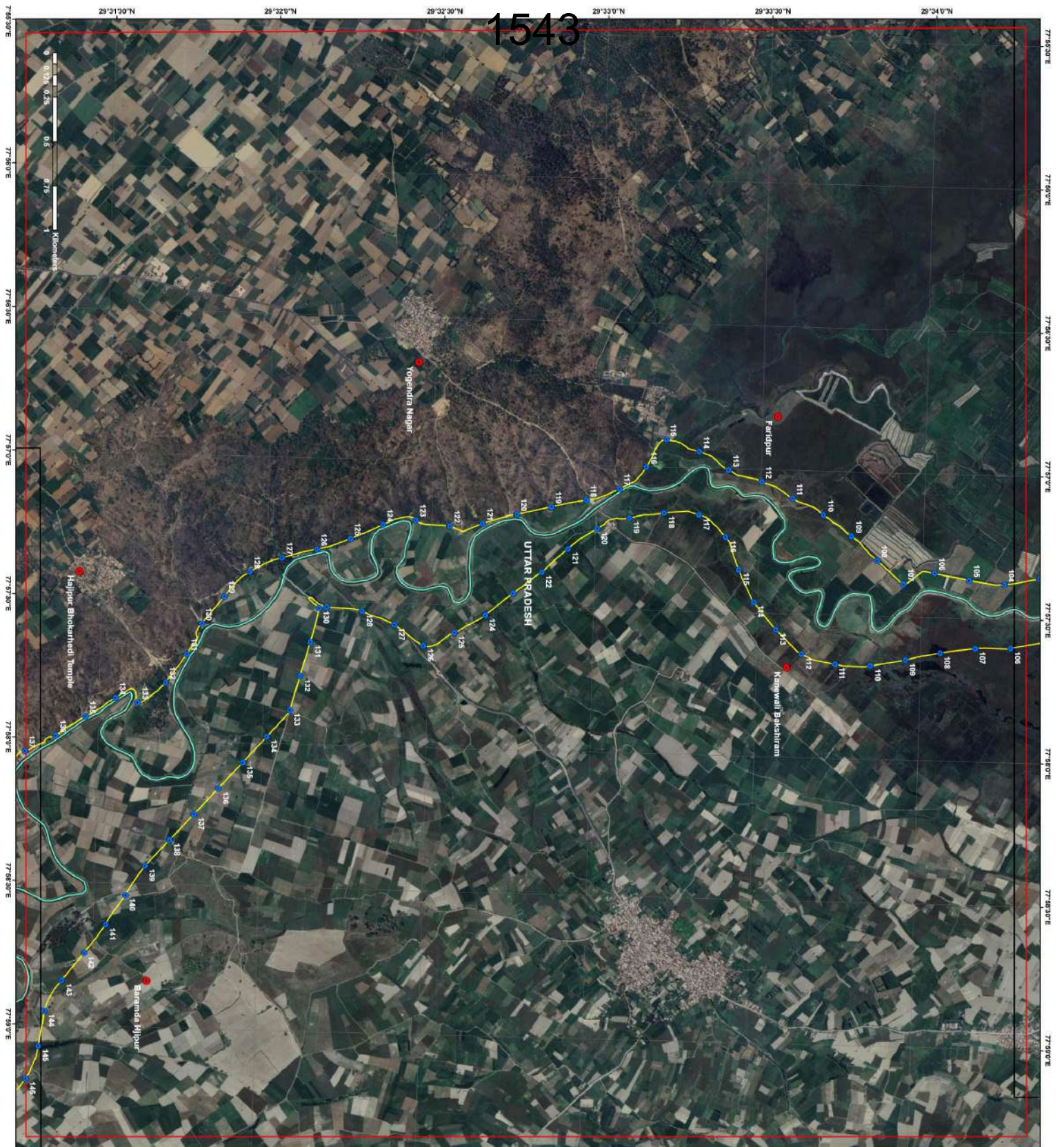


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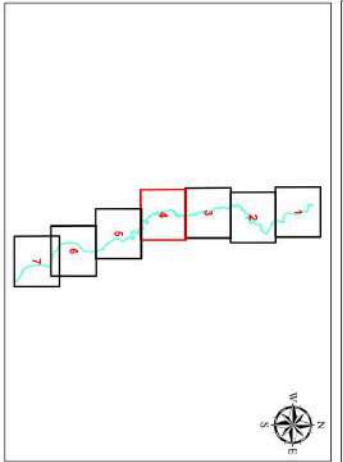
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Flood Lines - 200 Years
- Interval Points - 100 Meter
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |   |  |
|---|---|---|--|
| <br><b>Vastek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for State Government)</small> |   | <b>Consultant</b>   |  |
| <br>Rajabani<br><b>Project Engineer</b>  | <br>Naagaraju<br><b>GIS Expert</b> |   |  |
| <br>Sanjeev Singh Parhar<br><b>Hydrology Expert</b>  | <br>Manmoh Mohany<br><b>HOD</b>    |   |  |
| <br><b>Irrigation Department,<br/>Uttarakhand</b>  |   | <br><b>Uttarakhand</b> |  |
| <b>Assistant Engineer</b>   | <b>Executive Engineer</b>   |   |  |
| <b>Superintending Engineer</b>  |   |   |  |






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**LEGEND**

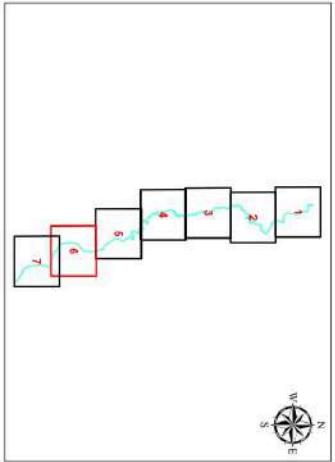
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |                   |  |
|---|---|-------------------|--|
| <br><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br><small>(Incorporated in India - International)</small>  |   | <b>Consultant</b> |  |
| <p><i>R. Bhatia</i><br/>Rajabaxmi<br/><b>Project Engineer</b></p> <p><i>Sanjay Singh Parihar</i><br/>Hydrology Expert</p> <p><br/><b>Irrigation Department,<br/>Uttarakhand</b></p> <p><b>Assistant Engineer</b></p> <p><b>Superintending Engineer</b></p> | <p><i>S. Anoop Rishi</i><br/>Nagaraju<br/><b>GIS Expert</b></p> <p><i>Mamata Mohanty</i><br/>HOD</p> <p><br/><b>Uttarakhand State</b></p> <p><b>Executive Engineer</b></p> |                   |  |









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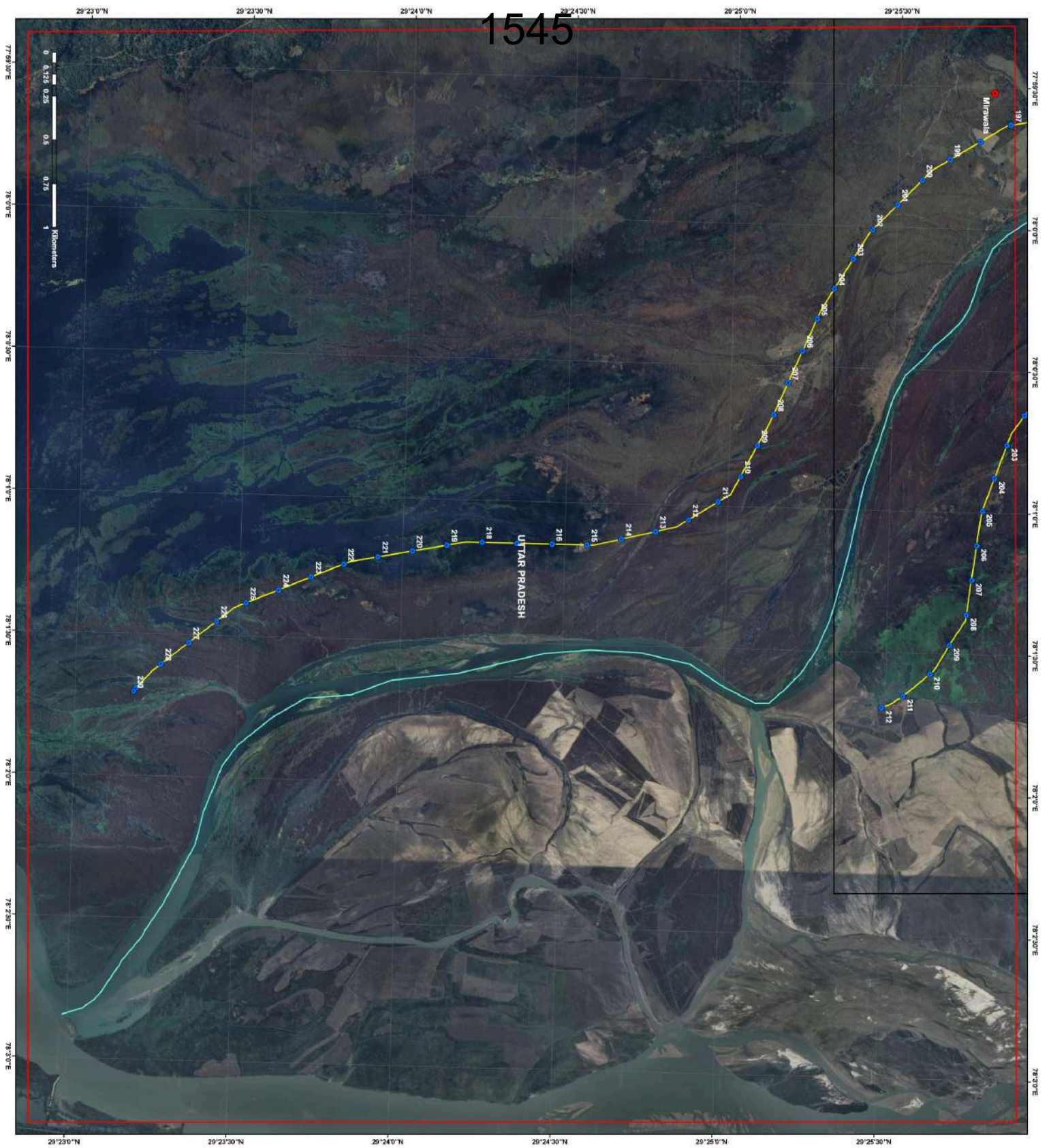


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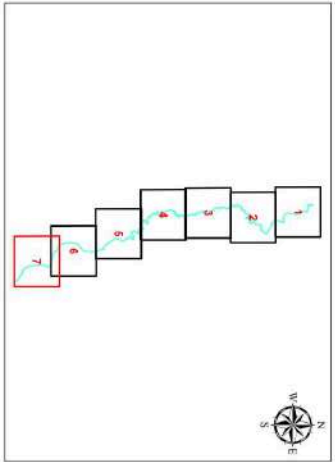
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |  |  |  |   |  |
|---|--|--|--|---|--|
| <br><b>Vastintek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for Water Resources)</small> |  | <br><b>Rajendra Kumar</b><br>Project Engineer |  | <br><b>Manoj Kumar</b><br>GIS Expert |  |
| <br><b>Irrigation Department,</b><br>Uttarakhand   |  | <br><b>Sanjeev Singh</b><br>Hydrology Expert  |  | <br><b>Manmohan Mohanty</b><br>HOD   |  |
| Assistant Engineer  |  | Executive Engineer   |  | Superintending Engineer   |  |






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**LEGEND**

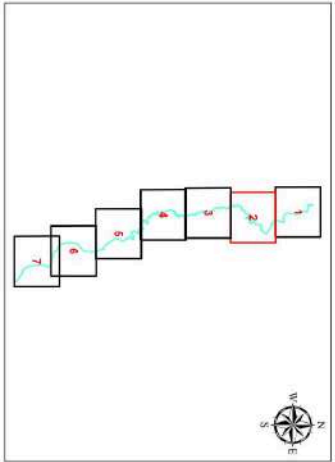
- Prominent Places
- Center Line
- Flood Lines - 100 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|  |   |   |  |
|--|---|---|--|
|  <p><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br/><i>(Consultant for Water Resources)</i></p> |   | <p><b>Consultant</b></p>  |  |
| <p><i>R. Bhatia</i><br/>Rajbanshi<br/><b>Project Engineer</b></p>  | <p><i>S. Anoop Singh</i><br/>Nagaraju<br/><b>GIS Expert</b></p> | <p></p> <p><b>Irrigation Department,<br/>Uttarakhand</b></p> | <p></p> |
| <p><i>Sanjeev Singh Parihar</i><br/><b>Hydrology Expert</b></p>  | <p><i>Mamatha Mohanty</i><br/><b>HOD</b></p>                    | <p><b>Assistant Engineer</b></p>  | <p><b>Executive Engineer</b></p>   |
| <p><b>Superintending Engineer</b></p>  |   |   |  |





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**LEGEND**

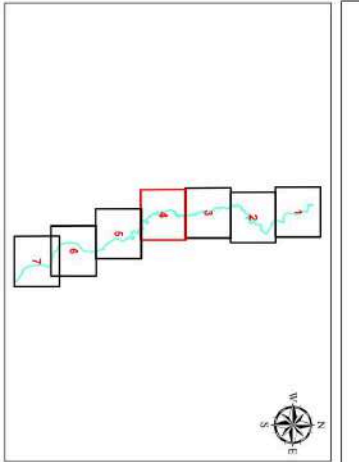
- Prominent Places
- Center Line
- Flood Lines - 25 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |                                  |                                  |
|---|---|----------------------------------|----------------------------------|
| <br><b>Visiontek Consultancy Services Pvt. Ltd.</b><br><small>(Consultants for Water Resources)</small>  |   | <b>Consultant</b>                |                                  |
| <p><i>R. Bhatia</i><br/>Rajbhatia<br/><b>Project Engineer</b></p> <p><i>Sanjay Singh Parihar</i><br/>Sanjay Singh Parihar<br/><b>Hydrology Expert</b></p> <p><br/> <b>Irrigation Department,</b><br/> <b>Uttarakhand</b></p> | <p><i>G. Nagaraju</i><br/>Nagaraju<br/><b>GIS Expert</b></p> <p><i>Mamraj Mohanty</i><br/>Mamraj Mohanty<br/><b>HOD</b></p> | <p><b>Assistant Engineer</b></p> | <p><b>Executive Engineer</b></p> |
| <p><b>Superintending Engineer</b></p>   |   |                                  |                                  |




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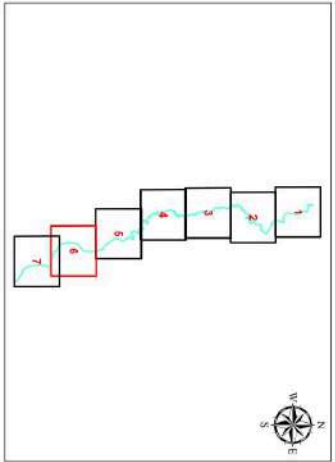
- Prominent Places
- Center Line
- Flood Lines - 25 Years
- Intervel Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|   |   |   |  |
|---|---|---|--|
| <br><b>Visiontek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for Public Administration)</small> |   | <b>Consultant</b>   |  |
| <br>Rajabxmi<br><b>Project Engineer</b>  | <br>Naagaraju<br><b>GIS Expert</b> |   |  |
| <br>Sanjeev Singh Parihar<br><b>Hydrology Expert</b>   | <br>Manmohan Mohany<br><b>HOD</b>  |   |  |
| <br><b>Irrigation Department,<br/>Uttarakhand</b>  |   | <br><b>Uttarakhand</b> |  |
| <b>Assistant Engineer</b>   | <b>Executive Engineer</b>   |   |  |
| <b>Superintending Engineer</b>  |   |   |  |




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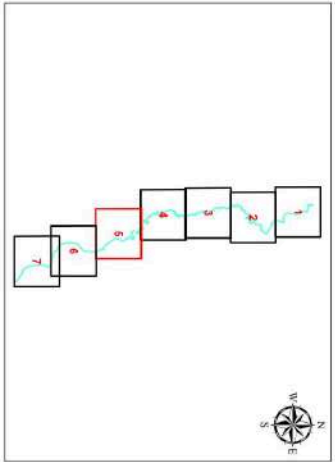
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- Center Line
- Flood Lines - 26 Years
- Interval Points - 200 Meter
- District Boundary
- State Boundary

Scale: 1:10,000

|  |  |   |  |   |  |
|--|--|---|--|---|--|
| <br><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for Uttar Pradesh Government)</small> |  | <br><b>Rajasthan</b><br>Project Engineer |  | <br><b>Nagariju</b><br>GIS Expert                |  |
| <br><b>Sanjeev Singh Parthar</b><br>Hydrology Expert  |  | <br><b>Manmohan Mohanty</b><br>HOD       |  | <br><b>Irrigation Department,</b><br>Uttarakhand |  |
| Assistant Engineer   |  | Executive Engineer  |  | Superintending Engineer   |  |







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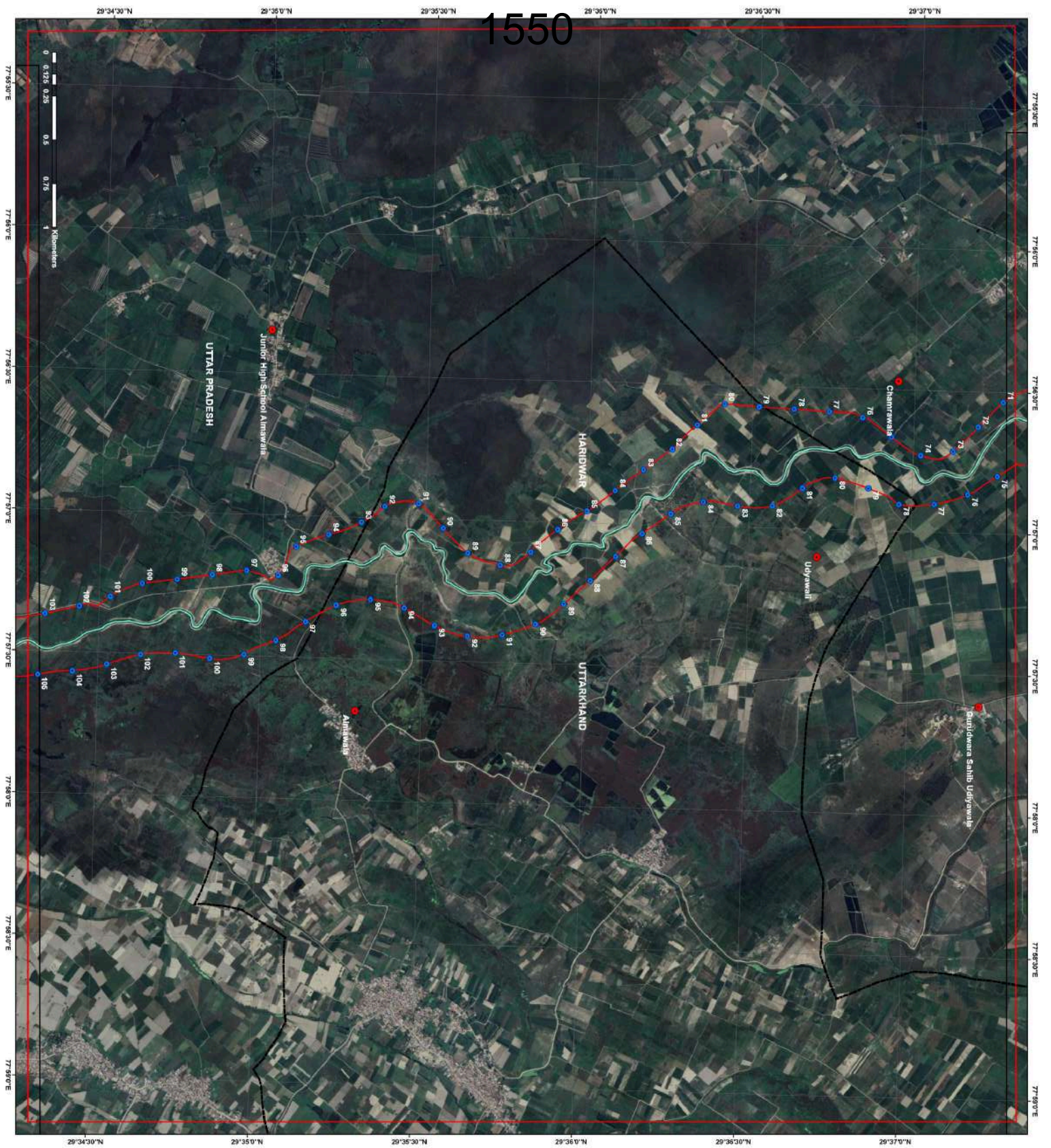


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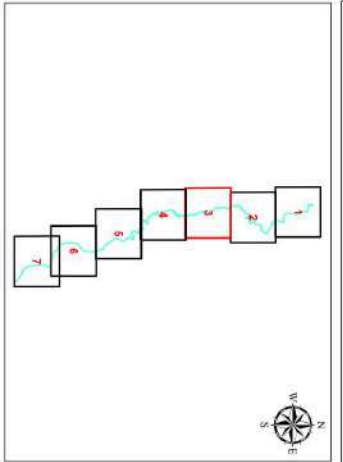
- Prominent Places
- Center Line
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Scale: 1:10,000

|   |   |  |   |
|---|---|--|---|
| <br><b>Visiontek Consultancy Services Pvt. Ltd.</b><br><small>(Consultant for Water Resources)</small>   |   | <b>Consultant</b>  |   |
| <p><i>R. Babita</i><br/>Rajabani<br/><b>Project Engineer</b></p> <p><i>Sanjay Singh Parihar</i><br/>Hydrology Expert</p> <p><br/><b>Irrigation Department,<br/>Uttarakhand</b></p> <p>Assistant Engineer</p> | <p><i>Dr. Anoop Singh</i><br/>Nagaraju<br/><b>GIS Expert</b></p> <p><i>Mamath Mohanty</i><br/>HOD</p> <p>Executive Engineer</p> | <p><br/><b>Uttar Pradesh</b></p> <p>Superintending Engineer</p> | <p><br/><b>National Institute of Hydrology</b></p> |






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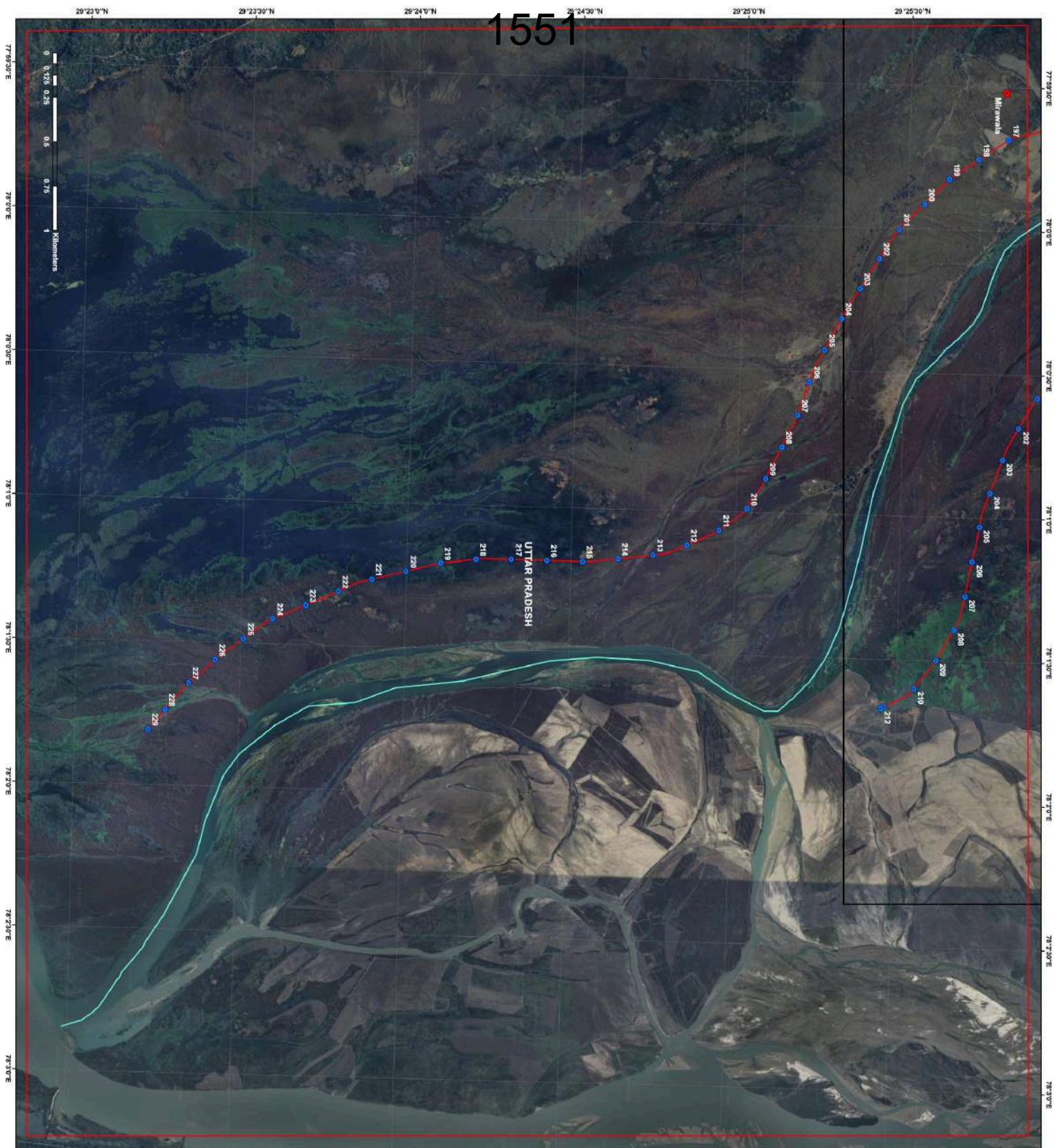


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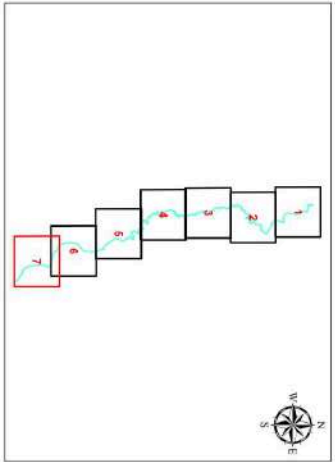
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Scale: 1:10,000

|   |  |                                    |  |
|---|--|------------------------------------|--|
| <br><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br><small>(Recognized for Better Performance)</small>  |  | <b>Consultant</b>                  |  |
| <p><i>R. Babera</i><br/>Rajabaxmi<br/><b>Project Engineer</b></p> <p><i>Sanjay Singh Parihar</i><br/>Sanjay Singh Parihar<br/><b>Hydrology Expert</b></p> <p><br/> <b>Irrigation Department,</b><br/>                 Uttarakhand</p> <p><b>Assistant Engineer</b></p> | <p><i>श. मंगलेश्वर</i><br/>Nagaraju<br/><b>GIS Expert</b></p> <p><i>Mamata Mohanty</i><br/>Mamata Mohanty<br/><b>HOD</b></p> <p><br/>                 Uttarakhand State Emblem</p> <p><b>Executive Engineer</b></p> | <p><b>Supervising Engineer</b></p> |  |










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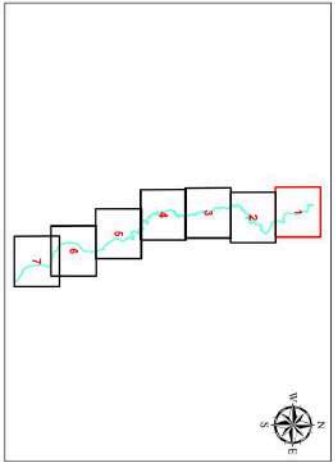
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Scale: 1:10,000

|  |  |  |  |
|--|--|--|--|
| <br><b>Vistomtek Consultancy Services Pvt. Ltd.</b><br><small>(Incorporated in India - International)</small> |  | <b>Consultant</b>  |  |
| <br><b>R. Bhatia</b><br>Rajbanshi<br>Project Engineer   | <br><b>S. Manoj Kumar</b><br>Nagaraju<br>GIS Expert |  |  |
| <br><b>Sanjeev Singh Parthar</b><br>Hydrology Expert  | <br><b>Manmath Mohanty</b><br>HOD                   |  |  |
| <br><b>Irrigation Department,</b><br>Uttarakhand  |  | <br><b>Executive Engineer</b> |  |
| <b>Assistant Engineer</b>  |  | <b>Superintending Engineer</b>   |  |










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**LEGEND**

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|   |   |   |  |
|---|---|---|--|
| <br><b>Vastek Consultancy Services Pvt. Ltd.</b><br><small>(Consultancy for Water Resources)</small> |   | <b>Consultant</b>   |  |
| <br>Rajabani<br><b>Project Engineer</b>  | <br>Naagaraju<br><b>GIS Expert</b> |   |  |
| <br>Sanjeev Singh Parihar<br><b>Hydrology Expert</b>   | <br>Manmohan Mohanty<br><b>HOD</b> |   |  |
| <br><b>Irrigation Department,<br/>Uttarakhand</b>  |   | <br><b>Uttarakhand</b> |  |
| <b>Assistant Engineer</b>   | <b>Executive Engineer</b>   |   |  |
| <b>Superintending Engineer</b>  |   |   |  |