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Department of Science and Technology



Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

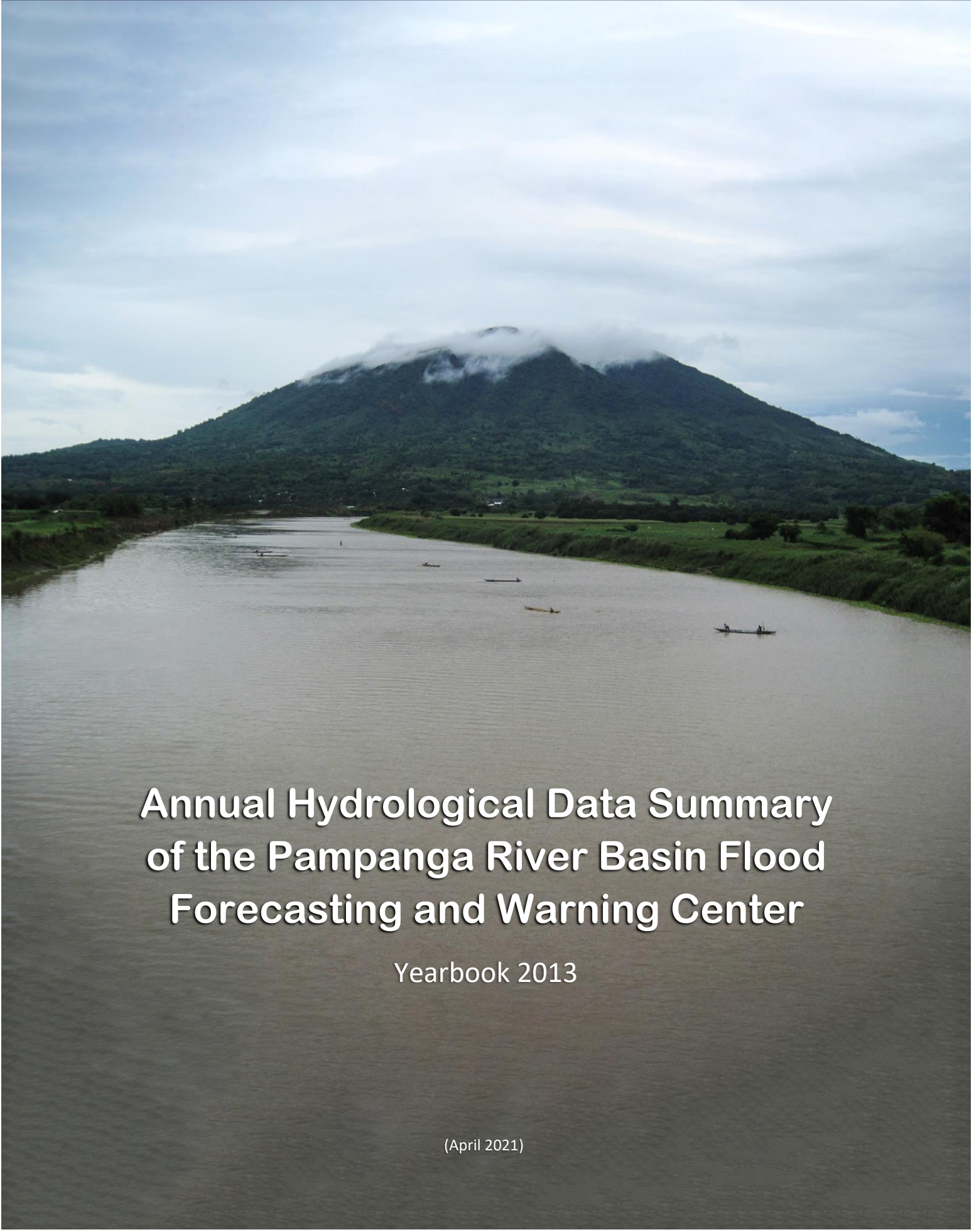
PAMPANGA RIVER BASIN FLOOD FORECASTING AND WARNING CENTER (PRFFWC)

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Annual Hydrological Data Summary of the Pampanga River Basin Flood Forecasting and Warning Center

Yearbook 2013

(April 2021)

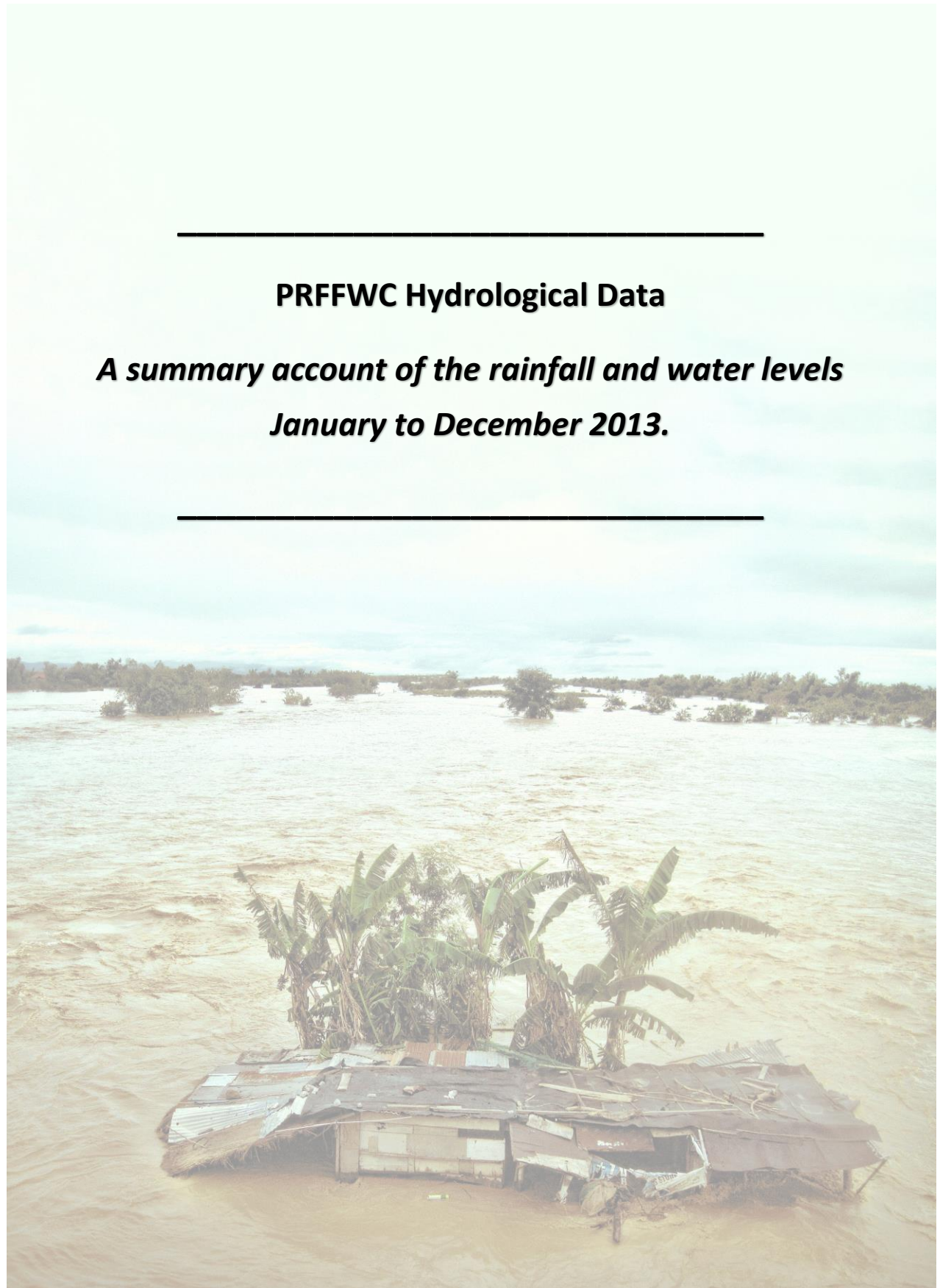


Front / Back Cover:

Upstream view of the mighty Pampanga River as seen from San Agustin Bridge in Arayat, Province of Pampanga with the majestic Mt. Arayat in the background.

(June 20, 2013)

Photograph: H. Hernando Edited by: M. Joson



PRFFWC Hydrological Data

***A summary account of the rainfall and water levels
January to December 2013.***

Acronyms & Abbreviations:

- CSFP – City of San Fernando, Pampanga
- D/S - downstream
- D/T - downtime
- FFWS – Flood Forecasting & Warning System
- FM – Flood Marker
- HMD – Hydro-Meteorology Division
- HMTS – Hydro-Met Telemetry Section
- LB – Left Bank
- LST – local standard time
- NIA-UPRIIS – National Irrigation Administration – Upper Pampanga River Integrated Irrigation System
- NCR-PRSD – National Capital Region – PAGASA Regional Services Division
- PAGASA – Philippine Atmospheric, Geophysical and Astronomical Services Administration
- PRB – Pampanga River Basin
- PRFFWC – Pampanga River Basin Flood Forecasting & Warning Center
- Q - discharge
- Racc – accumulated rainfall
- RB – Right Bank
- RR – Rainfall
- SG or S.G. – Staff Gauge
- TBM – Temporary benchmark
- U/S - upstream
- WL – Water Level
- X-sect – cross-section

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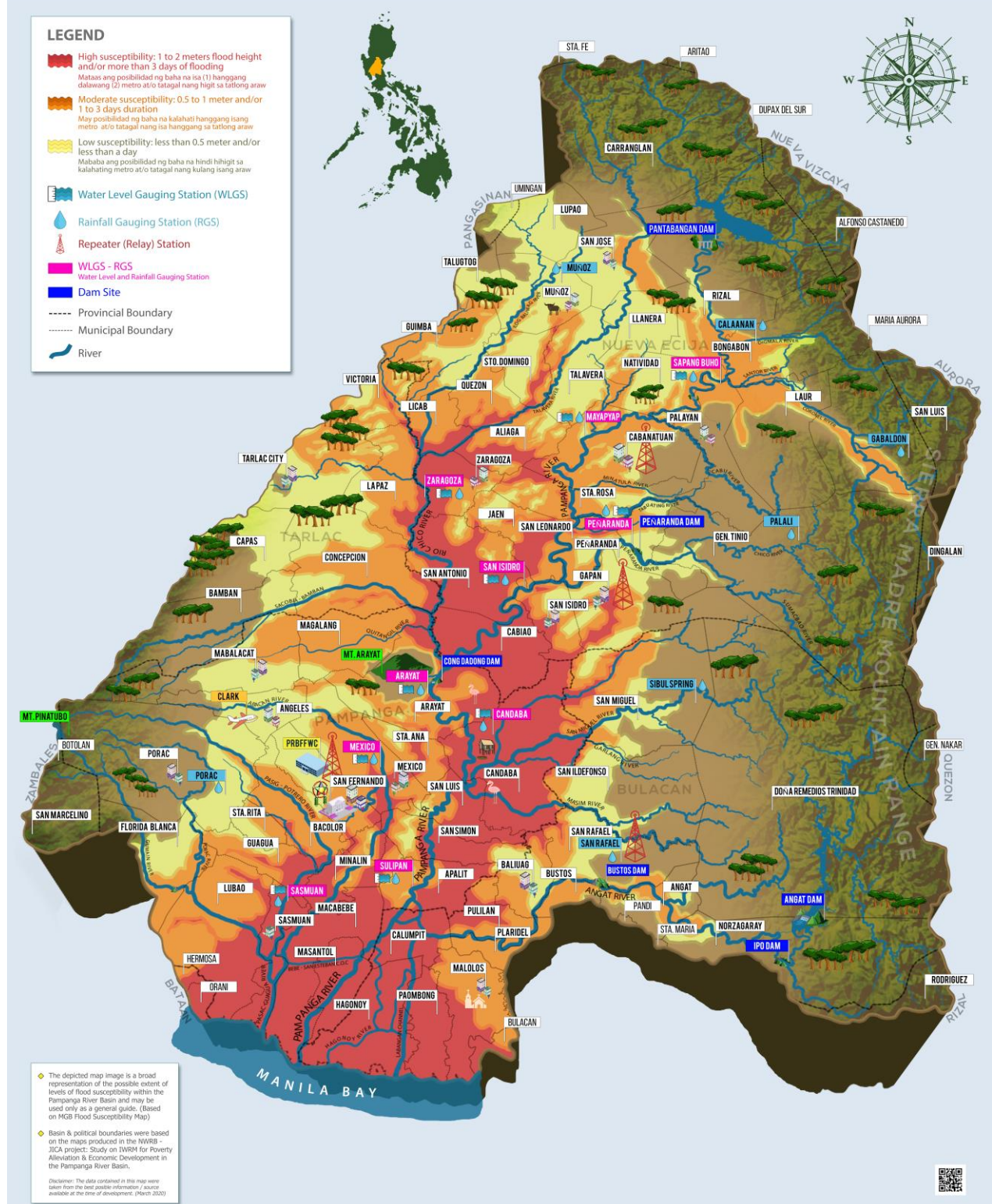
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The PRFFWC Telemetry Tower located in the City of San Fernando, Province of Pampanga.

PAMPANGA RIVER BASIN FLOOD SUSCEPTIBILITY MAP (ANTAS NG PAGBAHA SA PAMPANGA RIVER BASIN)



A geopictorial map of the generalized area flood susceptibility in the Pampanga River Basin with location of the PRFFWC telemetry stations (as of Feb 2020).

Yearbook Notes



- This Annual Hydrological Data Summary Yearbook presents a summary of the rainfall and water level data observed and recorded by the telemetry system of the PRFFWC in year 2013.
- The supervisory terminal of the PRFFWC system is the main data series considered for database buildup. This is the immediate real-time data received at the center and the main data reference for operational flood forecasting and warning activities of the PRFFWC.
- The main source for complementing breaks / gaps in the supervisory terminal data series are the telemetry stations' data loggers.
- In most instances, total rainfall shown in the supervisory is (always) equal to the total rainfall in the data logger. However, there were relatively few occasions that they do not agree with one another. Fortunately, differences were not that big, at most it is about 1 to 2 mm difference only.
- No attempts were made to fill-in gaps and breaks in the data series when there are no data available in the loggers except only those with relatively short gap periods.
- Obvious and suspected data errors were directly deleted from the data series. However, these were done after doing some data consistency check, reference to field reports, and / or field station instrument validation.
- For further information and clarification on the general buildup of the PRFFWC data series please e-mail us: prffwc@gmail.com

Station Profile

Table of Rainfall and Water Level Stations of the PRFFWC

Station	Station Number	Station Type RR (rainfall) WL (Water Level)	Location	Coordinates (estimated)
	(DEC) 6301 XX			
Muñoz	61	Telemetered RR	Within the compound of the Philippine Carabao Center in the Science City of Muñoz, N.E.	15°44'17"N, 120°57'38"E
Sapang Buho	62	Telemetered RR & WL	@ LB of Pampanga River in Bgy. Sapang Buho, Palayan City, Nueva Ecija	15°35'39"N, 121°07'09"E
Gabalton	63	Telemetered RR	Around 450 meters above the natural ground elevation of Bgy. Malinao, Gabaldon, N.E.	15°29'55"N, 121°21'20"E
Zaragoza	64	Telemetered RR & WL	Along the Zaragoza – La Paz road (RB-D/S of the Rio Chico Bridge)	15°26'36"N, 120°45'03"E
Mayapyap	65	Telemetered RR & WL	@ RB-D/S of Gen. Luna Bridge, (Bgys. Mayapyap & Valdefuente) Cabanatuan City, Nueva Ecija	15°30'52"N, 120°57'20"E
Peñaranda	66	Telemetered RR & WL	@ LB-D/S side of the bridge, around 550 meters D/S of Peñaranda River Irrigation Dam at Bgy. Uno, Poblacion, Peñaranda, N.E.	15°21'14"N, 121°00'20"E
Calaanan	67	Telemetered RR	Inside the Pesa Elementary School compound, Purok 2, Bgy. Pesa, Bongabon, N.E.	15°38'53"N, 121°11'09"E
Palali	68	Telemetered RR	Within Nueva Ecija Stock Farm in Bgy. Nazareth, Gen. Tinio, N.E.	15°22'50"N, 121°9'41"E
San Isidro	71	Telemetered RR & WL	@ the RB-D/S side of the San Isidro-Jaen Bridge, San Isidro, N.E.	15°18'49"N, 120°54'09"E
Arayat	72	Telemetered RR & WL	@ RB-D/S side of San Agustin Bridge, Arayat, Pampanga	15°10'06"N, 120°46'56"E
Candaba	73	Telemetered RR & WL	Along Candaba-San Miguel road (Dukma) at Bgy. Paralaya, Candaba, Pampanga	15°06'56"N, 120°51'01"E
Sibul Spring	74	Telemetered RR	Bgy. Sibul, San Miguel, Bulacan	15°10'05"N, 121°03'33"E
Sasmuan	75	Telemetered RR & WL	Bgy. Sta. Lucia (Poblacion), Sasmuan, Pampanga	14°56'11"N, 120°37'23"E
Sulipan	76	Telemetered RR & WL	@ RB of Pampanga River at Bgy. Sulipan, Apalit, Pampanga	14°56'21"N, 120°45'39"E
Mexico	77	Telemetered RR & WL	LB-D/S of Mexico Bridge No. 2, Bgy. Sto. Rosario, Mexico, Pampanga	15°04'05"N, 120°43'51"E
Porac	78	Telemetered RR	Within the municipal compound property, Bgy. Cangatba, Porac, Pampanga	15°04'48"N, 120°32'43"E
San Rafael	90	Telemetered RR (Repeater)	NIA compound, Bgy. Sabang, Baliwag, Bulacan	14°58'05"N, 120°54'52"E
Cabanatuan	89	Repeater station (no hydrological data reporting)	Within the NIA-UPRIIS Compound, Cabanatuan City	15°28'33"N, 120°57'30"E
PRFFWC (CSFP)		Digital tipping-bucket / manually recorded	PRFFWC area compound besides DOST-3, DMGC, Bgy. Maimpis, CSFP	15°04'04"N, 120°39'22"E

Scope and Limitations

1. This Data Yearbook presents the hydrological data summary of the 18 rainfall stations and 10 water level stations of the PRFFWC for the year 2013.
2. The rainfall and water level dataset in this report covers the period starting from the past 1-hour observation ending at 0900H of January 01, 2013, and will end at 0800H of 01 January 2014.
3. Accordingly, it follows a 24-hour daily total (or average for WL) which starts at (practically) 0801H of the present day and ends at 0800H of the following day (meteorological day); Water level summary values for maximum data are reported as per instantaneous observed value from the dataset but the average value is taken using the same reporting time period as in total rainfall for a met day.
4. The shortest time period considered in this summary report is 1 hour.
5. Units used for some of the hydrological elements:
 - a. Rainfall – millimeters (mm)
 - b. Water Level (River Stage) – meters (m)
 - c. Cross-sectional area – square meter (m²)
 - d. River Discharge – cubic meters per second or cumecs (m³/sec)
 - e. Rainfall day – rain-days
6. The minimum rainfall amount for telemetry stations is 1 mm; and for the rainfall observations in PRFFWC in CSFP, the minimum is 0.25 mm;
7. Rain-day is considered as a day with at least 1 mm of rainfall for telemetry stations; and at least 0.25 mm for PRFFWC in CSFP station;
8. The hydrological data summary presented in this yearbook are the daily rainfall observations (met day total), monthly rainfall and average, maximum rainfall total of various periods, and total rain-days per month; the daily water level averages (met day), maximum stage for each month and other regular information that were extracted from the available data series of each station.
9. For the daily rainfall presentation table, yellow shaded cell indicates rainfall values between 1 to 60 mm for telemetry stations (0.25 to 60.0 for PRFFWC-CSFP station); pink shade cells from 61 to 180 mm (60.25 to 180.0 for PRFFWC-CSFP station); light-red shade cells for values greater than 180 mm. Likewise, for water level summary, cell shades are in a graded color scale from a white shade to a regular semi-orange shade that is relative to an increase in water level values. Thus, a “0.00” value (minimum) is white and maximum value within the table will be orange shaded. In the summary below the daily value tables (the daily rainfall and in the average daily water level tables) a green shaded cell indicates the maximum value in their respective rows.

Disclaimer: The dataset summary presented herein have been processed and validated through several steps using the best possible means available to the PRFFWC at the time of processing. However, still it is possible that results may contain inadvertent errors such as typographical in nature, errors resulting from possible misuse of excel formulae, and other similar factors. The summary information in this yearbook report may be revised as new analyses emerge.

Users noting any errors that they may have encountered in this report are requested to inform the PRFFWC. Furthermore, users may use the information contained herein at their own risk.

Data Series Issues of 2013

1. January: Mayapyap, San Isidro, and Mexico WL are all zero for the whole month.
2. February: Mayapyap, San Isidro, and Mexico WL are all zero for the whole month.
3. March: Mayapyap, San Isidro, and Mexico WL are all zero for the whole month.
4. April: Sapang Buho, Mayapyap, Peñaranda, San Isidro, and Mexico WL are zero for the whole month.
5. May: Mayapyap & San Isidro WL are all zero for the whole month.
6. June: Mexico WL is zero for the whole month.
7. July: Mayapyap WL is zero for the month; no WL data starting 2300H, 19 until end of month.
8. August: Mayapyap WL is zero for the whole month (was not included in the dataset)
9. September: Mayapyap WL is zero for the whole month (was not included in the dataset)
10. October: Mayapyap WL is zero for the whole month (was not included in the dataset); likewise, Mayapyap RR looks doubtful (all zero except for 1 reading); data stopped 1300H, 25. *Good dataset for testing WL correlation for Peñaranda-San Isidro to Arayat & Sulipan points.*
11. November: Mayapyap RR & WL no data for the whole month. *Good dataset for testing WL correlation for Peñaranda-San Isidro to Arayat & Sulipan points.*
12. December: Mayapyap RR & WL no data for the whole month. San Isidro WL is zero for the whole month

A. RAINFALL Data Summary Presentation



Candaba Municipal hall
(Ty. Santi; October 13, 2013)



Cabanatuan City, Nueva Ecija
(Ty. Santi, October 2013)



Cabiao Floodway, Nueva Ecija
(Ty. Santi; October 12, 2013)



Gapan-San Leonardo Area (Nueva Ecija)
(Ty. Santi, October 2013)



Maharlika Hi-way, San Ildefonso, Bulacan
(Ty. Santi, October 2013)



Maharlika Hi-way, San Miguel, Bulacan
(Ty. Santi, October 2013)



San Juan Bano, Arayat
(Ty. Santi, October 2013) pic by MGB-3



La Paz - Zaragoza Road
(Ty. Santi, October 2013)

Most of the pictures were taken from the Internet

Daily Point Rainfall in millimeters (meteorological day)

2013

Station:

Muñoz

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	5	0	0	2	39	16	0	0
2	0	0	0	0	2	0	0	0	2	3	0	0
3	0	0	0	0	0	0	0	26	3	0	6	0
4	0	0	0	0	0	0	0	3	46	0	4	0
5	0	0	0	0	0	0	1	15	6	0	7	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	36	0	0	18	0	0	0
8	0	0	0	0	0	1	0	23	0	0	12	0
9	0	0	0	0	0	0	0	0	2	5	3	0
10	0	0	0	0	0	0	18	0	0	0	0	0
11	0	0	0	0	0	5	12	102	12	50	0	0
12	0	0	0	0	1	27	0	53	24	10	0	0
13	0	0	0	0	0	23	10	2	13	0	0	0
14	0	0	7	0	12	0	0	0	37	0	0	1
15	0	0	4	0	4	0	5	0	32	12	0	0
16	0	0	0	0	1	2	38	4	4	1	0	2
17	0	0	0	0	0	56	3	7	0	0	0	3
18	0	0	0	0	0	4	0	49	12	0	0	0
19	0	0	0	1	6	24	0	26	8	2	0	0
20	0	0	0	0	0	2	49	16	0	0	0	0
21	0	0	0	1	0	6	0	29	0	0	0	0
22	0	4	0	0	0	11	21	0	4	0	0	0
23	0	0	0	0	23	9	35	1	6	0	0	0
24	0	0	0	0	5	0	7	67	25	0	0	0
25	0	0	0	0	1	0	0	74	36	0	0	0
26	0	0	0	23	3	0	7	6	12	0	0	0
27	0	0	0	45	6	0	30	40	10	0	3	0
28	0	0	0	15	0	0	5	9	4	0	0	0
29	0		0	0	0	7	32	0	4	0	0	0
30	0		0	0	0	31	11	0	7	0	0	0
31	0		0		0		52	0		0		0

Monthly Total	0	4	11	85	69	244	336	554	366	99	35	6
Average	0.00	0.14	0.35	2.83	2.23	8.13	10.84	17.87	12.20	3.19	1.17	0.19
Max daily rain	0	4	7	45	23	56	52	102	46	50	12	3
Day of Max Daily		22	14	27	23	17	31	11	4	11	8	17
No. of Rain days	0	1	2	5	12	15	17	20	24	8	6	3
Max 1-hr rain		1	6	23	22	34	33	67	39	17	5	2
Day of max 1-hr		22	14	27	23	7	20	25	1	11	9	17

Total rain for the year

1809

Total rain days for the year

113

Daily Point Rainfall in millimeters (meteorological day)

2013

Station:

Sapang_Buho

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	0	12	0	1	0	0
2	0	0	0	0	0	0	1	0	2	0	4	0
3	0	0	0	0	0	0	4	0	2	6	5	0
4	1	0	0	0	0	0	2	2	56	0	10	0
5	0	0	0	0	0	0	0	15	0	0	6	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	1	0	0	1	0	0	0
8	0	0	0	0	0	0	2	7	11	0	17	0
9	0	0	0	0	0	0	18	0	7	15	4	1
10	0	0	1	0	0	0	0	0	3	0	0	0
11	3	0	0	0	37	19	6	103	7	107	0	6
12	0	0	0	0	0	81	0	19	0	1	0	15
13	0	0	8	0	0	31	0	2	4	0	0	1
14	0	0	0	0	10	3	0	0	20	0	3	4
15	0	0	0	0	10	0	1	1	38	3	1	0
16	0	0	0	0	1	0	7	0	1	0	0	1
17	0	0	0	0	0	23	1	11	0	0	0	0
18	0	0	0	0	2	3	0	22	2	0	0	0
19	0	0	0	0	12	16	0	15	0	0	0	0
20	0	0	0	0	0	30	5	24	2	0	0	0
21	0	0	0	0	1	17	0	23	0	0	0	0
22	0	7	7	0	16	16	35	10	6	0	0	0
23	0	0	0	0	0	6	22	5	5	0	0	0
24	0	0	0	0	18	0	2	11	23	0	0	0
25	0	0	0	0	7	0	1	5	31	0	0	0
26	0	0	0	2	0	0	0	9	14	0	0	29
27	0	0	0	0	6	0	31	39	12	0	0	0
28	0	0	0	0	0	0	14	2	1	0	0	0
29	0		0	0	0	7	31	1	0	0	0	0
30	0		0	0	0	54	12	0	21	0	0	0
31	0		0		0		12	0		0		0

Monthly Total	4	7	16	2	120	307	207	338	269	133	50	57
Average	0.13	0.25	0.52	0.07	3.87	10.23	6.68	10.90	8.97	4.29	1.67	1.84
Max daily rain	3	7	8	2	37	81	35	103	56	107	17	29
Day of Max Daily	11	22	13	26	11	12	22	11	4	11	8	26
No. of Rain days	2	1	3	1	11	14	19	21	22	6	8	7
Max 1-hr rain	1	2	8	2	21	40	18	22	43	29	5	22
Day of max 1-hr	4	23	13	26	11	12	27	27	4	11	4	26

Total rain for the year

1510

Total rain days for the year

115

Daily Point Rainfall in millimeters (meteorological day)

2013	Station: Gabaldon											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	3	0	0	0	0	1	3	0	7	3	2
2	0	8	1	0	1	0	1	0	0	1	12	0
3	0	0	0	0	0	0	14	4	4	7	14	0
4	3	0	0	0	0	0	5	16	16	0	23	0
5	0	0	0	0	0	0	0	33	0	0	27	0
6	0	0	0	0	0	0	5	1	3	0	0	0
7	1	0	0	0	0	5	5	0	10	0	2	0
8	1	0	0	0	3	29	0	4	23	3	219	0
9	0	0	0	0	0	0	46	23	5	1	212	1
10	0	0	4	0	0	0	0	1	8	0	0	24
11	18	5	2	0	3	8	29	179	5	249	1	11
12	2	2	0	0	5	21	8	53	2	17	0	38
13	0	0	0	0	14	11	14	0	19	3	17	0
14	1	0	0	0	4	5	0	0	39	12	14	12
15	0	0	0	0	0	1	0	0	27	12	1	19
16	0	0	0	0	0	0	3	24	9	1	0	33
17	0	0	0	0	0	82	10	23	1	0	0	0
18	0	0	0	0	0	5	2	36	0	0	0	23
19	0	0	0	0	0	20	0	7	4	0	0	0
20	0	0	0	0	0	17	4	13	4	0	0	1
21	2	7	0	0	15	32	0	45	0	0	6	0
22	1	35	4	0	8	3	62	11	9	1	0	0
23	0	13	3	0	0	0	7	10	1	0	12	0
24	0	2	0	0	0	0	23	3	42	0	7	0
25	0	32	0	0	0	0	1	1	5	0	0	0
26	0	0	0	15	1	0	0	16	16	0	0	6
27	0	0	0	0	1	0	20	24	3	0	0	2
28	0	0	0	0	0	0	40	3	0	0	6	0
29	0		0	0	0	83	132	0	42	0	0	0
30	0		0	0	6	67	41	0	1	0	1	0
31	0		0		0		11	0		3		0

Monthly Total	29	107	14	15	61	389	484	533	298	317	577	172
Average	0.94	3.82	0.45	0.50	1.97	12.97	15.61	17.19	9.93	10.23	19.23	5.55
Max daily rain	18	35	4	15	15	83	132	179	42	249	219	38
Day of Max Daily	11	22	10	26	21	29	29	11	24	11	8	12
No. of Rain days	8	9	5	1	11	15	23	23	24	13	17	12
Max 1-hr rain	2	9	3	12	14	41	35	39	21	38	42	17
Day of max 1-hr	11	26	23	26	21	17	9	12	24	11	9	19

Total rain for the year	2996
Total rain days for the year	161

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Zaragoza										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	12	10	0	2	0	0
2	0	0	0	0	0	0	0	0	0	2	50	0
3	0	0	0	0	0	0	4	0	2	0	0	0
4	0	0	0	0	0	0	8	2	24	0	3	0
5	0	0	0	0	0	0	19	5	5	0	13	0
6	0	0	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	0	0	15	0	0	0
8	0	0	0	0	0	10	0	26	31	0	9	0
9	0	0	0	0	0	0	0	0	5	1	16	0
10	0	0	0	0	3	9	35	0	15	1	0	0
11	0	0	14	0	4	3	1	69	2	64	0	0
12	0	0	0	0	1	0	0	45	0	7	0	0
13	0	0	0	0	0	1	6	10	19	0	1	0
14	0	0	2	0	2	14	0	0	16	13	0	3
15	0	0	0	0	0	0	7	0	26	0	0	0
16	0	0	0	0	0	0	33	2	5	7	0	5
17	0	0	0	0	0	82	1	14	1	0	0	10
18	0	0	0	0	21	9	1	44	3	0	0	0
19	0	0	0	0	8	40	0	28	0	0	0	9
20	0	0	0	0	0	1	0	63	2	0	0	0
21	0	0	0	0	0	1	0	36	0	0	0	0
22	0	6	9	0	0	2	7	6	20	0	0	0
23	0	0	0	0	0	0	10	18	10	0	0	0
24	0	0	4	0	0	0	1	94	6	0	0	0
25	0	0	0	42	0	0	3	0	14	0	0	0
26	0	0	0	0	0	0	31	21	28	0	0	0
27	0	0	0	18	40	5	40	32	24	0	0	0
28	0	0	0	0	0	0	18	13	6	0	19	0
29	0		0	0	0	18	1	0	1	0	0	0
30	0		0	0	0	1	4	44	18	0	0	0
31	0		0		0		18	0		0		0

Monthly Total	0	6	29	60	79	196	260	583	298	97	111	27
Average	0.00	0.21	0.94	2.00	2.55	6.53	8.39	18.81	9.93	3.13	3.70	0.87
Max daily rain	0	6	14	42	40	82	40	94	31	64	50	10
Day of Max Daily		22	11	25	27	17	27	24	8	11	2	17
No. of Rain days	0	1	4	2	7	14	21	21	24	8	7	4
Max 1-hr rain		2	10	15	34	40	29	55	22	11	24	8
Day of max 1-hr		22	11	25	27	17	16	24	8	12	2	19

Total rain for the year	1746
Total rain days for the year	113

Daily Point Rainfall in millimeters (meteorological day)

2013	Station: Mayapyap											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	0	4	0			
2	0	0	0	0	1	0	16	0	0			
3	0	0	0	0	0	0	4	1	2			
4	0	0	0	0	1	0	1	3	15			
5	0	0	0	0	0	0	29	12	16			
6	0	0	0	0	0	0	0	1	0			
7	0	0	0	0	0	1	0	3	15			
8	0	0	0	0	0	24	0	44	58			
9	0	0	0	0	0	0	4	2	5			
10	0	0	0	0	0	0	4	1	0			
11	0	0	0	0	0	7	7	103	25			
12	0	0	0	0	2	57	3	33	0			
13	0	0	0	1	0	31	0	2	5			
14	0	0	8	0	2	6	0	0	27			
15	0	0	0	0	3	0	2	0	70			
16	0	0	0	0	1	5	25	0		18		
17	0	0	0	0	0	55	2	17		0		
18	0	0	0	0	0	19	1	27		0		
19	0	0	0	0	0	37	0	11		0		
20	0	0	0	0	0	5	1	38		0		
21	0	0	0	0	0	1	0	28		0		
22	0	7	17	0	25	7	25	2		0		
23	0	0	1	0	5	16	10	12		0		
24	0	0	0	0	4	0	3	79		0		
25	0	0	0	5	5	0	0	0		0		
26	0	0	0	2	5	0	3	5				
27	0	0	0	0	5	0	27	29				
28	0	0	0	0	0	0	12	6				
29	0		0	0	12	13	4	0				
30	0		0	0	0	7	11	0				
31	0		0		1		12	0				

Monthly Total	0	7	26	8	72	291	206	463	238	18		
Average	0	0.25	0.839	0.267	2.323	9.7	6.645	14.94	15.87	1.80		
Max daily rain	0	7	17	5	25	57	29	103	70	18		
Day of Max Daily		22	22	25	22	12	5	11	15	16		
No. of Rain days	0	1	3	3	14	16	22	23	10	1		
Max 1-hr rain		2	17	4	16	54	22	62	45	18		
Day of max 1-hr		22	22	25	22	12	27	24	15	17		

Total rain for the year	1329
Total rain days for the year	93

Daily Point Rainfall in millimeters (meteorological day)

2013	Station: Peñaranda											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	0	6	0	1	41	0
2	0	0	0	0	0	0	0	0	0	10	1	0
3	0	0	0	0	0	0	7	3	3	0	4	0
4	0	0	0	0	0	0	0	1	7	0	2	0
5	0	0	0	0	0	0	31	11	66	0	18	0
6	0	0	0	0	0	0	0	3	1	6	0	0
7	0	0	0	0	0	0	0	0	0	1	0	0
8	0	0	0	0	0	7	0	4	4	0	11	0
9	0	0	0	0	0	0	57	10	5	0	87	0
10	0	0	1	0	0	0	0	1	8	8	0	0
11	1	0	15	0	0	14	5	81	3	178	0	2
12	0	0	0	0	0	7	0	34	0	2	0	1
13	0	0	24	1	0	32	1	3	5	0	3	0
14	0	0	0	0	31	2	0	0	26	1	1	11
15	0	0	0	0	0	0	0	0	2	10	0	1
16	0	0	0	0	2	0	59	2	1	12	0	6
17	0	0	0	0	0	69	0	20	0	0	0	2
18	0	0	0	27	0	61	5	22	20	0	2	1
19	0	0	0	0	21	21	0	16	3	0	0	0
20	0	0	0	0	0	12	1	45	9	0	0	0
21	0	1	0	0	4	3	0	37	1	0	0	0
22	0	17	4	0	4	3	18	12	11	0	2	0
23	0	0	6	0	33	3	41	8	8	0	0	0
24	0	0	6	0	2	0	28	34	4	0	3	0
25	0	1	0	15	8	0	2	0	20	0	36	0
26	0	0	0	23	0	0	0	2	12	0	0	0
27	0	0	0	0	6	22	10	21	14	0	0	0
28	0	0	0	0	0	0	19	5	6	0	0	0
29	0		0	0	0	8	7	0	3	0	0	0
30	0		0	0	0	22	9	0	28	0	0	0
31	0		0		1		22	0		0		0

Monthly Total	1	19	56	66	112	286	322	381	270	229	211	24
Average	0.03	0.68	1.81	2.20	3.61	9.53	10.39	12.29	9.00	7.39	7.03	0.77
Max daily rain	1	17	24	27	33	69	59	81	66	178	87	11
Day of Max Daily	11	22	13	18	23	17	16	11	5	11	9	14
No. of Rain days	1	3	6	4	10	15	17	23	25	10	13	7
Max 1-hr rain	1	4	12	21	31	43	50	19	59	30	32	5
Day of max 1-hr	12	22	13	18	14	17	9	24	5	12	6	15

Total rain for the year	1977
Total rain days for the year	134

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Calaanan										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	0	4	5	0	1	0
2	0	0	0	0	0	0	0	0	1	0	1	0
3	0	1	0	0	0	0	11	0	7	4	13	0
4	0	0	0	0	0	0	3	3	52	0	19	0
5	0	0	0	0	0	0	0	13	0	0	11	0
6	0	0	0	0	0	0	0	0	1	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	1	0	2	1	3	82	1
9	0	0	3	0	0	0	3	8	8	40	4	0
10	0	0	0	0	0	0	0	0	1	1	0	0
11	2	0	0	0	6	1	37	162	3	126	0	9
12	2	0	0	0	5	14	0	24	0	6	0	10
13	0	0	0	0	4	8	0	0	3	1	0	0
14	0	0	0	0	2	3	0	0	21	42	0	9
15	0	0	0	0	0	0	0	8	74	5	3	0
16	0	0	0	0	3	0	27	0	17	0	0	1
17	0	0	0	0	0	79	9	8	0	0	0	0
18	0	0	0	0	30	16	0	54	4	0	0	0
19	0	0	0	0	6	19	0	17	0	0	0	0
20	0	0	0	0	0	18	0	14	0	0	0	1
21	0	2	1	0	1	15	0	28	0	0	0	0
22	0	11	0	0	7	20	37	7	4	4	0	0
23	0	0	0	0	0	1	30	5	3	0	1	0
24	0	1	0	0	9	0	3	66	54	0	3	0
25	0	9	0	0	1	0	1	0	3	0	0	0
26	0	0	0	0	0	0	1	12	12	0	0	3
27	0	0	0	0	2	0	5	36	4	0	0	0
28	0	0	0	0	14	0	17	2	0	0	0	0
29	0		0	0	0	22	61	0	1	0	0	0
30	0		0	0	1	27	23	0	1	0	0	0
31	0		0		0		66	0		8		0

Monthly Total	4	24	4	0	91	244	334	473	280	240	138	34
Average	0.13	0.86	0.13	0.00	2.94	8.13	10.77	15.26	9.33	7.74	4.60	1.10
Max daily rain	2	11	3	0	30	79	66	162	74	126	82	10
Day of Max Daily	11	22	9		18	17	31	11	15	11	8	12
No. of Rain days	2	5	2	0	14	14	16	19	22	11	10	7
Max 1-hr rain	1	5	2		20	38	41	34	39	26	29	6
Day of max 1-hr	12	26	10		18	17	31	24	4	9	8	15

Total rain for the year	1866
Total rain days for the year	122

Daily Point Rainfall in millimeters (meteorological day)

2013	Station: Palali											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	3	0	7	0	10	7	0
2	0	2	0	0	0	0	1	0	0	4	5	0
3	0	0	0	0	9	0	7	1	2	2	10	0
4	0	0	0	0	0	0	2	5	16	0	5	0
5	0	0	0	0	0	0	4	18	4	0	18	0
6	0	0	0	0	0	0	0	7	2	0	0	0
7	0	0	0	0	0	14	0	0	0	0	0	0
8	0	0	0	0	0	12	0	0	15	0	60	2
9	0	0	0	0	0	0	57	6	4	12	131	0
10	0	0	12	0	1	0	11	0	0	32	0	1
11	3	0	0	0	0	26	29	138	8	166	0	1
12	0	0	0	0	0	19	0	23	1	0	0	24
13	0	0	0	0	0	24	0	0	18	0	15	0
14	0	0	0	0	19	6	3	0	31	1	3	11
15	0	0	0	0	0	0	0	0	4	5	0	6
16	0	0	1	0	0	0	32	1	4	18	0	15
17	0	0	0	0	0	54	16	7	0	0	0	0
18	0	0	0	0	0	36	0	19	1	0	0	0
19	0	0	0	0	0	24	0	12	17	0	0	0
20	0	0	0	0	0	6	1	32	6	0	0	1
21	0	1	0	0	1	10	0	43	1	0	5	2
22	0	22	4	0	34	12	62	2	3	53	20	0
23	0	0	0	0	0	20	34	19	6	0	2	0
24	0	0	3	0	19	0	33	27	58	0	7	0
25	0	1	3	0	0	0	2	2	6	0	0	0
26	0	0	0	0	0	0	0	4	11	6	0	33
27	0	0	0	23	24	0	25	29	15	0	0	0
28	0	0	0	12	0	0	26	4	0	0	3	0
29	0		0	0	0	29	27	0	9	0	0	0
30	0		0	0	2	20	18	0	11	0	0	0
31	0		0		0		22	0		5		0

Monthly Total	3	26	23	35	109	315	412	406	253	314	291	96
Average	0.10	0.93	0.74	1.17	3.52	10.50	13.29	13.10	8.43	10.13	9.70	3.10
Max daily rain	3	22	12	23	34	54	62	138	58	166	131	33
Day of Max Daily	11	22	10	27	22	17	22	11	24	11	9	26
No. of Rain days	1	4	5	2	8	16	20	21	24	12	14	10
Max 1-hr rain	1	9	8	22	20	24	37	54	43	28	22	30
Day of max 1-hr	12	22	10	27	27	17	9	11	24	11	9	28

Total rain for the year	2283
Total rain days for the year	137

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: San Isidro										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	3	11	0	1	1	0
2	0	0	0	0	0	0	5	0	0	8	3	0
3	0	0	0	0	0	0	12	9	2	0	0	0
4	0	0	0	0	0	0	12	2	8	0	2	0
5	0	0	0	0	0	0	36	7	2	0	13	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	9	0	0	0	0	0	0
8	0	0	0	0	0	4	0	0	2	0	6	0
9	0	0	0	0	0	4	3	10	3	0	22	0
10	0	0	0	0	0	0	0	0	0	16	0	0
11	0	0	0	0	0	16	23	76	2	140	0	0
12	0	0	0	0	0	6	1	39	0	2	0	0
13	0	0	64	0	1	16	2	4	3	0	2	0
14	0	0	0	3	0	12	0	0	25	0	5	12
15	0	0	0	0	0	0	0	0	3	13	0	1
16	0	0	0	0	0	0	44	3	5	0	0	4
17	0	0	0	0	0	40	10	10	0	0	0	0
18	0	0	0	0	0	18	0	28	1	0	0	0
19	0	0	0	0	15	15	0	33	6	0	0	3
20	0	0	0	0	0	2	0	50	8	0	0	0
21	0	1	0	0	12	6	0	27	2	0	0	0
22	0	18	8	0	0	3	8	12	16	0	0	0
23	0	0	1	0	5	0	18	11	8	0	0	0
24	0	0	2	0	1	0	10	6	2	0	0	0
25	0	0	0	23	42	0	1	0	15	0	11	0
26	0	0	0	0	1	0	4	1	16	0	0	0
27	0	0	0	0	4	45	6	24	59	0	0	0
28	0	0	0	19	0	0	19	5	13	0	0	0
29	0		0	0	0	14	3	0	5	0	0	0
30	0		0	0	0	8	5	0	10	0	0	0
31	0		0		0		68	0		0		0

Monthly Total	0	19	75	45	81	218	293	368	216	180	65	20
Average	0.00	0.68	2.42	1.50	2.61	7.27	9.45	11.87	7.20	5.81	2.17	0.65
Max daily rain	0	18	64	23	42	45	68	76	59	140	22	12
Day of Max Daily		22	13	25	25	27	31	11	27	11	9	14
No. of Rain days	0	2	4	3	8	16	21	20	23	6	9	4
Max 1-hr rain		5	59	18	37	18	60	24	35	34	12	5
Day of max 1-hr		22	13	25	25	27	31	11	27	12	10	15

Total rain for the year	1580
Total rain days for the year	116

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Arayat										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	9	9	12	20	0	0
2	0	0	0	0	0	0	0	0	0	8	0	0
3	0	0	0	0	0	0	14	17	0	20	1	0
4	0	0	0	0	0	0	3	7	5	0	8	0
5	0	0	0	0	0	0	10	2	1	0	16	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	3	0	0	0	0	27	0	0	0	1	0	0
8	0	0	0	0	0	0	1	4	1	0	16	0
9	0	0	0	0	0	8	2	7	1	7	2	0
10	0	0	0	0	9	3	11	0	5	47	0	0
11	2	0	1	0	1	18	51	32	0	221	0	0
12	0	0	0	0	0	0	0	61	0	27	0	0
13	1	0	0	0	38	3	0	4	29	0	4	0
14	0	0	0	21	0	23	8	0	21	0	0	13
15	0	0	0	0	0	14	0	0	8	8	0	4
16	0	0	0	0	0	0	20	0	0	0	0	0
17	0	0	0	0	0	14	1	10	0	0	0	0
18	0	0	0	0	0	2	0	44	4	0	0	0
19	0	0	0	0	0	25	1	54	0	0	0	0
20	0	0	0	0	0	5	0	77	0	0	0	0
21	0	2	0	0	1	2	1	26	11	0	0	0
22	0	30	6	0	1	2	20	9	44	1	0	0
23	0	0	0	0	1	0	56	0	15	0	0	0
24	0	0	0	0	3	0	19	8	7	0	0	0
25	0	1	0	0	2	0	1	0	5	0	0	0
26	0	0	0	75	0	0	25	3	18	0	0	0
27	0	0	0	10	0	42	9	19	3	0	0	0
28	0	0	0	0	6	0	32	1	4	0	1	0
29	0		0	0	0	18	4	0	1	0	0	0
30	0		0	0	0	4	4	0	4	0	0	0
31	0		0		0		19	0		0		0

Monthly Total	6	33	7	106	62	210	321	394	199	360	48	17
Average	0.19	1.18	0.23	3.53	2.00	7.00	10.35	12.71	6.63	11.61	1.60	0.55
Max daily rain	3	30	6	75	38	42	56	77	44	221	16	13
Day of Max Daily	7	22	22	26	13	27	23	20	22	11	5	14
No. of Rain days	3	3	2	3	9	16	23	19	20	10	7	2
Max 1-hr rain	2	7	4	66	33	28	34	14	18	90	7	5
Day of max 1-hr	8	22	22	26	13	27	23	20	13	12	8	15

Total rain for the year	1763
Total rain days for the year	117

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Candaba										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	17	18	4	1	0	0
2	0	0	0	0	0	0	1	0	0	7	0	0
3	0	0	0	0	0	0	13	5	33	0	1	0
4	0	0	0	0	13	0	1	11	2	0	6	0
5	0	0	0	0	0	0	14	1	1	0	23	0
6	0	0	0	0	0	0	0	1	0	14	0	0
7	1	0	0	0	0	1	0	0	0	4	0	0
8	1	0	0	0	0	0	6	30	2	1	15	0
9	0	0	0	0	0	9	55	8	1	6	2	0
10	0	0	0	0	12	0	0	1	3	16	1	0
11	7	0	8	0	0	18	9	22	3	118	0	1
12	0	0	0	0	0	17	0	57	0	5	0	0
13	1	0	0	0	0	14	0	2	1	1	5	0
14	0	0	0	6	1	11	1	0	9	0	2	16
15	0	0	0	0	0	1	0	0	1	0	0	2
16	0	0	0	0	0	0	14	0	0	0	0	1
17	0	0	0	0	0	10	0	4	0	0	0	0
18	0	0	0	0	0	4	0	43	29	0	0	0
19	0	0	0	0	0	15	8	53	0	0	0	0
20	0	0	0	0	0	0	0	86	0	0	0	0
21	0	7	0	0	1	0	16	65	4	0	0	0
22	0	37	0	0	1	3	3	12	38	5	0	0
23	0	0	0	0	5	0	41	0	16	0	0	0
24	0	0	0	0	1	0	6	8	0	0	0	0
25	0	0	0	0	1	0	0	0	8	0	0	0
26	0	0	0	13	9	0	5	0	24	0	0	0
27	0	0	0	0	0	2	7	25	3	0	0	0
28	0	0	0	0	0	0	37	1	5	0	0	0
29	0		0	0	0	17	1	0	8	0	0	0
30	0		0	0	0	7	3	0	6	0	0	0
31	0		0		0		21	0		0		0

Monthly Total	10	44	8	19	44	129	279	453	201	178	55	20
Average	0.32	1.57	0.26	0.63	1.42	4.30	9.00	14.61	6.70	5.74	1.83	0.65
Max daily rain	7	37	8	13	13	18	55	86	38	118	23	16
Day of Max Daily	11	22	11	26	4	11	9	20	22	11	5	14
No. of Rain days	4	2	1	2	9	14	21	20	21	11	8	4
Max 1-hr rain	2	9	8	11	11	14	42	24	20	52	10	7
Day of max 1-hr	12	22	11	26	4	12	9	8	26	12	5	15

Total rain for the year	1440
Total rain days for the year	117

Daily Point Rainfall in millimeters (meteorological day)

2013

Station:

Sibul_Springs

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	1	0	0	2	12	0	13	79	2
2	0	0	0	0	0	0	5	1	13	29	24	0
3	0	0	0	0	0	0	21	5	13	0	4	0
4	0	0	0	0	1	0	3	12	7	0	6	0
5	0	0	0	0	0	0	75	8	24	0	38	0
6	0	0	0	0	0	0	0	1	3	0	0	0
7	2	0	0	0	0	16	0	1	0	0	0	0
8	0	0	0	0	0	10	0	1	13	0	26	0
9	0	0	0	0	0	33	35	20	3	5	35	0
10	0	0	1	0	0	9	5	0	43	46	0	0
11	6	0	0	0	0	47	3	64	38	216	1	8
12	2	0	0	0	0	88	0	42	0	4	0	0
13	0	0	15	1	0	7	0	0	8	1	5	0
14	0	0	0	0	25	3	2	0	6	0	0	17
15	0	0	0	0	0	0	0	0	0	2	0	2
16	0	0	0	0	0	0	34	0	0	2	0	2
17	0	0	0	0	0	62	2	15	0	0	0	8
18	0	0	0	0	1	12	19	23	44	0	0	0
19	0	0	0	0	37	37	2	29	1	0	0	0
20	0	0	0	0	0	16	0	58	3	0	0	4
21	0	12	0	0	1	2	1	52	9	0	0	0
22	0	34	6	0	29	10	11	4	26	29	0	0
23	0	0	12	0	59	19	25	0	11	3	6	0
24	0	2	59	0	2	0	4	24	2	0	1	0
25	0	2	0	18	1	6	1	1	12	0	1	0
26	0	0	0	1	0	0	55	8	16	0	0	7
27	0	0	0	0	2	0	26	27	7	0	0	0
28	0	0	0	4	0	0	44	3	8	0	0	0
29	0		0	0	0	18	11	0	33	0	0	0
30	0		0	0	3	30	6	0	33	0	0	0
31	0		0		0		28	0		0		0

Monthly Total	10	50	93	25	161	425	420	411	376	350	226	50
Average	0.32	1.79	3.00	0.83	5.19	14.17	13.55	13.26	12.53	11.29	7.53	1.61
Max daily rain	6	34	59	18	59	88	75	64	44	216	79	17
Day of Max Daily	11	22	24	25	23	12	5	11	18	11	1	14
No. of Rain days	3	4	5	5	11	18	24	22	24	11	12	8
Max 1-hr rain	2	9	30	17	57	36	52	22	38	66	48	8
Day of max 1-hr	12	22	24	25	23	12	26	11	18	12	1	11

Total rain for the year

2597

Total rain days for the year

147

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Sasmuan										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	20	0	21	0	13	0	0
2	0	0	0	0	0	0	13	0	0	0	2	0
3	0	0	0	0	0	0	8	12	0	21	4	0
4	0	0	0	0	0	0	3	2	1	0	0	0
5	0	0	0	0	0	0	1	4	2	0	6	0
6	0	0	0	0	0	13	0	0	0	4	0	0
7	0	0	0	0	0	4	0	0	0	0	0	0
8	0	0	0	0	0	0	6	8	1	1	22	0
9	0	0	0	0	0	11	0	3	10	0	0	0
10	0	0	38	0	0	0	25	1	4	8	0	0
11	9	0	0	0	0	25	27	13	1	88	0	0
12	0	0	0	0	2	3	0	89	0	38	0	0
13	0	0	0	0	8	20	8	12	2	11	4	0
14	0	0	0	0	22	0	8	0	20	0	9	12
15	0	0	0	0	0	38	0	0	25	7	0	0
16	0	0	0	0	0	0	2	0	4	0	0	7
17	0	0	0	0	0	0	1	54	8	0	0	4
18	0	0	0	47	0	6	0	233	0	0	0	0
19	0	0	0	0	0	27	0	198	1	0	0	0
20	0	0	0	0	0	3	0	139	0	0	0	0
21	0	11	0	0	0	2	7	87	33	0	0	0
22	0	49	0	0	0	6	15	25	68	0	0	0
23	0	0	18	0	0	0	55	9	31	0	0	0
24	0	0	0	0	0	0	0	4	2	0	0	6
25	0	0	2	0	0	0	0	0	37	1	0	0
26	0	0	0	3	0	0	2	5	14	0	0	0
27	0	0	0	0	0	0	11	34	8	0	0	0
28	0	0	0	0	2	0	19	2	6	0	0	0
29	0		0	7	0	35	1	0	0	0	0	0
30	0		0	0	0	7	9	0	0	0	0	0
31	0		0		0		10	0		0		0

Monthly Total	9	60	58	57	34	220	231	955	278	192	47	29
Average	0.29	2.14	1.87	1.90	1.10	7.33	7.45	30.81	9.27	6.19	1.57	0.94
Max daily rain	9	49	38	47	22	38	55	233	68	88	22	12
Day of Max Daily	11	22	10	18	14	15	23	18	22	11	8	14
No. of Rain days	1	2	3	3	4	15	20	21	20	10	6	4
Max 1-hr rain	3	13	29	33	8	17	25	33	22	27	8	6
Day of max 1-hr	12	22	10	18	14	15	23	18	26	12	14	15

Total rain for the year	2170
Total rain days for the year	109

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Sulipan										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	16	14	17	0	19	13	0
2	0	0	2	0	0	0	4	1	0	2	24	0
3	1	0	0	0	0	0	8	9	0	0	4	0
4	0	0	0	0	0	0	24	3	1	0	0	0
5	0	0	0	0	0	0	3	6	1	0	10	0
6	1	0	0	0	0	0	0	2	4	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	6	5	0	29	39	0
9	0	0	0	0	0	1	5	3	6	8	0	0
10	0	0	0	0	0	0	31	12	5	20	0	0
11	18	0	0	0	0	51	4	14	2	91	0	0
12	0	1	0	0	1	3	0	83	0	29	0	0
13	9	0	0	0	1	7	4	4	0	9	6	0
14	0	0	0	0	17	5	2	0	8	0	8	13
15	0	0	0	0	0	1	1	0	10	6	0	0
16	0	0	0	0	0	9	6	0	0	0	0	5
17	0	0	0	0	0	0	9	26	1	0	0	0
18	0	0	0	0	0	6	0	118	0	0	0	0
19	0	0	0	0	0	24	0	120	2	0	0	0
20	0	0	0	0	0	1	0	133	0	0	0	0
21	2	13	0	0	0	2	0	69	10	0	0	0
22	0	58	3	0	0	1	2	20	63	2	0	0
23	0	0	1	0	0	0	78	0	24	1	0	0
24	0	0	0	0	0	0	1	4	0	0	32	0
25	0	0	0	0	0	3	0	0	5	11	0	0
26	0	0	0	35	0	0	1	9	5	0	0	0
27	0	0	0	1	0	0	17	22	6	0	0	0
28	0	0	0	0	4	1	34	2	5	0	0	0
29	0		0	0	0	33	4	0	2	0	0	0
30	0		0	0	0	7	15	0	1	0	0	0
31	0		0		4		10	0		0		0

Monthly Total	31	72	6	36	27	171	283	682	161	227	136	18
Average	1.00	2.57	0.19	1.20	0.87	5.70	9.13	22.00	5.37	7.32	4.53	0.58
Max daily rain	18	58	3	35	17	51	78	133	63	91	39	13
Day of Max Daily	11	22	22	26	14	11	23	20	22	11	8	14
No. of Rain days	5	3	3	2	5	17	23	22	19	12	8	2
Max 1-hr rain	7	16	2	18	6	22	43	28	6	36	30	6
Day of max 1-hr	13	22	22	26	14	11	23	20	9	12	24	15

Total rain for the year	1850
Total rain days for the year	121

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Mexico										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	18	12	34	1	0	0
2	0	0	0	0	0	10	1	1	0	0	2	0
3	0	0	0	0	0	0	7	21	0	0	2	0
4	0	0	0	0	1	0	4	3	13	1	2	0
5	0	0	0	0	0	0	4	2	2	1	13	0
6	0	0	0	0	0	0	0	1	0	19	0	0
7	1	0	0	0	0	11	0	0	0	4	0	0
8	0	0	0	0	0	0	8	5	4	25	24	0
9	0	0	0	23	0	0	2	5	1	0	0	0
10	0	0	0	0	2	0	0	2	2	95	0	0
11	4	0	0	0	0	37	10	15	5	105	0	0
12	0	0	0	0	1	4	0	75	0	42	0	0
13	0	0	0	0	0	4	8	8	30	2	4	0
14	0	0	0	0	5	12	5	0	18	0	0	10
15	0	0	0	0	0	0	0	0	2	3	0	7
16	0	0	0	0	0	0	8	0	1	0	0	1
17	0	0	0	1	0	6	0	9	0	0	0	2
18	0	0	0	1	0	14	0	67	1	0	0	0
19	0	0	0	0	0	19	0	86	6	0	0	0
20	0	0	0	0	0	9	0	109	0	0	0	0
21	0	8	0	0	0	4	9	68	2	0	0	0
22	0	46	0	0	0	2	2	14	61	2	0	0
23	0	0	0	0	10	0	31	1	23	0	0	0
24	0	0	0	0	0	0	0	4	1	0	0	0
25	0	0	0	0	0	2	0	0	3	0	0	0
26	0	0	0	33	2	0	3	0	25	0	0	0
27	0	0	0	0	1	0	10	37	4	0	0	0
28	0	0	0	0	0	0	27	0	4	0	1	0
29	0		0	0	0	27	1	0	0	0	0	0
30	0		0	0	0	4	0	0	1	0	0	0
31	0		0		0		6	0		0		0

Monthly Total	5	54	0	58	22	165	164	545	243	300	48	20
Average	0.16	1.93	0.00	1.93	0.71	5.50	5.29	17.58	8.10	9.68	1.60	0.65
Max daily rain	4	46	0	33	10	37	31	109	61	105	24	10
Day of Max Daily	11	22		26	23	11	23	20	22	11	8	14
No. of Rain days	2	2	0	4	7	15	19	21	22	12	7	4
Max 1-hr rain	2	10		25	8	20	17	16	34	45	12	6
Day of max 1-hr	12	22		26	23	11	1	12	1	10	8	15

Total rain for the year	1624
Total rain days for the year	115

Daily Point Rainfall in millimeters (meteorological day)

2013		Station: Porac										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	9	0	26	0	33	0	0
2	0	0	0	0	0	0	1	0	0	1	5	0
3	0	0	0	0	0	0	5	24	0	11	0	0
4	0	0	0	0	0	0	7	4	10	1	0	0
5	0	0	0	0	0	0	1	0	1	0	4	0
6	0	0	0	0	0	0	0	0	0	1	0	0
7	1	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	1	13	7	9	1	2	19	0
9	0	0	0	0	0	0	0	5	1	3	1	0
10	0	0	2	0	0	5	56	5	1	1	0	0
11	2	0	0	0	0	91	10	33	3	76	0	0
12	0	3	0	0	2	0	0	78	0	34	0	0
13	0	0	0	0	1	13	0	24	16	13	0	0
14	0	0	0	0	42	0	6	1	39	0	1	4
15	0	0	0	0	0	4	5	0	10	41	0	2
16	0	0	0	0	0	21	3	0	5	35	0	10
17	0	0	0	61	0	4	0	44	0	0	0	26
18	0	0	0	4	0	10	0	227	2	0	0	2
19	0	0	0	0	0	56	0	200	8	0	0	0
20	0	0	0	0	17	10	1	105	3	0	0	0
21	0	5	0	0	0	3	23	63	13	1	0	0
22	0	34	0	0	0	6	2	25	55	1	0	0
23	0	0	0	0	0	0	14	0	27	0	0	0
24	0	0	0	0	0	0	0	4	0	0	2	1
25	0	0	3	0	0	2	0	0	29	0	17	0
26	0	0	0	0	4	0	2	3	48	0	0	0
27	0	0	0	1	0	0	7	34	23	0	0	0
28	0	0	0	0	29	0	15	6	6	0	0	0
29	0		0	0	1	31	1	0	0	0	0	0
30	0		0	0	6	14	17	0	1	0	0	0
31	0		0		0		20	41		0		0

Monthly Total	3	42	5	66	103	292	203	961	302	254	49	45
Average	0.10	1.50	0.16	2.20	3.32	9.73	6.55	31.00	10.07	8.19	1.63	1.45
Max daily rain	2	34	3	61	42	91	56	227	55	76	19	26
Day of Max Daily	11	22	25	17	14	11	10	18	22	11	8	17
No. of Rain days	2	3	2	3	9	16	20	21	21	15	7	6
Max 1-hr rain	1	7	7	45	23	67	32	43	18	27	15	10
Day of max 1-hr	8	22	25	18	14	11	10	18	26	1	25	16

Total rain for the year	2325
Total rain days for the year	125

Daily Point Rainfall in millimeters (meteorological day)

2013

Station:

San_Rafael

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	14	0	13	4	3	0	0
2	0	0	0	0	0	0	2	1	1	19	1	0
3	0	0	0	0	0	0	6	6	0	0	4	0
4	0	0	0	0	19	0	2	2	2	0	1	0
5	0	0	0	0	0	0	11	3	1	0	13	0
6	0	0	3	0	0	0	0	3	0	2	0	0
7	2	0	0	0	0	0	0	14	0	0	0	0
8	0	0	0	0	0	14	0	4	0	24	21	0
9	0	0	0	0	0	28	17	3	10	2	3	0
10	0	0	6	0	0	6	0	0	19	35	1	0
11	20	0	3	0	2	108	7	16	2	122	0	0
12	1	0	0	0	6	30	0	61	0	11	0	0
13	0	0	0	0	0	10	1	2	0	21	6	0
14	0	0	4	5	6	0	7	0	12	0	0	20
15	0	0	0	0	4	40	2	0	22	18	0	2
16	0	0	0	0	2	0	5	0	0	1	0	3
17	0	0	0	0	0	10	0	22	0	0	0	0
18	0	0	0	4	0	18	0	58	1	0	0	0
19	0	0	0	0	0	70	12	71	1	0	0	0
20	0	0	0	0	0	0	0	118	0	0	0	0
21	0	14	0	0	2	2	0	85	22	0	0	0
22	0	50	0	0	1	1	25	18	78	0	0	0
23	0	0	1	0	0	0	58	0	20	0	0	0
24	0	0	0	0	1	0	1	4	2	0	7	0
25	0	0	0	0	0	33	0	1	2	0	0	0
26	0	0	0	11	10	0	2	3	2	0	0	0
27	0	0	0	0	1	17	3	25	1	0	0	0
28	0	0	0	0	0	0	55	2	18	0	5	0
29	0		0	0	0	35	4	0	2	0	0	0
30	0		0	0	2	7	0	0	7	0	0	0
31	0		0		0		16	0		0		0

Monthly Total	23	64	17	20	56	443	236	535	229	258	62	25
Average	0.74	2.29	0.55	0.67	1.81	14.77	7.61	17.26	7.63	8.32	2.07	0.81
Max daily rain	20	50	6	11	19	108	58	118	78	122	21	20
Day of Max Daily	11	22	10	26	4	11	23	20	22	11	8	14
No. of Rain days	3	2	5	3	12	17	19	23	21	11	10	3
Max 1-hr rain	5	10	5	9	14	61	37	23	16	33	8	12
Day of max 1-hr	12	22	10	26	4	11	23	20	10	12	5	15

Total rain for the year

1968

Total rain days for the year

129

Daily Point Rainfall in millimeters (meteorological day)

2013	Station: PRFFWC_(CSFP)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.8	4.3	11.2	30.7	4.3	7.1	0.0
2	0.0	0.3	0.8	0.0	0.0	2.5	0.5	0.0	0.0	0.0	2.5	0.0
3	1.0	0.0	0.0	0.0	0.0	0.0	6.6	6.1	0.3	0.0	0.3	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	41.9	3.6	3.3	2.0	0.8	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	1.3	0.5	8.6	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.5	0.0	0.0
7	2.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	1.5	6.6	8.6	3.8	13.7	30.0	0.0
9	0.0	0.0	0.3	0.0	0.0	0.0	1.0	6.4	0.8	0.5	0.8	0.0
10	0.0	0.5	0.0	0.0	1.8	4.6	11.2	0.0	2.5	42.7	0.0	0.0
11	3.0	0.0	0.5	0.0	0.0	39.9	5.8	13.0	2.5	105.9	0.0	0.0
12	0.0	0.0	0.0	0.0	1.3	0.3	0.0	80.8	0.0	32.3	0.0	0.0
13	0.0	0.0	0.0	0.0	0.5	7.9	3.6	10.2	26.4	0.3	3.8	0.0
14	0.0	0.0	0.0	6.6	11.9	0.0	0.3	0.0	26.9	0.0	0.3	11.2
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	1.3	0.0	4.1
16	0.0	0.0	0.0	0.0	0.0	13.2	8.6	1.5	1.3	0.0	0.0	2.5
17	0.0	0.0	0.0	1.0	0.0	6.1	0.3	18.3	0.3	0.0	0.0	27.7
18	0.0	0.0	0.0	2.0	0.0	5.1	0.0	101.1	8.6	0.0	0.0	0.3
19	0.0	0.0	0.0	0.0	0.0	33.5	0.0	104.6	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	2.3	6.1	0.0	89.2	2.3	0.0	0.0	0.8
21	0.5	7.9	0.0	0.0	0.8	1.8	18.8	52.3	8.1	0.0	0.0	0.0
22	0.0	34.5	2.0	0.0	0.5	3.3	2.0	17.8	45.7	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	54.9	0.3	23.6	2.5	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0	0.8	0.0	0.5	0.0
25	0.0	0.0	0.0	0.0	0.8	16.3	0.3	0.0	16.8	0.0	0.0	0.0
26	0.0	0.0	0.0	12.7	0.0	0.0	2.8	0.5	20.6	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	9.1	32.0	8.9	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	30.7	0.0	21.1	1.3	3.6	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	38.6	4.1	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	2.8	12.2	0.0	1.0	0.0	0.0	0.0
31	0.0		0.0		0.0		3.8	8.9		0.0		0.0

Monthly Total	6.6	43.2	3.6	22.4	50.5	184.7	220.2	575.3	245.9	207.5	54.6	46.5
Average	0.21	1.54	0.11	0.75	1.63	6.16	7.10	18.56	8.20	6.69	1.82	1.50
Max daily rain	3.0	34.5	2.0	12.7	30.7	39.9	54.9	104.6	45.7	105.9	30.0	27.7
Day of Max Daily	11	22		26	28	11	23	19	22	11	8	17
No. of Rain days	4	4	4	4	9	18	23	23	24	12	10	6
Max 1-hr rain		8.4	1.5	6.9	29		36.3	21.1	29.5	36.6	11.2	23.6
Day of max 1-hr		22	22	26	28		23	20	1	10	8	17

Total rain for the year	1660.9
Total rain days for the year	141

Table 1.0

Monthly Rainfall Summary for 2013															
PRB Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total for the year	Number of RR days	Max 24-hr RR (Met day)
Muñoz	0	4	11	85	69	244	336	554	366	99	35	6	1809	113	102
Sapang Buho	4	7	16	2	120	307	207	338	269	133	50	57	1510	115	107
Gabalton	29	107	14	15	61	389	484	533	298	317	577	172	2996	161	249
Zaragoza	0	6	29	60	79	196	260	583	298	97	111	27	1746	113	94
Mayapyap	0	7	26	8	72	291	206	463	238	18			1329	93	103
Peñaranda	1	19	56	66	112	286	322	381	270	229	211	24	1977	134	178
Calaanan	4	24	4	0	91	244	334	473	280	240	138	34	1866	122	162
Palali	3	26	23	35	109	315	412	406	253	314	291	96	2283	137	166
San Isidro	0	19	75	45	81	218	293	368	216	180	65	20	1580	116	140
Arayat	6	33	7	106	62	210	321	394	199	360	48	17	1763	117	221
Candaba	10	44	8	19	44	129	279	453	201	178	55	20	1440	117	118
Sibul Spring	10	50	93	25	161	425	420	411	376	350	226	50	2597	147	216
Sasmuan	9	60	58	57	34	220	231	955	278	192	47	29	2170	109	233
Sulipan	31	72	6	36	27	171	283	682	161	227	136	18	1850	121	133
Mexico	5	54	0	58	22	165	164	545	243	300	48	20	1624	115	109
Porac	3	42	5	66	103	292	203	961	302	254	49	45	2325	125	227
San Rafael	23	64	17	20	56	443	236	535	229	258	62	25	1968	129	122
PRFFWC	6.6	43.2	3.6	22.4	50.5	184.7	220.2	575.3	245.9	207.5	54.6	46.5	1660.9	141	105.9

Mayapyap RR - incomplete monthly data for Sept & Oct; no data for months of Nov & Dec.

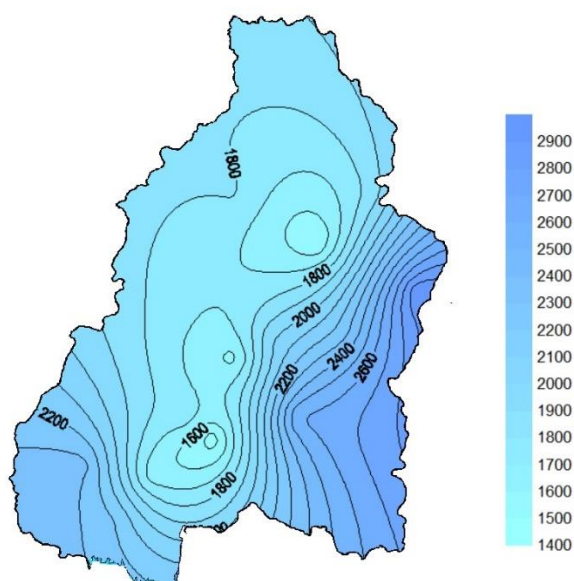


Figure 1a. The Isohyet rainfall distribution for the year 2013 in the Pampanga River Basin

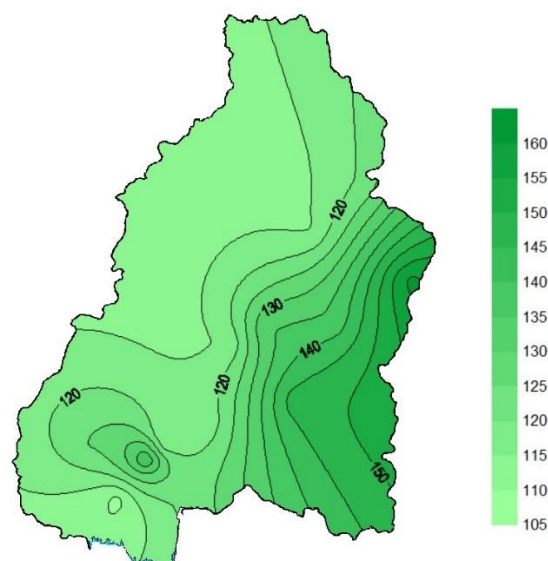


Figure 1b. Estimated rainfall days distribution (2013) in the Pampanga River Basin

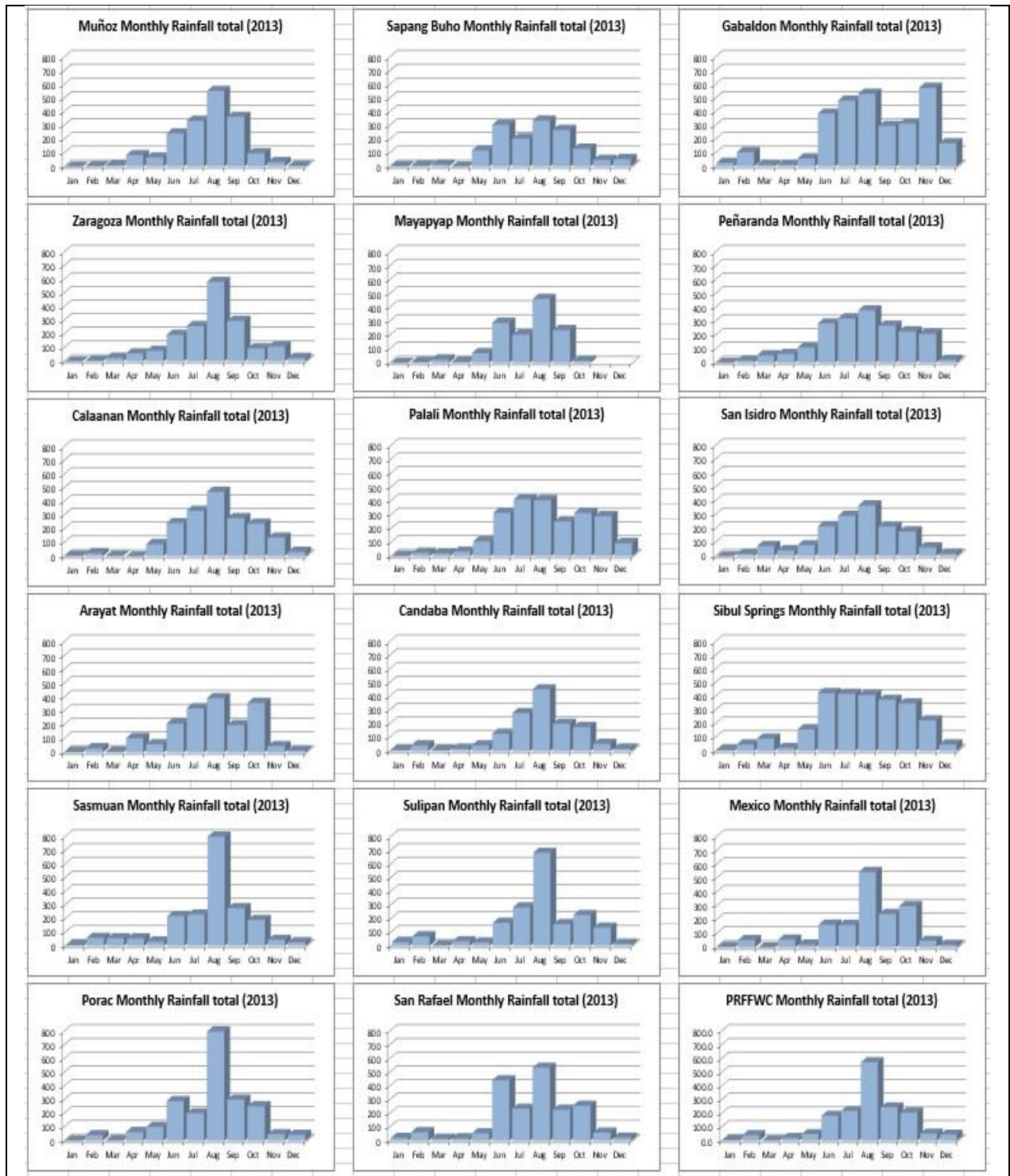
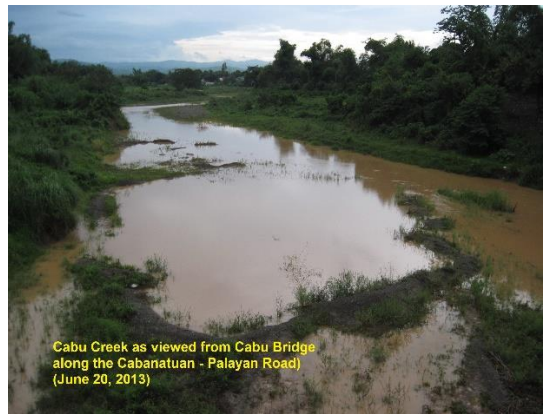


Figure 2. Monthly Rainfall distribution (hyetograph) of all operational RR monitoring stations of PRFFWC within the PRB for the year 2013.

B. WATER LEVEL Data Summary Presentation



Water Level in meters (Daily Average)

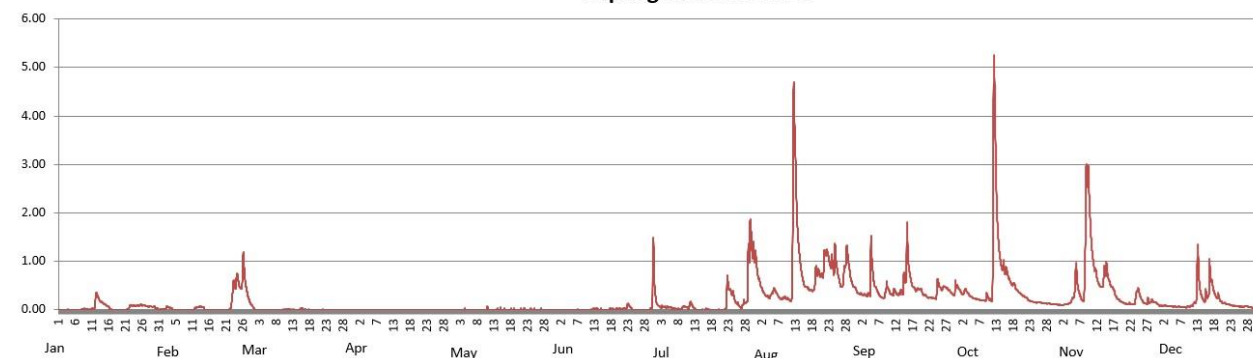
2013

Station: **Sapang_Buho**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.01	0.02	0.00	0.00	0.00	0.21	0.69	0.33	0.42	0.10	0.08
2	0.00	0.03	0.00	0.00	0.00	0.00	0.06	0.45	0.31	0.34	0.11	0.08
3	0.00	0.05	0.00	0.00	0.00	0.00	0.06	0.31	0.30	0.40	0.12	0.08
4	0.00	0.02	0.00	0.00	0.00	0.00	0.05	0.26	0.74	0.30	0.19	0.07
5	0.00	0.01	0.00	0.00	0.00	0.00	0.05	0.29	0.69	0.28	0.35	0.07
6	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.40	0.41	0.23	0.50	0.06
7	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.29	0.28	0.21	0.23	0.06
8	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.23	0.27	0.19	1.06	0.05
9	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.25	0.45	0.24	2.67	0.06
10	0.01	0.00	0.00	0.00	0.00	0.00	0.06	0.22	0.35	0.23	1.46	0.07
11	0.02	0.03	0.01	0.00	0.01	0.00	0.08	0.54	0.36	1.72	0.87	0.12
12	0.26	0.06	0.01	0.00	0.00	0.01	0.08	3.62	0.33	3.28	0.59	0.59
13	0.21	0.06	0.00	0.00	0.00	0.01	0.01	1.57	0.35	1.31	0.48	0.48
14	0.14	0.01	0.00	0.00	0.00	0.00	0.00	0.83	0.53	0.90	0.73	0.20
15	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.52	1.06	0.81	0.75	0.29
16	0.04	0.00	0.01	0.00	0.00	0.00	0.01	0.44	0.72	0.65	0.50	0.64
17	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.40	0.47	0.52	0.37	0.45
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.42	0.47	0.23	0.27
19	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.80	0.42	0.37	0.17	0.23
20	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.71	0.32	0.30	0.13	0.14
21	0.00	0.00	0.00	0.00	0.00	0.02	0.00	1.00	0.28	0.26	0.12	0.13
22	0.04	0.16	0.00	0.00	0.01	0.06	0.07	1.13	0.25	0.20	0.13	0.11
23	0.09	0.52	0.00	0.00	0.00	0.07	0.50	0.98	0.24	0.17	0.13	0.09
24	0.08	0.64	0.00	0.00	0.01	0.00	0.35	1.01	0.38	0.15	0.38	0.07
25	0.09	0.52	0.00	0.00	0.00	0.00	0.18	0.79	0.49	0.15	0.26	0.07
26	0.09	0.81	0.00	0.00	0.00	0.00	0.10	0.51	0.45	0.14	0.15	0.06
27	0.08	0.31	0.00	0.00	0.01	0.00	0.08	0.76	0.45	0.13	0.16	0.07
28	0.07	0.12	0.00	0.00	0.00	0.00	0.16	1.12	0.39	0.13	0.17	0.06
29	0.06		0.00	0.00	0.00	0.01	1.00	0.69	0.32	0.12	0.16	0.04
30	0.05		0.00	0.00	0.00	0.65	1.38	0.48	0.48	0.11	0.12	0.03
31	0.01		0.00		0.00		1.09	0.37		0.10		0.03

Max WL observed	0.36	1.19	0.07	0.00	0.07	1.49	1.87	4.69	1.80	5.26	3.01	1.35
Day of Max WL	12	26	1		11	30	30	12	15	12	9	13

Sapang Buho WL 2013



Water Level in meters (Daily Average)

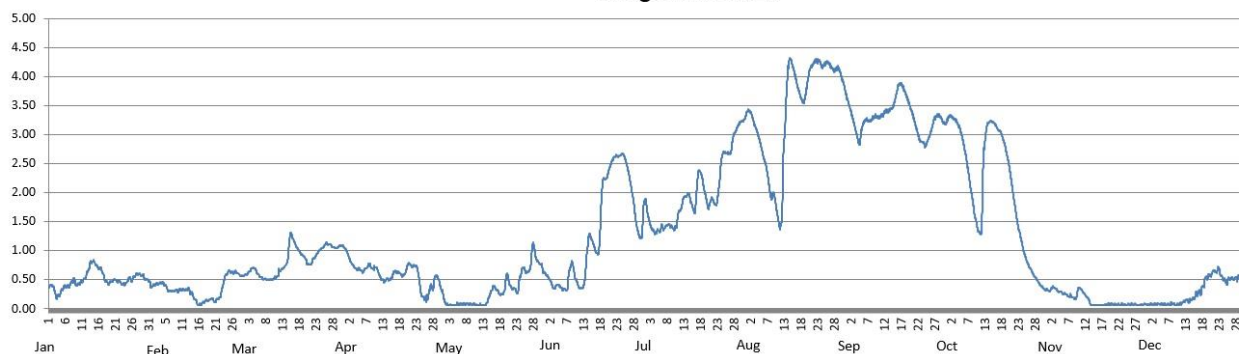
2013

Station: **Zaragoza**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.39	0.39	0.58	1.01	0.13	0.58	1.84	3.39	3.49	3.29	0.32	0.07
2	0.37	0.42	0.61	0.87	0.07	0.49	1.57	3.37	3.28	3.31	0.36	0.08
3	0.21	0.43	0.67	0.76	0.07	0.37	1.38	3.20	3.05	3.26	0.33	0.08
4	0.26	0.45	0.70	0.69	0.07	0.41	1.31	3.03	2.87	3.17	0.29	0.08
5	0.31	0.43	0.66	0.68	0.07	0.40	1.32	2.93	3.01	3.09	0.28	0.08
6	0.39	0.32	0.55	0.64	0.08	0.34	1.40	2.60	3.25	2.75	0.24	0.08
7	0.40	0.31	0.52	0.70	0.08	0.34	1.41	2.35	3.24	2.41	0.22	0.08
8	0.49	0.31	0.50	0.76	0.08	0.67	1.44	1.98	3.28	2.02	0.18	0.09
9	0.43	0.32	0.50	0.70	0.08	0.73	1.40	1.96	3.32	1.65	0.23	0.07
10	0.44	0.33	0.52	0.71	0.08	0.48	1.39	1.66	3.30	1.38	0.35	0.08
11	0.49	0.33	0.56	0.60	0.07	0.37	1.61	1.45	3.34	1.46	0.29	0.10
12	0.58	0.34	0.67	0.50	0.07	0.39	1.77	2.60	3.40	2.77	0.21	0.14
13	0.74	0.27	0.70	0.49	0.07	0.82	1.93	3.82	3.41	3.17	0.11	0.13
14	0.81	0.17	0.81	0.50	0.13	1.25	1.97	4.28	3.47	3.23	0.06	0.16
15	0.76	0.08	1.23	0.56	0.29	1.14	1.81	4.13	3.64	3.19	0.06	0.21
16	0.70	0.09	1.19	0.64	0.38	0.98	1.74	3.89	3.85	3.11	0.06	0.28
17	0.62	0.13	1.06	0.63	0.32	1.18	2.28	3.68	3.84	3.03	0.07	0.33
18	0.48	0.14	0.97	0.58	0.24	2.12	2.30	3.57	3.71	2.86	0.07	0.48
19	0.44	0.17	0.91	0.63	0.31	2.25	2.02	3.81	3.55	2.61	0.08	0.56
20	0.48	0.13	0.82	0.77	0.56	2.41	1.79	4.12	3.38	2.27	0.08	0.60
21	0.49	0.17	0.77	0.74	0.39	2.56	1.87	4.22	3.18	1.88	0.08	0.65
22	0.47	0.27	0.85	0.74	0.35	2.63	1.82	4.28	2.97	1.50	0.07	0.68
23	0.43	0.51	0.93	0.58	0.30	2.63	1.95	4.24	2.87	1.24	0.07	0.57
24	0.44	0.62	1.01	0.25	0.58	2.66	2.48	4.19	2.82	0.99	0.07	0.49
25	0.52	0.64	1.06	0.18	0.69	2.54	2.69	4.24	2.93	0.81	0.07	0.48
26	0.51	0.63	1.12	0.25	0.63	2.31	2.68	4.21	3.12	0.69	0.08	0.53
27	0.57	0.62	1.11	0.37	0.75	1.98	2.75	4.13	3.28	0.58	0.08	0.52
28	0.60	0.58	1.07	0.52	1.07	1.56	3.00	4.13	3.33	0.50	0.07	0.55
29	0.58		1.05	0.51	0.85	1.28	3.13	4.09	3.26	0.41	0.07	0.55
30	0.52		1.08	0.33	0.78	1.42	3.22	3.91	3.20	0.35	0.08	0.50
31	0.48		1.08		0.66		3.26	3.69		0.33		0.46

Max WL observed	0.84	0.67	1.31	1.04	1.14	2.68	3.33	4.32	3.88	3.34	0.40	0.73
Day of Max WL	15	25	15	1	28	24	Aug 01	6	17	2	2	22

Zaragoza WL 2013



Water Level in meters (Daily Average)

2013

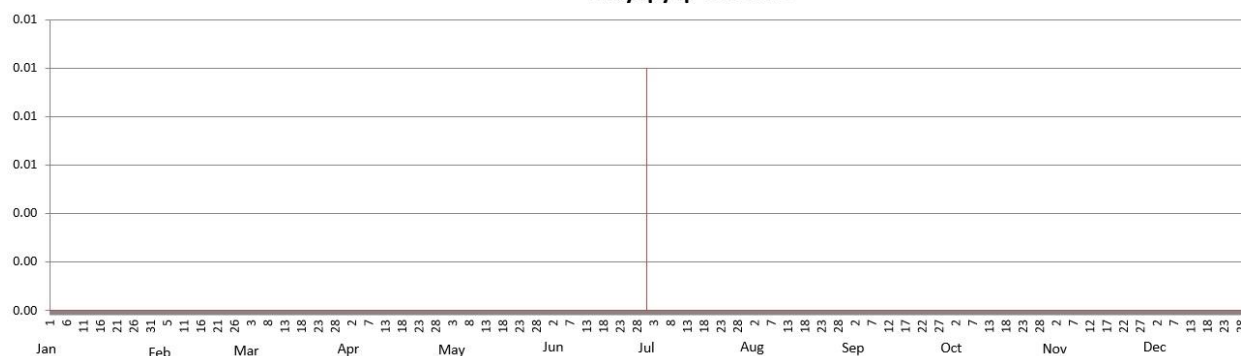
Station:

Mayayap

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
20	0.00	0.00	0.00	0.00	0.00	0.00						
21	0.00	0.00	0.00	0.00	0.00	0.00						
22	0.00	0.00	0.00	0.00	0.00	0.00						
23	0.00	0.00	0.00	0.00	0.00	0.00						
24	0.00	0.00	0.00	0.00	0.00	0.00						
25	0.00	0.00	0.00	0.00	0.00	0.00						
26	0.00	0.00	0.00	0.00	0.00	0.00						
27	0.00	0.00	0.00	0.00	0.00	0.00						
28	0.00	0.00	0.00	0.00	0.00	0.00						
29	0.00		0.00	0.00	0.00	0.00						
30	0.00		0.00	0.00	0.00	0.00	0.00					
31	0.00		0.00		0.00							

Max WL observed	0.00	0.00	0.00	0.00	0.00	0.01	0.00					
Day of Max WL						31						

Mayayap WL 2013

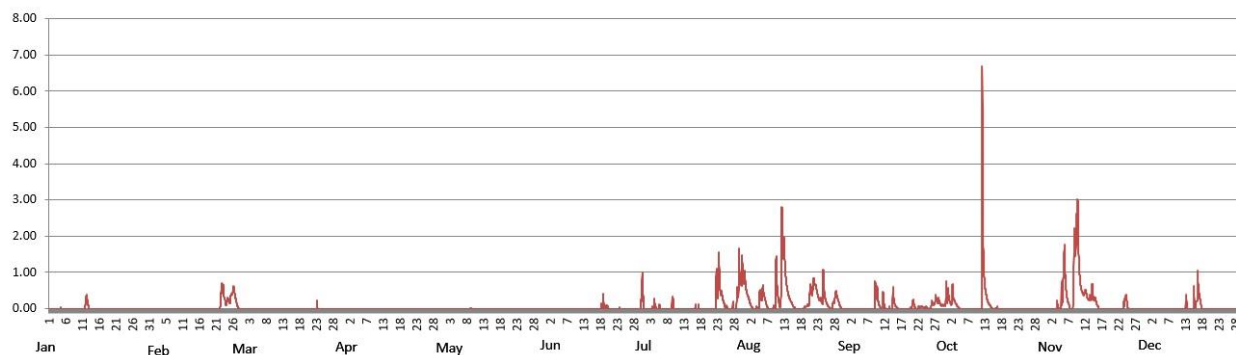


Water Level in meters (Daily Average)

2013		Station: Peñaranda										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.31	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.30	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.19	0.05	0.00
4	0.01	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.05	0.06	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.17	0.00	0.02	0.47	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.43	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.04	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.04	0.40	0.00	2.19	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.12	0.00	1.01	0.00
11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.14	1.77	0.43	0.00
12	0.23	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.02	0.93	0.40	0.09
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.01	0.23	0.27	0.01
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.18	0.05	0.38	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.09	0.00	0.18	0.20
16	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.48
17	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.09
18	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.02	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.08	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.11	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.03	0.00	0.00	0.00
22	0.00	0.48	0.00	0.00	0.00	0.00	0.10	0.51	0.02	0.00	0.00	0.00
23	0.00	0.24	0.03	0.00	0.00	0.00	0.80	0.25	0.06	0.00	0.03	0.00
24	0.00	0.22	0.00	0.00	0.00	0.00	0.41	0.46	0.02	0.00	0.25	0.00
25	0.00	0.40	0.00	0.00	0.00	0.00	0.09	0.17	0.00	0.00	0.00	0.00
26	0.00	0.40	0.00	0.00	0.00	0.00	0.01	0.03	0.11	0.00	0.00	0.00
27	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.12	0.21	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.37	0.20	0.00	0.00	0.00
29	0.00		0.00	0.00	0.00	0.00	0.59	0.10	0.10	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.41	0.93	0.00	0.22	0.00	0.00	0.00
31	0.00		0.00		0.00		0.79	0.00		0.00		0.00

Max WL observed	0.39	0.72	0.24	0.00	0.02	0.99	1.67	2.82	0.76	6.69	3.02	1.05
Day of Max WL	12	22	23		9	30	30	12	31	12	10	16

Peñaranda WL 2013



Water Level in meters (Daily Average)

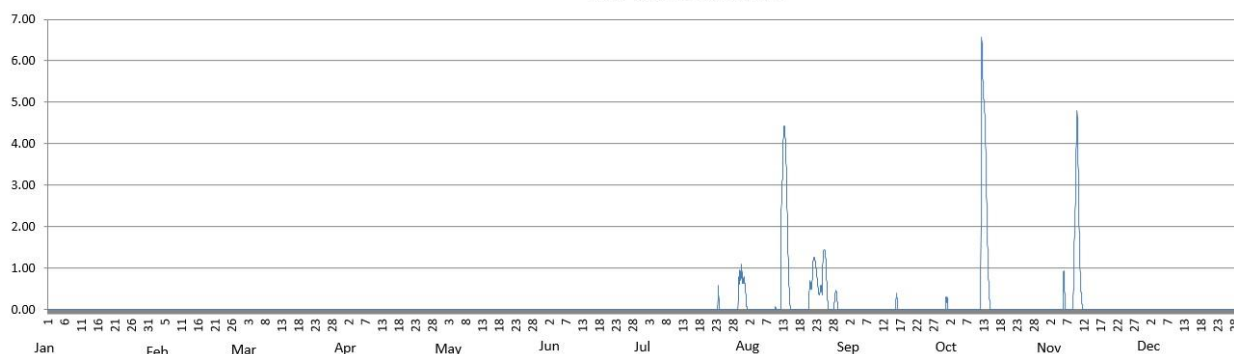
2013

Station: **San_Isidro**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.17	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.93	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	2.65	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.28	0.21	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.54	0.00	5.39	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40	0.00	2.68	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.23	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.47	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.84	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
29	0.00		0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.75	0.00		0.00		0.00

Max WL observed	0.00	0.00	0.00	0.00	0.00	0.02	1.10	4.43	0.41	6.57	4.81	0.00
Day of Max WL						31	31	13	16	12	10	

San Isidro WL 2013



Water Level in meters (Daily Average)

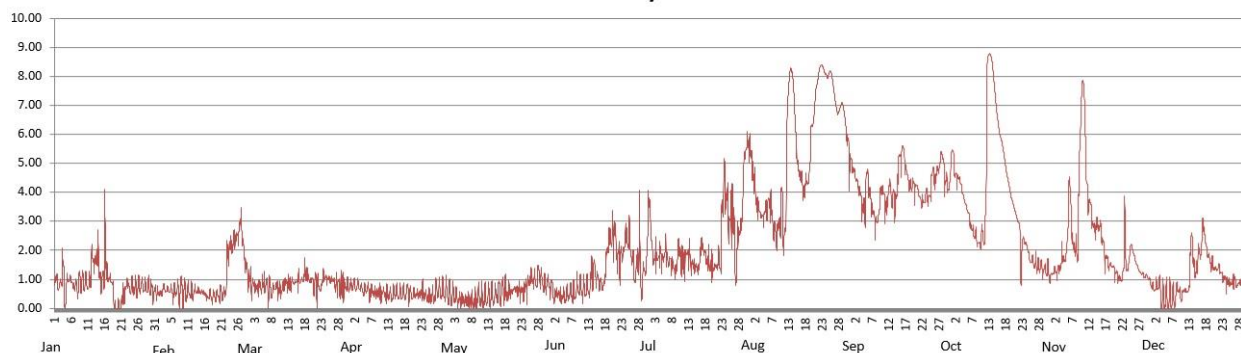
2013

Station: **Arayat**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.02	0.52	1.02	0.77	0.49	0.76	3.11	5.03	4.74	5.31	1.29	0.74
2	0.80	0.51	0.77	0.78	0.46	0.43	1.80	4.13	4.35	4.58	1.27	0.75
3	1.20	0.69	0.72	0.80	0.38	0.49	1.74	3.44	3.90	4.48	1.55	0.78
4	0.50	0.63	0.71	0.69	0.30	0.41	1.89	3.16	3.45	4.07	1.68	0.34
5	0.73	0.63	0.78	0.65	0.30	0.40	1.81	3.26	3.93	3.85	2.10	0.34
6	0.82	0.53	0.81	0.65	0.27	0.47	1.84	3.61	3.80	3.16	3.78	0.35
7	0.77	0.64	0.62	0.57	0.26	0.51	1.58	3.26	3.26	2.77	2.18	0.31
8	0.91	0.60	0.60	0.55	0.23	0.51	1.45	2.67	2.97	2.52	2.22	0.40
9	0.86	0.54	0.74	0.53	0.28	0.69	1.41	2.77	3.75	2.23	6.02	0.63
10	0.88	0.53	0.64	0.49	0.40	0.64	1.89	3.48	3.90	2.44	7.45	0.45
11	0.86	0.56	0.69	0.54	0.33	0.65	1.65	2.63	3.52	3.12	4.55	0.61
12	1.63	0.55	0.84	0.49	0.38	0.69	1.80	7.13	4.14	8.58	3.55	0.78
13	1.58	0.59	0.87	0.43	0.40	1.09	1.82	8.16	3.72	8.54	2.90	2.17
14	1.47	0.56	0.88	0.52	0.42	1.26	1.45	6.73	3.93	7.44	2.81	1.38
15	0.99	0.53	0.91	0.51	0.51	1.03	1.41	4.95	5.13	6.37	2.81	1.78
16	2.00	0.41	0.96	0.50	0.59	0.85	1.57	4.52	5.47	5.78	2.21	2.34
17	1.09	0.43	1.00	0.51	0.63	0.96	2.11	4.09	4.72	5.13	1.72	2.47
18	0.89	0.41	1.19	0.58	0.55	2.11	1.76	4.37	4.33	4.43	1.46	1.84
19	0.08	0.43	1.00	0.48	0.53	2.47	1.56	5.70	4.27	3.85	1.39	1.58
20	0.07	0.53	0.96	0.48	0.61	2.58	1.43	6.86	4.15	3.42	1.16	1.38
21	0.27	0.47	0.78	0.47	0.64	1.85	1.45	7.86	3.88	3.02	1.05	1.39
22	0.57	1.38	0.68	0.49	0.60	1.63	1.53	8.35	3.62	1.81	1.39	1.15
23	0.84	2.11	0.91	0.51	0.58	2.09	3.22	8.18	3.88	2.32	1.89	1.02
24	0.76	2.27	1.03	0.41	0.71	2.37	4.08	8.01	3.81	2.04	1.79	0.93
25	0.74	2.41	1.01	0.38	0.90	2.13	3.33	8.12	4.65	1.64	2.01	0.87
26	0.75	2.87	0.98	0.43	1.04	1.40	3.23	7.47	4.55	1.57	1.58	0.96
27	0.78	2.19	0.88	0.60	0.94	1.49	1.71	6.80	4.86	1.52	1.29	0.80
28	0.74	1.38	0.75	0.59	1.20	1.54	2.61	6.97	5.24	1.43	1.17	0.90
29	0.72		0.77	0.59	1.00	1.20	3.30	6.79	4.40	1.34	1.10	0.91
30	0.67		0.72	0.58	0.81	2.19	5.35	5.94	4.20	1.37	0.99	0.83
31	0.60		0.75		0.89		5.59	5.01		1.07		0.79

Max WL observed	4.12	3.47	1.74	1.14	1.50	4.08	6.09	8.39	2.61	8.78	7.87	3.12
Day of Max WL	16	27	18	30	28	28	31	22	16	13	10	17

Arayat WL 2013



Water Level in meters (Daily Average)

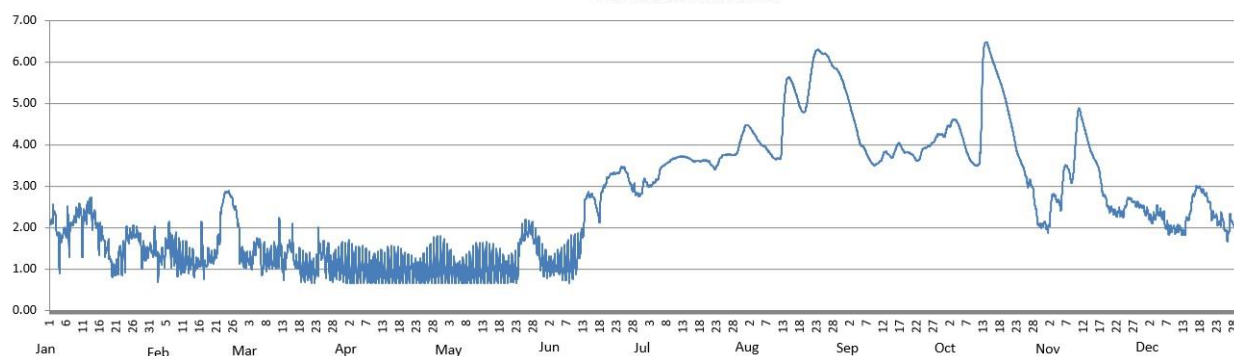
2013

Station: **Candaba**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.12	1.39	1.22	1.03	1.08	1.12	3.14	4.46	5.13	4.34	2.00	2.37
2	2.35	1.55	1.22	1.04	1.06	1.06	3.03	4.43	4.85	4.46	2.58	2.26
3	1.88	1.14	1.16	1.04	1.03	1.04	3.02	4.31	4.57	4.59	2.77	2.21
4	1.56	1.31	1.41	1.04	0.96	1.09	3.09	4.18	4.26	4.57	2.64	2.35
5	1.74	1.39	1.51	1.04	0.94	1.09	3.14	4.12	4.13	4.49	2.64	2.35
6	2.07	1.78	1.30	1.07	0.91	1.06	3.42	3.99	3.92	4.16	3.39	2.26
7	1.90	1.43	1.29	1.04	0.94	1.08	3.51	3.92	3.74	3.89	3.44	2.06
8	2.15	1.39	1.18	0.98	0.95	1.11	3.56	3.82	3.59	3.68	3.17	1.94
9	2.33	1.20	1.21	0.95	0.96	1.18	3.62	3.72	3.52	3.56	3.61	1.99
10	2.38	1.17	1.24	0.98	1.00	1.26	3.67	3.66	3.55	3.50	4.65	1.96
11	2.04	1.21	1.22	0.99	1.02	1.44	3.70	3.66	3.61	3.62	4.73	1.99
12	2.40	1.18	1.56	0.97	1.04	1.80	3.72	4.29	3.79	5.44	4.44	1.89
13	2.58	1.22	1.08	0.94	1.04	2.58	3.71	5.34	3.80	6.45	4.14	2.06
14	2.26	1.05	1.36	0.98	1.07	2.78	3.70	5.62	3.72	6.32	3.87	2.27
15	2.07	1.13	1.55	1.00	1.06	2.76	3.65	5.49	3.78	6.06	3.68	2.68
16	1.74	1.50	1.42	1.00	1.06	2.60	3.60	5.27	3.97	5.84	3.52	2.90
17	1.76	1.04	1.12	1.01	1.05	2.29	3.60	5.01	3.98	5.62	3.18	2.97
18	1.44	1.27	1.04	1.02	1.03	2.83	3.60	4.82	3.85	5.39	2.79	2.90
19	1.32	1.26	1.00	1.02	1.00	3.03	3.62	4.84	3.81	5.10	2.58	2.80
20	0.94	1.30	1.01	1.01	0.98	3.22	3.61	5.25	3.79	4.77	2.44	2.63
21	1.02	1.66	1.01	0.98	0.97	3.29	3.55	5.83	3.73	4.42	2.39	2.34
22	1.32	2.38	0.96	0.94	0.99	3.30	3.47	6.21	3.62	4.02	2.33	2.27
23	1.29	2.80	1.03	0.93	0.98	3.33	3.48	6.28	3.71	3.73	2.38	2.10
24	1.67	2.86	1.52	0.93	1.57	3.44	3.66	6.21	3.90	3.54	2.34	2.21
25	1.79	2.74	1.43	0.95	1.79	3.40	3.75	6.19	3.94	3.31	2.60	1.96
26	1.85	2.50	1.16	0.97	1.93	3.22	3.76	6.11	3.99	3.07	2.69	1.84
27	1.85	2.13	1.15	1.02	1.96	2.99	3.77	5.95	4.06	3.03	2.63	2.18
28	1.72	1.35	1.02	1.06	1.80	2.89	3.75	5.85	4.19	2.59	2.57	2.00
29	1.35		1.07	1.07	1.62	2.80	3.79	5.78	4.25	2.13	2.53	1.71
30			1.07	1.09	1.35	2.83	4.01	5.61	4.22	2.06	2.48	1.18
31			1.09		1.18		4.29	5.39		2.09		1.34

Max WL observed	2.73	2.88	2.24	1.80	2.20	3.46	4.41	6.30	5.26	6.48	4.88	3.01
Day of Max WL	14	25	12	30	26	24	Aug 01	23	1	13	11	17

Candaba WL 2013



Water Level in meters (Daily Average)

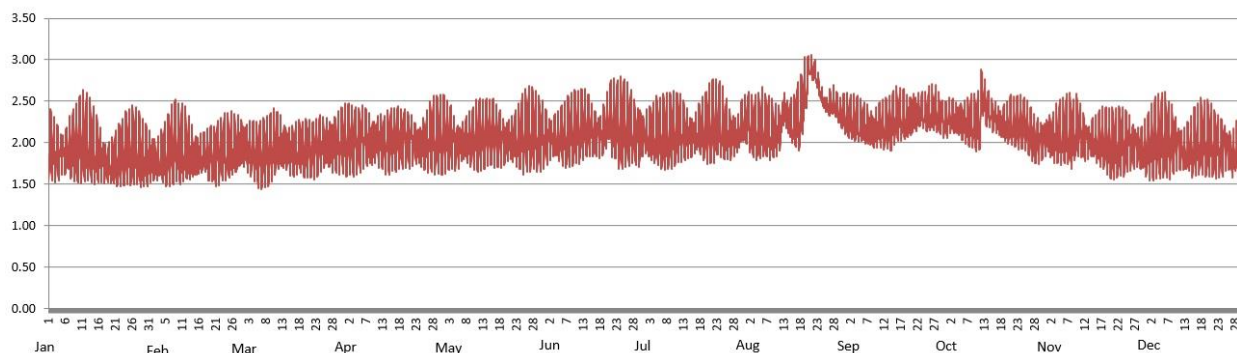
2013

Station: **Sasmuan**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.94	1.80	1.95	1.98	2.08	2.09	2.11	2.23	2.24	2.25	2.08	1.93
2	1.87	1.78	1.91	2.00	2.09	2.07	2.05	2.16	2.23	2.27	2.05	1.97
3	1.86	1.76	1.89	2.02	2.08	2.05	2.04	2.12	2.22	2.28	2.08	2.00
4	1.85	1.78	1.86	2.03	2.02	2.02	2.05	2.12	2.20	2.28	2.07	2.02
5	1.86	1.80	1.85	2.04	2.01	2.03	2.05	2.11	2.20	2.27	2.08	2.02
6	1.85	1.88	1.85	2.07	2.00	2.04	2.05	2.14	2.18	2.25	2.10	2.02
7	1.89	1.95	1.89	2.07	2.02	2.05	2.05	2.11	2.19	2.23	2.09	1.99
8	1.91	1.97	1.89	2.02	2.01	2.09	2.07	2.11	2.17	2.23	2.05	2.00
9	1.95	1.93	1.93	1.98	2.01	2.12	2.09	2.11	2.17	2.21	2.14	2.00
10	2.00	1.90	1.94	2.02	2.02	2.13	2.11	2.12	2.18	2.20	2.13	1.97
11	2.00	1.90	1.97	2.01	2.04	2.12	2.12	2.19	2.17	2.33	2.08	1.91
12	1.98	1.87	1.97	1.99	2.05	2.16	2.14	2.34	2.17	2.49	2.04	1.86
13	1.96	1.85	1.92	1.96	2.06	2.18	2.12	2.34	2.19	2.39	2.01	1.89
14	1.92	1.81	1.92	1.98	2.10	2.17	2.10	2.24	2.19	2.34	2.00	1.90
15	1.86	1.82	1.89	2.01	2.11	2.15	2.09	2.21	2.26	2.30	2.00	1.95
16	1.83	1.81	1.87	2.02	2.10	2.13	2.10	2.22	2.27	2.27	1.99	1.98
17	1.79	1.83	1.89	2.03	2.09	2.11	2.12	2.27	2.26	2.24	2.00	2.01
18	1.76	1.82	1.90	2.05	2.07	2.11	2.13	2.40	2.25	2.23	1.99	1.99
19	1.72	1.85	1.91	2.07	2.06	2.15	2.11	2.62	2.29	2.21	1.95	2.00
20	1.73	1.83	1.93	2.06	2.05	2.26	2.12	2.89	2.32	2.22	1.94	1.98
21	1.77	1.87	1.93	2.05	2.03	2.18	2.15	2.85	2.36	2.21	1.94	1.96
22	1.83	1.90	1.92	2.01	2.02	2.18	2.15	2.80	2.36	2.19	1.97	1.93
23	1.87	1.89	1.95	1.97	2.01	2.14	2.19	2.65	2.36	2.20	1.98	1.94
24	1.90	1.88	1.98	1.98	2.03	2.13	2.17	2.52	2.34	2.18	1.98	1.96
25	1.91	1.90	1.99	1.98	2.06	2.15	2.14	2.46	2.32	2.15	1.99	1.96
26	1.92	1.91	1.97	1.99	2.08	2.15	2.13	2.44	2.36	2.10	1.98	1.88
27	1.91	1.94	1.96	2.02	2.10	2.14	2.11	2.45	2.36	2.04	1.98	1.84
28	1.84	1.97	1.96	2.05	2.10	2.12	2.10	2.42	2.33	2.02	1.92	1.88
29	1.80		1.97	2.05	2.10	2.06	2.09	2.35	2.29	2.01	1.88	1.89
30	1.80		1.98	2.05	2.08	2.16	2.15	2.31	2.26	2.04	1.89	1.90
31	1.80		1.98		2.09		2.22	2.28		2.07		1.93

Max WL observed	2.64	2.52	2.43	2.58	2.68	2.80	2.77	3.06	2.71	2.88	2.60	2.61
Day of Max WL	11	8	31	30	27	24	22	21	27	12	8	7

Sasmuan WL 2013



Water Level in meters (Daily Average)

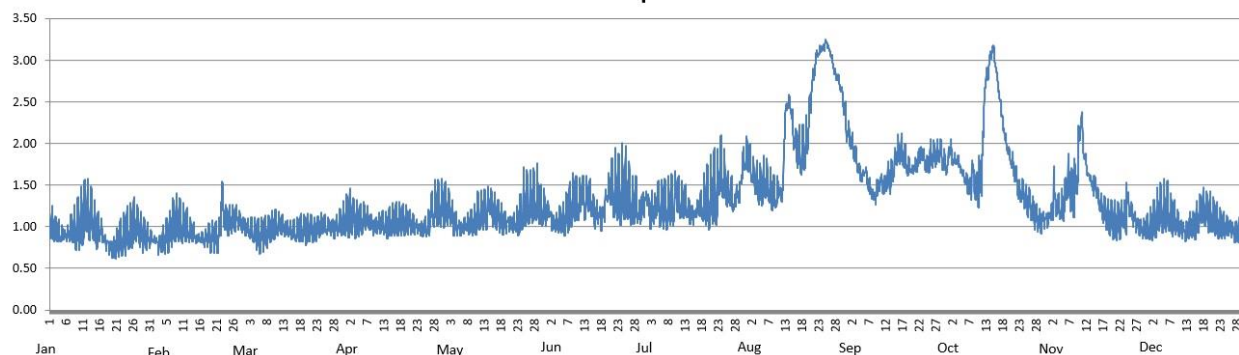
2013

Station: **Sulipan**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.01	0.85	1.00	1.09	1.23	1.18	1.34	1.79	2.01	1.89	1.16	1.00
2	0.94	0.83	0.96	1.13	1.20	1.11	1.17	1.64	1.90	1.83	1.35	1.04
3	0.91	0.80	0.94	1.10	1.11	1.05	1.20	1.54	1.77	1.81	1.24	1.10
4	0.88	0.85	0.92	1.08	1.04	1.03	1.25	1.47	1.63	1.76	1.22	1.17
5	0.90	0.86	0.91	1.08	1.01	1.04	1.23	1.46	1.64	1.70	1.26	1.17
6	0.91	0.94	0.91	1.10	0.99	1.06	1.23	1.51	1.60	1.57	1.51	1.17
7	0.96	1.02	0.93	1.09	1.02	1.13	1.20	1.47	1.47	1.47	1.45	1.14
8	0.95	1.06	0.93	1.05	1.01	1.22	1.23	1.39	1.38	1.60	1.46	1.08
9	0.98	1.04	0.97	1.00	1.02	1.28	1.25	1.37	1.43	1.51	1.73	1.06
10	1.06	0.99	0.98	1.02	1.05	1.27	1.40	1.43	1.53	1.60	2.21	1.02
11	1.09	0.98	1.00	1.03	1.14	1.36	1.30	1.40	1.49	1.80	1.88	0.96
12	1.15	0.94	1.01	1.02	1.16	1.30	1.27	2.09	1.56	2.69	1.67	0.93
13	1.09	0.90	0.97	0.99	1.17	1.36	1.26	2.48	1.58	2.92	1.56	1.00
14	1.02	0.86	0.96	1.03	1.26	1.30	1.17	2.39	1.66	3.11	1.54	0.99
15	0.92	0.86	0.93	1.06	1.21	1.19	1.15	2.03	1.85	2.97	1.41	1.04
16	0.95	0.86	0.93	1.07	1.17	1.16	1.18	1.90	1.87	2.65	1.27	1.12
17	0.85	0.86	0.94	1.07	1.11	1.13	1.24	1.82	1.82	2.34	1.18	1.21
18	0.81	0.88	0.96	1.08	1.08	1.17	1.24	1.88	1.75	2.08	1.12	1.18
19	0.76	0.89	0.97	1.08	1.06	1.38	1.26	2.14	1.72	1.90	1.07	1.14
20	0.76	0.88	0.97	1.06	1.05	1.43	1.28	2.57	1.70	1.78	1.05	1.12
21	0.79	0.91	0.97	1.04	1.04	1.36	1.32	2.88	1.73	1.64	1.04	1.06
22	0.83	1.27	0.95	1.00	1.04	1.35	1.33	3.08	1.88	1.47	1.05	1.02
23	0.89	1.10	0.97	0.97	1.03	1.33	1.61	3.14	1.87	1.41	1.13	1.00
24	0.93	1.05	1.01	0.96	1.13	1.39	1.60	3.18	1.73	1.34	1.28	1.00
25	0.94	1.06	1.01	0.98	1.24	1.40	1.49	3.19	1.77	1.29	1.21	1.01
26	1.00	1.08	1.00	1.10	1.29	1.32	1.40	3.08	1.84	1.21	1.11	0.96
27	1.00	1.08	0.99	1.17	1.29	1.26	1.35	2.90	1.85	1.14	1.06	0.91
28	0.94	1.04	0.98	1.23	1.31	1.26	1.34	2.79	1.90	1.09	1.01	0.94
29	0.89		1.00	1.23	1.28	1.17	1.38	2.68	1.79	1.06	0.97	0.96
30	0.87		1.02	1.23	1.20	1.29	1.66	2.46	1.72	1.10	0.98	0.97
31	0.85		1.06		1.19		1.80	2.17		1.11		1.03

Max WL observed	1.58	1.54	1.31	1.58	1.77	2.01	2.10	3.26	2.26	3.18	2.38	1.58
Day of Max WL	13	22	31	30	29	24	24	25	1	15	11	6

Sulipan WL 2013



Water Level in meters (Daily Average)

2013

Station:

Mexico

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.46	0.34	0.01
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.32	0.33	0.12
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.51	0.36	0.28	0.03
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.32	0.26	0.03
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.30	0.26	0.04
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.29	0.20	0.02
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.27	0.18	0.03
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.26	0.26	0.02
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.23	0.21	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.23	0.28	0.17	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.89	0.15	0.01
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.19	1.27	0.14	0.06
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.23	1.07	0.15	0.07
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	1.06	0.14	0.06
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	1.05	0.12	0.11
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.97	0.10	0.13
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.85	0.09	0.14
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.20	0.78	0.09	0.27
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.19	0.72	0.08	0.21
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.16	0.67	0.07	0.19
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.15	0.63	0.06	0.15
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.25	0.56	0.04	0.12
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.50	0.53	0.05	0.14
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.42	0.51	0.05	0.18
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.35	0.48	0.09	0.09
26	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.89	0.59	0.46	0.04	0.08
27	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.87	0.56	0.43	0.01	0.07
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.49	0.40	0.01	0.04
29	0.00		0.00	0.00	0.00	0.00	0.00	0.65	0.40	0.37	0.00	0.02
30	0.00		0.00	0.00	0.00	0.00	0.00	0.56	0.35	0.34	0.00	0.01
31	0.00		0.00		0.00		0.00	0.51		0.31		0.09

Max WL observed	0.00	0.00	0.00	0.00	0.14	0.00	0.90	2.61	1.47	3.11	0.46	0.34
Day of Max WL					26		10	20	1	12	1	18

Mexico WL 2013

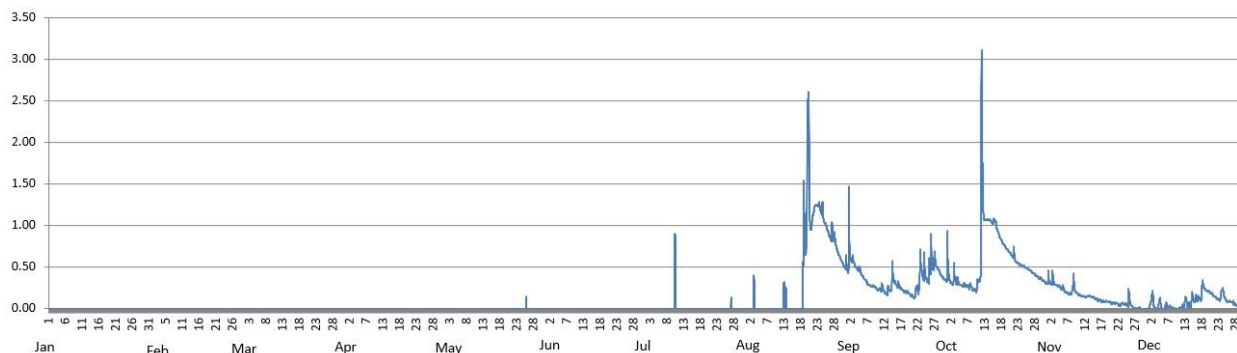


Table 2.0

Maximum WL recorded per station for the year 2013

Station	January	February	March	April	May	June	July	August	September	October	November	December
Sapang Buho	0.36	1.19	0.07	0.00	0.07	1.49	1.87	4.69	1.80	5.26	3.01	1.35
Zaragoza	0.84	0.67	1.31	1.04	1.14	2.68	3.33	4.32	3.88	3.34	0.40	0.73
Mayapyap	0.00	0.00	0.00	0.00	0.00	0.01	0.00					
Penaranda	0.39	0.72	0.24	0.00	0.02	0.99	1.67	2.82	0.76	6.69	3.02	1.05
San Isidro	0.00	0.00	0.00	0.00	0.00	0.02	1.10	4.43	0.41	6.57	4.81	0.00
Arayat	4.12	3.47	1.74	1.14	1.50	4.08	6.09	8.39	2.61	8.78	7.87	3.12
Candaba	2.73	2.88	2.24	1.80	2.20	3.46	4.41	6.30	5.26	6.48	4.88	3.01
Sasmuan	2.64	2.52	2.43	2.58	2.68	2.80	2.77	3.06	2.71	2.88	2.60	2.61
Sulipan	1.58	1.54	1.31	1.58	1.77	2.01	2.10	3.26	2.26	3.18	2.38	1.58
Mexico	0.00	0.00	0.00	0.00	0.14	0.00	0.90	2.61	1.47	3.11	0.46	0.34



C. ANNEX

Table A-1.

Maximum Rainfall for a given sliding time period during the year 2013																
Sliding time period (minimum time period of 1 hour)	Rainfall Stations															
	Munoz	Sapang Buiho	Gabalton	Zaragoza	Peñaranda	Calaanan	Palali	San Isidro	Arayat	Candaba	Sibul Spring	Sasmuan	Sulipan	Mexico	Porac	San Rafael
1 hr	67	43	42	55	59	41	54	60	90	52	66	33	43	45	67	61
2 hrs	72	70	68	89	66	66	64	66	138	69	114	49	63	75	77	84
3 hrs	74	71	81	90	90	95	70	74	163	85	128	61	67	94	82	90
4 hrs	74	75	109	93	106	110	84	89	170	90	156	73	71	95	88	96
5 hrs	74	78	136	94	123	122	95	100	176	94	186	87	74	95	108	100
6 hrs	76	84	153	94	141	129	105	117	183	99	195	101	85	95	122	103
7 hrs	87	87	165	94	155	134	116	122	187	101	202	111	95	95	131	106
8 hrs	94	91	175	94	163	139	129	126	192	104	206	124	102	95	136	107
9 hrs	99	95	184	94	167	142	142	130	198	106	209	138	109	95	152	108
10 hrs	103	98	193	94	172	145	149	133	205	108	210	151	115	95	161	108
11 hrs	112	100	198	94	173	149	157	136	208	109	212	165	124	95	164	109
12 hrs	121	102	207	94	174	155	160	137	211	111	212	173	127	96	167	112
18 hrs	136	107	252	94	178	165	166	139	223	117	215	241	170	125	211	138
24 hrs	145	113	319	94	178	171	174	140	230	118	217	272	213	157	257	165
48 hrs (2 days)	157	126	433	121	187	186	198	156	277	157	264	448	311	223	464	216
72 hrs (3 days)	164	131	433	146	188	186	210	158	295	214	270	577	381	269	536	288
96 hrs (4 days)	196	134	434	177	189	194	210	158	302	257	271	660	449	336	596	343
120 hrs (5 days)	197	134	462	226	202	196	211	158	303	262	272	731	471	347	639	355
144 hrs (6 days)	197	140	483	268	211	216	222	171	310	263	272	736	486	353	664	372
240 hrs (10 days)	315	213	515	355	253	307	262	262	323	320	298	832	566	430	742	428
480 hrs (20 days)	508	308	586	539	357	453	383	339	441	417	459	916	644	505	866	493
Meteorological day (8 am to 8 am)	102	107	249	94	178	162	166	140	221	118	216	233	133	109	227	122
Max monthly total	554	338	577	583	381	473	412	368	394	453	425	955	682	545	961	535

The maximum monthly total values for some stations may be smaller than their 480 hours (20 days) of sliding time total. This means that the 20-day total transcends 2 succeeding months. Likewise, the 24-hour unrestricted sliding time period is relatively much larger than the meteorological day (fixed 8am to 8am) total.

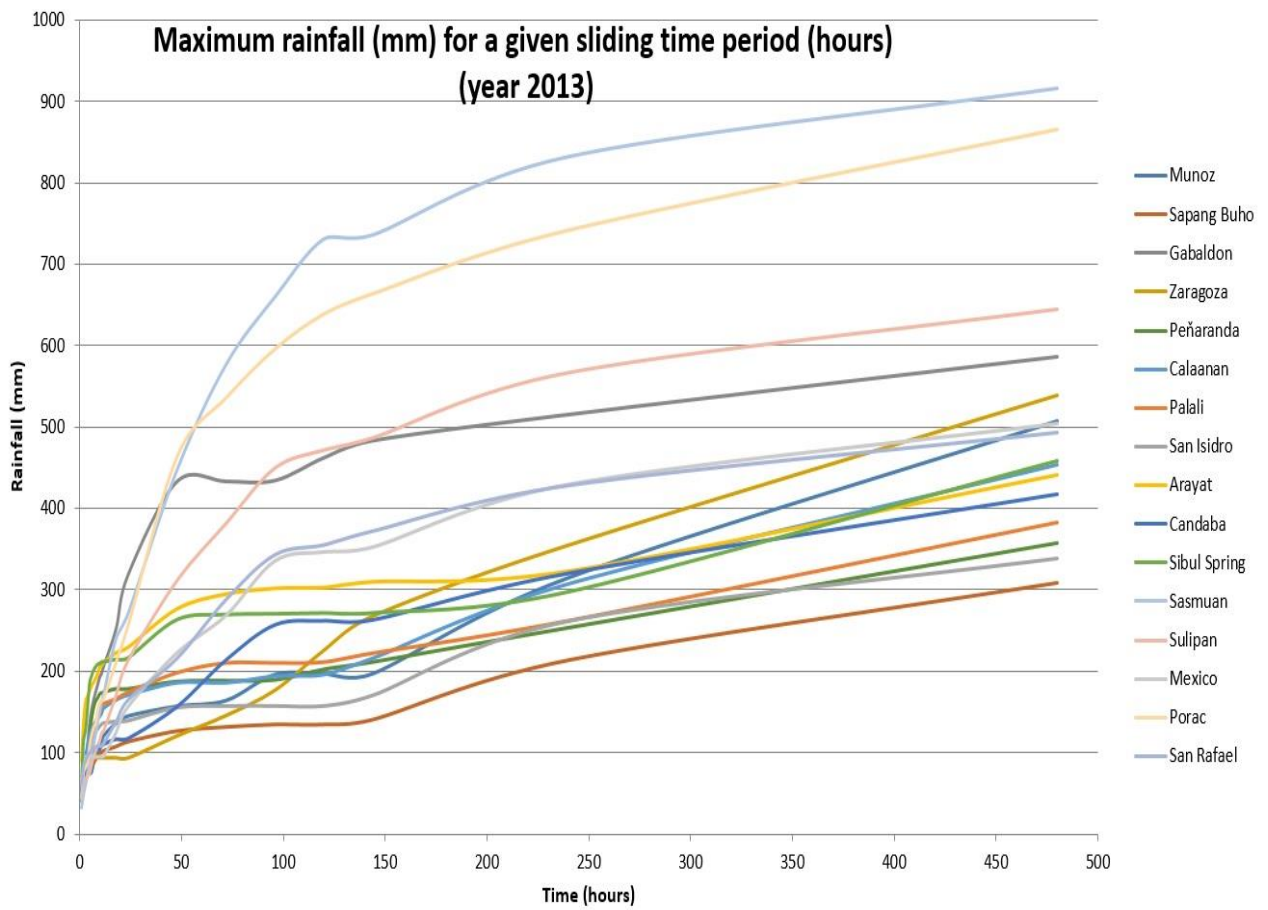


Figure AA-1. The sliding time period per station graph.

Table A-2. PRFFWC Existing Flood Warning Assessment Levels (SG in meters)

Color code	YELLOW	ORANGE	RED
STATION	ALERT	ALARM	CRITICAL
Sapang Buho	3.70	4.50	6.50
Mayapyap	3.00	3.50	4.50
Zaragoza ++	11.00	12.50	14.50
Penaranda			
San Isidro +	3.20	4.50	6.00
Arayat	5.00	6.00	8.50
Candaba	3.00	4.50	5.00
Mexico			
Sasmuan +			2.90 *
Sulipan +	3.60 (2.50)	4.20 (3.00)	5.00 (3.50)

* Based on past observations from various flood events (for validation)

+ for updating of assessment levels (Sulipan values in parenthesis are proposed assessment levels)

++ assessment values are in MSL

Table A-3. Water Level Station notes

Water Level Station	Elevation of "0" of Staff Gauge (m) (as of Aug. 2009)	Rating Curve (RC) Equation as of April 2009	RC range of applicability
Sapang Buho	50.212	$Q = 4.015 (H - (-2.94))^2 \cdot 2.961^*$	$0 < H \leq 3.4$
Zaragoza	10.213	$Q = 12.111 (H - 0.0)^2$	(for validation)
Peñaranda	22.498**	$Q = 2.30 (H - (-1.20))^2$	$0 < H \leq 4.0$
San Isidro	9.585	$Q = 15.2 (H - (-1.70))^2$	$0 < H \leq 8.0$
Arayat	0.077	$Q = 9.106 (H - (-0.39))^2$	$0 < H \leq 9.0$
Candaba	-0.157	$Q = 1.80 (H - (-1.30))^2$	$0 < H \leq 2.0$
Sasmuan	-1.147	$Q = 1.50 (H - (-2.0))^2$	$0 < H \leq 2.0$
Sulipan	-0.062	$Q = 9.50 (H - (-0.4))^2$	$0 < H \leq 3.0$
Mexico	5.933**	$Q = 11.0 (H - (-0.50))^2$	$0 < H \leq 3.0$

Notes: RC equations by JICA Consultants

* - based on x-section of March 2000 (by PRFFWC)

** - based on temporary markers (TBM)

Above table are still the latest information for PRFFWC streamgaging sites. Rating curve equations remains the latest available for now. The RCs should be updated regularly.

Water Level Percent Duration Curves of some stations

Sapang Buho WL % duration (2013)

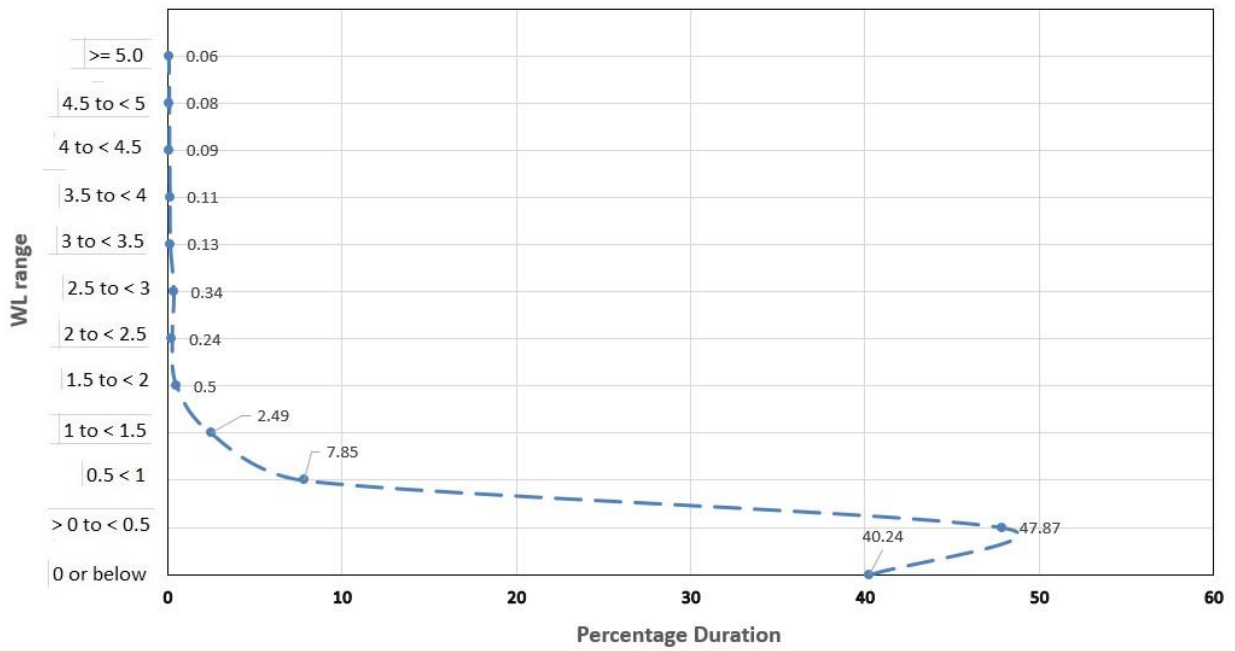


Figure AA-2. Sapang Buho WL percent duration curve (2013)

Zaragoza WL % duration (2013)

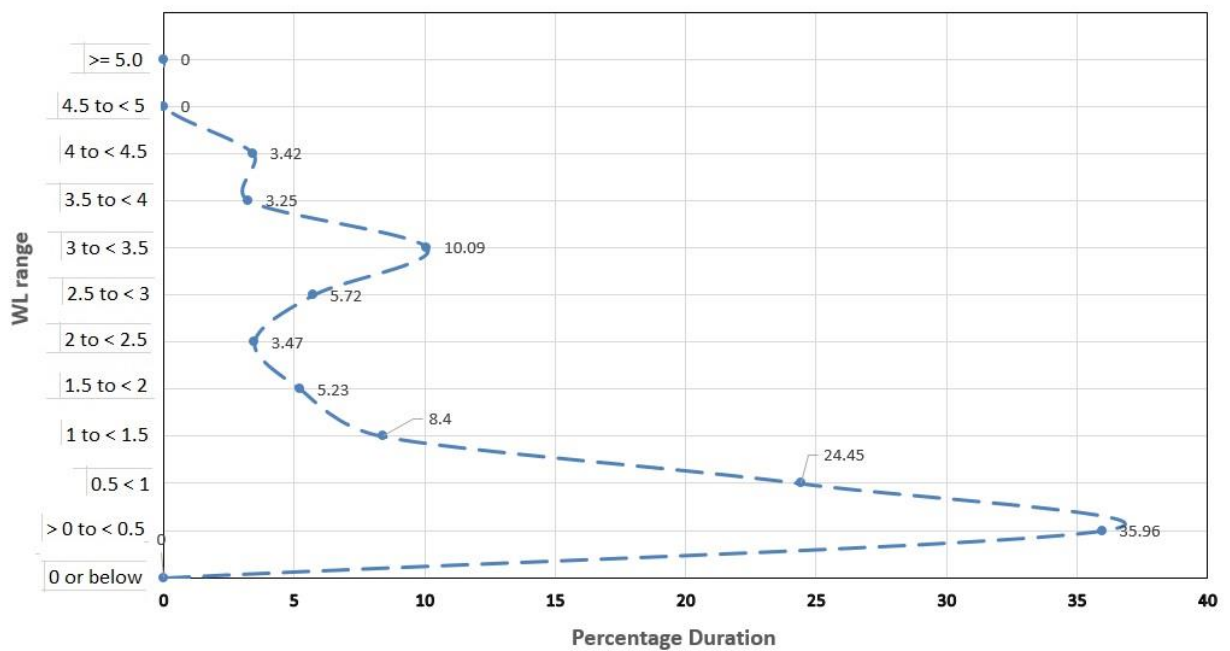


Figure AA-3. Zaragoza WL percent duration curve (2013)

Arayat WL % duration (2013)

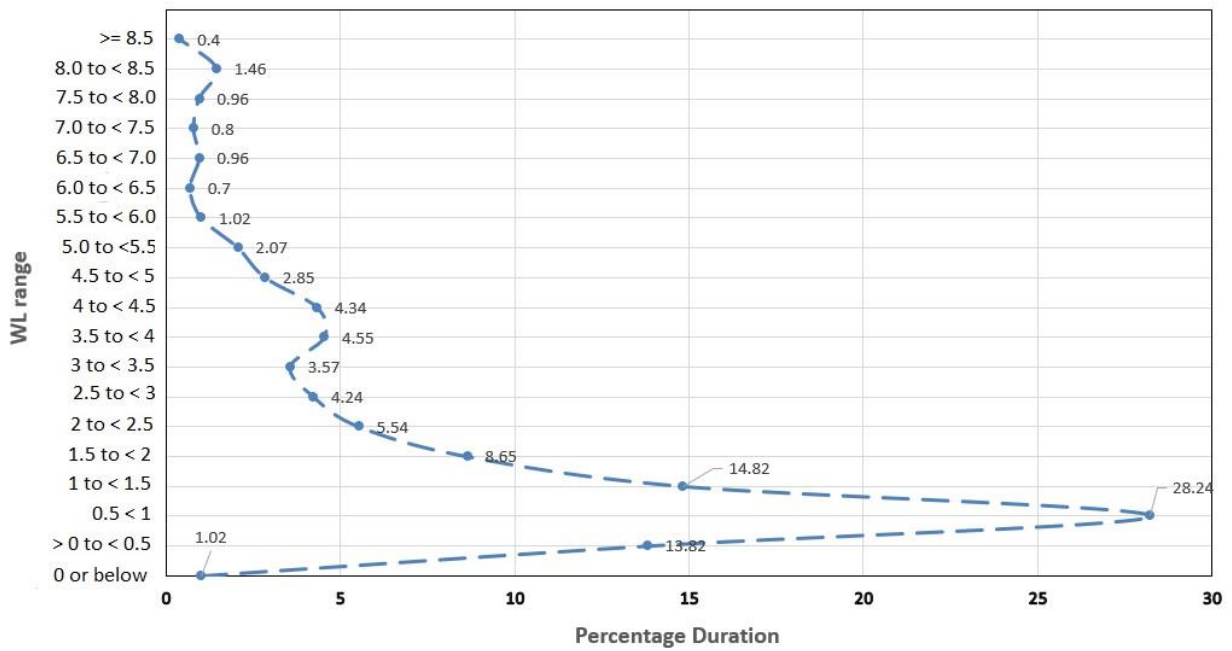


Figure AA-4. Arayat WL percent duration curve (2013)

Candaba WL % duration (2013)

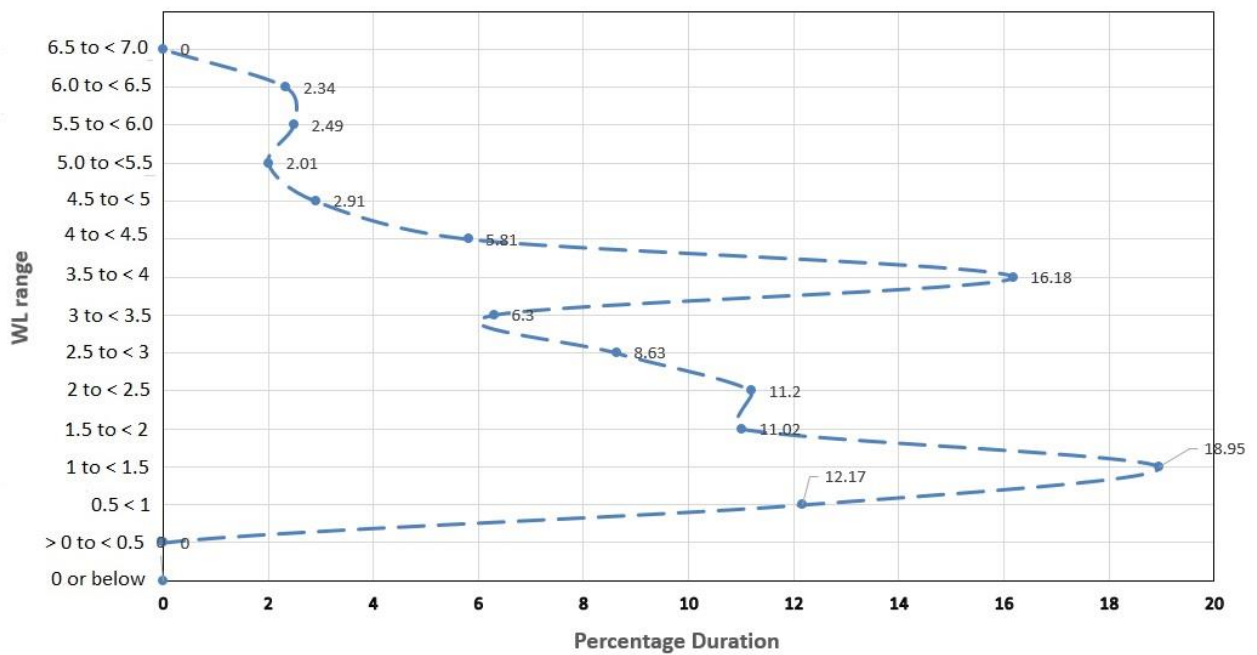


Figure AA-5. Candaba WL percent duration curve (2013)

Sasmuan WL % duration (2013)

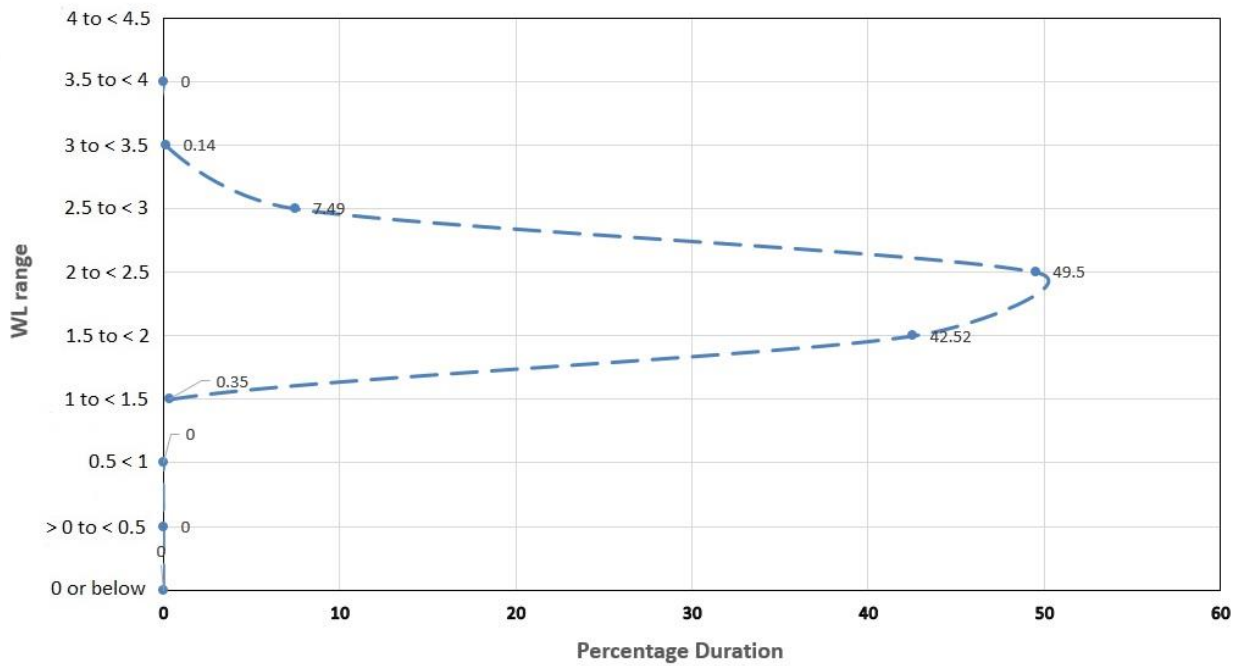


Figure AA-6. Sasmuan WL percent duration curve (2013)

Sulipan WL % duration (2013)

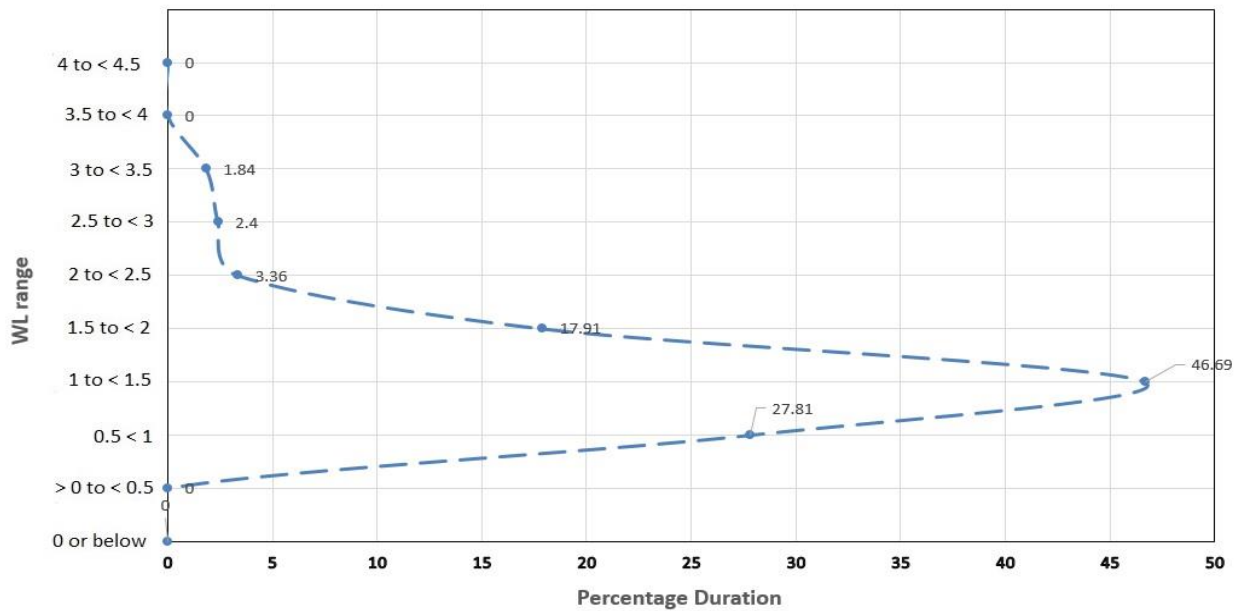
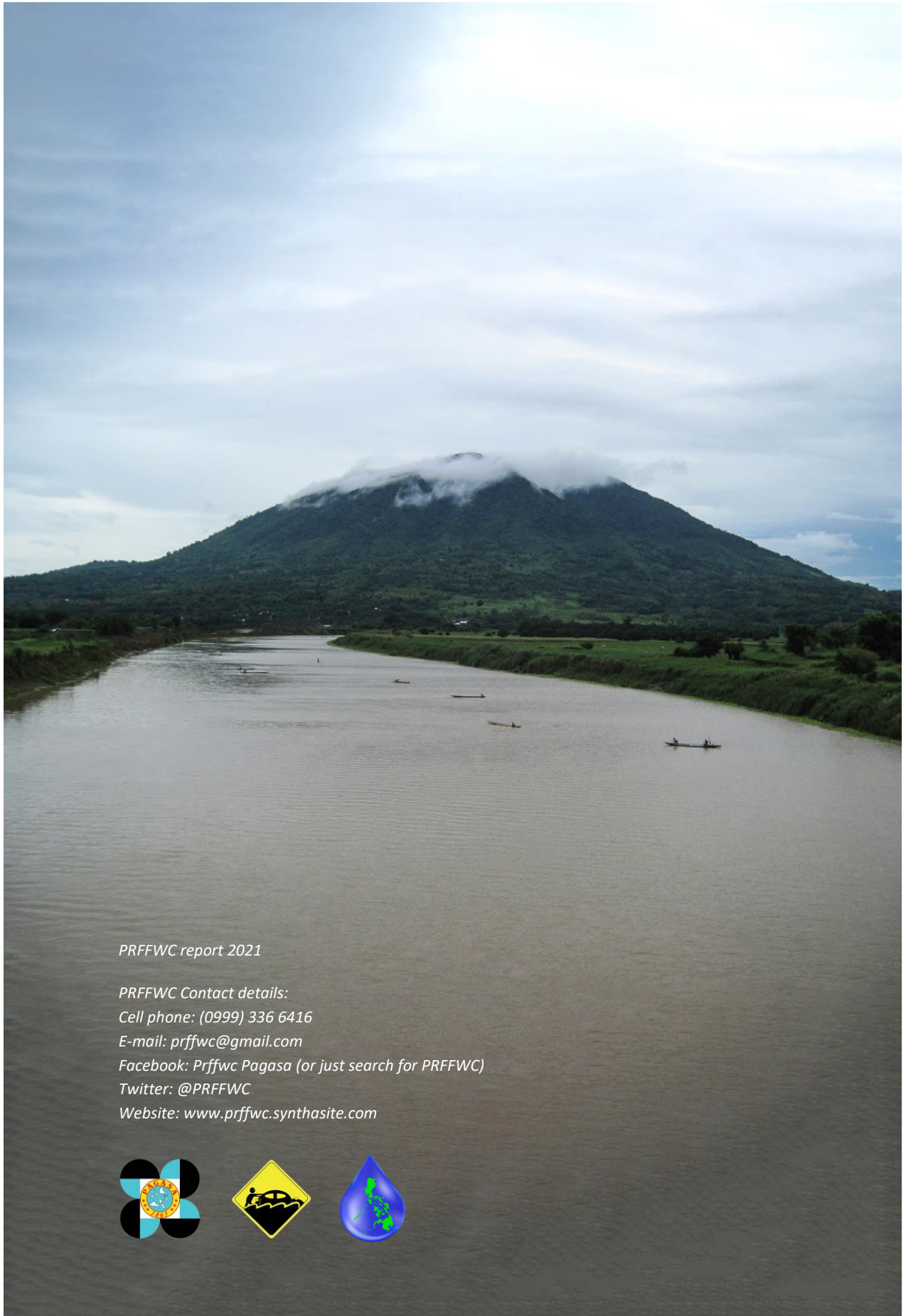


Figure AA-7. Sulipan WL percent duration curve (2013)

Note: The other WL stations were not included in WL percent duration curves as most of their observations are either erroneous and / or zero such as for San Isidro, Peñaranda and Mayapyap stations.



PRFFWC report 2021

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