



DEPARTMENT OF PUBLIC  
WORKS AND HIGHWAYS  
THE REPUBLIC OF THE  
PHILIPPINES



Japan International  
Cooperation Agency

**THE STUDY ON  
FLOOD CONTROL PROJECT  
IMPLEMENTATION SYSTEM  
FOR PRINCIPAL RIVERS  
IN THE PHILIPPINES**

**Under**

**THE PROJECT FOR ENHANCEMENT OF CAPABILITIES  
IN  
FLOOD CONTROL AND SABO ENGINEERING OF  
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS**

**SUPPORTING REPORT**

**SEPTEMBER 2004**

**CTI** CTI Engineering International Co., Ltd.

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**ANNEXES**

**SEPTEMBER 2004**

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# **Annex 1**

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## ***Flood Damage Data During Destructive Tropical Disturbances***

Annex 1 Flood Damage Data During Destructive Tropical Disturbances (1/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected		No. of Damaged Houses			Damages in billion pesos				
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total		
1970	23-27 Feb	Atang	Regions V & VIII										0.0	0.0	6.0	6.0
1970	4-6 Sept	TS Oyang	Luzon and coastal areas of Visayas	42									15.0	0.0	10.0	25.0
1970	8-12 Sept	Pitang	Regions VIII, X & XI				1,326	7,716					2.0	2.0	0.0	4.0
1970	12-15 Sept	Sening	Regions II, III, IV & VI	575	1,593	193							40.0	22.0	17.0	79.0
1970	16-22 Oct	TS Titang	Region VI and Mindanao	631	76	284							200.0	0.0	105.0	305.0
1970	17-20 Nov	Yolling	Regions III, IV-A & V	80	248	17	17,044	102,264					57.0	4.0	20.0	81.0
1971	23-28 Apr	Didang	Visayas	56	39	14	3,405	12,734					2.0	0.0	2.0	4.0
1971	25-27 May	Heming	Region V, Southern, Tagalog, & Northern Visayas	13	3	14	471	2,695					2.0	0.0	2.0	4.0
1971	23-26 July	Mameng		1									5.0	0.0	3.0	8.0
1971	8-11 Oct	TS Krising	Luzon	10	8	80	205	1,123					8.0	0.0	5.0	13.0
1971	11-13 Oct	TS Dading	Central and Southern Luzon	3									4.0	0.0	3.0	7.0
1971	19-22 Oct	TS Goying	Northern Mindanao	6	22	2	144	723					3.0	0.0	2.0	5.0
1972	5-9 Jan	TS Asiang	Region VIII	204	28	5	14,005	58,850					52.0	45.0	48.0	145.0
1972	23-26 Jan	Konsing	Regions III, IV & V										6.0	0.1	14.0	20.1
1972	4-6 Nov	Toyang	Visayas and Northern Luzon	4	5		136	425					0.0	0.0	5.0	5.0
1972	1-8 Dec	Undang	Region X, Visayas and Northern Palawan	90			1,461	3,133					5.0	0.0	3.0	8.0
1973	2-9 Oct	Luming	Regions I, II, III, IV & V	1									28.0	4.0	7.0	39.0
1973	18-24 Nov	TS Opong	Regions VI, VII, VIII, IX, X	73	24	89	2,024	12,144					157.0	34.0	7.0	198.0
1973	24-29 Nov	Bidang	Regions III & IV-A										5.0	0.7	2.0	7.7
1974	8-11 Jan	Bising	Regions I, II, III, IV, V and VI	65			40	6,421					23.0	10.0	1.0	34.0
1974	18-21 July	Iliang	Regions I, II, III & IV	21	16	46	2,400	14,400	140		2,260		23.0	10.0	6.0	39.0
1974	8-12 Oct	Susang	Regions I, II, III, VI & VII	26	40	3	7,142	35,562					16.0	12.0	17.0	45.0
1974	14-17 Oct	Tering	Regions I, II, III, V & VI	13	9		7,766	28,486					59.0	5.0	0.0	64.0
1974	25-28 Oct	Wening	Regions I, II & III	23	50		55,575	227,902					34.0	80.0	3.0	117.0
1974	31 Oct-2 Nov	Yaning	Regions IV-A & IX	1	1								0.2	0.1	0.0	0.3
1974	4-7 Nov	Aning	Regions I, II, IV & V	3	2		22,835	131,609	1,301		2,329		2.0	0.4	20.0	22.4
1974	24-29 Nov	Bidang	NCR, Regions III & Visayas	1									0.0	0.0	42.8	42.8
1975	22-26 Jan	Auring	Visayas	39	8	8	4,518	26,523	698		1,547		3.0	8.0	5.0	16.0
1975	9-13 Oct	Mameng	Region II										1.0	0.9	0.8	2.7
1976	19-28 May	Didang	Regions I, II, III & IV	200	20	147	500,054	2,719,415	3,792		4,912		153.0	367.0	104.0	624.0
1976	22 June-2 July	Huaning	Regions I, II, III, IV, V, VIII, IX & X	3		23	2,702	16,212	110				6.0	21.0	1.0	28.0
1976	8-17 Aug	Nitang	Regions III, IV-A, IV-B & VI										0.0	1.0	0.0	1.0
1976	13-17 Sept	Toyang	Regions IV-A & IV-B				13	48	15				0.1	0.4	0.0	0.5
1976	2-7 Dec	TS Aring		110	17	15	1,741	8,704					16.0	43.0	10.0	69.0
1976	29-31 Dec	Kayang	Region VIII										0.6	0.7	0.4	2.0
1977	3-5 July	TD Daling	Region VIII										0.0	3.0	0.0	3.0
1977	16-19 July	Elang	Regions I, III & IV	4	3	11	860	5,163					1.0	3.0	0.2	4.2
1977	20-24 July	Goring	Regions I, II & CAR	1		1	64	204					3.0	2.0	0.0	5.0

Annex 1 Flood Damage Data During Destructive Tropical Disturbances (2/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected Persons		No. of Damaged Houses			Damages in billion pesos			
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total	
1977	17-23 Aug	TS Ibiang	Regions I, III & IV				921	5,203				0.1	0.1	0.0	0.2
1977	31-Aug	TD Lumang	Region IV-B									0.0	0.0	0.0	2.0
1977	14-20 Sept	Openg	Regions I & III	54	11		2,425	12,222				8.0	12.0	0.0	20.0
1977	10-17 Nov	Undang	Regions I, II, III, IV, V, VI & VIII	40	115		133,141	789,846	15,679	16,115		96.0	205.0	0.0	301.0
1978	18-26 Apr	Akang	Regions II, IV, VI & VIII	66	47	45	64,638	368,023	17,157	23,220		35.0	40.0	171.0	246.0
1978	9-14 Aug	TS Heling	Regions III & IV	49	12		42,402	247,832				11.0	15.0	0.0	26.0
1978	20-26 Aug	TS Miding	Region III	47	4	16	150,331	849,430	608	1,121		18.0	69.0	0.0	87.0
1978	24-28 Sept	Weiling	Regions III, IV & V	32	20	25	18,735	113,685				55.0	13.0	35.0	103.0
1978	7-14 Oct	Yaning	Regions II, III & IV	24	2	29	6,182	35,794	5,146	4,766		0.0	0.0	88.0	88.0
1978	25-27 Oct	Kading	Regions I & II	444	749	280	237,736	1,236,435	45,465	65,040		380.0	284.0	357.0	1021.0
1978	17-20 Nov	TD Delang	Region V	1								0.0	0.0	0.1	0.1
1978	14-15 Dec	TS Garding	Region VI				381	1,905				3.0	2.0	0.0	5.0
1979	13-19 Apr	Bebeng	Regions I, V, VI & VIII	30	73	63	111,929	672,025	47,248	57,087		123.0	31.0	113.0	267.0
1979	30 June-July	Etag	Regions I, II, III, IV & V									0.1	0.0	0.0	0.1
1979	25-29 July	TS Herming	Regions II, III & IV									0.0	0.0	3.0	3.0
1979	29 July-2 Aug	Ising	Regions I, II & III									0.0	0.0	4.0	4.0
1979	9-15 Aug	Mameng	Regions I, II, III, IV & VI	24	5	3	34,098	201,942	7,035	50		7.0	36.0	2.0	45.0
1979	16-20 Sept	Pepang	Regions IV & V	8	2		3,722	20,667				37.0	2.0	33.0	72.0
1979	1-3 Oct	TD Sisang	Region VI									3.0	0.0	0.0	3.0
1979	5-11 Oct	Uring	Regions IV, VI & VII	1								6.0	2.0	10.0	18.0
1979	4-7 Nov	Yayang	Regions II, IV & V	6	1		6,170	29,692		1,512		2.0	0.5	2.0	4.5
1980	20-24 Mar	TS Birring	Region VIII	4			565	2,825	100	600		0.6	2.0	0.8	2.6
1980	7-15 May	Ditang	Regions I & II				2,535	15,504	528	3,168		2.0	0.2	0.2	2.4
1980	23-26 May	Gloring	Region III									0.9	0.0	0.0	0.9
1980	8-11 July	Lusing	Regions I, II & IV									0.0	0.0	7.0	7.0
1980	19-22/22-27 July	Nitang/Osang	Regions I, II, III, IV & V	36	55	4	58,731	264,116	10,451	18,279		35.0	43.0	23.0	101.0
1980	28-30 Oct	TS Yoning	Regions II, III, IV & V									2.0	0.1	0.0	2.1
1980	1-7 Nov	Aring	Regions I, II, III, IV, V, VI & VIII				245,064	1,384,053	5,431	29,054		871.0	324.0	163.0	1358.0
1980	1-13 Nov	TD Basiang	Region VI	103	25							0.0	0.7	0.1	0.8
1981	28 June-2 July	TS Daling	Regions IV & V	210	36	19	12,086	58,651	3,356	1,551		29.0	5.0	28.0	62.0
1981	3-5 July	TS Etag	Regions II, III & IV	8		27						3.0	4.0	4.0	106.0
1981	16-21 Aug	Rubing	Regions I & II	5			8,526	47,575	1,195	7,125		86.0	16.0	4.0	106.0
1981	12-14 Oct	TD Unsing	Region VII	1								0.0	4.0	0.0	4.0
1981	17-21 Nov	Yeyeng	Regions IV & V	4	6		5,663	36,303	67	90		1.0	0.3	0.0	1.3
1981	22-27 Nov	Anding	Regions I, II, III & IV	88	42	51	111,411	655,289	49,110	98,324		326.0	170.0	9.0	505.0
1981	23-27 Dec	Dinang	Regions IV, V & VIII	188	1,838	167	112,639	674,619	40,237	52,161		367.0	170.0	49.0	586.0
1982	12-15 Mar	Akang	Regions X & XI	25	8	48	23,911	110,292	1,880	11,147		30.0	2.0	15.0	47.0
1982	23-28 Mar	Bising	Regions VI, VIII & X	112	85	91	103,204	657,274	58,244	18,233		214.0	183.0	180.0	587.0
1982	12-16 July	Emang	Regions I & III	10	5	2	11,883	65,907	431	573		65.0	24.0	2.0	91.0

Annex 1 Flood Damage Data During Destructive Tropical Disturbances (3/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected			No. of Damaged Houses			Damages in billion pesos			
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total		
1982	20-27 Aug	Norming	Regions I, III, IV and VI	29	40	23	31,522	185,827	5,365	14,895	17.0	39.0	26.0	82.0		
1982	5-11 Sept	Ruping	NCR, Regions III, IV, V & VIII	65	26	29	44,383	248,040	5,599	18,486	121.0	68.0	10.0	199.0		
1982	12-15 Oct	Weling	Regions I & II	96	183	30	51,532	301,431	12,464	34,111	204.0	289.0	135.0	628.0		
1982	8-Dec	Aning	Regions II, VII & VIII				41	246	44	40	0.0	0.0	0.1	0.1		
1982	8-11 Dec	Bidang	Regions I, III & V								12.0	2.0	0.4	14.4		
1983	10-11 July	Auring	Region IV-B				62	193	31		1.0	0.6	0.0	1.6		
1983	14-16 July	Babang	Regions III, IV, V & VIII	115	145	27	120,811	628,985	29,054	76,346	346.0	106.0	15.0	467.0		
1983	3-8 Sept	Herming	Regions I & II	3	15		1,489	8,935	195	609	3.0	4.0	0.7	7.7		
1983	17-27 Nov	Waring	Regions V & VIII	8	8	1	18,242	109,042	612	8,117	12.0	33.0	20.0	65.0		
1984	27-30 Aug	TS Maring	Regions I, II, III, IV, VI, VII, VIII, X & XI	121	26	17	92,271	470,962	673	6,341	259.0	150.0	2.0	411.0		
1984	31 Aug-4 Sept	Niang	Regions IV, VI, VII, VIII, X & XI	900	1,856	443	273,794	1,630,296	108,219	142,653	1912.0	1377.0	624.0	3913.0		
1984	23-25 & 27-30 Oct	Raming	Regions I, III, IV & IV-A	63	18		1,954	10,815	740	891	1.0	1.0	2.0	4.0		
1984	3-6 Nov	Undang	Regions IV, V, VI, VII & VIII	895	2,526	272	373,451	1,936,732	201,014	163,506	966.0	324.0	251.0	1541.0		
1985	20-24 June	Kuring	Regions I, II & III	53	6	69	13,518	77,542	1,789	7,985	114.0	55.0	13.0	182.0		
1985	25-29 June	Daling	Regions II, IV & IV-A	65	4		94,661	511,067	253	1,854	255.0	42.0	6.0	303.0		
1985	1-4 Sept	Miling	Regions I & IV	5		7	85	470	26	49	2.0	9.0	0.0	11.0		
1985	15-20 Oct	Saling	Regions I, II, III, IV, IV-A & V	88	7	224	209,842	1,054,063	6,136	201,263	1678.0	17.0	341.0	2036.0		
1986	6-10 July	Gading	NCR, Regions I, II, III & IV-A	106	16	12	142,050	730,357	2,689	13,896	370.0	300.0	9.0	679.0		
1986	17-18, 24-25, 27 Aug-4 Sept	Miding	NCR, Regions I, III, IV & VI	17	4		96,540	538,386	473	699	163.0	99.0	0.7	262.7		
1986	6-7 Oct	TD Oyang	NCR, Regions III, IV & IV-A	26	27	21	22,538	125,669			12.0	0.0	43.0	55.0		
1986	10-14 Oct	Pasing	Regions IV-A & VIII	4			3,082	18,492			5.0	23.0	0.0	28.0		
1986	17-20 Oct	TS Ruping	Regions V & VIII	2			259	1,284			734.0	32.0	0.0	766.0		
1986	20-23 Dec	Aning	Regions VI, VII & XI	16	108	10	22,771	110,113			8.0	34.0	40.0	82.0		
1987	8-13 Aug	Herming	Regions IV, V & VIII	85	414	9	228,286	1,253,398	61,758	114,922	1654.0	231.0	181.0	2066.0		
1987	13-19 Aug	Ising	Regions II & III	5			13,247	55,567	89	954	85.0	30.0	0.0	115.0		
1987	4-10 Sept	Neneng	Regions I & II				32	177			25.0	52.0	15.0	92.0		
1987	21-25 Oct	Pepang	Regions I & II	100	79	13	60,504	310,214	18,396	31,557	276.0	243.0	0.6	519.6		
1987	23-27 Nov	Sisang	Regions IV, V & VIII	808	927	171	318,968	2,019,385	153,339	175,449	608.0	352.0	159.0	1119.0		
1987	14-18 Dec	Trining	Regions IV, V & VIII	22	35	20	47,591	52,524	8,754	22,488	104.0	62.0	7.0	173.0		
1988	3-31 May to 3 June	Biring	NCR, Regions III & IV	8	2	1	13,010	65,000	93	558	3.0	24.0	0.0	27.0		
1988	16-19 July	Huaning	Regions I & III	6			19,224	102,169	3,560	21,329	214.0	26.0	0.0	240.0		
1988	21-26 Oct	Unsang	NCR, Regions I, II, III, IV, V, VI, VII, VI	157	316	60	537,152	2,742,666	38,932	146,781	4807.0	811.0	18.0	5636.0		
1988	1-5 Nov	TS Welpring	Regions IV, VI, VIII, X & XI	41	1	1	28,826	144,136	86	430	0.0	16.0	8.0	24.0		
1988	5-8 Nov	Yoning	NCR, Regions IV, V, VI, VII, VIII & IX	217	149	133	575,782	3,027,601	91,673	416,634	2232.0	348.0	187.0	2767.0		
1989	15-19 May	TS Biring	NCR, Regions II, III, IV & V	13	3	40	12,282	73,184	652	4,392	7.0	66.0	0.0	73.0		

Annex 1 Flood Damage Data During Destructive Tropical Disturbances (4/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected			No. of Damaged Houses			Damages in billion pesos			
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total		
1989	14-17 July	Goring	CAR, NCR, Regions I, II, III, IV, VI, IX & X	90	386	3	95,269	488,757	8,845	46,269	923.0	440.0	0.0	1363.0		
1989	7-12 Sept	Openg	CAR, NCR, Regions I, III & IV	44	21	3	97,911	505,756	1,157	24,638	288.0	289.0	3.0	580.0		
1989	2-7 Oct	Rubing	Regions I, II & CAR	119	192	28	38,095	219,178	14,064	19,245	74.0	60.0	58.0	192.0		
1989	9-10 Oct	TS Saling	NCR, Regions I, III, IV, V & VIII	58	121	15	135,245	682,689	12,273	37,699	1124.0	258.0	12.0	1394.0		
1989	14-20 Oct	Tasing	CAR, NCR, Regions I, II & III	47	363		109,961	551,043	19,270	48,940	778.0	105.0	0.1	883.1		
1989	16-22 Nov	TS Unsiang	NCR, Regions II, III, IV & VIII	11	1		12,837	62,205	212	3,401	2.0	4.0	2.0	8.0		
1990	12-15 Mar	Atang	Regions X & XI	64	17	8	42,193	227,269	306	2,684	102.0	97.0	1.0	200.0		
1990	23-28 Mar	Bising	Regions VII, VIII & X	8			16,440	81,355	40		17.0	43.0	0.0	60.0		
1990	12-16 July	Emang	Regions I & III	8			6,697	32,974	3	594	5.0	12.0	8.0	25.0		
1990	20-27 Aug & 2-4 Sept	Norming	Regions I, III, IV & VI	36	42	3	52,171	213,431	456	513	7.0	38.0	0.0	45.0		
1990	12-15 Oct	Welling	Regions I & II				5,591	27,959			0.0	0.0	0.0	0.0		
1990	10-14 Nov	Ruping	NCR, Regions III, IV, V, VI, VII, VIII, IX, X, XI & XII	508	1,278	246	1,010,004	5,498,290	222,026	630,885	8512.0	1120.0	1214.0	10846.0		
1990	8-Dec	Anling	Regions II, VII & VIII	2	2	5	2,337	11,521	20	105	0.0	0.0	0.0	0.0		
1990	8-11 Dec	Bidang	Regions I, III & V	50	53		130,219	568,875	884	3,324	1451.0	53.0	0.0	1504.0		
1991	10-14 Mar	TS Auring	Region IV-A	14	6		143	858	143	63	0.0	0.0	0.0	0.0		
1991	13-15 June	Diding	Region V		2		2,037	10,185	2,013	24	0.0	0.0	0.0	0.0		
1991	18-11 July	Etang	Regions III & IV			3					0.0	0.0	0.0	0.0		
1991	23-30 Oct	Trining	CAR, Regions I & II	82	55	22	105,317	524,307	8,070	58,305	2244.0	607.0	221.0	3072.0		
1991	2-6 Nov	TS Urning	Regions VI & VIII	5,101	292	1,256	43,397	223,985	5,232	25,272	531.0	514.0	0.0	1045.0		
1991	14-18 Nov	Yayang	Region IV	2							0.0	70.0	0.0	70.0		
1992	9-12 July	Konsing	Regions II & III	3							9.0	10.0	3.0	22.0		
1992	17-21 July	TD Ditang	NCR, Regions I, II	36	77	6	27,902	134,417	478	1,305	249.0	213.0	9.0	471.0		
1992	16-18 Aug	TS Gloring	NCR, Regions III & IV	22		4	148,049	725,956	1,428	3,072	913.0	434.0	0.0	1347.0		
1992	26-31 Aug	TS Isang	CAR, Regions I & II	19	1	1	23,677	114,084	214	197	3.0	170.0	0.0	173.0		
1992	31 Aug-5 Sept	Lusing	CAR, Regions I & II	10	1	1	31,787	171,603	393	145	265.0	633.0	5.0	903.0		
1992	18-23 Sept	TS Maring	CAR, Regions I, II, & III	27	13	18	113,686	570,136	785	3,272	1173.0	974.0	8.0	2155.0		
1992	18-27 Oct	Parang		1	3	4	6,816	34,480	11		0.9	0.1	0.2	1.2		
1993	25-27 June	Goring		17	853	59	353,949	1,912,830	97,716	279,695	1735.0	995.0	45.0	2775.0		
1993	7-9 July	TS Huling		112	75		2,188	14,548			1.0	3.0	0.0	4.0		
1993	6-8 Aug	Openg			39		405	11,703	661	2,109	0.0	0.0	0.0	0.0		
1993	16-19 Aug	TS Rubing		11	38	9	8,485	29,451	2,243	869	8.0	90.0	0.0	98.0		
1993	22-26 Aug	TS Saling		9	43		11,793	32,308	943	2,698	153.0	2.0	2.0	157.0		
1993	18-20 Sept	TS Waiding		66	66	13	23,834	16,084	1,799	4,375	0.7	0.5	0.1	1.3		
1993	13-16 Sept	TS Yeyeng		13			27,012	239,610			16.0	21.0	0.0	37.0		
1993	30 Sept-7 Oct	Kadiang		576	337	81	815,813	4,160,677	35,206	39,678	7193.0	1559.0	0.4	8752.4		



Annex 1 Flood Damage Data During Destructive Tropical Disturbances (5/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected			No. of Damaged Houses			Damages in billion pesos				
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total			
1993	28 Oct-2 Nov	Husing		51	111	12	184,532	862,793	21,668	114,503	1,154.0	431.0	34.0	1,619.0			
1993	19-22 Nov	TS Luring		18	59	26	18,020	185,727	3,938	982	19.0	8.0	0.1	27.1			
1994	4-6 Jan	Akang	Regions IV, V & VI	45	26	17	9,909	49,170	522	3,039	48.0	32.0	0.0	80.0			
1994	1-9 April	TS Blising	Regions VI, VII, VIII, & X	19	72	10	118,061	588,551	15,601	24,050	163.0	148.0	97.0	408.0			
1994	24-26 May	TD Daling	Regions VII, XI & XII	1			1,822	8,788	10	30	132.0	13.0	0.8	145.8			
1994	21-24 June	TD Gading	NCR & Region III	3			11,010	56,012			0.0	0.0	0.0	0.0			
1994	7-10 July	Ilang	Regions I, II & III	11	21	6	32,700	166,564	2,174	11,589	26.0	126.0	3.0	155.0			
1994	10-11 July	TD Loleng	TD Loleng								0.0	0.0	0.0	0.0			
1994	18-19 July	TD Norning	Regions I & III	12	9	1	127,647	617,069	101	204	0.1	4.0	0.0	4.1			
1994	25-29 July & 31 July-3 Aug	TS Oyang/TD Pasing	ARMM, Regions I, III, IV, VI & XI	48	9	2	60,129	336,069	505	689	81.0	49.0	3.0	133.0			
1994	4-7 Aug	Ritang	CAR & Region I	4			3,303	17,838	29	68	5.0	2.0	0.0	7.0			
1994	7-11 Sept	TS Welling	Regions I & II	10			15,605	70,597	28	60	118.0	66.0	0.0	184.0			
1994	18-21 Oct	Katring	NCR, Regions III & IV	45	24	6	59,097	287,737	14,596	44,472	947.0	213.0	273.0	1,433.0			
1994	19-23 Dec	Garding	Regions IV, V, VI, VII, VIII & X	44	86	5	177,945	857,837	28,778	139,158	361.0	287.0	0.0	648.0			
1995	31 May-8 June	Auring	Regions III & IV	6			427	2,118	151	531	0.0	29.0	0.0	29.0			
1995	27-31 July	TS Katring	CAR, Regions I, II, & III	2			12,734	68,186			35.0	100.0	28.0	163.0			
1995	25-31 Aug	Gening	Regions I, II, III, IV & V	3	3		39,357	195,886	72	371	69.0	92.0	9.0	170.0			
1995	2-6 Sept	Helming	Region III	8			24,043	104,416	713	458	5.0	3.0	0.4	8.4			
1995	14-17 Sept	Ising	Regions I & III	1			6,432	34,590			40.0	0.0	140.0	180.0			
1995	21-22 Sept	Luding	Region I	1	3		1,611	5,422	15	293	0.0	0.0	0.0	0.0			
1995	27 Sept-1 Oct	TS Mamang	NCR, Regions I, III, IV, V, VI, VII, VIII & X	116	49	126	241,430	1,240,668	13,234	21,862	1,876.0	1,297.0	0.0	3,173.0			
1995	26-30 Oct	TS Pepang	Regions IV, V, VI, VII & VIII	265	323	67	234,522	1,254,774	53,907	156,979	233.0	174.0	17.0	424.0			
1995	31 Oct-3 Nov	Rosing	NCR, CAR, Regions I, II, III, IV, V & VIII	936	4,152	316	960,777	4,583,618	225,872	530,908	9,036.0	1,727.0	66.0	10,829.0			
1995		Sendang		11	1	3	735	4,085	8		0.0	4.0	0.0	4.0			
1995	25-30 Dec	Trining	Regions VII, VIII, XI & XIII	7	2	94	39,266	199,794	175	7,722	179.0	202.0	0.0	381.0			
1996	28 Feb-2 Mar	Asiang	Regions VI & VIII	2			1,411	8,221	14	51	1.0	8.0	0.0	9.0			
1996	5-9 April	Bliring	Regions V, VI & VIII	3			315	1,000			35.0	6.0	0.7	41.7			
1996	11-16 May	Konsing	Region V								0.0	0.7	0.0	0.7			
1996	21-27 July	Gloring	NCR, CAR, Regions I, II, III & IV	72	77	24	143,853	686,250	714	6,790	1,398.0	723.0	0.0	2,121.0			
1996	27-31 July	Huanging	NCR, CAR, Regions I, III & IV	5	3	7	38,259	192,651	1	19	0.0	18.0	0.0	18.0			
1996	18-21 Aug	Lusing	CAR, Regions I & II	4	11		22,967	118,249	79	1,051	54.0	39.0	0.0	93.0			
1996	5-8 Sept	Maring	Region II	6	22		1,614	9,297	867	727	10.0	11.0	13.0	34.0			

**Annex 1 Flood Damage Data During Destructive Tropical Disturbances (6/7)**

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected		No. of Damaged Houses			Damages in billion pesos			
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total	
1996	10-11 Sept	Ningning	CAR, Regions I & II				11	67	1	2	1.0	40.0	0.0	41.0	
1996	14-19 Oct	Seniang	CAR, Regions II & IV	8	16	7	33,418	150,609	747	6,629	160.0	43.0	0.0	203.0	
1996	4-10, 12-15 Nov	Toyang	CAR, CARAGA, ARMM, Regions I, IV, V, VI, VII, VIII, IX, X & XI	24	5	12	16,733	88,945	247	2,290	159.0	74.0	4.0	237.0	
1997	26-28 May	Bining	NCR, Regions I, III, IV & VI	39	23	4	82,598	413,260	262	354	5.0	80.0	20.0	105.0	
1997	18-23 July	Elang	Region VI	2	2		1,086	5,365	1	1	0.7	0.2	0.0	0.9	
1997	31 July-6 Aug	Huling	Region III				3,239	15,115	11	41	0.0	7.0	0.0	7.0	
1997	21-28 Aug	Ibiling	NCR, Regions I, III, IV, VI & XI	36	11	2	304,327	1,521,125	272	6,379	281.0	173.0	23.0	477.0	
1997	Aug	Miling	Region II				2,000	6,000			5.0	1.0	0.4	6.4	
1997	16-23 Oct	Narsing	CAR, Regions I & II	14	8	2	49,048	243,896	1,779	13,771	261.0	189.0	0.0	450.0	
1998	15-20 Sept	Emang & Gading	NCR, CAR, Regions I, II, III, IV	108	22	10	335,699	1,749,414	10,900	33,343	3250.0	544.0	0.0	3,794.0	
1998	11-14 Oct	Iliang	Regions I, II & III	46	63	29	268,468	1,344,556	26,305	59,539	3125.0	1764.0	486.0	5,375.0	
1998	15-25 Oct	Loleng	CAR, Regions I, II, III, IV, V, VI & VIII	303	751	29	910,912	3,901,673	96,581	307,042	3695.0	2316.0	776.0	6,787.0	
1998	9-12 Dec	Norming	Regions I, III, IV & VI	33	30	36	75,826	326,490	3,234	6,423	644.0	279.0	138.0	1,061.0	
1999	1-6 June	Elang	II-Batanes				302	1,601			0.0	0.0	0.0	0.0	
1999	4-6 June	Gening	III-Zambales								77.0	6.0	0.1	83.1	
1999	21-26 July	Helming	NCR, CAR, Regions I, II & III	1			11	55	355		3.0	21.0	0.0	24.0	
1999	July 28- to 8/1/2002	Ising	Region III - all provinces & 4 cities	45	2	2	283,324	1,245,917	1,781	1,623	985.0	306.0	0.0	1,291.0	
1999	18-21 Aug	Luding	CAR, Regions I, II & III	10	23	1	7,089	35,222	746	2,273	29.0	128.0	0.0	157.0	
1999	10-15 Sept	Nening	Region III	1	2		331	1,505			0.0	0.0	0.0	0.0	
1999	2-6 Oct	Pepang	CAR, Regions I & II	18	22	3	84,089	444,770	8,673	18,121	198.0	233.0	6.0	437.0	
1999	15-18 Oct	Reming	Regs V & VIII	1			3,290	5,791			0.0	0.0	0.0	0.0	
1999	7-9 Nov	Sendang	Regs V, VI & VII	24	7	9	23,110	54,152	2,356	34,778	0.0	366.0	220.0	586.0	
2000	18-22 May	Biring	NCR & Region III	12	8		59,404	235,885	34	15	34.0	16.0	0.0	50.0	
2000	3-8 July	Edeng	CAR, NCR, Regions I, III, IV & VI	68	11	15	320,442	1,483,910	524	2,694	643.0	469.0	0.8	1,112.8	
2000	19-23 Aug	Isang	Reg II-Batanes				3,338	11,690			6.0	1.0	0.1	7.0	
2000	2-7 Sept	Maring	NCR-MM	5			6,302	6,508	15		0.0	0.0	0.0	0.0	
2000		Ningning and Osang	CAR & Region II	3	7	4	13,784	83,284	40	2,780	39.0	10.0	0.0	49.0	
2000	26 Oct-1 Nov	Reming	NCR, CAR, Regions I, III, IV, V, VI & VIII	114	319	47	486,400	2,455,942	16,910	125,790	2862.0	963.0	119.0	3944.0	
2000	1-5 Nov	Seniang	NCR, CAR, Regions III, IV & V	61			368,552	1,747,872	5,920	54,248	385.0	315.0	34.0	734.0	
2000	29 Nov-2 Dec	Toyang	CARAGA, Regions VI, VII, VIII & X	43	26	5	28,055	184,105	584	8,453	265.0	204.0	216.0	685.0	
2000	6-8 Dec	TD Ulipiang	Regions V, VI and CARAGA	39	15	2	164,496	1,095,750	268	2,485	746.0	142.0	0.0	888.0	

Annex 1 Flood Damage Data During Destructive Tropical Disturbances (7/7)

Year	Inclusive Dates	Weather Disturbance	Affected Areas	Casualties			Affected		No. of Damaged Houses			Damages in billion pesos			
				Dead	Injured	Missing	Families	Persons	Totally	Partially	Infra	Agri	Private Properties	Total	
2001	2-7 July	T Fena	CAR, NCR, CARAGA, Regions I, II, III, IV, V, VI, VIII, IX & X	188	241	44	415,436	1,903,113	12,774	39,147	1,349.0	1,854.0	383.0	3,586.0	
2001	17-19 Aug	TD Jolina	Region III				57,431	295,355	27	45	15.0	0.0	0.0	15.0	
2001	22-27 Sept	TS Labuyo	CAR, Regions I & II	3		1	8,498	44,357	4	2,192	33.0	39.0	0.0	72.0	
2001	6-10 Nov	TS Nanang	CAR, NCR, CARAGA, Regions IV, V, Regions IV, V, VII, VIII, IX & X	236	169	88	262,612	1,331,630	1,973	12,763	1,564.0	1,668.0	14.0	3,246.0	
2001	4-8 Dec	TS Quedan	Regions IV, VI, VII and VIII	5	8	1	14,961	54,840	121	275	3.0	1.0	0.0	4.0	
2002	20-Mar	TD Caloy	Regions VI, VII, VIII and CARAGA	35	2	7	12,679	54,629	215	2,488	51.0	65.0	8.0	124.0	
2002	28 June to 7/14/2002	Ty Florida, Gloria, Hambalos and Inday		85	45	4	483,595	3,278,341	404	2,059	344.0	177.0	0.7	521.7	
2002	15-23 July	TD Juan	Regions IV and VI	14	3		3,692	19,048	181	402	2.0	10.0	0.0	12.0	
2002	11-14 Aug	TD Milenyo	Regs. III, IV, V, VI, VII, VIII, NCR, X & CARAGA	35	21	22	38,634	194,451	2,180	10,998	83.0	88.0	0.6	171.6	
2003	25-29 May	Ty Chedeng	Regions I, II, V, VI, CAR and NCR	44	19	8	236,073	1,146,316	286	3,063	164.0	291.0	84.0	539.0	
2003	12-18 June	Ty Egay	Regions I, II, V, VIII and CAR	12	2	2	9,967	45,400	94	157	50.0	68.0	13.0	131.0	
2003	15-19 July	TS Gilas	Regions IV and VIII	4	1	4	24,183	116,601	191	840	29.0	38.0	13.0	80.0	
2003	19-21 July	Ty Harurot	Regions I, II, III, IV, VI and CAR	64	154	2	380,517	1,795,601	11,683	47,427	2,374.0	858.0	2.0	3,234.0	
2003	30-31 July	TD Ineng	Regions V, VIII and X				650	3,748	12	52	1.0	6.0	1.0	8.0	
2003	4-5 August	TS Kabayan	Region III				31,630	155,147			35.0	1.0	0.0	36.0	
2003	20-24 August	Ty Nifia	Region I			1	289	1,156	9		4.0	0.0	0.0	4.0	
2003	30 Aug-2 Sept	Ty Onyok	Regions III and NCR	1	1		6,535	34,288	1		0.0	0.0	0.0	0.0	
2003	24-31 Oct	TS Ursula	Region VI	1			12,288	64,291	28	19	66.0	28.0	0.0	94.0	
2003	12-15 Nov	TS Weng	Regions IV, V, VI, VII & VIII	13	5	11	91	443	2	21	20.0	25.0	0.0	45.0	

## **Annex 2**

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### ***Flood Damage Data By River Basin***

**Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages  
Recorded for the Last 15 years (1/14)**

**TS RUPING**

Date of Occurrence: November 10-14, 1990  
 Affected Regions: IV, V, VI, VII, VIII, IX, X, XI and XII  
 Affected Areas: 9 Regions, 46 Provinces, 247 Municipalities, 42 Cities and  
 1,387 Barangays  
 Population Affected: Families – 1,010,004; Persons – 5,498,290  
 Casualties: Dead – 508; Injured – 1,278; Missing – 246  
 Houses Damaged: Totally – 222,026; Partially - 630,885  
 Cost of Damages: P 10,846.07 M - Infrastructures - P1,326.345 M  
 Agriculture - P8,511.537 M  
 Pvt. Properties - P964.814 M

**Affected rivers/basins/watersheds:**

Province	Casualties (dead)	River/basin/watershed	Affected Towns
Negros Occ. Silay City Bacolod City Bago City Cadiz City	58 2 1 3 3	Ilog and Hilabangan rivers	Murcia, Sipalay, Hinobaan, Silay City, Bago City, Cadiz City, Bacolod City, Victorias
Guimaras	4		
Iloilo Iloilo City	26 2	Jaru and Jalaud watersheds	
Capiz Roxas City	13 1	Panay-Mambusao and Dumalag watersheds	
Antique	7	Cangaronan and Sibalom river watersheds	
Aklan	6	Aklan and Ibabay river watersheds	
Cebu Cebu City Mandaue City Lapu-lapu City Danao City	82 45 7 2 2	Balamban, Carmen and Mananga river watersheds	Asturias, Balamban, Cordova, Danao City, Mandaue City, Cebu City, Lapu-lapu City
Negros Oriental Dumaguete City Bais City	56 2 1	Tanjay, Siaton, Bayawan & Pagatban river watersheds	Tanjay, Mabinay, Guihulngan, Pamplona
Bohol	23	Talibon-Ipil, Inabanga-Wahig, Antiquerra- Siniganan and Loboc watersheds	Ubay, Talobon, Loboc, Dagohoy
Siquijor	1		
Leyte – 20 Tacloban City Ormoc City	20 1 5	Anilao and Malbasag rivers	Tolosa, Mayorga, Mc Arthur, Merida, Javier, Abuyog, Mahaplag, Bato, Baybay, Hindang, Isabel, Hilongos, Matalom, Sogod Palompon, Inopacan
Southern Leyte	22	Sogod watershed	
Eastern Samar	4	Oras, Dolores, Balangiga, Taft watersheds	
Agusan del Norte	10	Lake Mainit-Cabadbaran, Agusan River	Butuan City,
Surigao del Norte Surigao City	37 2	Lake Mainit-Cabdbaran river basin	Dinagat and Siargao
Bukidnon	1	Pulangi watershed	
Misamis Or. Gingoog City	29 3	Tagoloan and Iponan watersheds	Tagoloan, Sto. Nino
Camiguin	3		
Davao del Sur	3	Padada river watershed	
South Cotabato	2	Buluan Lake river watershed	Lake Sebu
Zamboanga del Sur	1	Sibangan, Sibuguey and Labangan watersheds	Siayan and Sindangan
<b>Total</b>	<b>508</b>		

**Damaged Infrastructures:**

Mactan Bridge – connecting Cebu and Mactan island

Murcia Road (84 kms) - Municipality of Murcia, Negros Occidental

8 meters of embankment – Tagoloan, Misamis Oriental

Around 129 interisland private and government owned vessels/ships sunk/capsized/damaged. Since TY Ruping had generated high and big waves, 383 fishing boats/bancas (motorized and non-motorized) were washed ashore/over turned and were reported missing.

Subsequent flooding caused by heavy rains and strong winds totally cut off supply of basic necessities. Power and communication lines were destroyed by strong winds and floodwaters in Mindoro Oriental (affecting 15 towns), Negros Occidental, Iloilo, Bacolod City, Cadiz City, Antique, Cebu City, Surigao del Norte, Surigao del Sur (12 towns), Bohol, Leyte and Samar provinces.

Major and small rivers swelled and inundated several areas such as low-lying towns and shores of Negros Occidental, Surigao del Norte, Misamis Oriental, Samar, Leyte, Cebu and Bohol. In Tagaloan, Misamis Oriental, 8 meters of river embankment gave way due to strong water current of the Tagoloan river. In Bohol, rivers overflowed and numerous coconut trees, banana plantations, corn and other crops were washed out.

The areas that bore the brunt of TY Ruping were the shorelines and river systems as several fishing boats and fishermen were lost. Some of the casualties were electrocuted, or swept by floodwaters or buried by landslides.



**Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages  
Recorded for the Last 15 years (3/14)**

**TD DITANG**

Date of Occurrence: July 17 – 21, 1992  
 Affected Regions: III & NCR  
 Population Affected: Families – 27,902; Persons – 134,417  
 Casualties: Dead – 36; Injured – 6; Missing – 77  
 Houses Damaged: Totally – 478; Partially – 1,305  
 Cost of Damages: P 471.00M

**Affected rivers/basins/watersheds:**

<b>Region / Province</b>	<b>Casualties (dead)</b>	<b>Affected River/basin/watershed</b>	<b>Affected Municipalities/ Barangays</b>
Zambales		Botolan and San Marcelino watersheds	5 barangays in Castillejos: San Jose, San Agustin, San Pablo, Magsayasay and Sta Maria 13 barangays in San Marcelino: Cawat, Rabanes, Rizal, san Guillermo, Lucero, San Isidro, lapaz, Insungan, Lanatin, Nagbunga, Walac, Consuelo Sur and Consuelo Norte
Tarlac		Bamban river	Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Pampanga		Pampanga and Guagua rivers, O'Donell, Sacobia and Pasig Potrero Sto Tomas rivers	San Luis, San Simon, Arayat, Lubao, Floridablanca, Guagua, Candaba, Minalin, Sto Tomas, Macabebe., Magalang, Sta. Rita and Bacolor
Bataan			Dinalupihan
Bulacan		Pampanga	Calumpit, Hagonoy, Paombong and Pulilan
Nueva Ecija		Pampanga river, Rio Chico	Bongabon, Cabanatuan, Palayan City
Pangasinan		Agno & tributaries, Sinocalan, Aloragat rivers	Sta Maria, San Nicolas, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City, San Carlos City, Lingayen, Mangatarem, Bugallon, Manaoag
<b>Total</b>	<b>36</b>		

Several rivers in Central Luzon and Pangasinan swelled due to the continuous rains and most of the casualties were drowned due to rampaging floodwaters.



**Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages  
Recorded for the Last 15 years (4/14)**

**TY KADIANG**

Date of Occurrence: Sep 30 – Oct 7, 1993  
 Affected Regions: I, II, III, IV, NCR, CAR  
 Affected Area: 6 Regions, 22 Provinces, 10 Cities, 228 Municipalities and  
 3,232 Barangays  
 Population Affected: Families – 415,813; Persons – 2,060,677  
 Casualties: Dead – 126; Injured – 37; Missing – 26  
 Houses Damaged: Totally – 2,249; Partially – 9,078  
 Cost of Damages: P 8,752.32M

**Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Zambales	6	Botolan and San Marcelino watersheds	5 barangays in Castillejos: San Jose, San Agustin, San Pablo, Magsayasay and Sta Maria 13 barangays in San Marcelino: Cawat, Rabanes, Rizal, san Guillermo, Lucero, San Isidro, lapaz, Insungan, Lanatin, Nagbunga, Walac, Consuelo Sur and Consuelo Norte
Tarlac	2	Bamban river	Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Pampanga	20	Pampanga and its tributaries and Guagua river, O'Donell, Sacobia and Pasig Potrero Sto Tomas rivers	San Luis, San Simon, Arayat, Lubao, Floridablanca, Guagua, Candaba, Minalin, Sto Tomas, Macabebe,, Magalang, Sta. Rita and Bacolor
Bataan	2		Dinalupihan
Bulacan	8	Pampanga	Calumpit, Hagonoy, Paombong and Pulilan
Nueva Ecija	13	Pampanga river, Rio Chico	Bongabon, Cabanatuan, Palayan City
Nueva Viscaya	32	Magat and Ambayaoan rivers	Bayombong, Solano
Isabela	4	Cagayan, Pinacanawan, Ilagan, Chico rivers	Tumauini, San Pablo, Cabatuan, Ramon, Ilagan, Gamu, Aurora
Quirino	3	Upper Cagayan river	Qurino
Cagayan	3	Cagayan, Pinacanawan	Tuguegarao, Gattaran
Pangasinan	20	Agno & tributaries, Sinocalan, Aloragat rivers	Sta Maria, San Nicolas, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City, San Carlos City, Lingayen, Mangatarem, Bugallon, Manaoag
Ifugao	8		
Kalinga-Apayao	4		29 barangays
La Union	1	Naguilian & Aringay rivers	28 barangays & 4 towns
<b>Total</b>	<b>126</b>		

**Damaged Infrastructures:**

Sta Lucia bridge in Capaz was washed out.

Collapse of river dikes in Sto. Tomas, Pampanga

In Region II, the province of Nueva Viscaya registered the most number of casualties (32) due to flooding and landslides. Most of the casualties were victims of drowning in floodwaters in Regions I, II and III.

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (5/14)

### TS MONANG

Date of Occurrence: Dec 3 – 4, 1993  
 Affected Regions: NCR, II, IV and V  
 Affected Areas: 4 Regions, 14 Provinces, 5 Cities, 152 Municipalities and  
 982 Barangays  
 Population Affected: Families – 264,912; Persons – 1,361,267  
 Casualties: Dead – 273; Injured – 607; Missing – 90  
 Houses Damaged: Totally – 60,357; Partially – 160,164  
 Cost of Damages: P 2,463.61M - Infrastructure - P928.92 M  
 Agriculture - P1,379.85 M  
 Private Properties - P154.84 M

### Affected rivers/basins/watersheds

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Cagayan	1	Lower Cagayan river	2 towns & 7 barangays
Laguna	1	Caliraya-Pagsanjan watershed	28 towns, 121 barangays
Marinduque	19	Boac river	4 towns, 162 barangays
Mindoro Oriental	-	Naujan lake, Bongabong, Bulalakao, Malaylay & Magaswangtubig rivers	16 municipalities
Palawan			3 towns, 27 barangays
Quezon	30	Infanta & Iyam watersheds	17 towns, 58 barangays
Rizal	-	Montalban river	3 towns, 3 barangays
Albay	4	Guinobatan watershed	17 towns, 20 barangays
Camarines Norte	44	Bicol river & tributaries	12 municipalities
Camarines Sur	156	Sipocot-Libmanan river	37 towns, 582 barangays
Catanduanes	13	Bato and Pajo rivers	11 municipalities

The strong winds and intense rainfall caused the considerable damages both to life and properties. Worst hit was Region V or the Bicol region, particularly the province of Camarines Sur where 156 lives were claimed by TS Monang.

The Bicol river and its tributaries and other nearby rivers exceeded their carrying capacities resulting to flooding. Most of the casualties were drowned or swept by floodwaters. Others were struck by damaged infrastructures and uprooted trees.

**Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages  
Recorded for the Last 15 years (6/14)**

**TY PURING**

Date of Occurrence: Dec 24 – 29, 1993  
 Affected Regions: VI, VII, VIII, X, XI  
 Affected Areas: 5 Regions, 19 Provinces, 181 Municipalities, 18 Cities and  
 890 Barangays  
 Population Affected: Families – 349,850; Persons – 1,914,935  
 Casualties: Dead – 187 ; Injured – 52; Missing – 280  
 Houses Damaged: Totally – 34,221; Partially – 127,154  
 Cost of Damages: P 2,741.474M - Infrastructure - P905.837 M  
 Agriculture - P1,789.064 M  
 Private Properties - P 46.576 M

**Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Capiz	6	Panay-Mambusao and Dumalag watersheds	16 / 253
Iloilo	19	Jaru and Jalaud watersheds	30
Negros Occidental	4	Ilog and Hilabangan rivers	10
Bohol	13	Talibon-Ipil, Inabanga-Wahig, Antiquerra-Siniganan and Loboc watersheds	20
Cebu	15	Balamban, Carmen and Mananga river watersheds	Asturias, Balamban, Cordova, Danao City, Mandaue City, Cebu City, Lapu-lapu City
Cebu City	12		
Danao City	5		
Mandaue City	4		
Lapu-lapu City	5		
Toledo City	2		
Negros Oriental	1	Tanjay, Siaton, Bayawan and Pagatban watersheds	Tanjay, Mabinay, Guihulngan, Pamplona
Leyte	12	Kananga & Binahaan rivers	18 / 112
Southern Leyte	19	Sogod watershed	3 / 5
Agusan del Norte	5	Lake Mainit-Cabadbaran, Agusan River	
Butuan City	10		26
Agusan del Sur	2	Sibagat Wawa, Adgaoan, Ojot, Gibong, Libang and Sumilao watersheds	
Surigao del Norte	14	Lake Mainit-Cabdbaran river basin	27
Surigao City	5		
Davao del Norte	15	Tagum-Lubuganaon river basin	19 / 179
Davao Oriental	9	Padada & Buayan river basins	7 / 11
Surigao del Sur	10	Tago river basin	19 / 304
<b>Total</b>	<b>187</b>		

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (7/14)

### TS MAMENG

Date of Occurrence: Sep 27 – Oct 1, 1995  
 Affected Regions: I, II, III, IV, V, VI, VII, VIII, X, NCR and CAR  
 Affected Areas: 11 Regions, 41 Provinces, 8 Cities, 110 Municipalities and  
 915 Barangays  
 Population Affected: Families – 241,430; Persons – 1,240,668  
 Casualties: Dead – 116; Injured – 49; Missing – 126  
 Houses Damaged: Totally – 13,234; Partially – 21,852  
 Cost of Damages: P 3,172.73M - Infrastructure - P1,296.649 M  
 Agriculture - P1,876.076

### **Affected rivers/basins/watersheds**

Region/Province	Casualties (dead)	River/basin/watershed	Affected Towns / Barangays
CAR Ifugao	22		4 No breakdown
Region I Pangasinan	2	Agni and Sinocalan, Angalacan, Toboy, Bued Rivers	29 / 379 No breakdown
Region II Nueva Viscaya	1	Upper Cagayan & Magat rivers	8 / 16 No breakdown
Region III	36	Pampanga river and its tributaries	32 / 248 No breakdown
Region IV	13		12 / 46 No breakdown
Region V	3	Bicol, Sipocot- Libmanan and Guinobatan rivers	3 / 15 No breakdown
Region VI.	20		No breakdown
Region VII Cebu	1	Balamban, Carmen and Mananga river watersheds	4 No breakdown
Region VIII No breakdown	-		13 / 26 No breakdown
Region X Bukidnon	18		1 No breakdown
NCR	-		4 / 8 No breakdown
<b>Total</b>	<b>110</b>		

### **Damaged Infrastructures:**

#### **Region III**

San Fernando-Gapan Olongapo Road  
 Magliman, Banlic, Parulog, Sta. Barbara & Gugu No. 2 bridges.  
 Mahay component bridge  
 Angeles-Porac road girder bridge in Mancatian  
 Bailey bridge along Pasig-Potrero river

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (8/14)

### TY PEPANG

Date of Occurrence:	Oct 26 – 30, 1995
Affected Regions:	IV, VI, VII & VIII
Affected areas:	4 Regions, 10 provinces, 97 Municipalities, 13 Cities and 1,825 Barangays
Population Affected:	Families – 234,522; Persons – 1,254,774
Casualties:	Dead – 265 (71 in Region IV, 169 in Region VI, 23 in Region VII and 2 in Region VIII); Injured – 323; Missing – 67
Houses Damaged:	Totally – 53,907; Partially – 156,979
Cost of Damages:	P 423.617M - Infrastructure - P174.270 M Agriculture - P1,232.671 M Private Properties - P16.578 M

### **Affected rivers/basins/watersheds**

Region/Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Region IV Palawan	71		14 / 31
Region VI			
Aklan	-	Aklan and Ibayay river watersheds	/ 71
Antique	-	Cangaronan and Sibalom river watersheds	/ 35
Capiz	-	Panay-Mambusao and Dumalag watersheds	/ 39
Guimaras	4		/ 46
Iloilo	48	Jaru and Jalaud watersheds	20 / 656
Iloilo City	4		/ 160
Negros Occ.	87	Ilog and Hilabangan rivers	11 / 108
Bacolod City	17		/ 50
Bago City	2		/ 1
Cadiz City	5		/ 18
La Carlota City	-		/ 12
San Carlos City	2		
Region VII			
Bohol	-		3
Cebu	18	Balamban, Carmen and Mananga river s	24 / 193
Mandaue City	1		
Negros Oriental	2	Tanjay, Siaton, Bayawan and Pagatban watersheds	7
Region VIII			
Leyte	2	Kananga & Binahaan rivers	18 / 405
<b>Total</b>	<b>265</b>		

The rains brought about by TY Pepang inundated some parts of Negros Occidental by as much as 6 feet. Rivers within the Panay and Kabankalan river basins overflowed rendering most highways impassable. TY Pepang was the worst typhoon that hit Negros Occidental after TY Ruping in 1990 and TY Puring in 1993. The storm caught the residents by surprise. The worst hot municipalities were Escalante, Calatrava, Toboso, San Carlos, Sagay and Don Salvador Benedicto. The storm left a wide swath of destruction in terms of agricultural crops which were on their vegetative, reproductive, ripening and harvestable stages. There was a complete cut-off of irrigation water to the areas being served by the Bago River Irrigation System

The strong winds of TY Pepang knocked down communication, water and power transmission facilities. The Manapla electric cooperatives reported that 241 of its electric poles and 159 poles of MPC transmission lines were either toppled, broken or leaning at the height of the typhoon. About 6,500 telephone lines in Bacolod City were knocked down and were rendered not operational. The high number of casualties can be attributed mainly on the failure of the people to prepare for the disturbance.

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (9/14)

**TY ROSING**

Date of Occurrence: Oct 31 – Nov 3, 1995  
 Affected Regions: I, II, III, IV, V, VII, NCR & CAR  
 Affected Areas: 8 Regions, 46 Provinces, 437 Municipalities, 20 Cities and 516 Barangays  
 Population Affected: Families – 960,777; Persons – 4,683,618  
 Casualties: Dead – 936; Injured – 4,152; Missing – 316  
 Houses Damaged: Totally – 221,146; Partially – 641,718  
 Cost of Damages: P 10,828.77M: Infrastructure - P11.674 B  
 Agriculture - P9,036.741M  
 Others - P36.187 M

**Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Tarlac	-	Bamban river	Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Pampanga	1	Guagua river, O'Donnell, Sacobia and Pasig Potrero Sto Tomas rivers	Guagua, Candaba, Minalin, Sto Tomas, Magalang, Sta. Rita and Bacolor
Bataan	1		Dinalupihan
Bulacan	1	Pampanga	Calumpit, Hagonoy, Paombong and Pulilan
Nueva Ecija	-	Pampanga river, Rio Chico	Bongabon, Cabanatuan, Palayan City
Nueva Viscaya	2		Bayombong, Solano
Pangasinan	-	Agno & tributaries, Sinocalan, Aloragat rivers	Sta Maria, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City,
Kalinga-Apayao	2		9
Aurora	1	Baler and Umiray basins	9
Batangas	16		24
Cavite	9		40
Laguna	21	Caliraya river	29
Quezon	267	Infanta and Iyam river basins	6
Rizal	3	Montalban river	13
Albay	37	Guinobatan basin	17
Legazpi City	7		
Camarines Norte	283	Sipocot-Libmanan basin	12
Camarines Sur	223	Bicol and its tributaries	35
Iriga City	5		
Naga City	11		
Catanduanes	33	Viga and Bato rivers	11
Masbate	2		21
Sorsogon	8		16
Northern Samar	2	Catubig river basin, Catarman and Bobon rivers	8
<b>Total</b>	<b>936</b>		

## **Damaged Infrastructures:**

### **Region III**

Gapan-San Fernando-Olongapo Road

Mabalacat-Bamban Road

San Fernando-Lubao old road (San Vicente section)

Angeles – Porac road

Mexico Bailey bridge

Tiaong bridge (Balangcas section)

Quitangil bridge in Magalang (along Ninoy Aquino and Sta. Cruz section).

TY Rosing was a very intense typhoon when it passed very close to Catanduanes. Moving westward, it crossed Camarines Norte, Laguna, Riza, Cavite, Bataan and Metro Manila.

The effect of TY Rosing was severely felt in the Southern Tagalog and Bicol regions. At the height of TY Rosing, there were disruptions of vital communication links. Likewise power and water supplies particularly in Regions IV and V which were heavily devastated. Several roads and bridges were damaged rendering them impassable to all types of vehicles. Landslides in Bicol and Southern Tagalog regions isolated some municipalities and barangays from the city/town proper.

Deaths totaled 936 which were mostly caused by drowning and landslides.



## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (10/14)

### TY EMANG & TS GADING

Date of Occurrence: (TY Emang): Sep 16 – 17, 1998  
 Date of Occurrence: (TS Gading): Sep 17 – 21, 1998  
 Affected Regions: NCR, CAR, I, II, III & IV  
 Population Affected: Families – 335,699; Persons – 1,749,414  
 Casualties: Dead – 108; Injured – 22; Missing – 20  
 Houses Damaged: Totally – 10,900; Partially – 33,434  
 Cost of Damages: P 3,795.40M

### **Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Tarlac		Bamban river	Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Pampanga		Guagua river, O'Donell, Sacobia and Pasig Potrero Sto Tomas rivers	Guagua, Candaba, Minalin, Sto Tomas, Magalang, Sta. Rita and Bacolor
Bataan			Dinalupihan
Bulacan		Pampanga	Calumpit, Hagonoy, Paombong and Pulilan
Nueva Ecija		Pampanga river, Rio Chico	Bongabon, Cabanatuan, Palayan City
Nueva Viscaya			Bayombong, Solano
Pangasinan		Agno & tributaries, Sinocalan, Aloragat rivers	Sta Maria, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City,
Aurora		Baler and Umiray basins	
Batangas			
Cavite			
Laguna		Caliraya river	
Quezon		Infanta and Iyam river basins	
Rizal		Montalban river	
<b>Total</b>			

With its strength, TY Gading battered the provinces it crossed and worst hit was Pangasinan where 100-year old trees and infrastructures were uprooted. Storm surge was also recorded in the coastal towns of Pangasinan. Continuous moderate to light rain occurred over the Agno river basin from September 15 to 19 resulting to flooding in the Pangasinan Plain including the low lying areas of Ilocos region, Nueva Viscaya and Isabela. Binga and Ambuklao dam exceeded their normal flood levels which prompted the opening of the spillway gates. Agno and its tributaries including the Sinocalan river overflowed.

Most of the casualties came from Pangasinan and were victims of flooding as well as strong winds due to fallen or damaged infrastructures.

As per records from the Office of Civil Defense, damages due to the effects of the two(2) disturbances were combined but in reality most of the listed damages under TY Emang can be attributed to TS Gading.

**Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages  
Recorded for the Last 15 years (11/14)**

**TY LOLENG**

Date of Occurrence: Oct 15 – 23, 1998  
 Affected Regions: I, II, III, IV, V, VI, VIII, & CAR  
 Affected Areas: 8 Regions, 40 Provinces, 420 Municipalities, 8 Cities and  
 2,667 Barangays  
 Population Affected: Families – 910,912; Persons – 3,777,493  
 Casualties: Dead – 303; Injured – 751; Missing – 29  
 Houses Damaged: Totally – 96,581; Partially – 307,042  
 Cost of Damages: P 8.491B: Agriculture - P 2,225.682 M  
 Infrastructure - P 2,303.708 M  
 Others - P 773.100 M

**Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
NCR Malabon Caloocan	4		
La Union		Aringay river	
Pangasinan	1	Agno & tributaries, Sinocalan, Aloragat rivers	Sta Maria, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City,
Nueva Viscaya	2		Bayombong, Solano
Quirino	1	Upper Cagayan river	
Isabela		Cagayan, Pinacanawan rivers	Cauayan, Echague, Naguilian, Ilagan, Tumauni, canagan, Delfin Albano, & Sto. Tomas
Tarlac	3	Bamban river	12 / 103 Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Pampanga	10	Guagua river, O'Donell, Sacobia and Pasig Potrero Sto Tomas rivers	17 / 248 Guagua, Candaba, Minalin, Sto Tomas, Magalang, Sta. Rita and Bacolor
Bataan	1		Dinalupihan
Bulacan	11	Pampanga	Calumpit, Hagonoy, Paombong and Pulilan
Nueva Ecija	10	Pampanga river, Rio Chico	Bongabon, Cabanatuan, Palayan City
Aurora	10	Baler and Umiray basins	8 / 120
Batangas	1		Sico, Lipa City, Batangas City
Laguna	5	Caliraya river	
Quezon	23	Infanta and Iyam river basins	Bgy. Malinao, Atimonan, Tiaong, Candelaria, Macalelon, Gen. Luna, and Calauag, Sariaya, Padre Burgos, Catanauan
Rizal	6	Montalban river	
Camarines Sur Iriga City Naga City	85 1 8	Bicol river and its tributaries	Bgy Sta Rita in Baao, Sipocot, Libmanan, Banban, Iriga City and Naga City, Coastal Bgys of Balatan, Del Gallego, Caramoan Peninsula, Garchitorena and Calabanga
Camarines Norte	17	Labo river	Bgys magsaysay and Tanawan in Capalong
Catanduanes	80	Viga, Bato and Pajo watersheds	Bgy. Kilikilihan & Tubrihon in San Miguel and Caramoan
Sorsogon	3		Bulan, Irosin, and Sta Magdalena

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Albay	5	Guinobatan river	Daraga, Oas, Libon, Tabaco, and low-lying areas of Legazpi City
Iloilo	7	Jaru and Jalaud watersheds	Bgy Malipayon & Consolacion in san Miguel & Bgy Tuna in Mina
Aklan	2	Aklan and Ibajay river watersheds	Bgy. Pook in Kalibo and Bgy. Castillo in Makato
Northern Samar	6	Oras, Dolores, Can-avid, Taft, Suribao, Balangiga watersheds	Sta Rita and Catbalogan
<b>Total</b>	<b>303</b>		

### **Damaged Infrastructures:**

#### **Region I**

Dikes - Bgy. Gelew, San Carlos City

- Bgy. Gualsec, Malasique, Pangasinan

Road Culvert – Hector Mendoza spillway at Laoac, Pangasinan

#### **Region II**

Collapsed bridges in San Agustin, San Guillermo, Angadanan & Jones in Isabela

Collapsed bridges in Tuao and Amulung Cagayan

Some portions of Maharlika Highway in Nueva Viscaya

Baculud Detour Bridge going to northern Cagayan

#### **Region III**

San Fernando-Lubao Road

Angeles-Porac Road

Bongabong Bridge in Panique

Bangerban Bridge in Bongabon

Bato Ferry Bridge in Laur and Gabaldon

Bangkerohan bridge in Palayan City

#### **Region IV**

Sariaya Bridge in Sariaya, Quezon

National road in Bgy Sico, Lipa City

Km 17 in Malvar

Talisay-Laurel-Agoncillo road

National Road in San Pedro, Laguna

Zigzag road in Atimonan, Quezon

Lake-Taal-Tagaytay Road

Bridge in Bgy Sto Cristo connecting Sariaya and Candelaria

Bridge in the municipality of Busuanga, Quezon

Boac Flood Control dike along Boac river was washed out.

#### **Region V**

Roads at Bulan, Irosin and Sta Magdalena, Sorsogon

#### **Region VI**

Binangbang bridge at Barbasa, Antique

Bubog bridge in Culasi, Antique

Sipno bridge connecting Madalag and Malinao, Aklan

#### **Region VIII**

Catbalogan-Tacloban-Sta Rita road in Eastern Samar

Bgy. Laygayon-Pinakdao road in Sta Rita, Western Samar

## **Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (12/14)**

### **TY REMING**

Date of Occurrence:	Oct 26 – Nov 1, 2000
Affected Regions:	I, II, III, IV, V, VI, VIII, NCR & CAR
Population Affected:	Families – 486,416; Persons – 2,432,942
Casualties:	Dead – 114; Injured – 314; Missing – 10
Houses Damaged:	Totally – 16,910; Partially – 125,790
Cost of Damages:	P 3,944.44M

The 24-rainfall recorded over Tayabas, Quezon was about 313.3 mm on October 28 while over Catarman, Samar, 276.6 mm of rainfall was registered on the 27<sup>th</sup> of October.

The wide coverage of TY Reming and its track and duration in the PAR resulted to the occurrence of moderate to heavy rainfall affecting a wider area. TY Reming brought considerable damages to life and property.

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (13/14)

### TY FERIA

Date of Occurrence: Jul 2 – 6, 2001  
 Affected Regions: I, II, III, IV, V, VI, VIII IX, X, CAR, CARAGA & NCR  
 Affected Area: 12 Regions, 36 Provinces, 21 Cities, 302 Municipalities and  
 4,106 Barangays  
 Affected Population: Families – 415,436; Persons – 1,902,413  
 Casualties: Dead – 188; Injured – 241; Missing – 44  
 Houses Damaged: Totally – 12,774; Partially – 39,147  
 Cost of Damages: P 3,586.48M - Infrastructure - P1,854.12M  
 Agriculture - P1,349.10M  
 Private Prop. - P 383.26M

### Affected rivers/basins/watersheds

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Benguet	47	Upper Agno river	13 / 68
Baguio City	35		1 / 66
Abra	19	Abra river basin	27 / 171
Mt. Province	13		8 / 11
Apayao	2		7 / 69
Ilocos Sur	26	Sta Maria, Sta Cruz & Amburayan rivers	30 / 498
Ilocos Norte	2	Laoag river	18 / 621 Pagudpud
La Union	3	Amburayan and Bauang rivers	20 / 439
Pangasinan	22	Agno & tributaries, Sinocalan, Aloragat rivers, Toboy, Angalacan and Bued rivers	42 / 885 Sta Maria, Asingan, Rosales, Villasis, Bayambang, San Manuel, Tayug, Calasiao, Dagupan City,
Cagayan	7	Cagayan river and its tributaries	23 / 475
Nueva Viscaya	-	Upper Cagayan and Magat rivers	12 / 75 Bayombong, Solano
Quirino	1	Upper Cagayan river	4 / 28
Tarlac	1	Bamban river	4 / 23 Camiling, Tarlac, Paniqui, La Paz, Concepcion and Gerona
Zambales	1	Botolan & San Marcelino watersheds	4 / 21
Nueva Ecija	5	Pampanga river, Rio Chico	12 / 65 Bongabon, Cabanatuan, Palayan City
Iloilo City	1		2 / 4 Bgy Malipayon & Consolacion in san Miguel & Bgy Tuna in Mina
Aklan	1	Aklan and Ibabay rivers	2 / 4 Bgy. Pook in Kalibo and Bgy. Castillo in Makato
Negros Occidental	-	Sipalay, and Bago rivers	4 / 17
Dapitan City	2		
<b>Total</b>	<b>188</b>		

## **Damaged Infrastructures:**

### **Region I**

Badoc bridge and Quirino bridge in Navacan, Ilocos Sur – approaches totally washed out  
Bayugao bridge in Sta Cruz, Ilocos Sur – southern approach- washed out  
Amburayan bridge Tagudin, Ilocos Sur – washed out  
Badoc bridge in Badoc, Ilocos Norte  
Bugayong bridge in Pozzorubio, Pangasinan – collapsed  
Gualsec Dike in Malasique, Pangasinan – breached  
Caranglaan Dike in Alcala, Pangasinan – breached

### **Region II**

Quibal Detour bridge in Callao, Cagayan - collapsed  
Tawi bridge in Penablanca, Cagayan - collapsed  
Calaoagan Basset Brodge in Gattaran, Cagayan – collapsed

### **Region III**

Tayabo maisip bridge in Sta Fe, Daang Maharlika, Nueva Viscaya – totally washed out.  
Protective dikes in Aliaga, Sto Domingo, Nueva Ecija – collapsed

### **NCR**

Tumana bridge in Marikina  
Marikina-Infanta Road, Km 38+300, Km 38+560, Km 28+500, Km 28+550 – eroded shoulders exposing the existing concrete pavement  
Protective dikes in Brgys. Paco and Caloong, Valenzuela

### **CAR**

Marcos Highway, Kennon Road, Bontoc-Baguio Road, Benguet-Nueva Viscaya Road, Naguilian – Kennon Road, Baguio-Bauang Road, Mt. Province-Calanan Road, Abra-Cervantes Road, Natubling-Buguias Road, Banawe-Hungduan Road, Kabugao-Solsona Road, Kabugao-Pudtol Luna Road, Claveria-Calanasan Road

TY Feria's onslaught triggered the following incidents:

1. Two (2) baby tornadoes struck San Jose City, Oriental Mindoro and San Fernando City, La Union.
2. Series of rockslides occurred in the main thoroughfares in CAR and several landslides occurred in the following areas: Sarrat, Bangui and Poblacion, Sugpon in Ilocos Sur; Yagyagan-Naguilian Road in La Union, Capintan, Carranglan in Nueva Ecija; Balangan-Sablan Road; Baguio Sto. Rosario Valley Campo Sioco; Puguis, Tublay in Benguet; Haselma, Baguio City.
3. Three(3) dikes were breached in the following areas: Gualsec dike in Malasique and Caranglan dike in Alcala, Pangasinan; protective dikes in Aliaga and Sto. Domingo, Nueva Ecija; protective dikes in Brgys. Paco and Caloong, Valenzuela.
4. MBCB Messiah vessel capsized in the vicinity of Iloilo river entrance due to rough seas and strong winds.
5. Storm surges brought about by southwest monsoon winds induced by TY Feria affected 43 barangays and 22 municipalities in Antique, Negros Occidental, Aklan, Bacolod City and Iloilo City in Region VI; 14 municipalities in in Zamboanga del Norte, 3 barangays in Zamboanga City and 1 barangay in Dapitan City in Region IX. All coastal towns in Ilocos Norte particularly Pagudpud were struck by big waves.

Most of the casualties were either drowned or buried by landslides. About 116 of the total 188 casualties came from the Cordillera Administrative Region.

## Annex 2 Affected Rivers/Basins/Watersheds and Infrastructure Damages Recorded for the Last 15 years (14/14)

### TY NANANG

Date of Occurrence: Nov 6 – 10, 2001  
 Affected Regions: IV, V, VI, VII, VIII, IX, X & CARAGA  
 Affected Areas: 8 Regions, 23 Provinces, 19 Cities, 111 Municipalities and  
 985 Barangays  
 Population Affected: Families – 262,581; Persons – 1,331,682  
 Casualties: Dead – 236 ( 26 in Region IV, 39 in Region VI, 20 in Region VII,  
 1 in Region VIII, 148 in Region X and 2 in CARAGA);  
 Injured – 169; Missing – 88  
 Houses Damaged: Totally – 1,973; Partially – 12,763  
 Cost of Damages: P 3,245.967 M

### **Affected rivers/basins/watersheds**

Province	Casualties (dead)	River/basin/watershed	Affected Towns & Barangays
Oriental Mindoro	12	Naujan Lake, Bongabong, Bulalakao, Malaylay rivers	Bongabon, Roxas, Pola, Pinamalayan
Palawan	1		Coron, Culion, Busuanga, El Nido, San Vicente, Linapacan, Cuyo, Aborlan, Dumarán & Dumarán-Araceli
Romblon	1		Romblon
Capiz	3	Panay-Mambusao and Dumalag watersheds	Curatero, Dao, Dumarao, Ivisan, Jamindan, Maayon, Mambusao, Panay, Panitan, Pilar, Tapaz, Sigma
Iloilo	3	Jaru and Jalaud watersheds	San Joaquin, Tagbauan, Concencion, Janiuay, Pototan
Antique	1		Tibiao, Pandan, Bellison, San Remegio
Negros Occidental	31	Ilog and Hilabangan rivers	Cadiz, Kabankalan, Silay, Victorias, Bacolod City, Binalabagan, Hinigaran, Hinobaan, Pontevedra, Ilog, Isabela, Sipalay, Pulupandan, Murcia, San Enrique and Cauayan
Aklan	1	Aklan and Ibajay watersheds	Altabas, Balete, Banga, Batan, Baruanga, Bajay, Lezo, Libacao, Madalag, Makato, Malay, Kalibo, Malinao, Nabas, Numancia, Tangalan & New Washington
Bohol	1	Talibon-Ipil, Inabanga-Wahig, Antiquerra-Siniganan and Loboc watersheds	Pilar, Loboc and Dueno
Cebu	20	Balamban, Carmen and Mananga river watersheds	Talisay, Toledo, Cebu City, Minglanilia, Naga, Liloan, Borbon, Carcar, Asturias, Cordova
Camiguin	148		Catarman, Guinsiliban, Mahinog, Mambajao, Sagay
Leyte	1	Kananga & Binahaan rivers	Tacloban
Surigao del Norte	2	Lake Mainit-Cabbaran river basin	Claver, Giagquil, Malimono and Siargao
<b>Total</b>	<b>236</b>		

As Nanang hovered over the Visayan islands, it poured abnormally high rainfall which persisted for almost half a day. Although no account of the maximum rainfall was observed over the area, the intense precipitation drawn to the Mt. Mambajao Volcano was enhanced by orographic effect and flashflood ensued in the municipality of Mahinog. Falling boulders of rocks swept by flood waters wiped out houses and other structures.

**Profile of Damages to Infrastructures (Roads and Bridges)\***

<b>Region/Provinces</b>	<b>Estimated Cost of Damage (in Million pesos)</b>
Region IV	
Romblon	26.125
Palawan	3.700
Oriental Mindoro	85.800
Region VI	
Capiz	67.070
Aklan	142.700
Antique	155.650
Negros Occidental	511.500
Iloilo	150.260
Iloilo City	27.300
Guimaras	17.360
Region VII	
Cebu	37.533
Bohol	176.956
Siquijor	5.300
Negros Oriental	17.278
Region X	
Camiguin	157.497
CARAGA	
Surigao del Norte	65.492
Surigao del Sur	5.500
Surigao City	14.970
<b>Total</b>	<b>1,667.991</b>

\* No details or breakdown on the name and location of roads and bridges were given.



## **Annex 3**

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### *Inventory of Hydrological Data Collection*

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
SYNOPTIC STATIONS  
(Established by the PAGASA)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks
								Published/ Encoded	Raw Data	Gaps					
1	222	Vigan, Ilocos Sur	I	17° 34'	120° 23'	33.00	3.80	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Eduardo Quitives	3-hourly
2	223	Langit, Ilocos Norte	I	18° 11'	120° 32'	5.00	0.60	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Cynthia Iglesias	3-hourly
3	325	Dagupan City Pangasinan	I	16° 03'	120° 20'	2.40	0.20	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Reynaldo De Leon	3-hourly
4	321	Baguio City (Radar) Benguet	II	16° 20'	120° 34'	2,256.00	SPL	01-Jan-73	31-Aug-02	Sep-02	Present	excel	Operational		3-hourly
5	328	Baguio City Benguet	II	16° 25'	120° 36'	1,500.00	SPL	01-Jan-51	31-Dec-00	Sep-02	Present	excel	Operational	Joseph Rios	3-hourly
6	132	Ilibay, Batanes	II	20° 45'	121° 48'	124.00	14.10	01-Jan-65	31-Dec-00	Sep-02	Present	excel	Operational	Alexander Antas	3-hourly
7	133	Calayan, Cagayan	II	18° 16'	121° 28'	13.00	1.50	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Roque Maquiraya	3-hourly
8	134	Basco Radar, Batanes	II	20° 27'	121° 58'	167.00	1.30	30-May-00	31-Aug-02	Sep-02	Present	excel	Operational	Constantino Gavilan	3-hourly
9	135	Basco Batanes	II	20° 27'	121° 58'	11.00	1.30	01-Jan-51	30-Apr-00			excel	Closed		
10	232	Aparri, Cagayan	II	18° 22'	121° 38'	3.00	0.30	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Jose Razo Mercado	3-hourly
11	233	Tuguegarao, Cagayan	II	17° 37'	121° 44'	62.00	7.10	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Leo Bunag	3-hourly
12	324	Iba, Zambales	III	15° 20'	119° 58'	5.40	0.60	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Romulo Rapsyrapay	3-hourly
13	327	Clark Airport, Pampanga	III	15° 10'	120° 34'	154.82	-	01-Jan-94	31-Aug-02	Sep-02	Present	excel	Operational	Nicolas de Guzman	3-hourly
14	329	CLSU Muñoz Nueva Ecija	III	15° 43'	120° 54'	76.00	8.60	01-Jan-82	31-Aug-02	Sep-02	Present	excel	Operational	Margarita Bantug	3-hourly
15	330	Cabanatuan Nueva Ecija	III	15° 29'	120° 58'	28.40	3.60	01-Jan-61	31-Aug-02	Sep-02	Present	excel	Operational	Dominador Campo	3-hourly
16	426	Cubi Pt., Subic Bay, Olongapo	III	14° 49'	120° 17'	19.10	2.20	01-Jan-92	31-Aug-02	Sep-02	Present	excel	Operational	Victorino Naval	3-hourly
17	425	Port Area, Manila	IV	14° 35'	120° 59'	15.00	1.70	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Juan Cordeta	3-hourly
18	429	NAIA(MIA), Pasay City	IV	14° 31'	121° 01'	21.06	2.40	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Rodolfo Ponce	3-hourly
19	430	Science Garden, Quezon City	IV	14° 39'	121° 03'	42.00	4.90	01-Jan-61	31-Aug-02	Sep-02	Present	excel	Operational	Della Basco	3-hourly
20	334	Baler Radar, Quezon	IV	15° 46'	121° 34'	6.00	0.70	01-Jan-51	31-Dec-94			excel	Closed		
21	334	Baler Radar, Quezon	IV	15° 45'	121° 38'	178.20	0.70	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Cefetino Hulipas	3-hourly
22	336	Casiguran, Quezon	IV	16° 17'	122° 07'	4.00	0.50	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Jemie Fernandez	3-hourly
23	427	Tayabas, Quezon	IV	14° 02'	121° 35'	157.70	SPL	01-Jan-70	31-Aug-02	Sep-02	Present	excel	Operational	Enriqueta Gaytano	3-hourly
24	428	Sangley Point, Cavite	IV	14° 30'	120° 55'	3.00	0.30	01-Jan-74	31-Aug-02	Sep-02	Present	excel	Operational	Angel Tuquero	3-hourly
25	431	Calapan Oriental, Mindoro	IV	13° 25'	121° 11'	40.50	4.70	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Resama Maticca	3-hourly
26	432	Ambulong, Batangas	IV	14° 05'	121° 03'	10.60	1.30	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Marciano Perseveranda	3-hourly
27	433	Pansy, Rizal (Radar)	IV	14° 30'	121° 37'	0.00	0.00	soon to operate					Closed		
28	434	Infanta, Quezon	IV	14° 45'	121° 39'	7.00	0.80	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Jorge Miras	3-hourly
29	435	Alabat, Quezon	IV	14° 01'	122° 01'	5.00	0.6	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Vivencio Bristol	3-hourly
30	437	San Francisco, Quezon	IV	12° 12'	122° 16'	45.00	5.1	01-Jan-51	31-Dec-92			excel	Closed		
31	526	Coron, Palawan	IV	12° 00'	120° 12'	14.00	1.6	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Jenicho Francisco	3-hourly
32	531	San Jose Occidental, Mindoro	IV	12° 21'	121° 02'	0.30	0.4	01-Jan-81	31-Aug-02	Sep-02	Present	excel	Operational	Arcadio Baterra	3-hourly
33	536	Romblon, Romblon	IV	12° 35'	122° 16'	47.00	5.4	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Benvenuto Muleta	3-hourly
34	602	Pagasa Island, Palawan	IV	11° 03'	114° 17'	16.00	0.3	01-Jan-74	31-Aug-02	Sep-02	Present	excel	Operational	Rosalina Basis-Puerto Sta.	3-hourly
35	618	Puerto Princesa, Palawan	IV	09° 45'	118° 44'	16.00	1.7	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Wernito Masangap	3-hourly
36	630	Cuyo, Palawan	IV	10° 51'	121° 02'	4.00	0.5	01-Jan-51	31-Dec-00	Sep-02	Present	excel	Operational	Daniel Tejada	3-hourly
37	712	Bugtak, Palawan	IV	08° 12'	117° 18'	3.00	0.3	01-Jan-83	31-Aug-02	Sep-02	Present	excel	Closed		
38	440	Daet, Camarines Norte	V	14° 07'	122° 59'	4.00	0.5	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Andres Molina	3-hourly
39	442	Pili, Negros	V	13° 34'	123° 16'	0.00	4	01-Jan-92	31-Aug-02	Sep-02	Present	excel	Operational	Arturo Balang	3-hourly
40	444	Legaspi City, Albay	V	13° 08'	123° 44'	17.00	1.9	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Hernando Panitoga	3-hourly
41	446	Virac Synop, Catanduanes	V	13° 35'	124° 14'	40.00	4.6	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Ely Rodolfo	3-hourly
42	447	Virac Radar, Catanduanes	V	13° 59'	124° 19'	233.00	4	01-Jan-68	31-Aug-02	Sep-02	Present	excel	Operational	Ely Rodolfo	3-hourly
43	543	Masbate Masbate	V	12° 22'	123° 37'	10.00	1.1	01-Jan-51	31-Aug-00	Sep-02	Present	excel	Operational	Imelda Ofalla	3-hourly
44	538	Roxas City, Aklan	VI	11° 35'	122° 45'	4.00	0.4	01-Jan-51	31-Aug-00	Sep-02	Present	excel	Operational	Mamuel de Leon	3-hourly
45	637	Iloilo City, Iloilo	VI	10° 42'	122° 34'	6.20	0.7	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Rafael Tapales	3-hourly
46	645	Cebu City, Cebu	VI	10° 18'	123° 54'	3.50	4	01-Jan-51	31-Dec-83			excel	Closed		
47	642	Dumaguete City, Negros Oriental	VII	09° 18'	123° 18'	8.00	0.9	01-Jan-51	31-Dec-00	Sep-02	Present	excel	Operational	Edsin Culi	3-hourly
48	644	Tagbilaran, Bohol	VII	09° 38'	123° 52'	8.00	0.9	01-Jan-61	31-Aug-02	Sep-02	Present	excel	Operational	Emmanuel Orman	3-hourly
49	646	Mactan International Airport, Cebu	VII	10° 18'	123° 58'	12.00	1.4	01-Jan-72	31-Dec-00	Sep-02	Present	excel	Operational	Oscar Tabada	3-hourly
50	546	Caarman, Northern Samar	VIII	12° 29'	124° 38'	6.60	0.6	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Felton Corona	3-hourly
51	548	Catbalogan, Western Samar	VIII	11° 47'	124° 53'	5.00	0.6	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Eduardo Delacruz	3-hourly
52	550	Tacloban City, Leyte	VIII	11° 14'	125° 02'	2.70	0.3	01-Jan-51	31-Aug-02	Sep-02	Present	excel	Operational	Bonifacio Furing	3-hourly
53	553	Boronagan, Eastern Samar	VIII	11° 36'	125° 26'	2.40	0.8	01-Jan-51	31-Dec-87	Sep-02	Present	excel	Operational	Ricardo Galupe	3-hourly

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
SYNOPTIC STATIONS  
(Established by the PAGASA)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Years of Record			File Format	Data Available	Status	Weather Observer/CMO	Remarks		
								Published/ Encoded	Raw Data	Gaps							
54	538	Guanian Eastern Samar	VIII	11° 02'	125° 44'	60.00	6.8	01-Jan-73	31-Dec-00	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Emeliano Aparici	3-hourly
55	648	Maasin Southern Leyte	VIII	10° 08'	124° 50'	72.00	8.2	01-Jan-72	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Emmanuel Gonzales	3-hourly
56	741	Dipolog Zamboanga del Norte	IX	08° 36'	123° 21'	3.70	0.5	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Rodolfo Regencia	3-hourly
57	815	Cagayan de Sulu, Sulu	IX	06° 59'	118° 32'	0.00	3.9	01-Jan-75	31-Dec-82			none	excel	daily, monthly, annually	Closed		
58	830	Jolo, Jolo	IX	06° 03'	121° 00'	6.00	1.5	01-Jan-51	31-Dec-85			none	excel	daily, monthly, annually	Closed		
59	836	Zamboanga City Zamboanga Del Sur	IX	06° 54'	122° 04'	6.90	0.8	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Abduljagil Adjul	3-hourly
60	653	Surigao Surigao del Norte	X	09° 48'	125° 30'	39.27	4.5	01-Jan-51	31-Aug-02	Sep-02	Present	1978 - 88 (10 yrs)	excel	daily, monthly, annually	Operational	Constantino Arpon, Jr.	3-hourly
61	747	Lumbia Airport Misamis Oriental	X	08° 26'	124° 37'	182.00	SPL	01-Jan-71	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Shirley Almazan	3-hourly
62	748	Cagayan de Oro Misamis Oriental	X	08° 29'	124° 38'	6.00	0.7	01-Jan-51	31-Dec-00			none	excel	daily, monthly, annually	Closed		
63	751	Malaybalay Bukidnon	X	08° 09'	125° 05'	609.31	SPL	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Aniamia Fortich	3-hourly
64	752	Bunuan City Agusan del Norte	X	08° 56'	125° 31'	17.70	2.1	01-Jan-81	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Loila Vinalsey	3-hourly
65	753	Davao City Davao Del Sur	XI	07° 07'	125° 39'	18.00	2.1	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Gerry Pedrico	3-hourly
66	755	Hinatuan Surigao Del Sur	XI	08° 22'	126° 20'	3.00	0.3	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Augusto Galicha	3-hourly
67	851	General Santos South Cotabato	XI	06° 07'	125° 11'	15.00	1.7	01-Jan-51	31-Aug-02	Sep-02	Present	none	excel	daily, monthly, annually	Operational	Guillermo Dulay	3-hourly
68	746	Cotabato City Maguindanao	XII	07° 10'	124° 13'	44.90	5.1	01-Jan-51	31-Aug-02	Sep-02	Present	1965 - 86 (21 yrs)	excel	daily, monthly, annually	Operational	Zoraida Adam	3-hourly

Source:  
Station Profile - January 2004  
Climate Data Section, Climatology and Aerometeorology Branch  
PAGASA

Study for the Preparation of Flood Control Manual for DPWH Technical Standards and Guidelines  
Vol. 1, Final (Main) Report, March 2003

Master Plan Study on Water Resources Management  
in the Republic of the Philippines  
Vol. IV Final (Data) Report, August 1998

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION**  
**CLIMAT/ RAIN/ VSS/ COOPERATIVE STATIONS**  
 (Established by the PAGASA)

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Types	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks
									Published/ Encoded	Raw Data	Gaps					
									Jan-71	Aug-02	Sep-02					
1	0111	VSS Gaang Port Curimao Ilocos Norte	I	17° 59'	120° 59'			VSS	Jan-71	Aug-02	Sep-02	Present	none	Operational	Lenenzo Adel	2x/day
2	0112	San Roque Santiago Ilocos Sur	I	17° 16'	120° 25'			VSS	Jan-71	Aug-02	Sep-02	Present	none	Operational	Lose Jacob	2x/day
3	0113	Sinat Ilocos Sur	I	17° 52'	120° 27'			OR	Jan-69	Aug-02	Sep-02	Present	none	Operational	Julian Insire	2x/day
4	0114	Tagudin, Ilocos Sur	I	16° 56'	120° 27'			OR	Jan-71	Aug-02	Sep-02	Present	none	Operational	Elsa Lazo	2x/day
5	0115	Mamat-in, Naguilian, La Union	I	16° 35'	120° 25'			CC	May-05	May-05		Present	none	Closed		
6	0116	Masalep Tubao La Union	I	16° 21'	120° 25'			OR	Jan-66	Aug-02	Sep-02	Present	none	Operational	Alejandro Quindara	2x/day
7	0117	Bahugao Pangasinan	I	15° 54'	120° 43'			OR	Jan-71	Aug-02			none	Closed	Calixto Vellicaria	
8	0118	Barrio Binabonan Pangasinan	I	16° 05'	120° 33'			OR	Jan-68	Dec-99			none	Closed		
9	0119	Mabini Pangasinan	I	16° 04'	119° 56'			OR	Jan-56	Dec-65			none	Closed		
10	0120	Binga Plant, Ilog Mountain, Benguet	I	16° 22'	120° 18'			OR	May-05	Dec-56			none	Closed		
11	0122	Manlehaag Ref. Mangatarem, Pangasinan	I	15° 47'	120° 37'			OR	Jan-00	Dec-00			none	Closed		
12	Mil	Cosili Bangued Abra	II	17° 09'	120° 37'			OR	Jan-74	Aug-02	Sep-02	Present	none	Operational	Renato Astudillo	2x/day
13	0101	Bangued Abra	II	17° 36'	120° 37'			OR	Jan-80	Aug-02	Sep-02	Present	none	Operational	Nero Ballesta	2x/day
14	0102	Cosili bangued Abra	II	17° 35'	120° 34'			OR	May-05	Jun-05			none	Closed	Leo Boehlin	
15	0104	Divine World College Bangued, Abra (Langiden)	II	17° 40'	120° 40'			CC	May-05	May-05			none	Closed		
16	0103	Lagangiang, Abra	II	17° 09'	120° 41'			CC	May-05	Jun-05			none	Closed		
17	0105	Mudeng, La Paz, Abra	II	16° 29'	120° 45'			CC	May-05	Dec-85			none	Closed		
18	0106	Ambuklao, Bokod, Benguet	II	16° 35'	120° 41'			CR	Jan-68	Dec-79			none	Closed	Rogelio Garcia	
19	0107	Atok, Benguet	II	16° 22'	120° 41'			CR	Jan-61	Dec-00			none	Closed		
20	0108	Balaton Mines, Ilogon Benguet	II	16° 26'	120° 50'	1524.39		CR	Jan-56	Dec-86			none	Closed	Eduardo Santiago	
21	0109	Bobok, Bokod, Benguet	II	16° 39'	120° 50'			CR	Jan-56	Dec-76			none	Closed		
22	0110	Kabayuan, Benguet	II	18° 01'	121° 13'	320.12		OR	Jan-56	Dec-65			none	Closed	Rodolfo Tapiru	
23	0121	Kabugao, Kabugao, Mountain Province	II	16° 44'	120° 48'			OR	Jan-66	Dec-78			none	Closed		
24	0123	Aguo River, Bugnias, Benguet	II	18° 01'	121° 37'			OR	Jan-68	Aug-02	Sep-02	Present	none	Operational	Paulina Macadaeg	2x/day
25	0201	Aganetan Lusan Gat'aran Cagayan	II	17° 45'	120° 48'			OR	Jan-67	Aug-02	Sep-02	Present	none	Operational	Alfonso Mangabang	2x/day
26	0202	Cagunitan Tuao Cagayan	II	17° 31'	121° 43'			OR	Jan-77	Jun-91			none	Closed	Crescente Pagaduan	
27	0203	Caritan Centro, Tuguegarao, Cagayan	II	18° 37'	121° 05'	4.88		OR	Jan-56	Dec-80			none	Closed	Josephine Torre	
28	0204	Claveria, Cagayan	II	18° 12'	121° 39'			OR	Jan-72	Aug-02	Sep-02	Present	none	Operational	Nestor Dupaya	2x/day
29	0205	Lallo Cagayan	II	16° 48'	121° 07'			OR	Jan-68	Dec-82			none	Closed	Rita Binwag	
30	0206	Naumulditan, Lagawe, Ifugao	II	16° 39'	121° 14'			OR	Jan-68	Dec-81			none	Closed		
31	0207	Nayon Lamut, Ifugao	II	17° 06'	121° 42'			OR	Jan-68	Dec-81			none	Closed	Manuel Dulnuan	
32	0208	Cullalabo Burgos Isabela	II	17° 09'	121° 53'			OR	Jan-83	Dec-00	Sep-02	Present	none	Operational	Natividad Masuhay	2x/day
33	0209	Ilgan, Isabela	II	17° 24'	121° 16'			OR	Jan-66	Aug-02	Sep-02	Present	none	Operational	Ester Dancel	2x/day
34	0210	Naneng, Tabuk, Kalinga Apayao	II	16° 23'	121° 03'			OR	Jan-68	Aug-02	Sep-02	Present	none	Operational	Hermunia Maitute	2x/day
35	0211	Barat Bambang, Nueva Vizcaya	II	16° 09'	121° 06'			OR	Jan-69	Dec-81			none	Closed		
36	0212	Consuelo, Sta. Fe, Nueva Vizcaya	II	16° 31'	121° 11'			OR	Jan-67	Dec-79			none	Closed		
37	0213	Dupax, Nueva Vizcaya	II	16° 49'	121° 06'	435.06		OR	Jan-68	Dec-82			none	Closed		
38	0214	Solano, Nueva Vizcaya	II	18° 18'	121° 21'			OR	Jan-56	Dec-65			none	Closed	Francisco Uyami	
39	0215	Lagawe, Lagawe, Ifugao	II	14° 07'	120° 15'			OR	Jan-87	Aug-02	Sep-02	Present	none	Operational	Hermogenes Apostol	2x/day
40	0216	Luna Mountain, Apayao	III	14° 51'	120° 49'			OR	Jan-71	Aug-02	Sep-02	Present	none	Operational	Armando Maglindan	2x/day
41	0301	Monong Bataan	III	14° 49'	120° 34'			OR	Jan-69	Dec-00	Sep-02	Present	none	Operational	Rogelio San Blas	2x/day
42	0302	Borol Balagtas Bulacan	III	14° 51'	120° 43'			OR	Jan-69	Aug-02	Sep-02	Present	none	Operational	Santiago Onglat	2x/day
43	0303	Calmon Malolos Bulacan	III	14° 55'	120° 53'			OR	Jan-69	Aug-02	Sep-02	Present	none	Operational	Alexander Paulino	2x/day
44	0304	Makinabang Baliwag Bulacan	III	14° 58'	121° 01'			OR	Jan-69	Oct-88			none	Closed	elo	
45	0305	Manunglo, Angat, Bulacan	III	14° 43'	120° 56'			OR	Jan-69	Nov-86			none	Closed		
46	0306	Obando, Bulacan	III	14° 50'	120° 47'			OR	Jan-81	Jan-90			none	Closed	Leandro Flores	
47	0307	Panibong, Bulacan	III	14° 50'	120° 45'			OR	Jan-71	Apr-92			none	Closed	Agapito Reyes	
48	0309	San Augustin, Hagonoy, Bulacan	III	14° 57'	120° 53'			OR	Jan-88	Aug-02	Sep-02	Present	none	Operational	Virgilio Laxamana	2x/day
49	0310	Sibal Spring San Miguel Bulacan	III	15° 18'	120° 54'			OR	Jan-73	Dec-94			none	Closed	Ennio De Rueda	
50	0311	San Isidro Nueva Ecija	III	15° 13'	120° 42'			OR	Jan-77	Aug-02			none	Closed	Gloria Tobias	
51	0312	Baimagang Pampanga	III	15° 01'	120° 42'			OR	Jan-70	Aug-02	Sep-02	Present	none	Operational	Ronald Sanchez	2x/day
52	0313	Juliana Subd., San Fernando, Pampanga	III	14° 52'	120° 42'			OR	Jan-84	Aug-02	Sep-02	Present	none	Operational	Domingo Usi	2x/day
53	0314	Masanlot Pampanga	III	15° 42'	120° 24'			OR	Jan-76	Dec-90			none	Closed		
54	0315	Camiling, Tarlac	III	15° 37'	120° 23'			OR	Jan-75	Dec-96			none	Closed	Leopoldo Bautista	
55	0316	Mayantoc, Tarlac	III	15° 46'	119° 55'			OR	Jan-75	Dec-96			none	Closed	Casimiro Merced	
56	0317	Bobawon Sta Cruz Zambales	III	15° 26'	119° 54'			OR	Jan-75	Aug-02	Sep-02	Present	none	Operational	Gilbert Acaupan	2x/day
57	0318	Palawig Zambales	III	15° 04'	120° 04'			OR	Jan-75	Jul-90			none	Closed	Linda Sentence	
58	0319	San Felipe, Zambales	III	15° 04'	120° 04'			OR	Jan-75	Jul-90			none	Closed		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
CLIMATE/ RAIN/ VSS/ COOPERATIVE STATIONS  
(Established by the PAGASA)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Types	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks
									Published/ Encoded	Raw Data	Caps					
59	0320	Sta Rita Elem Sch. Cabanglag, Zambales	III	15° 10'	120° 03'			OR	Jan-75	Dec-95	none	excel	daily, monthly, annually	Closed	Leonida Lim	
60	0321	Sta Rita Masinloc, Zambales	III	15° 32'	119° 52'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Ernesto Esmlie	2x/day
61	0322	Western Luzon Agri College(Fonner ZNAS)	III	14° 58'	120° 09'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Carmenita Ladragan	2x/day
62	1301	Bagumbayan Taguig MM	IV	14° 28'	121° 02'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Alipio Franco Jr.	2x/day
63	1307	Balara Filters, Quezon City	IV	14° 37'	121° 05'			OR	May-05	Dec-65	none	excel	daily, monthly, annually	Closed		
64	1302	Camarin, Caloocan City	IV	14° 46'	121° 02'			OR	Jan-74	Nov-91	none	excel	daily, monthly, annually	Closed		
65	1303	Concepcion Elem. School, Marikina	IV	14° 40'	121° 05'			OR	Jan-75	Jul-93	none	excel	daily, monthly, annually	Closed		
66	1304	NPP Research Bu of Prison Muntinlupa	IV	14° 23'	121° 01'			OR	May-05	Dec-97	none	excel	daily, monthly, annually	Closed	L. Ofina	
67	1305	Pasig Elem. Sch. Pasig MM	IV	14° 34'	121° 05'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Closed	Fermina Milagrosa	
68	1308	SHN Navaliches, Quezon City	IV	14° 45'	121° 04'			OR	Jan-56	Dec-65	none	excel	daily, monthly, annually	Closed		
69	1306	Tipas Taguig MM	IV	14° 33'	121° 05'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Jussel Ordonez	2x/day
70	1309	Polo, Valenzuela, M.M.	IV	14° 45'	120° 57'			OR	Jan-74	Aug-02	none	excel	daily, monthly, annually	Operational	Susan Guevarra	2x/day
71	0401	Gufoed Laurel Batangas	IV	13° 45'	121° 04'			OR	Jan-73	Aug-02	none	excel	daily, monthly, annually	Operational	Reynaldo Vergara	2x/day
72	0402	Lupa City, Batangas	IV	13° 57'	121° 10'			OR	Jan-81	Jun-96	none	excel	daily, monthly, annually	Operational	Merly Katigbak	
73	0403	Lobo Batangas	IV	13° 38'	121° 12'			OR	Jan-69	Dec-99	none	excel	daily, monthly, annually	Closed	Socorro Buenaviale	
74	0404	Mabini Batangas	IV	13° 45'	120° 56'			OR	Jan-69	Dec-99	none	excel	daily, monthly, annually	Closed	Efen Cabang	
75	0405	Wawa Nasugbu Batangas	IV	14° 05'	120° 38'			VSS	Jan-72	Aug-02	none	excel	daily, monthly, annually	Operational	Jerusal Salas	2x/day
76	0406	Barrio Matin Amodeo Cavite	IV	14° 08'	120° 57'			OR	Jan-85	Aug-02	none	excel	daily, monthly, annually	Operational	Eugenia Ambion	2x/day
77	0407	Mabolo Elem Sch. Bacoor Cavite	IV	14° 27'	120° 56'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Corazon Dien Rubio	2x/day
78	0408	San Pedro, Laguna	IV	14° 22'	121° 02'			OR	Jan-71	Dec-99	none	excel	daily, monthly, annually	Operational	Teresta Arnil	
79	0409	Sta Cruz Laguna	IV	14° 17'	121° 25'			OR	Jan-56	Aug-02	none	excel	daily, monthly, annually	Closed	Nestor Alagon	
80	0410	Boac, Tanza, Marinduque	IV	13° 27'	121° 50'			OR	Jan-69	Dec-92	none	excel	daily, monthly, annually	Closed	Rafael Latoreña	
81	0411	Pob. San Jose, Occidental Mindoro	IV	12° 22'	121° 02'			OR	Jan-71	Dec-81	none	excel	daily, monthly, annually	Closed		
82	0412	Tilik Lubang Occidental Mindoro	IV	13° 49'	120° 12'			OR	Jan-66	Aug-02	none	excel	daily, monthly, annually	Closed	Francisco Tesalona	
83	0413	Brookes Point Palawan	IV	08° 05'	117° 50'			OR	Jan-66	Aug-02	none	excel	daily, monthly, annually	Operational	Pacia Obsanga	2x/day
84	0414	Calawit, Bunsungit, Palawan	IV	14° 17'	119° 56'			OR	Jan-77	Jun-92	none	excel	daily, monthly, annually	Closed	Pacia Obsanga	
85	0415	Boso-Boso Antipolo Rizal	IV	14° 38'	121° 14'			OR	Jan-72	Aug-02	none	excel	daily, monthly, annually	Operational	Roicardo Salgado	2x/day
86	0416	Juan Sumulong Elem. School, Antipolo, Rizal	IV	14° 25'	121° 05'			OR	Jan-71	Apr-91	none	excel	daily, monthly, annually	Closed	Anacarta Villegas	
87	0417	Sitio Tobok Montaban Rizal	IV	14° 46'	121° 11'			OR	Jan-76	Dec-96	none	excel	daily, monthly, annually	Closed	Alfredo Mendiola	
88	0418	Macaspac, Sta. Maria, Laguna	IV	14° 30'	121° 26'			OR	Jan-93	Aug-02	none	excel	daily, monthly, annually	Operational	Benjamin Vispo	2x/day
89	0419	UPLB, Laguna	IV	14° 11'	121° 13'			OR	Jan-66	Dec-76	none	excel	daily, monthly, annually	Closed		
90	0420	Caliraya Cavinte, Laguna	IV	14° 16'	121° 30'			OR	Jan-56	Dec-65	none	excel	daily, monthly, annually	Closed		
91	0421	Lumot Cavinte, Laguna	IV	14° 16'	121° 31'			OR	Jan-56	Dec-65	none	excel	daily, monthly, annually	Closed		
92	0422	Sta. Cruz, Marinduque	IV	13° 29'	122° 02'			OR	Jan-56	Dec-95	none	excel	daily, monthly, annually	Closed		
93	0501	BPI Exp-Stm. Buang Cross Tabaco Albay	V	13° 21'	123° 44'			OC	Jan-81	May-90	none	excel	daily, monthly, annually	Closed		
94	0502	Central Libon, Albay	V	13° 18'	123° 26'			OC	Jan-72	Aug-02	none	excel	daily, monthly, annually	Operational	Rodel Alagrin	2x/day
95	0503	Centro Rapu-Rapu Albay	V	13° 11'	124° 08'			OC	Jan-72	Aug-02	none	excel	daily, monthly, annually	Closed		
96	0504	Guinobatan, Albay	V	13° 12'	123° 37'			OR	Jan-67	Dec-83	none	excel	daily, monthly, annually	Closed		
97	0505	Jorcan Tiwi Albay	V	13° 28'	123° 41'			OR	Jan-67	Dec-00	none	excel	daily, monthly, annually	Closed	Antonio Vibal	
98	0506	Malana Ligao Albay	V	13° 09'	123° 27'			OC	Jan-71	Aug-02	none	excel	daily, monthly, annually	Operational	Salvador Precones	2x/day
99	0507	Naglabong Tiwi Albay	V	13° 38'	123° 39'			OC	Jan-71	Aug-02	none	excel	daily, monthly, annually	Operational	Eusebio Cruz	2x/day
100	0508	Pantao Libon Albay	V	13° 12'	123° 20'			OC	Jan-71	Aug-02	none	excel	daily, monthly, annually	Operational	Olivia Cananeda	2x/day
101	0509	Pier Site, Tabaco, Albay	V	13° 22'	123° 44'			VSS	Jan-71	Dec-88	none	excel	daily, monthly, annually	Closed		
102	0510	Pob. Manito, Albay	V	13° 08'	123° 52'			OR	Jan-66	Nov-71	none	excel	daily, monthly, annually	Closed		
103	0511	Pob. Tiwi, Albay	V	13° 27'	123° 40'			OR	Jan-71	Aug-91	none	excel	daily, monthly, annually	Closed		
104	0512	SanRamon Tabaco Albay	V	13° 21'	123° 43'			OR	Jan-71	Dec-97	none	excel	daily, monthly, annually	Closed	Hermilina Brusola	
105	0513	Sta Domingo Albay	V	13° 14'	123° 47'			OR	Jan-67	Aug-02	none	excel	daily, monthly, annually	Operational	Alhelardo Austria	2x/day
106	0514	Villa Hermosa Rapu Rapu Albay	V	14° 02'	122° 47'			OC	Jan-71	Aug-02	none	excel	daily, monthly, annually	Operational	Eden Binco	2x/day
107	0515	San Lorenzo Ruiz Cam-Norte	V	14° 02'	122° 47'			OR	Jan-75	Aug-02	none	excel	daily, monthly, annually	Operational	Magdalena Sardo	2x/day
108	0516	Jose Panganiban, Camarines Norte	V	14° 18'	122° 42'			OR	Jan-71	Dec-76	none	excel	daily, monthly, annually	Closed		
109	0517	Paracale Cam-Norte	V	14° 17'	122° 47'			OR	Jan-74	Dec-94	none	excel	daily, monthly, annually	Closed	Hilda Gerio	
110	0518	San Felipe, Basud, Camarines Norte	V	14° 04'	122° 57'			OR	Jan-74	Jan-88	none	excel	daily, monthly, annually	Closed		
111	0519	Sta. Elena, Camarines Norte	V	14° 08'	122° 58'			OR	Jan-74	Jan-91	none	excel	daily, monthly, annually	Closed	Elsa Evangelista	
112	0520	Tulay na Lupa, Labo, Camarines Norte	V	14° 06'	122° 47'			OR	Jan-74	Feb-92	none	excel	daily, monthly, annually	Closed	Illuminada Espeso	
113	0521	Caramoan Cam-Sur	V	13° 47'	123° 52'			OR	Jan-72	Aug-02	none	excel	daily, monthly, annually	Closed	Nelia Ferrero	
114	0522	Mabalabod Tigon Cam-Sur	V	13° 35'	123° 27'			OR	Jan-77	Dec-00	none	excel	daily, monthly, annually	Closed	Federico Alemanita	
115	0523	Pob Pasacao CamarinesSur	V	13° 31'	123° 02'			OR	Jan-69	Dec-97	none	excel	daily, monthly, annually	Closed	Jose Bea	
116	0524	Sabaug, Sipocot, Camarines Sur	V	13° 46'	122° 58'			OR	Jan-69	Dec-91	none	excel	daily, monthly, annually	Closed	Pablo Abengozza	

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No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Types	Years of Record		File Format	Data Available	Status	Weather Observer/ CMO	Remarks	
									Published/ Encoded	Raw Data						
117	0525	Sia Cruz San Nicholas Baa Cam Sur	V	13° 27'	123° 27'			OR	Jan-69	Aug-02	Present	none	excel	Operational	Hernilicio Bernas	2x/day
118	0526	Aroroy, Masbate	V	12° 31'	123° 24'			OR	Jan-81	May-89	Present	none	excel	Closed	Marius Jesus	2x/day
119	0527	Milagros Masbate	V	12° 13'	123° 30'			OR	Jan-83	Aug-02	Present	none	excel	Operational	Juliet Bulacao	2x/day
120	0528	Nipa, Palanas, Masbate	V	12° 08'	123° 57'			OR	Jan-56	Aug-02	Present	none	excel	Operational	Rosario Almarino	2x/day
121	0529	Piacer, Masbate	V	11° 52'	123° 55'			VSS	Jan-72	Aug-02	Present	none	excel	Operational	Ruperto Canabe	2x/day
122	0530	Buluang Sorsogon	V	12° 45'	124° 08'			OR	Jan-71	Dec-98	Present	none	excel	Closed	Lilia Capas	2x/day
123	0531	Donsol Sorsogon	V	12° 54'	123° 35'			OR	Jan-72	Aug-02	Present	none	excel	Operational	Elmer Cadag	2x/day
124	0532	Gubat, Sorsogon	V	12° 55'	124° 07'			OR	Jan-72	Dec-88	Present	none	excel	Operational	Teresito Rodriguez	2x/day
125	0533	Juban Sorsogon	V	12° 51'	123° 59'			OR	Jan-66	Aug-02	Present	none	excel	Operational	Petro Grefalido	2x/day
126	0534	Magallanes Sorsogon	V	12° 50'	123° 50'			OR	Jan-72	Aug-02	Present	none	excel	Operational	Joene Balonzo	2x/day
127	0535	Pier Bulan, Sorsogon	V	12° 40'	123° 52'			VSS	Jan-71	Dec-92	Present	none	excel	Closed	Vicente Geografo	2x/day
128	0536	Prieto Diaz Sorsogon	V	13° 02'	124° 12'			OR	Jan-72	Dec-00	Present	none	excel	Closed	Pureza Yap	2x/day
129	0537	San Roque Bacon Sorsogon	V	13° 01'	124° 02'			OR	Jan-72	Aug-02	Present	none	excel	Operational	Paolo Madrid	2x/day
130	0538	Sorsogon Sorsogon	V	12° 58'	124° 00'			OR	Jan-73	Dec-94	Present	none	excel	Closed	Quirino Marz Jr.	2x/day
131	0539	Pio Duran, Albay	V	13° 01'	123° 26'			OR	Jan-56	Dec-65	Present	none	excel	Closed		
132	0540	Yabo Farm, Naga City, Camarines Sur	V	13° 38'	123° 11'			OR	Jan-56	Dec-65	Present	none	excel	Closed		
133	0541	Castilla, Castilla	V	12° 57'	124° 08'			OR	Jan-56	Dec-65	Present	none	excel	Closed		
134	0601	Balete, Aklan	V	11° 33'	122° 23'			OR	956-65-71	Dec-87	Present	none	excel	Closed	Buenaventura Sayon	2x/day
135	0602	Kalibo, Aklan	V	11° 43'	122° 22'	3.66		HYDRO	Jan-70	Aug-02	Present	none	excel	Operational	Jose Ningala	2x/day
136	0603	Barbaza Antique	V	11° 12'	122° 02'			OR	Jan-56	Aug-02	Present	none	excel	Operational	Diote Espanueva	2x/day
137	0604	Pandan, Antique	V	11° 43'	122° 06'			OR	Jan-75	Dec-86	Present	none	excel	Closed	Minda Susan	2x/day
138	0605	Valderrama, Antique	V	11° 00'	122° 08'			OR	Jan-56	Dec-98	Present	none	excel	Closed	Julia Rivero	2x/day
139	0606	Culasi, Capiz	V	11° 26'	122° 03'			OR	Jan-71	Dec-88	Present	none	excel	Closed	Aurea Javier	2x/day
140	0607	Barotoc Viejo Iloilo	V	11° 03'	122° 57'			OR	Jan-71	Dec-94	Present	none	excel	Closed	Paz Barrameda	2x/day
141	0608	Cabatuan Iloilo	V	10° 53'	122° 29'			OR	Jan-71	Aug-02	Present	none	excel	Operational	Jorge Llares	2x/day
142	0609	Donsol, Pototan, Iloilo	V	10° 52'	122° 38'			HYDRO	Jan-83	Aug-02	Present	none	excel	Operational	Agosto Pasol	2x/day
143	0610	Magayo Iloilo	V	10° 38'	122° 14'			OR	Jan-71	Aug-02	Present	none	excel	Operational	Loreto Nagallo	2x/day
144	0611	A.Bonifacio Silay Negros Occidental	V	10° 56'	123° 30'			OR	Jan-72	Aug-02	Present	none	excel	Operational	Herminda Garcia	2x/day
145	0612	Kabankalan, Negros Occidental	V	09° 59'	122° 49'			OR	Jan-71	Dec-90	Present	none	excel	Operational	Amador Gregori Jr.	2x/day
146	0613	La Granja Exp. Sm I.A. Negros Occidental	V	10° 25'	122° 59'			OR	Jan-56	Aug-02	Present	none	excel	Operational	Remedios Almoadete	2x/day
147	0614	Puhpandan, Negros Occidental	V	10° 29'	122° 57'			VSS	Jan-71	Dec-87	Present	none	excel	Closed		
148	0615	San Carlos City Negros Occidental	V	10° 29'	123° 25'			OR	Jan-71	Aug-02	Present	none	excel	Operational	Jover Davila	2x/day
149	0616	Slay Hawaiian Central, Negros Occidental	V	09° 45'	122° 24'			CC	Jan-66	Aug-02	Present	none	excel	Operational	Gloria Nedano	2x/day
150	0617	Slaplay Negros Occidental	V	09° 45'	122° 24'			OR	Jan-71	Dec-97	Present	none	excel	Closed	Rosario Zrarogosa	2x/day
151	0618	Victorias Negros Occidental	V	10° 53'	123° 04'			CC	Jan-66	Dec-97	Present	none	excel	Closed	Claudio Pineta	2x/day
152	0619	Staton, Negros Occidental	V	09° 04'	123° 02'			OR	Jan-56	Dec-65	Present	none	excel	Closed		
153	0620	Maao Central Bago, Negros Occidental	V	10° 29'	122° 57'			OR	Jan-57	Dec-65	Present	none	excel	Closed		
154	0621	Calapangan La Castellana, Negros Occidental	V	10° 25'	123° 03'			OR	Jan-56	Dec-66	Present	none	excel	Closed		
155	0622	Pilar Sugar Central, Pres. Roxas, Capiz	V	11° 26'	122° 56'			OR	Jan-56	Dec-66	Present	none	excel	Closed		
156	0623	Manapla Malisite, Negros Occidental	V	10° 58'	123° 07'			OR	Jan-57	Dec-75	Present	none	excel	Closed		
157	0701	Central Carmen Bohol	V	09° 50'	124° 12'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Jovito Dano	2x/day
158	0702	Dagohoy Bohol	V	09° 54'	124° 16'			OR	Jan-63	Aug-02	Present	none	excel	Operational	Gloria Abregana	2x/day
159	0703	Guindulman Bohol	V	09° 46'	124° 29'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Jovencio Cellacay Jr.	2x/day
160	0704	Las Salinas Loay Bohol	V	09° 36'	124° 01'			OR	Jan-75	Dec-95	Present	none	excel	Closed		
161	0705	Bes Ubay Bohol	V	10° 03'	124° 28'			OR	Jan-78	Aug-02	Present	none	excel	Operational	Cecelia Glososio	2x/day
162	0706	Bob.Bihar Bohol	V	09° 43'	124° 07'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Gervasio Salertero Jr.	2x/day
163	0707	Bob.Haud Inabanga Bohol	V	10° 02'	124° 04'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Alicia Melendres	2x/day
164	0708	Bob.Loon Bohol	V	09° 48'	123° 48'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Jaime Mendez	2x/day
165	0710	Bob.Trinidad Bohol	V	10° 05'	124° 19'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Rosena Melicico	2x/day
166	0711	Bob.Ubay Bohol	V	10° 04'	124° 28'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Consolacion Gumapac	2x/day
167	0712	Pres.Carlos P. Garcia Pilogo Bohol	V	10° 08'	123° 33'			OR	Jan-75	Aug-02	Present	none	excel	Operational	Albino Melendrez	2x/day
168	0713	Tinaugan Tubigon Bohol	V	09° 57'	123° 58'			OR	Jan-66	Aug-02	Present	none	excel	Operational	Lolita Yac	2x/day
169	0714	Bogo Medellin Milling Co. Cebu	V	11° 03'	124° 00'			CC	Jan-66	Aug-02	Present	none	excel	Operational	Primitivo Ancit	2x/day
170	0715	Cebu S.Agro.IND.Sch. Argao	V	10° 09'	124° 09'			OR	Jan-78	Aug-02	Present	none	excel	Operational	Avellino Miranda	2x/day
171	0716	Kal. Anan Tabogon Cebu	V	09° 47'	123° 27'			OR	Jan-66	Aug-02	Present	none	excel	Operational	Virginita Monsalud	2x/day
172	0717	Mantabogon Dalaguete Cebu	V	09° 52'	123° 24'			OR	Jan-80	Aug-02	Present	none	excel	Operational	Pamfilia Cardova	2x/day
173	0718	Taytay Badian Cebu	V	10° 07'	123° 16'			OR	Jan-80	Aug-02	Present	none	excel	Operational	Lydia Sagolli	2x/day
174	0719	Guihulngn, Negros Oriental	V	10° 07'	123° 16'			OR	Jan-72	Dec-87	Present	none	excel	Closed		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
CLIMAT/RAIN/VSS/ COOPERATIVE STATIONS  
(Established by the PAGASA)**

No. / Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Types	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks	
								Published/ Encoded	Raw Data	Gaps						
175	0720 Nonas Bayawan Negros Oriental	VII	09° 22'	122° 48'			OR	Jan-67	Aug-02	Sep-02	Present	none	excel	Operational	Mamuel Galon	2x/day
176	0721 Siaton Negros Oriental	VII	09° 04'	123° 02'			OR	Jan-67	Aug-02	Sep-02	Present	none	excel	Operational	Natividad Kitane	2x/day
177	0722 Pob. Bayawan Negros Oriental	VII					OR	Jan-67	Dec-85			none	excel	Closed		
178	0723 Chanup7 Minglanilla, Cebu	VII	10° 15'	123° 47'			OR	Jan-56	Dec-65			none	excel	Closed		
179	0724 Soil Conservation, Lahug, Cebu	VII	10° 19'	123° 55'			OR	Jan-56	Dec-65			none	excel	Closed		
180	0725 Mt. Bandida-an, Siquijor, Negros Oriental	VII	09° 11'	123° 33'			OR	Jan-56	Dec-65			none	excel	Closed		
181	0802 Barangay Olot Tolosa Leyte	VIII	11° 04'	125° 02'	3.96		VSS	Jan-84	Aug-02	Sep-02	Present	none	excel	Operational	Gileodoro Colasito	2x/day
182	0803 Baybay Leyte	VIII	10° 42'	124° 48'			OR	Jan-70	Dec-94			none	excel	Closed	Tendoro Esaradra Jr.	
183	0804 Baybay Leyte	VIII	10° 40'	124° 48'			VSS	Jan-71	Aug-88			none	excel	Closed		
184	0805 Enac Biliran Leyte	VIII	11° 27'	124° 28'			OR	Jan-77	Aug-02	Sep-02	Present	none	excel	Operational	Francisco Macatumpag	2x/day
185	0806 Casilda Merida Leyte	VIII	10° 55'	124° 33'			OR	Jan-77	Aug-02	Sep-02	Present	none	excel	Operational	Buenaf. Sejano	2x/day
186	0807 Inopacan Leyte	VIII	10° 31'	124° 44'			OR	Jan-80	Aug-02	Sep-02	Present	none	excel	Operational	Isabelo Clea	2x/day
187	0808 Jaro, Leyte	VIII					OR	Jan-73	Aug-02	Sep-02	Present	none	excel	Operational	Bernardo Batan	2x/day
188	0809 Pob. Dagami Leyte	VIII	11° 04'	124° 54'			OR	Jan-71	Aug-02	Sep-02	Present	none	excel	Operational	Crisanta Justimbaste	2x/day
189	0810 Pob. Pastrana Leyte	VIII	11° 08'	124° 53'			OR	Jan-71	Aug-02	Sep-02	Present	none	excel	Operational	Edgar Empillo	2x/day
190	0811 Pob. Sta Fe Leyte	VIII	11° 10'	124° 55'			OR	Jan-71	Jan-98			none	excel	Closed		
191	0812 Pob. Tolosa Leyte	VIII	11° 11'	125° 02'			OR	Jan-70	Aug-02			none	excel	Closed	Gilbert Muassab	
192	0813 Allen Northern Samar	VIII	12° 30'	124° 17'			OR	Jan-71	May-98			none	excel	Closed	Alejo F. Lim	
193	0814 Camiguin Northern Samar	VIII	12° 24'	125° 03'			OR	Jan-72	Aug-02	Sep-02	Present	none	excel	Operational	Rogelio O. Tenedero	2x/day
194	0815 Anahawan Southern Leyte	VIII	10° 16'	125° 15'			OR	Jan-84	Dec-98			none	excel	Closed		
195	0816 Oitkon Libagon Southern Leyte	VIII	10° 18'	125° 03'			OR	Jan-70	Aug-02	Sep-02	Present	none	excel	Operational	Feliciana T. Edillo	2x/day
196	0817 Pob. Bontoc Southern Leyte	VIII	10° 21'	124° 58'			OR	Jan-81	Nov-98	Sep-02	Present	none	excel	Operational	Demetrio Faehar	2x/day
197	0818 ESSC Borongan Eastern Samar	VIII	11° 37'	125° 26'			OR	Jan-89	Aug-02			none	excel	Closed		
198	0901 CDC, Laminan, Basilan	IX	06° 40'	122° 08'			CC	Jan-80	Dec-91			none	excel	Closed	Jose R. Bernardas	
199	0902 Eurasia M. Inc. Sumisip, Basilan	IX	06° 25'	121° 58'			CC	Jan-84	Dec-92			none	excel	Closed	Michael E. Estrada	
200	0903 Upland Grant, Sta. Clara, Basilan	IX	06° 42'	122° 03'			OR	Jan-56	Dec-77			none	excel	Closed		
201	0904 Lupa Pita Cagayan De Tawi Tawi	IX	05° 01'	119° 59'			OR	Jan-83	Aug-02	Sep-02	Present	none	excel	Operational	Corona Adjah	2x/day
202	0905 Dapitan City Zamboanga Del Norte	IX	08° 39'	123° 25'			OR	Jan-66	Aug-02	Sep-02	Present	none	excel	Operational	Francisco Saguin	2x/day
203	0906 Sindangan Zamboanga Del Norte	IX	08° 14'	122° 59'			OR	Jan-78	Aug-02	Sep-02	Present	none	excel	Operational	Lucia L. Neamia	2x/day
204	0907 Malangas Zamboanga del Sur	IX	07° 37'	123° 02'			OR	Jan-71	Dec-88			none	excel	Closed		
205	0908 Basilan Plantation, Isabela, Basilan	IX	06° 42'	121° 58'			OR	Jan-56	Dec-65			none	excel	Closed		
206	0909 Maluso Maluso District Basilan	IX	06° 33'	121° 53'			OR	Jan-56	Dec-65			none	excel	Closed		
207	1001 Butuan City, Agusan del Norte	X	08° 56'	122° 33'			OC	Jan-66	Jul-90			none	excel	Closed	Raymundo Copin	
208	1002 Bacayon Lantapan, Bukidnon	X	08° 03'	125° 02'			OR	Jan-73	Dec-81			none	excel	Closed		
209	1003 Dalwangang Malaybalay, Bukidnon	X	08° 13'	125° 03'			OR	Jan-61	Dec-73			none	excel	Closed		
210	1004 Damilag Manolo Fortich, Bukidnon	X	08° 22'	124° 48'			OR	Jan-66	Dec-84			none	excel	Closed		
211	1005 Impahiao Impasungang, Bukidnon	X	08° 16'	125° 02'			OR	Jan-56	Dec-78			none	excel	Closed		
212	1006 Impasungang, Bukidnon	X	08° 20'	125° 00'			OR	Jan-74	Dec-80			none	excel	Closed		
213	1007 Kalasungay Malaybalay, Bukidnon	X	08° 11'	125° 04'			OR	Jan-73	Dec-80	Sep-02	Present	none	excel	Operational	Josephine L. Benitez	2x/day
214	1008 Kisonon Sumitao, Bukidnon	X	08° 17'	124° 53'			VSS	Jan-73	Dec-81			none	excel	Closed		
215	1009 Limabon Malaybalay, Bukidnon	X	08° 05'	125° 06'			OR	Jan-74	Dec-82			none	excel	Closed		
216	1010 Maitag Valencia, Bukidnon	X	08° 25'	124° 58'			OR	Jan-74	Dec-82			none	excel	Closed		
217	1011 Maloko Manolo Fortich, Bukidnon	X	08° 25'	124° 58'			OR	Jan-68	Dec-77			none	excel	Closed		
218	1012 Maranag, Bukidnon	X	07° 46'	125° 00'			OR	Jan-73	Dec-80			none	excel	Closed		
219	1013 Miaray Dancagan, Bukidnon	X	07° 38'	125° 02'			OR	Jan-73	Dec-80			none	excel	Closed		
220	1014 Philips Manolo Fortich, Bukidnon	X	08° 25'	124° 58'			OR	Jan-56	Dec-65			none	excel	Closed		
221	1015 Quezon, Bukidnon	X	07° 25'	125° 05'			OR	Jan-71	Dec-80			none	excel	Closed		
222	1016 Bonifacio Central S'ch Misamis Occ	X	08° 31'	123° 43'			OR	Jan-72	Dec-00	Sep-02	Present	none	excel	Operational	Amilian R. Sumondong	2x/day
223	1017 Clarin, Misamis Oriental	X	08° 12'	123° 52'			OR	Jan-56	Dec-76			none	excel	Closed		
224	1018 Abubijid Misamis Oriental	X	08° 35'	124° 29'			OR	Jan-80	Aug-02	Sep-02	Present	none	excel	Operational	Rudy Magdugo	2x/day
225	1019 Dapa, Surigao Del Norte	X	09° 45'	126° 03'			VSS	Jan-71	Dec-84			none	excel	Closed		
226	1020 Sison Surigao Del Norte	X	09° 40'	126° 13'			OR	Jan-81	Dec-00	Sep-02	Present	none	excel	Operational	Edgardo Misagal	2x/day
227	1021 Sual Magpayong Mainit Surigao Del Norte	X	09° 32'	125° 32'			OR	Jan-81	Aug-02	Sep-02	Present	none	excel	Operational	Rosalba C. Carvantes	2x/day
228	1022 Surigao City	X	09° 48'	125° 30'			VSS	Jan-79	Dec-80			none	excel	Closed		
229	1024 Malaybalay Ref. Project Bukidnon	X	08° 09'	125° 04'			OR	Jan-57	Dec-65			none	excel	Closed		
230	1025 Menzi Plantation, Talakag, Bukidnon	X	08° 16'	125° 37'			OR	Jan-58	Dec-65			none	excel	Closed		
231	1101 Matt Plantation, M.Km. 7, Davao	XI	06° 57'	126° 13'			CC	Jan-56	Dec-86			none	excel	Closed	Saturino A. Momo	
232	1102 Sta. Cruz, Davao	XI	06° 50'	125° 25'			CC	Jan-56	Dec-73			none	excel	Closed		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
CLIMAT/ RAIN/ VSS/ COOPERATIVE STATIONS  
(Established by the PAGASA)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Types	Years of Record		File Format	Data Available	Status	Weather Observer/ CMO	Remarks
									Published/ Encoded	Raw Data					
233	1103	Tagamanan, Davao	XI	07° 16'	125° 50'			CC	Jan-56	Dec-77	excel	daily, monthly, annually	Closed		
234	1104	Tagum, Davao	XI	07° 21'	125° 43'			CC	Jan-56	Dec-76	excel	daily, monthly, annually	Closed		
235	1105	Cagwait, Surigao del Sur	XI	08° 55'	126° 18'			OR	Jan-56	Dec-73	excel	daily, monthly, annually	Closed		
236	1106	Cantilan, Surigao Del Sur	XI	09° 20'	125° 51'			OR	Jan-56	Dec-96	excel	daily, monthly, annually	Closed	Sering Concepcion	
237	1107	Bago Oshiro, Davao	XI	07° 03'	125° 31'			CC	Jan-56	Dec-65	excel	daily, monthly, annually	Closed		
238	1108	Lawa Malita, Davao	XI	06° 12'	125° 42'			CC	Jan-56	Dec-65	excel	daily, monthly, annually	Closed		
239	1201	Baroy Lanao Del Norte	XII	08° 02'	123° 47'			OR	Jan-71	Dec-90	excel	daily, monthly, annually	Operational	Reynaldo Yosores	2x/day
240	1202	Kapatagan Lanao Del Norte	XII	07° 51'	123° 46'			OR	Jan-72	Dec-90	excel	daily, monthly, annually	Closed	Amil T. Piang	
241	1203	Dain Prang, Maguindanao	XII	07° 02'	124° 16'			OR	Jan-72	Dec-98	excel	daily, monthly, annually	Operational	Samuel B. Gloriano	2x/day
242	1204	Parang, Maguindanao	XII	07° 23'	124° 16'			OR	Jan-72	Dec-00	excel	daily, monthly, annually	Operational	Raymundo M. Luna	
243	1205	Carmen Tacurong, Sultan Kudarat	XII	06° 47'	124° 37'			OR	Jan-60	Dec-00	excel	daily, monthly, annually	Closed		

HYDRO - Hydromet  
VSS - Visual Storm Signal

OR - Official Rainfall  
CC - Cooperative Rainfall

CR - Cooperative Rainfall  
GC - Official Climax

Source:

Study for the Preparation of Flood Control Manual for DPWH Technical Standards and Guidelines  
Vol. 1. Final (Main) Report, March 2003

Station Profile, January 2004  
Climate Data Section, Climatology and Agrometeorology Branch  
PAGASA



**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
AGROMET STATIONS  
(Established by the PAGASA)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Altitude Correction	Type	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks	
									Published/ Encoded	Raw Data	Gaps						
1	002	Basco Agromet Station	I	20° 27'00" N	121° 38'12" E				1995 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Arthur Namul	2x/day	
2	005	MMAMSU Batac, Ilocos Norte	I	18° 03'18" N	120° 33'48" E	12.10			1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Gilbert Gajcon	2x/day	
3	004	DMAMMU, Bacmanan, La Union	I	16° 43'12" N	120° 21'00" E				1992 - 1999		none	excel	daily, monthly, annual	Closed	Flora Castillo		
4	012	BPI Experiment Station, Baguio City	II	16° 24'00" N	120° 36'00" E				1972 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Pepto Mariano	2x/day	
5	014	BSU (MSAC) La Trinidad, Benguet	II	16° 27'48" N	120° 35'12" E	1317.40			1976 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Pedro Rigos	2x/day	
6	011	ISU, Echague, Isabela	II	16° 42'24" N	121° 40'24" E	83.20			1976 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Robert Aladin (Part-Time)	2x/day	
7	019	NVISIT, Bayombong, Nueva Vizcaya	II	16° 19'12" N	121° 09'06" E									Operational	Prof. Serricola	2x/day	
8	018	TCA Camiling, Tarlac	III	15° 42'00" N	120° 24'06" E				1992 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Closed		2x/day
9	017	CLSU, Muñoz, Nueva Ecija	III	15° 43'00" N	120° 54'06" E	76.00			1973 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Margarita Bantug	2x/day	
10	016	Hacienda Luisita, San Miguel, Tarlac	III	15° 25'48" N	120° 39'06" E				1987 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Mary Pasion	2x/day	
11	020	Magsalang, Pampanga	III	15° 13'00" N	120° 39'30" E				1988 - 1995	2003 - Present	none	excel	daily, monthly, annual	Operational	Closed		2x/day
12	329	Cabanatuan Synop-Agromet Station	III	15° 29'18" N	120° 57'42" E				1989 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Dominador Campo	2x/day	
13	021	National Agromet Research Station	IV	14° 38'41" N	121° 02'31" E	42.00			1971 - 2002	2003 - Present	1973-1979 (6 yrs)	excel	daily, monthly, annual	Operational	Delia Basco	2x/day	
14	023	Rizal Agricultural Station, Cuyambay, Tanay, Riz	IV	14° 30'00" N	121° 17'00" E				1991 - 2002		none	excel	daily, monthly, annual	Closed	Cdso Capumpun	2x/day	
15	022	Bureau of Soil, Cuyambay, Tanay, Rizal	IV	14° 38'42" N	121° 22'06" E				1969 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Leonardo Semana	2x/day	
16	151	Naris, UPLB, Los Baños, Laguna	IV	14° 10'00" N	121° 15'00" E	21.70			1977 - 2002	2003 - Present	none	excel	daily, monthly, annual	Closed	Felicitima Ramirez	2x/day	
17	153	Pañil, Laguna	IV	14° 22'54" N	121° 28'36" E				1992 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Lita Sablo	2x/day	
18	034	PNAC, Aboitan, Palawan	IV	09° 26'12" N	118° 33'00" E				1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Leoncio Lopez	2x/day	
19	424	Tagevay	IV	14° 07'18" N	120° 58'00" E				1996 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Domingo Garpandan	2x/day	
20	027	Buzaf, Cumbabaan, Albay	V	13° 11'33" N	123° 36'26" E	65.90			1990 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Alvir Escurel	2x/day	
21	028	CSAC, Pili, Camarines Sur	V	13° 33'18" N	123° 16'12" E	35.00			1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Manuel Lanuzo	2x/day	
22	026	Parapato, Malibao, Albay	V	13° 23'54" N	123° 42'12" E				1972 - 1990		none	excel	daily, monthly, annual	Closed	Caridad Manantian		
23	056	La Granja, La Carlota, Negros Occidental	VI	10° 24'24" N	122° 59'06" E	96.00			1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Lorenzo Canastay	2x/day	
24	051	PSPC, Mambusao, Capiz	VI	11° 26'00" N	122° 35'42" E				1978 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Roselle Nonato	2x/day	
25	058	Victoria Milling Co. Inc., Negros Occidental	VI	10° 54'54" N	123° 03'30" E				1988 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Crisostomo Dominguez	2x/day	
26	050	Saba Basin, Taeloban, Leyte	VII	11° 08'00" N	124° 53'00" E				1974 - 1989		1975-1977 (2 yrs)	excel	daily, monthly, annual	Closed			
27	041	UEP, Cayanman	VII	12° 31'00" N	124° 40'00" E	3.50			1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Felton Corona	2x/day	
28	055	Viesca, Baybay, Leyte	VII	10° 40'48" N	124° 47'30" E	7.00			1975 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Christina Diadle	2x/day	
29	076	CMU, Musuan, Bukidnon	X	07° 56'36" N	125° 04'36" E				1978 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Prof. Laurente (Part-Time)	2x/day	
30	077	Cabite, San Miguel, Surigao	XI	08° 55'30" N	126° 06'30" E				1978 - 1990		none	excel	daily, monthly, annual	Closed			
31	082	PCA, Baño Osobon, Davao City	XI	07° 02'12" N	125° 31'18" E				1976 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Rogelio Wamselda	2x/day	
32	191	Twin Rivers, Taguay, Davao del Norte	XI	07° 20'48" N	125° 43'30" E				1976 - 2002	2003 - Present	none	excel	daily, monthly, annual	Operational	Oscar Zabate	2x/day	
33	74	Kalapanon PRP-NEA, Valencia, Bukidnon	XII	07° 57'00" N	124° 02'48" E				1976 - 1984	2003 - Present	none	excel	daily, monthly, annual	Closed			
34	71	MSU, Marawi City, Lanao del Sur	XII	08° 00'00" N	124° 18'00" E				1969 - 2002	2003 - Present	none	excel	daily, monthly, annual	Closed	Maik Maritan		
35	81	USM, Kabacan, North Cotabato	XII	07° 07'36" N	124° 49'00" E				1969 - 1994	2003 - Present	none	excel	daily, monthly, annual	Closed			

Source: Station Profile, January 2004  
Climate Section, Climatology and Acrometeorology Branch  
PAGASA

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RAINFALL STATIONS  
(Established by the National Power Corporation)**

No.	Station No.	Station Location/Name	WRR No.	Longitude	Elevation	Type	Date Established	Years of Record	File Format	Data Avail/Label	Status	Weather Observer/ CNO	Remarks
1	01ES	Tuna, Cagayan	II	124-55-00	121-28-40			1956-1992			Closed		
2	02ES	Rindrak, Cagayan	II	124-54-00	121-32-40			1970-1979			Closed		
3	03ES	Chibagan, Cagayan	II	124-56-00	121-49-00			1984-1990			Closed		
4	04ES	Bagan, Cagayan	II	124-54-00	121-47-40			1984-1992			Closed		
5	05ES	Bagan, Cagayan	II	124-54-00	121-53-00			1987-1992			Closed		
6	06ES	Bangan, Cagayan	II	124-54-00	125-54-00			1983-1994			Closed		
7	07ES	Bonico, Cagayan	II	124-55-00	121-46-00			1984-1984			Closed		
8	08ES	Bauko, Cagayan	II	124-55-00	121-46-00			1984-1980			Closed		
9	09ES	Mt. Polis, Cagayan	II	124-55-00	121-42-00			1984-1979			Closed		
10	10ES	Mt. Polis, Cagayan	II	124-55-00	121-42-00			1984-1979			Closed		
11	11ES	Nayan, Cagayan	II	124-55-00	121-10-00			1969-1979			Closed		
12	12ES	Echague, Cagayan	II	124-42-00	121-40-00			1977-1999			Closed		
13	13ES	Echague, Cagayan	II	124-42-00	121-40-00			1986-1984			Closed		
14	14ES	San Domingo, Cagayan	II	124-42-00	121-06-00			1977-1985			Closed		
15	15ES	Solano, Cagayan	II	124-42-00	121-11-00			1980-1990			Closed		
16	16ES	Bayanan, Talaog, Bukidnon	X	8-04-17	124-44-40	100		1992-1994			Closed		
17	M0010	Caniban, Linao, Bukidnon	X	8-14-00	124-47-59	940		1992-1994			Closed		
18	M0011	Dagnabalan, Talaog, Bukidnon	X	8-06-55	124-38-30	730		1987-1991			Closed		
19	M0012	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1994-1994			Closed		
20	M0013	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
21	M0014	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
22	M0015	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
23	M0016	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
24	M0017	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
25	M0018	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
26	M0019	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
27	M0020	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
28	M0021	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
29	M0022	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
30	M0023	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
31	M0024	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
32	M0025	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
33	M0026	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
34	M0027	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
35	M0028	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
36	M0029	Dagnabalan, Talaog, Bukidnon	X	8-04-39	124-33-00	740		1992-1994			Closed		
37	M0043	Dagnabalan, Talaog, Bukidnon	X	8-13-16	124-50-58	1140		1977-1992			Closed		
38	M0044	Dagnabalan, Talaog, Bukidnon	X	8-20-49	124-03-18	680		1980-1994			Closed		
39	M0048	Dagnabalan, Talaog, Bukidnon	X	8-55-40	124-18-46	380		1986-1994			Closed		
40	M0051	Dagnabalan, Talaog, Bukidnon	X	8-02-38	124-16-00	570		1980-1986			Closed		
41	M0052-1B24	Dagnabalan, Talaog, Bukidnon	XII	8-04-00	124-12-04	520		1986-1985			Closed		
42	M0005	Dagnabalan, Talaog, Bukidnon	XII	8-11-25	124-12-13	180		1984-1986			Closed		
43	M0004	Dagnabalan, Talaog, Bukidnon	XII	7-49-46	124-05-53	710		1978-1992			Closed		
44	M0005	Dagnabalan, Talaog, Bukidnon	XII	7-52-04	124-06-12	900		1979-1992			Closed		
45	M0006	Dagnabalan, Talaog, Bukidnon	XII	7-52-04	124-02-17	720		1989-1992			Closed		
46	M0007	Dagnabalan, Talaog, Bukidnon	XII	7-47-05	124-14-40	740		1974-1992			Closed		
47	M0008	Dagnabalan, Talaog, Bukidnon	XII	7-55-25	124-12-40	740		1989-1992			Closed		
48	M0009	Dagnabalan, Talaog, Bukidnon	XII	7-53-29	124-20-00	705		1973-1992			Closed		
49	M0030	Dagnabalan, Talaog, Bukidnon	XII	8-13-10	124-55-45	1280		1977-1994			Closed		
50	M0031	Dagnabalan, Talaog, Bukidnon	XII	8-00-23	125-05-55	680		1976-1994			Closed		
51	M0032	Dagnabalan, Talaog, Bukidnon	XII	8-16-40	125-15-21	600		1977-1994			Closed		
52	M0033	Dagnabalan, Talaog, Bukidnon	XII	7-58-25	125-08-20	310		1976-1994			Closed		
53	M0034	Dagnabalan, Talaog, Bukidnon	XII	7-48-40	125-01-27	290		1972-1994			Closed		
54	M0035	Dagnabalan, Talaog, Bukidnon	XII	8-11-21	125-18-09	500		1976-1994			Closed		
55	M0036	Dagnabalan, Talaog, Bukidnon	XII	8-10-37	125-05-53	720		1986-1994			Closed		
56	M0037	Dagnabalan, Talaog, Bukidnon	XII	8-03-07	125-09-07	320		1986-1994			Closed		
57	M0038	Dagnabalan, Talaog, Bukidnon	XII	8-09-31	125-19-24	460		1986-1994			Closed		
58	M0039	Dagnabalan, Talaog, Bukidnon	XII	7-54-28	125-02-35	390		1986-1994			Closed		
59	M0040	Dagnabalan, Talaog, Bukidnon	XII	7-59-36	124-24-15	720		1989-1985			Closed		
60	M0041	Dagnabalan, Talaog, Bukidnon	XII	8-02-26	124-18-42	720		1989-1985			Closed		
61	M0042	Dagnabalan, Talaog, Bukidnon	XII	7-49-20	124-24-30	704		1973-1985			Closed		
62	M0043	Dagnabalan, Talaog, Bukidnon	XII	8-10-58	125-04-08	680		1977-1992			Closed		
63	M0046	Dagnabalan, Talaog, Bukidnon	XII	8-27-53	125-09-33	770		1986-1994			Closed		
64	M0047	Dagnabalan, Talaog, Bukidnon	XII	7-12-02	124-09-36	30		1989-1994			Closed		
65	M0049	Dagnabalan, Talaog, Bukidnon	XII	7-48-05	124-44-07	600		1990-1994			Closed		
66	M0050	Dagnabalan, Talaog, Bukidnon	XII	7-43-50	125-05-55	280		1986-1994			Closed		
67	M0051	Dagnabalan, Talaog, Bukidnon	XII	7-23-34	125-10-33	890		1989-1992			Closed		
68	M0052	Dagnabalan, Talaog, Bukidnon	XII	7-09-11	125-07-47	250		1990-1994			Closed		
69	M0053	Dagnabalan, Talaog, Bukidnon	XII	7-28-23	125-01-50	150		1992-1994			Closed		

Source: Hydrology Section  
NWDCNSW

Master Plan, Study on Water Resources Management  
in the Republic of the Philippines  
Vol. IV Final (Data) Report, August 1988

Study for the Preparation of Flood Control Manual for CPWH Technical Standards and Guidelines  
Vol. I, Final (Data) Report, March 1989

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RAINFALL STATIONS  
(Established by the National Irrigation Administration)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Type	Date Established	Published	Years of Record		File Format	Data Available	Status	Weather Observer/ CMO	Remarks	
										Unpublished	Raw Data						
1	1001	Manalpac, Solsona	I				R	Sept. 1976	none	1976-1983	none	excel	daily, monthly, annually	Closed	PIO		
2	1002	Lumbad, Dingras	I				R	Aug. 1976	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO		
3	1003	Paoy Lake, Suba	I				R	Jul. 1976	none	1980-1983	none	excel	daily, monthly, annually	Closed	PIO		
4	1004	Quion, Batac	I				R	Nov. 1975	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO		
5	1005	Alabani, Dingras	I				R	Jul. 1981	none	1981-1983	none	excel	daily, monthly, annually	Closed	PIO		
6	1006	Poblacion, Badoc	I				R	Jan. 1978	none	1978-1982	none	excel	daily, monthly, annually	Closed	PIO		
7	1007	San Marcelino, Dingras	I				R	Sep. 1978	none	1978-1980	none	excel	daily, monthly, annually	Closed	PIO		
8	1008	Baybayatin, Lagayen	I				NR,R	May 1979	none	1977-1990	none	excel	daily, monthly, annually	Closed	PIO		
9	1009	Naagipulan, Leganilang	I				NR	Mar. 1980	none	1980-1990	none	excel	daily, monthly, annually	Closed	PIO		
10	1010	Nagpanawan, Supiden	I				NR	Aug. 1979	none	1979-1980	none	excel	daily, monthly, annually	Closed	PIO		
11	1011	Pacalad, Mangataran	I				NR,R	Sep. 1975	none	1975-1983	none	excel	daily, monthly, annually	Closed	PIO		
12	1012	De Guzman, Mabini	I				NR	Nov. 1979	none	1980-2003	none	excel	daily, monthly, annually	Closed	PIO		
13	1013	Bayozas, Aguiar	I	15-48-40	120-14-43		NR	May 1987	none	1987-1990	none	excel	daily, monthly, annually	Closed	PIO		
14	2014	Taan, Dupax del Sur	II	15-17-04	121-17-04		NR	Jan. 1997	none	1977-1982	none	excel	daily, monthly, annually	Closed	PIO		
15	2015	Lipoga, Dupax del Norte	II	16-01-28	121-17-08		NR	Nov. 1977	none	1977-1982	none	excel	daily, monthly, annually	Closed	PIO		
16	2016	NV-PIO, Bayombong	II				NR	Sep. 1982	none	1984-1988	none	excel	daily, monthly, annually	Closed	PIO		
17	2017	Aurora, Dupax del Sur	II				NR	Jun. 1979	none	1979-1979	none	excel	daily, monthly, annually	Closed	PIO		
18	2018	Aritao	II				NR	July 1982	none	1982-1985	none	excel	daily, monthly, annually	Closed	PIO		
19	2019	Kayapa	II				NR,R	Aug. 1982	none	1982-1988	none	excel	daily, monthly, annually	Closed	PIO		
20	2020	Wacal, Solano	II				NR,R	May 1980	none	1980-1991	none	excel	daily, monthly, annually	Closed	PIO		
21	2021	Banti, Baringag	II				NR,R	May 1980	none	1980-1987	none	excel	daily, monthly, annually	Closed	PIO		
22	2022	Upper Casacman, LipogaSur	II				NR	1977	none	1978-1982	none	excel	daily, monthly, annually	Closed	PIO		
23	2023	Ambaguio	II				-	1982	none	1982-1984	none	excel	daily, monthly, annually	Closed	PIO		
24	2024	Dalagan, Matmad, Madella	II	16-03-58	121-27-52	317.0	R	Feb. 1972	none	1973-1982	none	excel	daily, monthly, annually	Closed	PIO		
25	2025	Gibong, Madella	II	16-01-42	121-21-50		-	Feb. 1972	none	1973-1982	none	excel	daily, monthly, annually	Closed	PIO		
26	2026	Conwapa, Tanaywan, Madella	II	16-05-55	121-26-40		NR	Jan. 1978	none	1978-1982	none	excel	daily, monthly, annually	Closed	PIO		
27	2027	Dipaodiv, Madella	II	16-23-08	121-44-26		R	Feb. 1979	none	1979-1981	none	excel	daily, monthly, annually	Closed	PIO		
28	2028	Tabayong, Madella	II	16-01-45	121-27-05		NR	Apr. 1980	none	1980-1983	none	excel	daily, monthly, annually	Closed	PIO		
29	2029	Dumakel, Agitay(Abdalam)	II				NR	May 1989	none	1989-1992	none	excel	daily, monthly, annually	Closed	PIO		
30	2030	Barretet	II				NR	Jan. 1977	none	1978-1979	none	excel	daily, monthly, annually	Closed	PIO		
31	2031	Naganaean, Sta. Maria	II				NR	Oct. 1990	none	1990-1991	none	excel	daily, monthly, annually	Closed	PIO		
32	2032	Tumbaani	II				NR	Jun. 1997	none	1997-2003	none	excel	daily, monthly, annually	Closed	PIO		
33	2033	Bolanang, Tabuk	II				NR	Oct. 1990	none	1990-1991	none	excel	daily, monthly, annually	Closed	PIO		
34	2034	Antanayan, Rizal	II				NR	Oct. 1990	none	1990-1991	none	excel	daily, monthly, annually	Closed	PIO		
35	3035	Baloy, Cupapo, Nueva Ecija	III	15-48-00	120-46-00	80.0	NR	Oct. 1974	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
36	3036	Talugtog, Nueva Ecija	III	15-47-00	120-48-00	90.0	NR,R	Sep. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
37	3037	Rangarabulan, Guimba, Nueva Ecija	III	15-45-00	120-46-00	56.0	NR	Oct. 1973	none	1974-1982	none	excel	daily, monthly, annually	Closed	PIO		
38	3038	Saverona, Talugtog, Nueva Ecija	III	15-45-00	120-51-00	61.0	NR	Oct. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
39	3039	Ayos, Lumboj, Nueva Ecija	III	15-42-00	120-47-00	36.0	NR	Apr. 1974	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
40	3040	Bugol, Guimba, Nueva Ecija	III	15-40-00	120-50-00	42.0	NR	Aug. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
41	3041	San Miguel, Guimba, Nueva Ecija	III	15-38-00	120-41-00	16.0	NR	Nov. 1973	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO		
42	3042	San Fernando, Victoria, Nueva Ecija	III	15-34-00	120-41-00	20.0	NR	Nov. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
43	3043	Bantug, Villarosa, Nueva Ecija	III	15-33-00	120-45-00	26.0	NR	Nov. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
44	3044	Parokot, Quizon, Nueva Ecija	III	15-35-00	120-51-00	34.0	NR	Nov. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
45	3045	Mankasak, Guimba, Nueva Ecija	III	15-36-00	120-47-00	31.0	NR	Sep. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		
46	3046	San Roque, Guimba, Nueva Ecija	III	15-39-00	120-46-00	34.0	NR,R	Jun. 1973	none	1974-1983	none	excel	daily, monthly, annually	Closed	PIO		
47	3047	Pacong Instik, Guimba, Nueva Ecija	III	15-40-00	120-45-00	30.0	NR	Jun. 1974	none	1974-1980	none	excel	daily, monthly, annually	Closed	PIO		
48	3048	Mahigaya, Muñoz, Nueva Ecija	III	15-42-00	120-59-00	43.0	NR,R	Jan. 1971	none	1971-1979	none	excel	daily, monthly, annually	Closed	PIO		
49	3049	CLSU, Muñoz, Nueva Ecija	III	15-45-00	120-55-00	71.0	NR,R	Jan. 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO		
50	3050	Baloc, Sto. Domingo, Nueva Ecija	III	15-39-00	120-53-00	46.0	NR	Sep. 1970	none	1970-1979	none	excel	daily, monthly, annually	Closed	PIO		
51	3051	Quezon, Nueva Ecija	III	15-32-00	120-47-00	38.0	NR	Sep. 1970	none	1970-1979	none	excel	daily, monthly, annually	Closed	PIO		
52	3052	Cabanatuan, Nueva Ecija	III	15-29-00	120-55-00	26.0	NR	Jan. 1949	none	1949-1962	none	excel	daily, monthly, annually	Closed	PIO		
53	3053	Camanascaan, Nueva Ecija	III				NR	Jan. 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO		
54	3054	Tombod, San Jose City, Nueva Ecija	III				NR	Jan. 1975	none	1975-1977	none	excel	daily, monthly, annually	Closed	PIO		
55	3055	Tris Darn, San Jose City, Nueva Ecija	III				NR	Jan. 1975	none	1975-1977	none	excel	daily, monthly, annually	Closed	PIO		
56	3056	Palaypay, Pantabangan, Nueva Ecija	III	15-37-00	121-06-25	247.0	NR	July 1979	none	1979-1979	none	excel	daily, monthly, annually	Closed	PIO		
57	3057	PWD&S, Marikil Nursery, Nueva Ecija	III	15-47-45	121-15-15	301.0	NR	July 1979	none	1979-1979	none	excel	daily, monthly, annually	Closed	PIO		
58	3058	Sto. Domingo, Nueva Ecija	III				NR	Jan. 1977	none	1977-1978	none	excel	daily, monthly, annually	Closed	PIO		
59	3059	Minalungao, Gapan, Nueva Ecija	III				NR	1975	none	1975-1985	none	excel	daily, monthly, annually	Closed	PIO		
60	3060	Makitolang, Gapan, Nueva Ecija	III				NR	1982	none	1982-1985	none	excel	daily, monthly, annually	Closed	PIO		
61	3061	Masabaga, Victoria, Tarlac	III	15-37-00	120-44-00	22.0	NR	Jan. 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RAINFALL STATIONS  
(Established by the National Irrigation Administration)**

No.	Station No.	Station Location/Name	WRR No.	Longitude	Latitude	Elevation (m)	Type	Date Established	Years of Record			File Format	Data Available	Status	Weather Observer/ C/M/O	Remarks
									Published	Unpublished	Raw Data					
62	3062	Anonling, 3rd Camiling, Tarlac	III	120-16-00	15-40-00		NR	Jan. 1975	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO	
63	3063	San Clemente, Tarlac	III	120-21-00	15-43-00		NR	Jan. 1976	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO	
64	3064	Carangan, Tarlac	III	120-33-00	15-27-30		NR	Jan. 1975	none	1976-1983	none	excel	daily, monthly, annually	Closed	PIO	
65	3065	Camillas, La Paz, Tarlac	III	120-43-00	15-23-00		NR	Jan. 1976	none	1976-1983	none	excel	daily, monthly, annually	Closed	PIO	
66	3066	Matitap, Cereza, Tarlac	III	120-37-00	15-36-27		NR	Jan. 1975	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO	
67	3067	Armenta Dam, Tarlac	III	120-30-00	15-27-00		NR	Oct. 1975	none	1977-1980	none	excel	daily, monthly, annually	Closed	PIO	
68	3068	San Jacinto, Victoria, Tarlac	III	120-35-00	15-33-00		NR	Jan. 1976	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO	
69	3069	Csanamunguan, Sta. Ignacia, Tarlac	III	120-25-00	15-36-00		NR	Jan. 1976	none	1976-1982	none	excel	daily, monthly, annually	Closed	PIO	
70	3070	Narabalan, Mayantoc, Tarlac	III	120-20-00	15-34-00		NR	Jan. 1976	none	1976-1983	none	excel	daily, monthly, annually	Closed	PIO	
71	3071	Dolores, Capaz, Tarlac	III	120-35-30	15-31-00		NR	Jan. 1975	none	1975-1983	none	excel	daily, monthly, annually	Closed	PIO	
72	3072	Arnuco, Tarlac	III	120-41-00	15-28-00		NR	June 1978	none	1975-1983	none	excel	daily, monthly, annually	Closed	PIO	
73	3073	Mamnot, Tarlac	III				NR	Oct. 1975	none	1978-1978	none	excel	daily, monthly, annually	Closed	PIO	
74	3074	Mindungao, Tarlac	III	120-06-12	15-19-41	111.0	NR	Oct. 1975	none					Closed	PIO	
75	3075	Banges, Moriones, Tarlac	III				NR	May 1989	none	1989-1990	none	excel	daily, monthly, annually	Closed	PIO	
76	3076	Mangilong, Mahabamba, Tarlac	III				NR	May 1989	none	1989-1990	none	excel	daily, monthly, annually	Closed	PIO	
77	3077	Buhlatin, Villa Aglipay, Tarlac	III				NR	May 1989	none	1989-1990	none	excel	daily, monthly, annually	Closed	PIO	
78	3078	Pangasinan, San Pedro, Tarlac	III				NR	May 1989	none	1989-1990	none	excel	daily, monthly, annually	Closed	PIO	
79	3079	San Juan Rio, Sarnal, Tarlac	III	120-31-00	14-47-00	12.7	NR	Oct. 1974	none	1974-975	none	excel	daily, monthly, annually	Closed	PIO	
80	3080	Miray-aca, Balanga, Bataan	III	120-32-00	14-40-00	9.0	NR	Jan. 1960	none	1974-975	none	excel	daily, monthly, annually	Closed	PIO	
81	3081	Talisay, Balanga, Bataan	III	120-29-00	14-26-00	9.0	NR	June 1969	none	1970-1971	none	excel	daily, monthly, annually	Closed	PIO	
82	3082	Caulanan, Dinahaplan, Bataan	III				NR	Oct. 1974	none	1974-975	none	excel	daily, monthly, annually	Closed	PIO	
83	3083	Basseco, Maravettes, Bataan	III	120-29-00	14-26-00		NR	Jan. 1975	none	1975-1976	none	excel	daily, monthly, annually	Closed	PIO	
84	4084	San Luis, Sto. Tomas, Batangas	IV	120-12-00	14-02-00	280.0	NR	September 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
85	4085	San Pedro, Sto. Tomas, Batangas	IV	120-11-00	14-05-00	200.0	NR	September 1973	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
86	4086	Santal, Tanauan, Batangas	IV	120-05-00	14-09-00	200.0	NR	September 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO	
87	4087	Puno-Jano, San Juan, Batangas	IV				NR	October 1990	none	1990-1992	none	excel	daily, monthly, annually	Closed	PIO	
88	4088	Jaating Lupa, Calamba, Laguna	IV	120-09-00	14-08-00	155.0	NR	September 1974	none					Closed	PIO	
89	4089	Casilo, Cabuyao, Laguna	IV	120-01-28	14-11-40	370.0	NR,R	July 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO	
90	4090	Bukal, Calamba, Laguna	IV	120-10-00	14-12-00	15.0	NR	September 1973	none	1975-1979	none	excel	daily, monthly, annually	Closed	PIO	
91	4091	San Isidro, Cabuyao, Laguna	IV	121-09-00	14-15-00	15.0	NR	September 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
92	4092	Mangera, Plastic, Laguna	IV	121-05-00	14-16-00	38.0	NR	August 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO	
93	4093	P-20, Pulong, Sta. Cruz, Laguna	IV	121-05-00	14-17-00	36.0	NR	May 1973	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO	
94	4094	Dita, Sta. Rosa, Laguna	IV	121-06-00	14-17-00	15.0	NR	September 1973	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
95	4095	Balibago, Plastic, Laguna	IV	121-06-00	14-18-00	15.0	NR	August 1973	none	1974-1977	none	excel	daily, monthly, annually	Closed	PIO	
96	4096	Cahabuso, Binan, Laguna	IV	121-04-00	14-19-00	10.0	NR	September 1972	none	1974-1981	none	excel	daily, monthly, annually	Closed	PIO	
97	4097	P-21, Alas-Asan, Sta. Rosa, Laguna	IV	121-05-00	14-14-00	70.0	NR	June 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
98	4098	Calamas, Laguna	IV	121-07-00	14-13-00	40.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
99	4099	Exp'l Office, Laguna	IV	121-06-00	14-12-00	80.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
100	4100	Lagundi, Laguna	IV	121-08-00	14-12-00	90.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
101	4101	Manurit, Laguna	IV	121-03-00	14-13-00	130.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
102	4102	Pritchard, Laguna	IV	121-03-00	14-14-00	115.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
103	4103	Old K-field, Laguna	IV	121-03-00	14-15-00	120.0	NR	December 1974	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO	
104	4104	Cavard, Laguna	IV	121-09-00	14-14-00	110.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
105	4105	Binan, Laguna	IV	121-03-00	14-15-00	70.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
106	4106	Majada, Canlubang, Laguna	IV	121-04-00	14-06-00	10.0	NR	September 1975	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
107	4107	Amulung, Laguna	IV	121-15-00	14-10-00	30.0	NR,R	December 1974	none	1975-1980	none	excel	daily, monthly, annually	Closed	PIO	
108	4108	Upeca, Laguna	IV	120-59-00	14-10-00	315.0	NR,R	January 1975	none	1975-1980	none	excel	daily, monthly, annually	Closed	PIO	
109	4109	Iba, Silang, Cavite	IV	120-59-00	14-13-00	180.0	NR	October 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
110	4110	Bangka, Carmona, Cavite	IV	120-59-00	14-17-00	180.0	NR	September 1973	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
111	4111	Alulod, Indang, Cavite	IV	120-53-00	14-14-00	120.53-00	NR	January 1976	none	1976-1980	none	excel	daily, monthly, annually	Closed	PIO	
112	4112	Lukshin, Alfonso, Cavite	IV	121-04-00	14-06-00	90.0	NR	January 1976	none	1976-1980	none	excel	daily, monthly, annually	Closed	PIO	
113	4113	Bo. No. 2, Laguna	IV	121-05-00	14-15-00	65.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
114	4114	Ma-apoy, Laguna	IV	121-03-00	14-15-00	70.0	NR	December 1974	none	1975-1981	none	excel	daily, monthly, annually	Closed	PIO	
115	4115	Caluanan, Magallanes, Cavite	IV	120-47-00	14-09-00	120.47-00	NR	January 1976	none	1976-1980	none	excel	daily, monthly, annually	Closed	PIO	
116	4116	Pulo Sara, Maragondon, Cavite	IV	120-50-00	14-11-00	120.50-00	NR	January 1976	none	1976-1979	none	excel	daily, monthly, annually	Closed	PIO	
117	4117	Taipungo, Maragondon, Cavite	IV	120-45-00	14-13-00	120.45-00	NR	January 1976	none	1976-1980	none	excel	daily, monthly, annually	Closed	PIO	
118	4118	Tanauan, Tanza, Cavite	IV	120-50-00	14-18-00	120.50-00	NR	January 1976	none	1976-1980	none	excel	daily, monthly, annually	Closed	PIO	
119	4119	Celis Conro, Nac, Cavite	IV				NR	July 1973	none	1973-1979	none	excel	daily, monthly, annually	Closed	PIO	
120	4120	Taitong Prtil, Nac, Cavite	IV				NR	January 1975	none	1975-1979	none	excel	daily, monthly, annually	Closed	PIO	
121	4121	Sanja Mayor, Tanza, Cavite	IV				NR	January 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO	
122	4122		IV				NR	January 1975	none		none	excel	daily, monthly, annually	Closed	PIO	

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RAINFALL STATIONS  
(Established by the National Irrigation Administration)**

No.	Station No.	Station Location/Name	WRR No.	Latitude	Longitude	Elevation (m)	Type	Date Established	Years of Record			File Format	Data Available	Status	Weather Observer/ CMO	Remarks
									Published	Unpublished	Raw Data					
123	4123	Calibuyo, Tanza, Cavite	IV				NR	January 1975	none	1975-1979	none	excel	daily, monthly, annually	Closed	PIO	
124	4124	Buenavista, Gen. Trias, Cavite	IV				NR	January 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO	
125	4125	Tejeros, Gen. Trias, Cavite	IV				NR	January 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO	
126	4126	Pansol, Gen. Trias, Cavite	IV				NR	January 1975	none	1975-1978	none	excel	daily, monthly, annually	Closed	PIO	
127	4127	Sabaan Bato, Dasmarinas, Cavite	IV				NR	January 1975	none	1975-1979	none	excel	daily, monthly, annually	Closed	PIO	
128	4128	Pason Talik, Dasmarinas, Cavite	IV				NR	January 1975	none	1975-1979	none	excel	daily, monthly, annually	Closed	PIO	
129	4129	Ligas, Bacoor, Cavite	IV				NR	January 1975	none	1975-1975	none	excel	daily, monthly, annually	Closed	PIO	
130	4130	Langkaan, Dasmarinas, Cavite	IV				NR	January 1975	none	1975-1975	none	-	daily, monthly, annually	Closed	PIO	
131	4131	Mali, Amadeo, Cavite	IV				NR	January 1972	none	1972-1975	none	-	daily, monthly, annually	Closed	PIO	
132	4132	Molino, Bacoor, Cavite	IV				NR	January 1975	none	1975-1976	none	-	daily, monthly, annually	Closed	PIO	
133	4133	Ayusan I, Tiaong, Quezon	IV				NR	December 1990	none	1990-1997	none	excel	daily, monthly, annually	Closed	PIO	
134	4134	Pootoy, Torijos, Marikinaque	IV				NR	May 1988	none	1988-1991	none	excel	daily, monthly, annually	Closed	PIO	
135	4135	Dibatao, Ma. Aurora, Aurora	IV				NR	February 1989	none	1989-1991	none	-	daily, monthly, annually	Closed	PIO	
136	5136	Nia - pto, Naga City, Camarines Sur	V	13-56-48	124-10-26		NR,R		none			-		Closed	PIO	
137	5137	Buyo, Virac, Catanduanes	V				NR,R	January 1980	none	1980-1984	none	-	daily, monthly, annually	Closed	PIO	
138	5138	Libon, Liboy, Albay	V				NR	November 1986	none	1986-1990	none	excel	daily, monthly, annually	Closed	PIO	
139	5139	Bacaran, Daraga, Albay	V				NR	October 1996	none	1995-1997	none	excel	daily, monthly, annually	Closed	PIO	
140	6140	Abadian, Tanaz, Capiz	VI				NR,R	January 1970	none	1970-1979	none	-	daily, monthly, annually	Closed	PIO	
141	6141	Dongso, Pototan, Iloilo	VI	10-32-00	122-38-00		NR	January 1970	none	1970-1979	none	excel	daily, monthly, annually	Closed	PIO	
142	6142	Asue Rib, Sara, Iloilo	VI	11-16-00	122-59-00	35.0	NR,R	January 1980	none	1980-1982	none	excel	daily, monthly, annually	Closed	PIO	
143	6143	JRMP, Agcalaga, Caintog, Iloilo	VI				NR	April 1979	none	1978-1982	none	-	daily, monthly, annually	Closed	PIO	
144	6144	Mabini, Capiz City, Neg. Occidental	VI				NR	June 1987	none	1987-1991	none	excel	daily, monthly, annually	Closed	PIO	
145	6145	Pisanan, Sibalom, Antique	VI				NR		none	1987-1991	none	excel	daily, monthly, annually	Closed	PIO	
146	7146	Matin-ao, Sierra Bullones, Bohol	VII	09-45-30	124-19-45	690.0	NR	December 1977	none	1977-1990	none	excel	daily, monthly, annually	Closed	PIO	
147	7147	Abachanan, Sierra Bullones, Bohol	VII	09-47-08	124-19-20	330.0	NR	December 1977	none	1977-1990	none	excel	daily, monthly, annually	Closed	PIO	
148	7148	Danicop, Sierra Bullones, Bohol	VII	09-45-55	124-17-48	300.0	NR	December 1977	none	1977-1990	none	excel	daily, monthly, annually	Closed	PIO	
149	7149	Caragdaan, Pilar, Bohol	VII	09-49-10	124-22-05	325.0	NR,R	December 1977	none	1977-1990	none	excel	daily, monthly, annually	Closed	PIO	
150	7150	Gov. Boyles, Ubay, Bohol	VII	09-55-14	124-21-45	125.0	NR,R	March 1984	none	1984-1990	none	excel	daily, monthly, annually	Closed	PIO	
151	9151	Poblacion Josefina, Zamboanga	IX				NR	June 1988	none	1988-1991	none	excel	daily, monthly, annually	Closed	PIO	
152	10152	Napaliran, Balingasag, Misamis Oriental	X	08-46-24	124-47-31		NR	July 1979	none	1979-1979	none	-	daily, monthly, annually	Closed	PIO	
153	10153	Sampaguita, Veruela, Misamis Or.	X	08-02-55	125-56-48		NR	June 1980	none	1980-1982	none	-	daily, monthly, annually	Closed	PIO	
154	10155	Buhuanvan, Baumgon, Bukidnon	X				NR		none	1987-1990	none	excel	daily, monthly, annually	Closed	PIO	
155	11156	Alsegra, Alajel, South Cotabato	XI	06-09-23	125-17-14		NR	June 1979	none	1979-1982	none	-	daily, monthly, annually	Closed	PIO	
156	11157	Pange, Matrum, South Cotabato	XI	06-02-31	124-31-18		NR	July 1979	none	1979-1982	none	-	daily, monthly, annually	Closed	PIO	
157	12158	Punkay, Libak, Sultan Kudarat	XII	06-41-17	124-04-30		NR	Mar-80	none	1980-1982	none	-	daily, monthly, annually	Closed	PIO	

Note: R = recording station NR = non-recording station

Source: List of Rainfall Stations in the Philippines Hydrography Section, National Irrigation Administration (NIA)

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS**  
(Maintained by the National Irrigation Authority)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record			File Format	Data Available	Status	Remarks
												Published	Unpublished	Raw Data				
1	01001	Solsome, Ilocos Norte		Gargas	I	79	18 - 05 - 00	120 - 49 - 00		N/R	Jun-78	none	1978-1981	BASIC	daily, monthly, annually	Closed		
2	01002	Old Site, Ilocos Norte		Gargas	I	73	18 - 04 - 47	120 - 50 - 06		N/R	Aug-76	none	1976-1983	BASIC	daily, monthly, annually	Closed		
3	01003	Sta. Nino, Ilocos Norte		Papa	I	51.4	17 - 57 - 42	120 - 43 - 37	119.920	N/R	Aug-76	none	1981-1983	BASIC	daily, monthly, annually	Closed		
4	01004	Dingras, Ilocos Norte		Madrogan	I	153.8	18 - 00 - 31	120 - 43 - 36		N/R	Aug-76	none	1977-1982	BASIC	daily, monthly, annually	Closed		
5	01005	Solsome, Ilocos Norte		Labugan	I	100.0	18 - 06 - 40	120 - 50 - 16		N/R	Aug-76	none	1978-1983	BASIC	daily, monthly, annually	Closed		
6	01006	Baco, Ilocos Norte		Tibangran	I	72.7	17 - 54 - 06	120 - 32 - 10		N/R	Oct-78	none	1979-1983	BASIC	daily, monthly, annually	Closed		
7	01007	Pasaguan, Ilocos Norte		Maduyas	I	52.9	17 - 54 - 24	120 - 34 - 21		N/R	Oct-78	none	1979-1982	BASIC	daily, monthly, annually	Closed		
8	01008	Pasaguan, Ilocos Norte		Maduyas	I	170.0	17 - 55 - 38	120 - 29 - 17		N/R	Oct-78	none	1978-1983	BASIC	daily, monthly, annually	Closed		
9	01009	Suba paaya, Ilocos Norte		Praya Lake	I	14.0	17 - 59 - 36	120 - 34 - 28		N/R	Oct-75	none	1975-1983	BASIC	daily, monthly, annually	Closed		
10	01010	Batac, Ilocos Norte	01035	Quintan	I					N/R	Jul-76	none	1976-1977	BASIC	daily, monthly, annually	Closed		
11	01011	Prob. ne, Ilocos Norte		Nueva Era	I					N/R		none	1978-1982	BASIC	daily, monthly, annually	Closed		
12	01012	Baregay, Dingras, Ilocos Norte	01034	Laag	I	1,355.0	18 - 12 - 12	120 - 35 - 18	0.572	N/R	Jan-67	none	1976-1982	BASIC	daily, monthly, annually	Closed		
13	01013	Baregay, Dingras, Ilocos Norte		Bonga	I	534.0	18 - 05 - 00	120 - 42 - 00	23.962	N/R	Jan-67	none	1976-1984	BASIC	daily, monthly, annually	Closed		
14	01014	Laagan, Abra		Palsiguan	I	189.0	17 - 46 - 53	120 - 42 - 30		N/R	Jun-77	none	1979-present	excel	daily, monthly, annually	Operational		
15	01015	Lamingan, Abra		Nagtipulan	I	26.0	17 - 37 - 50	120 - 45 - 26		N/R	Oct-79	none	1980-1991	BASIC	daily, monthly, annually	Closed		
16	01016	Sun Emilio, Ilocos Sur		Lancuan	I	55.0	17 - 17 - 25	120 - 33 - 05		N/R	Sep-77	none	1977-1979	BASIC	daily, monthly, annually	Closed		
17	01017	Elec, Quirino, Ilocos Sur	01036	Alra	I	900.0	17 - 10 - 33	120 - 40 - 55		N/R	Jul-83	none	1983-1990	BASIC	daily, monthly, annually	Closed		
18	01018	Banaragan, Ilocos Sur		Alra	I	4,813.0	17 - 33 - 20	120 - 28 - 30		N/R		none	1993-2001	excel	daily, monthly, annually	Closed		
19	01019	Mangaratem, Pangasinan		Pila	I	117.0				N/R	Sep-75	none	1980-1991	BASIC	daily, monthly, annually	Closed		
20	01020	Infanta, Pangasinan		San Felipe	I	24.0	15 - 51 - 28	119 - 58 - 10		N/R	Nov-79	none	1979-1985	BASIC	daily, monthly, annually	Closed		
21	01021	Malini, Pangasinan		Baifacaguing	I	225.0	16 - 55 - 55	119 - 57 - 13		N/R	Nov-79	none	1980-2002	BASIC	daily, monthly, annually	Closed		
22	01022	Agulnar, Pangasinan		Baynays	I	62.0	15 - 48 - 40	120 - 14 - 43		N/R	May-87	none	1987-1989	excel	daily, monthly, annually	Closed		
23	01023	Tuba, Benguet		Bued	I	107.0	16 - 17 - 15	120 - 34 - 45		N/R	May-80	none		BASIC	daily, monthly, annually	Closed		
24	01024	Tuba, Benguet		Boliti	I	11.0	16 - 21 - 44	120 - 35 - 56		N/R	Jan-80	none						
25	01025	Tuba, Benguet		Bakakang	I	11.0	16 - 21 - 56	120 - 36 - 00		N/R	Jan-80	none						
26	01026	Baguio City, Benguet		Bued	I	10.7	16 - 22 - 16	120 - 36 - 13		N/R	Jan-80	none						
27	01027	Solsome, Ilocos Norte		Labangan	I													
28	01028	Dingras, Ilocos Norte		Lumbad	I													
29	01029	Dingras, Ilocos Norte		Alaban	I													
30	01030	Pacay, Ilocos Norte		Suba	I													
31	02027	Bambang, Nueva Vizcaya	02017	Magat	II		16 - 28 - 08	121 - 06 - 40		N/R	Nov-81	none	1982-1988	BASIC	daily, monthly, annually	Closed		
32	02028	Bambang, Nueva Vizcaya	02022	Mantano	II	558.0				N/R	Feb-98	none	1980-1991	BASIC	daily, monthly, annually	Closed		
33	02029	Dupax Norte, Nueva Vizcaya		Upper Cascenan	II	403.0	16 - 00 - 40	121 - 17 - 54		N/R	Aug-77	none	1978-1982	BASIC	daily, monthly, annually	Closed		
34	02030	Dupax Norte, Nueva Vizcaya		Demp	II	142.0	16 - 00 - 35	121 - 20 - 38		N/R	Aug-77	none	1977-1982	BASIC	daily, monthly, annually	Closed		
35	02031	Dupax Sur, Nueva Vizcaya		Taan	II	25.0	15 - 54 - 27	121 - 17 - 04		N/R	Feb-75	none	1972-1983	BASIC	daily, monthly, annually	Closed		
36	02032	Bagatag, Nueva Vizcaya	02021	Lumut	II					N/R	Apr-82	none	1982-1989	BASIC	daily, monthly, annually	Closed		
37	02033	Maddela, Quirino		Cascenan	II	873.0	16 - 04 - 10	121 - 27 - 72		N/R	Feb-72	none	1977-1986	BASIC	daily, monthly, annually	Closed		
38	02034	Aglipay, Quirino		Aldalain	II	756.0	16 - 26 - 56	121 - 34 - 33		N/R	May-89	none	1989-1999	BASIC	daily, monthly, annually	Closed		
39	02035	Lower Nagtipunan, Quirino		Cascenan	II	1,137.0	16 - 03 - 25	121 - 27 - 40		N/R	Feb-72	none	1981-1986	BASIC	daily, monthly, annually	Closed		
40	02036	Gabon, Maddela, Quirino		Cascenan	II	586.0	16 - 02 - 10	121 - 21 - 08		N/R	Feb-72	none	1977-1982	BASIC	daily, monthly, annually	Closed		
41	02037	Maddela, Quirino		Tabayog	II	143.0	16 - 09 - 45	121 - 27 - 15		N/R	Aug-77	none	1979-1982	BASIC	daily, monthly, annually	Closed		
42	02038	Dipadiw, Maddela, Quirino	02001	Cagayan	II	2,323.0	16 - 23 - 08	121 - 44 - 26		N/R	Aug-77	none	1977-1983	BASIC	daily, monthly, annually	Closed		
43	02039	Maddela, Quirino		Conwarp	II	255.0	16 - 05 - 45	121 - 27 - 02		N/R	Aug-77	none	1977-1982	BASIC	daily, monthly, annually	Closed		
44	02040	Tumanini, Isabela	02010	Pinacaman	II					N/R	Apr-86	none	1986-1987	BASIC	daily, monthly, annually	Closed		
45	02041	Bagatba, Cagayan	02010	Pinacaman	II					N/R	Apr-86	none	1986-1986	BASIC	daily, monthly, annually	Closed		
46	02042	L.A.ito, P. Cagayan	02010	Pinacaman	II		17 - 37 - 30	121 - 46 - 15	18.184	N/R	Apr-86	none	1982-1983	BASIC	daily, monthly, annually	Closed		
47	02043	Gatagan, Cagayan		Dummunin	II					N/R	Apr-86	none	1986-1986	BASIC	daily, monthly, annually	Closed		
48	02044	Pilligao, Cagayan		Pared	II					N/R	Apr-86	none	1986-1986	BASIC	daily, monthly, annually	Closed		
49	02045	S.Miguel, Baguio, Cagayan		Zinundungan	II					N/R	Apr-86	none	1986-1986	BASIC	daily, monthly, annually	Closed		
50	02046	Laram, Cagayan	02002	Abulog	II					N/R	Nov-24, 1995	none	1995-1999	BASIC	daily, monthly, annually	Closed		
51	02047	Flora, Kahing-apayao	02028	Balsa	III	1,874.0	18 - 10 - 49	121 - 21 - 51		N/R	May-85	none	1985-1988	BASIC	daily, monthly, annually	Closed		
52	03043	Villa Aglipay, Tarlac		Balsa	III	405.0	15 - 28 - 06	120 - 26 - 52		N/R	May-78	none	1985-1988	BASIC	daily, monthly, annually	Closed		
53	03049	Balog-balog, Tarlac		Balsa	III		15 - 26 - 30	120 - 21 - 20		N/R		none						
54	03050	Mearon, Tarlac		Bulatin	III					N/R	May-75	none	1975-1985	BASIC	daily, monthly, annually	Closed		
55	03051	Villa Aglipay, Tarlac		Bulatin	III					N/R	May-89	none	1989-1990	BASIC	daily, monthly, annually	Closed		
56	03052	Moronones, Tarlac		Baling Creek	III					N/R	May-89	none	1989-1990	BASIC	daily, monthly, annually	Closed		
57	03053	Mabanaba, Tarlac		Mangilog Creek	III					N/R	May-89	none	1989-1990	BASIC	daily, monthly, annually	Closed		
58	03054	San Pedro, Tarlac		Pagasaan	III					N/R	Jun-79	none	1979-1989	BASIC	daily, monthly, annually	Closed		
59	03055	San Clemente, Tarlac		Batacan	III	27.0				N/R	Nov-11, 1984	none	1984-1990	BASIC	daily, monthly, annually	Closed		
60	03056	Guimba, Nueva Ecija		Brahan	III	130.0	15 - 40 - 00	120 - 46 - 00		N/R	Jan-74	none	1974-1974	BASIC	daily, monthly, annually	Closed		
61	03057	Paseng Intsik, Nueva Ecija		Ibantiuan	III	208.0	15 - 40 - 08	120 - 44 - 40		N/R	Jan-57	none	1957-1981	BASIC	daily, monthly, annually	Closed		
62	03058	Sta. Domingo, Nueva Ecija		Bahawag	III	295.0	15 - 40 - 00	120 - 51 - 00		N/R	Jan-74	none	1974-1978	BASIC	daily, monthly, annually	Closed		
63	03059	Munoz, Nueva Ecija		Bahawag	III	284.0	15 - 43 - 22	120 - 53 - 00		N/R	Jan-56	none	1975-1977	BASIC	daily, monthly, annually	Closed		
64	03060	Gen. Tinio, Nueva Ecija		Sumatubo	III	287.0	15 - 20 - 28	121 - 05 - 30		N/R	Jan-79	none	1979-1987	BASIC	daily, monthly, annually	Closed		
65	03061	Floridablanca, Pampanga		Gumain	III	128.0				N/R	Feb-2, 1982	none	1982-1983	BASIC	daily, monthly, annually	Closed		
66	03062	Summerplace, Pampanga		Gumain	III	115.0				N/R		none	1983-1987	BASIC	daily, monthly, annually	Closed		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Maintained by the National Irrigation Authority)**

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Published	Years of Record		File Format	Data Available	Status	Remarks
													Encoded	Raw Data				
67	04063	Agabo, Zambales		Mananaps	III	87.0	14 - 59 - 08	120 - 17 - 08		N/R	May-93	none	to S 1993	BASIC	daily, monthly, annually	Closed		
68	04064	Candelaria, Zambales		North Lapis	III					N/R	May-93	none	to S 1993	BASIC	daily, monthly, annually	Closed		
69	04065	San Pedro, Laguna		San Pedro	IV	30.2	14 - 21 - 39	121 - 02 - 44		N/R	Jun-74	none	1974-Aug-79	BASIC	daily, monthly, annually	Closed		
70	04066	Brian, Laguna		Soro-Soro	IV	29.0	14 - 19 - 30	121 - 03 - 22		N/R	Jun-74	none	1975-1980	BASIC	daily, monthly, annually	Closed		
71	04067	Mt. Bisan, Laguna		Timbao	IV	15.0	14 - 16 - 46	121 - 02 - 40		N/R	May-73	none	1974-1978	BASIC	daily, monthly, annually	Closed		
72	04068	Main canal, Bifitan, Laguna		Timbao	IV		14 - 17 - 00	121 - 03 - 00		N/R	May-73	none	1978-1981	BASIC	daily, monthly, annually	Closed		
73	04069	Bifitan, Laguna		Oleng, Tubig Spring	IV					N/R	Jun-74	none	1974-1980	BASIC	daily, monthly, annually	Closed		
74	04070	San Vicente, Laguna		Bifitan	IV	79.0	14 - 19 - 55	121 - 04 - 40		N/R	Oct-73	none	1974-1977	BASIC	daily, monthly, annually	Closed		
75	04071	Mangabran, Laguna		Sia, Rosa	IV	37.0	14 - 17 - 00	121 - 04 - 41		N/R	Feb-74	none	1974-1980	BASIC	daily, monthly, annually	Closed		
76	04072	Diezmo, Sta. Rosa, Laguna		Diezmo	IV	35.0	14 - 13 - 51	121 - 04 - 17		N/R	Oct-72	none	1974-1981	BASIC	daily, monthly, annually	Closed		
77	04073	T.O. Sta. Rosa, Laguna		Diezmo	IV	35.6				N/R	Oct-72	none	1975-1980	BASIC	daily, monthly, annually	Closed		
78	04074	Calabua, Laguna	04082	San Cristobal	IV		14 - 13 - 00	121 - 07 - 00		N/R	Jul-73	none	1974-Jun-80	BASIC	daily, monthly, annually	Closed		
79	04075	San Juan, -do	04081	San Juan	IV	195.0	14 - 12 - 23	121 - 08 - 55		N/R	Aug-73	none	1974-Jun-80	BASIC	daily, monthly, annually	Closed		
80	04076	Narc. San Juan, -do	04081	San Juan	IV					N/R	Jul-73	none	1974-1980	BASIC	daily, monthly, annually	Closed		
81	04077	Stric. San Juan, -do	04081	San Juan	IV					N/R	Jul-73	none	1974-1980	BASIC	daily, monthly, annually	Closed		
82	04078	Bukal, -do		Pansol Spring	IV					N/R	Jul-73	none	1974-1980	BASIC	daily, monthly, annually	Closed		
83	04079	Canibang, -do	04083	Maragondon	IV	26.0	14 - 16 - 20	120 - 44 - 20		N/R	Dec-74	none	1974-1980	BASIC	daily, monthly, annually	Closed		
84	04080	Maragondon, Cavite		Maragondon	IV					N/R	Jan-45	none	1976-1980	BASIC	daily, monthly, annually	Closed		
85	04081	Malainoloma, Cavite		Balayungan	IV					N/R	Jan-76	none	1976-1980	BASIC	daily, monthly, annually	Closed		
86	04082	Maragondon, Cavite		Kay Able	IV					N/R	Nov-77	none	1976-1980	BASIC	daily, monthly, annually	Closed		
87	04083	Milagrosa, Carmona, Cavite		Dita	IV	6.4	14 - 18 - 15	121 - 02 - 30		N/R	Jun-74	none	1974-1980	BASIC	daily, monthly, annually	Closed		
88	04084	Latic, Carmona, Cavite		Latic	IV	6.5	14 - 17 - 35	121 - 02 - 06		N/R	Jun-74	none	1974-1980	BASIC	daily, monthly, annually	Closed		
89	04086	Brooke's Pt., Palawan		Salsaban	IV	18.0	08 - 53 - 29	117 - 50 - 28		N/R	Aug-78	none	1978-1981	BASIC	daily, monthly, annually	Closed		
90	04087	Brooke's Pt., Palawan		Linao	IV	21.0	08 - 54 - 04	117 - 52 - 18		N/R	Aug-78	none	1978-1981	BASIC	daily, monthly, annually	Closed		
91	04088	Dumaguena, Narra, Palawan		Tagabnan	IV	29.0	08 - 50 - 38	117 - 47 - 18		N/R	Jul-79	none	Jul-79-Nov-79	BASIC	daily, monthly, annually	Closed		
92	04089	Aribungos, B.P., Palawan		Maligao	IV	125.0	09 - 23 - 53	118 - 23 - 52		N/R	Aug-78	none	1978-1980	BASIC	daily, monthly, annually	Closed		
93	04090	San Antonio, B.P., Palawan		Ranig	IV	21.0				N/R	Oct-78	none	1978-Aug-81	BASIC	daily, monthly, annually	Closed		
94	04091	San Antonio, B.P., Palawan		Tanlong	IV	39.0	08 - 45 - 05	117 - 43 - 31		N/R	Aug-78	none	1978-Aug-81	BASIC	daily, monthly, annually	Closed		
95	04092	Maasin, B.P., Palawan		Maasin	IV	43.0	08 - 56 - 12	177 - 54 - 55		N/R	Sep-78	none	1978-Aug-81	BASIC	daily, monthly, annually	Closed		
96	04093	Tagbanao, Narra, Palawan		Tagbanao	IV	11.0	09 - 21 - 37	118 - 24 - 12		N/R	Sep-78	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
97	04094	Dumaguena, Narra, Palawan		Manuale	IV	26.0	09 - 25 - 32	118 - 25 - 15		N/R	Sep-78	none	1979-1981	BASIC	daily, monthly, annually	Closed		
98	04095	Narra, Palawan		Batang Balang	IV					N/R	Jun-79	none	Q un 1980	BASIC	daily, monthly, annually	Closed		
99	04096	Panzacan, Narra, Palawan		Panzacan	IV	25.0	09 - 17 - 50	118 - 23 - 46		N/R	Aug-79	none	1979-1980	BASIC	daily, monthly, annually	Closed		
100	04097	Batarasi, Palawan		Marangas	IV	37.5	08 - 43 - 23	117 - 37 - 04		N/R	Jan-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
101	04098	Quezon, Palawan		Quilang	IV	50.3	09 - 06 - 38	117 - 47 - 38		N/R	Jan-80	none	1980-1981	BASIC	daily, monthly, annually	Closed		
102	04099	I. Quezon, Palawan		Tilawan	IV					N/R	Mar-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
103	04100	Malinao, Narra, Palawan		Malinao	IV	23.0	09 - 15 - 23	118 - 20 - 40		N/R	Mar-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
104	04101	Narra, Palawan		Caraniogan	IV	15.0	09 - 15 - 27	118 - 21 - 56		N/R	Mar-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
105	04102	Aborlan, Palawan		Talakesigan	IV	29.0	09 - 26 - 51	118 - 26 - 43		N/R	Mar-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
106	04103	Aborlan, Palawan		Tigman-Apis	IV	15.0	09 - 25 - 13	118 - 27 - 07		N/R	Mar-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
107	04104	Casiguran, Aurora		Pinaracsan	IV					N/R	Apr-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
108	04105	Maria aurora, Aurora		Cabatagan	IV	133.0				N/R	Feb-89	none	1989-1991	BASIC	daily, monthly, annually	Closed		
109	04106	Casiguran, Aurora		Anrao	IV					N/R	Apr-80	none	Q un 1981	BASIC	daily, monthly, annually	Closed		
110	04107	Candelaria, Quezon		Taguan	IV					N/R	Apr-80	none	G.H. 1982	BASIC	daily, monthly, annually	Closed		
111	04108	Sansaya, Quezon		Morog	IV					N/R		none	Q un 1983	BASIC	daily, monthly, annually	Closed		
112	04109	Tiang, Quezon		Quipot	IV	460.0	13 - 55 - 15	121 - 19 - 20		N/R	Jan-91	none	1991-1996	BASIC	daily, monthly, annually	Closed		
113	04110	Boac, Marinduque		Boac	IV	14.3				N/R	May 2, 1988	none	1988-1989	BASIC	daily, monthly, annually	Closed		
114	04111	Boac, Marinduque		Tugos	IV	2.2				N/R	Aug 13, 1988	none	1988-1990	BASIC	daily, monthly, annually	Closed		
115	04112	Boac, Marinduque		Bagitong	IV	8.4				N/R	May 4, 1988	none	1988-1991	BASIC	daily, monthly, annually	Closed		
116	04113	Sta. Cruz, Marinduque	04161	Tawira	IV	62.4				N/R	May 5, 1988	none	1988-1990	BASIC	daily, monthly, annually	Closed		
118	05115	Buyo, Vigan, Cebu		Buyo	V	143.0	13 - 36 - 54	124 - 10 - 21		N/R	Apr-80	none	1981-1983	BASIC	daily, monthly, annually	Closed		
119	05116	Vrac, Candelaria		Sac Domingo	V					N/R		none	2001-2001	excel	daily, monthly, annually	Closed		
120	05117	Minibac, Camarines Sur		Talisan	V					N/R	Oct-79	none	1976-1978	BASIC	daily, monthly, annually	Closed		
121	05118	Libmanan, Camarines Sur		Aston	V	12.0				N/R	Oct-79	none	1975-1987	BASIC	daily, monthly, annually	Closed		
122	05119	Sipocot, Camarines Sur	05418	Sipocot	V					N/R		none	1975-1987	BASIC	daily, monthly, annually	Closed		
123	05120	Sipocot, Camarines Sur		Yabo	V	85.0				N/R		none	1975-1987	BASIC	daily, monthly, annually	Closed		
124	05121	Libmanan, Camarines Sur		Pulutina	V					N/R		none		BASIC	daily, monthly, annually	Closed		
125	05122	Libmanan, Camarines Sur		Libmanan	V					N/R		none		BASIC	daily, monthly, annually	Closed		
126	05123	Culicling, Camarines Sur		Culicling	V					N/R		none		BASIC	daily, monthly, annually	Closed		
127	05124	Ogob, Malinao, Albay	05118	Quinal	V					N/R		none		BASIC	daily, monthly, annually	Closed		
128	05125	Linao, Albay		San Francisco	V					N/R	Oct-81	none	1986-1990	BASIC	daily, monthly, annually	Closed		
129	05126	Tula-ula, Iligan, Albay		Talissay	V	126.4	13 - 13 - 40	123 - 23 - 30		N/R	Dec-86	none	1986-1990	BASIC	daily, monthly, annually	Closed		
130	05127	San Jose (c) bombon, Iligan, Albay		San Jose	V	69.3	13 - 16 - 50	123 - 23 - 30		N/R	Dec-86	none	1986-1990	BASIC	daily, monthly, annually	Closed		
131	05128	Ligao, Albay		Talissay	V					N/R		none	1986-1990	BASIC	daily, monthly, annually	Closed		
132	06129	Ligao, Albay		Cabilogan	VI					N/R		none	1986-1990	BASIC	daily, monthly, annually	Closed		

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS**  
(Maintained by the National Irrigation Authority)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Published	Years of Record		Gaps	File Format	Data Available	Status	Remarks
													Unpublished/Enclosed	Raw Data					
133	06130	Cannalig, Albay		Tinago	VI					N/R	Jan-96	none					Closed		
134	06131	Inarado, Daraga, Albay		Abago	VI					N/R	Jan-96	none						Closed	
135	06132	Baccaran, Daraga, Albay		Patagok	VI					N/R	Jan-96	none						Closed	
136	06133	Aroroy, Masbate		Lanang	VI					N/R	Jan-96	none						Closed	
137	06134	San Jose, Antique		Tiplanig	VI					N/R	May 27, 1978	none	Q un 1983	none	none	BASIC	daily, monthly, annually	Closed	
138	06135	Sibalom, Antique		Maoit	VI	64.0				N/R	Nov. 11, 1987	none	1987-1991	none	none	BASIC	daily, monthly, annually	Closed	
139	06136	Calinog, Iloilo	06208	Jalaur	VI	35.0			56.291	N/R	Jul-75	none	1975-1991	none	none	BASIC	daily, monthly, annually	Closed	
140	06137	Alcala, Iloilo	06208	Jalaur	VI	120.0	11 - 09 - 41	123 - 27 - 24		N/R	Dec-75	none	Q un 1976	none	none	BASIC	daily, monthly, annually	Closed	
141	06138	Saraga, Iloilo		Callianan	VI	51.3	11 - 09 - 42	122 - 59 - 25		N/R	Dec-78	none	1978-1991	none	none	BASIC	daily, monthly, annually	Closed	
142	06139	Empogon, Sara, Iloilo		Sernoco	VI	16.0	11 - 13 - 18	122 - 58 - 40		N/R	Dec-78	none	1979-1990	none	none	BASIC	daily, monthly, annually	Closed	
143	06140	Madayaya, Sara, Iloilo		Asue	VI	9.5	11 - 16 - 48	122 - 59 - 27		N/R	Dec-78	none	1979-1990	none	none	BASIC	daily, monthly, annually	Closed	
144	06141	Bacolod City, Negros occ.		Loyey	VI					N/R	G.H. 1979	none	1981-1981	none	none	BASIC	daily, monthly, annually	Closed	
145	06142	San Miguel, Murcia, Negros occ.		Biago	VI	523.0	10 - 33 - 20	123 - 05 - 40		N/R	Jul-82	none	To NWRRC	none	none	BASIC	daily, monthly, annually	Closed	
146	06143	Mabini, Cuziz, Negros occ.	06220	Talabano	VI	137.0				N/R	April 1, 1978	none	Q un 1982	none	none	BASIC	daily, monthly, annually	Closed	
147	06144	Silay City, Negros occ.		Prusy	VI	240.0	11 - 14 - 05	122 - 30 - 20		N/R	Aug-75	none	Q un-1988	none	none	BASIC	daily, monthly, annually	Closed	
148	06145	Garcia, Tonz, Capiz		Pumacalan	VII	33.7	09 - 48 - 12	124 - 19 - 24		N/R	Dec-77	none	1978-1990	none	none	BASIC	daily, monthly, annually	Closed	
149	07146	Pilar, Bohol		Walig	VII	23.1	09 - 47 - 22	124 - 16 - 33		N/R	Dec-77	none	1978-1990	none	none	BASIC	daily, monthly, annually	Closed	
150	07147	Sierra Bullones, Bohol		Walig	VII	140.7	09 - 49 - 57	124 - 18 - 34		N/R	Dec-77	none	1978-1990	none	none	BASIC	daily, monthly, annually	Closed	
151	07148	Pilar, Bohol		Walig	VII	53.4	09 - 49 - 04	124 - 16 - 31		N/R	Dec-77	none	1978-1990	none	none	BASIC	daily, monthly, annually	Closed	
152	07149	S. Bullones, Bohol		Binabaye	VII	11.0	09 - 47 - 00	124 - 16 - 14		N/R	Dec-77	none	1978-1990	none	none	BASIC	daily, monthly, annually	Closed	
153	07150	Pok pjar, Bohol		Bagunan	VII	32.2	09 - 49 - 33	124 - 19 - 30		N/R	Feb-84	none	1984-1989	none	none	BASIC	daily, monthly, annually	Closed	
154	07151	Carmen, Bohol		Upper Loboc	VII	73.0	09 - 49 - 59	124 - 12 - 27		N/R	Feb-84	none	1985-1990	none	none	BASIC	daily, monthly, annually	Closed	
155	07152	Dagohoy, Bohol		Mahabog	VII	56.7	09 - 54 - 32	124 - 17 - 33		N/R	Feb-85	none	1987-1990	none	none	BASIC	daily, monthly, annually	Closed	
156	07153	San Miguel, Bohol		Cabangog	VII	22.1	09 - 58 - 57	124 - 20 - 12		N/R	Feb-85	none	1985-1989	none	none	BASIC	daily, monthly, annually	Closed	
157	07154	Tubog, Ubay, Bohol		Bayangan	VII	11.2	10 - 02 - 23	124 - 25 - 00		N/R	Feb-85	none	1985-1989	none	none	BASIC	daily, monthly, annually	Closed	
158	07155	Ubay, Bohol		Bay-ang	VII	13.2	10 - 00 - 17	124 - 26 - 42		N/R	Feb-85	none	1985-1990	none	none	BASIC	daily, monthly, annually	Closed	
160	07157	Bancan, Leyte		Dagunan	VII					N/R	Dec-82	none	To NWRRC	none	none			Closed	
161	08158	Hugboyan, N. Samar		Hugboyan	VIII	42.8						none	1997-1998	none	none	BASIC	daily, monthly, annually	Closed	
162	08179	Buhon, N. Samar		Buhon	VIII	22.6						none	1997-1998	none	none	BASIC	daily, monthly, annually	Closed	
163	08180	Mabayag, Zamboanga Sur		Saig-Daku	IX	340.0	08 - 07 - 52	123 - 25 - 06		N/R	Feb. 14, 1988	none	1988-1990	none	none	BASIC	daily, monthly, annually	Closed	
164	09159	Balatoan, Mis. Oriental		Balatoan	IX	112.0	08 - 47 - 10	124 - 49 - 32		N/R	Jun-79	none	1980-1982	none	none	BASIC	daily, monthly, annually	Closed	
165	10160	Balinasa, Mis. Oriental		Kamulayan	X	35.0	08 - 43 - 49	124 - 49 - 03		N/R	Dec-79	none	Q un 1984	none	none	BASIC	daily, monthly, annually	Closed	
166	10161	Ventura, Agusan del Sur		Baobo	X	108.0	07 - 57 - 49	125 - 55 - 04		N/R	May-80	none	1980-1992	none	none	BASIC	daily, monthly, annually	Closed	
167	10162	Ventura, Agusan del Sur		Legom	X	98.0	08 - 00 - 59	125 - 54 - 38		N/R	May-80	none	Q un 1981	none	none	BASIC	daily, monthly, annually	Closed	
168	10163	Clarin, Surigao Norte		Bay-Daywan	X							none	G.H. 1982	none	none	BASIC	daily, monthly, annually	Closed	
169	10164	Surigao, Surigao Norte	10282	Surigao	X							none	G.H. 1982	none	none	BASIC	daily, monthly, annually	Closed	
170	10165	Mimie		Mimie	X							none	1990-1992	none	none	BASIC	daily, monthly, annually	Closed	
171	10166	Batang		Batang	X							none	1989-1990	none	none	BASIC	daily, monthly, annually	Closed	
172	10167	Batang		Batang	X							none	1989-1990	none	none	BASIC	daily, monthly, annually	Closed	
173	10168	Batang		Batang	X							none	1989-1990	none	none	BASIC	daily, monthly, annually	Closed	
174	11169	Alabal, South Coabato		Manbulan	XI	357.0	06 - 09 - 39	125 - 16 - 57		N/R	Jun-79	none	Q un 1981	none	none	BASIC	daily, monthly, annually	Closed	
175	11170	Mahin, South Coabato		Pangre	XI	94.0	06 - 04 - 17	124 - 33 - 28		N/R	Jul-79	none	1979-1981	none	none	BASIC	daily, monthly, annually	Closed	
176	12171	Lebak, Sultan Kudarat		Tran	XII	774.0	06 - 42 - 51	124 - 05 - 24		N/R	Feb-80	none	G.H. 1982	none	none	BASIC	daily, monthly, annually	Closed	
177	12172	Impato, Isulan, Sultan Kudarat		Aliah	XII	1,496.0						none	1980-1984	none	none	BASIC	daily, monthly, annually	Closed	
178	12173	Magnayo, Maguindanao	17345	Kabulan	XII	1,288.0						none	1984-1990	none	none	BASIC	daily, monthly, annually	Closed	
179	12174	Tago, Surigao Sur		Sumo-Sumo	XII							none						Closed	

Note: — = no available data.  
BRF = Bureau of Research and Standards - Department of Public Works and Highways  
NFC = National Fire Control Administration  
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O = Operational  
C = Closed/Relocated

Source: National Irrigation Administration  
Hydrology Section  
Streamflow Data and Information  
http://rwin.nwrb.gov.ph  
National Water Information Network  
Hydrology Section  
DPWH-BSIS



**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION**  
**RIVER GAUGING STATIONS**  
 (Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record				File Format	Data Available	Status	Remarks	
												Published	Unpublished		Gaps					Missing Data
													Encoded	Raw Data						
1	0101	Badung, Pagudpud, Ilocos Norte		Cabacanan	I	-	18 - 34 - 36	120 - 48 - 12	-		1986		1986-1988	1989-2002		excel	daily, monthly, annually	Operational	3x/day	
2	0102	Gaaruaugen, Pagudpud, Ilocos Norte	01031	Bala	I	231	18 - 32 - 12	120 - 47 - 30	1.013		Jun 1986	Jun 1986-8/1989	1985-8/1989	9/1989-2002		excel	daily, monthly, annually	Operational	3x/day	
3	0103	Baruyen, Bangui, Ilocos Norte		Baruyen	I	53	18 - 31 - 08	120 - 42 - 16	-		1985		1985-1988	1989-2002	1985-1988 (4yrs)	excel	daily, monthly, annually	Operational	3x/day	
4	0104	Poblacion, Batac, Ilocos Norte	01035	Quiloit	I	188	18 - 03 - 06	120 - 33 - 42	-		1986		1986-1991	1992-1998		excel	daily, monthly, annually	Operational	3x/day	
5	0105	Pasac, Batac, Ilocos Norte		Badoc	I	-	17 - 55 - 42	120 - 29 - 18	-		1985		1985-1988	1989-2002		excel	daily, monthly, annually	Operational	3x/day	
6	0106	Rizal, Cabugao, Ilocos Sur		Cabugao	I	76	17 - 48 - 05	120 - 27 - 48	8.086		Jun 1985	Jun 1985-6/1989	1985-6/1989	7/1989-1995		excel	daily, monthly, annually	Closed	3x/day	
7	0107	Codoog, Narvacan, Ilocos Sur		Narvacan	I	70	17 - 22 - 00	120 - 31 - 06	2.005		Jul 1985	Jul 1985-1999	1985-1999	2000-2002		excel	daily, monthly, annually	Closed	3x/day	
8	0108	Sacat, Sta. Cruz, Ilocos Sur	01040	Buaya	I	195	17 - 06 - 00	120 - 27 - 48	188.6/BM#1		Jun 1985	Jun 1985-1988	1985-1988	1989		excel	daily, monthly, annually	Closed	3x/day	
9	0109	Rissing, Bangar, La Union		Borobor	I	169	16 - 51 - 51	120 - 24 - 48	1.982/BM#1		Jul 1985	Jul 1985-1988	1985-1988	1989-2002		excel	daily, monthly, annually	Closed	3x/day	
10	0110	Acao, Bauang, La Union	01043	Bauang	I	511	16 - 31 - 26	120 - 20 - 48	-		Oct 1986	Oct 1986-6/1989	1986-6/1989	7/1989-2002		excel	daily, monthly, annually	Operational	3x/day	
11	0111	Sta Rita East, Aringay, La Union	01044	Aringay	I	469	16 - 23 - 30	120 - 22 - 12	1.351/BM#1		1945	1945-8/1985	1945-8/1985	9/1985-2002	1976-1985 (9yrs)	excel	daily, monthly, annually	Operational	3x/day	
12	0112	Tabatungao, Rosario, La Union		Apangat	I	-	16 - 13 - 25	120 - 27 - 28	-		1986		1986-2002		raw data	daily, monthly, annually	Closed			
13	0113	Lasfason, Sta. Maria, Ilocos Sur	01039	Sta. Maria	I	294	-	-	-		1985		1985-1988	1989-1993		excel	daily, monthly, annually	Closed		
14	0114	Brgy. 5 Piddig, Ilocos Norte		Tonoton	I	162	18 - 09 - 15	120 - 42 - 09	8.077		Jul 1985	Jul 1985-6/1994	1985-6/1994			excel	daily, monthly, annually	Closed	3x/day	
15	0115	Paitan West, Sual, Pangasinan		Paitan	I	-	16 - 05 - 08	120 - 01 - 32	-		1986		1986-2002		raw data	daily, monthly, annually	Closed			
16	0116	Magallanes, Tayug, Pangasinan		Viray de Palo	I	-	16 - 00 - 10	120 - 44 - 25	-		1987		1987-1988	1989-2002		excel	daily, monthly, annually	Closed		
17	0117	Pugo, La Union		Asin	I	-	-	-	-		2002		2002		raw data	daily, monthly, annually	Operational	3x/day		
18	01SW162201PW015	Masalep, Tubao, La Union	01044	Aringay	I	273	16 - 25 - 40	120 - 19 - 30	19.99	NR	May 1911	Sep 1945-1956	1945-1956			excel	monthly, annually	Closed	3x/day	
19	01SW164202PW012	Sta Rita, (Bitalag), Bacnotan, La Union		Maragayap	I	41	16 - 45 - 20	120 - 20 - 22	4.837/BM#1		Jan 1946	Jan 1946-1991	1946-1991	1992-2002	1976-1983 (5yrs)	excel	daily, monthly, annually	Operational	3x/day	
20	01SW164202PW013	Cabaroan, San Juan, La Union	01042	Baroro	I	129	16 - 40 - 50	120 - 22 - 50	13.00/BM#s1&2	NR	Dec 1958	1958-8/1989	1958-8/1989	9/1989-2002	1976-1983 (5yrs)	excel	daily, monthly, annually	Operational	3x/day	
21	01SW165202PW014	Natividad (Mamat-ing), Naguilian, La Union		Naguilian	I	304	16 - 35 - 16	120 - 24 - 40	34.52	NR	May 1946	Jun 1946-1987	1946-1987	1988-1994	1976-1983 (5yrs)	excel	daily, monthly, annually	Operational	3x/day	
22	01SW171202PW010	Salvador, Candon, Ilocos Sur		Bucong	I	49	17 - 13 - 50	120 - 28 - 50	12.04		Apr 1950	Jun 1950-1977	1950-1977			excel	monthly, annually	Closed	3x/day	
23	01SW171203PW008	Sahangan-Pingan, Burgos, Ilocos Sur		Sta. Maria River No. 1	I	67	17 - 18 - 45	120 - 32 - 22	18.07		Feb 1957	Mar 1957-1975	1957-1975			excel	monthly, annually	Closed		
24	01SW171203PW009	Sahangan-Pingan, Burgos, Ilocos Sur		Sta. Maria River No. 2	I	123	17 - 16 - 27	120 - 31 - 14	17.29		Feb 1957	Mar 1957-1977	1957-1977			excel	monthly, annually	Closed	3x/day	
25	01SW171203PW011	Palali Sur, Sta. Lucia, Ilocos Sur	01040	Buaya	I	195	17 - 06 - 42	120 - 30 - 18	7.030		May 1948	May 1948-1980	1948-1980			excel	monthly, annually	Closed	3x/day	
26	01SW173202PW004	Banaoang, Bantay, Ilocos Sur	01036	Abra	I	4813	17 - 33 - 20	120 - 28 - 30	3.160	NR	Nov 1958	Dec 1958	1958			excel	monthly, annually	Closed	2x/day	
27	01SW173203PW007	Lingsad, Penarubia, Abra		Sinalang	I	120	17 - 32 - 20	120 - 39 - 20	17.64	NR	Nov 1958	1958-1988	1958-1988	1989-2002	1977-1983 (6yrs)	excel	daily, monthly, annually	Operational	3x/day	
28	01SW173204PW006	Bumagkat, Tayum, Abra	01036	Abra	I	2575	17 - 36 - 57	120 - 43 - 35	15.84/BM#1	NR	Nov 1958	Dec 1958-1988	1958-1988	1989-2002	1976-1983 (7yrs)	excel	daily, monthly, annually	Operational	3x/day	
29	01SW174204PW005	Pangot, Lagayan, Abra	01037	Tineg	I	664	17 - 45 - 10	120 - 44 - 20	94.37	NR	May 1959	Jun 1959-1980	1959-1980			excel	monthly, annually	Closed	3x/day	
30	01SW180204PW002	Bangay, Dingras, Ilocos Norte		Bonga	I	534	18 - 05 - 00	120 - 42 - 00	23.93		Apr 1984		1984-1994		raw data	daily, monthly, annually	Closed	3x/day		
31	01SW180205PW003	Manalpac, Solsona, Ilocos Norte		Gasgas	I	73	18 - 04 - 54	120 - 49 - 14	124.5	NR	Apr 1946	1946-1988	1946-1988	1989-2002	1979-1982 (3yrs)	excel	daily, monthly, annually	Operational	3x/day	
32	01SW181203PW001	Poblacion, Laoag City, Ilocos Norte	01034	Laoag	I	1355	18 - 12 - 12	120 - 35 - 18	0.839/BM#1	NR	Nov 1958	Dec 1958-1994	1958-1994	1995-2002	1976-1984 (8yrs)	excel	daily, monthly, annually	Operational	3x/day	
33	0201	Buenavista, Sta Maria, Isabela	02001	Cagayan	II	25469	17 - 26 - 50	121 - 44 - 30	-		2002		2002		raw data	daily, monthly, annually	Operational	3x/day		
34	0202	Malalam, Ilagan, Isabela	02014	Pinacatanan de Ilagan	II	-	17 - 07 - 25	121 - 54 - 20	-		1985		1985-1988	1989-2002		excel	daily, monthly, annually	Operational	3x/day	
35	0203	Upi, Gamu, Isabela	02001	Cagayan	II	12192	17 - 04 - 16	121 - 50 - 35	26.86		Jun 1987	Jun 1987-1991	1987-1991	1992-2002		excel	daily, monthly, annually	Operational	3x/day	
36	0204	Banaue, Ifugao		Banaue	II	-	16 - 54 - 58	121 - 03 - 35	-		1987		1987-2002		raw data	daily, monthly, annually	Operational	3x/day		
37	0205	Bangay, Lal-lo, Cagayan	02001	Cagayan	II	28048	18 - 06 - 42	121 - 40 - 08	-2.52/BM PC&GS		Nov 1983	Nov 1983-1990	1983-1990	1991-1998		excel	daily, monthly, annually	Closed	3x/day	
38	0206	Tupaya, Lagawe, Ifugao	02020	Jbulao	II	-	16 - 42 - 41	121 - 14 - 40	-		1964	1964-1986	1964-1986	1987-2002	1973-1985 (12yrs)	excel	daily, monthly, annually	Operational	3x/day	
39	0207	Ipil, Echague, Isabela	02024	Ganapo	II	977	16 - 41 - 56	121 - 38 - 06	89.67/BM#1		Aug 1986	Aug 1986-10/1992	1986-10/1992	11/1992-2002		excel	daily, monthly, annually	Operational	3x/day	
40	0208	Mabini, Santiago City (from Cabutay, Santiago, Isabela)		Diadi	II	-	16 - 41 - 48	121 - 33 - 18	-		1986		1986-2000	2001		excel	daily, monthly, annually	Closed		
41	0209	Iltut, Cordon, Isabela		Iltut	II	18	16 - 40 - 06	121 - 25 - 51	145.4/BM#2		Apr 1985	Apr 1985-1999	1985-1999	2000-2001		excel	daily, monthly, annually	Closed	3x/day	
42	0210	Rosario, Diadi, Nueva Vizcaya		Rosario	II	24	16 - 39 - 15	121 - 18 - 08	225.3/BM NV-61		Apr 1985	Apr 1985-1997	1985-1997			excel	daily, monthly, annually	Closed	3x/day	
43	0211	Maria Clara, Diffun, Quirino		Luchan	II	-	16 - 36 - 30	121 - 29 - 20	-		1987		1987-2001		raw data	daily, monthly, annually	Closed			
44	0212	Barebet, Bagabag, Nueva Vizcaya	02017	Magat	II	2030	16 - 35 - 02	121 - 15 - 06	213.9		Aug 1986	Aug 1986-1991	1986-1991	1992-2002	10-12/1986, (8-9/12/1989)	excel	daily, monthly, annually	Operational	3x/day	
45	0213	Bato (Ferry), Bambang, Nueva Vizcaya	02017	Magat	II	2640	16 - 25 - 58	121 - 06 - 27	293.9		1985	1986-1989	1986-1989	1990-1991		excel	daily, monthly, annually	Closed	3x/day	
46	0214	Buag Ferry, Bambang, Nueva Vizcaya	02017	Magat	II	-	-	-	-		1987	1987-1991	1987-1991		excel	daily, monthly, annually	Closed	3x/day		
47	0215	Careb, Bagabag, Nueva Vizcaya		Lanog	II	525	16 - 34 - 28	121 - 11 - 58	97.15/BM#1		Apr 1985	Apr 1985-1999	1985-1999	2000-2001		excel	daily, monthly, annually	Closed	3x/day	
48	0216	Aurora East, Diffun, Quirino	02024	Ganapo	II	196	16 - 34 - 30	121 - 30 - 09	103.8/BM#1		Nov 1983	Nov 1983-1999	1983-1999	2000-2002		excel	daily, monthly, annually	Operational	3x/day	
49	0217	Brgy#1, Centro Jones, Isabela	02001	Cagayan	II	-	16 - 33 - 25	121 - 42 - 24	-		1985		1985-1986	1987-2002		excel	daily, monthly, annually	Operational	3x/day	
50	0218	San Pascual, Diffun, Quirino		Dumanisi	II	-	16 - 32 - 28	121 - 28 - 04	-		1990		1990-2000	2001		excel	daily, monthly, annually	Closed		
51	0219	Sitio Dissilad, Palacian, Aglipay, Quirino	02024	Addalam	II	-	16 - 28 - 00	121 - 36 - 52	-		1986		1986-1990			excel	daily, monthly, annually	Operational		
52	0220	Cabanuan, Maddela, Quirino		Diduyon	II	53	16 - 19 - 04	121 - 39 - 30	96.49/BM#1		Apr 1987	Apr 1987-1998	1987-1998	1999-2001		excel	daily, monthly, annually	Closed	3x/day	
53	0221	Dibibi, Cabarroguis, Quirino		Dibibi	II	-	16 - 25 - 34	121 - 30 - 24	-		1986		1986-2000	2001-2002		excel	daily, monthly, annually	Operational	3x/day	
54	0222	VillaNorte, Maddela, Quirino		Tungkab	II	68	16 - 21 - 50	121 - 40 - 32	98.74/BM#2		1986	4/1987-1991	1987-2000	2001		excel	daily, monthly, annually	Closed	3x/day	
55	0223	Lamo, Dupax del Norte, Nueva Vizcaya		Apian	II	-	16 - 20 - 18	121 - 06 - 28	-		1987		1987-1988	1989-2001		excel	daily, monthly, annually	Closed		
56	0224	Dipantan, Nagtipunan, Quirino	02001	Cagayan	II	-	16 - 18 - 00	121 - 40 - 12	-		1987		1987-1988	1989-2002		raw data	daily, monthly, annually	Operational	3x/day	
57	0225	Beit, Arliao, Nueva Vizcaya		Marang	II	1270	16 - 14 - 3													

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)**

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished		Gaps	Missing Data				
													Encoded	Raw Data						
83	02SW16421PW037	Dulaog, Lagawe, Ifugao	02019	Alimit	II	573	16 - 44 - 28	121 - 19 - 33	44.76		Jan 1967	Aug 1967	1967		(9)1970, (8-1)1972, (3-12) 1973	excel	monthly, annually	Closed	3x/day	
84	02SW16421PW038	Hapid, Lamut, Ifugao	02020	Ibulaog	II	606	16 - 42 - 41	121 - 14 - 40	96.92/BM#1		Jun 1964	Jul 1964	1964		(8)1967, (10-12)1969, (1-6)1970, (4-5/7-11)1971, (1-4/6-12)1972, (7-12)1973	excel	monthly, annually	Closed	3x/day	
85	02SW16421PW044	Cabaluyan, San Mateo, Isabela		Diadi	II	196	16 - 43 - 42	121 - 28 - 58	84.65		Oct 1955	Nov 1955-1986	1955-1986		(2/4-12)1959, (5-10)1971, (4-5/7-12)1973, (1-6)1974, (5-6/10-12)1975, (7-12)1976, (1-10)1983	excel	daily, monthly, annually	Closed	3x/day	
86	02SW165213PW035	Caipilan, Aurora, Isabela	02018	Taotao	II	430	16 - 57 - 00	121 - 32 - 56	62.42		Oct 1955	Jun 1957-1969	1957-1969		(2-12)1956, (8-9)1958, (6-11)1959, (1-6/9)1960, (3-5/9)1963, (3-5/9)10/12)1964, 1965, (1-5/7-9)1966, (3-7)1967, (1/5-7/9-12)1968, (1-3)1969, (1-12)1971-72	excel	monthly, annually	Closed	3x/day	
87	02SW165213PW036	Oscariz, San Mateo, Isabela	02017	Magat	II	4150	16 - 51 - 00	121 - 31 - 35	89.75		Aug 1941	Sep 1941-4/1965	1941-4/1965		(7-12)1942, (1-8/11)1943, (1-5)1948, (7-8)1957	excel	monthly, annually	Closed	2x/day	
88	02SW165214PW034	Palatiao, Naguilian, Isabela	02001	Cagayan	II	6837	17 - 00 - 30	121 - 49 - 55	29.39/BM SB-56 (PC&GS)		Jul 1961	Aug 1961-2/1990	1961-2/1990		(8)1963, (11-12)1964, (8-9)1965, (11-12)1966, (1/10-11)1967, (4/12)1969, (10-11)1970, (12)1972, (1-12)1973-74, (11)1975, (8-9)1976, (2-12)1977, (1-12)1978, (1-7/12)1979, (1-10)1983, (4/9)1987, (1/9)1989	excel	daily, monthly, annually	Closed	2x/day	
89	02SW165220PW032	Disulap, San Mariano, Isabela		Disulap	II	146	16 - 57 - 56	122 - 04 - 44	146.0		May 1965	Jun 1965-1/1970	1965-1/1970		(10-12)1965, (1-4)1966, (10-12)1967, (1)1969	excel	monthly, annually	Closed	3x/day	
90	02SW165220PW033	Dipalin, Binatog, San Mariano, Isabela	02016	Disabungan	II	198	16 - 56 - 46	122 - 03 - 35	-		Sep 1965	Sep 1965	1965		(1-6)1969	excel	monthly, annually	Closed	3x/day	
91	02SW170205PW016	Supang Sabangan Mt. Province		Sabangan	II	57	17 - 00 - 28	120 - 54 - 21	47.12/BM#1		Mar 1965	May 1965-1970	1965-1970		(1-12)1972, (10-12)1974	excel	monthly, annually	Closed	3x/day	
92	02SW170215PW031	Minangas San Mariana, Isabela	02014	Pinacanauan de Iligan	II	1565	17 - 05 - 00	121 - 55 - 00	88.42		Jan 1964	Jan 1964	1964		(1-3/7)1965, (3-5)1968, (1)1969, (12)1972, (1-12)1973-75, (12)1976	excel	monthly, annually	Closed	2x/day	
93	02SW171210PW015	Ambato, Tinglayan, Kalinga-Apayao	02004	Chico	II	1087	17 - 16 - 12	121 - 09 - 08	93.25/BM#1		Mar 1967	Dec 1967-1968	1967-1968		(3-12)1967, (1/6)1968	excel	monthly, annually	Closed	3x/day	
94	02SW171212PW029	(Maligaya, Mallig), Munoz, Maligay, Isabela	02013	Mallig	II	563	17 - 10 - 54	121 - 35 - 42	-		May 1948	Jun 1948	1948		(8-12)1959, (7/11-12)1960, (1/10-12)1961, (1-2)1962, (6-12)1964, (1-5)1968, (9)1971, (8/11)1973, (10-11)1974, (1-12)1975, (1-6)1976, (1-4/6-12)1977	excel	monthly, annually	Closed	2x/day	
95	02SW171212PW030	Munoz, Roxas, Isabela	02013	Siru	II	686	17 - 16 - 42	121 - 25 - 00	50.52		May 1948	Jan 1959	1959		(5-7)1964, (3-10)1964, (3-4/6)1970, (1/12)1971, (12)1972, (1-12)1973-74, (1-6/11-12)1975	excel	monthly, annually	Closed	2x/day	
96	02SW171213PW028	Mallig, Isabela		Casile	II	195	17 - 12 - 41	121 - 36 - 00	87.64		Sep 1949	Oct 1949-1991	1949-1991		(1-4)1985, (2)1986, (5)1987, (5-6)1989, (3/12)1990, (1/3/7-8)1991	excel	daily, monthly, annually	Closed	3x/day	
97	02SW171213PW027	Antagan, Tumauni, Isabela	02012	Pinacanauan Tumauni	II	170	17 - 17 - 04	121 - 55 - 48	93.47/BM#1		Jun 1964	Jul 1964	1964		(7-8)1965, (4/9-12)1965, (9-10)1969	excel	monthly, annually	Closed	2x/day	
98	02SW171314PW025	Larion Alto, Tuguegarao, Cagayan	02009	Pinacanauan de Tuguegarao	II	646	17 - 37 - 44	121 - 46 - 12	18.00/BM#1		Dec 1955	1954-1999	1954-1999	2000-2002	1974-1982 (8yrs)	(4-6)1956, (7-8)1965, (11)1967, (7-12)1974, (1-6)1975, (8-9)12)1976, (1-12)1977, (1-7/10-12)1978, (1-6/12)1979, (1-8)1982, (5-9)1989, (1-2)1990, (12)1992, (10)1994	excel	daily, monthly, annually	Operational	3x/day
99	02SW172211PW017	Babba-alañ Tabuk, Kalinga-Apayao	02007	Tanuden	II	365	17 - 23 - 10	121 - 15 - 42	97.54/BM#1		Mar 1965	Apr 1965-12/1965	1965-12/1965		-	excel	monthly, annually	Closed	3x/day	
100	02SW172212PW014	Pasonglao, Tabuk, Kalinga-Apayao	02004	Chico	II	1987	17 - 24 - 00	121 - 25 - 00	13.24/BM#1		Jan 1963	Jan 1963-1969	1963-1969		(5-6/10)1967, (8)1968	excel	monthly, annually	Closed	3x/day	
101	02SW173211PW013	Liglig Gawaan, Balbalan, Kalinga-Apayao	02006	Saltan	II	255	17 - 30 - 46	121 - 12 - 17	92.47/BM#1		Mar 1967	Apr 1967-5/1970	1967-5/1970		(8-12)1967, (1-2/10-12)1968, (1-3/10-12)1969, (1-4/6-12)1970	excel	monthly, annually	Closed	3x/day	
102	02SW173212PW012	Pinukpuk Junction, Apayao Kalinga	02006	Saltan	II	846	17 - 37 - 00	121 - 24 - 00	92.47		Mar 1965	Jun 1965	1965		(7-9)1965, (1-12)1972	raw data	daily, monthly, annually	Operational	2x/day	
103	02SW173213PW021	Pangul, Solana, Cagayan		Pangul	II	312	17 - 39 - 45	121 - 37 - 30	20.40		Dec 1921	Apr 1955	1955		(1-3)1955, (8)1957, (12)1957, (1/9-12)1958, (1-7/10-12)1959, (1-6/9-12)1958-1961, (4-	excel	monthly, annually	Closed	3x/day	
104	02SW173214PW024	Catagmanan, Tuguegarao, Cagayan	02001	Cagayan	II	19445	17 - 35 - 27	121 - 40 - 25	-		May 1958	Jan 1970	1970		(1-12)1958-1961, (4-	excel	monthly, annually	Closed	3x/day	
105	02SW173214PW026	Namabalan, Tuguegarao, Cagayan	02001	Cagayan	II	18685	17 - 32 - 28	121 - 47 - 07	-		May 1958	Jul 1964	1964		(1-6)1964, (7-8)1965, (4/9-12)1967, (9-10)1969	excel	monthly, annually	Closed	2x/day	
106	02SW174212PW011	Escolta, Rizal, Cagayan		Matalag	II	655	17 - 49 - 40	121 - 25 - 28	98.47/BM #1	NR	Mar 1964	Apr 1964	1964		(5-7)1964, (5-6/12)1972, (5-6/12)1973, (10-12)1974, (3)1975, (7)1976, (1-12)1977-78, (1-6/11-12)1979, (1-3/6-12)1980	excel	monthly, annually	Closed	2x/day	
107	02SW174212PW020	Anguiray, Amulog, Cagayan	02001	Cagayan	II	20310	17 - 49 - 14	121 - 23 - 15	-		Jun 1958	Jul 1958	1958		(9)1958, (6)1959, (9)1961, (11)1964, (1)1966, (8/10)1967	excel	monthly, annually	Closed	3x/day	
108	02SW174214PW022	Centro, Iguig, Cagayan	02001	Cagayan	II	19785	17 - 45 - 20	121 - 44 - 26	-		Jun 1958	Jun 1958	1958		(1-5/12)1958, (1-4)1960, (7/10)1962, (8/11-12)1964, (1-9)1965, (10-11)1967, (7)1968	excel	monthly, annually	Closed	3x/day	
109	02SW174214PW023	Bayo, Iguig, Cagayan	02001	Cagayan	II	19685	17 - 42 - 04	121 - 44 - 00	-		Jun 1958	Jun 1958	1958		(1-5)1958, (11)1965	excel	monthly, annually	Closed	3x/day	
110	02SW175213PW010	Nassiping, Gattaran, Cagayan	02001	Cagayan	II	21610	17 - 57 - 50	121 - 37 - 10	-		Jun 1958	Jul 1958	1958		(10/11-12)1959, (1-4)1960, (12)1964, (10)1966	excel	daily, monthly, annually	Operational	3x/day	
111	02SW175213PW018	Tupang, Alcala, Cagayan	02001	Cagayan	II	21560	17 - 57 - 16	121 - 38 - 00	-		Jun 1958	Jul 1958	1958		(3/6-7)1963, (5-6/10-12)1964, (11)1966, (2/4/8-9)1968	excel	monthly, annually	Closed	2x/day	
112	02SW175214PW019	Calantac, Alcala, Cagayan		Pared	II	907	17 - 54 - 22	121 - 41 - 00	-		Jan 1957	Jan 1958-1956	1958-1956		(7/11)1964, (11-12)1966, 1967-1969	excel	daily, monthly, annually	Closed	3x/day	
113	02SW175214PW050	Asassi, Bagga, Cagayan	02008	Pared	II	730	17 - 54 - 35	121 - 47 - 20	-		Jun 1968	Jul 1968	1968		(5-10)1972, (5)1973, (12)1974, (9)1975, (3-12)1976	excel	monthly, annually	Closed	3x/day	
114	02SW180213PW007	Sinmay, Lasam, Cagayan	02001	Simundagan	II	189	18 - 03 - 31	121 - 35 - 07	88.33/BM#1	NR	Jun 1959	Jul 1959	1959		(2-3)1965, (12)1972, (1-12)1973-74, (1-7)1975, (12)1976	excel	monthly, annually	Closed	2x/day	
115	02SW180213PW008	Poblacion, Gattaran, Cagayan	02001	Cagayan	II	26840	18 - 03 - 30	121 - 38 - 15	88.12/BM#1	NR	Jun 1958	Jul 1958	1958		(9-10)1958, (6/10-12)1964, (1/9-12)1965, (1-11)1966, (6-12)1969, (1-4/7-8)1970	excel	monthly, annually	Closed	3x/day	
116	02SW180214PW009	Calaoagan, Dacquel, Gattaran, Cagayan	02003	Dumnon	II	308	18 - 02 - 35	121 - 43 - 00	88.85/BM#1	NR	Jun 1964	Jul 1964	1964		(9-10)1964, (7-8)1965, (7/10-11)1967, (7-12)1971, (1-6/11)1972, (1-6)1973, (1-6/10-12)1974, (1-8)1975, (1-12)1976-78, (1-6/12)1979	excel	monthly, annually	Closed	2x/day	
117	02SW181213PW006	Catayuan, Lal-Lo, Cagayan	02001	Cagayan	II	27305	18 - 18 - 01	121 - 39 - 08	-	NR	Jun 1958	Jul 1958	1958		1959, (6-8)1967, (6)1968	excel	monthly, annually	Closed	3x/day	
118	02SW181214PW003	Atoe, Pudloñ, Kalinga-Apayao	02028	Abulog	II	1432	18 - 12 - 15	121 - 49 - 30	1432		Jan 1952	Jan 1952	1952		-	excel	monthly, annually	Closed	2x/day	
119	02SW181214PW005	Centro, Calaminugan, Cagayan	02001	Cagayan	II	27510	18 - 16 - 54	121 - 40 - 32	-	NR	Jun 1958	Jul 1958	1958		(10)1958, (1)1959, (3)1961, (1-2/7)1968	excel	monthly, annually	Closed	3x/day	
120	02SW18214PW002	Maddelero, Buguey, Cagayan		Banurbor	II	112	18 - 15 - 30	121 - 40 - 30	0.570	NR	Apr 1952	Apr 1952	1952		(6)1960-9)1961, (12)1961-1)1962, (9-12)1964, (3-12)1965, (8-9)11-12)1967, (1-6)1971, (6)1972, (8-12)1975, (6-12)1976	excel	monthly, annually	Closed	3x/day	
121	02SW182213PW004	Aparri, Cagayan	02001	Cagayan	II	27580	18 - 22 - 00	121 - 37 - 04	-	NR	Jun 1958	Jul 1959	1959		1958-1-6)1959, (2)(10-12)1962, (5/9-12)1964, (1-12)1965-1969	excel	monthly, annually	Closed	3x/day	
122	02SW182220PW001	Baua, Gonzaga, Cagayan	02046	Baua	II	103	18 - 21 - 15	122 - 05 - 30	0.640		Dec 1955	Jan 1956-1970	1956-1970		(1-2)1962, (9-12)1964, 1965-8)1967, (1-12)1972, (1-5)1973, (7-12)1974, (1-8)1975, (6-12)1976, (1-12)1977, (1-12)1978, (1-	excel	monthly, annually	Closed	3x/day	
123	0301	Gamis, Saguday, Quirino		Dumatata	II	47	16 - 39 - 54	121 - 31 - 42	94.98		Mar 1985	Mar 1985-11/1989	1985-11/1989	12/1989-1995	(12)1986, (2)1987	excel	monthly, annually	Closed	3x/day	
124	0302	Bayambang, Pangasinan	03070	Agno	III	2283	15 - 49 - 06	120 - 27 - 23	8.4		Jul 1946	Aug 1946-11/1949	1946-11/1949		(10-12)1946, (1-7/12)1947, (1-5/11-12)1948, (1-7)1949	excel	daily, monthly, annually	Closed	3x/day	
125	0303	San Andres Llanera, San Jose City		Talavera	III	380	15 - 43 - 46	121 - 00 - 12	-		Mar 1985	Mar 1985-1999	1985-1999	2000-2002	(8-9)1985, (4-6)1988, (7/12)1989, (10)1994, (8)1997	excel	daily, monthly, annually	Operational	3x/day	
126	0304	Bo. Sanilago, Concepcion, Tarlac		Cutcut	III	180	15 - 20 - 18	120 - 38 - 25	42.9/BM#1		Aug 1949	Sep 1949-2/1953	1							

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION**  
**RIVER GAUGING STATIONS**  
 (Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record				File Format	Data Available	Status	Remarks	
												Published	Unpublished Encoded	Raw Data	Gaps					
154	03SW145202PW087	Pabalanag, Floridablanca, Pampanga		Caulaman	III	72	14 - 57 - 30	120 - 28 - 30	25.01		Aug 1954	Sep 1954-1956	1954-1956			(7-12)1960, (1-8)1961, (5-9)1967, (1-2/4-12)1968, (1-2/5-6/8)1969, (12)1973, (1-12)1974-76, (1-9)1977, (4)1978, (8/12)1979	excel	daily, monthly, annually	Closed	3x/day
155	03SW145202PW088	San Benito (Colo), Dinakupihan, Bataan		Colo	III	76	14 - 50 - 50	120 - 24 - 48	1.120		Mar 1955	Apr 1955-1956	1955-1956			(2-6)1962, (1-6)1963, (1-5)1969, (1-12)1972, (5)1973, (3/12)1974, (7-8)1978, (6/8)1979	excel	daily, monthly, annually	Closed	3x/day
156	03SW145202PW089	Bulate, Dinakupihan, Bataan		Bulate	III	16	14 - 50 - 54	120 - 22 - 50	28.33		Jan 1946	Jan 1946-8/1966	1946-8/1966			(8-10)1962	excel	daily, monthly, annually	Closed	3x/day
157	03SW145203PW081	Cabeitan, Bacolor, Pampanga		Pasig-Potrero	III	242	15 - 59 - 00	120 - 38 - 00	4.50m		Apr 1965	May 1965-1988	1965-1988	1989-1998	1977-1992 (15yrs)	(2-4)1965, (9)1967	excel	daily, monthly, annually	Operational	2x/day
158	03SW145203PW083	Valdez, Floridablanca, Pampanga		Porac	III	118	14 - 58 - 55	120 - 32 - 06	12.89		Oct 1958	Nov 1958	1958			(6-7)1966, (1-12)1972, (3-4)1973	excel	daily, monthly, annually	Closed	3x/day
159	03SW145203PW084	Del Carmen, Floridablanca, Pampanga		Porac	III	111	14 - 59 - 34	120 - 32 - 05	18.02		Nov 1910	Oct 1945-1956	1945-1956			(1)1960, (6-12)1972	excel	daily, monthly, annually	Closed	3x/day
160	03SW145203PW085	Sta. Cruz, Luban, Pampanga		Gumain Floodway	III	370	14 - 55 - 00	120 - 34 - 08	0.49		Sep 1958	Oct 1958	1958			(4-6)1974, (3-12)1975, (1-12)1976, (8)1977, (6)1979	excel	daily, monthly, annually	Closed	2x/day
161	03SW145204PW063	Sulipan, Apalit, Pampanga	03059	Pampanga	III	7849	14 - 56 - 10	120 - 45 - 25	10.55		Jan 1946	Jan 1946-2000	1946-2000	2001-2002		(8)1982, (1-4)1986, (12)1987, (4-6)1988, (1/7)1994	excel	daily, monthly, annually	Operational	3x/day
162	03SW145204PW064	Sulipan, Apalit, Pampanga		Sulipan (Cut-off Channel)	III	7874	14 - 56 - 13	120 - 45 - 26	10.54		Jul 1946	Aug 1946-1956	1946-1956			(9-12)1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, (1-9)1951	excel	daily, monthly, annually	Closed	2x/day
163	03SW145204PW065	San Miguel Calumpit, Bulacan		Francis R.	III	-	14 - 56 - 22	120 - 45 - 06	10.86		Jun 1946	Jun 1946-1956	1946-1956			(1-1)1948, (2-6)1951, (12)1952, (1)1955	excel	daily, monthly, annually	Closed	3x/day
164	03SW145204PW066	Bebe, Masantol, Pampanga		Bebe COC No. 1	III	-	14 - 52 - 40	120 - 42 - 18	0		Apr 1956	May 1956-5/1969	1956-5/1969			(1)1957, (10)1958, (4/9-10)1959, (1/12)1961, (1/8)1962, (8-11)1966, (6/9-10)1967, (1/5-6/8-9)1968, (1-3)1969, (6-11)1970	excel	daily, monthly, annually	Closed	3x/day
165	03SW145204PW067	Bebe, Masantol, Pampanga		Bebe COC No. 2	III	-	14 - 53 - 30	120 - 40 - 30	-		Apr 1956	Jun 1956	1956			(1-12)1956, (2-5/8-10)1957, (1-3/6-7/9-10)1958, (5-6/8/10-12)1959, (1-4/8-11)1960, (1-7/10-12)1961, (1/3-6/9-12)1962, (3-7/9-10)1963, (5-6/8)1964, (1/8/10-12)1965, 1966, (1/7/10-12)1967, (1-6/8-12)1968, (1-6)1969, (7-12)1970	excel	daily, monthly, annually	Closed	3x/day
166	03SW145204PW069	Poblacion, Calumpit, Bulacan	03059	Pampanga	III	7910	14 - 55 - 20	120 - 45 - 52	-10.74		May 1910	Jul 1946-1956	1946-1956			(2-6)1951	excel	daily, monthly, annually	Closed	3x/day
167	03SW145204PW070	San Miguel Calumpit, Bulacan	03059	Pampanga	III	7914	14 - 55 - 11	120 - 44 - 42	-10.61		Jul 1946	Jul 1946-1956	1946-1956			(10-12)1946, (1-6)1947, (1-5)1948, (2-12)1951, (1-7)1952, (2)1962	excel	daily, monthly, annually	Closed	3x/day
168	03SW145204PW071	(Halang) San Pedro, Hagonoy, Bulacan		Labangan Channel	III	-	14 - 50 - 28	120 - 44 - 55	2.50m		Jun 1961	Jul 1961-1992	1961-1992				excel	daily, monthly, annually	Closed	3x/day
169	03SW145204PW074	San Antonio, Hagonoy, Bulacan		Labangan Channel	III	-	14 - 52 - 45	120 - 45 - 38	1.65		Jul 1961	Jul 1961	1961				excel	daily, monthly, annually	Closed	3x/day
170	03SW145204PW075	Bagbag, Calumpit, Bulacan		Labangan Channel	III	1016	14 - 53 - 02	120 - 46 - 13	-10.6		Jan 1946	Jan 1946-1992	1946-1992			(2-6)1951	excel	daily, monthly, annually	Closed	3x/day
171	03SW145204PW076	Pungo, Calumpit, Bulacan	03055	Angat	III	1014	14 - 54 - 07	120 - 47 - 00	-2.37		Jun 1961	Jul 1961	1961			(1-2)1964, 1965, (1-3)1966, (1-8)1967, (3-5/9)1968, (7-11)1969	excel	daily, monthly, annually	Closed	3x/day
172	03SW145205PW077	Poblacion, Pulilan, Bulacan	03055	Angat	III	963	14 - 53 - 55	120 - 50 - 36	0.420/BM#1		Jun 1961	Jul 1961	1961			(10)1962, (2/10)1962, (6/8)1965, (10-11)1969	excel	daily, monthly, annually	Closed	3x/day
173	03SW145205PW078	Longos, Pulilan, Bulacan	03055	Angat	III	959	14 - 53 - 30	120 - 51 - 50	-10.0		Jul 1969	Jan 1959-1989	1959-1989			1967, (4-12)1971, (1-6/8)1972, (1-7)1973, (12)1976, (10)1978,	excel	daily, monthly, annually	Closed	3x/day
174	03SW145210PW079	Pulong Sampaloc, Angat, Bulacan		Bayabas	III	74	14 - 57 - 20	121 - 03 - 45	12.33/ASB Datum		Jun 1964	Jun 1964	1964			(3-11)1966, (9-11)1967, (7-11)1968, (5-12)1970, (1-12)1971, (1-9)1972, (2-12)1973	excel	daily, monthly, annually	Closed	3x/day
175	03SW145210PW080	Ipo, Nonsaragar, Bulacan	03055	Angat	III	629	14 - 52 - 36	121 - 08 - 30	45.09		Sep 1956	Sep 1956	1956			(1/11-12)1967, 1969, 1970	excel	daily, monthly, annually	Closed	3x/day
176	03SW150203PW082	Had. Dolores, Porac, Pampanga		Pasig-Potrero	III	28	15 - 06 - 37	120 - 31 - 58	7.57/BM#1		Sep 1966	Oct 1966	1966			(2-6)1967, (6)1968, (8-12)1972	excel	daily, monthly, annually	Closed	2x/day
177	03SW150204PW051	Pasig, Candaba, Pampanga	03059	Pampanga	III	7468	15 - 05 - 48	120 - 49 - 18	-11.0		Oct 1958	Nov 1958	1958			(6)1971, (11-12)1974, (1-12)1975-77, (1-4)1978, (6-7/9)1979, (2-12)1980	excel	monthly, annually	Closed	2x/day
178	03SW150204PW053	Sta. Cruz, San Luis, Pampanga	03059	Pampanga	III	7756	15 - 00 - 26	120 - 46 - 35	10.47		Aug 1948	Sep 1953-1957	1953-1957			(9-12)1948, 1949, 1950, 1951, 1952, (1-8)1953, (11)1960, (8-9)1966, (10)1967, (3)1969	excel	daily, monthly, annually	Closed	3x/day
179	03SW150204PW054	(Poblacion), San Juan, San Simon, Pampanga	03059	Pampanga	III	7776	15 - 00 - 51	120 - 46 - 37	-3.76		Apr 1946	Apr 1946-1956	1946-1956			(2-12)1951, (1-6)1952, 1957, (1-10)1958	excel	daily, monthly, annually	Closed	3x/day
180	03SW150205PW055	Bahay Pare, Candaba, Pampanga		Maasim	III	174	15 - 01 - 58	120 - 53 - 00	2.337		Apr 1956	May 1956-1992	1956-1992			(2-7)1957, (1-6)1958, (1-7)1959, (2-5)1960, (10)1960, (9)1972, (7/9)12)1974, (1-2)1975, (7-12)1978, (1-2)1979, (1-4)1986, (12)1987, (4-6)1988, (1-6)1990, (9)1991, (1-4)1992	excel	daily, monthly, annually	Closed	3x/day
181	03SW150205PW056	Diliman, San Rafael, Bulacan		Maasim	III	150	15 - 02 - 15	120 - 57 - 25	11.39		Jan 1919	Oct 1947-1956	1947-1956			(8-12)1957, (1-5)1958, (6)1969, (9-12)1975, (1-4/7-10)1976, (1-10)1977, (1-5/11)1978, (6/11-12)1979	excel	monthly, annually	Closed	3x/day
182	03SW150205PW057	Ducma, Candaba, Pampanga		Candaba Swamps	III	7454	15 - 06 - 37	120 - 51 - 00	0		Aug 1953	Oct 1953-9/1954	1953-9/1954			(3/6)1954, (3/6)10-12)1954, (1-10)1958, (11)1963, (3-5)1966	excel	monthly, annually	Closed	2x/day
183	03SW150205PW058	Garlang, San Ildefonso, Bulacan		Garlang (CR)	III	5	15 - 06 - 48	120 - 57 - 00	5.83		Aug 1955	Aug 1955-1970	1955-1970			(2-4)1956, (2-6)1957, (1-7)1958, (1-6)1959, (2-3/11-12)1960, (1-5/11-12)1961, (3-7/10)1962, (1-5/11-12)1963, (1-6)1964, (2-4/6-8)1965, (5/8-10-12)1966, (1-8/11-12)1968, (1-5)1970	excel	monthly, annually	Closed	2x/day
184	03SW150205PW059	Garalang, San Ildefonso, Bulacan		Garlang (No.1)	III	85	15 - 07 - 18	120 - 57 - 08	5.86		Mar 1955	Apr 1955	1955			(4-5)1961, (5/7/10-11)1962, (3-5/10)1963, (4)1964, (2/4-6/11)1967, (1-9/11-12)1968, (1-5)1969, (2-5)1970, (9-11)1970, (1-5)1971,	excel	monthly, annually	Closed	2x/day
185	03SW150205PW060	San Vicente, San Miguel, Bulacan		San Miguel	III	256	15 - 08 - 48	120 - 58 - 20	10.49		Jul 1955	Jul 1955-1956	1955-1956	1981-1989	1981-82/85-89	(1-10)1969, (3-5/7-10)1970, (1-7)1971, (3-5)1973, (12)1976,	excel	daily, monthly, annually	Closed	3x/day
186	03SW150210PW061	Sta. Ines, San Miguel, Bulacan		Balaang-Madlum	III	204	15 - 09 - 15	121 - 00 - 18	11.36		Dec 1955	Jan 1956-1970	1956-1970			(3-4)1973, (4-6)1974, (9-12)1975, (1-12)1976, (3/6/8-9)1979	excel	daily, monthly, annually	Closed	2x/day
187	03SW151200PW093	(San Juan) Carac, Botolan, Zambales	03064	Bucay	III	668	15 - 16 - 40	120 - 02 - 10	10.20		Oct 1955	Nov 1955-9/1990	1955-9/1990			(5)1965, (5-6)1971, (1-12)1972, (5)1973, (1-12)1974, (3/11-12)1979, (1-4)1983, (1/5/7-9)1985, (12)1987, (4-6)1988	excel	daily, monthly, annually	Operational	3x/day
188	03SW151203PW101	San Nicolas, Bamban, Tarlac		Parua	III	148	15 - 15 - 38	120 - 33 - 26	68.13		Nov 1958	Dec 1958-1/1969	1958-1/1969			(3/6-7/9)1960, (1/5/9)1961	excel	daily, monthly, annually	Closed	3x/day
189	03SW151204PW043	(San Agustin) Camba, Arayat, Pampanga	03059	Pampanga	III	6487	15 - 10 - 05	120 - 46 - 48	-3.48		Jan 1944	Jan 1946-1990	1946-1990	1991-2002	1975-1981 (6yrs)	(5/7-12)1976, (1-12)1977, (1-12)1978, (1-11)1978, (6)1979, (8)1982, (8)1960	excel	daily, monthly, annually	Closed	2x/day
190	03SW151204PW046	Banga, Arayat, Pampanga	03421	Rio Chico	III	2982	15 - 13 - 11	120 - 46 - 54	10.98/BM#1		Jun 1964	Jul 1960-1970	1960-1970			(11-12)1964, (1-3/7-8)1965, (2-12)1966, (6-12)1967, (1/8-11)1968, (1-2/5-12)1969, (1-6/10-12)1970	excel	daily, monthly, annually	Closed	3x/day
191	03SW151205PW040	San Josef, Penaranda, Nueva Ecija	03056	Penaranda (HW)	III	511	15 - 19 - 10	120 - 56 - 52	0.81		Sep 1945	Oct 1945-1956	1945-1956				excel	daily, monthly, annually	Closed	3x/day
192	03SW151210PW062	Malibay, San Miguel, Bulacan		Bulu	III	57	15 - 13 - 45	121 - 04 - 12	10.56/BM#1		Feb 1964	Mar 1964	1964			(5-7/9-12)1971, (1-7)1972, (7-12)1976	excel	daily, monthly, annually	Closed	3x/day
193	03SW151210PW103	Sibal Spring, San Miguel, Bulacan		Madlum	III	102	15 - 10 - 16	121 - 03 - 04	11.36		Aug 1955	Aug 1955-2/1969	1955-2/1969			(6)1958, (2-4)1959, (4-5)1961, (4-5)1963	excel	daily, monthly, annually	Closed	2x/day
194	03SW152201PW092	Dampay, Palauig, Zambales		Bagait	III	68	15 - 25 - 52	120 - 01 - 00	8.00/BM#1		Jul 1960	Nov 1960	1960			(5-8)1961, (8-9)1963, (10-12)1965, (7-8)1971, (7-12)1972	excel	daily, monthly, annually	Closed	2x/day
195	03SW152202PW010	Villa Aglipay, Tarlac, Tarlac		Bulsa	III	405	15 - 28 - 06	120 - 26 - 56	83.1		Jul 1960	Aug 1960	1960			(9-10)1963, (7/9-12)1973	excel	monthly, annually	Closed	2x/day
196	03SW152202PW012	Sta Lucia, Capaz, Tarlac		Bangot	III	91	15 - 23 - 15	120 - 29 - 14	12.25/BM#1		Nov 1966	Dec 1966-1999	1966-1							

Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record				File Format	Data Available	Status	Remarks	
												Published	Unpublished		Gaps					Missing Data
													Encoded	Raw Data						
219	03SW154202PW008	Poblacion, Bayambang, Pangasinan	03070	Agno	III	2284	15 - 48 - 42	120 - 27 - 27	-0.10		Jul 1908	Nov 1945-10/1956	1945-10/1956	1986-2002	1975-1986 (11yrs)	(10-12)1946, (1-7/12)1947, (1-5)1948, (1-7/12)1949, 1950, 1951, 1952, 1953, (1-5/11-12)1954, (1-5/7/9)1956, (1-5)1974, (5-6)1975, (5-6/8-12)1976	excel	daily, monthly, annually	Operational	3x/day
220	03SW154202PW009	Banaoang, Bayambang, Pangasinan		Poponot Swamps	III		15 - 44 - 52	120° - 27 - 50	-0.38		Jun 1954	Jun 1954-6/1956	1954-6/1956			(1-4/7-12)1956, (1-9)1958	excel	monthly, annually	Closed	3x/day
221	03SW154202PW022	Wawa, Bayambang, Pangasinan	03070	Agno	III	4196	15 - 45 - 50	120 - 26 - 28	-0.34		May 1954	May 1954-10/1956	1954-10/1956			(11)1954, (1)1955, (1-4/7-12)1956, (1-7)1958, (10)1962, (7-12)1967	excel	monthly, annually	Closed	3x/day
222	03SW154204PW047	Pasong Intsik, Guimba, Nueva Ecija		Benituan	III	208	15 - 40 - 08	120 - 44 - 40	22.19		Aug 1957	Sep 1957	1957			(1-4)1968, (4-5)1969, (1-10)1972, (4-8/11-12)1976	excel	daily, monthly, annually	Closed	3x/day
223	03SW154205PW044	Cabobolaonan, Talavera, Nueva Ecija		Talavera	III	431	15 - 41 - 26	120 - 58 - 10	148.6		Jan 1959	Feb 1959	1959			(1-8)1960, (11)1962, (11-12)1969, (1-9/11-12)1970, (1-5/7-12)1971, (1-12)1972-76	excel	daily, monthly, annually	Closed	3x/day
224	03SW154205PW048	(Catalanacan) Sta. Domingo, Muñoz, Nueva Ecija		Baliuag	III	313 (284)	15 - 40 - 06	120 - 51 - 08	3.00		Sep 1956	May 1957-6/1987	1957-6/1987	7/1987-2002	1977-1982 (5yrs)	(4-5/7-12)1972, (1-12)1973, (1-3)1974, (1/4-5/11-12)1976, (4-6/8/12)1977, (4/7/12)1978, (12)1979, (1-5/8-9)1985	excel	daily, monthly, annually	Operational	3x/day
225	03SW154210PW050	Pialuan, Pantabangan, Nueva Ecija	03059	Pampanga	III	838	15 - 49 - 39	121 - 06 - 51	132.9		Apr 1959	Apr 1959-1970	1959-1970				excel	monthly, annually	Closed	3x/day
226	03SW155201PW018	Banaga, Bugallion, Pangasinan	03070	Agno	III	5564	15 - 59 - 42	120 - 13 - 19	-1.22		Jan 1964	Nov 1967	1967			(9-12)1969, (11-12)1970	excel	monthly, annually	Closed	3x/day
227	03SW155201PW020	Dorongan Urbiztondo, Pangasinan	03070	Agno	III	5134	15 - 52 - 00	120 - 19 - 32	0.01		Aug 1954	May 1954-1970	1954-1970			(11)1954, (1-4/7-9/11-12)1956, (1-6/8-12)1958, (9)1963, (8)1964, (9)1966, (8-10)1967, (8-9)1968, (8)1969, (9)1970	excel	monthly, annually	Closed	3x/day
228	03SW155203PW007	Carmen, Rosales, Pangasinan	03070	Agno	III	2209	15 - 53 - 30	120 - 35 - 30	-0.27		Oct 1945	Nov 1946-1980	1946-1980			(1-12)1971, (2)1972, (9/11)1975, (4-11)1977, (1-12)1978, (1-3)1979, (7-12)1980	excel	monthly, annually	Closed	3x/day
229	03SW155210PW026	Balwarte, Carrangalan, Nueva Ecija		Carrangalan	III	258	15 - 58 - 00	121 - 03 - 14	306.43		Nov 1958	Dec 1958-1978	1958-1978			(1-12)1973, (10-12)1975, (1-12)1976, (1-6/10-12)1977, (7-12)1978	excel	monthly, annually	Closed	3x/day
230	03SW155210PW049	Lomboy, San Jose, Nueva Ecija		Talavera	III	261	15 - 51 - 30	121 - 00 - 45	148.6		Jul 1956	Aug 1956	1956			(2-12)1973, (1-6/12)1974	excel	daily, monthly, annually	Closed	3x/day
231	03SW155210PW052	Poblacion, Pantabangan, Nueva Ecija	03058	Pantabangan	III	253	15 - 51 - 31	121 - 08 - 04	148.5		Nov 1958	Dec 1958-1970	1958-1970			(4-12)1959, (1-7)1960, (8)1964, (10)1965, (10-12)1972	excel	monthly, annually	Closed	3x/day
232	03SW160195PW024	Nibaliw, Mabini, Pangasinan	03068	Balinaguang	III	145	16 - 04 - 10	199 - 56 - 20	2.96		Feb 1959	Mar 1959-1970	1959-1970			(5-7)1961, (4-6/8-9)1969, (1-12)1972, (3-8)1973	excel	monthly, annually	Closed	3x/day
233	03SW160201PW017	Baay West, Lingayen, Pangasinan	03070	Agno	III	5646	16 - 00 - 39	120 - 12 - 30	6.840/BM#1		Mar 1965	Apr 1965	1965			(7-8/12)1970	excel	monthly, annually	Closed	3x/day
234	03SW160203PW014	San Felipe, Binalonan, Pangasinan		Tagamusing	III	53	16 - 02 - 56	120 - 35 - 42	34.35/BM#1		Nov 1958	Dec 1958-2000	2001-2002			(2-12)1978, (1-5)1979, (8-12)1980, (1)1983, (9-12)1984, (1/5/8-9)1985, (9-12)1989, (1-4)1990, (6)1991, (7-8)1992, (3)1994, (6/8)1995, (4-6)1996, (1-7/11-12)1997, (1-5/11-12)1998, (1-4)2000	excel	daily, monthly, annually	Operational	3x/day
235	03SW160203PW015	Poblacion Norte Sta. Barbara, Pangasinan		Sinocalan	III	180	16 - 00 - 00	120 - 31 - 20	1.04		Nov 1958	Dec 1958	1958			(5/8/12)1977, (7-12)1978	excel	monthly, annually	Closed	3x/day
236	03SW160204PW005	San Roque, San Manuel, Pangasinan	03070	Agno	III	1225	16 - 08 - 07	120 - 41 - 45	101.4		Dec 1908	Oct 1945-1980	1945-1980			(11-12)1959, (1-2)1967, (1-12)1972, (8-12)1974, (2/5-6)1976, (1-3/7)1977, (4-12)1978, (1-5)1979, (3)1980	excel	monthly, annually	Closed	3x/day
237	03SW160204PW016	Kalpkip, San Miguel, Pangasinan		Teboy	III	74	16 - 07 - 36	120 - 40 - 00	4.680/BM#1		Apr 1964	May 1964-1973	1964-1973			(1-3)1965, (5/10)1966, (1-4)1967, (4-6)1969, (8)1972, (6/11-10)1967	excel	monthly, annually	Closed	3x/day
238	03SW161203PW013	Camp I (Dungon), Tuba, Benguet		Bued	III	141	16 - 14 - 30	120 - 31 - 06	170.4		May 1910	Jul 1946-1986	1946-1986	1987-2002	1974-1983 (9yrs)	(10)1967	excel	monthly, annually	Operational	3x/day
239	03SW162204PW003	Baloy, Itogon, Benguet		Twin	III	87	16 - 23 - 08	120 - 43 - 22	-		Jul 1967	Jul 1967	1967			(1-12)1972, (1-12)1974, (12)1975	excel	monthly, annually	Operational	2x/day
240	03SW162204PW004	Timogdan, Itogon, Benguet	03070	Agno	III	958	16 - 23 - 06	120 - 43 - 17	-		Feb 1965	Jul 1965	1965			(10)1967, (2-4)1968	excel	monthly, annually	Closed	2x/day
241	03SW163205PW002	Bokod, Benguet, Poblacion		Bokod	III	102	16 - 35 - 15	120 - 50 - 00	774.1		Aug 1949	Jan 1950-1970	1950-1970			(1-8/11-12)1959, (9-11)1963, (7)1965, (1)1968	excel	monthly, annually	Closed	3x/day
242	03SW167204PW006	Sta. Maria, San Nicolas, Pangasinan		Ambayaon	III	281	16 - 07 - 10	120 - 46 - 50	107.7		May 1958	Jun 1958	1958			(7-10)1972, (7-12)1973, (1-5)1974, (5/7)1976, (9-12)1977	excel	monthly, annually	Closed	3x/day
243	0401	San Jose, Rodriguez, Rizal	04077	Marikina	IV	-	14 - 44 - 08	121 - 07 - 45	-		1988	-	1988-2002				excel	daily, monthly, annually	Operational	3x/day
244	0402	Valenzuela City		Tullahan	IV	-	-	-	-		2002	-	2002				raw data	daily, monthly, annually	Operational	3x/day
245	0403	Priuli, Tondo, Manila		Estero de Vitas	IV	-	-	-	-		1988	-	1988-2002				raw data	daily, monthly, annually	Operational	3x/day
246	0404	Tiguan, Real, Quezon	04107	Tiguan	IV	85	14 - 34 - 00	121 - 36 - 52	-		May 1985	May 1985-10/1991	1985-10/1991	11/1991-2002		(11-12)1988, (1-3)1989	excel	daily, monthly, annually	Operational	3x/day
247	0405	Angono, Rizal	04076	Laguna Lake	IV	-	-	-	-		1988	-	1988-2002				raw data	daily, monthly, annually	Operational	3x/day
248	0406	Angono, Rizal	04076	Laguna Lake	IV	-	14 - 31 - 22	121 - 08 - 16	-		1956	1956	1956	1988-2000	1975-1988 (13yrs)		excel	daily, monthly, annually	Closed	3x/day
249	0407	Barangka Ilaya, Mandaluyong	04076	Pasig	IV	-	-	-	-		1988	-	1988-2002				raw data	daily, monthly, annually	Operational	3x/day
250	0408	Piliha, Rizal		Piliha	IV	-	14 - 29 - 47	121 - 18 - 27	-		1984	-	1985-1992	1993-2002			excel	daily, monthly, annually	Operational	3x/day
251	0409	Coralan, Sta. Maria, Laguna		Mata	IV	35	14 - 29 - 13	121 - 25 - 00	47.295/BM#1		Oct 1954	Oct 1954-1956	1954-1956				excel	daily, monthly, annually	Closed	3x/day
252	0410	Pandacan, Manila		Pandacan	IV	-	-	-	-		2002	-	2002				raw data	daily, monthly, annually	Operational	3x/day
253	0411	Bubukal, Sta. Maria, Laguna		Tongkod	IV	29	14 - 29 - 00	121 - 25 - 00	47.51/BM#1		Nov 1954	Nov 1954-1956	1954-1956				excel	daily, monthly, annually	Closed	3x/day
254	0412	Intramuros, Manila	04076	Pasig	IV	-	-	-	-		1988	-	1988-1989				excel	daily, monthly, annually	Closed	3x/day
255	0413	Bagumbayan, Bay, Laguna		Bay	IV	12	14 - 19 - 44	121 - 17 - 22	-		Dec 1954	Dec 1954-3/1955	1954-3/1955				excel	daily, monthly, annually	Closed	3x/day
256	0414	Barangka Ilaya, Mandaluyong, Manila	04076	Pasig	IV	-	-	-	-		1988	-	1988-1997	1998-2002			excel	daily, monthly, annually	Closed	3x/day
257	0415	Pagsawitan, Sta Cruz, Laguna	04080	Sta. Cruz	IV	-	14 - 16 - 04	121 - 25 - 20	-		1987	-	1987-1999				raw data	daily, monthly, annually	Operational	3x/day
258	0416	Aurora Blvd., San Juan, M. Manila	04081	San Juan	IV	-	-	-	-		1988	-	1988-1989				excel	daily, monthly, annually	Closed	3x/day
259	0417	San Cristobal, Calamba, Laguna	04082	San Cristobal	IV	106	14 - 13 - 06	121 - 09 - 19	-		Apr 1984	Apr 1984-1990	1984-1990	1991-2002		(7/9)1985	excel	daily, monthly, annually	Operational	3x/day
260	0418	Parian, Calamba, Laguna (from Calamba, Laguna)	04081	San Juan	IV	187	14 - 12 - 38	121 - 09 - 10	-		1984	1984-1999	1984-1999				excel	daily, monthly, annually	Operational	3x/day
261	0419	Looc, Cardona, Rizal		Looc Lake	IV	-	-	-	-		1984	-	1984-1986				raw data	daily, monthly, annually	Closed	3x/day
262	0420	Manlayaan, Gumaca, Quezon		Tahong	IV	8	13 - 48 - 20	122 - 05 - 12	46.94/BM#1		Oct 1954	Nov 1954-1956	1954-1956				excel	daily, monthly, annually	Closed	3x/day
263	0421	Liwayway, Mauban, Quezon		Balaybalay	IV	53	14 - 07 - 48	121 - 41 - 56	-		May 1985	May 1985-5/1990	1985-5/1990	6/1990-2002		(7-12)1986, (8)1987	excel	daily, monthly, annually	Operational	3x/day
264	0422	Batong Dalig, Gumaca, Quezon		Batong Dalig	IV	1.3	13 - 54 - 20	122 - 03 - 48	45.85/BM#1		Oct 1954	Nov 1954-1956	1954-1956				excel	daily, monthly, annually	Closed	3x/day
265	0423	Makina, Naic, Cavite		Alemang	IV	42	14 - 19 - 06	120 - 46 - 28	-		May 1985	May 1985-1999	1985-1999				excel	daily, monthly, annually	Closed	3x/day
266	0424	San Isidro, Pagsanjan, Laguna	04079	Pagsanjan	IV	247	14 - 16 - 41	121 - 27 - 25	4.980		Apr 1984	Apr 1984-1999	1984-1999			(9) 1985, (3) 1988, (11) 1997	excel	daily, monthly, annually	Closed	3x/day
267	0425	Banaybanay, San Jose, Batangas		Banaybanay Spring # 2	IV	3	13 - 55 - 10	121 - 05 - 30	-		Mar 1955	Mar 1955	1955				excel	daily, monthly, annually	Closed	3x/day
268	0426	Dumoit, Lucena City, Quezon	04091	Iyam	IV	76	13 - 56 - 52	121 - 36 - 20	-		Mar 1987	Mar 1987-1993	1987-1993	1994-2002		(4)1992, (7)1993	excel	daily, monthly, annually	Operational	3x/day



**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION**  
**RIVER GAUGING STATIONS**  
 (Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record					File Format	Data Available	Status	Remarks	
												Published	Unpublished		Gaps	Missing Data					
													Encoded	Raw Data							
297	04SW13121PW037	Bacoron, Naujan, Oriental Mindoro	04142	Mag-asawang Tubig	IV	435	13 - 14 - 15	121 - 14 - 15	23.3		Oct 1951	Nov 1951-1969	1951-1969		(1-10)1951, (7-12)1958-1959, (1-9)1960, (3-12)1969-1970	excel	daily, monthly, annually	Operational	2x/day		
298	04SW132204PW050	Tuay Abra de Ilog, Occidental Mindoro		Tuay	IV	24	13 - 24 - 27	122 - 42 - 9	9.00/BM#1		Nov 1958	Dec 1958-1969	1958-1969		(1-11)1958, (5-6)1967, (4-12)1969, (1-12)1970	excel	daily, monthly, annually	Closed	2x/day		
299	04SW132210PW060	Tampas, Boac, Marinduque	04162	Boac	IV	218	13 - 26 - 30	121 - 05 - 00	16.62/BM#1		Jun 1959	Jul 1959-3/1969	1959-3/1969		(6)1960	excel	daily, monthly, annually	Closed	2x/day		
300	04SW132215PW059	Butinsapa Mogpos, Marinduque		Mangarman	IV	39	13 - 28 - 00	121 - 55 - 00	11.57/BM#1		Jun 1959	Jul 1959-1969	1959-1969		(1-6)1959, (3-12)1969-1970	excel	daily, monthly, annually	Closed	2x/day		
301	04SW132220PW061	Malabon, Sta. Cruz, Marinduque		Malabon	IV	48	13 - 25 - 45	122 - 03 - 50	5.53/BM#1		Jun 1959	Feb 1960-2/1969	1960-2/1969			excel	daily, monthly, annually	Closed	2x/day		
302	04SW135204PW028	Sampaga, Balayan, Batangas		Dacanlaos	IV	39	13 - 56 - 24	120 - 46 - 36	3.709/BM BG-71(PC&GS)		Oct 1958	Nov 1958-10/1999	1958-10/1999	11/1999-2002	1976-1991 (15yrs)	(3-12)1964, 1965, (1-6)1966, (2)1969, (5)1971, (1-5/7/10/11)1972, (all)1973/1980, (5-9)1976, (1-6)1977, (9)1978, (6)1996, (3)1999	excel	daily, monthly, annually	Operational	3x/day	
303	04SW135205PW029	Poblacion, San Nicolas, Batangas	04086	Pansipit	IV	644	13 - 55 - 50	120 - 56 - 48	0.48		Oct 1958	Nov 1955-1998	1955-1998	1999-2002	1976-1982 (6yrs)	(12)1971, (1-8)1977, (5/7/9)1978, (10/11/12)1979, (all)1980	excel	daily, monthly, annually	Operational	2x/day	
304	04SW135212PW038	Lagaig (Lusacan), Tiaong, Quezon		Lagnas	IV	54	13 - 57 - 15	121 - 21 - 00	42.79		Jun 1952	Jul 1952-11/1999	1952-11/1999		1974-1983, 1990-1997	(7-8)1958, (5-12)1959, (2-4/7/9)1960, (3/5/6/8/10-12)1971, (all)1972-1980, (1-3/7-8/10-12)1983, (11-12)1986	excel	daily, monthly, annually	Operational	3x/day	
305	04SW135213PW035	Morong, Sariaya, Quezon		Morong	IV	12	13 - 55 - 58	121 - 33 - 18	19.52		Jan 1956	Jan 1956	1956			(3-4/6-11)1960, (1-2/11-12)1961, (1-2/4/8-9/11)1962, (8-12)1966, 1967, (4)1968, (1-11)1971, (8)1972, (6/10)1973, (9-12)1977, (all)1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
306	04SW135213PW036	Tumbaga, Sariaya, Quezon		Sariaya	IV	6	13 - 57 - 05	121 - 31 - 26	133.2		Jan 1956	Jan 1956-1994	1983-1994	1995-1999	1976-1983 (7yrs)	1962, (3/5-12)1966, 1967, (1-10)1968, 1970, (1-5/8/10/12)1971, (1-5/11)1972, (1-3/5-12)1974, (4-12)1975, (6)1976	excel	daily, monthly, annually	Operational	3x/day	
307	04SW140204PW026	Bilaran, Nasugbu, Batangas		Palico	IV	158	14 - 02 - 54	120 - 41 - 34	5.27		Jan 1956	Feb 1956-1993	1956-1993	1994-2002	1976-1985 (9yrs)	(2/5-11)1960, (12)1967, (1-2/10-11)1968, 1970, (5)1976, (1-8)1977, (4-12)1980	excel	daily, monthly, annually	Closed	2x/day	
308	04SW140204PW027	Guinhawa, Tuy, Batangas	04085	Molino	IV	51	14 - 01 - 14	120 - 43 - 14	14.06/BM#1		Dec 1955	Dec 1955-9/1985	1955-9/1985			(12)1969, 1970, (all)1971(3-8/12)1972, (6-8)1976, (1-8)1977, (4/11/12)1980, (1-2/10-12)1983, (3-7)1984, (10-12)1985	excel	daily, monthly, annually	Closed	3x/day	
309	04SW140211PW015	Mabacan, Calauan, Laguna		Mabacan	IV	46	14 - 09 - 52	121 - 17 - 29	13.5		Dec 1954	Jan 1955	1955			(5)1972, (1-10)1972, (3-11)1978, (12)1979, (1-3/12)1980	excel	daily, monthly, annually	Closed	3x/day	
310	04SW140211PW016	Mabacan, Calauan, Laguna		Papuok	IV	8	14 - 08 - 12	121 - 21 - 03	11.28		Dec 1954	Jan 1955	1955			(8-11)1959, (8-10)1960, (2-6)1962, (1/3-12)1968, (6-12)1969, 1970, (all)1971/1980, (1-10)1972, (12)1976, (1-6)1977, (5/8-12)1978, (12)1979	excel	daily, monthly, annually	Closed	3x/day	
311	04SW140212PW039	Bulakin, Tiaong, Quezon		Bulakin	IV	10	14 - 02 - 30	121 - 21 - 15	44.45		Dec 1958	Jan 1959	1959			(1/2/11)1971, (7-12)1973, (all)195-1980	excel	daily, monthly, annually	Closed	2x/day	
312	04SW140213PW032	Ayas, Tayabas, Quezon		Ibin	IV	15	14 - 01 - 42	121 - 36 - 51	117.5		Oct 1949	Jan 1956	1956			1960, 1961, 1968, (6-10)1973, (1/2)1976, (all)1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
313	04SW140213PW033	Aksam, Ayas, Tayabas, Quezon		Dumacaa	IV	54	14 - 02 - 20	121 - 37 - 30	110.4		Sep 1945	Oct 1945-1985	1945-1985			1970, (1)1973, (5/11)1976, (all)1977/1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
314	04SW140213PW034	Lakawan, Tayabas, Quezon		Dumacaa	IV	74	14 - 03 - 24	121 - 37 - 20	89.33		Sep 1945	Oct 1945	1945			1970, (12)1972, (3-12)1975, (all)1976/1977/1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
315	04SW140213PW037	Mamala, Sariaya, Quezon		Hibanga	IV	5	14 - 02 - 10	121 - 30 - 45	601.3		Jun 1956	Jul 1956	1956			(7)1960, (11-12)1969, (4)1971, (1-4/7-12)1972, (1-10)1973, (9/10)1976, (all)1977/1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
316	04SW141204PW024	Dalanga, Naic, Cavite	04401	Balsahan	IV	22	14 - 16 - 59	120 - 48 - 30	31.17		Jul 1954	Aug 1954-1985	1954-1985			1970, (2-12)1975, (1-5)1976, (all)1977/1980, (7-12)1978	excel	daily, monthly, annually	Closed	2x/day	
317	04SW141204PW025	(Mabaco) Bucal, Maragondon, Cavite	04083	Maragondon	IV	260	14 - 16 - 20	120 - 44 - 20	2.288		Oct 1945	Oct 1945-2000	1945-2000	2001-2002	1976-1983 (7yrs)	1970, (all)1977/1980, (7-12)1978, (10-12)1983, (1/8)1984, (10)1989, (7-9/11)1990, (7-8)1991, (8/10-11)1993, (7/9-10)1994, (8-11)1995, (7)1996, (8)1997, (9-10)1998, (7-8)1999, (7/9/11)2000	excel	daily, monthly, annually	Operational	3x/day	
318	04SW141210PW013	Calamias, Cabuyao, Laguna		Arangilan	IV	87	14 - 14 - 10	121 - 07 - 30	19.55		Feb 1956	Mar 1956	1956			(all)1977/1978/1979/1980, (8-11)1973	excel	daily, monthly, annually	Closed	3x/day	
319	04SW141211PW014	(Poblacion) Baybayin, Los Baños, Laguna	04076	Laguna Lake	IV	3158	14 - 10 - 54	121 - 12 - 59	-10.3		Feb 1912	Apr 1946-1999	1946-1999			(4)1985	excel	daily, monthly, annually	Operational	3x/day	
320	04SW141212PW017	Calumpang, Liliw, Laguna	04080	Sia. Cruz	IV	103	14 - 11 - 55	121 - 24 - 30	29.93		Feb 1920	Jun 1944	1944			(2-9)1945, (4-6)1959, 1970, (11/12)1974, (all)1975/1976/1977/1978/1979/1980	excel	daily, monthly, annually	Closed	3x/day	
321	04SW141212PW018	Bukal, Magdalena, Laguna		Balanac (Upper)	IV	116	14 - 12 - 24	121 - 26 - 33	19.29/ BM#4		Apr 1958	May 1958	1958			(1-11)1959, (1-2/6-8/11-12)1960, 1961, (1-6)1962, (all)1971/1972/1973, (1/2)1974, (1-3/12)1975, 1/2/6/12)1976, (1/2/6-11)1977, (5/9-12)1978, (1)1979, (1-4/12)1980	excel	daily, monthly, annually	Operational	3x/day	
322	04SW141212PW019	Bukal, Magdalena, Laguna		Balanac (Lower)	IV	-	14 - 14 - 00	121 - 26 - 15	30.97		Feb 1956	Mar 1956	1956			(2-3/5-6)1962, (9-12)1970, (all)1971/1980, (3-5/7/8)1972, (4-12)1973, (1/12)1975, (1-6/12)1976, (1/2/6-11)1977, (5/9-12)1978, (9-12)1969, 1970	excel	daily, monthly, annually	Closed	3x/day	
323	04SW141212PW020	Halang, Lumban, Laguna	04076	Laguna Lake	IV	3,158	14 - 18 - 58	121 - 27 - 50	6.55/ BM#1		Jul 1964	Aug 1964	1964			(9-12)1960, (1-10/12)1961, (1-9)1962, (3-12)1966, 1970, (1-5/12)1971, (1/12)1972, (all)1973/1974/1979/1980, (5)1976, (3-12)1978, (1-4/8-12)1983, (6)1987, (4-5)1988	excel	daily, monthly, annually	Closed	2x/day	
324	04SW141213PW031	Sampaloc Quezon	04104	Maapon	IV	75	14 - 10 - 00	121 - 38 - 20	17.28/BM#1		Dec 1958	Jan 1959-9/1989	1959-9/1989			(9-12)1960, (1-10/12)1961, (1-9)1962, (3-12)1966, 1970, (1-5/12)1971, (1/12)1972, (all)1973/1974/1979/1980, (5)1976, (3-12)1978, (1-4/8-12)1983, (6)1987, (4-5)1988	excel	daily, monthly, annually	Closed	3x/day	
325	04SW142205PW022	Aiapan II, Imus, Cavite	04403	Ilang-Ilang	IV	60	14 - 24 - 30	120 - 54 - 20	5.558/BM#1&2		Jan 1952	Jan 1952-6/1985	1952-6/1985			(5-11)1960, (6-8/12)1961, (1-4/6-10)1962, 1970, (6)1971, (12)1976, (all)1977/1980, (3/8-12)1978, (1-11)1978, (10-12)1983, (4-5/8-11)1982, (10-12)1983, (7)1985	excel	daily, monthly, annually	Closed	3x/day	
326	04SW142205PW023	Palububan, Gen Trias, Cavite		Panaysayan	IV	29	14 - 20 - 22	120 - 52 - 48	29.28		Jun 1957	Jul 1957-1993	1957-1993	1994-2002	1976-1982 (6yrs)	1966, (1-8)1967, (2)1969, 1970, (6-12)1977, (7-12)1978, (all)1980, (1-11)1982, (10-12)1983, (7)1985	excel	daily, monthly, annually	Operational	3x/day	
327	04SW142210PW012	Poblacion, Muntinlupa, MM (Rizal)	04076	Laguna Lake	IV	3,158	14 - 21 - 29	121 - 02 - 46	-10.4		Jun 1959	Jul 1959	1959			(9-10)1963, (6)1969	excel	daily, monthly, annually	Closed	3x/day	
328	04SW142212PW021	(Bagumbayan) Fani, Silinon, Laguna		Mayor	IV	45	14 - 26 - 47	121 - 27 - 12	5.17		Feb 1949	Mar 1949	1949	1986-1993	1994-2002	1977-1985 (8yrs)	(3-4)1951, (3-4/6-8)1961, (3-5)1967, (2-9/11-12)1968, (1-6/8/11)1969, (all)1972, (1/2/6)1973, (9-11)1977, (5/9-12)1978, (1-11)1979, (1-2/6-8/11-12)1960, 1961, (1-6)1962, (all)1971/1972/1973, (1/2)1974, (1-3/12)1975, 1/2/6/12)1976, (1/2/6-11)1977, (5/9-12)1978, (1)1979, (1-4/12)1980	excel	daily, monthly, annually	Operational	3x/day
329	04SW143205PW049	Near Del Pan Bridge, Manila	04076	Pasig	IV	3923	14 - 35 - 48	100 - 58 - 2	-		Mar 1961	Apr 1961-1970	1961-1970			(1-3/5-12)1961, (1-3/7-9)1962, (3)1963, (1-8/11-12)1969, (1-4/8-12)1971, (1-12)1972, (1-12)1973, (1-12)1974, (1-12)1975, (1-12)1976, (1-12)1977, (1-12)1978, (1-12)1979, (1-12)1980, (1-12)1981, (1-12)1982, (1-12)1983, (1-12)1984, (1-12)1985, (1-12)1986, (1-12)1987, (1-12)1988, (1-12)1989, (1-12)1990, (1-12)1991, (1-12)1992, (1-12)1993, (1-12)1994, (1-12)1995, (1-12)1996, (1-12)1997, (1-12)1998, (1-12)1999, (1-12)2000, (1-12)2001, (1-12)2002, (1-12)2003, (1-12)2004, (1-12)2005, (1-12)2006, (1-12)2007, (1-12)2008, (1-12)2009, (1-12)2010, (1-12)2011, (1-12)2012, (1-12)2013, (1-12)2014, (1-12)2015, (1-12)2016, (1-12)2017, (1-12)2018, (1-12)2019, (1-12)2020	excel	daily, monthly, annually	Operational	3x/day	
330	04SW143210PW001	Beata, Pandacan, Manila	04076	Pasig	IV	3923	14 - 35 - 47	121 - 00 - 37	-10.2		Jan 1945	Sep 1945	1945			(2-12)1951, (1-7)1952, (6-8)1967	excel	daily, monthly, annually	Operational	3x/day	
331	04SW143210PW002	San Jose, Makati	04076	Pasig	IV	3824	14 - 34 - 12	121 - 02 - 40	-10.4		Aug 1946	Aug 1946-1/1970	1946-1/1970			(2)1954, (2-12)1951, (1-6)1952, (8-12)1963, (1-5/8)1965, (10-12)1966, (1-8/12)1967, (1-12)1968, (1-7/9/12)1969	excel	daily, monthly, annually	Closed	3x/day	
332	04SW143210PW003	Pinoda, Pasig	04076	Pasig	IV	3821	14 - 33 - 50	121 - 03 - 39	-10.4		Aug 1946	Sep 1946-1956	1946-1956			(7-8)1967	excel	daily, monthly, annually	Closed	3x/day	
333	04SW143210PW004	Mckinley, Makati	04076	Pasig	IV	3807	14 - 33 - 51	121 - 03 - 42	-10.4		May 1959	Jun 1959	1959			(9)1965, (9-11)1967, (9-12)1970	excel	daily, monthly, annually	Closed	3x/day	
334	04SW143210PW005	Ugong Norte (Rosario), Pasig	04076	Pasig	IV	532	14 - 36 - 12	121 - 05 - 11	-10.4		Jun 1959										

Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record				File Format	Data Available	Status	Remarks	
												Published	Unpublished		Gaps					Missing Data
													Encoded	Raw Data						
365	0521	Mabini, Goa, Camarines Sur	05116	Tambang	V			98.42			1981	1981-1985	1981-1985			excel	daily, monthly, annually	Closed		
366	0522	Balocawe, Mainog, Sorsogon		Togas	V			1.614			1981	1981-1985	1981-1985			excel	daily, monthly, annually	Closed		
367	0523	Bagong, Legaspi City, Albay		Yawa	V			4.595			1981	1981-1988	1981-1988	1989-1992		excel	daily, monthly, annually	Closed		
368	05SW121232PW049	Cabitan, Mandao, Masbate		Bat-ongan	V	38	12 - 18 - 45	123 - 21 - 15	7.928/BM#1		Dec 1958	1958-1986	1958-1986	9/1986-1988	(12)1959, (8-12)1967, (1-2)1968, (1-6/10-12)1969, (12)1982, (7/11-12)1983, (6-7/10/12)1984, (4/7-12)1985, (1-6)1986	excel	daily, monthly, annually	Closed	3x/day	
369	05SW121234PW051	Quezon, Uson, Masbate		Pinangapugan	V	45	12 - 11 - 26	123 - 48 - 16	50.70		Jul 1951	1951-9/1986	1951-9/1986	10/1986-1987	(10)1967, (2)1968, (6)1969, (12)1970, (3-7/11-12)1983, (8/11)1984, (9-11)1985, (1/6-8)1986	excel	daily, monthly, annually	Closed	3x/day	
370	05SW122233PW050	Umabay, Mobo, Masbate		Sagawsawan	V	8	12 - 21 - 22	123 - 37 - 48	15.84/BM#1		Dec 1958	1959	1959		(5-11)1968, (1-2/4-5)1969, (7-12)1970, (4)1971, (2)1972, (1-5)1973, (all)1975-1980	excel	daily, monthly, annually	Closed	3x/day	
371	05SW124235PW039	Jamrawon, Bulan, Sorsogon		San Francisco	V	36	12 - 44 - 15	123 - 55 - 50	17.22/BM#3		Aug 1953	1953-9/1990	1953-9/1990		(5-12)1972, (all)1973/1974/1976-1980, (12/4/9-12)	excel	daily, monthly, annually	Closed	3x/day	
372	05SW124235PW039	San Francisco, Bulan, Sorsogon		San Francisco	V	36	12 - 44 - 15	123 - 55 - 50	23.43		Aug 1953	1953-1990	1953-1990	1991-2002	(10-12)1958, (2-6)1962, (1)1969, (8)1970, (7-12)1982, (2-3/12)1984, (9/11)1984, (1-6)1988, (10-12)1990	excel	daily, monthly, annually	Operational	3x/day	
373	05SW124235PW040	San Ramon, Bulan, Sorsogon		San Ramon	V	69	12 - 40 - 00	123 - 55 - 45	7.44/BM#1		Jun 1952	1952-1970	1952-1970		(9)1969, (4-6/10/12)1970	excel	daily, monthly, annually	Closed	2x/day	
374	05SW125234PW034	Cumadcad, Castilla, Sorsogon		Cumadcad	V	13	12 - 58 - 53	123 - 46 - 51	53.07		Aug 1957	1957-1989	1981-1989		(12)1969, (1)1970, (2-12)1972, (1-3)1973, (11/12)1974, (7-12)1975, (5-12)1976, (1-4/7-11)1977, (8-12)1978, (all) 1979/1980, (1-6)1988, (6)1989	excel	daily, monthly, annually	Operational	3x/day	
375	05SW125235PW037	Basud, Sorsogon, Sorsogon		Cawayan	V	15	12 - 59 - 20	123 - 57 - 00	40.50		Nov 1954	1954-1982	1954-1982		(11)1959, (7)1962, (9)1968, (1-2/8)1970, (10)1971, (3/4/7)1973, (1-4/9/10)1975, (10-12)1976, (all)1977/1978/1979, (1-6)1980	excel	daily, monthly, annually	Closed	3x/day	
376	05SW125240PW038	Sta. Cruz, Casiguran, Sorsogon		Nanuat	V	10	12 - 53 - 45	123 - 57 - 00	96.45		Nov 1954	1954-1956	1954-1956		(10-12)1956, (4)1967, (9-10)1968, (9)1970, (2/4/5/12)1972, (2)1973, (2/11/12)1974, (1/5/10)1975, (10-12)1976, (1-9)1977, (6-8)1960	excel	daily, monthly, annually	Closed	3x/day	
377	05SW12534PW035	Cumadcad, Castilla, Sorsogon	05130	Malhog	V	8	12 - 58 - 25	123 - 47 - 40	48.85		Mar 1955	1955-1968	1955-1968		(3/8)1958, (6-12)1960, (2)1962, (2/11-12)1968, (1/1-12)1969, (1/2-3/8-10/12)1970	excel	daily, monthly, annually	Closed	2x/day	
378	05SW12535PW036	San Isidro, Castilla, Sorsogon		Pili	V	18	12 - 58 - 50	123 - 51 - 00	79.08		Dec 1953	1953-12/1970	1953-12/1970		(1-3/5-9)1965, 1968, (1/3-12)1969, (1/5/9)1970, (all)1971/1972/1973/1979/1980, (1-9)1974, (9/10)1975, (11-12)1976, (7-9/11/12)1978	excel	daily, monthly, annually	Closed	2x/day	
379	05SW131232PW023	San Agustin, Libon, Albay		San Agustin	V	262	13 - 19 - 30	123 - 25 - 52	0.09		Nov 1959	1959-1990	1959-1990	1991-1998	(8-9)1970, (9-11)1973, (11)1974, (3/12)1975, (1)1976, (2/3)1977, (7-12)1978, (all) 1979/1980	excel	daily, monthly, annually	Closed	3x/day	
380	05SW131232PW024	Obaliv-Rinas, Oas, Albay		Irraya	VRR	217	13 - 15 - 26	123 - 29 - 55	-0.65		Nov 1959	1959	1959		(5)1970, (3-12)1971, (all)1972, (1-5)1973, (9-12)1975, (1-3/9-12)1976, (7-9/11/12)1978, (all)1979, (1-6)1980	excel	daily, monthly, annually	Closed	3x/day	
381	05SW131232PW025	Busac, Oas, Albay	05118	Quinali	V	232	13 - 15 - 28	123 - 28 - 46	26.19		Mar 1954	1955-1999	1955-1999		(8)1970, (8)1971, (5/6)1974, (10-12)1975, (7-9/12)1978, (all) 1979/1980	excel	daily, monthly, annually	Closed	3x/day	
382	05SW131232PW026	Nasisi, Ligao, Albay		Nasisi	V	39	13 - 15 - 30	123 - 35 - 30	99.75		Nov 1951	1951-1985	1951-1985		(4/5)1968, (8-12)1970, (all)1971/1972/1973/1979/1980, (1-6)1974, (7-9/12)1978	excel	daily, monthly, annually	Operational	3x/day	
383	05SW131232PW030	Alliang, Ligao, Albay		Talisay	V	90	13 - 11 - 24	123 - 27 - 15	52.97		Jun 1964	1963-1990	1963-1990	1991-2002	(1)1966, (12)1969, (1-3/6-9/12)1970, (8)1971, (11)1972, (8-12)1973, (1/6)1974, (1/2/4/9/10)1975, (9)1976, (7-9)1978, (all) (4-5)1960, (4)1964, (3)1967, (12)1974, (1-3)1975, (all) (1-12)1967, (1-4/8-10)1968, (10-11)1969, (4-5/7/9/11-12)1970, (1/5/6/8)1971, (7/9/10/12)1972, (1)1973, (1-5)1974, (1/2/4)1975, (9)1976, (7-9)1978, (all) 1979/1980	excel	daily, monthly, annually	Operational	3x/day	
384	05SW131233PW027	Bobonsuran, Ligao, Albay		San Francisco	V	131	13 - 14 - 00	123 - 31 - 34	-35.4		Apr 1956	1956	1956		(10)1967, (9-10)1970, (5/8)1971, (1/3/4/6)1974, (10-12)1976, (11)1977, (1-5/7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
385	05SW131233PW028	Binanowan, Ligao, Albay		Ugsong	V	11	13 - 14 - 05	123 - 35 - 40	49.64		Mar 1954	1955	1955		(4-5)1960, (4)1964, (3)1967, (12)1974, (1-3)1975, (all) (1-12)1967, (1-4/8-10)1968, (10-11)1969, (4-5/7/9/11-12)1970, (1/5/6/8)1971, (7/9/10/12)1972, (1)1973, (1-5)1974, (1/2/4)1975, (9)1976, (7-9)1978, (all) 1979/1980	excel	daily, monthly, annually	Closed	3x/day	
386	05SW131233PW029	Bobonsuran, Ligao, Albay		Cabilogan	V	164	13 - 14 - 08	123 - 31 - 12	35.62		Apr 1956	1956-1989	1956-1989	1990-2002	(7-9)1970, (all)1971/1972/1973, (1-8)1974, (12)1975, (9-12)1976, (7-9)1978	excel	daily, monthly, annually	Operational	3x/day	
387	05SW132231PW014	Ombao, Bula, Camarines Sur	05114	Bicol	V	1,630	13 - 28 - 25	123 - 14 - 30	1.050		Nov 1959	1963	1963		(1)1970, (2/11)1971, (1)1972, (11/12)1973, (6-10)1974, (9-11)1975, (10-12)1976, (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
388	05SW132231PW015	San Roque, Bula, Camarines Sur		Pawili	V	240	13 - 28 - 15	123 - 16 - 40	0.24		Nov 1950	1963-1985	1963-1985		(9/10)1971, (3/4)1972, (3-6)1973, (4/9/10/12)1975, (1)1976, (7-10)1972, (1-10)1953, (3-5)1967, (5-12)1969, (3/8-12)1970, (4-6)1971, (12)1974, (1-5)1975, (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
389	05SW132231PW020	Sio Domingo, Nabua, Camarines Sur	05114	Bicol	V	1020	13 - 24 - 18	123 - 19 - 28	-0.04		Oct 1910	1960-1989	1960-1989	1990-1998	(10-12)1952, (1-10)1953, (3-5)1967, (5-12)1969, (3/8-12)1970, (4-6)1971, (12)1974, (1-5)1975, (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
390	05SW132232PW018	Sio. Niño, Iriga City, Camarines		Barit	V	142	13 - 24 - 09	123 - 24 - 42	15.06		Dec 1951	1962	1962		(1-5)1960, 1965, (1-3/5/7-12)1966, 1968, (1/5/6/10-12)1976, (7-9/11/12)1978, (4/7)1984, (10-12)1986, (1-6)1988, (12)1990, (1-5)1991, (12)1994, (9)1996	excel	daily, monthly, annually	Closed	3x/day	
391	05SW132232PW021	Poblacion Bato, Camarines Sur	05137	Lake Bato	V	874	13 - 21 - 08	123 - 22 - 00	-0.01		Nov 1959	1962	1962		(10-12)1970, (1-3)1971, (1/2)1975	excel	daily, monthly, annually	Closed	3x/day	
392	05SW132232PW022	Agus, Polangui, Albay		Agus	V	110	13 - 20 - 22	123 - 24 - 00	5.040		Oct 1954	1983-1999	1983-1999	2000-2002	(4/8)1962, (3-5)1965, (2-12)1967, 1968, 1969	excel	daily, monthly, annually	Closed	3x/day	
393	05SW132233PW019	Antipolo, Bubi, Camarines Sur		Lallo	V	22	13 - 22 - 46	123 - 32 - 16	14.24		Oct 1964	1964-1990	1964-1990	1991-2002	(8-12)1956-1968/1970, (1/8-12)1969, (all)1971/1972/1973/1974/ (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
394	05SW132320PW011	Mabolo, Naga City, Camarines Sur	05114	Bicol	V	1,930	13 - 37 - 0	123 - 10 - 50	-0.99		Nov 1959	1959-1988	1959-1988		(10)1967, (9-10)1970, (5/8)1971, (1/3/4/6)1974, (10-12)1976, (11)1977, (1-5/7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
395	05SW132321PW012	San Isidro, Naga City, Camarines Sur		Yabo	V	20	13 - 37 - 25	123 - 14 - 45	10.00		Oct 1954	1954-1984	1954-1984		(4-12)1974, (all)1975, (1-6/10-12)1976, (7-10)1978	excel	daily, monthly, annually	Closed	3x/day	
396	05SW132321PW013	Baliwag Nueva, Minalabac, Camarines Sur	05114	Bicol	V	1,720	13 - 31 - 15	123 - 12 - 00	0.017		Nov 1959	1963	1963		(2-3/5-6)1952, (7-12)1967, (7-8)1970, (1-4/10)1975, (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
397	05SW132321PW016	San Roque, Pili, Camarines Sur		Anayan	V	17	13 - 32 - 14	123 - 15 - 54	20.37		Jul 1954	1954	1954		(9-11)1964, (2-6/11)1968, (1-2/5-11)1969, (1-2/5)197, (6)1971, (7)1973, (8/11)1974, (1-4/9/10)1975, (5/6/9-12)1976, (1-4/12)1977, (all)1978-1980	excel	daily, monthly, annually	Closed	3x/day	
398	05SW132322PW017	San Vicente, Ocampo, Camarines Sur		Pawili	V	112	13 - 32 - 36	123 - 22 - 40	-24.9		Jan 1952	1952-1985	1952-1985	1986-2002	(6)1958, (4)1963, (7/10)1968, (3-4/7)1969, (4-12)1973, (6)1974, (7-12)1975, (all)1976-1980	excel	daily, monthly, annually	Closed	3x/day	
399	05SW133240PW044	Alibug (Colobon), San Andres, Catanduanes		Alibug	V	11	13 - 36 - 18	124 - 05 - 10	48.86/BM#1		May 1954	1954-1956	1954-1956		(9)1967, (7)1973, (7/12)1974, (9/10)1975, (6/10-12)1976, (1-4/6/11)1977, (8-12)1978, (all)1979/1980	excel	daily, monthly, annually	Closed	3x/day	
400	05SW133240PW045	Timbaan, San Andres, Catanduanes		Patorok	V	10	13 - 36 - 20	124 - 06 - 25	18.71/BM#1		May 1954	1954-1956	1954-1956		(10-12)1966, (5)1968, (4)1971, (12)1972, (1-5)1973, (5)1974, (3/4/9/10)1975, (1/10-12)1976, (1-11)1977, (7-12)1978, (all)1979/1980, (1-7)1982, (10-11)1985, (10-12)1986, (1-6)1988, (8-12)1990	excel	daily, monthly, annually	Operational	3x/day	
401	05SW133241PW047	San Vicente, Virac, Catanduanes		Sebanjan	V	4	13 - 35 - 50	124 - 14 - 20	22.42/BM#1		Apr 1954	1954-1956	1954-1956		(all)1972/1973/1974, (1-4/9-12)1975, (1/9-12)1976, (7)1977, (7-9)1978, (1-7)1980, (10-11)1981, (6)1982, (4-5/11)1983, (6)1984, (1-3/7/9-12)1985, (5/10-12)1986, (1-6/10-12)1988, (7-8/12)1989	excel	daily, monthly, annually	Closed	3x/day	
402	05SW133241PW048	Libjo, Bato, Catanduanes		Libjo Creek	V	4	13 - 37 - 20	124 - 18 - 47	7.244/BM #1		May 1954	1959-7/1990	1959-7/1990	8/1990-2002	(5-5)1965, (7)1967, (4/12)1969, (1-2)1970, (1-7)1972, (11/12)1974, (1/2)1975, (5)1976, (7-9)1978	excel	daily, monthly, annually	Operational	3x/day	
403	05SW134225PW005	Yabo, Sipocot, Camarines Sur		Yabo	V	82	13 - 47 - 54	122 - 56 - 54	5.76		Feb 1964	1980-1990	1980-1990		(1)1966, (1/5-11)1967, (6/8/10/12)1970, (1-3/6/7)1971, (all)1972/1979/1980, (11)1974, (1-10)1975, (7-9)1978	excel	daily, monthly, annually	Closed	3x/day	
404	05SW134225PW006	Del Rosario, Lupi, Camarines Sur		Culacing	V	64	13 -													

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RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)**

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished Encoded	Unpublished Raw Data	Gaps	Missing Data				
416	05SW140225PW003	Alawihao, Daet, Camarines Norte	05111	Daet	V	80	14 - 05 - 43	122 - 54 - 18	7.74		Apr 1954	Jan 1955-1970	1955-1970			(1)1969	excel	daily, monthly, annually	Closed	2x/day
417	05SW140240PW041	(Butong) San Rafael, Pandan, Catanduanes		Mambang	V	400	14 - 00 - 45	124 - 09 - 09	8.826/BRBDP		Aug 1954	Sep 1954-9/1985	1954-9/1985	10/1985-1986		(2)1963, (7-8)1970, (all)1971/1977/1980, (12)1972, (2/11)1973, (8)1974, (3/4/8-10)1975, (10-12)1976, (1-10)1977, (8-12)1978, (1-7)1982	excel	daily, monthly, annually	Closed	3x/day
418	05SW140255PW001	Matogdon, Labo, Camarines Norte		Matogdon	V	25	14 - 07 - 43	122 - 49 - 45	9.160		Jan 1950	Feb 1950-1986	1950-1987			(1-9/12)1951, (10-12)1952, (1-8)1953, (1/12)1969, 1970, (10-12)1973, (1-4/9-12)1974, (1/6-12)1975, (1-10)1976, (10-12)1977, (9-12)1978, (all)1979/1980, (12) 1983, (2,5) 1985, (10-12) 1986	excel	daily, monthly, annually	Closed	3x/day
419	0601	Badyangan, Banga, Aklan	06195	Aklan	VI				21.26/BM PCGS		1984	1984-1986	1984-1986				excel	daily, monthly, annually	Closed	
420	0602	Bito-on, Ilaya, Cagaitero, Capiz		Badbaran	VI				13.96		1985	1985-1990	1985-1990				excel	daily, monthly, annually	Closed	
421	0603	Dumarao, Capiz		Badbaran	VI				23.38		1984	1984-1985	1984-1985				excel	daily, monthly, annually	Closed	
422	0604	Beri, Barbosa, Antique	06218	Dalanas	VI	181	11 - 14 - 56	122 - 03 - 23	4.233/BM#1&2		Dec 1986	Dec 1986-1989	1986-1989				excel	daily, monthly, annually	Closed	3x/day
423	0605	Tongo, Himansayan, Negros Occ.		Pangipian	VI	73	10 - 08 - 02	122 - 56 - 53	110.02/BM#1		Apr 1949	May 1949-8/1952	1949-8/1952				excel	daily, monthly, annually	Closed	3x/day
424	0606	Fabrica, Sugay, Negros Occ.	06223	Himegaan	VI	383	10 - 53 - 30	123 - 21 - 58	-2.31		Mar 1987	Mar 1987-3/1990	1987-3/1990				excel	daily, monthly, annually	Closed	3x/day
425	0607	Panitan, Capiz	06197	Panay	VI	1611	11 - 23 - 36	123 - 46 - 17	12.22		Jan 1984	Jan 1984-1989	1984-1989			(11-12)1984, (1-4/12)1985, (1-8) 1986, (5) 1987, (9/11) 1988, (8-10) 1989	excel	daily, monthly, annually	Closed	3x/day
426	0608	Central, Manapia, Negros Occ.	06221	Sicaba	VI				2.466/BM#1		1985	1985-1989	1985-1989				excel	daily, monthly, annually	Closed	
427	0609	Amirang, Cabatuan, Iloilo		Tigum	VI				50.77		1985	1985-1989	1985-1988				excel	daily, monthly, annually	Closed	
428	0610	Quianan, San Joaquin, Iloilo		Tiolas	VI	48	10 - 34 - 10	122 - 03 - 11	90.38/BM #1		Sep 1985	Sep 1985-9/1988	1985-9/1988	10/1988-1989		(2-5) 1986	excel	daily, monthly, annually	Closed	3x/day
429	0611	Had. Bayabas, Cadiz City		Troso	VI				-1.01		1986	1986-1991	1992-1998				excel	daily, monthly, annually	Closed	
430	0612	Buiwang, Numancia, Aklan	06195	Aklan	VI		11 - 42 - 54	122 - 21 - 44	0.175/BM#1		1986	1986-1993	1994-1998				excel	daily, monthly, annually	Operational	3x/day
431	0613	Poblacion, Sigma, Capiz	06198	Mambusao	VI	325	11 - 25 - 23	122 - 39 - 19	5.720/BM#1		Jul 1985	Jul 1985-1993	1994-1998		(4) 1986, (1-4) 1993		excel	daily, monthly, annually	Operational	3x/day
432	0614	Poblacion, Maayon, Capiz		Maayon	VI	241	11 - 23 - 24	122 - 46 - 39	0.942/BM#1		Mar 1987	Mar 1987-1992	1993-1999				excel	daily, monthly, annually	Operational	3x/day
433	0615	Tacas, Quatero, Capiz	06199	Panay	VI		11 - 20 - 52	122 - 39 - 56	5.992/BM#1		1984	1984-1998	1999-2000				excel	daily, monthly, annually	Operational	3x/day
434	0616	San Roque, Dumalag, Capiz	06199	Panay	VI		11 - 18 - 45	122 - 37 - 07	18.27/BM PCGS		1984	1984-1998	1999-1998				excel	daily, monthly, annually	Operational	3x/day
435	0617	Dalipo, Laua-an, Antique	06217	Cairawan	VI	73	11 - 07 - 08	122 - 02 - 20	3.228/BM#1		Nov 1986	Nov 1986-1991	1992-1998				excel	daily, monthly, annually	Operational	3x/day
436	0618	Lugta, Lawaan, Antique		Palian	VI		11 - 04 - 44	122 - 03 - 14	3.692/BM#1		1985	1985-1988	1989-1998				excel	daily, monthly, annually	Operational	3x/day
437	0619	Pajo, Lambuan, Iloilo		Ulian	VI	115	11 - 04 - 38	122 - 28 - 06	112.3/BM#1		Dec 1986	Dec 1986-1991	1992-1998			(6-7/10)1989, (4-6/8-9)1990	excel	daily, monthly, annually	Closed	3x/day
438	0620	Kabalabagan, Mira, Iloilo		Suague	VI		10 - 56 - 08	122 - 34 - 42	30.55/BM#1		1985	1985-1998	1999-2000				excel	daily, monthly, annually	Operational	3x/day
439	0621	Calyan, Pototan, Iloilo	06208	Jalaur	VI	1499	10 - 55 - 36	122 - 40 - 07	9.067		1984	1984-2000					excel	daily, monthly, annually	Operational	3x/day
440	0622	Poblacion, Patnongan, Antique	06214	Ipayo	VI		10 - 55 - 05	121 - 59 - 46	7.137/BM#1		1986	1986-1991	1992-1998				excel	daily, monthly, annually	Operational	3x/day
441	0623	Hacienda Mercedes, Pasil, E. B. Magalona, Negros Occiden	06220	Malogo	VI	161	10 - 53 - 44	123 - 02 - 14	0.898/BM#1		Oct 1986	Oct 1986-1990	1991-1991				excel	daily, monthly, annually	Operational	3x/day
442	0624	Sitio Lugasay, Silay City, Negros Occidental		Malibog	VI		10 - 49 - 50	123 - 00 - 19	-		1986	1986-1991	1992-1998				excel	daily, monthly, annually	Operational	3x/day
443	0625	Anonang, Leon, Iloilo	06213	Sibalom	VI	106	10 - 46 - 28	122 - 23 - 39	43.08/BM#2		1985	1985-1998	1999-1998				excel	daily, monthly, annually	Operational	3x/day
444	0626	San Miguel, Murcia, Negros Occidental	06239	Bago	VI		10 - 33 - 22	123 - 04 - 40	91.88/BM#1		1982	1982-1988	1989-1998				excel	daily, monthly, annually	Operational	3x/day
445	0627	Hilamonan, Kabankalan, Negros Occidental	06236	Hilabangan	VI		09 - 58 - 08	122 - 50 - 08	3.054		1954	1954-1992	1993-1998	1978-1987 (9yrs)			excel	daily, monthly, annually	Operational	3x/day
446	0628	Hacienda Conchita, Negros Occidental	06238	Binalbagan	VI	995	10 - 51 - 45	122 - 12 - 52	0.833/BM #1		Feb 1987	Feb 1987-1989	1990-1998				excel	daily, monthly, annually	Closed	3x/day
447	0629	Zarragoza, Bugason, Antique	06215	Cangaranan	VI	297	11 - 00 - 46	122 - 02 - 56	4.911		Jul 1986	Jul 1986-1989	1990-1998			(9)1986, (10-12) 1988, (1-3/5) 1989	excel	daily, monthly, annually	Closed	3x/day
448	0630	Tinocuan, Duenas, Iloilo		Ulian	VI	309	11 - 03 - 18	123 - 37 - 00	30.65/BM#1		Jan 1985	Jan 1985-1988	1989-1989			(3) 1986	excel	daily, monthly, annually	Closed	3x/day
449	06SW094225PW038	Inapoy, Kabankalan, Negros Occidental	06235	Ilog	VI	1,245	09 - 49 - 42	122 - 52 - 20	75.15/BM#1		Feb 1965	Mar 1965	1965			(7-8)1965, (7-9/11)1967, 1970, (all)1971, (1-7/9)1972, (2/10/11)1973, (1/6/7/10)1974, (5/6/8/9)1976, (7)1977, (10-12)1978, (7)1979, (4-12)1980	excel	daily, monthly, annually	Operational	3x/day
450	06SW095224PW030	Hda. Bearin, Kabankalan, Negros Occidental	06235	Ilog	VI	1,995	09 - 59 - 40	122 - 47 - 40	-1.16		Jan 1964	Jan 1964	1964			(1-4/6/11)1964, (3/6-12)1965, 1966, (1-8/12)1967, (1/5-6/9/12)1968, (1-2/8/11)1969, 1970	excel	daily, monthly, annually	Closed	3x/day
451	06SW095224PW031	Camugao, Kabankalan, Negros Occidental	06235	Ilog	VI	1,959	09 - 59 - 15	122 - 48 - 30	-		Nov 1954	Jan 1954-1964	1954-1964			(5-8)1955, (2/5)1956, (1-10)1970, (all)1971/1980, (1/11)1972, (7-12)1973, (all)1974, (1-5/7/8)1975, (5/7/8)1976, (7/9)1977, (9-11)1978, (6-12)1979	excel	daily, monthly, annually	Closed	3x/day
452	06SW095224PW032	San Juan, Kabankalan, Negros Occidental	06235	Ilog	VI	1,947	09 - 58 - 00	122 - 48 - 15	-		Nov 1954	Jan 1964	1964			(3)1966, (1-8)1970, (8-12)1972, (all)1973/1975/1980, (1-7/10-12)1974, (1/5-9)1976, (7-10)1977, (2/5/6)1978, (8-12)1979	excel	daily, monthly, annually	Closed	3x/day
453	06SW095224PW033	Hda Calasa, Kabankalan, Negros Occidental	06235	Ilog	VI	1,493	09 - 57 - 15	122 - 48 - 50	2.723		Dec 1955	Jan 1957	1957			(9/12)1960, (11-12)1961, (7-12)1962, (1-6/12)1963, (4/6-12)1964, (1-4)1965, (12)1966/67, 1970	excel	daily, monthly, annually	Closed	3x/day
454	06SW095225PW034	Pangsud, Kabankalan, Negros Occidental	06236	Hilabangan	VI	431	09 - 58 - 06	122 - 50 - 10	11.00		Dec 1954	Jan 1954-1956	1954-1956			1957-1958, (1-11)1959, 1960-1961, 1968-70, (all)1971/1972, (1-10)1973, (1-9)1974, (9)1976, (10)1978, (6-12)1980	excel	daily, monthly, annually	Operational	3x/day
455	06SW095225PW035	Tagbac, Kabankalan, Negros Occidental	06236	Hilabangan	VI	392	09 - 56 - 58	122 - 56 - 12	-		Nov 1955	Jan 1962	1962			(5-12)1964, (1-11)1965, (2-4/8/10-11)1966, (6-12)1967, (1)1968, (6/7)1974, (12)1976, (1)1977, (9)1978, (2-12)1980	excel	daily, monthly, annually	Operational	3x/day
456	06SW095225PW036	Orong, Kabankalan, Negros Occidental	06235	Ilog	VI	1,453	09 - 55 - 30	122 - 50 - 20	4.286		Feb 1956	Feb 1956	1956			(10-12)1974, (1-5)1975, (10-12)1979, (all)1980	excel	daily, monthly, annually	Closed	3x/day
457	06SW095225PW037	Dahile, Kabankalan, Negros Occidental	06235	Ilog	VI	1,390	09 - 53 - 20	122 - 50 - 40	7.688		Jan 1955	Jan 1962	1962			(11-12)1966, (10-12)1968, (10)1971, (11)1973, (7)1974, (6/12)1976, (2-4/9/10)1977, (10-12)1978, (all)1979, 1980	excel	daily, monthly, annually	Closed	3x/day
458	06SW100224PW027	Torrel Bocana, Ilog, Negros Occidental	06235	Ilog	VI	2,059	10 - 01 - 20	122 - 44 - 00	0.433		Jul 1957	Jan 1957	1957			(7-12)1957, (5-6/8-9)1958, (1/5-7/9-10)1959, (1-8)1960, (1/3-12)1961, (1-2/4/6-12)1962, (1-8/10-12)1963, (1)1964, (12)1966, (12)1969	excel	daily, monthly, annually	Operational	3x/day
459	06SW100224PW028	Ilog Proper, Ilog, Negros Occidental	06235	Ilog	VI	2,010	10 - 01 - 30	122 - 45 - 14	-		Nov 1954	Nov 1954-1956	1954-1956			(1/5-8/12)1955, (2)1956, 1957-1961, (9-12)1962, (1-3/6-7/10)1963, (7-9)1964, (3/5-10)1965, (1-3/7-12)1966, (1-3/6-7/11-12)1967, 1969	excel	daily, monthly, annually	Closed	3x/day
460	06SW100224PW029	Talabang, Kabankalan, Negros Occidental	06235	Ilog	VI	2,009	10 - 00 - 37	122 - 48 - 00	-2.72		Nov 1954	Nov 1954-1999	1954-1999			(5-8/12)1955, (2)1956, (4)1959, (9)1960, (11-12)1963, (12)1967, (1-6/8-12)1968, (1-11)1969, 1970	excel	daily, monthly, annually	Operational	3x/day
461	06SW101230PW024	Cadre, Moises, Padilla, Negros	06238	Binalbagan	VI	350	10 - 15 - 36	123 - 05 - 05	100.0/BM#1		Feb 1959	Mar 1959	1959			(10)1960, (6-12)1972, (1-5)1973, (7)1974, (1/7/8/10)1975, (3)1977, (10/11)1979	excel	daily, monthly, annually	Operational	3x/day
462	06SW102230PW025	Cabacungan, La Castellana		Piguan	VI	12	10 - 21 - 15	123 - 08 - 15	97.61/BM#1		Sep 1965	Sep 1965	1965			(6/9)1966, (10)1967, (4/11-12)1968, (1-3/11-12)1969, (1-2/4-7/10-12)1970, (1-3)1971, (all)1972/1980, (11/12)1974, (1)1975, (2/8/9)1976	excel	daily, monthly, annually	Closed	3x/day
463																				

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)**

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record				File Format	Data Available	Status	Remarks	
												Published	Unpublished Encoded	Raw Data	Gaps					Missing Data
476	06SW110223PW017	Poblacion, Passi, Iloilo	06208	Jalaur	VI	534	11 - 06 - 08	122 - 38 - 27	30.81/BM#1		Nov 1956	Dec 1956-2000	1956-2000		(11)1957, (9)1959, (1/5-6)1966, 1970	excel	daily, monthly, annually	Operational	3x/day	
477	06SW110223PW018	Simsiman, Catinog, Iloilo	06208	Jalaur	VI	169	11 - 07 - 18	122 - 32 - 14	55.99		Nov 1956	Dec 1956-1998	1956-1998		(3-7)1969, (12)1972, (1)1975, (8-12)1976, (1/2)1977, (5/12)1978, (5/12)1979, (all)1980	excel	daily, monthly, annually	Operational	3x/day	
478	06SW110224PW008	Rizal, Barotac, Viejo, Iloilo	06203	Barotac	VI	90	11 - 06 - 00	122 - 49 - 39	12.1/BM#2		Jul 1956	Jul 1956	1956		1957-1959, (1/9-10)1960, (9-10)1960, (1-4)1961, (8-12)1966, (11-12)1968, (1/10-12)1969, (6/9-12)1971, (1/2/9/10)1972, (7)1974, (1/9/12)1975, (1-5/8-11)1976, (5-12)1977, (all) 1978-1980	excel	daily, monthly, annually	Closed	3x/day	
479	06SW110227PW019	Alibunan, Catinog, Iloilo	06208	Jalaur	VI	120	11 - 09 - 43	122 - 27 - 24	94.91/ASB Datum		Feb 1956	Feb 1956-9/1970	1956-9/1970			excel	daily, monthly, annually	Closed	2x/day	
480	06SW111223PW006	Sta. Rita, Cuartero, Capiz	06197	Panay	VI	880	11 - 17 - 13	122 - 35 - 00	6.627/BM#1		Feb 1956	Mar 1956	1956		(2-3/6-10)1964, (9-12)1968, (1)1969, 1970, (all)1971/1972/1980, (1-6)1973, (7)1974, (7)1976, (7)1978, (4/12)1979	excel	daily, monthly, annually	Closed	3x/day	
481	06SW112220PW003	Valderama, Culasi, Antique		Bacong	VI	54	11 - 24 - 45	122 - 05 - 30	0.60/BM#1		Dec 1958	Jan 1959	1959		(3-12)1962, (2-12)1966, (all)1971, (1/2/5)1972, (6/7)1974, (1/9)1975, (3)1978, (7)1980	excel	daily, monthly, annually	Operational	3x/day	
482	06SW112223PW005	Tumalud, Mambusao, Capiz	06198	Mambusao	VI	307	11 - 25 - 55	122 - 34 - 03	10.85		Jun 1950	Jun 1950	1950		(3-4/9-12)1953, (1-2)1954, (11)1958, (9-10)1959, (8-12)1961, 1962, (1-6/9)1963, (11-12)1965, (10-12)1970, (2-4)1971, (1/10-12)1972, (1/2/5/8/10/11)1973, (6-11)1974, (all)1975, (1-8/11/12)1976, (3/6-12)1978, (8-12)1979, (all)1980	excel	daily, monthly, annually	Operational	3x/day	
483	06SW112224PW004	Palaguan, Ma-ayon, Capiz		Maayon	VI	265	11 - 24 - 15	122 - 46 - 00	0.20		Jul 1954	Jan 1956	1956		(1-9/12)1960, (1-6/8-11)1961, (5-9)1966, (1)1967, (11-12)1968, (12)1969, (6/10-12)1970, (2/3/6/7/9-12)1971, (all)1972, (7-12)1973, (1-3/6/7/9-12)1974, (1/2/4/7-10/12)1975, (1/5-9/11/12)1976, (1-3/6/7/9/12)1977, (6/7/9-12)1978, (6-8/11/12)1979, (1/2/6/7/10/12)1980	excel	daily, monthly, annually	Operational	3x/day	
484	06SW112230PW020	Sta. Ana, Battad, Iloilo		Sibajao	VI	12	11 - 25 - 46	123 - 05 - 45	10.88		Nov 1958	Jan 1959	1959		(5-6)1959, (4-5/11-12)1966, (4-6/9/11-12)1967, (1/4-5)1969, (1-3)1970, (5-8/10/11)1971, (1/8/12)1972, (9-12)1973, (7/10/12)1974, (1/4/7-10)1975, (8/10)1976, (2/7/9)1977, (5/8/9/11/12)1978, (4/6-12)1979, (all)1980	excel	daily, monthly, annually	Closed	3x/day	
485	06SW113221PW002	Rosario, Malinao, Aklan	06195	Aklan	VI	705	11 - 35 - 23	122 - 18 - 14	900.0/BM#1		May 1950	May 1950-1956	1950-1956		(7/11-12)1953, (2-6/11)1958, (3-4/12)1960, (1-3)1961, (6)1963, (7-8)1965, (9-12)1966, (7)1971, (5-7/11/12)1973, (1/7)1974, (1)1975, (12)1976, (all)1980	excel	daily, monthly, annually	Closed	3x/day	
486	06SW114221PW001	Panayakan, Tangalan, Aklan		Tangalan	VI	38	11 - 45 - 35	122 - 13 - 30	11.39		Nov 1958	Dec 1958	1958		(9)1960, (10-11)1962, (5-6)1963, (12)1966, (10)1967, (1-2)1968, (7)1974, (1)1975, (9)1977, (4-12)1980	excel	daily, monthly, annually	Operational	3x/day	
487	0701	Old Bago, Asturias, Cebu	07241	Guinabasan	VII	-	10 - 37 - 28	123 - 45 - 47	-		1984	1984-1990	1991-1998			excel	daily, monthly, annually	Operational	3x/day	
488	0702	Buenavista, Guihulngan, Negros Oriental		Ahum	VII	-	10 - 08 - 17	123 - 15 - 17	-		1985	1985-1988	1989-1998			excel	daily, monthly, annually	Operational	3x/day	
489	0703	Sta Ana, Barili, Cebu		Sta Ana	VII	45	10 - 06 - 40	123 - 30 - 58	46.6		Jun 1984	Jun 1984-1999	1984-1999		(2)1985, (10)1990, (2-3)1995, (11-12)1999	excel	daily, monthly, annually	Operational	3x/day	
490	0704	Solonggon, La Libertad, Negros Oriental	07225	La Libertad	VII	-	10 - 03 - 02	123 - 12 - 41	-		1986	1986-1998				excel	daily, monthly, annually	Operational	3x/day	
491	0705	Hinlayagan, Ilawod, Trinidad, Bohol		Hinlayagan	VII	41	10 - 02 - 05	124 - 20 - 52	90.8/BM#1		Apr 1984	Apr 1984-1988	1988-1998		(1)1985, (3-6)1987, (3-5)1988	excel	daily, monthly, annually	Operational	3x/day	
492	0706	Nabawan, Clarin, Bohol		Nabawan	VII	-	09 - 58 - 30	124 - 03 - 10	-		1985	1985-1990	1991-1998			excel	daily, monthly, annually	Operational	3x/day	
493	0707	Medina, Argao, Cebu		Argao	VII	-	09 - 53 - 16	123 - 36 - 15	-		1985	1985-1988	1989-1998			excel	daily, monthly, annually	Operational	3x/day	
494	0708	La Victoria, Carmen, Bohol		Hibayog	VII	-	09 - 52 - 25	124 - 07 - 47	-		1986	1986-1993	1994-1998			excel	daily, monthly, annually	Operational	3x/day	
495	0709	Canawan, Candihay, Bohol		Gabayang	VII	8	09 - 50 - 34	124 - 26 - 30	-		1985	1985-1991	1992-1998			excel	daily, monthly, annually	Operational	3x/day	
496	0710	Villarcayo, Carmen, Bohol		Canimoc	VII	-	09 - 50 - 12	124 - 10 - 45	-		1985	1985-1990	1991-1998			excel	daily, monthly, annually	Operational	3x/day	
497	0711	San Isidro, Balilihan, Bohol	07279	Abatan	VII	140	09 - 47 - 22	123 - 57 - 25	48.7/BM#1		Apr 1984	Apr 1984-2000	1984-2000		(11) 1988, (6) 1991, (10)1995	excel	daily, monthly, annually	Operational	3x/day	
498	0712	Bulawan, Guindalman, Bohol		Tanghay	VII	-	09 - 46 - 04	124 - 28 - 25	-		1985	1985-1988	1989-1998		(1-11)1985, (11)1988, (11-12)1990	excel	daily, monthly, annually	Operational	3x/day	
499	0713	Sto Rosario, Antequera, Bohol		Antequera	VII	54	14 - 13 - 06	121 - 09 - 19	-		Mar 1984	Mar 1984-1987	1984-1988	1989-1998			excel	daily, monthly, annually	Operational	3x/day
500	0714	Cabugan, Bindoy, Negros Oriental		Aniolod	VII	-	09 - 45 - 04	123 - 08 - 31	-		1985	1985-2000				excel	daily, monthly, annually	Operational	3x/day	
501	0715	Mambool, Duero, Bohol		Mambool	VII	-	09 - 42 - 05	124 - 22 - 31	-		1986	1986-1999				excel	daily, monthly, annually	Operational	3x/day	
502	0716	Candulao, O Hernandez, Bohol		Manaba	VII	-	09 - 37 - 56	124 - 18 - 14	-		1984	1984-2000				excel	daily, monthly, annually	Operational	3x/day	
503	0717	Cabanatuan, Bais City, Negros Oriental		Bais	VII	-	09 - 35 - 00	123 - 04 - 40	-		1962	1962-1988	1989-1998		1962-1965, 1967-1969,	excel	daily, monthly, annually	Operational	3x/day	
504	0718	Pinanayaan, Pamplona, Negros Oriental	07226	Tanjay	VII	165	09 - 27 - 48	123 - 06 - 20	45.1		1985	1985-1990	1985-2000		1978-1985 (7yrs)	excel	daily, monthly, annually	Operational	3x/day	
505	0719	Poblacion, Siaton, Negros Oriental	07228	Siaton	VII	132	09 - 03 - 38	123 - 10 - 32	1.17		May 1984	May 1984-10/1999	1984-10/1999		(11) 1988	excel	daily, monthly, annually	Operational	3x/day	
506	0720	Lote, Naga, Cebu		Naga	VII	-	-	-	-		1985	1985-1986	1985-1986			excel	daily, monthly, annually	Closed		
507	0721	Iliban, Toledo, Cebu	07243	Sapangdaco	VII	154	10 - 22 - 18	123 - 39 - 28	4.0/BM#1		Jan 1955	Jan 1955-1956	1955-1956			excel	daily, monthly, annually	Closed	3x/day	
508	0722	Liki, Cebu City		Bangbang	VII	150	10 - 32 - 30	123 - 47 - 56	195.56/BM#1		May 1956	May 1956	1956			excel	daily, monthly, annually	Closed	3x/day	
509	0723	Talibon, Bohol		Zamora	VII	20	10 - 05 - 56	124 - 17 - 49	44.6/BM#1		Dec 1985	Dec 1985-1999	1985-1999		(5-6)1987, (4-5)1988, (8-12)1990, (6)1993, (4)1995, (4-6)1998	excel	daily, monthly, annually	Closed	3x/day	
510	07SW091231PW004	Palimpinon, Valencia, Negros Oriental		Okoy	VII	60	09 - 18 - 55	123 - 14 - 04	131.9	NR	Apr 1959	Jan 1960-1988	1984-1988	1989-1998	1979-1984 (5yrs)	(11-12)1968, (1-2)1969, (4/10-12)1970, (1-3)1971, (7)1974, (1)1975, (all)1978, (1-11)1979, (3/5-12)1980	excel	daily, monthly, annually	Operational	3x/day
511	07SW091231PW005	Palimpinon, Valencia, Negros Oriental		Maite	VII	3	09 - 16 - 03	123 - 12 - 05	2.5/BM#1		Dec 1958	Jan 1959	1959		(10-11)1961, (1-2/5-6/8-12)1962, (1-4)1963, (1/5/11-12)1970	excel	daily, monthly, annually	Closed	3x/day	
512	07SW091231PW006	Palimpinon, Valencia, Negros Oriental		Maite	VII	3	09 - 16 - 03	123 - 12 - 05	250	NR	Dec 1958				(1-3)1971, (3-12)1972, (1-12) 1973-1978, (1-9/11)1979, (2-6/8-12)1980		daily, monthly, annually	Closed	3x/day	
513	07SW092230PW003	Abug, Pamplona, Negros Oriental	07226	Tanjay	VII	138	09 - 27 - 55	123 - 06 - 27	27.2	NR	Dec 1958	Jan 1959	1959		(2-4) 1964, (11-12)1968, (1-2) 1969, (3-12)1974, (1-2/7-12)1975, (4/12)1976, (all) 1977-1980	excel	daily, monthly, annually	Closed	3x/day	
514	07SW092330PW001	Consolacion, Bais City, Negros Oriental		Bais	VII	52	09 - 34 - 15	123 - 05 - 30	28.9	NR	Jan 1962	Jan 1962	1962		(1-4)1965, (4-6/10-12)1967, 1968, (1-2/10-11)1969, (7-12)1970, (1-3/5-12)1971, (1-5/7-12)1972, (1/9/11-12)1973, (1-2/6-7/10-12)1974, (1)1975, (5/7-12)1976, (1-12)1977, (1-12)1978, (1-12)1979, (1-12)1980	excel	daily, monthly, annually	Closed	3x/day	
515	07SW092330PW002	Novallas, Tanjay, Negros Oriental		Nagsala	VII	23	09 - 30 - 15	123 - 06 - 15	34.5	NR	Sep 1961	Jan 1962	1962		(4)1962, (1-4)1965, (12)1966, (12)1970, (1-3/7/10-12)1971, (1-3)1972, (2-3)1973, (6-7)1974, (all)1978-1980	excel	daily, monthly, annually	Closed	3x/day	
516	07SW093240PW012	Tigbao, Loboc, Bohol	07278	Loboc	VII	618	09 - 39 - 57	124 - 02 - 04	27.0/BM#1		Jan 1922	Jan 1955-1956	1955-1956		(11-12)1968, (10)1971, (12)1972, (10/11)1973, (2/3/9/12)1974, (1/2)1975, (1/9)1976, (1-5/7/11)1978, (all)1978/1980	excel	daily, monthly, annually	Closed	3x/day	
517	07SW093240PW012	Tigbao, Loboc, Bohol	07278	Loboc	VII	618	09 - 39 - 57	124 - 02 - 04	27.0	NR	Jan 1922				(10)1971, (12)1972, (10-11)1973, (2-3/9/12)1974, (1-2)1975, (1/9)1976, (1-5/7/11)1977		daily, monthly, annually	Closed	3x/day	
518	07SW094240PW011	Owac, Bilar, Bohol		Bilar	VII	92	09 - 41 - 30	124 - 06 - 42	7.95/BM#1		Jul 1954	Aug 1959	1959		(9)1959	excel	daily, monthly, annually	Closed	3x/day	
519	07SW094240PW011	Owac, Bilar, Bohol		Bilar	VII	92	09 - 41 - 30	124 - 06 - 42	79.5	NR	Jul 1959				(7)1975, (7)1975, (all)1978-1980		daily, monthly, annually	Closed	3x/day	
520	07SW094241PW010	Bugoc, Sierra, Bullones, Bohol		Wahig	VII	25	09 - 47 - 00	124 - 15 - 25	25.3/BM#1		Jan 1955	Jan 1955-1956	1955-1956		(1-4)1960, (4-7)1961, (9-12)1961/1962, (1-3)1963, (1-9)1972, (all)1978-1980	excel	daily, monthly, annually	Closed	3x/day	
521	07SW094241PW010	Bugoc, Sierra-Bullones, Bohol		Wahig	VII	25	09 - 47 - 30	124 - 15 - 25	23.3	NR	Jan 1955				(1-9)1972, (9)1974		daily, monthly, annually	Closed	3x/day	
522	07SW095242PW009	Pamacsalan, Sierra, Bullones, Bohol		Pamacsalan	VII															



**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
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No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished		Gaps	Missing Data				
													Encoded	Raw Data						
542	0815	San Jaquin, Capocan, Leyte		Leyte	VIII	29	11 - 16 - 59	124 - 33 - 43	21.2/BM#1		Apr 1985	Apr 1985-2000	1985-2000	2001-2002		(10-12)1988, (1-3)1989	excel	daily, monthly, annually	Operational	3x/day
543	0816	Buri, Burauen, Leyte		Guinaron	VIII	24	11 - 00 - 45	124 - 53 - 30	35.07/BM#1&2		Apr 1955	Apr 1955-1956	1955-1956				excel	daily, monthly, annually	Closed	3x/day
544	0817	Dapdap, Alang-alang, Leyte		Dapdap	VIII	51	11 - 11 - 50	124 - 52 - 36	23.06/BM#1		Nov 1948	Nov 1948-8/1952	1948-8/1952				excel	daily, monthly, annually	Closed	3x/day
545	0818	Liloan, Ormoc City, Leyte	08274	Paganga-an	VIII	430	11 - 02 - 35	124 - 32 - 44	20.7/BM-129		Mar 1985	Mar 1985-7/1988	1985-1994	1995-2002		(6/8-9) 1986, (3) 1987, (3) 1988	excel	daily, monthly, annually	Operational	3x/day
546	0819	Paquite, Abuyog, Leyte		Layog	VIII	239	10 - 41 - 45	124 - 57 - 36	7.11/BM#1&2		Jun 1952	Jun 1952-1956	1952-1956				excel	daily, monthly, annually	Closed	3x/day
547	0820	Bafinasayao, Abuyog, Leyte		Layog	VIII	-	10 - 40 - 59	124 - 57 - 45	-		1984	1984-2000	2001-2002				excel	daily, monthly, annually	Operational	3x/day
548	0821	Makinhas, Baybay, Leyte	08273	Paghanganan	VIII	128	10 - 38 - 20	124 - 51 - 53	85.9/BM#1		Oct 1984	Oct 1984-4/1989	1984-2000	2001-2002		(7)1985, (4-6/8/11)1986, (1-3)1987, (8-12)1988	excel	daily, monthly, annually	Operational	3x/day
549	0822	Tagaytay, Bato, Leyte		Bangkerohan	VIII	168	10 - 21 - 03	124 - 49 - 16	16.6/BM#2		Oct 1984	Oct 1984-1988	1984-2000	2001-2002		(1)1985, (6)1986, (3/12)1987, (1-4/8-11)1988	excel	daily, monthly, annually	Operational	3x/day
550	0823	Mabini, Macrohan, Southern Leyte		Amparo	VIII	74	10 - 05 - 48	124 - 54 - 52	17.2/BM#1		Jan 1985	Jan 1985-2000	1985-2000	2001-2002		(4-6)1986, (1-3)1987, (5-11)1988, (11)1989, (1-3)1992, (1-9)1998	excel	daily, monthly, annually	Operational	3x/day
551	08SW101251PW018	San Isidro, St Bernard, Southern Leyte		Lawigan	VIII	85	10 - 17 - 23	125 - 07 - 22	45.9/BM#1		Feb 1958	Feb 1958-2000	1987-2001	2002	1976-1987 (11yrs)	(6-12)1958, (1/3-5)1959, (5-9)1960, (10-12)1961, 1962, (1-10)1963, (2-3/12)1966, (3-12)1968, 1969, 1970, (1-12)1971, (1-3)1972, (6-12)1976, (1-12)1977, (9-12)1978, (all) 1979/1980	excel	daily, monthly, annually	Operational	3x/day
552	08SW102250PW017	(Catablian) Sto. Niño, Hinunangan, South Leyte		Das-ay	VIII	59	10 - 22 - 15	125 - 09 - 56	2.98/BM#1		Feb 1958	Mar 1958-2000	1985-2000	2001-2002		(2)1959, 1960-1962, (1-6)1963, (2-6)1964, (6-7)1965, (11)1967, (6)1968/1969, (6-12)1972, (7)1973, (6-9/11-12)1976, (1-12)1977, (4-6)1979, (2/10-12)1980	excel	daily, monthly, annually	Operational	3x/day
553	08SW104245PW015	Inayopan, Abuyog, Leyte		Bito	VIII	94	10 - 46 - 10	124 - 57 - 22	15.5/BM#1		Jul 1957	Aug 1957-3/1968	1957-3/1968				excel	daily, monthly, annually	Closed	3x/day
554	08SW105245PW016	(Poblacion) Cagangon, Burauen, Leyte		Daguitan	VIII	135	10 - 58 - 00	124 - 53 - 40	24.4/BM#2	NR	Sep 1957	Oct 1957-1998	1957-1998	1999-2002	1976-1982 (6yrs)	(1-3)1960, (11-12)1961, (9-12)1962, 1969-1970, (1-7)1971, (7-12)1976, (1-12)1977, (2-12)1979, (6-12)1980, (1-11)1982, (7/12)1983, (2-3/8)1985, (5-6)1986, (1-3)1987, (8-11)1988	excel	daily, monthly, annually	Operational	3x/day
555	08SW110243PW008	Mas-in, Ormoc, Leyte		Mas-in	VIII	22	11 - 03 - 52	124 - 30 - 48	11.5	NR	Jul 1956	Jul 1956	1956			(7-9)12)1976, (1-12)1977, (12)1978, (4-12)1979, (4/7-12)1980	excel	daily, monthly, annually	Closed	2x/day
556	08SW110243PW009	Valencia, Ormoc City, Leyte		Baleon	VIII	19	11 - 06 - 41	124 - 34 - 20	33.2/BM#1	NR	Apr 1956	May 1956	1956			(8)1962, (10-12)1972, (1)1973, (3/5/7-9/12)1976, (1-12)1977, (4-12)1979, (5-6/9-12)1980	excel	daily, monthly, annually	Closed	2x/day
557	08SW110243PW010	Masarayao, Kamanga, Leyte		Bao	VIII	65	11 - 08 - 12	124 - 35 - 52	53.4	NR	Jan 1951	Feb 1951-1956	1951-1956			1958, (1/4-5/11-12)1959, (1-2/5)1962, (11-12)1964, (4-12)1968, 1969, 1970, (1-12)1971-1972, (11)1974, (7-9)12)1976, (1-12)1977, (4-12)1979, (11-12)1980	excel	daily, monthly, annually	Closed	3x/day
558	08SW111243PW011	Calingcaguig, Barugo, Leyte		Calingcaguig	VIII	128	11 - 14 - 45	124 - 31 - 30	1.13	NR	Nov 1948	Dec 1948	1948			(9-12)1950, (1-10)1951, (8-12)1952, (5-12)1953, (1-2)1956, (5-6)1966, (2)1968, (4-5)1971, (1)1972, (5-9)12)1976, (1-12)1977, (7-12)1978, (all)1979/1980	excel	daily, monthly, annually	Closed	2x/day
559	08SW111244PW012	Binongto-an, Alang-alang, Leyte		Mainit	VIII	98	11 - 13 - 21	124 - 49 - 30	31.0	NR	Apr 1949	May 1949-1956	1949-1956			(9)12)1950, (1-10)1951, (8-10)1952, (6-12)1953, (1-10)1954, 1957-1959, 1969-1970, (1-10)1971, (12)1975, (7-9)12)1976, (1-12)1977, (4-12)1979, (7-12)1980	excel	daily, monthly, annually	Closed	3x/day
560	08SW111245PW013	Lingayon, Alang-alang, Leyte		Lingayon	VIII	10	11 - 11 - 36	124 - 53 - 33	16.5	NR	May 1945	Jun 1945-2000	1985-2000	2001-2002	1976-1985 (9yrs)	(5-7)1951, (8-10)1952, (5-12)1953, (1-10)1954, (1-2)1971, (1/12)1972, (7-9)12)1976, (1-12)1977, (9/12)1978, (4-12)1979, (11-12)1980	excel	daily, monthly, annually	Operational	2x/day
561	08SW111245PW014	Buenavista, Alang-alang, Leyte		Dapdap	VIII	30	11 - 13 - 00	124 - 51 - 00	27.7	NR	Nov 1952	Nov 1952-1956	1952-1956			(5-12)1953, (1-10)1954, (3-7/10-12)1958, (2-6/8/11-12)1959, (1-3)1960, (2-3)1961, 1962, (1-11)1963, (1-2/5-8/10-11)1966, (4-12)1968, 1969-1970, (1-9)1971, (7-9)12)1976, (1-12)1977, (4-12)1979, (12)1980	excel	daily, monthly, annually	Closed	3x/day
562	08SW114250PW007	Tenani, Wright, Samar		Tenane	VIII	392	11 - 48 - 23	125 - 07 - 31	53.5	NR	Jun 1959	Jul 1959-2001	1984-2001	2002	1976-1986 (10yrs)	(1-4)1967, (4-5)1971, (5)1974, (7-9)12)1976, (1-12)1977, (4-6/11-12)1979, (all) 1980	excel	daily, monthly, annually	Operational	3x/day
563	08SW120251PW006	Cabuwanan, Hibolasco, Dolores, Samar		Jicoitol	VIII	95	12 - 01 - 35	125 - 19 - 22	9.5/BM#1	NR	May 1959	Jun 1959	1959			(12)1966, (1-8)1967, (8)1969, (7-8)1970, (9-12)1972, (1-5)1973, (1/7-12)1975, (all)1971/1976-1980	excel	daily, monthly, annually	Closed	3x/day
564	08SW121250PW005	San Isidro, Las Navas, Samar	08247	Catubig	VIII	252	12 - 17 - 19	125 - 02 - 22	11.9/BM#1		May 1955	Jun 1955-1956	1955-1956			(12)1968, (3/7-12)1976, (1-12)1977, (7-12)1978, (all)1971/1972/1979/1980	excel	daily, monthly, annually	Closed	2x/day
565	08SW122242PW001	San Ramon, San Isidro, Samar		Mawo	VIII	138	12 - 26 - 30	124 - 20 - 20	34.5/BM#1		Jul 1968	Jul 1968	1968			(7-9)12)1976, (all) 1977-1980	excel	daily, monthly, annually	Closed	2x/day
566	08SW122242PW001	San Roman, San Isidro, Northern Samar		Mawo	VIII	138	12 - 26 - 30	124 - 20 - 20	34.5	NR	Jul 1968					(7-9)12)1976, (all) 1977-1980	excel	daily, monthly, annually	Closed	2x/day
567	08SW122243PW002	Casulgan, Bobon, Samar		Bobon	VIII	91	12 - 29 - 25	124 - 32 - 37	92.7/BM#1		Dec 1957	Jan 1958	1958			(11-12)1972, (7-12)1976, (1-12)1977, (8-12)1978, (all)1979/1980	excel	daily, monthly, annually	Closed	3x/day
568	08SW122243PW002	Jose P. Laurel, Bobon, Northern Samar		Bobon	VIII	91	12 - 29 - 25	124 - 32 - 37	92.7	NR	Dec 1957					(9)1963, (5-9)1971, (10-12)1972, (1-6/11/12)1974, (6)1975, (6-9)1976, (all)1977, (6/9)1978, (4-12)1979, (6-12)1980, (1/10)1985, (5-6/11)1986, (1-3/8/11)1987, (3/8-11)1988	excel	daily, monthly, annually	Closed	3x/day
569	08SW122243PW003	Polangui, Catarman, Northern Samar	08244	Catarman	VIII	441	12 - 23 - 59	124 - 37 - 46	87.6/BM#1		Jun 1959	Jan 1960-1988	1960-1988			(9)1963, (5-9)1971, (10-12)1972, (1-6/11/12)1974, (6)1975, (6-9)1976, (all)1977, (6/9)1978, (4-12)1979, (6-12)1980, (1/10)1985, (5-6/11)1986, (1-3/8/11)1987, (3/8-11)1988	excel	daily, monthly, annually	Closed	3x/day
570	08SW122250PW004	Hirawahon, Catubig, Samar		Hirawahon	VIII	19	12 - 25 - 12	125 - 01 - 54	0.76/BM#1		Jan 1957	Feb 1957	1957			(1-12)1974, (5/7-9/12)1976, (1-12)1977, (4-6)1979, (all)1971/1972/1980	excel	daily, monthly, annually	Closed	2x/day
571	08SW122250PW004	Hirawahon, Catubig, Samar		Hirawahon	VIII	19	12 - 25 - 12	125 - 01 - 54	0.76	NR	Jan 1957					(1-12)1974, (5/7-9/12)1976, (1-12)1977, (4-6)1979, (all)1971/1972/1980	excel	daily, monthly, annually	Closed	3x/day
572	0901	Kahayagan, Bayog, Zamboanga del Sur	09395	Sibuguey	IX	-	-	-	-		1984	1984-1999					excel	daily, monthly, annually	Closed	
573	0902	Poblacion, Imelda, Zamboanga del Sur	09395	Sibuguey	IX	759	07 - 38 - 58	122 - 55 - 44	37.6		Jan 1993	Jan 1993-1999	1993-1999	2000-2002		(2)1994, (7-9)1996, (1)1999	excel	daily, monthly, annually	Operational	3x/day
574	0903	Opao, Dapitan City, Zamboanga del Norte	09372	Dapitan	IX	315	08 - 32 - 27	123 - 28 - 31	43.0/BM#1		May 1985	May 1985-1999	1985-2000	2001-2002		(1-12)1985, (1-3)1986, (12)1989, (1-3/12)1990, (3-8)1992	excel	daily, monthly, annually	Operational	2x/day
575	0904	Liniban, Sacon, Zamboanga del Norte		Liniban	IX	317	07 - 42 - 22	122 - 10 - 17	4.76		May 1951	May 1951-8/1952	1951-8/1952				excel	daily, monthly, annually	Closed	3x/day
576	0905	Hinaplano, Iligan City, Lanao del Norte		Mandulog	IX	771	08 - 15 - 31	124 - 16 - 14	47.0/BM#1		Sep 1986	Sep 1986-1989	1986-2000	2001-2002		(4/7-10)1989, (10-12)1990, (1-4)1991, (2-3)1992(1/12)1993, (2)1994, (7/11)1995, (2-5)1996, (5-6)1999, (4/11)2000	excel	daily, monthly, annually	Operational	3x/day
577	0906	Dicoyong, Sindangan, Zamboanga del Norte	09376	Sindangan	IX	572	08 - 13 - 02	123 - 02 - 51	38.2/BM#s 1&2		Jun 1984	Jun 1984-1989	1984-2000	2001-2002		(4) 1989, (9-12)1994, (1-2)1995	excel	daily, monthly, annually	Operational	3x/day
578	0907	Maras, Ingin, Sindangan, Zamboanga del Norte	09377	Ingin	IX	-	08 - 11 - 35	122 - 58 - 38	-		1985	1985-2000	2001-2002				excel	daily, monthly, annually	Operational	
579	0908	Maranding, Lala, Lanao del Norte		Maranding	IX	395	07 - 53 - 14	123 - 46 - 16	58.5/BM#1		Sep 1986	Sep 1986-1991	1986-1998	1999-2002			excel	daily, monthly, annually	Operational	3x/day
580	0909	Tinongan, Tukuran, Zamboanga del Sur		Tukuran	IX	147	07 - 52 - 46	123 - 35 - 56	68.4/BM#1		Jan 1986	Jan 1986-2000	1986-2000	2001-2002			excel	daily, monthly, annually	Operational	3x/day
581	0910	Banker, Kabasalan, Zamboanga del Sur	09394	Kabasalan	IX	143	07 - 49 - 50	122 - 46 - 21	46.7/BM #1		Mar 1986	Mar 1986-7/1995	1986-2000	2001-2002		(1-2)1987, (4/6-12)1988, (1-2/4)1989, (5-7/12)1990, (1-4)1991, (10)1992, (6-12)1994, (1/5-7)1995	excel	daily, monthly, annually	Operational	3x/day
582	0911	Bogayo, Kumalarang, Zamboanga del Sur	09396	Kumalarang	IX	114	07 - 45 - 26	123 - 10 - 44	21.2/BM#s 1&2		Jun 1984	Jun 1984-2000	1984-2000	2001-2002		(5/8-9)1985, (3-4)1987, (12)1988, (9-12)1999, (1-3)2000	excel	daily, monthly, annually	Operational	2x/day
583	0912	Old Mirapao, Dinas, Zamboanga del Sur		Dinas	IX	358	07 - 38 - 58	123 - 21 - 25	49.4/BM#1		Nov 1985	Nov 1985-2000	1985-2000</							

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No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished		Gaps	Missing Data				
													Encoded	Raw Data						
597	09SW480232PW004	Guripan, Mahayag, Zamboanga del Sur		Salug Daku	IX	375	08 - 03 - 15	123 - 26 - 30	29.3		Apr 1950	May 1950-1998	1982-1998	1999-2000		(1-3)1951, (1-8)1954	excel	daily, monthly, annually	Operational	3x/day
598	10SW073260PW025	Camanlangan, New Bataan, Davao del Norte	10315	Agusan	X	343	07 - 30 - 33	126 - 06 - 18	92.9/BM #1 & 2	NR	Jan 1967	Jan 1967-1985	1981-1985			(7-12)1972, (1-12)1973-1978	excel	daily, monthly, annually	Closed	3x/day
599	10SW075260PW026	Kalaw Bridge, Monkayo, Davao del Norte	10315	Agusan	X	925	07 - 49 - 58	126 - 03 - 00	-0.1		Apr 1958	Apr 1958-1986	1981-1986	1987-1999		(7/11-12)1958, (1-9)1959, (12)1960, (1/10-11)1961, (9-10)1962, (3-4/10-11)1963, (1-3/6-8/10)1964, (8)1967, (1-4/6-12)1968, 1969, (1-8/10-12)1970	excel	daily, monthly, annually	Operational	3x/day
600	10SW080251PW031	Limabo, Malaybalay, Bukidnon		Sawaga	X	327	08 - 03 - 27	125 - 10 - 16	97.9	NR	Oct 1956	Nov 1956-2001	2002			(3-12)1958, 1959, (3-4/9)1959, 1961, (2-12)1964, 1965, (1-6/10-12)1966(12)1974, (1-3/5-12)1975	excel	daily, monthly, annually	Closed	3x/day
601	10SW080255PW016	Sta Isabel, Sta Josefa (Bunawan), Agusan del Sur	10315	Agusan	X	1597	07 - 59 - 25	126 - 02 - 00	95.9/BM#2		Jul 1955	Jul 1955-11/1991	1955-11/1991	12/1991-2000		(2-9/12)1950, 1961-68, (1-6)1969, (7-12)1970, (7-9)1985, (1-3/10-12)1987, 1988, (1-6/12)1989	excel	daily, monthly, annually	Operational	3x/day
602	10SW080260PW018	Bunawan, Bunawan, Agusan		Panusagan	X	180	08 - 09 - 47	126 - 00 - 30	4.97/BM#1		Sep 1967	Oct 1967-4/1968	1967-4/1968				excel	daily, monthly, annually	Closed	3x/day
603	10SW081254PW014	Langasian, La Paz, Agusan Del Sur		Kayawan	X	384	08 - 14 - 56	125 - 42 - 49	47.1/BM#1		Aug 1967	Sep 1967-1980	1967-1980			(2-3/6-10)1968, (10-12)1969, (all)1971/1972, (10)1973, (10-11)1974, (6-8)1975, (2)1976, (1-12)1977, (11-12)1978, (1-12)1979, (3-12)1980	excel	monthly, annually	Closed	3x/day
604	10SW081254PW015	Halapitan, La Paz, Agusan Del Sur	10322	Adgaoan	X	820	08 - 14 - 55	125 - 45 - 08	42.1/BM#1		Apr 1967	Sep 1967-1970	1967-1970			(4-5)1968	excel	monthly, annually	Closed	3x/day
605	10SW081255PW017	Nueva Gracia, Loreto, Agusan		Ihaohan	X	667	08 - 06 - 15	125 - 42 - 15	41.1/BM#3		Oct 1967	Oct 1967-5/1968	1967-5/1968			(2-3)1968	excel	monthly, annually	Closed	3x/day
606	10SW082242PW023	Pagatpat, Cagayan de Oro	10333	Iponan	X	351	08 - 28 - 42	124 - 20 - 00	27.1/BM#1	NR	Feb 1957	Mar 1957-1980		2001-2002		(3/5-7/9-11)1958, (1-6/8-9/11-12)1959, (6-8)1960, (1-3)1961, (7-8/11-12)1962, (6-11)1963, 1964, (6-12)1966, 1967, (1-3)1968, (11-12)1973, (1-12)1978, (all)1979/1980	raw data	daily, monthly, annually	Operational	3x/day
607	10SW082243PW022	Tinib, Cagayan de Oro City	10332	Cagayan	X	1331	08 - 28 - 06	124 - 38 - 00	16.6/BM#1	NR	Sep 1954	Sep 1960-4/1961	1960-4/1961			(2)1961, (1-4)1971, (5/7/10-12)1972, (all)1973-1980	excel	daily, monthly, annually	Closed	3x/day
608	10SW082254PW012	Baylo, Talacogon, Agusan		Kasitayan	X	209	08 - 27 - 12	125 - 42 - 58	43.4/ASB Datum		Mar 1968	Apr 1968-11/1969	1968-11/1969				excel	monthly, annually	Closed	3x/day
609	10SW083242PW024	Poblacion, (Munay), Alubijid, Misamis Oriental	10334	Alubijid	X	124	08 - 34 - 17	124 - 28 - 35	9.13		Jun 1950	Jan 1950-2000	1950-2000	2001-2002	1953-1955, 1977-1991 (16yrs)	(11)1961, (11-12)1963, (3)1969, (9-11)1973, (11-12)1976, (1-12)1977, (5/8)1978, (2-12)1979, (1/9)1991, (9)1994, (all)1971/1972/1980	excel	daily, monthly, annually	Operational	3x/day
610	10SW083244PW020	Sta Cruz, Tagoloan, Misamis, Oriental	10331	Tagoloan	X	1656	08 - 32 - 02	124 - 47 - 45	5.85/BM#1		Apr 1960	Nov 1960	1960			(1)1960, (1-4/10-12)1961, (2-6/10-12)1962, (1/5-11)1963, (1)1968, (4/8-9)1969, (all)1971, (12)1972, (1-12)1973, (1-9)1974, (2-12)1975, (1)1976, (1-12)1979, (1/3-12)1980	excel	daily, monthly, annually	Closed	3x/day
611	10SW083253PW009	Milagros, Esperanza, Agusan del Sur		Busilao	X	316	08 - 38 - 48	125 - 34 - 15	40.8/BM#1		Aug 1967	Oct 1967	1967			(7)1970	excel	daily, monthly, annually	Closed	3x/day
612	10SW083254PW010	San Isidro, Talacogon, Agusan	10315	Agusan	X	7390	08 - 32 - 04	125 - 46 - 31	98.3/BM#1	NR	Jul 1955	Jul 1955-1956	1955-1956			(1-2)1956, (1)1957, (1971-1980)	excel	daily, monthly, annually	Closed	3x/day
613	10SW083254PW011	Nueva Trabajo, La Paz Talacogon	10319	Massam	X	-	-	-	-		-	-	-	-	-	-	-	-	Closed	-
614	10SW083255PW013	Bah-Bah, Prosperidad, Agusan	10321	Gibong	X	427	08 - 36 - 40	125 - 54 - 46	5.96/BM#1		Dec 1964	Jan 1965-1975	1965-1975			(3-6/10-12)1965, (1-4/7-12)1966, (1-10)1967, (1/9-11)1973, (7/12)1974, (1/8-12)1975, (all)1976-1980	excel	monthly, annually	Closed	3x/day
615	10SW084244PW019	Napaliran, Balingasag, Misamis Oriental	10329	Balutukan	X	114	08 - 47 - 10	124 - 48 - 53	7.76/BM#1		Feb 1968	Feb 1968	1968				excel	daily, monthly, annually	Closed	3x/day
616	10SW084251PW008	Bakingking, Esperanza, Agusan del Sur	10316	Ojot	X	-	08 - 41 - 00	125 - 31 - 30	-		-	-	-	-	-	-	-	-	Closed	-
617	10SW084254PW006	Bayugan I, Agusan del Sur	10419	Andanan	X	180	08 - 45 - 14	125 - 46 - 42	11.1/BM#1		Oct 1967	Nov 1967-9/1987	1967-9/1987			(10-11)1973, (11)1974, (3-11)1979, (all)1971, (3-12)1980, (1-8)1983, (6-9) 1984, (2/7-8) 1985, (12)1986, (1-3/10-12) 1987	excel	daily, monthly, annually	Closed	3x/day
618	10SW084254PW007	Esperanza, Agusan del Sur	10317	Wawa	X	825	08 - 40 - 31	125 - 38 - 50	0.42		Nov 1957	Nov 1964-7/1987	1964-7/1987			(11-12)1964, 1965-66, (1-10)1966, (8)1970, (10-11)1973, (9)1974, (2-8)1979, (all)1971, (3-12)1980, (1-9)1981, (1-2)1982, (11-12)1984, (10/12) 1986, (1-3) 1987	excel	daily, monthly, annually	Closed	3x/day
619	10SW085252PW005	Magsaysay Bridge, Baan, Butuan City	10315	Agusan	X	11510	08 - 57 - 10	125 - 32 - 40	-		Oct 1957	Feb 1964-1991	1964-1991	1992-2000		(5/7-12)1964, (1-2/5-6/9/11-12)1966, (1-10)1970, (1971-1980), (1-5)1983, (4-5)1986, (10-12) 1987, (1-6/12) 1989, (1)1990	excel	daily, monthly, annually	Operational	3x/day
620	10SW090253PW027	Cabadbaran Bridge, Cabadbaran, Agusan del Norte	10416	Cabadbaran	X	6	09 - 07 - 42	125 - 32 - 21	17.3/BM#1		Mar 1950	Mar 1950		1989-2000		(2-12)1954, (1-9)1961, (3-6)1962, (1-4/9-12)1968	raw data	daily, monthly, annually	Closed	3x/day
621	10SW092253PW002	Colorado, Jabonga, Agusan		Kalinawan	X	482	09 - 21 - 04	125 - 32 - 00	27.0/BM#1		Aug 1962	Jan 1969	1969			(1/5)1974, (3-4)1975, (3/9)1976, (1-7)1977, (1)1978, (3-11)1979, (all)1971/1972/1980	excel	daily, monthly, annually	Closed	3x/day
622	10SW093252PW004	Matinao, Mainit, Surigao		Mayag	X	41	09 - 32 - 45	125 - 29 - 35	45.6/BM#1		May 1952	Jan 1957	1957			1960-1963, (7)1971, (8-10)1973, (1-12)1974, (1-12)1979, (2-12)1980	excel	daily, monthly, annually	Closed	3x/day
623	10SW093253PW003	(Marga), Tubod, Surigao del Norte		Sonkoy	X	2	09 - 32 - 25	125 - 34 - 18	148.0/BM#1		Mar 1955	Mar 1955	1955			(7-9)1956, (9-10)1973, (3)1977, (3-12)1979, (3-12)1980	excel	daily, monthly, annually	Closed	3x/day
624	10SW094252PW001	(Quezon) Brgy Bonifacio, Surigao City	10282	Surigao	X	135	09 - 44 - 47	125 - 28 - 48	13.5		Dec 1957	Jan 1958-1992	1957-1992	1993-2000	1976-1986, 1987-1989 (12yrs)	(8-12)1958, 1959, (6-12)1960, (2-7/11)1962, (2-8/10-12)1963, 1964 65, (1-6)1989	excel	daily, monthly, annually	Operational	3x/day
625	10SW094522PW001	Quezon, Surigao City, Surigao del Norte	10282	Surigao	X	101	09 - 44 - 26	125 - 29 - 17	42.7/BM#1	NR	Dec 1957					(1-3/6)1971, (3/5-8)1973, (12)1974, (1)1975, (4-6)1977, (1-2)1978, (1-10)1979, (3-12)1980	-		Closed	3x/day
626	01001	Magas, Mamonga, Monkayo, Davao del Norte	10315	Agusan	X	-	-	-	-		1981		1981-1986				excel	daily, monthly, annually	Closed	
627	01002	Taguibo, Anakan, Gingoog City		Taguibo	X	-	-	-	-		1991		1991-1999				excel	daily, monthly, annually	Closed	
628	01003	Tubod, Mainit, Surigao		Songkoy	X	2	09 - 32 - 25	125 - 34 - 18	148.03/BM#s1&2		Mar 1955	Mar 1955-1956	1955-1956				excel	daily, monthly, annually	Closed	3x/day
629	01004	Santiago, Agusan del Norte	10314	Asiga	X	-	09 - 15 - 48	125 - 33 - 42	-		1959		1986-2000		1971-1986 (15yrs)	excel	daily, monthly, annually	Operational	3x/day	
630	01005	Guhao-an, Agusan del Norte		Guhao-an	X	-	08 - 58 - 19	125 - 23 - 52	-		1991		1991-2000				excel	daily, monthly, annually	Operational	3x/day
631	01006	Ampayon, Butuan City		Ampayon	X	12	08 - 57 - 33	125 - 36 - 49	30.132/BM#7		Mar 1950	Mar 1950-5/1951	1950-5/1951				excel	daily, monthly, annually	Closed	3x/day
632	01007	Los Angeles, Butuan, Agusan		Curva	X	12	09 - 14 - 25	125 - 57 - 10	21.492/BM#1		Mar 1950	Mar 1950-1/1954	1950-1/1954				excel	daily, monthly, annually	Closed	3x/day
633	01008	Sanghan, Cabadbaran, Agusan		Sanghan	X	6	15 - 04 - 54	125 - 57 - 20	17.883/BM#1		Mar 1950	Mar 1950-2/1954	1950-2/1954				excel	daily, monthly, annually	Closed	
634	01009	Tagpaco, Anakan, Gingoog City		Tagpaco	X	-	08 - 49 - 51	125 - 10 - 35	-		1991		1991-2002				excel	daily, monthly, annually	Operational	3x/day
635	01010	Brgy Wawa, Bayugan, Agusan del Sur	10317	Wawa	X	396	08 - 49 - 04	125 - 42 - 23	98.5/BM#1			1963-1990	1963-1990	1991-2000	1977-1981 (3yrs)	(1-2/12)1984, (3-4/10-12)1987, 1988, (1-6/12)1989	excel	daily, monthly, annually	Operational	3x/day
636	01011	Jasaan, Misamis Oriental	10330	Cabulig	X	-	08 - 39 - 24	124 - 44 - 42	-		1986		1986-2000	2001-2002			excel	daily, monthly, annually	Operational	3x/day
637	01012	Cabula, Cagayan de Oro City	10332	Cagayan	X	1079	08 - 23 - 28	124 - 36 - 46	95.0		Jan 1991	Jan 1991-2000	1991-2000	2001-2002			excel	daily, monthly, annually	Operational	3x/day
638	01013	Camp Philips, Manolo Fortich, Bukidnon		Agusan Canyon	X	48	08 - 19 - 22	124 - 48 - 26	49.5		May 1986	May 1986-8/1987	1986-1999			(8)1986, (3)1987	excel	daily, monthly, annually	Operational	3x/day
639	01014	Batuluan, Lal-lo, Cagayan		Binag Spring	X	15	18 - 11 - 00	121 - 42 - 30	95.53/BM#1		Jan 1954	Jan 1954-1956	1954-1956				excel	daily, monthly, annually	Closed	
640	01015	Nagsungayan, Gonzaga, Cagayan		Catubungan	X	30	18 - 12 - 15	122 - 03 - 00	96.63/BM#1		Mar 1954	Mar 1954-6/1956	1954-6/1956				excel	daily, monthly, annually	Closed	
641	01016	Pangul, Solana, Cagayan		Pangul	X	312	17 - 39 - 45	121 - 37 - 30	94.374/BM#1		Mar 1955	Mar 1955-1956	1955-1956				excel	daily, monthly, annually	Closed	3x/day
642	01017	Baua, Gonzaga, Cagayan		Baua	X	103	18 - 21 - 15	122 - 05 - 30	95.091/BM#1		Dec 1955	Dec 1955-1956	1955-							

**Annex 3 INVENTORY OF HYDROLOGICAL DATA COLLECTION  
RIVER GAUGING STATIONS  
(Department of Public Works and Highways - Bureau of Research and Standards)**

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished		Gaps	Missing Data				
													Encoded	Raw Data						
668	01118	Digos, Davao del Sur	11311	Digos	XI	-	06 - 45 - 46	125 - 21 - 18	-	NR	1986						raw data	daily, monthly, annually	Operational	3x/day
669	01119	Malandag, (Malingun), Gen. Santos City, South Cotabato	11364	Buayan	XI	207	06 - 18 - 50	125 - 15 - 55	12.6/NWRC BM	NR	Apr 1957	1957-11/1994	1957-11/1994	1986-2002	1962-1968, 1972-1975, 1976-1985 (18yrs)	(1-6)1972, (2-4/9-12)1973, (all) 1974-1980, (1/4)1987, (1-2/9)1988, (6-12)1989, (1-4)1990	excel	daily, monthly, annually	Operational	3x/day
670	01120	Maribulan, Alabel, South Cotabato		Maribulan	XI	401	06 - 06 - 58	125 - 15 - 54	7.03/BM#1		Aug 1984	Aug 1984-1988	1984-1988	1989-2000	1991-1994 (3yrs)	(9-10)1984, (6-10)1987, (2-5)1988	excel	daily, monthly, annually	Operational	3x/day
671	01121	Kawas, Alabel, South Cotabato		Lun Padidu	XI	237	06 - 08 - 56	125 - 17 - 38	8.93/BM#1		Aug 1984	Aug 1984-1988	1984-1988	1989-2000		(12)1984, (4-6)1985	excel	daily, monthly, annually	Operational	3x/day
672	01122	Kalabalot, Glan, South Cotabato	11367	Glan	XI	359	05 - 49 - 28	125 - 12 - 08	5.13/BM#1		Aug 1984	Aug 1984-1989	1984-1989	1990-2000		(9-10/12) 1984, (7-8) 1985, (12) 1986, (1-3/7-10) 1987, (6) 1988, (1) 1989	excel	daily, monthly, annually	Operational	3x/day
673	01123	Magdum, Tagum, Davao del Norte	11302	Hijo	XI	634	07 - 23 - 55	125 - 50 - 06	5.13/NWRC BM		Jan 1985	Jan 1985-9/1999	1985-9/1999	10/1999-2002		(1-2)1986, (1-3)1991, (12)1992, (6)1993, (12)1994	excel	daily, monthly, annually	Operational	3x/day
674	01124	Cacao, Surigao, Surigao		Parang-parang	XI	4	09 - 45 - 35	125 - 29 - 38	224.33/BM#1&2		Jun 1955	Jun 1955-1/1956	1955-1/1956				excel	daily, monthly, annually	Closed	3x/day
675	01125	Taguibo, Lupon, Davao	11300	Sunlog	XI	203	07 - 01 - 30	126 - 05 - 36	39.177/BM#29&30		Sep 1952	Sep 1952-1956	1952-1956				excel	daily, monthly, annually	Closed	3x/day
676	01126	Barotik, Gen. Santos, Cotabato	11364	Buayan	XI	1034	06 - 12 - 30	125 - 15 - 00	30/BM#1		Nov 1956	Nov 1956	1956				excel	daily, monthly, annually	Closed	3x/day
677	11SW060251PW014	Upper Clinan, Polomolok (Buayan), Southern Cotabato		Clinan	XI	85	06 - 08 - 15	125 - 11 - 19	196.2	NR	Jan 1950	Jan 1950-1970	1950-1970			(12)1958, (1-3)1959, (4-12)1962, (1-10)1963, (10-12)1963, (6)1968, (4-9)1972, (1-2/11-12)1973, (1-12)1974, (1-6)1975, (all) 1976-1980	excel	daily, monthly, annually	Closed	3x/day
678	11SW061250PW015	Lagao, Gen. Santos City, South Cotabato		Sihuy	XI	65	06 - 11 - 06	125 - 05 - 40	56.8	NR	Jul 1956	Aug 1956	1956			(8/12)1958, (1-3/7)1959, (2)1960, (3-5)1961, (8-12)1962, (1)1963, 1966, (10)1967, (3/7-8)1968, 1970, (2)1975, (5/9-10)1976, (all) 1977-1980	excel	daily, monthly, annually	Closed	3x/day
679	11SW062251PW013	Kiblat, Malandag, Gen. Santos, Cotabato	11364	Buayan	XI	208	06 - 20 - 36	125 - 13 - 13	-		Apr 1957	May 1957-1970	1957-1970			(1-11)1960, (9-12)1962, (1-7)1968, (10/12)1969, (1-2)1970	excel	daily, monthly, annually	Closed	3x/day
680	11SW064251PW011	Lapulabao, Hagonoy, Davao del Sur	11312	Padada	XI	821	06 - 40 - 00	125 - 17 - 00	21.6	NR	Jan 1949	Jan 1957-1978	1957-1978			(9-12)1953, (1-7)1954, (9)1961, (2-3)1965, (3)1967, (3/1-12)1968, (1-8/12)1969, (10)1972, (10-12)1976, (1-3)1977, (6-12)1978, (all)1979/1980	excel	monthly, annually	Closed	3x/day
681	11SW064251PW012	Dongan-dikong, Matanao, Davao		Mal	XI	188	06 - 41 - 30	125 - 14 - 42	98.8	NR	Oct 1956	Nov 1956	1956			(1-5/7-11)1961, (12)1966, (1-2/9)1967, (1)1972, (9)1973, (2-3/11-12)1974, (1-4)1975, (1-6)1977, (4-12)1978, (all)1979/1980	excel	daily, monthly, annually	Closed	3x/day
682	11SW065252PW010	Sibulan, Sta. Cruz, Davao del Sur	11310	Sibulan	XI	128	06 - 58 - 05	125 - 22 - 40	408.0	NR	Jan 1955	Jan 1955-1956	1955-1956			(1-6/10-12)1966, (14-6)1967, (1-2/10)1968, (2-12)1970, (8-12)1971, (1-12)1972, (12)1976, (3)1977, (6-12)1978, (all)1979-1980	excel	daily, monthly, annually	Closed	3x/day
683	11SW070253PW009	Matina, Pangl, Davao City		Matina	XI	48	07 - 07 - 16	125 - 32 - 21	5.89	NR	Sep 1959	Oct 1959	1959			(1-5)1966, (1/10)1971, (2-6/9-10)1972, (1)1974, (1-4)1976, (6-12)1978, (all)1979-1980	excel	daily, monthly, annually	Closed	3x/day
684	11SW070262PW005	San Ildefonso, Canteel, Davao		Canteel	XI	264	07 - 45 - 22	125 - 22 - 18	4.85/BM#1		Oct 1951	Jan 1958-1959	1958-1959				excel	annually	Closed	3x/day
685	11SW072254PW007	Tipaz, Tagum, Davao del Norte	11302	Hijo	XI	617	07 - 27 - 00	125 - 49 - 40	14.8	NR	Sep 1951	Feb 1957	1957			(5-6)1956, (12)1960, 1961-1962, (1-1)1963, (2-3)1964, 1965, (1-6)1966, (1-6/9)1969, (4-7)1970, (2-3/8)1972, (all)1973-1980	excel	daily, monthly, annually	Closed	3x/day
686	11SW072254PW008	Pagsabangan, Tagum, Davao	11303	Tagum	XI	2326	07 - 28 - 00	125 - 45 - 00	0.94		Sep 1949	Oct 1949-10/1969	1949-10/1969			(1/4-5)1958, (2-12)1961, 1962-1966, (1-2)1967, 1968, (1-5/11-12)1969	excel	daily, monthly, annually	Closed	3x/day
687	11SW072263PW006	San Pedro, Caraga, Davao Oriental	11295	Caraga	XI	468	07 - 20 - 50	126 - 30 - 23	5.36/BM#1		Nov 1964	Apr 1965-11/1969	1965-11/1969			((4-10)1965, (10)1969	excel	daily, monthly, annually	Closed	3x/day
688	11SW090260PW004	Libas Gua, San Miguel, Surigao del Sur	11287	Tago	XI	676	09 - 00 - 50	126 - 04 - 00	32.5	NR	May 1959	Apr 1960	1960			(4-8/12)1960, (2/12)1961, ((11-12)1962, 1963-1967, (1-3/10-11)1968, (3-5/12)1969, (1-2/11-12)1970, (1-2/8)1971, (12)1972, (all) 1973-1980	excel	daily, monthly, annually	Closed	3x/day
689	11SW091255PW003	Parang, Cantilan, Surigao		Carac-an	XI	240	09 - 14 - 25	125 - 56 - 10	11.4		Jun 1950	Jul 1950	1950			(3-12)1958, 1959-1967, (9-10)1968, 1970	excel	daily, monthly, annually	Closed	3x/day
690	11SW091260PW002	Lisob, Madrid, Surigao del Sur		Boya-an	XI	33	09 - 14 - 12	126 - 00 - 00	45.2	NR	Dec 1956	Jan 1957	1957			(4-6)1957, (4-12)1958, 1959-1967, (4-12/9)1968, (1/12)1969, (6)1970, (1-2/9)1971, (11-12)1972, (1-6/11-12)1974, (1-8)1975, (all)1977-1980	excel	daily, monthly, annually	Closed	3x/day
691	11SW093253PW001	Pantao, Bacuag, Surigao del Norte		Bacuag	XI	64	09 - 37 - 00	125 - 37 - 00	8.20	NR	May 1952	Jun 1952-1956	1952-1956			(5-12)1953, 1954-1955, (1-11)1956, (5-8)1963, (3-12)1964, 1965, (1-6/10-12)1966, 1967, (4-5/11)1968, (4/12)1969, (1-12)1972, (1-12)1976, (1/7)1977, (3-6)1978, (2-12)1979, (all)1980	excel	daily, monthly, annually	Closed	3x/day
692	01201	Raradangan, Alanada, North Cotabato		Makabasa	XII	-	07 - 26 - 16	124 - 30 - 54	-		1986		1986-2002			raw data	daily, monthly, annually	Operational	3x/day	
693	01202	Quirino Bridge, Cotabato City	12342	Mindanao	XII	-	07 - 13 - 45	124 - 15 - 13	-		1965		1980-2000	2001-2002	1978-1980 (12yrs)		excel	daily, monthly, annually	Operational	3x/day
694	01203	Pres. Roxas, North Cotabato	12350	Kabacan	XII	-	07 - 06 - 30	125 - 03 - 20	-		1955		1993-2000	2001-2002	1970-1993 (23yrs)		excel	daily, monthly, annually	Operational	3x/day
695	01204	Lam-alo, Lake Sebu, South Cotabato		Lonon	XII	-	06 - 14 - 31	124 - 43 - 45	-		1980		1980-1991	1992-2002			raw data	daily, monthly, annually	Operational	3x/day
696	01205	Poblacion, Maitum, South Cotabato		Maitum	XII	-	06 - 02 - 52	124 - 29 - 23	-		1987		1987-2002		1987-1989 (2yrs)		raw data	daily, monthly, annually	Operational	3x/day
697	01206	Seguil, Maasin, South Cotabato		Seguil	XII	-	05 - 57 - 38	125 - 05 - 42	-		1988		1988-2002				raw data	daily, monthly, annually	Operational	3x/day
698	01207	Tuayan, Maganoy, Maguindanao		Maganoy	XII	1260	06 - 49 - 30	124 - 24 - 50	-		Oct 1981	Oct 1981-1985	1981-1988			(10-12)1982, 1983, 1984	excel	daily, monthly, annually	Closed	2x/day
699	01208	Sapakan, Maguindanao		Maganoy	XII	-	-	-	-		1981		1981-1984				excel	daily, monthly, annually	Closed	2x/day
700	01209	Baloi, Lanao del Norte	12336	Agus	XII	1890	08 - 07 - 03	124 - 13 - 08	360.3		Oct 1981	Oct 1981-7/1985	1981-7/1985			(3)1983, (7-9)1984	excel	daily, monthly, annually	Closed	2x/day
701	01210	Ninan, Parang, Maguindanao	12341	Nitan	XII	-	07 - 22 - 02	124 - 16 - 15	-		1986		1986-2002				raw data	daily, monthly, annually	Operational	3x/day
702	01211	Nica-an, Libungan, Cotabato		Nica-an	XII	-	07 - 19 - 44	124 - 34 - 00	-		1988		1988-2002				raw data	daily, monthly, annually	Operational	3x/day
703	01212	Tacurong, Sultan Kudarat		Kapingkong	XII	-	06 - 40 - 11	124 - 37 - 38	-		1968		1989-2000	2001-2002	1975-1989 (14yrs)		excel	daily, monthly, annually	Operational	3x/day
704	01213	Kalaong, Maitum, South Cotabato	12361	Kalaong	XII	-	06 - 04 - 03	124 - 27 - 46	-		1986		1986-2002		1987-1989 (2yrs)		raw data	daily, monthly, annually	Operational	3x/day
705	01214	Brgy. Impao, Isulan, Sultan Kudarat	12345	Allah	XII	1231	06 - 40 - 30	124 - 34 - 00	-		Jun 1980	Jun 1980-1994	1980-1994			(4-5)1981, (12) 1984, (1/4-7/ 12) 1986, (9/12) 1987, (2/8-12) 1989, (1-6/12) 1990, (1-3/7-12) 1991, (1-6/11-12) 1992, (6/12) 1993	excel	daily, monthly, annually	Closed	3x/day
706	01215	Pres. Roxas, Cotabato		Binay	XII	-	-	-	-		1988		1988-1992				excel	daily, monthly, annually	Closed	3x/day
707	01216	Brgy. Kraan, Palimbang, Sultan Kudarat	12360	Kraan	XII	410	06 - 07 - 32	124 - 19 - 30	-		Sep 1986	Sep 1986-11/1988	1986-11/1988			(11)1986, (9-10/12)1987	excel	daily, monthly, annually	Closed	3x/day
708	01217	Lake Sebu, Surallah, South Cotabato		Lake Sebu	XII	28	06 - 13 - 05	125 - 42 - 20	-		Jun 1980	Jun 1980-1984	1980-1984			(12)1980, (6/8)1981, (5)1982	excel	daily, monthly, annually	Closed	3x/day
709	01218	Lake Sebu, Surallah, South Cotabato		Lo-el	XII	28	06 - 12 - 38	124 - 42 - 03	-		Jan 1980	Jan 1980-1999	1980-1999	2000-2002		(6/8/11-12)1981, (3-4)1982, (1/3-4/7/12)1986, (9-10/12)1987, (1-2/8 9/11-12)1989, (1-6)1990, (11-12)1992, (3-6)1993, (9)1996, (11-12)1998	excel	daily, monthly, annually	Closed	3x/day
710	01219	Kinub, Bao, Alanada, North Cotabato		Malimbog	XII	426	07 - 24 - 00	124 - 39 - 00	-		Jun 1983	Jun 1983-6/1985	1983-6/1985			(11-12)1984, (1-2)1985	excel	daily, monthly, annually	Closed	2x/day
711	01220	Cobanlasan, Maraguig, Bukidnon	12413	Pulangui	XII	734	08 - 09 - 31	125 - 19 - 22	598.7		Sep 1982	Sep 1982-6/1985	1982-6/1985			(1-9)1982, (7-9)1984	excel	daily, monthly, annually	Closed	3x/day
712	01221	Banga, Surallah, South Cotabato	12411	Banga	XII	330	06 - 25 - 50	124 - 46 - 44	-		Sep 1959	Jan 1981-1993	1981-1994			(1-7/12)1986, (9-10/12)1987, (1-2/9-12)1989, (5-6/12)1990, (2-3)1991, (11-12)1992, (5)1993	excel	monthly, annually	Closed	3x/day
713	01222	Canahay, Surallah, South Cotabato		Lonon	XII	125	06 - 18 - 24	124 - 44 - 0												

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**RIVER GAUGING STATIONS**  
 (Department of Public Works and Highways - Bureau of Research and Standards)

No.	Station No.	Station Location/Name	River Code No.	River Name	WRR No.	Drainage Area (sq. km.)	Latitude	Longitude	Elevation (m)	Type	Date Established/ Started	Years of Record					File Format	Data Available	Status	Remarks
												Published	Unpublished		Gaps	Missing Data				
													Encoded	Raw Data						
731	I2SW070242PW007	Datu Piang, Maguindanao		Rio Grande de Mindanao	XII	17744	07 - 01 - 00	124 - 29 - 00	157		Sep 1959	Jan 1964-1985	1964-1985			(11)1964, (6-7/10-12)1965, 1966, (1-4/6)1967, (7-8)1969, (2/11-12)1970, (3-12)1973, (all)1974-1980, (10-12)1983, (7-12)1984	excel	daily, monthly, annually	Closed	3x/day
732	I2SW070244PW020	Inug-ug, Pikit, North Cotabato	12413	Pulangui (Rio de Grande Mindanao)	XII	12999	07 - 03 - 09	124 - 42 - 27	34.5	NR	Jun 1955	Jul 1955-3/1990	1955-3/1990			(7-12)1962, 1963, (1-4/8-12)1964, (1-3)1967, (7)1971, (7-12)1976, (all)1977-1980 (8) 1984, (1/3-4/6-7/10) 1986, (9-10/12) 1987, (11-12) 1988, (9/11-12) 1989, (2) 1990	excel	daily, monthly, annually	Closed	3x/day
733	I2SW070244PW021	Tinatulan, Pikit, North Cotabato	12349	Maridagao	XII	1333	07 - 09 - 00	124 - 42 - 00	14.3	NR	Sep 1959	Oct 1959-1973	1959-1973			1963, (1-2)1967, (9)1971, (10)1972, (7-12)1973, (all)1974-1980	excel	monthly, annually	Closed	3x/day
734	I2SW070244PW023	Lumayong, Carmen, North Cotabato	12413	Pulangui	XII	7751	07 - 08 - 43	124 - 48 - 07	16.8	NR	Sep 1959	Oct 1959-1970	1959-1970	1983-2002		(3-12)1964, (1-4)1967	raw data	daily, monthly, annually	Operational	3x/day
735	I2SW070245PW022	Mateo, Matalam, Cotabato	12350	Kabakan	XII	698	07 - 06 - 32	124 - 52 - 39	24.0		Aug 1955	Sep 1955-1970	1955-1970			(10-12)1958, (7-12)1959, (1-10)1960, (4-12)1962, (1-3/5/7-9)1963, (5-7)1965, (1-3/9-12)1967, (1-5)1968, (5/7-8)1970	excel	monthly, annually	Closed	3x/day
736	I2SW070250PW019	Saguing, (Perez), Kidapawan, Cotabato		Saguing	XII	9	07 - 01 - 30	125 - 09 - 08	891.4	NR	Jan 1955	Jan 1955-1956	1955-1956	1986-2002		(1-6)1958, (11-12)1959, (1-3/12)1960, (1)1961, (9-12)1962, (1-3)1968, (2)1969, 1970, (8)1971, (10-12)1973, (all)1974-1980	excel	daily, monthly, annually	Operational	3x/day
737	I2SW071241PW005	Cotabato City, Maguindanao	12342	Mindanao	XII	19,406	07 - 14 - 00	124 - 14 - 30	1.6	NR	Jan 1965	Feb 1965-1970	1965-1970			1966, (9-11)1967, (5/8)1968, (9)1969, (2/10-11)1970, (1971-1980)	excel	daily, monthly, annually	Closed	3x/day
738	I2SW071241PW033	Tamontaka, Cotabato City		Tamontaka	XII	-	07 - 10 - 58	124 - 13 - 15	9.72	NR	May 1969	Jun 1969-1970	1969-1970	2001-2002	1949-1969, 1972-1980	1971-1972	excel	daily, monthly, annually	Operational	3x/day
739	I2SW071241PW034	Linek, Dinaig, Maguindanao		Tamontaka	XII	583	07 - 11 - 45	124 - 13 - 40	1.43	NR	Jun 1969	Jul 1969-1970	1969-1970			(2/5-8)1970, 1971-1972	excel	daily, monthly, annually	Closed	3x/day
740	I2SW071242PW004	Simuay, Sultan Kudarat, North Cotabato		Simuay	XII	664	07 - 17 - 18	124 - 17 - 55	22.2		Jul 1969	Aug 1969-1970	1969-1970	1987-2002	1971-1987 (16yrs)		raw data	daily, monthly, annually	Operational	3x/day
741	I2SW071243PW006	(Abaga), Libugan, North Cotabato	12343	Libugan	XII	534	07 - 14 - 50	124 - 31 - 30	18.7	NR	Jan 1950	Jan 1950-1951	1950-1951	1995-2002	1970-1995 (25yrs)	(7-10)1956, (1-6)1959, (4-12)1961, (1-7/12)1962, (1-8/10-12)1963, 1964, (1-4/7)1965, (11-12)1966, (1-3/9)1967, (9)1968, (10-12)1973, (all) 1974-1980	raw data	daily, monthly, annually	Operational	3x/day
742	I2SW072245PW024	Omonay, Damulog, Bukidnon	12351	Muleta	XII	1001	07 - 26 - 12	124 - 52 - 36	-		Sep 1967	Oct 1967-1994	1967-1994	1995-2002	1970-1985 (15yrs)	(1-5)1970	excel	daily, monthly, annually	Operational	3x/day
743	I2SW074250PW025	Panadtalan, Maramag, Bukidnon	12353	Kulaman	XII	144	07 - 49 - 00	125 - 01 - 00	93.1	NR	Feb 1968	Mar 1968	1968			(4)1968, (3-5/12)1970, (1-12)1972, (6-12)1973	excel	daily, monthly, annually	Closed	3x/day
744	I2SW075234PW003	Rebe, Lala, Lanao del Norte	12338	Maranding	XII	345	07 - 54 - 10	123 - 47 - 56	17.792		Aug 1951	Sep 1951-1970	1951-1970				excel	daily, monthly, annually	Closed	3x/day
745	I2SW075245PW026	Guinoyoran, Valencia, Bukidnon		Sagonata	XII	10	07 - 55 - 28	124 - 56 - 50	98.0	NR	Jun 1967	Nov 1967	1967			(3-5/8)1968, (5/7-12)1968, (3-7)1971, (7)1972, (2-12)1973, (all)1974-1980	excel	daily, monthly, annually	Closed	3x/day
746	I2SW075245PW028	Guinoyoran, Valencia, Bukidnon		Taganibong (S-2)	XII	-	07 - 54 - 32	124 - 58 - 32	-								-		Closed	
747	I2SW075250PW027	Musuan, Maramag, Bukidnon		Taganibong (S-1)	XII	27	07 - 52 - 33	125 - 02 - 07	27		Nov 1967	Nov 1967	1967			(3-5/8)1968, (5/7-12)1969, 1970	excel	daily, monthly, annually	Closed	2x/day
748	I2SW075250PW029	Poblacion, Valencia, Bukidnon	12413	Pulangui	XII	2,730	07 - 54 - 20	125 - 05 - 35	193.4	NR	Jun 1963	Apr 1964	1964			(4)1971, (1-12)1976, (1-12)1977, (4-8/12)1964, (1-2/8-12)1965, 1966-1967, (1-2)1968 (6)1978, (1-12)1979, (3-12)1980	excel	daily, monthly, annually	Closed	3x/day
749	I2SW075250PW030	Colonia, Valencia, Bukidnon	12355	Manupali	XII	487	07 - 59 - 15	125 - 08 - 10	193.4	NR	Feb 1968	Jun 1968-1979	1968-1979			(6-12)1973, (7-12)1974, (1-12)1975, (1-12)1976, (4-5/10-12)1977, (3-12)1979	excel	monthly, annually	Closed	3x/day
750	I2SW080235PW002	Balatagasa, Maigo, Lanao del Norte		Maigo	XII	74	08 - 08 - 46	123 - 57 - 16	21.9/ASB Datum		Apr 1951	May 1951-1970	1951-1970	1986-2000	2001-2002	(8-12)1953, (1)1957, (8-10)1960, (2/6-7)1961, (1-6/10-12)1966, (12)1969, (1-5)1970	excel	daily, monthly, annually	Operational	3x/day
751	I2SW081241PW001	Taparac, Iligan City Lanao del Norte	12335	Mandulog	XII	576	08 - 15 - 32	124 - 16 - 16	43.2	NR	Apr 1959	Mar 1960	1960			(2)1972, (8-11)1973, (1-11)1975, (8/12)1976, (all)1979/1980	excel	daily, monthly, annually	Closed	3x/day

Sources:  
 Streamflow Data 1980-2002  
 Published July 2001, January 2002 and July 2002  
 Department of Public Works and Highways - Bureau of Research and Standards  
 Surface Water Supply Bulletin No. 2, Volume I  
 Surface Water Supply of the Philippines, 1945-1956  
 Surface Water Supply Bulletin No. 3, Volume II  
 Surface Water Supply of the Philippines, 1957-1959  
 Philippine Water Resources Summary Data  
 Volume I Streamflow and Lake or River Stage, 1980

## **Annex 4**

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### ***Station Density of the Streamflow Gauging in Principal River Basins***

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (1/12)**

**WATER RESOURCES REGION NO. 1**

**ILOCOS**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
01031	Bulu	231	12	3	565
01032	Banban	134	97	0	327
01033	Bacarra-Vintar	772	80	0	1,888
01034	Laoag	1,319	544	2	3,225
01035	Quiaoit	188	57	2	460
01036	Abra	5,125	299	2	12,551
01037	Tineg (036)	1,550	20	1	3,790
01038	Ikmin (036)	444	6	0	1,086
01039	Silay-Sta. Maria	294	54	0	719
01040	Buaya	169	33	0	413
01041	Amburayan	1,386	29	1	3,389
01042	Bararo	191	16	1	467
01043	Baung	353	42	2	863
01044	Aringay	469	36	2	1,147

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (2/12)**

**WATER RESOURCES REGION NO. 2**

**CAGAYAN VALLEY**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
02001	Cagayan	25,469	3,456	8	53,943
02002	Zinundungan (001)	405	63	0	858
02003	Dumon (001)	456	77	0	965
02004	Chico (001)	4,588	480	1	9,717
02005	Matalug (004)	719	33	0	1,522
02006	Saltan-Babaca (004)	794	14	1	1,681
02007	Tanudan (004)	388	1	0	822
02008	Paret (001)	1,031	184	0	2,184
02009	Tuguegarao (001)	658	56	1	1,394
02010	Pinacanauan (001)	328	51	0	695
02011	Balasis (001)	220	36	0	466
02012	Tumauini (001)	190	28	0	402
02013	Siffu-Mallig (001)	1,938	674	0	4,105
02014	Iligan (001)	4,464	137	1	9,455
02015	Abuan (014)	616	11	0	1,305
02016	Disabungan (014)	655	15	0	1,434
02017	Magat (001)	4,631	1,570	2	9,808
02018	Taotao (017)	419	308	0	887
02019	Alimit (017)	600	371	1	1,271
02020	Ibulao (017)	353	80	1	748
02021	Lamot (017)	438	85	0	928
02022	Matuno (017)	738	66	0	1,563
02023	Sta. Fe (017)	547	176	1	1,159
02024	Ganano (001)	1,131	473	2	2,395
02025	Addalam (001)	1,014	54	3	2,148
02026	Diboluan (001)	366	14	0	775
02027	Linao	234	55	0	496
02028	Abulug	3,362	178	1	7,021
02029	Pamplona	706	0	1	1,495
02030	Cabicanan	244	0	0	517
02045	Aunugay	103	13	0	218
02046	Baua	110	17	0	233
02047	Palawig	101	12	0	215
02048	Taboan	369	4	0	782
02049	Dikatayan	188	4	0	3,983
02050	Dinillan	131	3	0	277
02051	Palanan-Pinacanauan	806	57	0	1,707
02052	Casiguran	191	23	0	404

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (3/12)**

**WATER RESOURCES REGION NO. 3**

**CENTRAL LUZON**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
03053	Aguang	647	116	0	723
03054	Umiray	553	3	0	648
03055	Angat	781	108	1	873
03056	Penaranda (059)	512	71	0	572
03057	Coronell (059)	740	124	1	827
03058	Pantabangan (059)	244	29	0	273
03059	Pampanga	9,759	6,660	14	10,930
03060	Balanga	144	24	1	161
03061	Moron	66	1	0	74
03062	Panatawan	163	116	1	182
03063	Sto. Tomas	263	78	1	294
03064	Bucau	734	79	1	821
03065	Bancul	224	35	0	250
03066	Lawis	406	19	0	454
03067	Nayam	213	27	0	238
03068	Balincuguin	406	51	0	454
03069	Alaminos	200	55	0	224
03070	Agno	5,952	1,883	4	6,654
03071	Camiling (070)	764	330	1	854
03072	O. Donnel (070) Moriones	830	153	0	928
03073	Ambayabang (070)	400	37	0	447
03074	Dagupan	897	513	0	1,002
03075	Patalan	347	248	0	388
03421	Rio Chico (059)	1,573	2,037	1	1,762



**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (4a/12)**

**WATER RESOURCES REGION NO. 4**

**SOUTHERN TAGALOG**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
4076	Pasig-Laguna Bay	4,678	1,065	9	7,485
4077	Marikina (076)	600	74	4	960
4078	Romeo-Sta. Maria (076)	262	51	0	419
4079	Pagsanjan (076)	325	18	0	520
4080	Pila-Sta. Cruz (076)	128	32	2	205
4081	San Juan (076)	178	101	2	285
4082	San Cristobal (076)	131	7	1	210
4083	Maragondong	339	32	1	542
4084	Lian	184	22	0	295
4085	Banabang-Molino	108	53	1	173
4086	Pansipit	656	78	1	1,050
4087	Kapumpang	406	162	0	650
4088	Rosario-Lobo	197	6	0	315
4089	Bolbok-(Lawaya)	105	40	0	168
4090	Malaking-Ilog	781	338	0	1,250
4091	Iyam	269	113	2	430
4092	Macalelon	165	21	0	264
4093	Catanuan	122	13	0	195
4094	Silongin	59	3	0	94
4095	Lagola-Pagsanjan	89	7	0	142
4096	Yabahaan	63	7	0	100
4097	Bigol	89	4	0	142
4098	Guinhalinan	149	5	0	238
4099	Vinas	159	24	0	254
4100	Calauag	163	8	0	261
4101	Pandanan	154	23	0	246
4102	Sta. Lucia	94	3	0	150
4103	Lugan (Malaybalay)	91	4	1	146
4104	Maapon	201	16	0	322
4105	Bucal (Lalangnan)	77	0	0	123
4106	Labayat	56	0	1	90
4107	Tignoan	86	0	1	138
4108	Agos	672	15	0	1,075
4109	Anibawan	97	3	0	155
4139	Abra de Ilog	122	22	0	195
4140	Malaylay-Baco	488	130	0	781
4141	Pulang Tubig	422	104	2	675
4142	Mag-asawang Tubig	491	90	3	786

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (4b/12)**  
**WATER RESOURCES REGION NO. 4**  
**SOUTHERN TAGALOG**

Code No.	River Basin	Drainage Area (sq. kms.)	Level Area (sq. kms.)	No. of Ga. Sta. (operational)	Estimated Annual Run-off (MCM)
4143	Butas	356	152	0	570
4144	Pula	260	44	0	416
4145	Agsalin	147	24	0	235
4146	Bansud	156	14	0	250
4147	SUmagui	97	17	1	155
4148	Bongabon	396	36	0	634
4149	Baroc	184	32	1	294
4150	Bulalacao	75	12	0	120
4151	Cagaray	234	139	0	374
4152	Labangan	159	22	0	254
4153	Magbando	578	299	0	925
4154	Lumintao	334	237	0	534
4155	Anahawin	134	38	0	214
4156	Monpong	353	105	0	565
4157	Amnay	466	246	0	746
4158	Pola	288	112	1	461
4159	Pagbahan	328	104	1	525
4160	Mamburao	272	61	1	435
4161	Tawiran-Tagum (Marinduque)	58	0	0	92
4162	Boac	209	151	3	334
4163	Busuanga	194	33	0	310
4164	Abongan	125	2	0	200
4165	Lian	338	0	0	541
4166	Barabakan	273	16	0	437
4167	Rizal	351	21	0	562
4168	Caramay	69	1	0	110
4169	Langogan	203	3	0	325
4170	Babuyan	298	18	0	477
4171	Bacungan	96	0	0	154
4172	Ihawig Penal	213	41	0	341
4173	Inagauan	171	7	0	274
4174	Aborian	245	62	0	392
4175	Malasgao	226	58	0	362
4176	Apurauan	83	2	0	133
4177	Baton-Baton	134	23	0	214
4178	Aramayawan	94	2	0	150
4179	Iwahig	127	9	0	203

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (4c/12)**

**WATER RESOURCES REGION NO. 4**

**SOUTHERN TAGALOG**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
4180	Panitian	91	29	0	146
4181	Pulot	170	31	0	272
4182	Lamakan	131	25	0	210
4183	Kinlugan	59	8	0	94
4184	Eraan	183	15	0	293
4185	Tiga Plan	177	35	0	283
4186	Malabangan	75	9	0	120
4187	Ilog	70	19	0	112
4188	Bansang	78	12	0	125
4189	Conduaga	56	2	0	90
4190	Culasian	71	9	0	114
4191	Ihawig (Brookes)	150	51	0	240
4192	Okayan	58	46	0	93
4193	Canipan	106	6	0	170
4401	Laboc (Balsahan)	96	26	0	154
4402	Cañas	210	48	0	336
4403	Ilang-Ilang	82	44	1	131
4404	Imus	105	59	0	168
4405	Balete	132	20	1	211
4406	Filantopia	72	20	0	115
4410	Ibod	348	22	0	557
4417	Kaliwa	440	10	0	704

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (5/12)**

**WATER RESOURCES REGION NO. 5**

**BICOL**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
5110	Labo	913	284	0	1,235
5111	Daet Basud	270	94	0	365
5112	Kilbay-Katabangan	285	32	0	386
5113	Ragay	188	11	0	254
5114	Bicol	3,771	549	0	5,102
5115	Tinalmud	119	10	0	161
5116	Tambang	164	10	0	222
5117	Lagonoy	228	77	1	308
5118	Guinale (114)	103	11	4	139
5119	Donsol	396	11	1	536
5120	Ogod	122	9	0	165
5121	Putiao	188	19	0	254
5122	Cadacan	197	34	1	266
5123	Banuang-Duan	46	7	2	62
5124	Fabrica (Tugbugan)	56	14	0	76
5125	Matnog	63	8	0	85
5126	Lanang	134	6	0	181
5127	Napayawan	94	15	0	127
5128	Mandaong	58	9	0	78
5129	Asid	140	32	0	189
5130	Malbag	244	105	0	330
5131	Guiom	152	44	0	206
5132	Nainday	88	13	0	119
5133	Daraga	113	13	0	153
5134	Nauco (Aguada)	102	17	0	138
5135	Beleño	63	3	0	85
5136	Cabuyan	84	15	0	114
5137	Bato	305	7	1	413
5138	Pajo	333	19	2	450
5418	Sipocot (114)	447	47	5	605

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (6/12)**

**WATER RESOURCES REGION NO. 6**

**WESTERN VISAYAS**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
6194	Ibajay	244	18	2	310
6195	Aklan	852	92	1	1,083
6196	Jalo	78	3	0	99
6197	Panay	1,843	430	0	2,344
6198	Mambusao (197)	465	105	2	591
6199	Panay Malinao (197)	503	35	4	640
6200	Alingon	56	16	0	71
6201	Balantian	50	30	0	64
6202	Pinantan	134	45	0	170
6203	Barotac	102	12	0	130
6204	Akalaygan	88	53	0	112
6205	Jalaud	1,503	301	0	1,912
6206	Jalano (205)	350	45	2	445
6207	Jagdong (205)	356	44	0	453
6208	Jalaur (205)	203	35	5	258
6209	Lamunan (205)	281	12	0	357
6210	Jaro-Agaman	272	124	1	346
6211	Sibalom	222	42	0	282
6212	Guimbal	194	18	0	247
6213	Sibalom	564	43	2	717
6214	Ipayo	71	8	1	90
6215	Cagaranan	294	19	0	374
6216	Palawan	206	11	1	262
6217	Cairauan	51	3	2	65
6218	Dalanas	119	7	0	151
6219	Tibiao	41	9	0	52
6220	Malogo	163	37	1	207
6221	Sicaba	175	67	0	223
6222	Grande	122	55	0	155
6223	Himocan	427	109	0	543
6224	Danao	134	18	0	170
6234	Sipalay	327	43	0	406
6235	Ilog	1,945	645	3	2,474
6236	Hilabangan (235)	409	31	3	520
6237	Ilog (235)	377	0	0	480
6238	Binalbagan	772	243	1	981
6239	Bago	798	135	1	1,015
6240	Imbang	150	87	2	191

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (7/12)**

**WATER RESOURCES REGION NO. 7**

**CENTRAL VISAYAS**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
07225	Libertad	213	7	2	128
07226	Tanjay	215	40	3	129
07227	Candugay	116	4	0	70
07228	Siaton	228	8	1	131
07229	Cauitan	85	2	0	51
07230	Sipocong	308	35	0	185
07231	Bayawan	434	49	0	260
07232	Pangatban	378	30	0	227
07233	Tyabana	116	8	0	70
07241	Guinabasan	120	7	1	72
07242	Balamban	231	11	0	139
07243	Sapang Dako	147	9	1	88
07275	Inabanga	572	59	1	343
07276	Ipil	252	124	1	151
07277	Matulid	153	36	2	92
07278	Loboc	513	17	2	308
07279	Abatan	352	29	2	211
07414	Kotkot	82	6	0	49
07415	Mananga	102	9	0	61

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (8/12)**

**WATER RESOURCES REGION NO. 8**

**EASTERN VISAYAS**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
08244	Catarman	272	41	0	517
08245	Bugko	133	41	0	253
08246	Pambukhan	596	38	0	1,132
08247	Catubig	688	160	0	1,037
08248	Palapag	141	15	0	268
08249	Oras	491	39	0	933
08250	Dolores	702	81	0	1,334
08251	Ulot	903	71	0	1,716
08252	Taft	375	18	0	713
08253	Borongan	134	7	2	255
08254	Suribao	583	0	0	11,080
08255	Llorento	340	25	0	646
08256	Balangiga	169	6	0	321
08257	Basey	250	47	0	472
08258	Silaga	204	31	0	388
08259	Calbiga	283	41	2	538
08260	Gandara	1,067	105	0	293
08261	Jibatan	378	46	0	718
08262	Mano	221	6	0	420
08263	Sangputan	270	130	2	513
08264	Palo	259	186	2	492
08265	Salano (Quilot)	302	99	0	574
08266	Daguitan-Marabang	266	57	1	505
08267	Cadacan	458	890	1	870
08268	Bisay	103	7	1	196
08269	Himbangan	120	15	1	228
08270	Pandan	114	8	0	217
08271	Bongquirogon	209	132	1	397
08272	Salug	150	11	0	285
08273	Pagbangran	140	11	1	266
08274	Pagsangahan	453	114	1	861
08407	Gamay	158	26	0	300
08408	Sulat	129	7	0	245
08420	Binahaan	120	8	0	228

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (9/12)**

**WATER RESOURCES REGION NO. 9**

**SOUTHWESTERN MINDANAO**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
09368	Mapangil	1,202	245	0	902
09369	Clarín	134	14	1	100
09370	Palilan	91	11	1	68
09371	Oroquieta	108	6	1	81
09372	Paro (Dapitan)	384	67	1	288
09373	Dipolog	471	45	1	353
09374	Dikaya	272	6	0	204
09375	Golid (Duwait)	215	8	0	161
09376	Sindangan	584	42	1	438
09377	Ingin (Maras)	252	5	1	189
09378	Palandoc	203	0	0	152
09379	Bucas	153	4	0	115
09380	Pataug	177	6	0	133
09381	Quipit	633	38	0	475
09382	Siocon	603	24	0	452
09383	Piacan	91	4	0	68
09384	Anungan	108	2	0	81
09385	Pangamiran	109	1	0	82
09386	Sibuco	140	1	0	105
09387	Malayat (Alimpaya)	110	2	0	83
09388	Tumaga	228	44	1	171
09389	Taguít	384	29	0	288
09390	Tigbao	106	12	0	80
09391	Digsa	95	2	0	71
09392	Sanito	115	9	0	86
09393	Bakalan	128	13	0	96
09394	Kabasalan	227	25	1	170
09395	Sibuguey	959	131	1	719
09396	Kamalarang	133	6	1	100
09397	Tupilac	284	9	1	213
09398	Labangan	483	36	3	362
09399	Gubauan	158	63	0	119
09400	Gumalarang	102	6	0	77
09409	Aloran	87	6	1	65



**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (10/12)**

**WATER RESOURCES REGION NO. 10**

**NORTHERN MINDANAO**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
10280	Malinao Inlet	112	11	0	285
10281	Gaas Lulet	139	17	0	355
10282	Surigao	141	35	1	360
10283	Magallanes	244	11	0	623
10313	Lake Mainit-Tubay	977	157	0	2,494
10314	Asiga	264	7	1	674
10315	Agusan	10,921	2,494	3	27,880
10316	Ojot (315)	765	123	0	19,523
10317	Wawa (315)	795	88	1	2,030
10419	Andanan (315)	380	3	0	970
10318	Libang (315)	228	16	0	582
10319	Maosam (315)	418	8	0	1,067
10320	Kasilan (315)	284	31	0	725
10321	Gibong (315)	824	360	0	2,104
10322	Adgaoan (315)	965	103	0	2,464
10323	Simulao (315)	944	87	2	2,410
10324	Kayonan (315)	802	101	0	2,048
10325	Haoan (315)	664	123	0	1,695
10326	Linugos	202	15	0	516
10327	Odiongan	328	24	0	838
10328	Gingog	102	5	1	260
10329	Balatocan	233	171	0	595
10330	Cabulig	234	4	1	597
10331	Tagaloan	1,704	173	2	4,350
10332	Cagayan	1,521	86	1	3,883
10333	Iponon	407	19	1	1,039
10334	Alubijid	120	9	1	306
10335	Manduloy	791	36	0	2,019
10416	Cabadbaran	215	32	0	549

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (11/12)**  
**WATER RESOURCES REGION NO. 11**  
**SOUTHEASTERN MINDANAO**

Code No.	River Basin	Drainage Area (sq. kms.)	Level Area (sq. kms.)	No. of Ga. Sta. (operational)	Estimated Annual Run-off (MCM)
11284	Cantillan	188	19	0	376
11285	Toracan	447	40	0	894
11286	Tandag	189	12	0	378
11287	Tago	1,355	309	0	2,710
11288	Hubo-Atienza	201	11	0	402
11289	Hinatuan	344	185	0	688
11290	Bislig	381	56	0	762
11291	Catul	716	65	0	1,432
11292	Dapras	144	10	0	288
11293	Banganga-Mahaneb	317	17	0	634
11294	Manurigao	294	17	0	588
11295	Caraga	498	18	0	996
11296	Casaunan	393	3	0	785
11297	Quinonoan	138	0	1	276
11298	Bugnan-Mayo	146	19	0	292
11299	Bitanayan	93	11	1	186
11300	Sumlog	381	45	0	762
11301	Matibo	172	10	1	344
11302	Hijo	700	85	1	1,400
11303	Tagum-Libuganon	3,064	504	1	6,128
11304	Tuganay	666	362	1	1,332
11305	Saug (303)	1,000	287	0	2,000
11306	Lasang	467	53	0	934
11307	Davao	1,623	164	1	3,246
11308	Talomo	244	141	2	488
11309	Lipadas	133	8	1	266
11310	Tagulaya-Sibulan	158	6	0	316
11311	Digos	175	109	1	350
11312	Padada-Maint	1,303	423	0	2,606
11362	Siquil	280	9	0	560
11363	Makar	614	290	0	1,228
11364	Buayan-Malungan	1,435	150	1	2,870
11365	Little Lun	234	6	2	468
11366	Big Lun	230	9	0	460
11367	Glan	359	14	1	718

**Annex 4 Station Density of the Streamflow Gauging in Principal River Basins (12/12)**

**WATER RESOURCES REGION NO. 12**

**SOUTHERN MINDANAO**

<b>Code No.</b>	<b>River Basin</b>	<b>Drainage Area (sq. kms.)</b>	<b>Level Area (sq. kms.)</b>	<b>No. of Ga. Sta. (operational)</b>	<b>Estimated Annual Run-off (MCM)</b>
12335	Mandulog	791	36	0	918
12336	Agus	1,645	166	1	1,910
12337	Liangan	211	24	0	245
12338	Maranding	553	136	0	642
12339	Dapao	170	4	0	197
12340	Mataling	414	22	0	481
12341	Nituan	326	49	1	378
12342	Mindanao	23,169	5,132	6	26,899
12343	Libungan (342)	889	323	1	1,032
12344	Dalika (342)	380	37	0	441
12345	Aliah (342)	6,849	189	2	7,952
12346	Malasila (342)	365	417	0	424
12347	Toliman-Dumakling (346)	532	196	0	618
12348	Buluan (346)	1,588	1,114	0	1,844
12349	Maridagao (413)	2,037	7	0	2,365
12350	Kabacan (413)	884	689	1	1,026
12351	Mulita (413)	1,041	334	1	1,209
12352	Alkan (413)	437	55	0	507
12353	Kulamán (413)	647	14	0	751
12354	Muapag (413)	265	90	0	308
12355	Marupali (413)	1,047	162	0	1,216
12356	Tigua (413)	331	19	0	384
12357	Mataber	205	29	0	238
12358	Y'lang	209	7	0	243
12359	Tian	803	30	0	932
12360	Kraan	278	10	0	323
12361	Kalaong	318	9	2	369
12411	Banga (345)	684	11	0	793
12412	M'lang (345)	360	252	0	418
12413	Pulanggi (345)	6,772	84	1	7,862

# **Annex 5**

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## ***Hydrological Observation Procedures***

## Annex 5 HYDROLOGICAL OBSERVATION PROCEDURES

### *Rainfall Observation*

Rainfall Observation is done in two ways: 1) Non-recording using 8-inch Standard Raingage which holds 2.0 inches of rain or 50.8 millimeter of rain, and; 2) Automatic Rainfall Recorder which uses Tipping Bucket Recording Raingage.

#### Procedures for non-recording instrument:

1. Insert a dry measuring stick through a small hole in the funnel until it reaches the bottom of the measuring cylinder.
2. Read the upper limit of the wetted portion to the nearest tenths of a centimeter.
3. After taking measurement empty the tube and reassemble the gage.
4. Record the depth of rainfall on the prescribed form, millimeters as the unit of measurement.
5. If the day rainfall exceeds 2 inches or 50.8 mm, transfer the accumulated water in the outer cylinder to the measuring tube and combine the measurements. Shown below is the formula given by PAGASA:

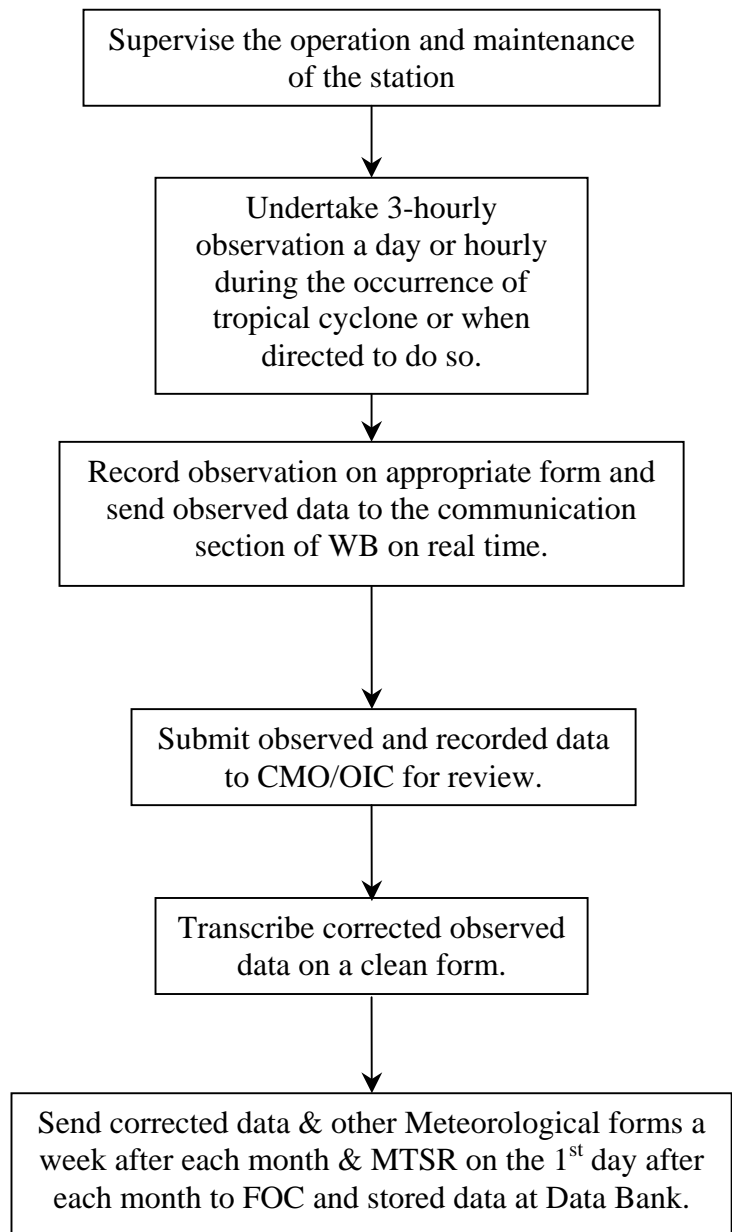
$$\begin{array}{rcccc} \text{Total Rainfall} & & \text{Original Tubeful} & & \text{Full Tubes} & & \text{Remaining} \\ \text{Amount} & = & \text{of Water} & + & \text{of Water from} & + & \text{Water in the} \\ & & & & \text{the overflow can} & & \text{overflow can} \end{array}$$

6. Special observation is taken, in addition to regular observations after heavy rains which may have caused severe flooding in downstream areas.
7. Completely fill up the prescribed form with station name, coordinates, time and date of observation and total amount of rainfall accumulated.

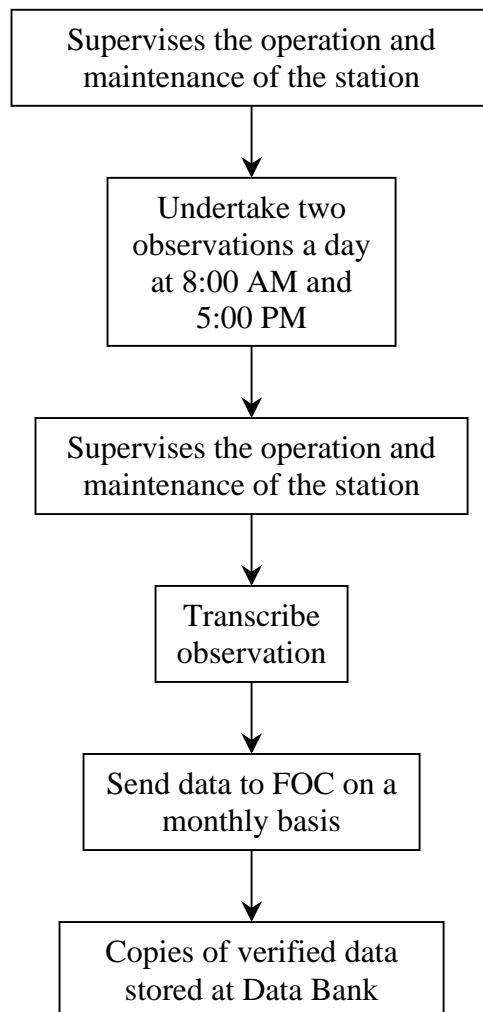
#### Procedure for automatic rainfall recorder:

1. Changed the charts daily at about 8:00 A.M. except when there is no rainfall or rainfall is less than 0.5mm. Record the station name, date and time of chart placement at the back of the chart.
2. Adjust the recorder pen to the "0-mm line" upon placing new chart.
3. Record: 1) date and time of removal from the drum, 2) non-recorded raingage measurement, 3) chart total rainfall amount for the period, and; correction factor, if any, after the removal of the chart.

The standard procedure and general instruction to Observer are presented in detail in the *Manual of Water Data Standards, Volume 2 of NWRB*. Based on the data gathered from FOC-PAGASA shown below is the process flow being implemented at all surface and climat stations.



**Figure 1 Process Flow applicable to all PAGASA Surface Stations**



**Figure 2 Process Flow applicable to all climat/rain stations of PAGASA**

### *Water Level Observation*

Water level is observed at the established river gauging stations of DPWH. Instrument used in measuring water level are staff gage, water level recorders and stilling wells.

#### Staff Gage

1. Water level is observed every 8:00 A.M and 5:00 P.M except during heavy rains where extra readings are made depending on the degree of flow rise.
2. Read the water level and record on the form provided by the regional office of DPWH. Completely fill up the form including station name, location, and name of the gagekeeper.
3. Immediately report cases of damaged or washed out staff gage to the hydrographic engineers.

#### Water Level Recorder

Water level recorder provides automatic record of river stage. It produces a graphic or punched tape record of the rise and fall of a water surface with respect to time. The float movement causes pen or stylus motion and the clock mechanism moves the chart. Since the width of the strip chart is usually 25 cm., the range of available time scale is 3 cm. to 24.4 cm. per day. Thus, 1:5 scale means 25 cm will register 1.25 meter change in water surface elevation. The gagekeeper is tasked to safeguard the instrument and the housing of the water level recorder.

#### Stilling Wells

River stage may be automatically sensed by a float in a stilling well connected to the stream by intake pipes or by a bubble gage system that does not require a stilling well. Stilling wells are either dug at the suitable bank site least affected by erosion and flood waters, reinforced by means of corrugated G.I sheets molded into cylindrical sections or installed at the downstream portion of a bridge pier. The well can also be made of reinforce concrete pipe one-half meter or larger in diameter.

Connection of the well to the stream must be through a four-inch or larger diameter G.I. pipe placed at right angle to stream but not so large as to cause water level in the well to fluctuate with the same magnitude as that of the water level in the stream. Protection against entry of silt or sediments and flush pipe mechanism must be provided in order to have an efficient intake system and thus insure high sensitivity of the float to changes in water level. A filter is placed in the pipe to neutralize the effect of dynamic waves.

The well should be long enough for its bottom to be at least 30 cm. Below the minimum and its top to be above the level of a 50-year flood.

There are more instruments used in measuring water level but the most commonly used in the Philippines are the three presented above. Manual of Water Data Standards, Volume No. 1, Streamflow and Lake or River Stage gives detailed information on gaging network, design, installation, procedures and other pertinent data relevant to river gauging stations.



### *Establishment of Rating Curve*

The computation for Rating Curves requires stream velocity measurement. At present the Hydrology Team uses current meter and float method in measuring velocity.

The principle of current meter is based on proportionality between the velocity of the stream and the revolution of the rotor. Thus, when it is placed at a point in a stream and the number of revolutions is counted for a given duration, the velocity can be determined.

While float method is the simplest and most practical way in measuring stream velocity. Surface floats include wooden disks, partly filled bottles or cans. Rod floats are wooden rods with weights attached at one end so that it will float upright. The stream reach must be long enough to give a float travel time of at least twenty seconds. The mean velocity of the stream will be equal to the float velocity multiplied by 0.85 for surface floats depending upon the stream cross-section and velocity distribution.

### Development of Rating Curves

**Current meter measurements** are made to define a curve showing the relationship of stage with discharge. The curve allows translation of stage reading into discharge at any given time corresponding to the stage reading for the calculation of mean daily discharge or estimation of the instantaneous peak discharge.

Published report of NWRB, “*Manual of Water Data Standards, Volume 1, Streamflow and Lake or River Stage*” presents the development and construction of rating curves. Rating curves are plotted on a graphical sheet, wherein stage is located on the vertical axis and discharge on the horizontal axis. Two ways of plotting points are done on arithmetic or logarithmic paper.

1. Arithmetic Plotting – rating curve plotted in an arithmetic paper shows parabolic curve which can be defined by the equation:  $Q = aH^n + b$
2. Logarithmic Plotting – the above equation will appear as a straight line if plotted in logarithmic scale. Thus, if  $\log Q = Y$ ;  $\log H = X$ ; and  $b = B$ ; then the above equation is linearized as follows:  $Y = nX + B$
3. Fitting of the curve can be by eye inspection or by the method of least squares. The low flow discharge is plotted to a sensitive scale as an inset. In plotting stage-discharge point, symbol “O” (circle and dot) is used and then identified with the corresponding discharge measurement number. The inset should be drawn only when sufficient low discharges are available.

“*Inventory Survey and Basic Analysis of Hydrological Data for DPWH Technical Standards and Guidelines, March 2002*” presents **slope-area method** in the formulation of discharge rating curve to 120 selected rivers in the Philippines; Parameters required at the section under study and the upstream and downstream sections are section properties, roughness coefficient and distances between sections. The procedure for the formulation of discharge rating curve is as follows:

1. With the known values of the section properties, the channel geometric characteristics are defined. From the measured water surface level and discharge, the channel roughness is estimated using the Manning equation:

$$n = (AR^{0.66}S^{0.50})/Q$$

where  $n$  = channel roughness;  $A$  = sectional area;  $S$  = energy gradient;  $R$  = hydraulic radius (i.e. ratio of area to wetted perimeter);  $Q$  = measured discharge.

The estimated channel roughness gives indicative value at that particular water surface level. This also guides in assigning other channel roughness at different water levels.

2. The discharge is determined using the section properties and the assumed channel roughness at particular water surface level.
3. The discharge is determined using the Manning equation expressed as:

$$Q = (AR^{0.66}S^{0.50})/n \text{ or } Q = K_d S^{0.50}$$

Where  $K_d$  = conveyance capacity.

The conveyance capacity is a factor fully dependent on the section properties and channel roughness and is expressed as:

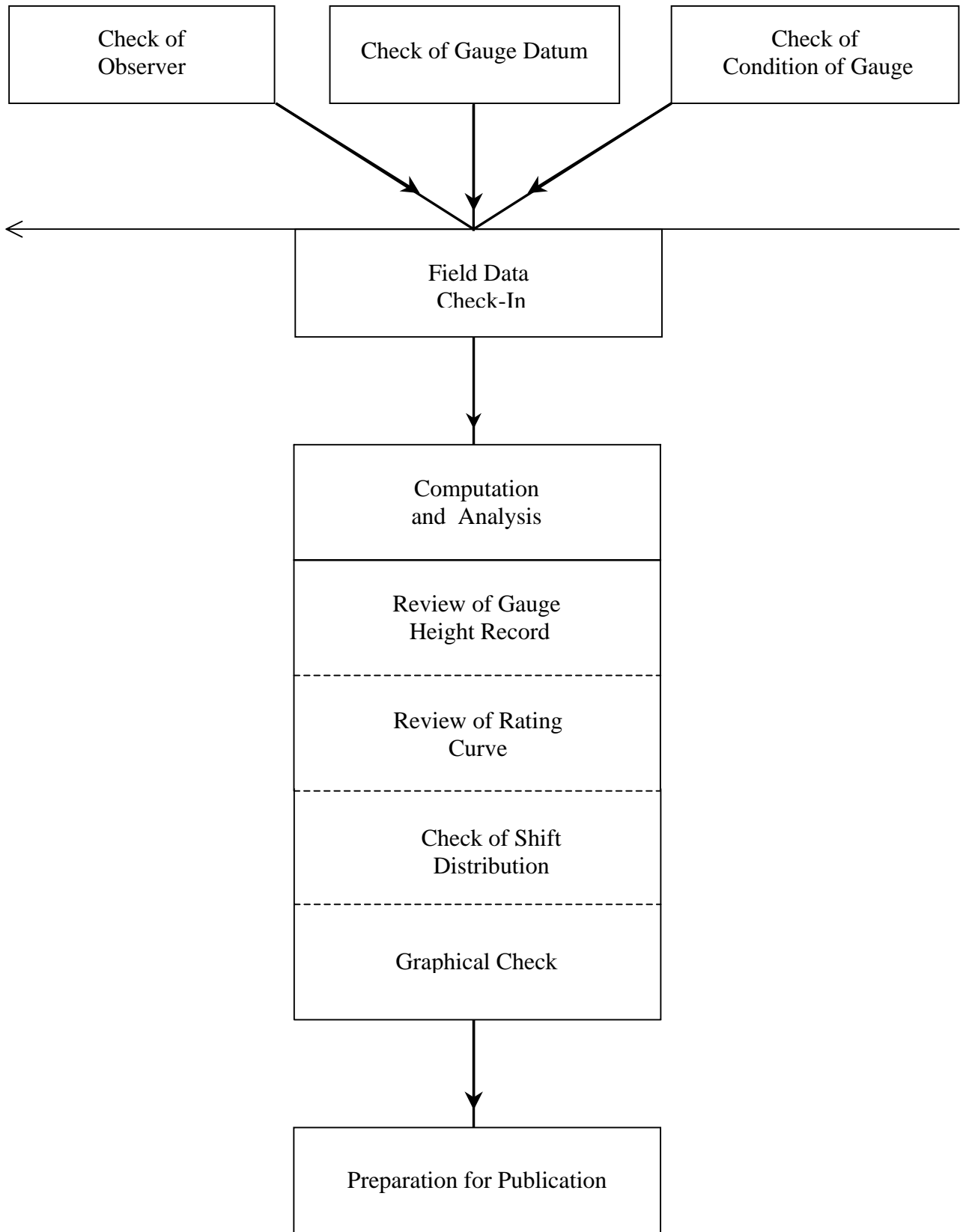
$$K_d = (AR^{0.66})/n$$

4. With an assumed water surface, the conveyance capacity is determined using a selected value of the channel roughness. The selected channel roughness is based on channel condition, estimated roughness from measured flow and judgment of the hydraulic engineer.
5. The corresponding flow is determined using the Manning equation. However, it may be noted that upstream discharge may be different from downstream discharge due to non-uniform flow condition. The discharge is corrected to compensate for the energy loss due to possible change in section shape from upstream to downstream.
6. The above procedure is repeated for another water surface level.
7. The rating curve is then plotted with discharge along the vertical axis against water level (or water depth) along the horizontal axis.
8. The discharge rating curve is fitted with an equation expressed as:

$$Q = k (H-h)^n$$

Where:  $Q$  = Discharge (m<sup>3</sup>/s)  
 $H$  = Water elevation (m)  
 $h$  = Elevation of water for zero discharge (m)  
 $k, n$  = Constants derived from curve fitting

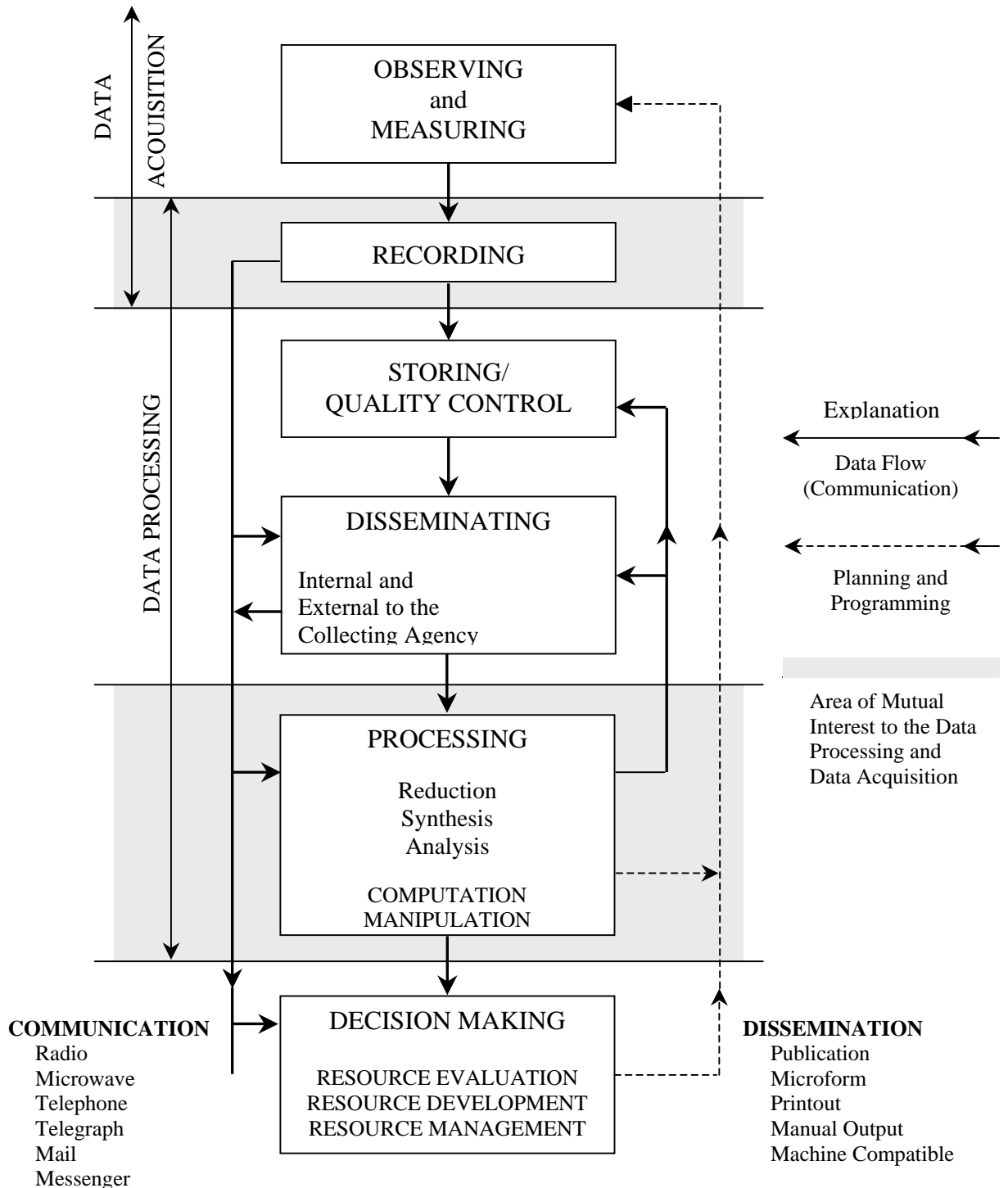
Figure 3 presents the activities of the Hydrology Team and BRS in processing streamflow data.



**Figure 3 Accuracy Checks in Flow of Streamflow Data**

## SYSTEM FOR ACQUISITION, PROCESSING AND TRANSMISSION OF HYDROLOGIC DATA

The standard procedure in acquiring, processing and transmitting hydrologic data; streamflow, synoptic, agromet and climat; are presented in the flow chart below. BRS implements activities for streamflow data and PAGASA the data of rainfall stations.



**Figure 4 Schematic Representation of Elements of a System for Acquisition, Processing and Transmission of Hydrologic Data**

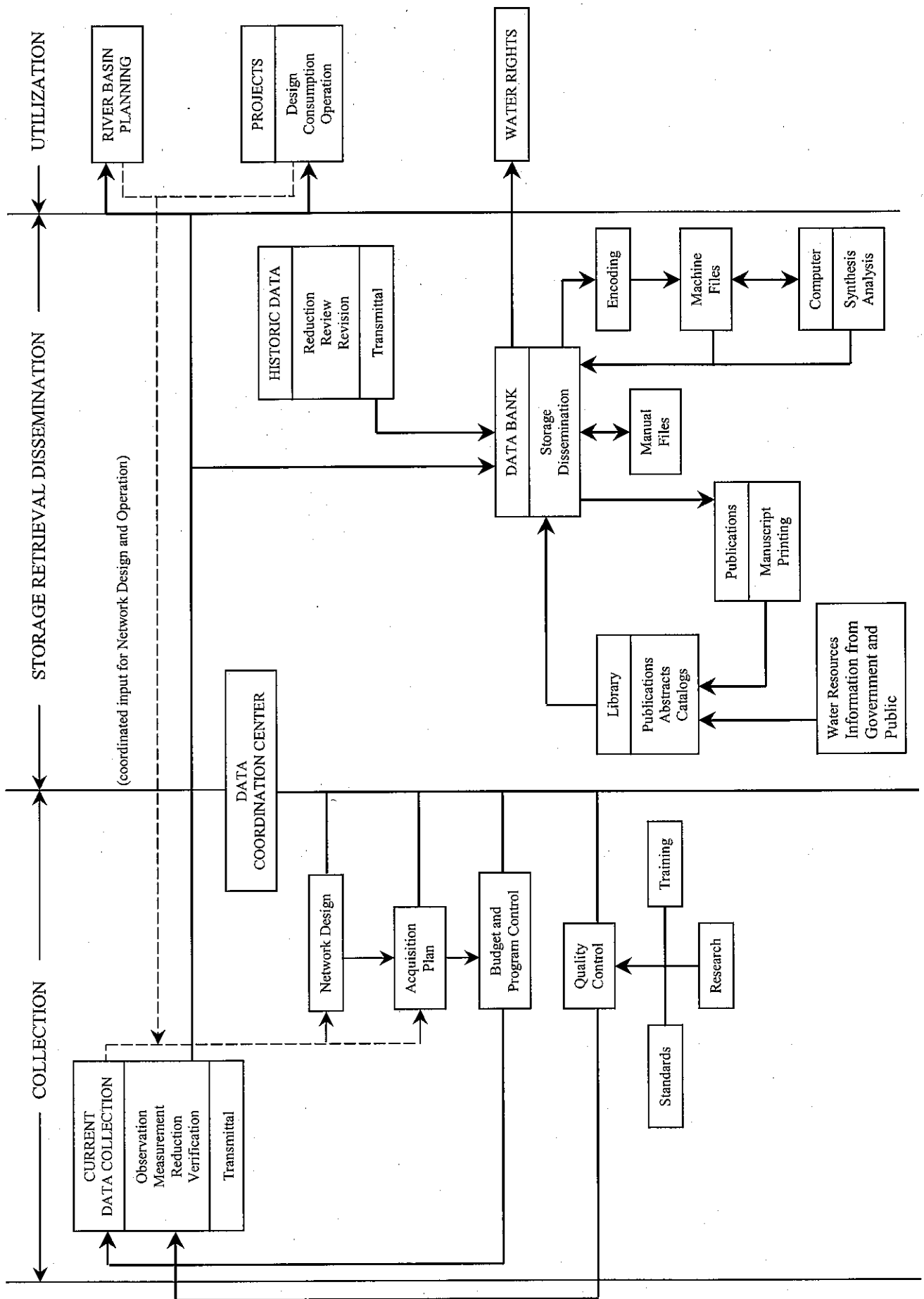


Figure 5 Data System Function and Flowchart for Implementation in the Philippines

## **Annex 6**

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### ***Survey Photos on Hydrological Observation***

**Annex 6**  
**Study on Flood Control Implementation System for Principal Rivers in the**  
**Philippines**  
Survey on Hydrological Data Collection

**SYNOPTIC STATIONS**



**Mayagay I, Tanay, Rizal**



**Mayagay I, Tanay, Rizal**



**Port Area, Manila**

**Annex 6**  
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**Philippines**  
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**SYNOPTIC STATIONS**



**Clark Airport, Pampanga**



**Brgy. Ambulong, Tanauan, Batangas**



**Brgy. Ambulong, Tanauan, Batangas**



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**Philippines**  
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**SYNOPTIC STATIONS**



**Sangley Point, Cavite**



**Sangley Point, Cavite**



**Bgy. Lita Phase I, Tayabas, Quezon**

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**SYNOPTIC STATIONS**



**Sibul Spring, San Miguel, Bulacan**



**Bgy. Sibul Spring, San Miguel, Bulacan**



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**CLIMAT STATIONS**



**Polo, Valenzuela**  
Former Location of Instrument



**Polo, Valenzuela Station**  
Present Condition  
Located at Obando, Bulacan



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**CLIMAT STATIONS**  
Brgy. Gulod, Laurel, Batangas



**Brgy. Gulod, Laurel, Batangas**  
Former Location



**Brgy. Wawa, Nasugbu, Batangas**



**Juliana Subd., San Fernando, Pampanga**  
Abandoned Climat Station





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**CLIMAT STATIONS**



**Bo. Maitim, Amadeo, Cavite**



**Bagumbayan, Taguig**  
Present Condition located at Hagonoy, Taguig



**Pasig Elementary School, Pasig**  
Abandoned Station

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**AGROMET STATIONS**



**Science Garden, Quezon City**



**Pampanga Agricultural College (PAC), Magalang, Pampanga**  
Abandoned Station



**People's Park, Tagaytay**



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**AGROMET STATIONS**



**National Agromet Station (NAS)**  
**UPLB, Los Baños, Laguna**



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**AGROMET STATIONS**  
Rizal Agricultural Station, Cuyambay, Tanay, Rizal  
Abandoned Station



**National Soils and Water Resource Research Center**  
**Bureau of Soil and Water Management**  
Cuyambay, Tanay, Rizal  
Present Condition





**Annex 6**  
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Survey on Hydrological Data Collection

**NIA GAUGING STATIONS**



**Lagnas Irrigation System**  
**Bgy. Talisay, Tiaong, Quezon**

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**Study on Flood Control Implementation System for Principal Rivers in the**  
**Philippines**  
Survey on Hydrological Data Collection

**NIA GAUGING STATIONS**



**NIA Control House, Bustos Irrigation Dam  
Bustos, Bulacan**

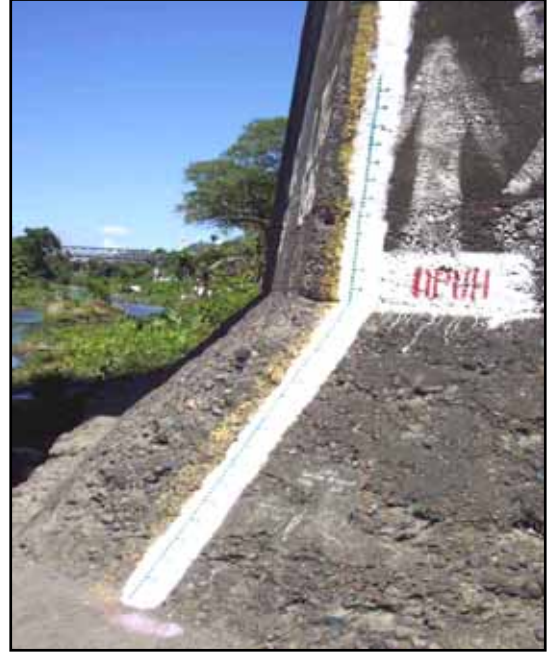


**Annex 6**  
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**RIVER GAUGING STATIONS**



**Parian, Calamba, Laguna**



**San Cristobal, Calamba, Laguna**



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**Pagsawitan, Sta. Cruz, Laguna**



**Poblacion, San Nicolas, Batangas**



**Brgy. Sampaga, Balayan, Batangas**



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**Brgy. Sampaga, Balayan, Batangas**



**Dumoit, Lucena, Quezon**



**Tumbaga, Sariaya, Quezon**

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(a)



(b)



(c)

**Pasong Kawayan II, Gen. Trias, Cavite**  
(a) Present Condition of Gauging Site; (b) Abandoned Automatic Water Level Recorder;  
(c) Trail going to the Gauge Site



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(a)



(b)



(c)

**Bucal 3-A, Maragondon, Cavite**

(a) Present Location of Gauge; Trail during (b) normal weather condition; (c) typhoons



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**RIVER GAUGING STATIONS**

Sabang, Angat, Bulacan  
Present Gauge





## **Annex 7**

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*List of Flood Control, Irrigation,  
Watershed Management and Related  
Projects Implemented by the  
National Agencies*

## **Annex 7 Functions and Roles of NEDA Secretariat in the Central Office**

The three major offices comprising the NEDA Secretariat, and the bureau-level Staffs under each are as follows:

(1) National Development Office (NDO):

The NDO provides technical staff support to the NEDA Board in coordinating the formulation of national and sectoral policies, plans and programs. It also monitors macroeconomic and sectoral performance, prepares the necessary economic reports, and conducts economic and development studies on macro-level plans and policies.

(a) National Planning and Policy Staff (NPPS)

Provides technical staff support in coordinating the formulation of national development plans and policies;  
Evaluates and conducts studies on macro-level plans and policies;  
Develops and applies macroeconomic models and other statistical tools for planning, forecasting and policy analysis; and  
Monitors macroeconomic performance and prepares economic reports.

(b) Agriculture Staff (AS)

Provides technical staff support in coordinating the formulation of national plans and policies for the agricultures, natural resources and agrarian reform sectors;  
Evaluates and conducts studies on policies in the said sectors;  
Provides technical staff support in the evaluation and review of proposed programs and projects in the said sectors;  
Provides technical assistance in program and project identification, development and evaluation; and  
Monitors sectoral performance.

(c) Trade, Industry and Utilities Staff (TIUS)

Provides technical staff support in coordinating the formulation of national plans and policies for the trade, industry and tourism sectors;  
Evaluates and conducts studies on trade and industrial policies, including those involving the regulation and pricing of public utilities;  
Provides technical staff support in the evaluation of proposed industrial projects involving significant government exposure;  
Assists in coordinating the formulation of national approaches to international relations and cooperation in trade and other economic matters;  
Assists in the review and evaluation of the various investment priorities, plans and applicable investment incentives; and  
Monitors sectoral performance.

(d) Infrastructure Staff (IS)

Provides technical staff support in coordinating the formulation of physical plans for the transportation, communications, water, power and energy, and social infrastructure sectors;  
Evaluates and conducts studies on policies in the said sectors;  
Provides technical staff support in the evaluation and review of proposed programs and projects in the said sectors;  
Provides technical assistance in program and project identification,

development and evaluation; and  
Monitors sectoral performance.

(e) Social Development Staff (SDS)

Provides technical staff support in coordinating the formulation of national policies and plans in education and manpower development, health and nutrition, family planning, housing, social services, and community organization;

Evaluates and conducts studies on policies covering the said sectors;

Provides technical staff support in the evaluation and review of proposed programs and projects in the said sectors;

Provides technical assistance in program and project identification, development and evaluation; and

Monitors sectoral performance.

(f) Public Investment Staff (PIS)

Provides technical staff support in the coordination and review of the flow of official development assistance to the country to ensure consistency with national development priorities;

Provides technical staff support in the review of proposed programs and projects on a global basis;

Provides technical staff support in the preparation of a rolling medium-term public investment program, where the sources and uses of funds for priority programs and projects are indicated;

Develops and recommends the criteria and system for evaluating projects; and

Monitors the status of proposed and pipeline projects for possible funding assistance by foreign donor institutions.

(2) Regional Development Office (RDO)

The RDO provides technical staff support as may be required by the implementing agencies in the regions. It also monitors regional and interregional development policies; plans and programs; prepares integrated reports on regional planning; and conducts studies on regional development policies.

(a) Regional Development Coordination Staff (RDCCS)

Provides technical staff support in coordinating the formulation of interregional development policies, plans and programs;

Serves as a link between the Regional Development Councils and the national agencies of government involved in regional planning and program implementation;

Monitors and evaluates the formulation of regional policies, plans and programs by the Regional Development Councils and other agencies of government;

Prepares integrated reports on regional development;

Coordinates with the Regional Development Councils in the preparation of physical and land use plans; and

Conducts studies on regional development policies.

(b) Project Monitoring Staff (PMS)

Monitors the progress of implementation of approved development programs, based on reports from the central offices of line agencies and the NEDA

regional offices;  
Identifies bottlenecks and proposes solutions to problems of implementation;  
Prepares integrated reports on the status of approved development projects;  
Monitors the implementation of ongoing projects, including the utilization of foreign exchange proceeds by these projects;  
Provides technical assistance to the NEDA regional offices in project monitoring and assessment; and  
Conducts post project evaluation and impact analyses.

(c) Regional Offices (NRO)

Serves as the technical staff of the Regional Development Council (RDC) in the region;  
Provides staff assistance to the RDC in the coordination of plan formulation and implementation at the regional level;  
Provides staff assistance to implementing agencies in the region in identifying and developing programs and projects;  
Evaluates and reviews proposed regional programs and projects for consideration by the RDC;  
Monitors and assesses project implementation in the region; and  
Coordinates with regional offices of other departments and agencies and with the local government units in the region in the performance of their assigned tasks.

(3) Central Support Office (CSO)

The CSO provides the NEDA Secretariat technical assistance and support services in the areas of development administration, internal management improvement, legal services, development information, and administrative services.

(a) Management Staff (MS)

Conducts studies, formulates recommendations and provides technical assistance on development administration matters;  
Develops guidelines and provides technical assistance in the preparation, monitoring and assessment of the development administration framework of the national development plan, including the monitoring of administrative reforms and developments in the public sector;  
Serves as internal management improvement unit, conducts studies, formulates recommendations and provides technical assistance on organization and management matters; and  
Develops and maintains an internal control system within the NEDA Secretariat and monitors and evaluates on a continuing basis the implementation of internal control policies and measures.

(b) Legal Staff (LS)

Provides legal advice and assistance in the formulation and implementation of development policies, plans and programs;  
Provides legal service on operational matters;  
Conducts legal research and specialized studies; and  
Maintains a database on and monitors laws, administrative issuances, court decisions, and other legal issuances relative to economic and social development.

(c) Administrative Staff (AdS)

Develops, implements and updates on a continuing basis a comprehensive and integrated human resources development program for the NEDA Secretariat personnel;

Provides services related to personnel transactions and benefits, and discipline, health and safety services;

Provides financial and accounting services; and

Provides security services and general support services in the areas of records and communications; procurement and property, supply equipment maintenance, utilization and disposal; transport; general utility and housekeeping; and building and office facilities maintenance.

(d) Information Technology Coordination Staff (ITCS)

Conducts and coordinates the studies, formulates recommendations and provides technical staff support and assistance on information technology (IT);

Develops and coordinates the implementation and maintenance of IT-related information systems in support of NEDA's development planning, policy formulation and other functions and operations;

Coordinates the formulation and implementation of a continuing NEDA IT development activities of NEDA offices and staffs, including its regional offices;

Establishes and maintains a viable information network with other government agencies and instrumentalities for more effective development planning and decision making.

(e) Development Information Staff (DIS)

Develops and maintains public information programs to meet the requirements of the NEDA and the public;

Prepares press releases and articles for public dissemination and coordinates press briefings and interviews;

Undertakes the preparation and dissemination of NEDA publications and other information materials and provides editorial and other information-related services to the NEDA Secretariat; and

Maintains the NEDA Secretariat library and undertakes the acquisition, cataloguing, maintenance and safekeeping of library materials, and provides circulation, reference and interlibrary