

ANNEXURE-2

Amendment to the Bidding Documents for procurement of Automatic Water Level Stations, Upgrade Existing Climate Stations and Rain Gauges to Automatic and Real Time, Including Related Services and Annual Maintenance Services (Contract Package No.: BWDB-G2) followed by the pre-bid meeting held on October 7, 2020.

Amendment No.	Bid Documents Page No./Clause No.	As Mentioned in Bidding Documents	To Be Replaced By-
1	Page No. 33 ITB 17.2 (b)	In case of joint venture, the representation through the agent is not allowed.	In case any member of the joint venture is from Purchaser's Country, the representation through the agent is not allowed.
2	Page-No. 34 ITB 22.1 (Deadline for Submission of Bids) Page No. 34 ITB 25.3 (Bid Opening)	For bid submission purposes only, the Purchaser's address is Attention: Project Director Bangladesh Weather and Climate Services Regional Project (BWCSRP) Component-B: Strengthening Hydrological Information Services and Early Warning Systems (SHEWS) Address: Firoz Tower, 152/3/B, Panthapath Floor/ Room number: 2 nd Floor City: Dhaka, ZIP Code: 1205 Country: Bangladesh The deadline for bid submission is: Date: November 04, 2020 Time: 15.00 Local (GMT+ 6 hours) Bidders shall not have the option of submitting their bids electronically  The bid opening shall take place at: Street Address: Firoz Tower, 152/3/B Panthapath. Floor/ Room number: 2 nd Floor. City: Dhaka. Country: Bangladesh. Date: November 04, 2020. Time: 15.30 Local (GMT+ 6 hours) The bid opening meeting will also be conducted live through Zoom for	For bid submission purposes only, the Purchaser's address is Attention: Project Director Bangladesh Weather and Climate Services Regional Project (BWCSRP) Component-B: Strengthening Hydrological Information Services and Early Warning Systems (SHEWS) Address: Firoz Tower, 152/3/B, Panthapath Floor/ Room number: 2 nd Floor City: Dhaka, ZIP Code: 1205 Country: Bangladesh The deadline for bid submission is: Date: November 25, 2020 Time: 15.00 Local (GMT+ 6 hours) Bidders shall not have the option of submitting their bids electronically The bid opening shall take place at: Street Address: Firoz Tower, 152/3/B Panthapath. Floor/ Room number: 2 nd Floor. City: Dhaka. Country: Bangladesh. Date: November 25, 2020. Time: 15.30 Local (GMT+ 6 hours) The bid opening meeting will also be conducted live through Zoom for those bidders who may be unable to attend in person. The virtual connection details

		those bidders who may be unable to attend in person. The virtual connection details will be sent 7 calendar days before the deadline date of bid opening through email to all bidders who purchased the bidding documents.	will be sent 7 calendar days before the deadline date of bid opening through email to all bidders who purchased the bidding documents.
3	Page No. 38 3.1 (Post qualification Requirements)	3.1 Postqualification Requirements (ITB 36.1) After determining the lowest-evaluated bid in accordance with ITB 35.1, the Purchaser shall carry out the post-qualification of the Bidder in accordance with ITB 36, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications. A. If the bidder is the manufacturer: (i) Financial Capability The Bidder will furnish documentary evidence that it meets the following financial requirements: (a) Average Annual Turnover Bidder shall have average annual turnover of at least USD 09 (Nine) million or equivalent over a period of best 03 (three) years within last 05 (five) years prior to the deadline date for bid submission. <i>Bidder shall submit audited financial reports along with the bid if Annual Turnover remains mentioned in the audited financial reports, or if not required by the law of the Applicant's country other financial statements (third party statements enough to substantiate annual turnover) or payment receipts acceptable to the Employer, for the last five (5) years to substantiate average annual turnover.</i> (b) Liquid Asset The Bidder at the time of bid submission should have at least the amount of USD 02 (two) million or equivalent liquid asset or working capital or credit facilities or their combination. (ii) Experience and Technical Capacity of the Bidder The Bidder will furnish documentary evidence that it meets the	3.1 Post qualification Requirements (ITB 36.1) After determining the lowest-evaluated bid in accordance with ITB 35.1, the Purchaser shall carry out the post-qualification of the Bidder in accordance with ITB 36, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications. (A) Financial Capability of the Bidder The Bidder will furnish documentary evidence that it meets the following financial requirements: (i) Average Annual Turnover Bidder shall have annual turnover of at least USD 09 (Nine) million or equivalent over a period of best 03 (three) years within last 05 (five) years prior to the deadline date for bid submission.; <i>Bidder shall submit audited financial reports along with the bid, if Annual Turnover remains mentioned in the audited financial reports or if not required by the law of the Applicant's country, other financial statements (third party statements enough to substantiate annual turnover) or payment receipts acceptable to the Employer, for the last five (5) years to substantiate average annual turnover.</i> (ii) Liquid Asset The Bidder at the time of bid submission should have at least the amount of USD 03 (three) million or equivalent liquid asset or working capital or credit facilities or their combination. Bidder as a Joint Venture In case of joint venture, all partners combined must meet the financial requirement stipulated in (i) and (ii) above, while, each partner to the joint venture must meet at least 25% of the financial requirements as mentioned above. (B) Experience and Technical Capacity of the Bidder



		following requirements: The Bidder should have at least seven (07) years experience prior to the bid submission deadline date in supply of equipment related to Hydrological monitoring of rivers/ reservoirs. B. If Bidder is not a manufacturer: (i) If a Bidder is not a manufacturer, but is offering the Goods on behalf of the Manufacturer under Manufacturer's Authorization Form (Section IV, Bidding Forms), the Manufacturer shall demonstrate the above qualifications A(i)(a), A(i)(b), and A(ii); AND (ii) the Bidder shall demonstrate that it has successfully completed supply of at least USD 06 (six) million in not more than 2 (two) contracts of similar goods within the last 07 (seven) years prior to the bid submission deadline date each contract should include the following characteristic (a) below. For the characteristic (b) below which should also be met, it can be under the above two contracts or any other contracts that have been performed in the last 07 (seven) years (a) Supply, installation and commissioning of sensors, data loggers, telemetry and similar equipment at a minimum of 175 Hydrological monitoring sites. (b) Provision of Operation and Maintenance services related to Hydrological monitoring at a minimum of 175 Hydrological monitoring sites (iii) Further, bidder should furnish the documentary evidence from the manufacturer of the hydro-meteorological equipment to establish that the manufacturer has manufactured and supplied the quantity of the hydro-meteorological equipment of similar make and model as proposed in this bid, as per Table-1 below in any two years during the last 7 (seven) years prior to the bid submission deadline date. In case the bidder	The Bidder will furnish documentary evidence that it meets the following requirements: (i) General Experience: (a) The Bidder (in case of JV, each member) should have at least five (05) years of experience prior to the bid submission deadline date in supplying and commissioning equipment related to Hydrological monitoring services of rivers / reservoirs. (ii) Specific Experience: (a) The bidder shall demonstrate that it has successfully completed contracts related to Hydrological monitoring involving sensors, data loggers and telemetry with a total value of at least USD 06 (Six) million in not more than 02 (two) contracts within the last 05 (five) years prior to the bid submission deadline date including the following characteristics: (i) Successful supply, installation and commissioning of at least 175 Hydrological monitoring sites involving sensors, data loggers and telemetry. It can be in any combination of the above-mentioned two contracts.. (b) Operation and Maintenance services related to Hydrological monitoring at a minimum of 175 Hydrological Monitoring sites. It can be under the above-mentioned two contracts or any other contracts that have been performed in the last 5 (five) years prior to the bid submission deadline date. C) Manufacturing Capability and Capacity If the bidder is not the manufacturer of all or any of the hydro-met equipment as listed in Table-1 below, the bidder shall furnish the authorization from the manufacturer(s) in the prescribed Form (Section-IV, Bidding Forms). Further, bidder should furnish the documentary evidence from the manufacturer of the hydro-meteorological equipment to establish that the manufacturer has manufactured and supplied the quantity of the hydro-meteorological equipment of similar make and model
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		manufactures some equipment and propose to procure remaining equipment from different manufactures, this requirement should be collectively met by the bidder for the equipment manufactured by itself and by the respective manufacturers of the procured equipment.	as proposed in this bid, as per Table-1 below in any 02 (two) years during last 7 years prior to the bid submission deadline date. In case the bidder manufactures some equipment and propose to procure remaining equipment from other different manufactures, this requirement should be collectively met by bidder for the equipment manufactured by them and by the respective manufacturer(s) of the procured equipment.
4	Page No. no. 106/107/108/109 Section VII. Schedule of Requirements 1. List of Goods and Delivery Schedule	The quantity of Item No 2a, 2b, 2c, 2d, 2e, 2f, 2g , 2j and 2k are mentioned as 34	The quantity of Item No 2a, 2b, 2c, 2d, 2e, 2f, 2g, 2j and 2k shall be 35.
5	Page No. no. 110 Section VII. Schedule of Requirements 1. List of Goods and Delivery Schedule	3h Supply of ancillary equipment required for ARG station not listed in items 3a-3h but required for operation of system.	3i Supply of ancillary equipment required for ARG station not listed in items 3a-3h but required for operation of system.
6	Page No. no. 110 Section VII. Schedule of Requirements 1. List of Goods and Delivery Schedule	3i Supply of Chain-Link Fencing along with lockable gates as per technical specifications for external protection of Sensors and DCP at ARG stations (if required).	3j Supply of Chain-Link Fencing along with lockable gates as per technical specifications for external protection of Sensors and DCP at ARG stations (if required).
7	Page No. no. 116 Section VII. Schedule of Requirements 2. List of Related Services Part-1 and Completion Schedule	13. Installation and Configuration of Data management Time Series Database software (Aquatics Informatics). (as per description in technical section) on respective Computer Servers.	13. Installation and Configuration of Data management Time Series Database software (as per description in technical section) on respective Computer Servers.
8	Page No.126 Para 1	The sensors like Automatic Water Level Gauge (AWLG), Automatic Rainfall Gauge (ARG) and Automatic Weather Stations (AWS) should be combined, as much as possible, within a single station, which will eliminate the costs of GSM &GPRS communication and the recurring costs associated with these devices. It is encouraged to combine data from multiple stations for minimizing the number of GSM / GPRS data transmission and the security arrangements.	This clause is deleted.

9	Page No.131 Para-6	The Bidder shall enclose or demonstrate a prototype of the whole system during the pre-bid time or before to the client.	This clause is deleted.																																																																		
10	Page No. No. 137	(b) Pole mounted Automated Water Level Gauge (AWLG) sensors (Manual Staff gauge mounted).	(b) Pole mounted Automated Water Level Gauge (AWLG) sensors.																																																																		
11	Page No. 147-149 6.2 POLE MOUNTED RADAR TYPE AWLG SENSOR (30M)(Item no. 2a, List of Goods and Delivery Schedule under Section VII)	<table><thead><tr><th>Feature</th><th>Value</th></tr></thead><tbody><tr><td colspan="2">Site Conditions</td></tr><tr><td>Service</td><td>Measurement of level of water level along the banks of major river reaches in select locations in Bangladesh</td></tr><tr><td>Ambient Temperature</td><td>From 0°C to + 50°C</td></tr><tr><td>Humidity</td><td>5 to 95 % (non-condensing)</td></tr><tr><td>Sensor Type</td><td>Battery operated Ultrasonic /RADAR non-contact sensor</td></tr><tr><td>Battery Type</td><td>External or internal replaceable batteries Should be lithium or alkaline battery pack, with at least 1-year operation (with one transmission per six hour). Battery must be easily replaceable in the field or in local offices of the implementing Agency or supplier. Replacement batteries must be easily available in Bangladesh</td></tr><tr><td>Range</td><td>30 m</td></tr><tr><td>Accuracy</td><td>0.5 % of FSO</td></tr><tr><td>Beam angle</td><td>Less than 12 degrees.</td></tr><tr><td>Dead Band</td><td>Less than 0.5m</td></tr><tr><td>Resolution</td><td>5 mm or better</td></tr></tbody></table>	Feature	Value	Site Conditions		Service	Measurement of level of water level along the banks of major river reaches in select locations in Bangladesh	Ambient Temperature	From 0°C to + 50°C	Humidity	5 to 95 % (non-condensing)	Sensor Type	Battery operated Ultrasonic /RADAR non-contact sensor	Battery Type	External or internal replaceable batteries Should be lithium or alkaline battery pack, with at least 1-year operation (with one transmission per six hour). Battery must be easily replaceable in the field or in local offices of the implementing Agency or supplier. Replacement batteries must be easily available in Bangladesh	Range	30 m	Accuracy	0.5 % of FSO	Beam angle	Less than 12 degrees.	Dead Band	Less than 0.5m	Resolution	5 mm or better	<table><thead><tr><th>Feature</th><th>Value</th></tr></thead><tbody><tr><td colspan="2">Site Conditions</td></tr><tr><td>Ambient Temperature</td><td>From 0 to +50 °C</td></tr><tr><td>Humidity</td><td>0 to 95 % (non-condensing)</td></tr><tr><td>Altitude</td><td>0 to 2000 meter</td></tr><tr><td colspan="2">Sensor</td></tr><tr><td>Sensor Type</td><td>Microwave non-contact sensor</td></tr><tr><td>Range</td><td>30 meter</td></tr><tr><td>Resolution</td><td>3 mm or better</td></tr><tr><td>Accuracy</td><td>0.02 % FSO</td></tr><tr><td>Output Interface</td><td>SDI-12 / RS-485 / 4-20mA and compatible to RTU/Data logger Unit</td></tr><tr><td>Power Supply</td><td>To be powered by Solar Panel provided by bidder.</td></tr><tr><td>Beam angle</td><td>Less than 12 degree</td></tr><tr><td colspan="2">General Features</td></tr><tr><td>Housing Material</td><td>Housing Material – "Corrosion Resistance (Stainless steel / die cast Aluminium or PVC/UV stabilized ABS with metal casing"</td></tr><tr><td>Enclosure</td><td>The Sensor shall be easy to dismount and replace in the event of malfunction.</td></tr><tr><td>Tools</td><td>Complete tool kit for operation and routine maintenance</td></tr><tr><td>Manuals</td><td>Full Documentation and maintenance manual in English</td></tr><tr><td>Accessories</td><td>Sensor Mounting support, cables and other accessories as required</td></tr><tr><td>Protection</td><td>NEMA4X or IP65 or better</td></tr><tr><td>Horizontal Mounting/Installation Arrangements</td><td>Above FRL, Below a bridge girder wherever available otherwise horizontal cantilever arrangement from a mast/wall/pedestal to be provided By using a Separate horizontal ladder one should be able to reach the enclosure for maintenance/repair. Separate</td></tr></tbody></table>	Feature	Value	Site Conditions		Ambient Temperature	From 0 to +50 °C	Humidity	0 to 95 % (non-condensing)	Altitude	0 to 2000 meter	Sensor		Sensor Type	Microwave non-contact sensor	Range	30 meter	Resolution	3 mm or better	Accuracy	0.02 % FSO	Output Interface	SDI-12 / RS-485 / 4-20mA and compatible to RTU/Data logger Unit	Power Supply	To be powered by Solar Panel provided by bidder.	Beam angle	Less than 12 degree	General Features		Housing Material	Housing Material – "Corrosion Resistance (Stainless steel / die cast Aluminium or PVC/UV stabilized ABS with metal casing"	Enclosure	The Sensor shall be easy to dismount and replace in the event of malfunction.	Tools	Complete tool kit for operation and routine maintenance	Manuals	Full Documentation and maintenance manual in English	Accessories	Sensor Mounting support, cables and other accessories as required	Protection	NEMA4X or IP65 or better	Horizontal Mounting/Installation Arrangements	Above FRL, Below a bridge girder wherever available otherwise horizontal cantilever arrangement from a mast/wall/pedestal to be provided By using a Separate horizontal ladder one should be able to reach the enclosure for maintenance/repair. Separate
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		Manual Staff Gauge	Required. The staff gauge is to be used for manual water level observation and for reference purposes in combination with the planned AWLG in rivers. The material of the staff gauge should also unattractive for theft and vandalism. It should not also have any resale value. The staff gauge/pole shall be of such a design that it can be effectively used under the prevailing environmental conditions. It needs to be readable for all possible water levels at site. The staff gauge shall generally comply with IS 4080-1994. The staff gauge shall be of a sturdy construction • The staff gauge pole shall be easy to operate and maintain. • All materials on the staff gauge shall be non-corrosive. Specifications material enamelled steel or stable FRP plate colour white background, smallest graduation 0.01 m accuracy of graduations 0.5 mm distinction cm, dm and m, index at 5 cm mark temperature 0 to 60°C, the accuracy shall be maintained over the full temperature range. The staff gauge pole shall have provisions to rigidly attach the AWLG sensor unit and a provision to adjust the staff gauges to the required elevation, tuning it to Datum. The pole shall have such solidity that it can permanently sustain partial and/or full immersion in water. The pole should have approximately 15 – 20 cm in diameter. The pole shall be epoxy paint coated or equivalent. In saline water, the compatibility of the applied materials should be taken into account, to avoid excessive damages. The staff gauge	<table><tr><td></td><td>ladder should also supplied with the equipment for each station.</td></tr><tr><td colspan="2">Radar Sensor should have inbuilt diagnostic feature & averaging function</td></tr></table>		ladder should also supplied with the equipment for each station.	Radar Sensor should have inbuilt diagnostic feature & averaging function	
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			support shall be founded in cast concrete, alternatively, it may be supported by a concrete or steel pole firmly driven in the river bed/ banks. In case of wave-action, a stilling well shall be provided.	
		Sampling interval	01 Hour	
		Computer Interface	Capable of connection to a computer via USB / RS-232 / Bluetooth /IR /Wi-Fi interface, and supply the necessary interface cables and should be transmitted through GPRS/GSM modem .	
		Output interface	GPRS/GSM (SMS on at least 5 mobile no.)	
		Ingress Protection	NEMA4X/IP65 or better	
		Sensor Material	PVDF/PP/SS/Aluminum	
		Enclosure Material	Stainless steel /Aluminum or (/PVC/PBT/UV stabilized ABS with metal casing to be provided).	
		Process Connection	Threaded/ Flanged, non-corrosive as per site condition	
		Display	Digital Read LCD / LED Display, inbuilt or External type with Keys for parameterization &configuration.	
		Display Parameters	Level, Flow	
		Zero & Span Adjustment	Required	
		Manufacturer	Required	



		<table><tr><td>Calibration Certificate</td><td></td></tr><tr><td>General Features</td><td></td></tr><tr><td>Mounting</td><td>The Sensor shall be easy to dismount from the staff gauge and relocate with the change of water level</td></tr><tr><td>Tools</td><td>Complete tool kit for operation and routine maintenance</td></tr><tr><td>Manuals</td><td>Full Documentation and maintenance manual in English</td></tr><tr><td>Accessories</td><td>Sensor Mounting support with proper HDPE/ GI Pipe conducting, cables and other accessories (as required)</td></tr><tr><td>Certification</td><td>UL/IEC/ANSI/Equivalent certifications shall be followed. References for guidelines are provided in the specification section.</td></tr></table>	Calibration Certificate		General Features		Mounting	The Sensor shall be easy to dismount from the staff gauge and relocate with the change of water level	Tools	Complete tool kit for operation and routine maintenance	Manuals	Full Documentation and maintenance manual in English	Accessories	Sensor Mounting support with proper HDPE/ GI Pipe conducting, cables and other accessories (as required)	Certification	UL/IEC/ANSI/Equivalent certifications shall be followed. References for guidelines are provided in the specification section.	
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12	 Page No. 149 6.3 AUTOMATIC RAIN GAUGE (ARG)	General Features Output Interface: Switching closure output	General Features Output Interface: Switching closure output / SDI 12/ RS 485/ 4-20mA/Compatible to datalogger/RTU														
13	Page No. 150 6.3 AUTOMATIC RAIN GAUGE (ARG)	General Features Power Supply: To be powered by Solar Panel provided by bidder with DCP	General Features Power Supply: DCP to be powered by Battery which will be charged by Solar Panel														
14	Page No. 154 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Serial Port for sensor interface RS-232/ RS-485 for sensor Interface	Serial Port for sensor interface One RS-232 / SDI- 12 & One RS-485 for sensor Interface														
15	Page No. 154 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input	Input - Output Interfaces Data Transfer: USB stick option for Data transfer	Input - Output Interfaces Data Transfer: USB port for Data transfer														

	(AI) 2 channels for ARG &AWLG		
16	Page No. 154 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485) for communication with Laptop for programming	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485 / USB port) for communication with Laptop for programming
17	Page No. 154 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Port for Telemetry : 2 Ports for Communication with Telemetry (GSM & GPRS) device Both telemetry systems should work simultaneously for redundancy	Input - Output Interfaces Port for Telemetry: One Port for Communication with Telemetry (GSM & GPRS) device and another port for spare. The Bidder shall ensure that the system remains operational even under extreme conditions of weather. The failure of transmission due to temporary disturbances in the network must be taken care of by providing adequate storage in the Data logger and ensuring subsequent relay immediately after the network is restored. Non-volatile Flash memory that can one store one year of data and expandable upto a minimum of 1GB.Via USB/SD Card
18	Page No. 154 & 157 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Display Port: Port for connecting external display screen for displaying measured data as running text	Input - Output Interfaces Datalogger should have built-in display.
19	Page No. 154 6.5 Data Logger with Analog Input (AI) 2 channels (For AWS)	Analog to Digital Converter Sample intervals 1 Sec to 24 hours (user scalable)	Analog to Digital Converter Sample intervals 2 minutes to 24 hours (user scalable)
20	Page No. 155 6.5 Data Logger with Analog Input (AI) 2 channels (For AWS)	Power Consumption 1) non operation mode: < 30 mA 2) In operation mode : <250 mA.	Power Consumption 1) non operation mode: < 30 mA 2) In operation mode : <350 mA.
21	Page No. 156 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input	GSM / GPRS MODEM Performance	GSM / GPRS MODEM Performance



	(AI) 2 channels for ARG &AWLG	Data Reception availability of 95% or better. Yagi Antenna may be used in places with weak signal strength.	Data Reception availability of 95% or better. GSM- GPRS omni directional antenna with minimum 11 dBi gain
22	Page No. 157 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Serial Port for sensor interface One RS-232 for sensor Interface One RS-485 for sensor Interface port	Serial Port for sensor interface One RS- 232 / SDI – 12 & One RS-485 for sensor Interface
23	Page No. 157 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Input - Output Interfaces Data Transfer: USB stick option for Data transfer	Input - Output Interfaces Data Transfer: USB port for Data transfer
24	Page No. 157 6.5 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485) for communication with Laptop for programming	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485/ USB port) for communication with Laptop for programming
25	Page No. 157 6.6 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Port for Telemetry : 2 Ports for Communication with Telemetry (GSM & GPRS) device Both telemetry systems should work simultaneously for redundancy	Input - Output Interfaces Port for Telemetry: One Port for Communication with Telemetry (GSM & GPRS) device and another port for spare. The Bidder shall ensure that the system remains operational even under extreme conditions of weather. The failure of transmission due to temporary disturbances in the network must be taken care of by providing adequate storage in the Data logger and ensuring subsequent relay immediately after the network is restored. Non-volatile Flash memory that can one store one year of data and expandable up to a minimum of 1GB.Via USB/SD Card
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	(AI) 8 channels for AWS	Data Reception availability of 95% or better. Yagi Antenna may be used in places with weak signal strength.	Data Reception availability of 95% or better. GSM- GPRS omni directional antenna with minimum 11 dBi gain
29	Page No. 159	1. The system shall automatically collect the observations from attached sensors, process and store them into its memory and transmit through GSM /GPRS communication link to central station as per the preprogrammed measurement interval, The DCP shall also continuously monitor the status of the instruments, power supply and communication. In the event of failure of an instrument or disruption of any of the power sources, an alarm shall be sent back to the modeling centre.	This Clause is deleted from the Bidding Documents.
30	Page No. no 165 11.3. POWER SUPPLY FOR DCP	Capacity Based on site conditions and Telemetry method, power supply system to provide 15 days of power back up to all equipment's being powered up by the solar panel	Capacity Based on site conditions and Telemetry method, power supply system to provide 30 days of power back up to all equipment's being powered up by the solar panel
31	Page No.174 Sourcing BMD and DAE Data	Bangladesh Meteorological Department (BMD) and Department of Agriculture Extension (DAE) send data to BWDB. The New BWDB Information System will provide Import Utility for the BMD and DAE users to upload the data files. The uploaded data files will be stored as "Other Data files" in the <u>same "Data Collection Server"</u> .	Bangladesh Meteorological Department (BMD) and Department of Agriculture Extension (DAE) send data to BWDB. The New BWDB Information System will provide Import Utility for the BMD and DAE users to upload the data files. The uploaded data files will be stored as "Other Data files" in the <u>same "Data Collection Server"</u> . Number of file may be maximum 04 (four) and size of each file will be 100 KB maximum. Format, i.e. structure of the file has to be studied in requirement study phase.
32	Page No. 193	1. Data Collection / Acquisition Server (Primary), Backup Server (Primary), Backup Server (Secondary) (item no. 5a, 5c & 5d of List of Goods and Delivery Schedule under Section VII).	1. Data Collection / Acquisition Server (Primary and Secondary), Backup Server (Primary), Backup Server (Secondary) (item no. 5a, 5c & 5d of List of Goods and Delivery Schedule under Section VII).
33	Page No. 194	2. Data Management and Processing Server (Primary)(item no.5b of List of Goods and Delivery Schedule under Section VII):	2. Data Management and Processing Server (Primary and Secondary)(item no.5b of List of Goods and Delivery Schedule under Section VII):
34	Page No. 199 Storage Enclosure	Dell SC420F with 24 x 1.92TB SAS 12GB, RI SSD, 2.5in Hot-plug HDD	24 x 1.92TB SAS 12GB, RI SSD, 2.5in Hot-plug HDD or equivalent
35	Page No. 202 Licensing	Minimum 8 simultaneous users (including processes), including software support/upgrades pre-paid for a minimum of a 8-year period. Examples of time series database software include, Hydstra, Aquatic Informatics, Kister's, Data Sight, etc.	Minimum 8 simultaneous users (including processes), including software support/upgrades pre-paid for a minimum of a 8-year period.

36	Page No.204; 205 10. Oracle Database Management Software	Database Management Software- Oracle Database 12C Enterprise Edition Processor Perpetual with 1st year ATS Support.	Database Management Software- Oracle Database 19C Enterprise Edition Processor Perpetual with 1st year ATS Support.
		Data manipulation: Allow for offset of data for a user defined period. Allow for interpolation of data between two data points for a user prescribed time gap. Allow for the correction of sensor drift.	Data manipulation: Allow for offset of data for a user defined period. Allow for interpolation of data between two data points for a user prescribed time gap in acceptable engineering algorithm. Allow for the correction of sensor drift.
		Report generation: Allow for daily, monthly, annual, reports for a single station, group of stations, and/or all stations. Allow for publication quality reports.	Report generation: Allow for daily, monthly, annual, reports for a single station, group of stations, and/or all stations as per requirements of the client.
		Rating Table Development: Develop rating curves using gauge height discharge measurements. Ability to store an unlimited number of rating curves for each station spanning an applicable period.	Rating Curve Development: Develop rating curves using stage discharge measurements. Ability to produce dynamic rating curves.
		Experience: The author (company) providing the software must provide a mature product, being sold for not less than 15 years by the author/company.	Experience: The author (company) providing the software must provide a mature product, being sold for not less than 10 (ten) years by the author/company.
37	Page No.207 14. Backup Software		Operating System Compatibility- Red Hat Enterprise Linux Server8 Licensing and Support: Minimum of 10 seats (unlimited seats preferable). Licensing/support/upgrade costs for a minimum of 8 years to be included in price, and all the Software shall be purchased and registered in the name of Purchaser (PD SHEWS project, BWDB).
38	Page No.208 KVM Switch with Console Monitor (item no. 5 i of List of Goods and Delivery Schedule under Section VII)	The Bidder will provide a KVM Switch which will allow connection of all the servers through a single Console (computer screen minimum 22", keyboard and mouse). The KVM switch will be rack mounted (with rails)	The Bidder will provide a KVM Switch which will allow connection of all the servers through a single Console (computer screen minimum 19", keyboard and mouse). The KVM switch will be rack mounted (with rails)
39	Page No. 54; 64;76;113;208;238	16-port switch	48-port switch



Page No.208
16 Port Switch (item no 5j.
of List of Goods and
Delivery Schedule under
Section VII)

The Bidder will provide a 16-port switch, which will allow the new computer systems to be connected to the BWDB network

The Bidder will provide a 48-port switch, which will allow the new computer systems to be connected to the BWDB network. Specifications of the switch as under-

Name of Item or Related Services	Technical Specification and Standards
Brand	Internationally Reputed Brand
Model	to be mentioned by bidder
Country of Origin	to be mentioned by bidder
Country of assembling	to be mentioned by bidder
Technical Specification	
Ports	48 x SFP+ each supporting 10GbE or 1GbE 6 x QSFP each supporting 40GbE or 4 x 10GbE
Management Ports	1 x RJ-45 serial console 1 x RJ-45 100/1000BASE-T management port 1 x USB Type A storage port
DAC Cable	8 Nos. (20 meter each) required from Day# 1
10G SFP+ Transceiver	90 Nos. 10G Multimode SFP from Day# 1 with necessary cables
10G SFP+ Transceiver	6 Nos. 10G Singlemode SFP from Day# 1 with necessary cables
Compatibility	OpenFlow 1.3 capable controllers and applications written for OF-DPA
Wire Speed Forwarding Performance	L2 and L3
Switching Capacity	1.44 Tbps
MAC Addresses Table	160 K
Bottleneck	2:1 oversubscription in folded-Clos networks. (480G Downlink & 240G Uplink)
VLAN IDs Support	4K

			L3 Routes Support	IPv4 16K min & IPv6 8K min
			Packet Buffer Size Support	16 MB shared buffer pool
			MLAG support	Required
			Storm Control Support	Broadcast, Multicast & Unknown Unicast
			Spanning Tree Protocol Support	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP (32 instances), BPDU Guard/BPDU Filtering, Root Guard, Loopback detection
			VLAN Support	4k VLANs and supports Port-Based VLAN, IEEE 802.1Q VLAN, Traffic Segmentation (Port Isolated)
			Link Aggregation Support	Static Trunk, 802.3ad LACP, 16 Trunk group & Load balance based on MAC SA/DA, SIP, DIP, TCP/UDP Port
			IGMP Snooping Support	IGMP v1/v2/v3 Snooping, Querier Support, Immediate Leave, Filtering/Throttling & Snooping Proxy (V1/V2/V3)
			Digital Diagnostic Monitoring Support	Required
			IEEE 802.1ag Connectivity Fault Management Support	Connectivity check, Loopback & Linktrace
			ITU-T Y.1731 Performance and Throughput Management	Frame Delay & Frame Delay variation
			QoS Traffic Scheduling Support	Strict Priority, WRR & Hybrid
			QoS Traffic Classification Support	802.1p based CoS/port IP ToS precedence based IP DSCP based CoS TCP/UDP Port based CoS PHB (Per Hop Behavior - internal priority) Drop precedence (color aware) Port based default priority

			DiffServ Support	SRTCM (1 rate 3 color) color aware/color blind TRTCM (2 rate 3 color) color aware/color blind Ingress policy map Egress policy map Rate limiting
			Management Security	Port Security, DHCP Snooping, IP Source Guard DHCP Snooping option 82, Dynamic ARP Inspection, MAC Authentication, Web Authentication, MAC Filtering, HTTPS and SSL, SSH 1.5/V2.0 (Secured Telnet Session),
			Management Interface Access Filtering	SNMP, Web, Telnet
			Monitor Environment	Power Status & FAN
			Thermal monitor	Fan speed control, Show temperature & Send trap
			802.1x Port-based/MAC-based Authentication	Dynamic VLAN assignment Dynamic QoS
			ACL Supports	Number of ACL (SW): 1 K rules Number of ACE per ACL (SW): 100 Auto compress ACE, L2/L3/L4, Ingress, Egress, Statistics
			Username/Password Authentication	Authenticate management access Local Authentication Remote Authentication via RADIUS Remote Authentication via TACACS+
			IPv6 Security Features	DHCPv6 Snooping IPv6 Source Guard IPv6 ND Snooping IPv6 RA Guard
			IPv6 ACL Support	Number of ACE (SW): 4 K (Compressed) L2/L3/L4: SrcIPv6/DstIPv6
			IPv6 ACL Support	Number of ACE (SW): 4 K (Compressed) L2/L3/L4: SrcIPv6/DstIPv6

			IPv6 Features Support	IPv4/IPv6 Dual Protocol Stack Unicast & Multicast IPv6 Address ICMPv6 & ICMPv6 Redirect (Host) IPv6 Path MTU & Neighbor Discovery Duplicate Address, Static Cache Entry, Address Resolution, Unreachable Neighbor Detection, Remote IPv6 Ping, Trace route over IPv6 & IPv6 sFlow Support SNMP, HTTP & SSH over IPv6 DHCPv6 Client & Relay support
			L3 Features over IPv4 Support	Multi-netting CIDR (Classless Inter-Domain Routing) Unicast Routing Multicast Routing IP Redundancy DHCP Relay
			L3 Features over IPv6 Support	Static Routes, OSPFv3, MLD v1/v2 & Equal Cost multipath routing (ECMP) IPv6 Unicast Routing PIM6-DM, PIM6-SM & DHCPv6 Relay IPv6 Multicast Routing
			Data Center Features Support	802.1Qbb (PFC), 802.1Qau (ECN) & 802.1Qaz (ETS) Supports DCBx, MLAG, VxLAN, ONIE, OpenFlow 1.3 & OF- DPA 1.0 Supports Supports 131,008 entries (32 ports, 4094 VLANs per port) VLAN Flow Table, 136 K entries L2 Bridging Flow Table, 72 K entries Unicast & Multicast Routing Flow Table Compatible with OpenDaylight /Ryu
			Regulatory	CE Mark (EN55022 Class A) FCC Part 15 Class A VCCI, Safety (CB, EN 60950 UL/CUL), IEC 68-2-14, ISTA 2A & RoHS-6 Compliant
			Cooling Provision	4+1 hot-swappable fans
			Power Supply	Dual hot-swappable power supplies (AC, 48 VDC, 12 VDC)

40	Computer Rack (item no 5k. of List of Goods and Delivery Schedule under Section VII	The Bidder will provide a full height computer rack which will hold all four servers, computer switch, and KVM system, Maximum Height 42U (1991 mm) Maximum Width 31.50inches (800 mm) Maximum depth 31.5 inches (800 mm) Weight Capacity (static load) 3000.00 lbs. (1363.64kg) Color Black	The Bidder will provide a full height computer rack which will hold all four servers, computer switch, and KVM system, Maximum Height 42U (1991 mm) Maximum Width 31.50inches (800 mm) Maximum depth 31.5 inches (1000 mm) Weight Capacity (static load) 3000.00 lbs. (1363.64kg) Color Black
41	Page No. 220 Automatic Rain Gauge Station(ARG)	General Features Power Supply: To be powered by Solar Panel provided by bidder with DCP	General Features Power Supply: DCP to be powered by Battery which will be charged by Solar Panel
42	Page No. 224 Note	Note: Bidder shall provide spout filter and bird cage to prevent ingress of insects and debris, And with Bubble Spirit Level and adjustable legs for horizontal alignment of tipping bucket mechanism	Note: Bidder shall provide spout filter and bird spiker to prevent ingress of insects and debris, And with Bubble Spirit Level and adjustable legs for horizontal alignment of tipping bucket mechanism
43	Page No. 225 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Serial Port for sensor interface RS-232/ RS-485 for sensor Interface	Serial Port for sensor interface One RS- 232 /SDI-12 & One RS-485 for sensor Interface.
44	Page No. 225 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Data Transfer: USB stick option for Data transfer	Input - Output Interfaces Data Transfer: USB port for Data transfer
45	Page No. 225 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485) for communication with Laptop for programming	Input - Output Interfaces Port for Configuration: One Serial Port (Rs- 232 / RS-485 / USB port) for communication with Laptop for programming
46	Page No. 225 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for ARG &AWLG 	Input - Output Interfaces Port for Telemetry : 2 Ports for Communication with Telemetry (GSM & GPRS) device	Input - Output Interfaces Port for Telemetry: One Port for Communication with Telemetry (GSM & GPRS) device and another port for spare. The Bidder shall ensure that the system remains operational even under extreme conditions of weather. The failure of transmission due to temporary disturbances in the network must be taken care of by providing adequate storage in the Data logger and ensuring subsequent relay immediately after the network is restored. Non-volatile Flash memory that can one store one year of data and expandable upto a minimum of 1GB.Via USB/SD Card.
47	Page No. 226 DATA LOGGER/RTU Data	Input - Output Interfaces	Input - Output Interfaces

	Logger with Analog Input (AI) 2 channels for ARG	Display Port: Port for connecting external display screen for displaying measured data as running text	Datalogger should have built-in display.
48	Page No. 226 6.6 Data Logger with Analog Input (AI) 2 channels (For AWS)	Analog to Digital Converter Sample intervals 1 Sec to 24 hours (user scalable)	Analog to Digital Converter Sample intervals 2 minutes to 24 hours (user scalable)
49	Page No. 228 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 2 channels for AWS	GSM / GPRS MODEM Performance Data Reception availability of 95% or better. Yagi Antenna may be used in places with weak signal strength.	GSM / GPRS MODEM Performance Data Reception availability of 95% or better. GSM- GPRS omni directional antenna with minimum 11 dBi gain
50	Page No. 229 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Serial Port for sensor interface One RS-232 for sensor Interface One RS-485 for sensor Interface port	Serial Port for sensor interface One RS 232 / SDI-12 & One RS-485 for sensor Interface
51	Page No. 229 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Input - Output Interfaces Data Transfer: USB stick option for Data transfer	Input - Output Interfaces Data Transfer: USB port for Data transfer
52	Page No. 229 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232 / RS-485) for communication with Laptop for programming	Input - Output Interfaces Port for Configuration: One Serial Port (RS-232/ RS-485/USB port)) for communication with Laptop for programming
53	Page No. 229 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	Input - Output Interfaces Port for Telemetry : 2 Ports for Communication with Telemetry (GSM & GPRS) device	Input - Output Interfaces Port for Telemetry: One Port for Communication with Telemetry (GSM & GPRS) device and another port for spare.
54	Page No. 230 Data Logger with Analog Input (AI) 8 channels (For AWS)	Analog to Digital Converter Sample intervals 1 Sec to 24 hours (user scalable)	Analog to Digital Converter Sample intervals 2 minutes to 24 hours (user scalable)
55	Page No. 231 DATA LOGGER/RTU 1. Data Logger with Analog Input (AI) 8 channels for AWS	GSM / GPRS MODEM Performance Data Reception availability of 95% or better. Yagi Antenna may be used in places with weak signal strength.	GSM / GPRS MODEM Performance Data Reception availability of 95% or better. GSM- GPRS omni directional antenna with minimum 11 dBi gain

56	Page No. 127;149;150;153;156;159; 217;219;220;223;224;228; 232 & 233	UL/IEC/ANSI/Equivalent Certification	UL / IEC/ ANSI/ IMD/ BMD/ ILAC/ APAC Valid Certification
57	Page No. 252 Section-VII Schedule of Requirement "Inspection and Test"	1. Upon receipt of the test certificate and calibration certificates, the purchaser or its representative may arrange for inspection and/or test of any or part or all the equipment /Goods prior to issuance of dispatch clearance or the purchaser may waive the pre-dispatch inspection.	Upon receipt of the test certificate and calibration certificates, the purchaser or its representative may arrange for inspection and/or test of any or part or all the equipment /Goods prior to issuance of dispatch clearance or the purchaser may waive the pre-dispatch inspection. Cost of such inspection/test shall be borne by the Purchaser.
58	Annexure-C, (Page No.- 343)	Draft of Annual Operational and Maintenance Effectiveness Agreement", Chapter 8 "Scheduled Maintenance visits", the number of visits foreseen will be twice a year.	Draft of Annual Operational and Maintenance Effectiveness Agreement", Chapter 8 "Scheduled Maintenance visits", the number of visits foreseen will be four times a year.



Amendment No 59: List of 315 AWLG Stations as mentioned in Annexure-A is to be replaced with the following list of 315 AWLG Stations

Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
1	NEMD	7, Pubail	5 Balu	23.934390	90.489364	Bridge	Radar
2	NEMD	7.5, Demra	5 Balu	23.732950	90.496487	Bridge	Radar
3	NEMD	8, Basuri	6, Banar	24.699904	90.150776	Bridge	Radar
4	NEMD	9, Kaoraid	6, Banar	24.311480	90.513834	Bridge	Radar
5	NEMD	9.5, Trimohini	6, Banar	24.273446	90.547344	Bridge	Radar
6	NEMD	12, Madhupur	8, Bangshi	24.605663	90.029061	Bridge	Radar
7	NEMD	13 Kawaljani	8, Bangshi	24.298597	90.058353	No Structure	Pole Mounted Radar (Type 2)
8	NEMD	14 Mirzapur	8, Bangshi	24.110317	90.096948	Bridge	Radar
9	NEMD	14.5, Noarhat	8 Bangshi	23.914717	90.229198	Bridge	Radar
10	NEMD	35, Nalitabari	17, Bhogai-Kangsa	25.084597	90.196382	Bridge	Radar
11	NEMD	35.5, Sarchapur	17, Bhogai-Kangsa	24.996884	90.358691	Bridge	Radar
12	NEMD	36, Jaria-Jhanjail	17, Bhogai-Kangsa	25.010553	90.653007	Bridge	Radar
13	NEMD	36.1 Mohonganj	17, Bhogai-Kangsa	24.873011	90.973879	Bridge	Radar
14	NEMD	42, Mill Baraccuk	20, Buriganga	23.698050	90.418861	Bridge	Radar
15	NEMD	43, Hariarpara	20-Buriganga	23.633394	90.469217	No Structure	Pole Mounted Radar (Type 1)
16	NEMD	46.7L, Khulbarirchar	22, Brahmaputra-Jamuna	25.204498	89.770515	Bridge	Radar
17	NEMD	46.9L, Bahdurabad	22, Brahmaputra-Jamuna	25.130221	89.734714	No Structure	Pole Mounted Radar (Type 2)
18	NEMD	46.9R Fulchori_ Transit	22-Brahmaputra	25.187394	89.594280	No Structure	Pole Mounted Radar (Type 2)
19	NEMD	48, Jogonnathganj	22, Brahmaputra-Jamuna	24.712303	89.812067	Bridge	Radar
20	NEMD	53, Batkuchi	24, Cellakhali	25.196847	90.176499	Bridge	Radar
21	NEMD	67, Kamalganj	29, Dhalai	24.355781	91.849055	Bridge	Radar

Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
22	NEMD	68A, Elashin	30, Dhaleswari	24.117289	89.888490	Bridge	Radar
23	NEMD	68 Tilli	30, Dhaleswari	23.938301	89.960268	Bridge	Radar
24	NEMD	68.5, Jagir Dhaleswari	30, Dhaleswari	23.879131	90.024878	Bridge	Radar
25	NEMD	69, Savar	30 Dhawlessary	23.817589	90.257557	Bridge	Radar
26	NEMD	70, Kolatia	30 Dhawlessary	23.602821	90.276803	Bridge	Radar
27	NEMD	71A, Rekabi bazar	30,Dhowlessory	23.570110	90.502837	Bridge	Radar
28	NEMD	71, Kalagachia	30, Dhawlessary	23.569368	90.512079	Bridge	Radar
29	NEMD	93.5L, Mawa	39 Ganges,padma	23.471208	90.257515	Bridge	Radar
30	NEMD	94, Tarpasha	39 Ganges-padma	23.466143	90.332152	No Structure	Pole Mounted Radar (Type 2)
31	NEMD	134B, Jhenai Bridge	52, Jhenai	24.949599	89.898688	Bridge	Radar
32	NEMD	134A, Baushi Bridge	52, Jhenai	24.780253	89.852069	Bridge	Radar
33	NEMD	134, Jukerchar	52, Jhenai	24.372292	89.859962	Bridge	Radar
34	NEMD	135A, Juri(Silghat)	53, Juri	24.589626	92.119314	Bridge	Radar
35	NEMD	137A, Taraghat	55, Kaliganga	23.858179	89.955843	Bridge	Radar
36	NEMD	172.5 Amolshid	66, Kushiara	24.872536	92.485578	No Structure	Pole Mounted Radar (Type 2)
37	NEMD	174, Fenchuganj	66, Kushiara	24.702461	91.940855	Bridge	Radar
38	NEMD	175.5, Sherpur	66, Kushiara	24.628721	91.682115	Bridge	Radar
39	NEMD	179, Demra	68, Lakhya	23.728154	90.504530	Bridge	Radar
40	NEMD	180, Narayanganj	68,Lakyha	23.703188	90.517405	Bridge	Radar
41	NEMD	186, Jugini	71, Lohajang	24.290424	89.874617	Bridge	Radar
42	NEMD	192, Motiganj	73, Lungla	24.305195	91.681813	Bridge	Radar
43	NEMD	201, Monu Rail Br.	77, Monu	24.426239	91.939415	Bridge	Radar
44	NEMD	202, Moulvibazar	77, Monu	24.493971	91.773866	Bridge	Radar
45	NEMD	223, Gualkanda	86, Old Brahmaputra	25.364955	89.810067	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
46	NEMD	225, Jamalpur	86, Old Brahmaputra	24.922365	89.967555	Bridge	Radar
47	NEMD	228.5, Mymensingh	86, Old Brahmaputra	24.736044	90.430191	Bridge	Radar
48	NEMD	229, Toke	86, Old Brahmaputra	24.262351	90.643133	Bridge	Radar
49	NEMD	233A, Jaflong	88, Peain	25.156930	92.016851	Bridge	Radar
50	NEMD	233, Protappur	88, Peain	25.134109	91.947235	Bridge	Radar
51	NEMD	252.1, Salutikar	93, Sari-Gowain	24.991143	91.852492	Bridge	Radar
52	NEMD	263.1, Kalmakanda	99, Someshowri	25.076895	90.894825	Bridge	Radar
53	NEMD	265, Jaldhup	101, Sonai Bordal	24.773979	92.172923	Bridge	Radar
54	NEMD	268, Chhatak	102, Surma-Meghna	25.036636	91.662516	No Structure	Pole Mounted Radar (Type 2)
55	NEMD	269.5, Dirai	102, Surma-Meghna	24.797798	91.352458	Bridge	Radar
56	NEMD	274, Narsingdi	102, Surma-Meghna	23.919152	90.725900	Bridge	Radar
57	NEMD	299, Tongi khal	109, Tongi Khal	23.881696	90.400986	Bridge	Radar
58	NEMD	301, Kaliakoir	111, Turag	24.082113	90.207688	Bridge	Radar
59	NEMD	302, Mirpur	111, Turag	23.784895	90.336659	Bridge	Radar
60	NEMD	310, Netrokona	119, Mogra	24.883039	90.724681	Bridge	Radar
61	NEMD	311, Atpara	119, Mogra	24.811461	90.870117	Bridge	Radar
62	NEMD	314, Ghosegaon	122 Nitai	25.150252	90.517601	No Structure	Pole Mounted Radar (Type 2)
63	NEMD	327, Bulamari	137, Nil Jiringam	25.613458	89.878053	No Structure	Radar
64	NEMD	332, Islampur	142, Dhola	25.130174	91.755003	Bridge	Radar
65	NEMD	333, Muslimpur	143, Jhalukhali	25.613458	89.878053	Bridge	Radar
66	NEMD	334, Ghok Bazar	164, Saiduli Baruni	24.689015	90.865080	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
67	NEMD	337, Urargaon	147 Noagaon	25.120804	91.593803	Bridge	Radar
68	NEMD	341, Chella Sonapur	151, Umium	25.128381	91.668603	Bridge	Radar
69	NEMD	342, Nolsafa	156 Futikjani	24.487905	89.900391	Bridge	Radar
70	NEMD	343.5, Bhuiyanpur d/s	156 Futikjani	24.483257	89.881272	Bridge	Radar
71	NEMD	345, Durlavpur	102, Surma-Meghna	24.997228	91.264043	Bridge	Radar
72	NEMD	351, Aktapara	170, Mohasing	24.877074	91.487460	Bridge	Radar
73	NEMD	352, Jagannathpur	Noljora (Mora Surma)	24.763642	91.551661	Bridge	Radar
74	NEMD	363.2 Moddonagar	99, Someshowri	25.004876	90.985311	Bridge	Radar
75	NEMD	355 Dokkhin Hasonpur	119 Mogra (Dhonu)	24.625451	90.955863	Bridge	Radar
76	NEMD	Sarighat sylhet 8524 WMIP	Sarigoain	25.087100	92.120000	Bridge	Radar
77	NEMD	Shaola Dubag, Sylhet 8506 WMIP	Kushiara	24.880000	92.190000	Bridge	Radar
78	NEMD	Durgapur, Netrokona 8527 WMIP	Sumeshwary	24.677900	90.470000	Bridge	Radar
79	NEMD	Nakuagaon, Sherpur 8528 WMIP	Bhogai	24.736600	90.430000	Bridge	Radar
80	NEMD	Sirajganj, Sirajganj 8302 Hycos_1	Jamuna	24.392833	89.803333	Bridge	Radar
81	NEMD	Chatlaghat Station, Moulobi Bazar 8307 Hycos_5	Monu	24.362778	91.960833	Bridge	Radar
82	NEMD	Zakiganj Station, Zakiganj 8309 Hycos_7	Khushiyera	24.873633	92.363347	Pole	Pole Mounted Radar (Existing Pole)
83	NEMD	Sunamganj Station, Sunamganj 8308 Hycos_6	Surma	25.076586	91.411400	Pole	Pole Mounted Radar (Existing Pole)
84	NMD	151 Baghabari	57, Karotoa-Atrai	24.130871	89.581329	Bridge	Radar
85	NMD	16.1 Malonchi	9, Boral	24.293084	88.962941	Bridge	Radar
86	NMD	148 Chanchkoir	57, Gurnandakuja	24.373775	89.252099	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
87	NMD	149 Astamonisha	57, Karotoa-Atrai	24.263456	89.332388	Bridge	Radar
88	NMD	99 Gorai Rly. Bridge	42, Gorai	23.884347	89.180390	Bridge	Radar
89	NMD	11.5 Nalka-Sengatii	28-Dcj Korotoa	24.423387	89.591747	Bridge	Radar
90	NMD	66 Ullapara	28, Karotoa	24.297350	89.593757	Bridge	Radar
91	NMD	17.1 Baral Bridge	9, Boral	24.219700	89.379448	Bridge	Radar
92	NMD	150 Dohokuladanga	57-Gur-Gumani	24.175506	89.470704	Bridge	Radar
93	NMD	149.1 Gumani Rly. Bridge	57-Gumani	24.227702	89.419817	Bridge	Radar
94	NMD	313 Nangura Rly. Bridge	117-Nangura	24.257292	89.489669	Bridge	Radar
95	NMD	211.5 Chapai Nawabgoanj	80- Mohananda	24.603507	88.281620	Bridge	Radar
96	NMD	261 Naohata	98-Sib-Baranai	24.459524	88.613163	Bridge	Radar
97	NMD	147.5 Singra	57, Gur	24.497763	89.138623	Bridge	Radar
98	NMD	238 Raharpur	89, Punarbhupa	24.823431	88.319018	Bridge	Radar
99	NMD	338 Cansart	148, Pagla	24.734556	88.168219	Bridge	Radar
100	NMD	133 Naogoan	51-L, Jamuna	24.807982	88.945950	Bridge	Radar
101	NMD	144 Chalkhariharpur	57, Atrai	25.170080	88.751193	Bridge	Radar
102	NMD	145 Mahadevpur	57, Atrai	25.972390	89.565964	Bridge	Radar
103	NMD	147 Atrai Railway Bridge	57, Atrai	24.612071	88.974566	Bridge	Radar
104	NMD	83.1 Naldangarhat	37, Fakir barnai	24.503282	88.960806	Bridge	Radar
105	NMD	82 Jote Bazar	57, Atrai	24.719447	88.755361	Bridge	Radar
106	NMD	83 Bagmara	37, Fakir Barrai	24.558307	88.809412	Bridge	Radar
107	NMD	65 Bogura	28, Korotoa	24.845711	89.379216	Bridge	Radar
108	NMD	11 Khanpur	7, Bangali	24.628834	89.465592	Bridge	Radar
109	NMD	324 Dhunot	134, Old Bangali	24.686544	89.546260	Bridge	Radar
110	NMD	11A Sariakandi	7, Bangali	24.874521	89.565079	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
111	NMD	15-J Mathurapara	22, Brahmaputra	24.837649	89.587254	No Structure	Pole Mounted Radar (Type 1)
112	NMD	155 Mohimaganj	59, Khatakhali	25.111099	89.503891	Bridge	Radar
113	NMD	10 Shimulbari	7, Bangali	25.049505	89.522829	Bridge	Radar
114	NMD	64 Shibganj	28, Koratoa	25.008858	89.315719	Bridge	Radar
115	NMD	312 Talora	120, Nagar	24.825656	89.189008	Bridge	Radar
116	NMD	325 Sanamukhi	135, Tulshiganga	24.965179	89.022838	Bridge	Radar
117	NMD	132.5 Joypurhat	51-L, Jamuna	25.111218	88.990423	Bridge	Radar
118	NMD	62.5 Siraj	28-DCJ Koratoa	25.431543	89.147934	Bridge	Radar
119	NMD	78 Kantanagar	33, Dhepa	25.814003	88.674161	Bridge	Radar
120	NMD	132 Monmothpur	51-L, Jamuna	25.657370	88.841387	Bridge	Radar
121	NMD	132.2 Phulbari	51-L, Jamuna	25.500612	88.906839	Bridge	Radar
122	NMD	142 Khansama	57, Koratoa-Atrai	25.931029	88.725610	Bridge	Radar
123	NMD	142.1 Bushirbandar	57, Koratoa-Atrai	25.770508	88.730460	Bridge	Radar
124	NMD	143 Shamijhiaghat	57, Koratoa-Atrai	25.539062	88.759453	Bridge	Radar
125	NMD	156/A Kundal	60, Kharkharia	25.774356	88.877254	Bridge	Radar
126	NMD	236 Pulhat	89, Punarbhaba	25.499663	88.952165	Bridge	Radar
127	NMD	287 Kodalkatigaon	105, Tangaon	25.703636	88.436611	Bridge	Radar
128	NMD	340 Kazipara	150, Tentulia	25.620907	88.499623	Bridge	Radar
129	NMD	139 Baradeshwari	57-Koratoa-Atrai	26.468820	88.486058	Bridge	Radar
130	NMD	140 Panchagar	57-Koratoa-Atrai	26.330048	88.552826	Bridge	Radar
131	NMD	141 Debiganj	57-Koratoa-Atrai	26.120059	88.750447	Bridge	Radar
132	NMD	235A Pran Nagar	89, Punarbhaba	25.911314	88.564889	Bridge	Radar
133	NMD	282 Bhitorgar	104-Talma	26.414565	88.585466	Bridge	Radar
134	NMD	283 Molani	104-Talma	26.334951	88.589780	Bridge	Radar



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135	NMD	284 Raniganj	105, Tangon	26.191766	88.467574	Barrage	Radar
136	NMD	285 Thakurgaon	105, Tangon	26.035936	88.456785	Bridge	Radar
137	NMD	305.5 Ghoramaraghat	114-Ghoramaraghat	26.260819	88.694635	Bridge	Radar
138	NMD	335 Bhutdangi	145, Kulik	25.827338	88.239991	Bridge	Radar
139	NMD	336 Bujruk	146, Nagar	25.855463	88.115396	Bridge	Radar
140	NMD	44/1 Nizbari	21-Chikli	25.796247	88.955400	Bridge	Radar
141	NMD	61 Boragari	28-Deonai	26.104007	88.858786	Bridge	Radar
142	NMD	62.1 Barati	28-Jamuneswari	25.811160	89.047103	Bridge	Radar
143	NMD	62 Bodarganj	28-Jamuneswari	25.682266	89.076094	Bridge	Radar
144	NMD	63 Chalk Rahimpur	28-Jamuneswari	25.147428	89.359928	Bridge	Radar
145	NMD	96/A Jafarganj	40-Ghagot	25.799761	89.188238	Bridge	Radar
146	NMD	96 Islampur	40-Ghagot	25.679032	89.273590	Bridge	Radar
147	NMD	96.5 Mirzapur	40-Ghagot	25.547923	89.402369	No Structure	Pole Mounted Radar (Type 1)
148	NMD	97 Gaibandha	40-Ghagot	25.339397	89.551048	Bridge	Radar
149	NMD	291.5 R. Dalia	107-Teesta	26.175619	89.050629	Barrage	Radar
150	NMD	291.5 L. Doani	107-Teesta	26.177072	89.060088	Barrage	Radar
151	NMD	294 Kaunia	107-Teesta	25.788111	89.437680	Bridge	Radar
152	NMD	328 Kumarpara	Naotara	26.130000	88.981025	Bridge	Radar
153	NMD	346 Pocharhat	141-Buri Teesta	26.105719	88.953142	Barrage	Radar
154	NMD	45.5 Chilmari	22-Brahmaputra	25.568348	89.678749	No Structure	Pole Mounted Radar (Type 2)
155	NMD	75 Patgram	32-Dharla	26.342642	89.024795	Bridge	Radar
156	NMD	76 Taluksimulbari	32-Dharla	25.970829	89.473371	Bridge	Radar
157	NMD	77 Kurigram	32-Dharla	25.821068	89.661839	Bridge	Radar
158	NMD	81 Pateswari	36-Dudhkumar	26.096341	89.720471	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
159	NMD	294.5 Haripur	107-Teesta	25.533844	89.654286	Bridge	Radar
160	NMD	205A, Insaftnagar	79, Matha Bhanga	24.063992	88.739449	Bridge	Radar
161	NMD	Dalia, Dinajpur 8502 WMIP	107-Teesta	26.178827	89.051893	Barrage	Radar
162	NMD	Shaheber Arga, Kurigram 8523 WMIP	Bramaputra	25.706000	89.822000	Pole	Pole Mounted Radar (Existing Pole)
163	NMD	Lalonsa Bridge, Kustia 8303 Hycos_2	Ganges	24.063511	89.022789	Bridge	Radar
164	NMD	Dalia Station	Teesta River	26.279444	88.931944		Pole Mounted Radar (Type 1)
165	NMD	At 18 km downstream of Gorai Rail bridge Janepur in Khoksha upazila, Kushtia	Gorai Moghumoti River,	23.801915	89.278283		Pole Mounted Radar (Type 1)
166	SEMD	58 Hajiganj	27 Dakatia	23.248900	90.861188	Bridge	Radar
167	SEMD	58/A Laksam	27 Dakatia	23.234581	91.118863	Bridge	Pole Mounted Radar (Type 1)
168	SEMD	79 Matlab	34 Dhanaghoda	23.350189	90.706139	Bridge	Radar
169	SEMD	109 Bibir Bazar	43 Gumti	23.470823	91.201633	Bridge	Radar
170	SEMD	113 Kangasanagar	43 Gumti	23.555300	91.064765	Bridge	Radar
171	SEMD	114 Jibonpur	43 Gumti	23.605589	90.994049	Bridge	Radar
172	SEMD	115 Daudkandi	43 Gumti	23.542249	90.715452	Bridge	Radar
173	SEMD	275 Badyar Bazar	102 Surma-Meghna	23.649547	90.625165	No Structure	Pole Mounted Radar (Type 1)
174	SEMD	275.5 Meghna Ferry ghat	102 Surma-Meghna	23.602947	90.624007	Bridge	Radar
175	SEMD	276 Satnal	102 Surma-Meghna	23.479874	90.593384	No Structure	Pole Mounted Radar (Type 1)
176	SEMD	277.3 Nilkamal	102 Surma-Meghna	23.089760	90.648781	No Structure	Pole Mounted Radar (Type 2)
177	SEMD	330 Bijni	149 Salda	23.674552	91.147736	Bridge	Radar
178	SEMD	334 Mia Bazar	114 Kakri	23.335065	91.269198	Bridge	Radar

Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
179	SEMD	339 Salda	149 Salda	23.671585	91.156346	Bridge	Radar
180	SEMD	84/1 Kalia Chor	38 Feni	22.939005	91.615695	No Structure	Pole Mounted Radar (Type 2)
181	SEMD	86 Shuvopur	38 Feni	22.954760	91.542616	Bridge	Radar
182	SEMD	87 Char Sunapur	38 Feni	22.836939	91.453003	Sluice Gate	Radar
183	SEMD	181 Gunoboti	69 Little Feni	23.101206	91.278272	Bridge	Radar
184	SEMD	181/A Selonia	69 Little Feni	22.982337	91.337475	Bridge	Radar
185	SEMD	212 Parshuram	81 Muhuri	23.226527	91.446057	Bridge	Radar
186	SEMD	213 Horipur	81 Muhuri	23.035672	91.485852	Bridge	Radar
187	SEMD	257 Malipur	96 Selonia	23.037663	91.438893	Bridge	Radar
188	SEMD	257.5 Subar Bazar	96 Selonia	23.236975	91.414371	Bridge	Radar
189	SEMD	221.5 Begumganj	85 Noakhali Khal	22.944269	91.109777	Bridge	Radar
190	SEMD	222 Noakhali	85 Noakhali Khal	22.845148	91.101680	Bridge	Radar
191	SEMD	239 Lakshmipur	90 Rahmat Khali Khal	22.937429	90.829996	Bridge	Radar
192	SEMD	321 Hatiya	129 Hatiya	22.229772	91.071239	Bridge	Radar
193	SEMD	239.5 Piarpur	90 Rahmat Khali Khal	22.903054	90.845133	Bridge	Radar
194	SEMD	3A, kaotali Brahmanbaria	3A, Anterson Khal	23.957087	91.119453	Bridge	Radar
195	SEMD	123, Gongasagor	46, Haura	23.833420	91.198452	Bridge	Radar
196	SEMD	295, Azobpur	108, Titash	24.120945	91.055248	No Structure	Pole Mounted Radar (Type 1)
197	SEMD	297, Gokornoghat	108, Titash	23.955088	91.084791	Bridge	Radar
198	SEMD	298, Nabinagar	108, Titash	23.902194	90.966120	Bridge	Radar
199	SEMD	296, Akhaura	108, Titash	23.879810	91.200481	Bridge	Radar
200	SEMD	298/1, Salimganj	108, Titash	23.849028	90.846555	Bridge	Radar
201	SEMD	230/1, Ramnagar	86 Old Brahmaputra	24.036873	90.960451	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
202	SEMD	272/1, Austogram Kishorganj	102 Upper Meghna	24.274947	91.098964	Bridge	Radar
203	SEMD	270, Markuli	102 Upper Meghna	24.695094	91.379013	No Structure	Pole Mounted Radar (Type 2)
204	SEMD	74, Dilalpur Kishorganj	31 Dhanu-Ghorautra	24.195704	90.788342	Bridge	Radar
205	SEMD	73, Itna Kishorganj	31 Dhanu-Ghorautra	24.530651	91.088805	No Structure	Pole Mounted Radar (Type 1)
206	SEMD	72, Khaliajuri	31 Dhanu-Ghorautra	24.687773	91.134983	Bridge	Radar
207	SEMD	271, Azmiriganj	102, Upper Meghna	24.552888	91.228147	No Structure	Pole Mounted Radar (Type 1)
208	SEMD	272, Madna	102, Upper Meghna	24.338373	91.238751	No Structure	Pole Mounted Radar (Type 1)
209	SEMD	138, Sofiabad	56-Korangi	24.293052	91.546430	Bridge	Radar
210	SEMD	280, Sutang Rly. Br.	103, Sutang	24.283210	91.402666	Bridge	Radar
211	SEMD	158, Chunarghat	61, Khowai	24.202567	91.527256	Bridge	Radar
212	SEMD	158.1, Shaistaganj	61, Khowai	24.273176	91.473585	Bridge	Radar
213	SEMD	117 Narayan hat	44 Halda	22.811874	91.720984	Bridge	Radar
214	SEMD	121 Enayethat	44 Halda	22.419864	91.882450	Bridge	Radar
215	SEMD	120 Telepari	44 Halda	22.560335	91.845208	Bridge	Radar
216	SEMD	119/1 panchpukuria	44 Halda	22.666341	91.782331	Bridge	Radar
217	SEMD	124 ThandaChari	47 Ichamoti	22.570190	92.040859	Bridge	Radar
218	SEMD	248 Dohajari	92 Sangu	22.159009	92.067964	Bridge	Radar
219	SEMD	250 Banigram	92 Sangu	22.121445	91.895230	Bridge	Radar
220	SEMD	84 Ramghor	38 Feni	22.997119	91.723725	Bridge	Radar
221	SEMD	247 Bandarban	92 Sangu	22.196379	92.216854	Bridge	Radar
222	SEMD	125 Rangunia	47 Ichamoti	22.459413	92.064933	Bridge	Radar
223	SEMD	203 Lama	78 Matamuhuri	21.783488	92.190186	Bridge	Radar



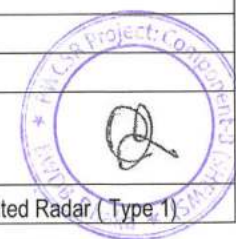
Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
224	SEMD	200 Shaflapur	76 Moheskhal Channel	21.672136	91.959082	Bridge	Radar
225	SEMD	204 Chiringa	78 Matamuhuri	21.770958	92.081382	Bridge	Radar
226	SEMD	176 Lemshikhali	67 Kutubdia Channel	21.813235	91.875139	Bridge	Radar
227	SEMD	Chandpur, Chandpur 8503 WMIP	Meghna	23.472100	90.590000	Bridge	Radar
228	SEMD	Chittagong Sadarghat/KalurGhat, CTG 8504 WMIP	Karnaphuli	22.457571	92.033844	Bridge	Radar
229	SEMD	Habiganj, Habiganj 8525 WMIP	Khowai	24.390000	91.410000	Bridge	Radar
230	SEMD	Cox's Bazar 8517 WMIP	Bakkhali	21.448000	91.980000	Bridge	Radar
231	SEMD	Ralunatkhal, Laxmipur 8509 WMIP	Meghna	22.867900	90.770000	Pole	Pole Mounted Radar (Existing Pole)
232	SEMD	Comilla, Comolla 8526 WMIP	Gomoti	23.470400	91.200000	Bridge	Radar
233	SEMD	Bamni, Noakhali 8520 WMIP	Bamna	22.888300	91.350000	Bridge	Radar
234	SEMD	Musapur, Feni 8510 WMIP	Little Feni	23.034800	91.440000	Bridge	Radar
235	SEMD	Bhairab Bazar, Bhairab 8304 Hycos_3	Uppar Meghna	24.047286	90.993389	Bridge	Radar
236	SEMD	Ballah Station, Hobiganj 8306 Hycos_4	Khowai	24.083814	91.595025	Pole	Pole Mounted Radar (Existing Pole)
237	SWMD	51, Ramdia	23, Chandana Arkandi Khal	23.703081	89.526293	Bridge	Radar
238	SWMD	52, Ghoshpur	23, Chandana Arkandi Khal	23.447897	89.650664	Sluice Gate	Radar
239	SWMD	101 B, Kamarkhali	42, Gorai Madhumati	23.539291	89.516799	Bridge	Radar
240	SWMD	102, Bhatiapara	42, Gorai-Madhumati	23.214960	89.696585	Bridge	Radar
241	SWMD	168, Faridpur	64, Kumar	23.603555	89.829475	Bridge	Radar



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242	SWMD	169, Mujurdia	64, Kumar	23.482893	89.686657	Bridge	Radar
243	SWMD	170, Bhanga	64, Kumar	23.387386	89.975413	Bridge	Radar
244	SWMD	5, Madaripur	3, Arial Khan	23.181607	90.200591	Bridge	Radar
245	SWMD	95, Suressor	39, Ganges	23.279106	90.494130	Bridge	Radar
246	SWMD	4A, Offtake	3, Arial Khan	23.378972	90.117181	Bridge	Radar
247	SWMD	190, Mostafapur	72, Lower Kumar	23.161626	90.137575	Bridge	Radar
248	SWMD	193, Kabirajpur	74, Madariput Beel-Route.	23.270944	90.080967	Bridge	Radar
249	SWMD	350, Rajgonj	61.5, Kirtinasha	23.220507	90.339354	Bridge	Radar
250	SWMD	27, Keshabpur	13, Bhadra	22.909363	89.221836	Bridge	Radar
251	SWMD	30, Afraghat	14, Bhairab (Lower)	23.117369	89.384798	Bridge	Radar
252	SWMD	55, Khator Magura	25, Chitra	23.259596	89.441588	Bridge	Radar
253	SWMD	55A, Ratandanga	25, Chitra	23.197442	89.514326	Bridge	Radar
254	SWMD	56.1, Narail	25, Chitra	23.169170	89.512017	Bridge	Radar
255	SWMD	162, Jhikargacha	62, Kobadak	23.105149	89.094556	Bridge	Radar
256	SWMD	217, Kala Chandpur	83, Nabaganga	23.346297	89.027366	Bridge	Radar
257	SWMD	217A, Lohagara	83, Nabaganga	23.184407	89.648507	Bridge	Radar
258	SWMD	219, Gazirhat	83, Nabaganga	23.009294	89.447255	No Structure	Pole Mounted Radar (Type 1)
259	SWMD	206, Hatboalia	79, Matha Bhanga	23.826529	88.862453	Bridge	Radar
260	SWMD	207, Chuadanga	79, Matha Bhanga	23.647553	88.845601	Bridge	Radar
261	SWMD	205, Kajipur	79, Matha Bhanga	23.963065	88.742809	Bridge	Radar
262	SWMD	208, Darsana	79, Matha Bhanga	23.524768	88.788389	Bridge	Radar
263	SWMD	21, Arpara	11, Begbati	23.377354	89.372675	Bridge	Radar
264	SWMD	161, Tahirpur	62, Kobadak	23.346203	89.027573	Bridge	Radar



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265	SWMD	171, Garagonj	65, Kumar	23.668254	89.199825	Bridge	Radar
266	SWMD	215, Jhenaidaha	83, Nabaganga	23.548314	89.176122	Bridge	Radar
267	SWMD	216A, Magura	83, Nabaganga	23.487374	89.431809	Bridge	Radar
268	SWMD	216, Magura	83, Nabaganga	23.494490	89.423502	Bridge	Radar
269	SWMD	1, Bagerhat	1, Doratana	22.647209	89.802706	Bridge	Radar
270	SWMD	26, Protapnagar	12, Betna Khulpetua	22.353380	89.203622	Sluice Gate	Radar
271	SWMD	28, Baroaria (Dumuria)	13, Bhadra	22.646823	89.428810	No Structure	Pole Mounted Radar (Type 1)
272	SWMD	105, Atharobaki	42, Gorai-Madhumati-Baleswar	22.968157	89.781201	Bridge	Radar
273	SWMD	164, Chandkhali	62, Kobadak	22.541860	89.237942	Bridge	Radar
274	SWMD	241, Khulna	91, Rupsha-Pashur	22.777719	89.584269	Rupsha Bridge	Radar
275	SWMD	243, Chalna	91, Rupsha-Pashur	22.600344	89.522035	No Structure	Pole Mounted Radar (Type 1)
276	SWMD	258, Paikgacha	97, Shibsha	22.752820	89.102588	Bridge	Radar
277	SWMD	23, Kalaroa	12, Betna Khulpetua	22.859956	89.043493	Bridge	Radar
278	SWMD	25, Chapra	12, Betna Khulpetua	22.550764	89.187758	Bridge	Radar
279	SWMD	129, Basantapur	49, Ichamati	22.470498	89.003506	Bridge	Radar
280	SWMD	130, Khoikhali	49, Ichamati	22.205393	89.076728	No Structure	Radar
281	SWMD	163, Tala Magura	62, Kobadak	22.740382	89.258011	Bridge	Radar
282	SWMD	18.1, Bakergonj	10, Barisal Buriswar	22.541722	90.339847	Bridge	Radar
283	SWMD	37.5, Betagi	18, Biskhali	22.417142	90.165462	Bridge	Radar
284	SWMD	183, Kaitpara	70, Lohalia	22.515353	90.432542	Bridge	Radar
285	SWMD	253A, Uzirpur	94, Swarupkati	22.807467	90.239112	Bridge	Radar
286	SWMD	278, Daulatkhan	102, Surma-Meghna	22.603567	90.748321	Sluice Gate	Radar
287	SWMD	288.3, Tongibari	106, Tentulia	22.694525	90.495868	No Structure	Pole Mounted Radar (Type 1)



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288	SWMD	288.4, Bhola Kheyaghat	106, Tentulia	22.676560	90.606390	Bridge	Radar
289	SWMD	300, Gouranadi	110, Torki	22.976186	90.230381	Bridge	Radar
290	SWMD	318, Babugonj	126, Babugonj	22.818426	90.321111	Bridge	Radar
291	SWMD	320, Hijla	128, Dharmagonj	22.890822	90.504721	Bridge	Radar
292	SWMD	323, Abupur	131, Noyabhangania	22.974087	90.464070	No Structure	Pole Mounted Radar (Type 1)
293	SWMD	19, Mirjaganj	10, Barisal Buriswar	22.358532	90.230485	Bridge	Radar
294	SWMD	20, Amtoli	10, Barisal Buriswar	22.143288	90.226636	Sluice Gate	Radar
295	SWMD	38, Bamna	18, Biskhali	22.324102	90.090812	Bridge	Radar
296	SWMD	39, Pathorghata	18, Biskhali	22.013371	89.964187	Bridge	Radar
297	SWMD	136.1, Umedpur	54, Kacha	22.492047	89.965391	Bridge	Radar
298	SWMD	107, Pirojpur	42, Gorai-Madhumati-Baleswar	22.580201	89.966809	Bridge	Radar
299	SWMD	107 A, Nazirpur	42, Gorai-Madhumati Baleswar	22.296499	89.746012	Bridge	Radar
300	SWMD	50.5, Aricha	22, Brahmaputra-Jamuna	23.720495	89.774298	Bridge	Radar
301	SWMD	Rayenda, Bagerhat 8501 WMIP	Balesh war	22.313400	89.860000	Bridge	Radar
302	SWMD	Borguna, Borguna 8513 WMIP	Biskhali	22.158800	90.120000	Bridge	Radar
303	SWMD	Shakra, Satkhira 8522 WMIP	Ichhamoti (WesterBorder)	22.194500	89.080000	Bridge	Radar
304	SWMD	Borhanuddin, Bhola 8514 WMIP	Tentulia	22.468800	90.850000	Bridge	Radar
305	SWMD	Mongla, Bagerhat 8515 WMIP	Possur	22.464200	89.600000	Pole	Pole Mounted Radar (Existing Pole)
306	SWMD	Barisal, Barisal 8516 WMIP	Kitonkhola	22.700200	90.340000	Bridge	Radar



Sl. No.	Division	Station Name & ID	River Name & ID	Latitude (N)	Longitude (E)	Location/ availability of permanent structure	Sensor Type
307	SWMD	Kurigram, kurigram 8505 WMIP	Dhorola	23.328800	89.690000	Bridge	Radar
308	SWMD	Patigati, Gopalganj 8507 WMIP	Gorai Modhumoti River	22.933307	89.808894	Bridge	Radar
309	SWMD	Haridaspur, Gopalganj 8508 WMIP	MBR	23.214100	89.700000	Bridge	Radar
310	SWMD	Bishkhali, Jhalkathi 8518 WMIP	Bishkhali	22.630000	90.180000	Bridge	Radar
311	SWMD	Nolianala, Khulna 8519 WMIP	Shibsha57	22.456800	89.420000	Pole	Pole Mounted Radar (Existing Pole)
312	SWMD	Swarupkathi, Barisal 8511 WMIP	Swarupkathi	22.581600	89.970000	Bridge	Radar
313	SWMD	Patuakhali, Patuakhali 8512 WMIP	Lohalia	22.351700	90.230000	Bridge	Radar
314	SWMD	Benarpota, Satkhira 8529 WMIP	Betna-Kholpetua	22.256700	89.100000	Bridge	Radar
315	SWMD	Kobadak Forest, Satkhira 8521 WMIP	Kobadak	22.726400	89.270000	Bridge	Radar

