

Construction of Regulator I vent at 9 No sora km 2.847 over 9 no sora khal in
polder no-15 under "Rehabilitation of polder 15 at satkhira district" project under
satkhira OEM Division-I, BWDB, Satkhira during the year 2021-22.

Design Data
for



BANGLADESH WATER DEVELOPMENT BOARD

NAME OF DIVISION	SATKHIRA OEM DIVISION-I, BWDB, SATKHIRA.
NAME OF CIRCLE	KHULNA O & M CIRCLE, BWDB, KHULNA.
NAME OF ZONE	SOUTH-WESTERN ZONE, BWDB, KHULNA.

الله يحيى العرش بسلامٍ وبرحمٍ وبرحمةٍ
(الله يحيى العرش بسلامٍ وبرحمٍ وبرحمةٍ)
25/11/2012

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ପ୍ରକାଶକ ମନ୍ତ୍ର

SCOURING UNDERMILKING TREATMENT IN CATTLE
TO REDUCE THE INCIDENCE OF UDDER DISEASES
IN DAIRY CATTLE

ବିଜ୍ଞାନ ପରିଚୟ

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Annexure - A

While submitting proposal for the design of Sluice, Regulator or Water Control Structure, this Data Checklist shall be filled up and sent to the design office along with other requisites mentioned herein.

A Name of the Project : "Rehabilitation of Polder 15 at Satkhra district" project under Satkhra OEM Division-I, BWD, Satkhra.

B Name of the Structure : Construction of Regular I vent at 9 No sora km 2.847 over 9 no OEM Division-I, BWD, Satkhra.

C Project Area Gross : 5500 Ha Net : 3441 Ha

D Catchments Area above the Structure : 400 Ha

Identify the purpose(s) that has to be served by the structure and put tick mark accordingly :

1. PURPOSE OF THE STRUCTURE

1.1 Pre-monsoon Drainage	✓
1.2 Monsoon Drainage	✓
1.3 Post monsoon Drainage	✓
1.4 Prevention of pre-monsoon flood	✓
1.5 Prevention of flood	✓
1.6 Flushing of irrigation water	✓
1.7 Retention of post monsoon water for irrigation	✓

2. MAPS
- 2.1 Project Index Map : Attached
- 2.2 Basin Map : Attached
- 2.3 Site Plan : Attached
3. HYDROLOGICAL DATA
- 3.1 Rainfall Data :
- 3.1.1 Is there any rainfall station within the catchments area? If so, specify the name(s) and length of records available :

Station No.	Name of Station	Length of records available	Remarks

Yes No

length of records available :

3.1.1 Is there any rainfall station within the catchments area? If so, specify the name(s) and length of records available :

Station No.	Name of Station	Length of records available	Remarks

DATA CHECKLIST FOR THE DESIGN OF DRAINAGE SLUICE/ REGULATOR/WATER RETENTION STRUCTURE

Station No.	Name of Station	Length of records available	Distance (u/s or d/s) from structure	Remarks
CL- 506	Kaikhali	1989-2017		

3.1.2 Specify the name and length of records of the rainfall station close to the catchments of the proposed structure :

3.2 Water Level Data :

3.2.1 Is there any water level station on the outfall river at or near the structure site? If so, mention the name of the station(s) : No

3.2.2 Specify the name of at least one station U/S and one station D/S of the structure site with distance :

U/S Station	Pratobnagar	U/S distance	18.000 km
D/S Station	Kobadak Forest Office	D/S distance	18.000 km
D/S distance	4.830 Km	D/S distance	4.830 Km (D/S)

3.2.3 Is there any water level station on the drainage channel corresponding the proposed structure? If so, specify the name :

U/S Station	Pratobnagar	U/S distance	18.000 km
D/S Station	Kobadak Forest Office	D/S distance	18.000 km
D/S distance	4.830 Km	D/S distance	4.830 Km (D/S)

3.2.4 Mention the highest flood level (H.F.L) ever experienced in the basin indicating the source of the record
 Yes No ✓ From average public information.
 $H.F.L \text{ (ever experienced)} = 3.95 \text{ m(PWD)}$ from gauge level at 4.16m(PWD) May 2021 station/

3.3.1 Is there any record of discharge in the drainage channel? If so, enclose the data as available:

3.3.2 Discharge Data :

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4.1 (a) Are the banks of the out fall river and drainage channel at or near the structure site stable?		<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes
4.1 (b) If not, show the movement of the bank in each year in a map.		<input type="checkbox"/>	<input checked="" type="checkbox"/> No
4.2 Cross-section of the drainage channel for at least 1.000 Km u/s and 0.000 Km d/s of the structure site at an interval of 250 m.		Enclosed No. of Map.	
4.3 Long section of the drainage channel for at least 0 Km u/s from the structure site and up to the out fall river in the d/s		Enclosed 4 (Four) No(s) of cross section.	
4.4 Cross-section of the out fall river from length of 300m u/s and 300m d/s from the confluence point of drainage channel and the out fall river.		Enclosed 0 (Zero) No(s) of long section.	
5.1 Data related with Embankment / Road connecting the structure		5.1.1 Existing or proposed road / embankment profile for at least 150m on each side of the	
5. MISCELLANEOUS DATA		5.1.2 Existing or proposed top elevation, top width and side slopes of embankment / road at the	
		5.1.3 Type of expected traffic loading on road/embankment.	
		i) Top Elevation : 5.00 m ii) Top Width : 5.00 m iii) C/S Slope : 1 : 2.5 iv) R/S Slope : 1 : 3 structure site :	
New Embankment Design Data Submitted			

H 20 Tones Loading

5.2.1 Are the existing section and bed slope of the drainage channel adequate for complete or desired level of drainage?

Yes No

5.2.2 If not, does the scheme include excavation of the drainage channel? If so, the design cross section and long section may be furnished as required indicated in Para 4.2 and 4.3

5.2.3 (a) Is the complete drainage of the basin necessary?
Enclosed cross sections in 2 Sheet(s) & one long-section of the proposed drainage channel has to be prepared.

Yes No

5.2.4 If not, mention the drainage level required & distance of such level from the proposed structure site.

5.2.4 From the field condition propose the invert level of the structure which can allow desired

(a) Proposed invert level (-) 1.50 m(PWD)
level of drainage from field condition.
From the field condition propose the invert level of the structure which can allow desired
(b) Invert level nearby existing structure(s) (-) 1.60 m(PWD)

5.2.5 From the field condition, what is the maximum level of acceptable flooding on the basin during the drainage period?
Acceptable flooding level 1.60 m(PWD).

5.2.6 Desired Post Monsoon Drainage Level :
Date: October 31 Level 1.50 m(PWD)
Date: December 31 Level 1.30 m(PWD)
Date: March 31 Level 1.40 m(PWD)

Cultivable Area 3441 Ha.
Irrigable Area 3441 Ha.

5.3.1 Specify the total cultivable and irrigable area within the project.

5.3 Data Related with Irrigation Aspects :

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٢٥١٢١
٢٥١٢١

٢٥١٢١
٢٥١٢١
٢٥١٢١

٢٥١٢١
٢٥١٢١
٢٥١٢١

Period from December to 31st March.

5.3.4 For Irrigation by flushing of water, specify the period of such irrigation.

Retention Level : (-) 0.80 m(PWD)

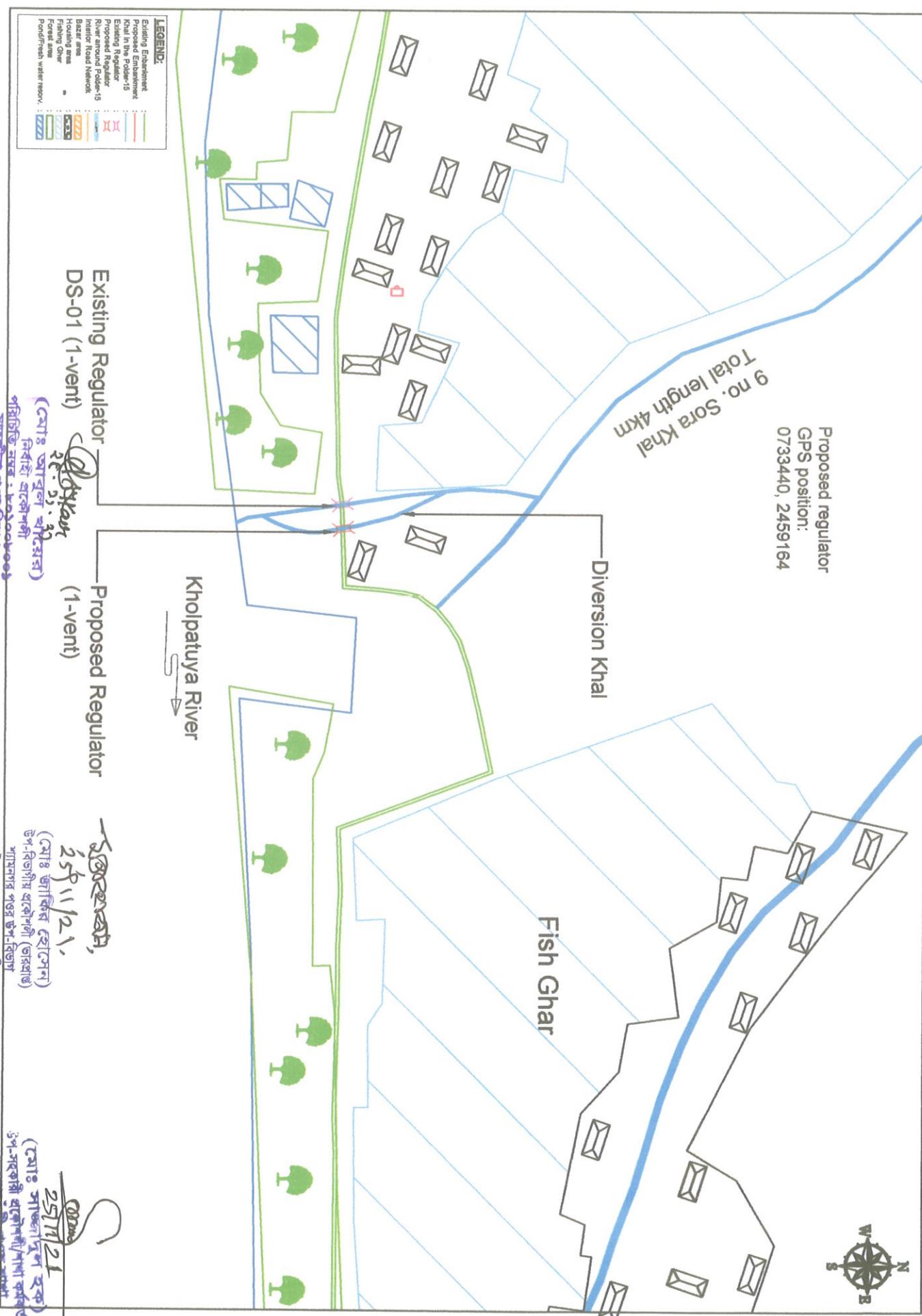
irrigation.

5.3.3 Proposed retention level of water in the u/s of the drainage channel of the structure for

Enclosed in Shrimp farming, Fisheries & Paddy cultivation number of sheet(s)

5.3.2 Principal crops with acreage in the basin with present and future cropping pattern.

**Site Plan for construction of regulator 1vent at 9 No sora km 2.847 over 9 no sora khal in polder no-15 under
“Rehabilitation of polder 15 at satkhira district” project under satkhira O&M Division-1, BWDB, Satkhira during the
year 2021-22.**



পরিচিত নথি
 সাতকীলা পল্লু নিয়ন্ত্রণ
 বাণিজ্য, নাড়ুবিহু।

উপ-বিভাগীয় এলাকার
 শ্যামগঞ্জ পত্রক উপ-বিভাগ
 নথিপত্র পত্রক উপ-বিভাগ

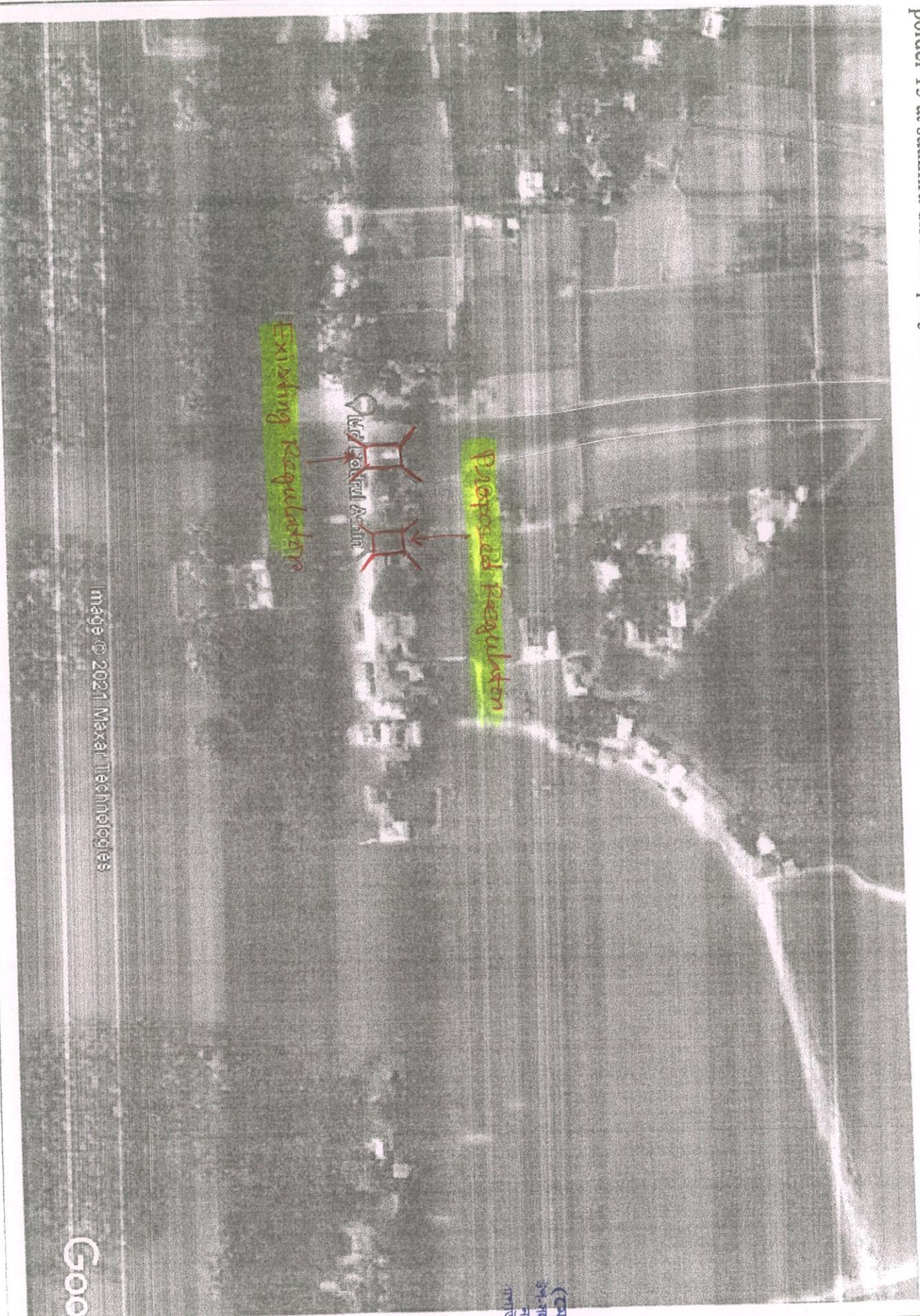
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 ২৫.১.২১
 (মোট সামুদ্রিক ঘৰ
 উপ-বিভাগীয় এলাকার
 নথিপত্র পত্রক উপ-বিভাগ
 নথিপত্র পত্রক উপ-বিভাগ

Spot Level for Construction of Regulator 1 vent at 9 No sora km 2.847 over 9 no sora khal in polder no-15 under "Rehabilitation of polder 15 at satkhira district" project under satkhira O&M Division-1, BWDB, Satkhira during the year 2021-22.

Existing G.L(mpWD)	1.31	1.41	0.78	0.38	0.05	-0.51	-2.27	-2.34	-2.21	-1.98	-1.57
100											
90	1.57	1.59	1.43	0.77	0.38	-0.33	-1.83	-2.28	-2.12	-1.88	-1.92
80	1.56	1.86	0.64	0.11	0.53	0.57	0.18	-0.32	-1.21	-3.56	-3.74
70	1.71	1.88	1.05	0.75	0.72	0.68	0.77	1.36	1.42	1.35	1.29
60	1.83	1.82	1.41	1.09	1.32	0.91	1.60	1.51	1.42	1.35	1.48
50	3.39	3.47	3.38	3.34	3.36	3.24	3.19	3.19	3.24	3.26	3.31
40	2.05	2.04	1.96	1.92	2.04	2.04	1.79	1.80	1.82	1.65	1.34
30	2.03	2.02	1.94	1.67	1.67	1.75	1.58	1.55	1.27	1.31	1.18
20	-0.45	-0.44	-0.67	-0.65	1.57	0.97	0.90	0.33	-0.01	-0.42	-0.31
10	1.70	1.71	1.62	1.61	1.60	1.84	1.94	0.62	0.39	0.08	0.04
0	1.70	1.72	1.69	1.63	1.59	1.61	1.71	1.05	0.81	0.78	0.75
	0	10	20	30	40	50	60	70	80	90	100


 ২৫/১/২১
 (মোঃ জাকির হোসেন)
 (উপ-বিভাগীয় প্রক্ষেপণ ও পরিষেবা বিভাগ প্রধান পদের সাথে)
 মালতেবা, শামগাঁও, সাতক্ষীরা।

Google Map for Construction of Regulator I vent at 9 No sora km 2.847 over 9 no sora khal in polder no-15 under "Rehabilitation of polder 15 at satkhira district" project under satkhira O&M Division-1, BWDB, Satkhira during the year 2021-22.

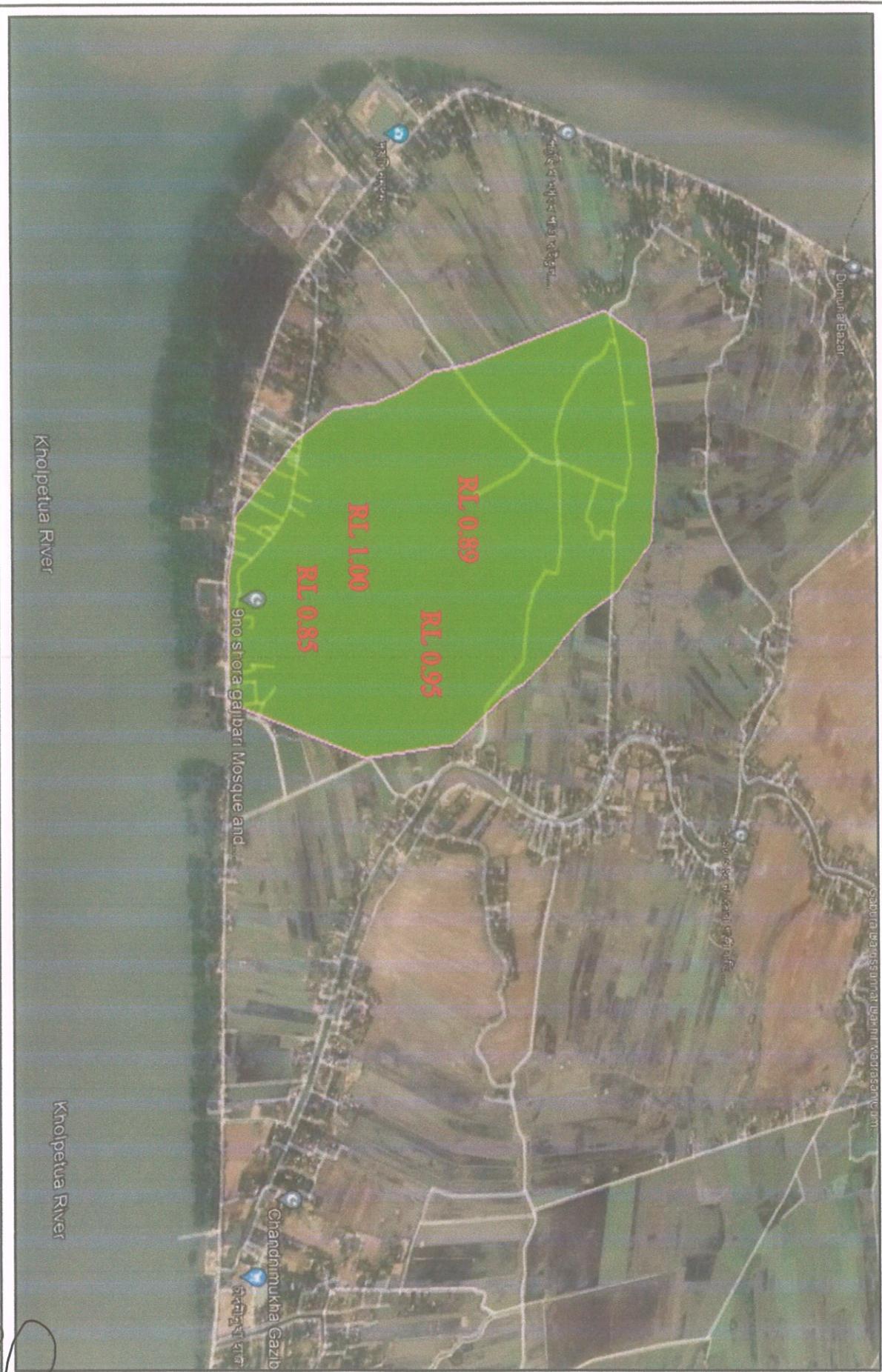


(যোগ সাম্প্রস্তুল ইক)
প্রস্তরতী ধ্বনেশ্বরী/শশী কুমাৰ
নটোৱাৰী পঞ্চ শালা
গাজীগাঁও, শায়গাম, নাতকীগা

25/11/21

Goo

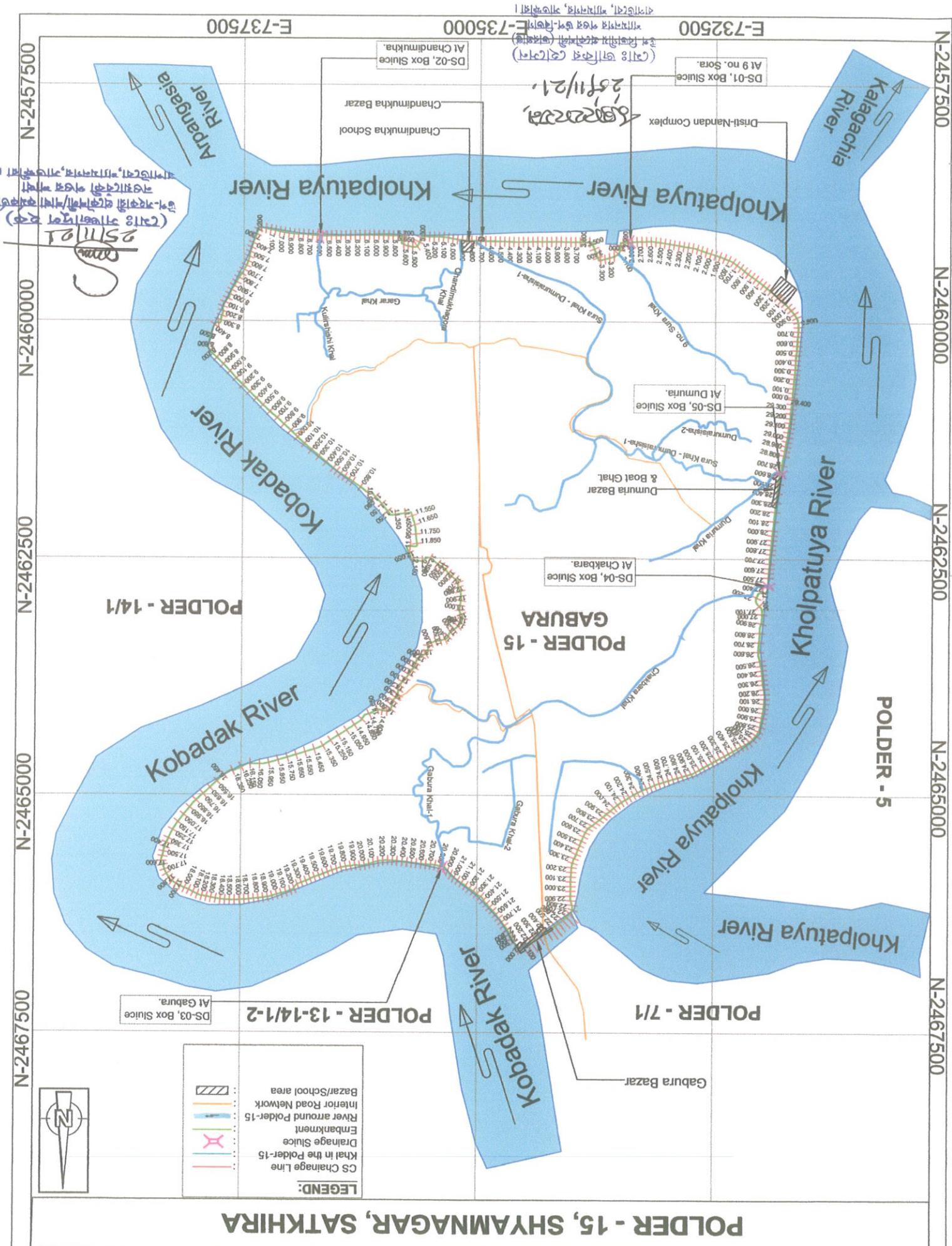
Basin Map for Construction of Register 1 event at 9 No sona km 2.847 over 9 no sona Ital in polder no-15 under "Rehabilitation of polder 15 at suttina district" project under suttina O&M Division-1, BWDB, Suttina during the year 2021-22.



কোর্টের পথ
২৫/১/২১
(মোট জাতীয় হোস্টেল)

উপ-সরকারী মালিকীয়া বৃক্ষকর্তা
নচুমাটবাড়ী পত্তন-বিহার
শামগলু, পত্তন-বিহার
শামগলু, পত্তন-বিহার, সাতকীরা।

(মোট সাথ্যাদুল রক্ষ)
উপ-সরকারী মালিকীয়া বৃক্ষকর্তা
নচুমাটবাড়ী পত্তন-বিহার
শামগলু, পত্তন-বিহার, সাতকীরা।

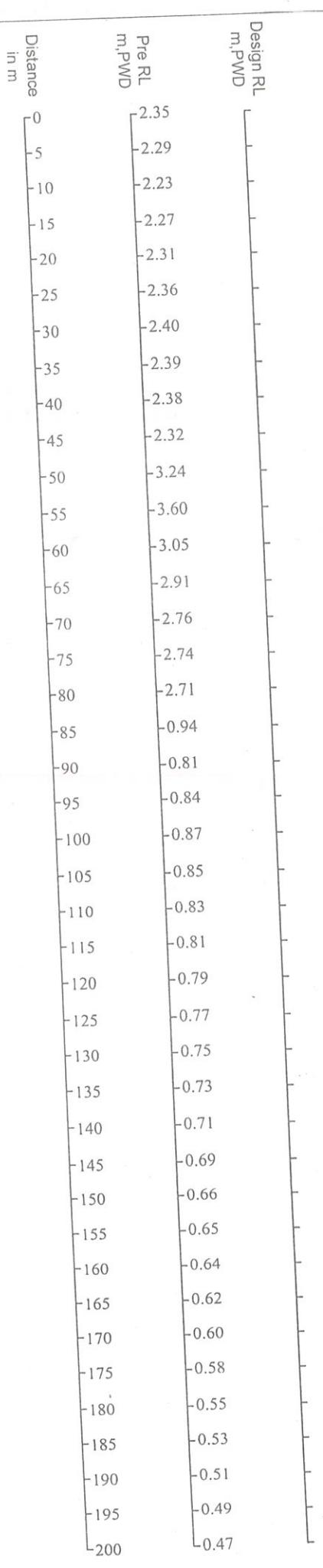
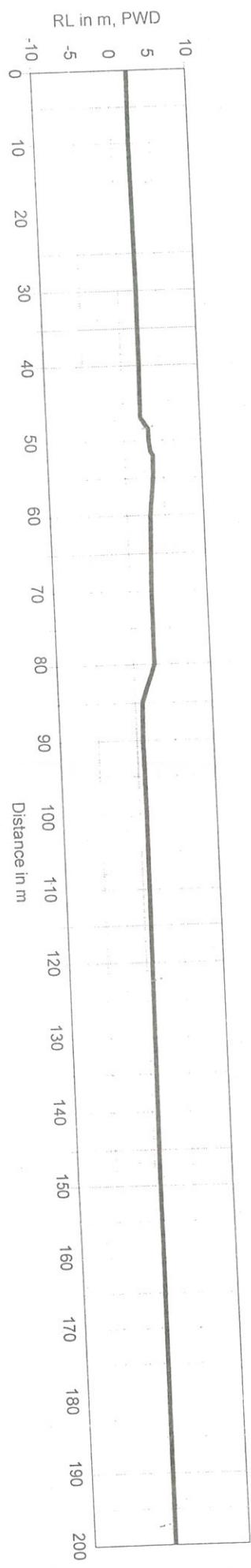


Outfall river cross section kholpatuya(300m U/S)

CS start at: E= 733048.43,N= 2459221.58

CS end at: E= 733022.69,N= 2459023.24

Km. 2.547

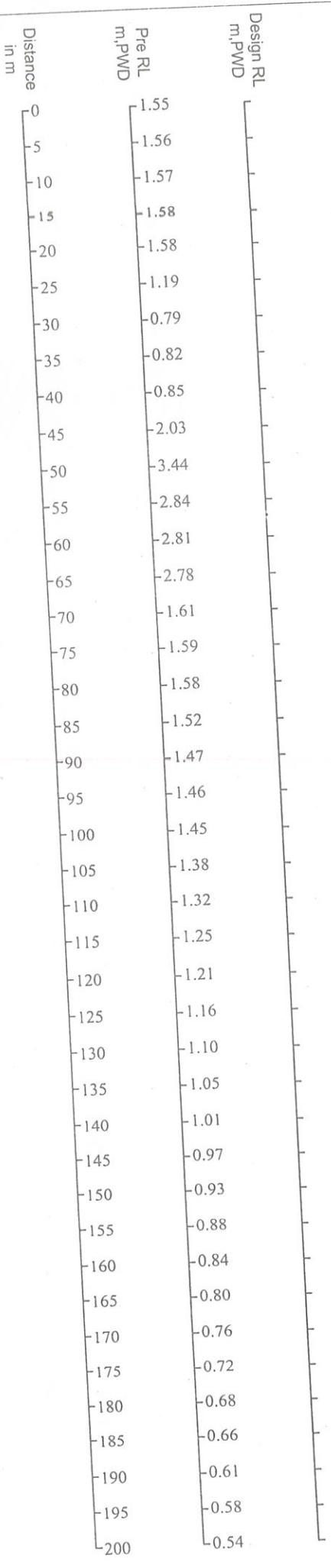
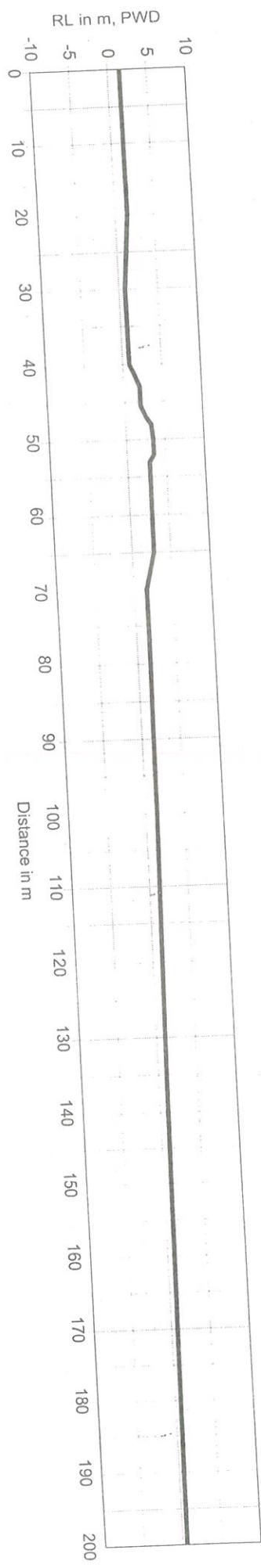


Outfall river cross section kholpatuya(C/L)

CS start at: E= 733338.39,N= 2459209.93

CS end at: E= 733348.84,N= 2459010.21

Km. 2.847

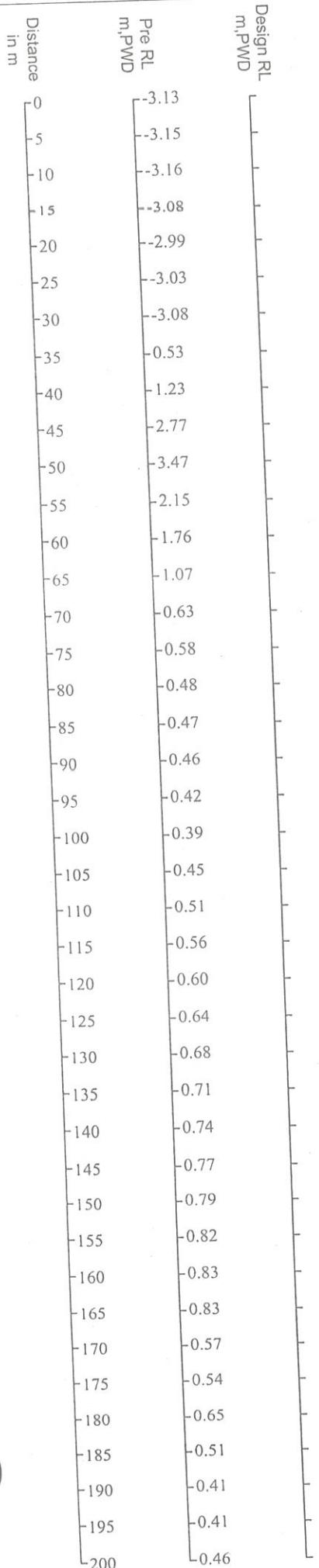
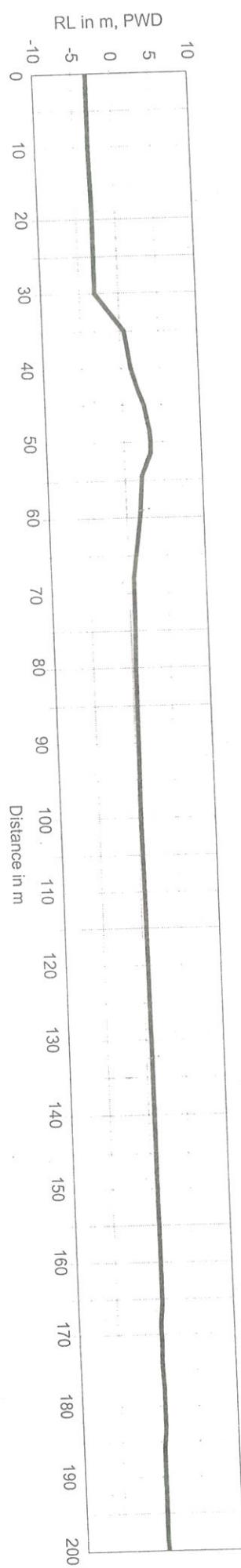


Outfall river cross section kholpatuya(300m D/S)

CS start at: E= 733511.61,N= 2459320.09

CS end at: E= 733641.17,N= 2459167.73

Km. 3.147



কুলপত্তে

25/11/21
Cobra

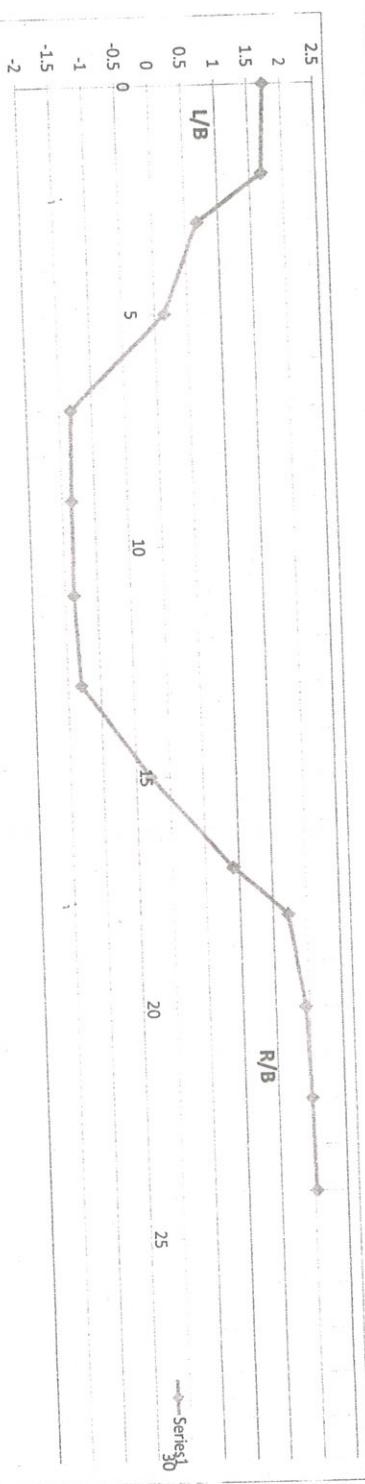
(মোড় আৰু মুখী স্টোর)
উপনিষদ কোম্পানি (ভোজপুর)
শ্বেতনাৰ পত্ৰ উপ-বিভাগ
বাল্মীয়া, শামনী, সাতকীৰা।

(মোড় সাজুল দুল হুক্ম)
উপনিষদ কোম্পানি (ভোজপুর)
নেতৃত্বাবেক্ষণ পত্ৰ লাল
বাল্মীয়া, শামনী, সাতকীৰা।

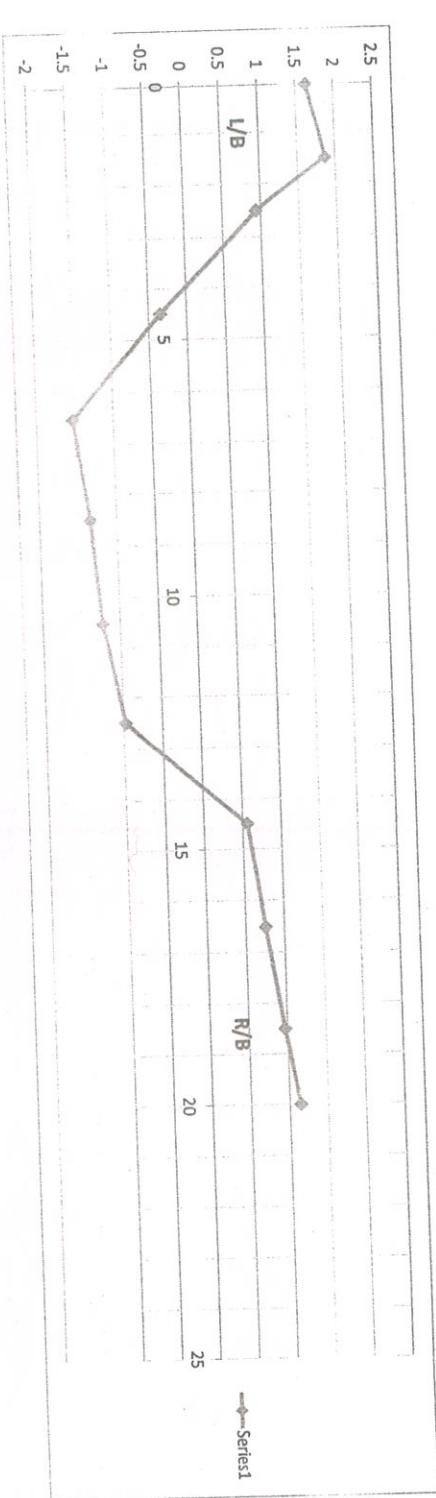
X-SECTION OF 9 NO SORA KHAL AT 9 NO SORA FROM KM 0.000 TO KM 1.000 = 1.000 KM IN POLDER NO-15 UNDER 'REHABILITATION OF POLDER-15 IN SATKHIRA DISTRICT' UNDER SATKHIRA O&M DIVISION-1,

X-SECTION OF 9 NO SORA KHAL AT 9 NO SORA FROM KM 0.000 TO KM 1.000 = 1.000 KM IN POLDER NO-15 UNDER 'REHABILITATION OF POLDER-15 IN SATKHIRA DISTRICT' UNDER SATKHIRA O&M DIVISION-1,
BWDB, SATKHIRA DURING THE YEAR 2021-22.

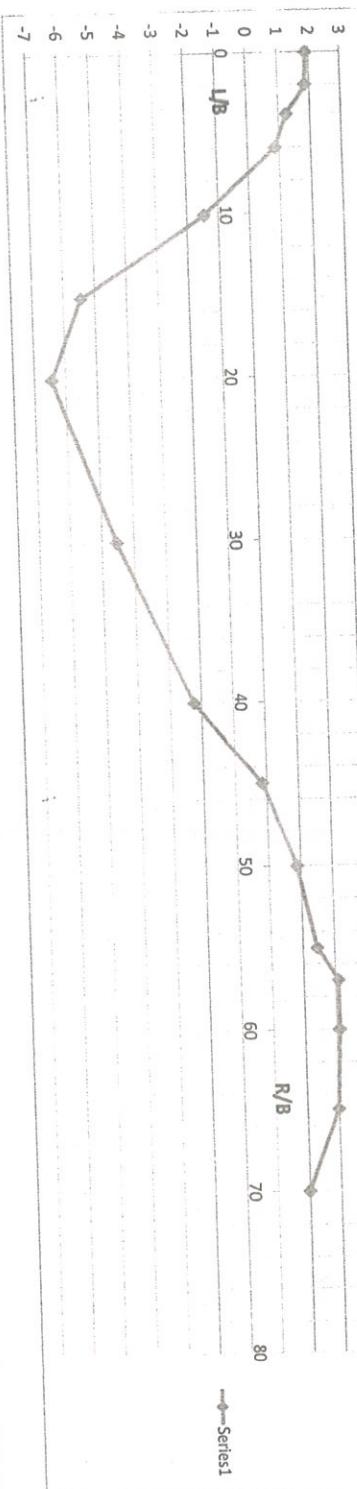
Distance	0	2	3	5	7	9	11	13	15	17	18	20	22	24
Existing R/L	1.74	1.68	0.68	0.15	-1.32	-1.35	-1.36	-1.29	-0.28	0.92	1.73	1.95	2.00	2.03
C/S at Km 0.000														



Distance	0	1.5	2.5	4.5	6.5	8.5	10.5	12.5	14.5	16.5	18.5	20	21	22
Existing R/L	1.64	1.87	0.94	-0.34	-1.52	-1.34	-1.22	-0.97	0.56	0.76	0.97	1.15	1.94	1.93
C/S at Km 0.250														

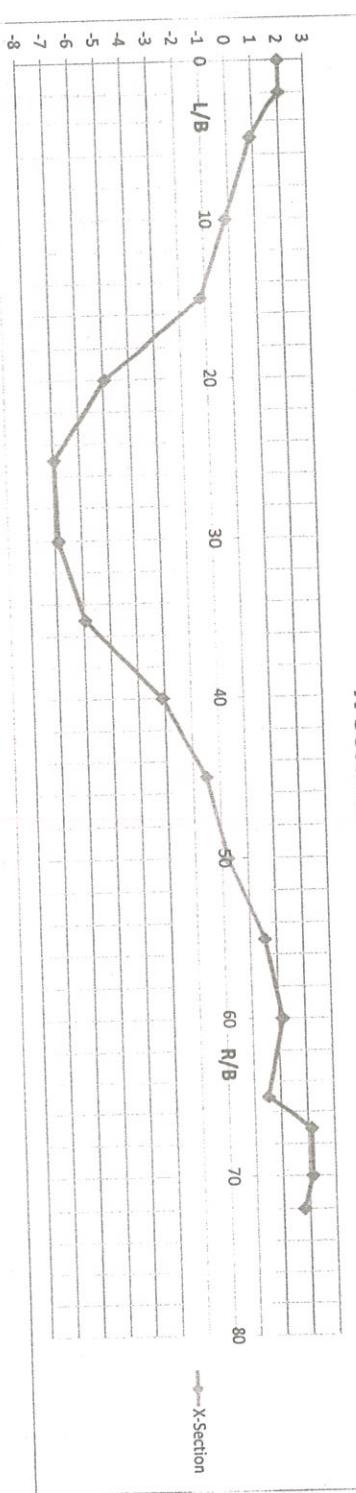


Distance	C/S at Km 0.500	2	4	6	10	15	20	30	40	45	50	55	57	60	65	70
Existing R/L	1.91	1.88	1.26	0.87	-1.44	-5.44	-6.44	-4.54	-2.24	-0.14	0.88	1.46	2.11	2.1	2.0	1.0



Distance	C/S at Km 0.750	2	5	10	15	20	25	30	35	40	45	50	55	60	65	70	72	
Existing R/L	2.05	2.04	0.9	-0.14	-1.16	-4.92	-6.94	-6.86	-5.94	-3.09	-1.49	-0.76	0.56	1.15	0.5	2.1	2.13	1.8

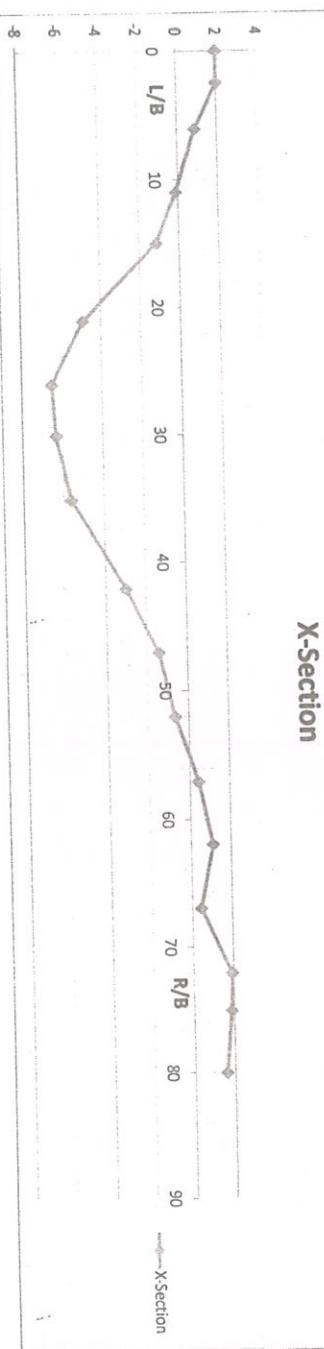
X-Section



—○— X-Section

C/S at Km 1000	
0	2.5
2	2.01
6	0.89
11	-0.12
15	-1.14
21	-4.89
26	-6.5
30	-6.33
35	-5.63
42	-2.99
47	-1.41
52	-0.67
57	0.44
62	1.11
67	0.5
72	1.9
75	1.88
80	1.6

X-Section



Md. Abul Khaer
 Executive Engineer
 Satkhira O&M Division-1
 BWDB, Satkhira.

Md. Sazzadul Haque
 Sub-Assistant Engineer(SO)
 Nowabekti O&M Section
 Shyamnagar O&M Sub-Division
 BWDB, Shyamnagar.

جذب انتباه (جذب انتباه)، ایجاد اینکه، میتواند این را
آنچه نمایند (آنچه نمایند) اینجا نمایند
نمایند (نمایند) اینجا نمایند/نامه نمایند
(۲۱۳ مقاله ایجاد این را)

25/11/121
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RiverName	StationID	StationName	Year	MaxOFWL	MinOFWL
Betma-Kholopeuta	SW26	Pratobnagar	1990	2.61	-2.46
Betma-Kholopeuta	SW26	Pratobnagar	1991	2.88	-2.44
Betma-Kholopeuta	SW26	Pratobnagar	1992	3.09	-1.99
Betma-Kholopeuta	SW26	Pratobnagar	1993	3.10	-2.08
Betma-Kholopeuta	SW26	Pratobnagar	1994	2.89	-2.18
Betma-Kholopeuta	SW26	Pratobnagar	1995	3.47	-2.31
Betma-Kholopeuta	SW26	Pratobnagar	1996	2.64	-2.40
Betma-Kholopeuta	SW26	Pratobnagar	1997	2.92	-2.50
Betma-Kholopeuta	SW26	Pratobnagar	1998	3.11	-2.59
Betma-Kholopeuta	SW26	Pratobnagar	1999	2.66	-2.89
Betma-Kholopeuta	SW26	Pratobnagar	2000	3.22	-2.82
Betma-Kholopeuta	SW26	Pratobnagar	2001	2.97	-2.87
Betma-Kholopeuta	SW26	Pratobnagar	2002	2.81	-1.77
Betma-Kholopeuta	SW26	Pratobnagar	2003	2.62	-1.97
Betma-Kholopeuta	SW26	Pratobnagar	2004	2.68	-1.97
Betma-Kholopeuta	SW26	Pratobnagar	2008	2.75	-1.99
Betma-Kholopeuta	SW26	Pratobnagar	2009	2.96	-1.61
Betma-Kholopeuta	SW26	Pratobnagar	2010	3.49	-1.76
Betma-Kholopeuta	SW26	Pratobnagar	2011	3.90	-1.87
Betma-Kholopeuta	SW26	Pratobnagar	2013	3.01	-1.72
Betma-Kholopeuta	SW26	Pratobnagar	2014	2.77	-1.81
Betma-Kholopeuta	SW26	Pratobnagar	2015	2.69	-1.81
Betma-Kholopeuta	SW26	Pratobnagar	2016	2.96	-1.89
Betma-Kholopeuta	SW26	Pratobnagar	2017	3.11	-1.85
Betma-Kholopeuta	SW26	Pratobnagar	2018	3.23	-1.42
Betma-Kholopeuta	SW27	Pratobnagar	2019	3.410	-1.340
Betma-Kholopeuta	SW28	Pratobnagar	2020	3.490	-2.300

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(.....)
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25/11/21
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RiverName	StationID	Station	Year	MaxWFL	MinWFL
Kobadak	SW165	Kobadak Forest Office	1990	2.93	-1.78
Kobadak	SW165	Kobadak Forest Office	1991	2.49	-1.84
Kobadak	SW165	Kobadak Forest Office	1992	2.55	-2.25
Kobadak	SW165	Kobadak Forest Office	1993	3.00	-2.30
Kobadak	SW165	Kobadak Forest Office	1994	2.49	-2.16
Kobadak	SW165	Kobadak Forest Office	1995	2.53	-2.32
Kobadak	SW165	Kobadak Forest Office	1996	2.95	-2.45
Kobadak	SW165	Kobadak Forest Office	1998	2.23	-2.65
Kobadak	SW165	Kobadak Forest Office	1999	2.27	-2.74
Kobadak	SW165	Kobadak Forest Office	2000	2.22	-2.44
Kobadak	SW165	Kobadak Forest Office	2001	1.85	-2.87
Kobadak	SW165	Kobadak Forest Office	2008	2.62	-2.08
Kobadak	SW165	Kobadak Forest Office	2009	3.27	-2.28
Kobadak	SW165	Kobadak Forest Office	2010	2.34	-2.58
Kobadak	SW165	Kobadak Forest Office	2011	2.63	-2.58
Kobadak	SW165	Kobadak Forest Office	2012	2.42	-2.80
Kobadak	SW165	Kobadak Forest Office	2013	4.00	-2.58
Kobadak	SW165	Kobadak Forest Office	2014	2.20	-2.57
Kobadak	SW165	Kobadak Forest Office	2015	2.26	-2.86
Kobadak	SW165	Kobadak Forest Office	2016	1.97	-2.73
Kobadak	SW166	Kobadak Forest Office	2020	3.54	-1.32

١) الكلمة المبهمة: المعنى
- الكلمة المبهمة المعنى
الكلمة المبهمة المعنى
(مثلاً الكلمة المبهمة)

70/11/56

Google Earth

An aerial photograph of a coastal landscape, likely a beach or coastal plain, with several geographical features and landmarks labeled in English. The labels include:

- Kalidashi
- Nalnara
- Pakgacha Station ID CL-515
- Gonikarai
- Sundari
- Ratnapur
- Allia
- Gabura Union ID CL-506
- Kalikhali Station ID CL-506

The image shows a mix of dark, possibly forested areas and lighter, sandy or rocky coastal zones. A small body of water is visible in the upper right corner.

Rainfall Station data: CL-515, Pakgeacha & CL-506 Kaliyakhal

District	StationName	StationID	Year	Rainfall (mm)	StationID	Year	Rainfall (mm)		
Satkhira	Kalikhali	CL506	1989	1641.70	kuhnia	Paligachha	CL515	1989	1092.00
Satkhira	Kalikhali	CL506	1990	2773.30	kuhnia	Paligachha	CL515	1990	2051.10
Satkhira	Kalikhali	CL506	1991	1709.20	kuhnia	Paligachha	CL515	1991	2052.00
Satkhira	Kalikhali	CL506	1992	1990.10	kuhnia	Paligachha	CL515	1992	1294.00
Satkhira	Kalikhali	CL506	1993	1789.40	kuhnia	Paligachha	CL515	1993	1685.70
Satkhira	Kalikhali	CL506	1994	1788.00	kuhnia	Paligachha	CL515	1994	1456.60
Satkhira	Kalikhali	CL506	1995	1870.10	kuhnia	Paligachha	CL515	1995	1638.80
Satkhira	Kalikhali	CL506	1996	1245.20	kuhnia	Paligachha	CL515	1996	1631.40
Satkhira	Kalikhali	CL506	1997	1771.10	kuhnia	Paligachha	CL515	1997	2164.20
Satkhira	Kalikhali	CL506	1998	2718.10	kuhnia	Paligachha	CL515	1998	1994.10
Satkhira	Kalikhali	CL506	1999	2023.90	kuhnia	Paligachha	CL515	1999	1416.10
Satkhira	Kalikhali	CL506	2000	2233.90	kuhnia	Paligachha	CL515	2000	2004
Satkhira	Kalikhali	CL506	2001	2288.80	kuhnia	Paligachha	CL515	2001	2005
Satkhira	Kalikhali	CL506	2002	1585.50	kuhnia	Paligachha	CL515	2002	1507.40
Satkhira	Kalikhali	CL506	2003	1474.40	kuhnia	Paligachha	CL515	2003	2003
Satkhira	Kalikhali	CL506	2004	2233.90	kuhnia	Paligachha	CL515	2004	2004
Satkhira	Kalikhali	CL506	2005	2288.80	kuhnia	Paligachha	CL515	2005	2006
Satkhira	Kalikhali	CL506	2006	1743.50	kuhnia	Paligachha	CL515	2006	2007
Satkhira	Kalikhali	CL506	2007	2499.20	kuhnia	Paligachha	CL515	2007	2007
Satkhira	Kalikhali	CL506	2008	1635.70	kuhnia	Paligachha	CL515	2008	2008
Satkhira	Kalikhali	CL506	2009	1264.37	kuhnia	Paligachha	CL515	2009	2011.00
Satkhira	Kalikhali	CL506	2010	1433.50	kuhnia	Paligachha	CL515	2010	2010
Satkhira	Kalikhali	CL506	2011	2208.25	kuhnia	Paligachha	CL515	2011	2704.02
Satkhira	Kalikhali	CL506	2012	1557.30	kuhnia	Paligachha	CL515	2012	1069.23
Satkhira	Kalikhali	CL506	2013	1517.90	kuhnia	Paligachha	CL515	2013	1514.75
Satkhira	Kalikhali	CL506	2014	2409.80	kuhnia	Paligachha	CL515	2014	2043.60
Satkhira	Kalikhali	CL506	2015	2230.80	kuhnia	Paligachha	CL515	2015	2985.00
Satkhira	Kalikhali	CL506	2016	1868.90	kuhnia	Paligachha	CL515	2016	2721.00
Satkhira	Kalikhali	CL506	2017	2110.20	kuhnia	Paligachha	CL515	2017	2648.00

Yearly Rainfall information of CL506 Kalikhali & CL515 Palikgachha nearest of Polder-15

