



Republic of the Philippines
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 2017

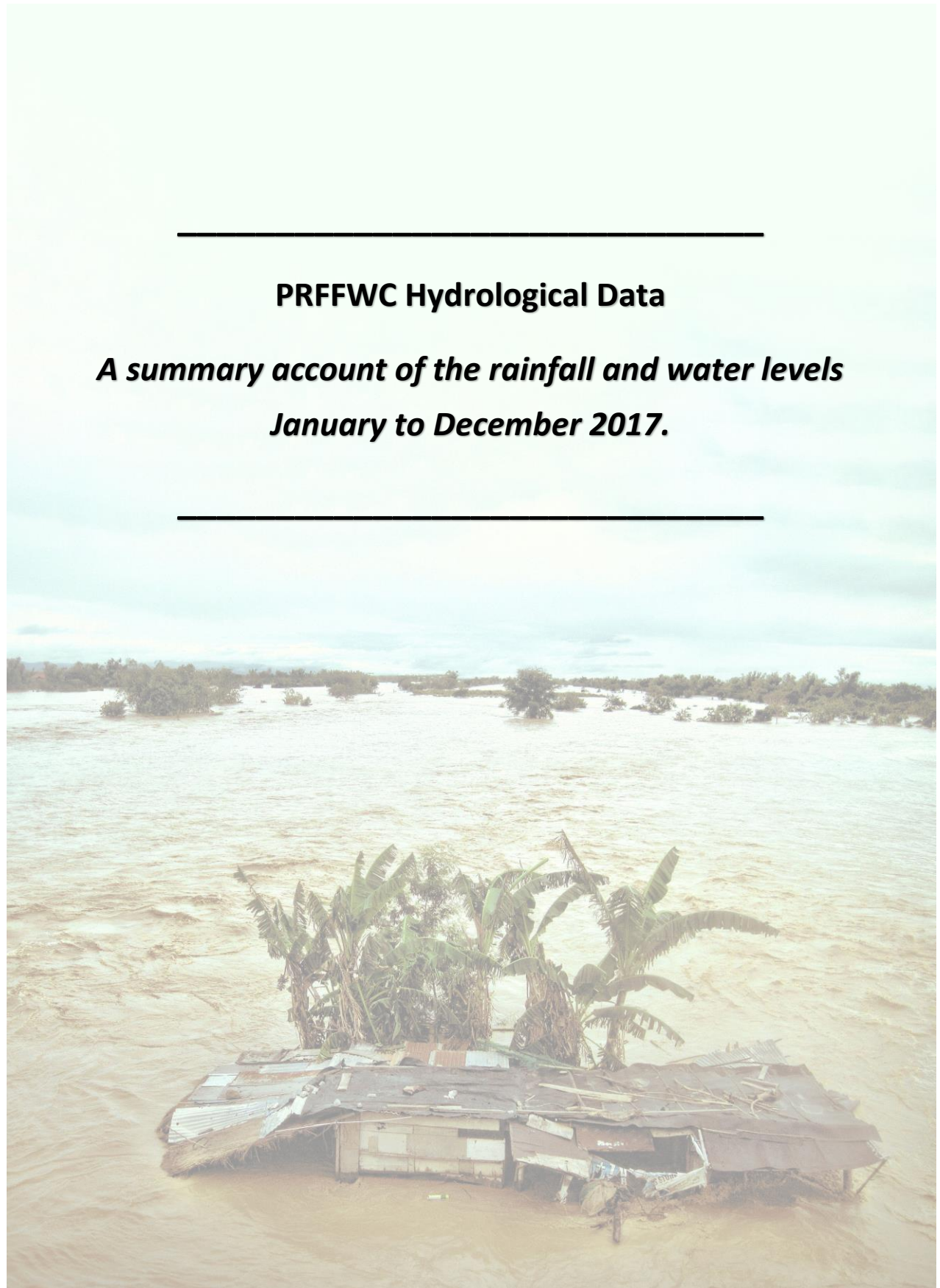
(April 2021)



Front / Back Cover:

Upstream view of Pampanga River from San Agustin Bridge in Arayat, Province of Pampanga with the majestic Mt. Arayat in the background (November 06, 2017)

Photograph: H.Hernando Edited by: M. Joson



PRFFWC Hydrological Data

***A summary account of the rainfall and water levels
January to December 2017.***

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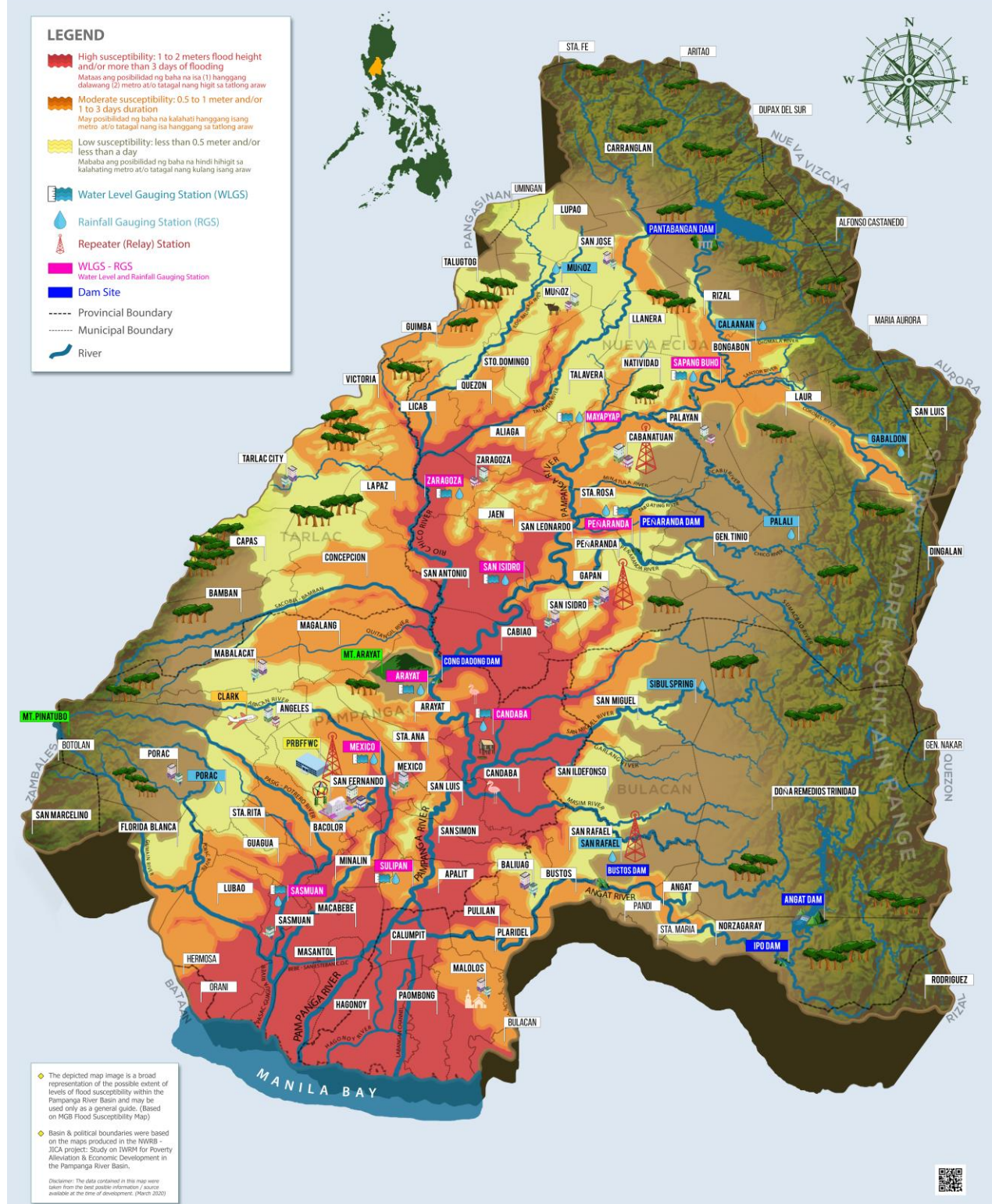
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The PRFFWC Telemetry Tower located in the City of San Fernando, Province of Pampanga.

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 Yearbook presents a summary of the rainfall and water level data observed and recorded by the telemetry system of the PRFFWC in year 2017.
- The supervisory terminal of the PRFFWC system is the main data series considered for database buildup.
- The main source for complementing breaks / gaps in the supervisory terminal data series are the telemetry stations' data loggers that is if the data exist.
- 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.
- For short WL gaps a simple eye-fit method is normally carried-out.
- Obvious and / or suspected erroneous data were directly deleted from the data series. However, these were done after doing some data consistency check, reference from field survey reports, and / or field station instrument problem validation.
- All data at the start of analyses were treated as valid information; no statistical analysis can replace actual observation unless there are known inconsistencies in the means of measurements, in the measuring instrument / equipment itself, etc.
- For further information and clarification on the general buildup of the PRFFWC data series please send a message to e-mail address: 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 (out-of-order)	@ 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

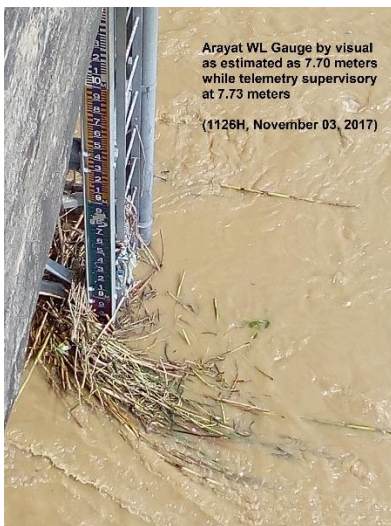
1. This Data Yearbook presents the hydrological data summary of the 17 rainfall stations and 9 water level stations of the PRFFWC for the year 2017 (Mayapyap RR-WL is out-of-order)
2. The rainfall dataset in this report covers the period starting from the past 1-hour observation ending at 0900H (LST) of 01 January 2017 until the last 1-hour observation ending at 0800H (LST) of 01 January 2018; Accordingly, it follows that a 24-hour daily total (or average) starts at 0801H of the present day and ends at 0800H of the following day; Water level data series are reported in instantaneous observed value as to its specific time but the average value is taken using the same average reporting time period as in the rainfall.
3. The shortest time period considered in this summary report is 1 hour.
4. Units 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
5. The minimum rainfall amount for telemetry stations is 1 mm; for the rainfall observations in PRFFWC in the City of San Fernando (PRFFWC-CSFP), Pampanga, the minimum is 0.25 mm;
6. 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-CSFP station;
7. The hydrological data summary presented in this yearbook are the daily rainfall observations, monthly rainfall and average, maximum rainfall total of various periods, and total rain-days per month; the daily water level averages, maximum stage for each month and other regular information that were extracted from the available data series of each station.
8. 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 2017

1. January: Mayapyap RR-WL totally down and out for the whole year; San Isidro & Mexico WL are zero for the whole month.
2. February: San Isidro WL is zero for the whole month.
3. March: San Isidro WL is zero for the whole month; Candaba WL sensor was pulled-out 1300H, 10 due to bridge repairs at the station's measuring section.
4. April: San Isidro & Peñaranda WL are zero for the whole month.
5. May: San Isidro WL is zero for the whole month; San Rafael RR is zero for whole month (doubtful).
6. June: San Isidro WL is zero for the whole month.
7. July: San Isidro WL is zero for the whole month.
8. August: Data from stations that were reporting during the month looks acceptable.
9. September: Data from stations that were reporting during the month looks acceptable.
10. October: San Isidro WL is zero for the whole month. Candaba WL reinstalled in one of the station's concrete foundation posts on 1500H, 13. Candaba WL supervisory is higher by an estimated 0.30 meters than SG at reinstallation (all supervisory readings starting 1500H, 13 adjusted by -0.30 meters)
11. November: Candaba WL gauge is less than 0.30 m from supervisory data as validated by picture; adjusted supervisory by -0.30 m; all values at 2.85 or a little less than that for a relatively long period have been deleted from the data series as these were deemed erroneous data.
12. December: Candaba WL adjusted by -0.30 m; all values below 2.85 or a little less than that for a relatively long period have been deleted from the data series.



A. RAINFALL Data Summary Presentation



**Candaba RR-WL Telemetry Station
(November 03, 2017)**

Daily Point Rainfall in millimeters

2017	Station: Muñoz												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	20	0	0	0	0	20	0	27	0	0	51	0
2	0	0	0	0	0	0	3	0	61	0	0	30	0
3	0	0	0	0	0	9	0	5	0	1	0	0	0
4	0	0	0	0	0	1	24	1	3	2	0	16	0
5	0	0	0	0	0	0	8	0	12	4	0	33	0
6	0	0	0	0	0	0	0	0	0	0	8	0	0
7	0	0	0	0	0	0	0	0	0	0	14	0	0
8	0	0	0	0	0	0	0	0	2	0	0	0	0
9	0	0	0	0	0	0	5	0	0	10	4	39	0
10	10	0	0	0	0	0	4	3	0	8	7	0	0
11	3	0	0	0	0	0	0	25	0	0	0	0	0
12	0	0	0	0	0	0	0	3	11	11	20	0	0
13	0	0	0	0	0	0	0	2	21	17	4	0	0
14	0	0	0	0	0	0	3	1	0	2	11	0	0
15	0	0	0	0	0	0	2	0	22	1	6	0	0
16	0	0	0	0	0	1	0	4	0	0	2	0	0
17	0	0	0	0	5	10	0	0	0	0	0	0	0
18	0	0	0	0	0	87	16	0	1	1	0	5	2
19	0	0	0	0	0	23	0	0	27	1	0	0	2
20	0	0	0	0	0	0	10	2	25	9	0	0	0
21	0	0	0	7	0	0	0	0	13	0	0	0	0
22	0	0	0	0	0	7	14	0	14	32	0	0	0
23	0	0	0	0	0	0	0	0	22	0	0	0	0
24	0	0	0	0	0	0	0	3	11	0	0	0	0
25	0	0	0	0	0	19	64	1	14	0	0	1	0
26	0	0	0	0	0	43	13	2	3	4	0	0	0
27	0	0	0	0	0	17	0	123	0	0	0	0	0
28	0	0	0	0	0	33	35	0	0	0	0	0	0
29	0		0	11	30	0	11	0	0	0	0	0	0
30	0		0	0	0	0	11	0	2	2	0	0	0
31	1		0		0		23	8		0		0	0

Monthly Total	14	20	7	16	247	219	255	297	105	78	175	4
Average	0.45	0.71	0.23	0.53	7.97	7.30	8.23	9.58	3.50	2.52	5.83	0.13
Max daily rain	10	20	7	11	87	64	123	61	32	20	51	2
Day of Max Daily	10	1	21	29	18	25	27	2	22	12	1	18
No. of Rain days	3	1	1	2	11	14	17	18	15	10	7	2
Max 1-hr rain	4	6	4	7	47	41	41	53	18	14	14	1
Day of max 1-hr	10	1	22	29	18	25	27	2	23	7	1	18

Total rain for the year	1437
Total rain days for the year	101

Daily Point Rainfall in millimeters

2017

Station: Sapang_Buho

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	0	0	0	0	12	17	32	0	57	7
2	0	2	0	0	0	0	7	6	3	5	33	0
3	0	0	0	0	0	9	13	24	6	1	1	0
4	0	0	0	0	0	32	2	18	25	0	36	0
5	0	0	0	0	0	5	0	1	2	2	27	0
6	0	0	0	0	0	0	0	12	0	0	1	0
7	0	0	0	0	0	3	0	0	0	1	0	0
8	0	0	0	0	0	0	5	31	0	0	0	1
9	0	0	0	5	0	4	0	10	0	5	28	0
10	18	0	0	0	0	9	0	0	0	3	1	0
11	5	0	0	0	0	4	22	0	21	5	0	0
12	0	0	0	0	0	0	3	7	26	32	0	0
13	0	0	0	0	0	0	3	0	7	11	0	0
14	0	0	0	0	0	40	0	0	14	5	0	0
15	0	0	0	0	0	37	8	0	3	9	0	0
16	0	0	0	2	0	0	8	0	1	1	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	1	0	0	20	15	0	1	0	0	0	8
19	0	0	0	15	12	0	1	70	20	0	0	10
20	0	0	0	0	0	0	7	40	3	0	0	1
21	0	0	3	0	45	5	1	3	1	0	0	0
22	0	0	0	0	23	14	0	17	17	0	0	0
23	2	0	0	0	18	0	0	2	1	0	0	0
24	0	0	0	0	0	0	1	22	0	0	1	0
25	0	0	0	0	1	2	0	62	44	0	2	0
26	0	0	0	0	23	0	6	2	4	0	0	0
27	0	0	0	0	32	0	41	0	3	0	0	4
28	0	0	0	0	2	5	36	0	0	0	0	0
29	0		0	0	1	1	22	0	1	0	1	0
30	0		0	0	13	0	3	1	7	6	1	0
31	4		0		0		5	2		0		0

Monthly Total	30	35	3	22	190	185	206	348	241	86	189	31
Average	0.97	1.25	0.10	0.73	6.13	6.17	6.65	11.23	8.03	2.77	6.30	1.00
Max daily rain	18	32	3	15	45	40	41	70	44	32	57	10
Day of Max Daily	10	1	21	19	21	14	27	19	25	12	1	19
No. of Rain days	5	3	1	3	11	15	20	20	21	13	12	6
Max 1-hr rain	4	10	1	10	30	34	13	35	31	14	17	7
Day of max 1-hr	10	1	21	20	21	15	28	26	1	12	5	1

Total rain for the year	1566
Total rain days for the year	130

Daily Point Rainfall in millimeters

2017

Station:

Gabaldon

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3	72	0	0	0	16	7	48	5	3	190	9
2	0	17	0	0	0	0	1	85	1	5	69	0
3	0	1	0	0	5	21	16	2	1	1	6	0
4	0	0	13	0	0	13	2	14	6	6	98	1
5	0	0	0	0	1	20	0	8	1	18	43	0
6	0	0	0	0	0	2	0	3	0	0	12	0
7	0	0	0	0	0	3	0	0	0	0	2	0
8	0	0	0	0	0	3	5	1	0	0	0	0
9	0	0	0	0	0	24	1	12	0	12	152	0
10	50	0	0	0	1	25	7	0	0	3	11	0
11	3	0	0	0	2	1	30	4	60	3	0	0
12	0	0	0	0	0	0	3	4	78	10	0	0
13	0	0	0	0	0	0	2	0	3	23	0	0
14	0	0	0	0	0	1	2	0	2	16	0	0
15	0	0	0	2	0	0	4	0	0	28	0	0
16	0	0	0	17	0	0	11	0	0	7	0	0
17	0	0	0	0	45	0	14	0	3	0	3	1
18	0	37	0	0	2	0	5	7	1	0	0	16
19	0	4	0	13	17	0	12	68	0	0	4	28
20	0	0	0	0	7	0	12	4	0	0	1	1
21	0	0	37	0	14	0	47	0	0	0	0	1
22	13	0	0	0	2	6	0	31	48	1	0	0
23	28	0	0	0	16	3	0	24	1	0	2	5
24	15	0	0	0	0	0	16	4	0	0	11	0
25	0	0	0	0	2	0	4	131	48	1	6	1
26	0	0	0	0	31	0	10	0	11	0	0	9
27	0	0	0	0	24	1	38	0	2	0	3	7
28	13	0	0	0	13	6	22	1	1	0	0	1
29	0		0	0	0	1	38	0	3	1	3	0
30	1		0	0	0	0	42	10	26	26	11	0
31	9		0		0		22	17		6		0

Monthly Total	135	131	50	32	182	146	373	478	301	170	627	80
Average	4.35	4.68	1.61	1.07	5.87	4.87	12.03	15.42	10.03	5.48	20.90	2.58
Max daily rain	50	72	37	17	45	25	47	131	78	28	190	28
Day of Max Daily	10	1	21	16	17	10	21	25	12	15	1	19
No. of Rain days	9	5	2	3	15	16	26	20	19	18	18	12
Max 1-hr rain	7	24	9	7	37	15	20	43	31	14	44	7
Day of max 1-hr	Feb 01	1	22	19	17	1	21	2	12	5	10	20

Total rain for the year

2705

Total rain days for the year

163

Daily Point Rainfall in millimeters

2017	Station: Zaragoza											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	4	0	0	2	11	1	0	5	0	57	0
2	0	0	0	0	0	1	13	11	0	0	7	0
3	0	0	0	0	17	8	20	1	5	0	0	0
4	0	0	0	0	0	3	7	90	8	0	15	0
5	0	0	0	0	0	0	2	5	8	0	10	0
6	0	0	0	0	12	0	0	24	0	2	0	0
7	0	0	0	0	0	3	0	0	0	2	0	0
8	0	0	0	0	0	0	1	19	0	0	0	0
9	0	0	0	0	0	0	0	24	2	2	23	0
10	8	0	0	0	0	7	1	3	0	14	1	0
11	1	0	0	0	0	6	11	0	9	0	0	0
12	0	0	0	0	0	13	2	12	22	7	0	0
13	0	0	0	0	0	0	19	0	0	7	0	0
14	0	0	0	0	0	2	36	0	0	10	0	0
15	0	0	0	0	0	2	14	33	23	0	0	0
16	0	0	0	1	0	0	27	0	0	3	0	0
17	0	0	0	3	0	0	1	0	26	0	0	0
18	0	0	0	0	0	8	0	21	28	0	0	3
19	0	0	0	0	0	0	6	58	3	0	0	27
20	0	0	0	0	0	0	37	2	0	0	0	0
21	0	0	0	0	2	0	4	17	0	0	2	0
22	0	0	0	0	7	0	7	19	19	0	0	0
23	0	0	0	0	33	0	0	16	0	0	0	0
24	0	0	0	0	14	0	0	15	0	0	2	0
25	0	0	0	0	7	13	1	16	50	0	0	0
26	0	0	0	0	22	0	24	18	6	0	0	0
27	0	0	0	0	5	0	44	2	0	0	0	0
28	0	0	0	0	0	40	26	0	10	0	0	0
29	0		0	0	27	0	1	30	0	0	0	0
30	0		0	0	4	0	1	0	4	1	0	0
31	0		0		0		3	30		0		0

Monthly Total	9	4	0	4	152	117	309	466	228	48	117	30
Average	0.29	0.14	0.00	0.13	4.90	3.90	9.97	15.03	7.60	1.55	3.90	0.97
Max daily rain	8	4	0	3	33	40	44	90	50	14	57	27
Day of Max Daily	10	1		17	23	28	27	4	25	10	1	19
No. of Rain days	2	1	0	2	12	13	25	22	16	9	8	2
Max 1-hr rain	2	2	0	2	25	30	36	29	28	5	12	8
Day of max 1-hr	10	2		17	29	28	20	4	18	10	1	20

Total rain for the year	1484
Total rain days for the year	112

Daily Point Rainfall in millimeters

2017	Station: Peñaranda											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	4	0	0	0	2	1	56	1	0	130	2
2	0	1	0	0	0	6	5	2	7	0	17	0
3	0	0	0	0	1	7	16	0	3	1	1	0
4	0	0	0	0	0	0	1	12	3	0	24	0
5	0	0	0	0	0	0	1	17	1	1	13	0
6	0	0	0	0	0	0	0	7	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	5	0	0	0	0	2
9	0	0	0	0	0	5	0	67	0	5	26	0
10	13	0	0	0	0	7	1	1	0	39	1	0
11	4	0	0	1	2	0	23	0	30	0	0	0
12	0	0	0	0	0	0	1	10	15	9	0	0
13	0	0	0	0	0	0	4	0	10	28	0	0
14	0	0	0	0	0	8	4	0	1	6	0	0
15	14	0	0	0	0	44	3	6	1	1	0	0
16	0	0	0	2	0	0	3	0	0	1	0	0
17	0	0	0	28	0	0	4	0	0	0	0	0
18	0	0	0	0	1	18	0	10	13	0	0	10
19	0	0	0	0	3	4	3	26	1	0	4	37
20	0	0	0	0	0	0	3	0	0	0	1	0
21	0	0	13	9	16	0	2	1	0	0	0	0
22	0	0	0	0	1	0	24	18	38	0	0	0
23	3	0	10	0	60	0	0	2	0	0	0	0
24	0	0	0	0	4	0	6	15	0	0	7	0
25	0	0	0	0	1	36	1	152	30	1	2	0
26	0	0	0	0	7	0	11	5	7	0	0	0
27	0	0	0	0	7	0	24	0	0	0	0	1
28	0	0	0	0	1	8	10	0	0	0	0	0
29	0		0	46	0	9	4	0	1	0	2	0
30	0		0	0	6	0	2	0	8	13	1	0
31	1		0		1		16	3		2		0

Monthly Total	35	5	23	86	111	154	178	410	170	107	229	52
Average	1.13	0.18	0.74	2.87	3.58	5.13	5.74	13.23	5.67	3.45	7.63	1.68
Max daily rain	14	4	13	46	60	44	24	152	38	39	130	37
Day of Max Daily	15	1	21	29	23	15	22	25	22	10	1	19
No. of Rain days	5	2	2	5	14	12	26	18	17	12	13	5
Max 1-hr rain	8	3	11	46	37	43	17	64	21	15	15	8
Day of max 1-hr	15	2	22	29	23	15	22	9	12	10	2	19

Total rain for the year	1560
Total rain days for the year	131

Daily Point Rainfall in millimeters

2017

Station:

Calaanan

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2	44	0	0	0	0	15	9	18	0	85	8
2	0	1	0	0	0	0	18	15	0	1	33	0
3	0	0	0	0	13	16	9	20	0	3	2	0
4	0	0	0	0	0	13	2	48	6	0	57	0
5	0	0	0	0	0	1	0	1	2	2	54	0
6	0	0	0	0	0	0	0	0	0	0	2	0
7	0	0	0	0	0	1	0	0	0	0	0	0
8	0	0	0	0	0	0	3	6	0	0	0	6
9	0	0	0	0	0	6	0	1	0	7	75	0
10	13	0	0	0	4	15	1	0	0	6	0	0
11	5	0	0	0	0	4	31	0	18	22	0	0
12	0	0	0	0	0	0	4	0	31	1	1	0
13	0	0	0	0	0	0	3	0	0	10	0	0
14	0	0	0	0	0	17	0	0	8	6	0	0
15	0	0	0	0	0	15	17	0	14	38	0	0
16	0	0	0	5	0	0	7	0	0	4	0	0
17	0	0	0	0	0	0	12	0	6	0	7	0
18	0	3	0	0	5	1	0	2	0	0	0	7
19	0	0	0	20	11	0	0	126	0	0	4	12
20	0	0	9	0	6	0	6	35	4	0	0	0
21	0	0	0	0	48	0	3	6	0	0	0	0
22	3	0	0	0	20	2	0	15	25	0	0	0
23	0	0	0	0	17	1	0	16	6	0	0	2
24	0	0	0	0	0	0	50	59	0	0	3	0
25	2	0	0	0	1	5	1	104	74	0	6	0
26	0	0	0	0	51	0	4	1	8	0	0	2
27	0	0	0	0	21	0	53	1	10	0	2	3
28	4	0	0	0	20	1	36	4	0	0	0	0
29	0		0	1	0	0	32	0	1	0	0	0
30	0		0	0	2	0	8	1	7	3	0	0
31	12		0		0		7	4		0		0

Monthly Total	41	48	9	26	219	98	322	474	238	103	331	40
Average	1.32	1.71	0.29	0.87	7.06	3.27	10.39	15.29	7.93	3.32	11.03	1.29
Max daily rain	13	44	9	20	51	17	53	126	74	38	85	12
Day of Max Daily	10	1	20	19	26	14	27	19	25	15	1	19
No. of Rain days	7	3	1	3	13	14	22	20	16	12	13	7
Max 1-hr rain	8	13	4	11	38	15	36	40	23	21	28	8
Day of max 1-hr	Feb 01	1	22	20	21	3	24	19	26	11	5	1

Total rain for the year

1949

Total rain days for the year

131

Daily Point Rainfall in millimeters

2017	Station: Palali											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	20	0	0	1	1	24	6	0	2	111	5
2	0	1	0	0	0	1	2	4	18	2	34	0
3	0	0	0	0	0	4	20	6	3	1	2	0
4	0	0	3	0	0	3	1	11	3	0	37	0
5	0	0	0	0	0	15	0	4	1	2	13	0
6	0	0	0	0	0	0	0	2	2	0	0	0
7	0	0	0	0	0	6	0	0	0	1	1	0
8	0	0	0	0	0	1	5	0	0	0	0	19
9	0	0	0	0	0	3	2	4	4	7	31	0
10	13	0	0	0	0	9	3	0	0	25	0	0
11	6	0	0	0	0	14	21	8	37	28	0	0
12	0	0	0	0	0	0	4	2	18	16	0	0
13	0	0	0	0	0	0	1	0	3	16	0	0
14	0	0	0	0	0	3	2	0	24	3	0	0
15	0	0	0	0	0	4	1	0	2	4	0	0
16	0	0	0	11	0	0	4	0	21	0	0	0
17	0	0	0	2	0	0	1	0	5	0	2	0
18	0	10	0	0	35	0	2	5	3	0	0	10
19	0	5	0	1	1	0	3	57	2	0	17	21
20	0	0	0	0	7	12	12	7	1	0	0	0
21	0	0	53	0	34	0	22	0	0	0	0	0
22	2	0	0	0	1	0	1	16	25	0	0	0
23	13	0	22	0	5	0	0	48	0	0	0	0
24	0	0	0	0	1	0	0	2	0	0	4	0
25	0	0	0	0	0	0	1	110	18	0	3	1
26	0	0	0	0	16	0	12	12	9	0	0	2
27	0	0	0	0	28	0	30	34	2	2	0	1
28	1	0	0	0	15	5	22	0	0	0	0	0
29	0		0	6	0	2	10	1	2	0	2	0
30	2		0	0	24	6	3	2	10	15	1	0
31	5		0		0		7	4		2		0

Monthly Total	42	36	78	20	168	89	216	345	213	126	258	59
Average	1.35	1.29	2.52	0.67	5.42	2.97	6.97	11.13	7.10	4.06	8.60	1.90
Max daily rain	13	20	53	11	35	15	30	110	37	28	111	21
Day of Max Daily	10	1	21	16	18	5	27	25	11	11	1	19
No. of Rain days	7	4	3	4	12	16	26	21	22	15	13	7
Max 1-hr rain	6	7	37	10	23	12	14	33	21	28	14	12
Day of max 1-hr	23	1	22	16	30	20	1	27	12	11	1	8

Total rain for the year	1650
Total rain days for the year	150

Daily Point Rainfall in millimeters

2017	Station: San Isidro											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	5	0	0	0	7	2	27	3	0	58	2
2	0	3	0	0	0	11	0	1	0	2	7	0
3	0	0	0	0	4	5	7	1	4	9	0	0
4	0	0	0	0	0	12	2	9	1	0	16	0
5	0	0	0	0	0	0	37	18	0	0	6	0
6	0	0	0	0	0	0	0	6	14	0	0	0
7	0	0	0	0	0	5	0	0	0	0	0	0
8	0	0	0	0	0	0	4	0	0	0	0	1
9	0	0	0	0	0	7	0	13	0	4	17	0
10	5	0	0	0	0	6	3	0	0	62	4	0
11	5	0	0	0	0	0	10	0	36	3	0	0
12	0	0	0	0	0	0	0	21	20	3	0	0
13	0	0	0	0	0	0	14	0	0	19	0	0
14	0	0	0	0	0	16	10	0	0	8	0	0
15	0	0	0	0	0	7	33	0	7	0	0	0
16	0	0	0	1	0	0	9	0	0	1	0	0
17	0	0	0	11	1	0	1	0	0	0	0	0
18	0	0	0	0	0	80	0	21	46	0	0	6
19	0	0	0	0	1	0	11	49	10	0	9	37
20	0	0	0	0	11	0	2	0	0	0	16	0
21	0	0	0	45	24	0	16	1	0	1	0	0
22	2	0	0	0	0	0	15	17	62	0	0	0
23	3	0	0	0	5	0	0	2	0	0	0	0
24	0	0	0	7	0	0	0	17	0	0	7	0
25	0	0	0	0	0	3	2	131	24	0	1	0
26	0	0	0	0	9	0	18	37	7	0	0	0
27	0	0	0	0	2	0	19	0	0	0	0	0
28	0	0	0	0	0	22	7	0	0	0	0	0
29	0		0	0	18	0	11	0	0	0	0	0
30	0		0	0	17	0	0	3	6	9	8	0
31	0		0		14		13	1		2		0

Monthly Total	15	8	0	64	106	181	246	375	240	123	149	46
Average	0.48	0.29	0.00	2.13	3.42	6.03	7.94	12.10	8.00	3.97	4.97	1.48
Max daily rain	5	5	0	45	24	80	37	131	62	62	58	37
Day of Max Daily	10	1		21	21	18	5	25	22	10	1	19
No. of Rain days	4	2	0	4	11	12	22	18	13	12	11	4
Max 1-hr rain	2	2	0	43	24	43	27	49	43	24	13	8
Day of max 1-hr	12	2		21	21	18	9	25	22	10	20	20

Total rain for the year	1553
Total rain days for the year	113

Daily Point Rainfall in millimeters

2017 Day	Station: Arayat											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	6	13	1	6	57	0
2	0	0	0	0	0	11	1	18	0	1	2	0
3	0	0	0	0	50	1	11	0	0	0	0	0
4	0	0	0	0	0	1	6	0	1	0	6	0
5	0	0	0	0	0	0	10	0	0	0	1	0
6	0	0	0	0	0	0	0	0	5	0	1	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	3	26	0	0	0	0
9	0	0	0	0	0	10	0	13	0	2	22	0
10	3	0	0	0	0	4	0	0	8	19	1	0
11	0	0	0	0	0	0	2	0	21	0	0	0
12	0	0	0	0	0	0	0	1	27	9	0	0
13	0	0	0	0	0	0	10	0	2	33	0	0
14	0	0	0	0	0	0	53	0	0	28	0	0
15	0	0	0	0	0	5	4	19	4	0	0	0
16	0	0	0	1	0	0	18	0	5	2	0	0
17	0	0	0	2	10	0	0	0	0	0	0	0
18	0	0	0	0	0	5	0	71	0	0	14	5
19	0	0	0	0	0	0	0	77	7	0	29	22
20	0	0	0	0	1	1	0	2	0	0	1	0
21	0	0	1	0	0	0	6	54	7	1	0	0
22	3	0	0	1	26	0	0	44	27	0	0	0
23	2	0	0	25	3	0	0	13	0	0	0	0
24	0	0	0	1	0	0	0	6	0	0	7	0
25	0	0	0	0	6	1	1	34	7	0	2	0
26	0	0	0	0	3	0	40	11	8	0	0	0
27	0	0	0	0	1	0	57	3	0	0	0	0
28	0	0	0	0	0	11	29	0	0	0	0	0
29	0		0	0	0	2	13	0	1	0	0	0
30	0		0	0	3	1	1	1	8	5	6	0
31	0		0		1		1	1		3		0

Monthly Total	8	0	1	30	104	53	272	407	139	109	149	27
Average	0.26	0.00	0.03	1.00	3.35	1.77	8.77	13.13	4.63	3.52	4.97	0.87
Max daily rain	3	0	1	25	50	11	57	77	27	33	57	22
Day of Max Daily	10		21	23	3	2	27	19	12	13	1	19
No. of Rain days	3	0	1	5	10	12	19	18	16	11	13	2
Max 1-hr rain	2	0	1	20	41	11	34	52	11	15	28	10
Day of max 1-hr	23		21	23	3	2	14	21	12	14	1	20

Total rain for the year	1299
Total rain days for the year	110

Daily Point Rainfall in millimeters

2017	Station: Candaba											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	1	0	0	0	0	6	13	1	4	58	0
2	0	1	0	0	0	0	1	7	0	2	1	0
3	0	0	0	0	21	1	25	3	0	0	2	0
4	0	0	0	0	0	4	11	0	0	0	5	0
5	0	0	0	0	0	0	19	0	0	0	1	0
6	0	0	0	0	0	0	0	0	3	0	2	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	1	5	0	0	0	0
9	0	0	0	0	0	12	1	0	0	1	16	0
10	3	0	0	1	0	5	1	0	3	18	8	0
11	1	0	0	0	0	0	2	0	14	0	0	0
12	0	0	0	0	0	0	0	0	21	0	0	0
13	0	0	0	0	0	0	17	1	1	20	0	0
14	0	0	0	0	0	5	80	0	19	21	0	0
15	0	0	0	0	0	14	45	2	0	0	0	0
16	0	0	0	3	0	0	3	1	5	3	0	0
17	0	0	0	15	5	0	0	0	0	0	1	0
18	0	0	0	0	1	40	1	5	0	0	0	8
19	0	0	0	0	3	4	0	56	3	0	32	17
20	0	0	0	0	0	5	0	0	1	0	0	0
21	0	0	0	0	0	3	24	3	0	8	0	0
22	7	0	0	3	3	1	1	17	20	0	0	0
23	2	0	0	0	25	0	0	1	0	0	0	0
24	0	0	0	0	0	2	0	3	0	0	12	0
25	2	0	0	1	19	4	2	56	6	0	4	0
26	0	0	0	0	3	0	42	38	11	0	0	0
27	0	0	0	0	3	0	36	7	0	0	0	0
28	0	0	0	0	0	31	26	2	0	0	0	0
29	0		0	0	6	2	4	0	4	0	0	0
30	0		0	0	8	1	0	0	10	10	9	0
31	0		0		0		0	1		4		0

Monthly Total	15	2	0	23	97	134	348	221	122	91	151	25
Average	0.48	0.07	0.00	0.77	3.13	4.47	11.23	7.13	4.07	2.94	5.03	0.81
Max daily rain	7	1	0	15	25	40	80	56	21	21	58	17
Day of Max Daily	22	1		17	23	18	14	19	12	14	1	19
No. of Rain days	5	2	0	5	11	16	21	18	15	10	13	2
Max 1-hr rain	3	1	0	10	18	37	62	25	19	10	23	7
Day of max 1-hr	22	1		17	3	19	14	20	15	15	1	20

Total rain for the year	1229
Total rain days for the year	118

Daily Point Rainfall in millimeters

2017	Station: Sibul_Springs											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	0	0	0	5	0	6	7	5	2	54	6
2	0	3	0	0	1	0	42	1	0	3	8	0
3	0	0	0	0	15	35	11	0	0	0	4	0
4	0	0	0	0	0	2	0	6	1	1	11	0
5	0	0	0	0	5	0	17	17	0	1	36	0
6	0	0	0	0	0	0	0	2	18	1	3	0
7	0	0	0	0	0	9	0	0	0	26	0	0
8	0	0	0	0	0	0	3	7	0	1	0	6
9	0	0	0	20	0	12	0	7	0	2	20	0
10	15	0	0	0	0	8	0	0	0	13	16	0
11	10	0	0	0	0	0	27	4	37	5	0	0
12	1	0	0	0	0	0	1	9	19	3	0	0
13	0	0	0	0	0	0	36	1	3	24	1	0
14	0	0	0	0	0	24	5	4	3	17	1	0
15	0	0	0	0	0	1	5	12	0	1	0	0
16	0	0	0	5	0	0	2	0	0	6	0	0
17	0	0	0	30	8	0	1	0	15	0	10	0
18	0	2	0	0	42	3	2	0	37	0	0	14
19	0	4	0	0	6	15	18	27	14	0	25	99
20	0	0	0	0	0	3	11	4	3	0	2	0
21	0	0	7	3	0	12	2	14	0	2	0	0
22	1	0	3	0	32	11	9	24	24	7	0	0
23	10	0	0	2	18	0	0	17	1	0	0	0
24	1	0	0	0	10	1	0	12	0	0	16	3
25	0	0	0	0	0	14	14	62	36	0	4	0
26	0	0	0	0	3	0	20	10	15	0	0	2
27	0	0	0	0	26	0	35	0	2	0	2	5
28	0	0	0	0	35	1	26	2	0	0	1	0
29	0		0	0	8	17	21	0	25	0	1	0
30	0		0	0	3	8	9	4	12	27	5	0
31	10		0		0		0	7		3		0

Monthly Total	49	9	10	60	217	176	323	260	270	145	220	135
Average	1.58	0.32	0.32	2.00	7.00	5.87	10.42	8.39	9.00	4.68	7.33	4.35
Max daily rain	15	4	7	30	42	35	42	62	37	27	54	99
Day of Max Daily	10	19	21	17	18	3	2	25	11	30	1	19
No. of Rain days	8	3	2	5	15	17	23	23	18	19	19	7
Max 1-hr rain	9	3	3	19	36	20	41	14	37	10	19	30
Day of max 1-hr	31	19	22	9	18	3	2	25	18	7	1	20

Total rain for the year	1874
Total rain days for the year	159

Daily Point Rainfall in millimeters

2017	Station: Sasmuan											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	3	0	2	0	6	0	20	0
2	0	0	0	0	2	0	11	4	0	0	0	0
3	0	0	0	0	0	0	36	0	0	0	8	0
4	0	0	0	0	0	0	47	0	0	0	2	0
5	0	1	0	0	0	0	11	1	0	0	0	0
6	0	0	0	0	0	1	0	0	13	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	26	1	0	0	0	0
9	0	0	0	0	0	0	14	0	0	4	35	0
10	4	0	0	0	0	33	0	0	0	31	0	7
11	0	0	0	0	0	1	56	0	40	0	3	0
12	0	0	0	0	0	0	77	0	43	0	0	0
13	0	0	0	0	0	0	10	9	0	57	0	0
14	0	0	0	0	0	0	20	0	5	38	0	0
15	0	0	0	0	0	1	39	20	0	0	0	0
16	0	0	0	0	0	0	1	0	1	0	0	0
17	0	0	0	0	0	0	6	0	0	0	0	0
18	0	2	0	0	0	10	0	11	0	0	0	1
19	0	0	0	0	0	6	0	31	23	0	0	18
20	0	0	0	0	0	2	0	0	1	0	0	0
21	0	0	11	0	0	0	17	18	54	0	0	0
22	1	0	0	0	0	11	1	15	19	0	0	0
23	0	0	0	4	0	0	1	22	1	0	1	0
24	1	0	0	0	0	0	0	3	0	0	5	0
25	0	0	0	0	0	0	5	59	6	0	0	0
26	0	0	0	0	0	1	100	15	9	0	0	0
27	0	0	0	0	0	0	35	0	0	0	1	0
28	0	0	0	0	0	2	18	0	0	0	0	0
29	0		0	0	13	1	19	4	7	0	0	0
30	0		0	0	0	0	8	14	6	3	0	0
31	0		0		0		9	5		1		0

Monthly Total	6	3	11	4	18	69	569	232	234	134	75	26
Average	0.19	0.11	0.35	0.13	0.58	2.30	18.35	7.48	7.80	4.32	2.50	0.84
Max daily rain	4	2	11	4	13	33	100	59	54	57	35	18
Day of Max Daily	10	18	21	23	29	10	26	25	21	13	9	19
No. of Rain days	3	2	1	1	3	11	24	16	15	6	8	3
Max 1-hr rain	1	2	10	3	12	25	54	16	46	26	9	7
Day of max 1-hr	10	18	22	23	29	10	12	21	21	14	10	10

Total rain for the year	1381
Total rain days for the year	93

Daily Point Rainfall in millimeters

2017 Day	Station: Sulipan											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	1	0	0	0	0	3	1	6	0	26	0
2	0	1	0	0	0	7	2	5	0	1	0	0
3	0	0	0	0	7	0	39	0	0	15	16	0
4	0	0	0	0	1	1	45	7	0	1	2	0
5	0	0	0	0	0	0	14	0	0	0	0	0
6	0	0	0	0	6	7	2	5	0	0	0	0
7	0	0	0	0	0	0	0	0	0	1	1	0
8	0	0	0	0	1	14	28	55	0	0	0	0
9	0	0	0	0	0	4	0	0	0	1	23	0
10	7	0	0	0	1	6	3	12	21	4	3	0
11	0	0	0	0	0	1	1	0	47	17	4	0
12	0	0	0	0	0	0	37	0	23	0	0	0
13	0	0	0	0	0	0	1	0	0	71	1	0
14	0	0	0	0	0	0	59	0	15	32	0	0
15	0	0	0	0	0	18	4	0	0	0	0	0
16	0	0	0	0	0	0	12	21	16	0	0	0
17	0	0	0	0	0	0	0	3	0	0	0	0
18	0	0	0	0	0	51	1	14	0	0	0	6
19	0	0	0	0	0	1	1	32	7	0	6	20
20	0	0	0	0	0	0	0	2	0	0	0	0
21	0	0	3	0	0	3	9	3	7	0	0	0
22	4	0	0	0	1	25	1	18	10	1	0	0
23	6	0	0	13	25	0	0	0	0	0	4	0
24	1	0	0	0	0	0	1	4	0	0	6	0
25	0	0	0	0	0	0	7	64	27	0	1	0
26	0	0	0	0	4	14	62	16	20	0	0	3
27	0	0	0	0	18	0	40	0	0	0	0	0
28	0	0	0	0	0	7	17	5	0	0	0	0
29	0		0	0	0	3	12	0	7	0	1	0
30	0		0	0	0	0	1	0	7	10	1	0
31	6		0		0		2	6		4		0

Monthly Total	24	2	3	13	64	162	404	273	213	158	95	29
Average	0.77	0.07	0.10	0.43	2.06	5.40	13.03	8.81	7.10	5.10	3.17	0.94
Max daily rain	7	1	3	13	25	51	62	64	47	71	26	20
Day of Max Daily	10	1	21	23	23	18	26	25	11	13	1	19
No. of Rain days	5	2	1	1	9	15	26	18	13	12	14	3
Max 1-hr rain	2	1	3	11	25	45	28	53	37	37	5	6
Day of max 1-hr	10	1	22	24	23	19	8	8	12	14	1	19

Total rain for the year	1440
Total rain days for the year	119

Daily Point Rainfall in millimeters

2017	Station: Mexico											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	6	3	0	2	42	0
2	0	0	0	0	0	0	0	4	0	0	0	0
3	0	0	0	0	0	0	29	2	16	0	1	0
4	0	0	0	0	0	0	42	0	0	0	4	0
5	0	0	0	0	0	0	14	2	0	0	0	0
6	0	0	0	0	0	0	2	9	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	18	15	0	0	0	0
9	0	0	0	0	0	7	2	0	0	0	13	0
10	4	0	0	0	0	2	0	16	0	33	1	0
11	0	0	0	0	0	0	5	0	19	2	0	0
12	0	0	0	0	0	0	13	0	14	0	0	0
13	0	0	0	0	0	0	0	0	0	49	0	0
14	0	0	0	0	0	0	72	0	1	25	0	0
15	0	0	0	0	0	2	6	0	0	0	0	0
16	0	0	0	0	0	0	38	0	20	0	0	0
17	0	0	0	7	22	0	0	0	0	0	0	0
18	0	0	0	0	1	25	0	43	0	0	0	3
19	0	0	0	0	0	0	0	63	40	0	14	13
20	0	0	0	0	0	0	0	63	0	0	0	0
21	0	0	3	0	0	0	27	13	0	1	0	0
22	7	0	0	0	42	1	0	34	14	2	0	0
23	0	0	0	0	5	0	0	12	1	0	0	0
24	0	0	0	0	0	0	11	14	0	0	5	0
25	0	0	0	0	2	0	1	78	4	0	1	0
26	0	0	0	0	2	0	83	15	11	0	0	0
27	0	0	0	0	0	0	49	0	0	0	0	0
28	0	0	0	0	0	22	40	3	0	0	0	0
29	0		0	0	0	0	17	0	2	0	0	0
30	0		0	0	0	2	0	2	7	4	3	0
31	0		0		18		13	2		5		0

Monthly Total	11	0	3	7	92	61	488	393	149	123	84	16
Average	0.35	0.00	0.10	0.23	2.97	2.03	15.74	12.68	4.97	3.97	2.80	0.52
Max daily rain	7	0	3	7	42	25	83	78	40	49	42	13
Day of Max Daily	22		21	17	22	18	26	25	19	13	1	19
No. of Rain days	2	0	1	1	7	7	20	19	12	9	9	2
Max 1-hr rain	2	0	2	7	39	18	45	49	39	20	14	6
Day of max 1-hr	22		22	17	22	28	14	20	19	14	1	20

Total rain for the year	1427
Total rain days for the year	89

Daily Point Rainfall in millimeters

2017	Station: Porac											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	2	0	0	0	1	0	11	1	0	29	0
2	0	3	0	0	5	0	0	2	0	0	0	0
3	0	0	0	0	35	0	11	2	0	0	1	0
4	0	0	0	0	19	1	18	1	34	3	1	0
5	0	3	0	0	0	0	1	0	0	0	0	0
6	0	0	0	0	0	0	0	24	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	1	29	5	0	0	0	0
9	0	0	0	0	0	2	0	30	0	1	38	0
10	1	0	0	0	0	25	0	15	51	49	0	0
11	0	0	0	0	0	7	3	0	18	9	3	0
12	0	0	0	0	0	0	10	2	41	9	0	0
13	0	0	0	0	0	0	7	3	0	34	0	0
14	0	0	0	0	0	0	40	17	1	31	0	0
15	1	0	0	0	0	1	32	1	1	0	0	0
16	0	0	0	2	0	0	11	0	50	0	0	0
17	0	0	0	0	0	0	0	66	1	0	0	0
18	0	12	0	0	0	1	0	27	0	0	0	0
19	0	0	0	0	0	0	0	88	1	0	8	5
20	0	0	0	0	0	0	1	1	0	0	1	0
21	0	0	3	0	0	0	1	8	6	2	0	0
22	0	0	0	0	1	3	1	29	75	0	0	0
23	4	0	0	0	1	0	0	8	4	0	0	0
24	0	0	0	0	2	0	0	20	0	0	1	0
25	0	0	0	0	5	0	30	108	5	0	1	0
26	0	0	0	0	1	0	66	52	6	0	0	0
27	0	0	0	0	0	0	53	0	0	0	0	0
28	0	0	0	0	4	3	56	0	0	0	0	0
29	0		0	0	0	0	75	0	0	0	0	0
30	2		0	0	1	9	9	58	5	0	0	0
31	0		0		0		0	2		1		0

Monthly Total	9	20	3	2	74	54	454	580	300	139	83	5
Average	0.29	0.71	0.10	0.07	2.39	1.80	14.65	18.71	10.00	4.48	2.77	0.16
Max daily rain	4	12	3	2	35	25	75	108	75	49	38	5
Day of Max Daily	23	18	21	16	3	10	29	25	22	10	9	19
No. of Rain days	5	4	1	1	10	11	19	24	16	9	9	1
Max 1-hr rain	2	8	2	1	31	21	31	53	51	43	11	2
Day of max 1-hr	23	18	22	16	3	10	14	17	23	10	1	20

Total rain for the year	1723
Total rain days for the year	110

Daily Point Rainfall in millimeters

2017

Station:

San_Rafael

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0	0	2	2	5	2	40	0
2	0	0	0	0	0	0	29	2	0	4	1	0
3	0	0	0	0	0	0	33	7	0	0	28	1
4	0	0	0	0	0	0	0	0	0	1	4	0
5	0	0	0	0	0	0	30	3	0	0	1	0
6	0	0	0	0	0	0	19	48	1	0	0	0
7	0	0	0	71	0	0	1	18	0	2	0	0
8	0	0	0	0	0	0	1	19	0	0	1	0
9	0	0	0	0	0	14	8	0	0	2	39	0
10	0	0	0	0	0	4	0	36	1	4	0	0
11	0	0	0	0	0	0	1	0	62	0	0	0
12	0	0	0	0	0	0	12	0	21	13	0	0
13	0	0	0	0	0	0	26	0	4	52	0	0
14	0	0	0	0	0	0	10	0	0	36	0	0
15	0	0	0	0	0	1	9	0	0	0	0	0
16	0	0	0	0	0	0	5	4	29	0	0	0
17	0	0	0	0	0	0	0	0	3	0	1	0
18	0	0	0	0	0	0	2	4	1	0	0	15
19	0	0	0	0	0	0	0	28	48	0	8	20
20	0	0	0	0	0	2	14	0	1	0	0	0
21	0	0	0	0	0	14	24	5	10	0	0	0
22	12	0	0	0	0	1	12	4	17	2	0	0
23	1	0	0	0	0	0	0	0	0	0	8	0
24	0	0	0	0	0	0	4	4	0	0	14	0
25	0	0	0	0	0	7	30	77	13	0	0	0
26	0	0	0	0	0	1	51	1	13	0	0	3
27	0	0	0	0	0	0	36	0	0	0	0	2
28	0	0	0	0	0	0	14	42	0	0	0	0
29	0		0	0	0	1	7	0	6	0	4	0
30	0		0	0	0	1	1	4	5	22	3	0
31	0		0		0		2	1		21		0

Monthly Total	13	0	0	71	0	46	383	309	240	161	152	41
Average	0.42	0.00	0.00	2.37	0.00	1.53	12.35	9.97	8.00	5.19	5.07	1.32
Max daily rain	12	0	0	71	0	14	51	77	62	52	40	20
Day of Max Daily	22			7		9	26	25	11	13	1	19
No. of Rain days	2	0	0	1	0	10	26	19	17	12	13	5
Max 1-hr rain	4	0	0	71	0	10	25	36	37	18	14	8
Day of max 1-hr	23			7		10	2	28	12	14	4	19

Total rain for the year

1416

Total rain days for the year

105

Daily Point Rainfall in millimeters

2017	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	0.0	1.3	3.8	2.5	0.0	47.8	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.6	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	1.0	0.0	17.3	2.8	0.0	0.0	1.3	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	0.8	0.3	2.5	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	5.1	8.1	0.0	0.0	0.5	0.0
6	0.0	0.0	0.0	0.0	2.5	0.0	5.6	23.4	1.5	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
8	0.0	0.0	0.0	0.0	0.0	4.8	8.6	34.8	0.0	0.0	0.0	0.0
9	0.0	0.3	0.0	0.8	0.0	2.5	1.5	2.0	0.0	1.0	40.9	0.0
10	2.8	0.0	0.0	0.0	0.0	8.6	1.5	17.5	2.8	34.3	4.3	0.0
11	0.3	0.0	0.0	0.0	0.0	3.8	2.5	0.0	27.7	6.4	0.3	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	24.1	0.3	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	16.8	0.0	0.5	25.7	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	24.4	0.0	1.3	32.5	0.0	0.0
15	1.3	0.0	0.0	0.0	0.0	0.3	35.1	0.0	0.3	0.5	0.0	0.0
16	0.0	0.0	0.0	0.3	0.0	0.0	21.1	0.0	53.6	0.5	0.0	0.0
17	0.0	0.0	0.0	0.0	49.5	0.0	0.0	4.8	2.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.3	6.9	0.0	50.8	0.0	0.0	0.0	3.6
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.0	5.8	0.0	17.8	7.6
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3	1.0	2.5	1.0	0.0
21	0.0	0.0	2.5	0.0	0.0	0.3	28.2	2.0	0.5	0.8	0.0	0.0
22	5.1	0.0	0.0	0.0	18.3	16.3	1.5	21.8	33.5	0.0	0.0	0.0
23	0.5	0.0	0.0	10.7	18.8	0.0	0.0	23.9	0.8	0.3	0.0	0.0
24	0.0	0.0	0.0	0.0	0.8	0.0	8.9	5.1	0.0	0.0	7.1	0.0
25	0.5	0.0	0.0	0.3	2.8	0.0	9.4	52.1	6.6	0.0	0.5	0.0
26	0.0	0.0	0.0	0.0	0.8	0.0	61.5	20.1	8.4	0.0	0.0	0.8
27	0.0	0.0	0.0	0.0	0.3	0.0	33.8	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	7.4	67.3	2.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.8	0.0	37.6	0.0	1.5	0.0	0.3	0.0
30	0.0		0.0	0.0	0.0	0.8	4.6	4.1	9.1	3.6	0.5	0.0
31	0.5		0.0		28.4		5.1	1.8		0.0		0.0

Monthly Total	10.9	0.3	2.5	11.9	124.2	51.6	459.5	401.8	184.4	108.5	125.5	11.9
Average	0.35	0.01	0.08	0.40	4.01	1.72	14.82	12.96	6.15	3.50	4.18	0.39
Max daily rain	5.1	0.3	2.5	10.7	49.5	16.3	67.3	97.0	53.6	34.3	47.8	7.6
Day of Max Daily	22	9		23	17	22	28	19	16	10	1	19
No. of Rain days	7	1	1	4	12	10	25	21	20	13	14	3
Max 1-hr rain	4.1	0.5	2.3	10.7	41.9	13	26.4	29.2	45.7	25.7	22.9	4.3
Day of max 1-hr	23	1	22	23	17	22	15	8	16	10	10	20

Total rain for the year

1493.0

Total rain days for the year

131

Values in red are estimated 1-hr maximum for the month.

Table 1.0

Monthly Rainfall Summary for 2017															
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	14	20	7	16	247	219	255	297	105	78	175	4	1437	101	123
Sapang Buho	30	35	3	22	190	185	206	348	241	86	189	31	1566	130	70
Gabalдон	135	131	50	32	182	146	373	478	301	170	627	80	2705	163	190
Zaragoza	9	4	0	4	152	117	309	466	228	48	117	30	1484	112	90
Mayapyap															
Peñaranda	35	5	23	86	111	154	178	410	170	107	229	52	1560	131	152
Calaanan	41	48	9	26	219	98	322	474	238	103	331	40	1949	131	126
Palali	42	36	78	20	168	89	216	345	213	126	258	59	1650	150	111
San Isidro	15	8	0	64	106	181	246	375	240	123	149	46	1553	113	131
Arayat	8	0	1	30	104	53	272	407	139	109	149	27	1299	110	77
Candaba	15	2	0	23	97	134	348	221	122	91	151	25	1229	118	80
Sibul Spring	49	9	10	60	217	176	323	260	270	145	220	135	1874	159	99
Sasmuan	6	3	11	4	18	69	569	232	234	134	75	26	1381	93	100
Sulipan	24	2	3	13	64	162	404	273	213	158	95	29	1440	119	71
Mexico	11	0	3	7	92	61	488	393	149	123	84	16	1427	89	83
Porac	9	20	3	2	74	54	454	580	300	139	83	5	1723	110	108
San Rafael	13	0	0	71	0	46	383	309	240	161	152	41	1416	105	77
PRFFWC	10.9	0.3	2.5	11.9	124.2	51.6	459.5	401.8	184.4	108.5	125.5	11.9	1493.0	131	97.0

Mayapyap RR - out of order; no data for the whole year.

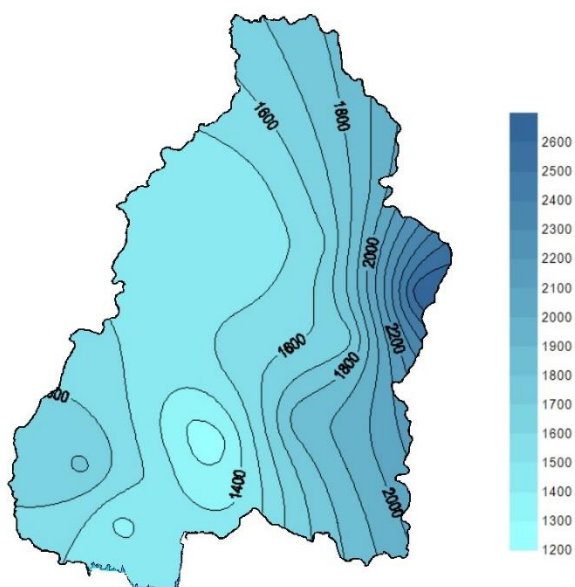


Figure 1a. The estimated Isohyet annual rainfall for year 2017 in the Pampanga River Basin

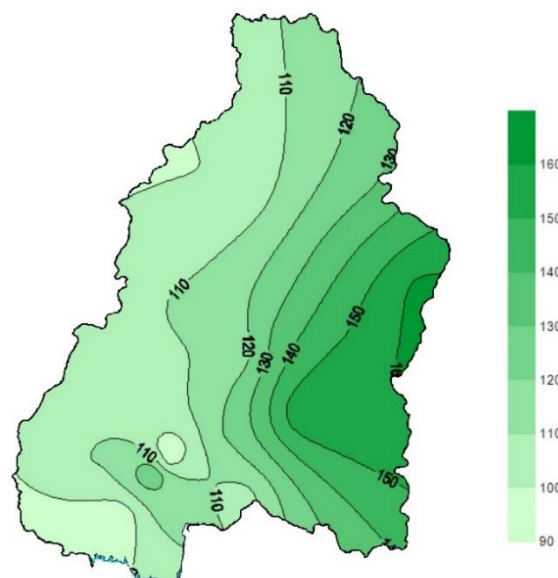


Figure 1b. Estimated rainfall days distribution (2017) in the Pampanga River Basin

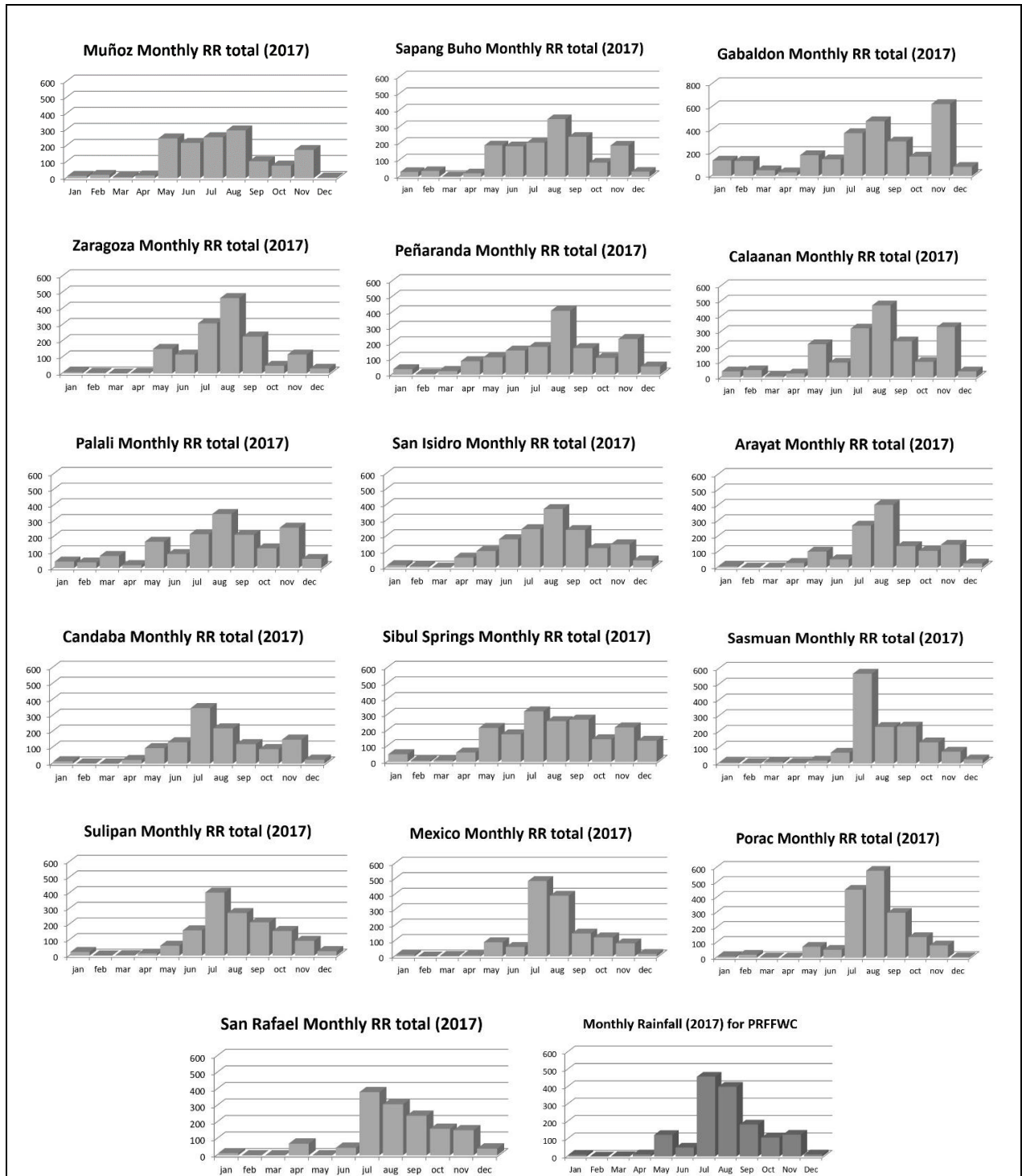


Figure 2. Monthly Rainfall distribution (hyetograph) of each monitoring station of PRFFWC within the Pampanga River Basin for the year 2017.

B. WATER LEVEL Data Summary Presentation



Water Level in meters (Daily Average)

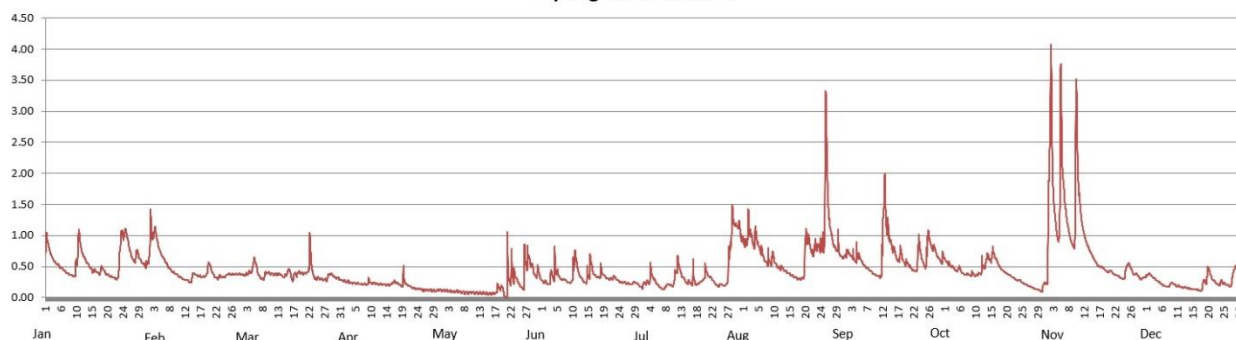
2017

Station: **Sapang_Buho**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.91	0.76	0.37	0.27	0.12	0.25	0.20	0.87	0.72	0.59	1.18	0.36
2	0.74	1.04	0.36	0.26	0.12	0.23	0.24	1.10	0.68	0.54	2.91	0.38
3	0.61	1.04	0.39	0.25	0.11	0.34	0.32	0.97	0.63	0.49	1.38	0.32
4	0.54	0.81	0.42	0.24	0.10	0.41	0.33	0.97	0.64	0.43	0.99	0.28
5	0.52	0.74	0.50	0.23	0.10	0.40	0.28	0.91	0.64	0.45	1.82	0.26
6	0.45	0.58	0.42	0.22	0.10	0.31	0.17	0.72	0.53	0.40	1.63	0.20
7	0.40	0.49	0.32	0.21	0.09	0.29	0.14	0.61	0.47	0.38	1.16	0.18
8	0.37	0.42	0.34	0.21	0.08	0.26	0.19	0.60	0.43	0.37	0.91	0.21
9	0.35	0.39	0.41	0.25	0.08	0.25	0.21	0.62	0.39	0.39	1.22	0.22
10	0.58	0.35	0.39	0.23	0.08	0.55	0.20	0.59	0.35	0.36	2.37	0.19
11	0.94	0.31	0.38	0.23	0.08	0.53	0.42	0.50	0.36	0.39	1.34	0.18
12	0.68	0.29	0.38	0.22	0.08	0.34	0.52	0.48	1.35	0.49	1.01	0.16
13	0.58	0.27	0.37	0.22	0.07	0.27	0.34	0.44	1.23	0.54	0.84	0.16
14	0.49	0.31	0.34	0.21	0.07	0.32	0.26	0.40	0.92	0.64	0.72	0.15
15	0.44	0.38	0.41	0.21	0.07	0.49	0.25	0.36	0.78	0.68	0.62	0.14
16	0.42	0.35	0.37	0.24	0.07	0.40	0.29	0.33	0.64	0.65	0.53	0.13
17	0.41	0.34	0.35	0.25	0.07	0.34	0.23	0.31	0.69	0.53	0.50	0.11
18	0.46	0.35	0.39	0.21	0.17	0.38	0.24	0.31	0.60	0.45	0.46	0.21
19	0.39	0.50	0.40	0.24	0.16	0.37	0.28	0.58	0.55	0.41	0.42	0.29
20	0.35	0.44	0.39	0.22	0.04	0.32	0.40	0.98	0.50	0.37	0.43	0.42
21	0.32	0.34	0.41	0.19	0.31	0.30	0.35	0.78	0.45	0.34	0.38	0.29
22	0.31	0.32	0.67	0.16	0.35	0.32	0.29	0.79	0.49	0.30	0.36	0.24
23	0.62	0.34	0.37	0.15	0.32	0.29	0.22	0.81	0.81	0.28	0.32	0.22
24	1.02	0.34	0.31	0.14	0.26	0.26	0.19	0.80	0.58	0.25	0.32	0.25
25	1.04	0.37	0.31	0.13	0.17	0.25	0.21	1.43	0.66	0.22	0.51	0.21
26	0.81	0.37	0.29	0.12	0.40	0.23	0.20	2.02	0.96	0.19	0.49	0.19
27	0.63	0.38	0.31	0.12	0.62	0.22	0.53	1.09	0.80	0.17	0.39	0.33
28	0.67	0.38	0.38	0.12	0.54	0.24	1.13	0.85	0.72	0.15	0.37	0.48
29	0.66	0.00	0.35	0.11	0.39	0.23	1.17	0.80	0.61	0.13	0.31	0.37
30	0.56		0.32	0.13	0.41	0.19	1.16	0.68	0.62	0.12	0.32	0.27
31	0.52		0.29		0.31		0.95	0.66		0.23		0.22

Max WL observed	1.11	1.42	1.04	0.51	1.06	0.83	1.49	3.33	2.00	0.83	4.07	0.51
Day of Max WL	25	2	22	21	21	5	28	26	13	16	2	28

Sapang Buho WL 2017

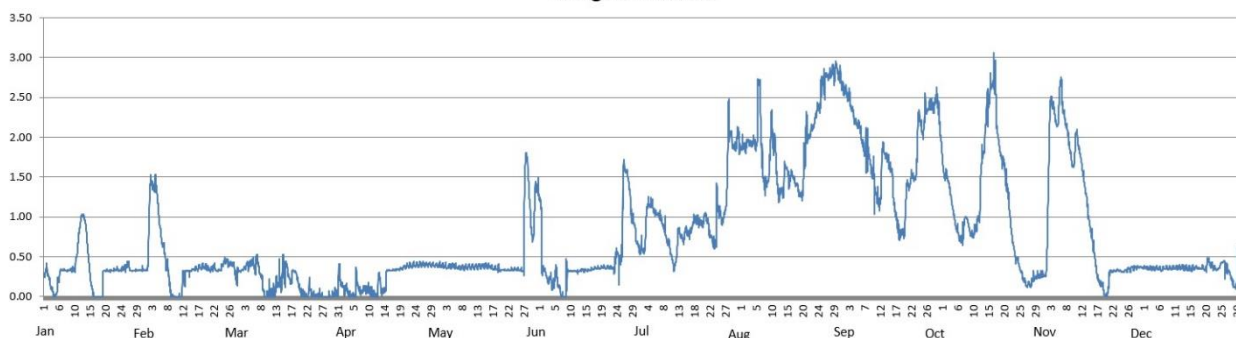


Water Level in meters (Daily Average)

2017	Station: Zaragoza											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.30	0.41	0.33	0.17	0.39	0.57	0.60	1.88	2.57	1.59	0.34	0.36
2	0.27	1.33	0.34	0.09	0.39	0.30	0.62	1.90	2.51	1.51	1.72	0.35
3	0.10	1.37	0.39	0.06	0.37	0.21	1.12	1.93	2.37	1.31	2.44	0.35
4	0.01	1.29	0.41	0.01	0.38	0.16	1.15	1.93	2.22	1.05	2.23	0.35
5	0.10	1.07	0.41	0.02	0.38	0.22	1.11	1.92	2.18	0.94	2.32	0.36
6	0.34	0.61	0.41	0.17	0.38	0.14	1.04	2.58	2.00	0.74	2.51	0.35
7	0.34	0.38	0.35	0.06	0.36	0.01	0.98	1.64	1.86	0.82	2.20	0.36
8	0.33	0.11	0.17	0.09	0.37	0.05	0.86	1.41	1.72	0.97	1.95	0.36
9	0.34	0.00	0.01	0.09	0.37	0.32	0.70	1.66	1.60	0.82	1.70	0.36
10	0.38	0.00	0.03	0.05	0.37	0.33	0.57	2.04	1.41	0.79	1.90	0.36
11	0.66	0.00	0.06	0.02	0.38	0.33	0.39	1.73	1.20	0.90	1.89	0.36
12	0.97	0.22	0.11	0.10	0.38	0.32	0.61	1.29	1.47	1.23	1.65	0.36
13	0.96	0.32	0.19	0.13	0.38	0.34	0.78	1.31	1.81	1.78	1.35	0.36
14	0.58	0.32	0.24	0.07	0.39	0.33	0.74	1.62	1.72	2.28	1.03	0.35
15	0.17	0.35	0.32	0.30	0.39	0.33	0.80	1.49	1.58	2.53	0.74	0.35
16	0.01	0.35	0.27	0.33	0.38	0.35	0.81	1.52	1.16	2.66	0.47	0.37
17	0.00	0.37	0.26	0.34	0.36	0.36	0.94	1.43	0.89	2.31	0.21	0.37
18	0.00	0.38	0.31	0.35	0.36	0.36	0.96	1.31	0.80	1.87	0.15	0.36
19	0.31	0.36	0.16	0.35	0.35	0.37	0.92	1.33	0.86	1.70	0.03	0.36
20	0.33	0.34	0.04	0.37	0.34	0.36	0.95	1.89	1.37	1.45	0.13	0.40
21	0.33	0.37	0.02	0.38	0.34	0.37	0.97	2.02	1.47	1.09	0.32	0.41
22	0.34	0.34	0.05	0.38	0.34	0.37	0.79	2.10	1.49	0.69	0.33	0.37
23	0.34	0.34	0.04	0.39	0.34	0.41	0.68	2.24	1.92	0.49	0.33	0.35
24	0.34	0.41	0.01	0.40	0.34	0.51	0.98	2.37	2.17	0.38	0.32	0.39
25	0.35	0.45	0.01	0.40	0.34	0.56	1.05	2.69	2.18	0.25	0.33	0.43
26	0.40	0.41	0.00	0.40	0.35	1.56	0.98	2.74	2.33	0.16	0.34	0.33
27	0.34	0.41	0.00	0.40	1.60	1.50	1.34	2.78	2.40	0.16	0.36	0.28
28	0.33	0.24	0.00	0.40	1.35	1.11	2.16	2.84	2.40	0.22	0.37	0.16
29	0.33		0.01	0.40	0.79	0.89	1.90	2.82	2.48	0.24	0.37	0.17
30	0.33		0.03	0.39	1.26	0.66	1.93	2.79	2.08	0.25	0.37	0.27
31	0.34		0.17		1.29		1.90	2.71		0.26		0.41

Max WL observed	1.03	1.53	0.53	0.44	1.81	1.72	2.48	2.96	2.66	3.06	2.76	0.63
Day of Max WL	13	3	7	23	27	26	28	30	2	17	6	30

Zaragoza WL 2017

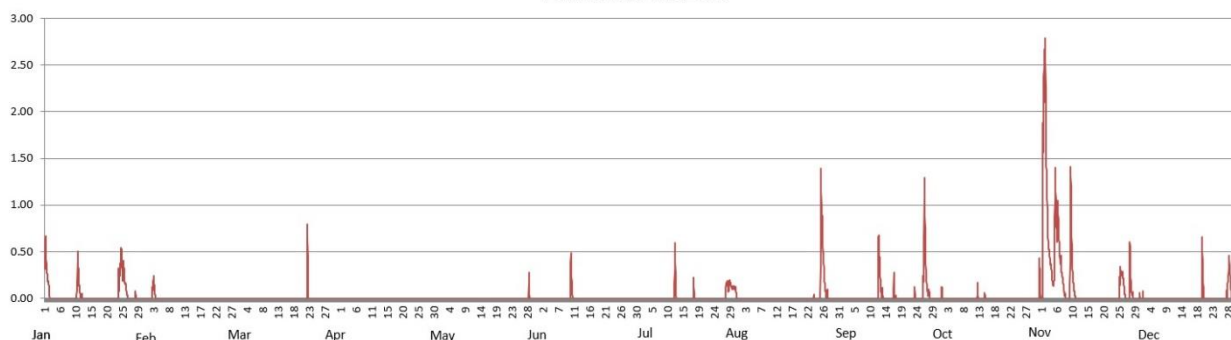


Water Level in meters (Daily Average)

2017	Station: Peñaranda											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	1.31	0.01
2	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00
3	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00
10	0.04	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.38	0.00
11	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
12	0.01	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.30	0.02	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	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	0.00	0.02	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.02	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	0.06
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
24	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
25	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.02	0.00	0.26	0.00
26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.60	0.00	0.05	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.06	0.00	0.09	0.07
28	0.01	0.00	0.00	0.00	0.04	0.00	0.14	0.00	0.00	0.00	0.14	0.25
29	0.00		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01	0.00
31	0.00		0.00		0.00		0.00	0.00		0.10		0.00

Max WL observed	0.67	0.24	0.79	0.00	0.28	0.49	0.59	1.39	1.29	0.43	2.79	0.66
Day of Max WL	1	3	22		29	10	12	26	26	31	2	20

Peñaranda WL 2017

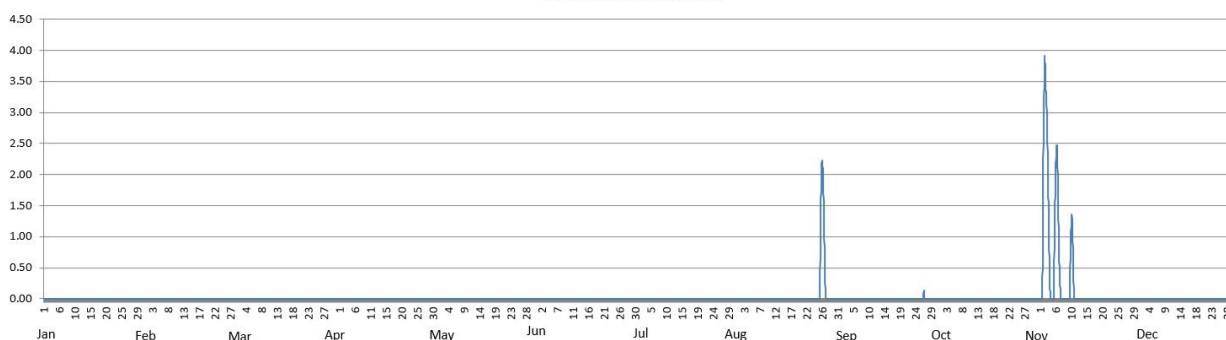


Water Level in meters (Daily Average)

2017		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	0.00	0.00	0.00	0.45	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
8	0.00	0.00	0.00	0.00	0.00	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	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	0.00	0.00	0.00	0.95	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
12	0.00	0.00	0.00	0.00	0.00	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	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	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	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	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	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	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	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	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	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	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	0.00	0.15	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	0.02	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.00

Max WL observed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	0.13	3.91	0.00	0.00
Day of Max WL								26	26	2		

San Isidro WL 2017

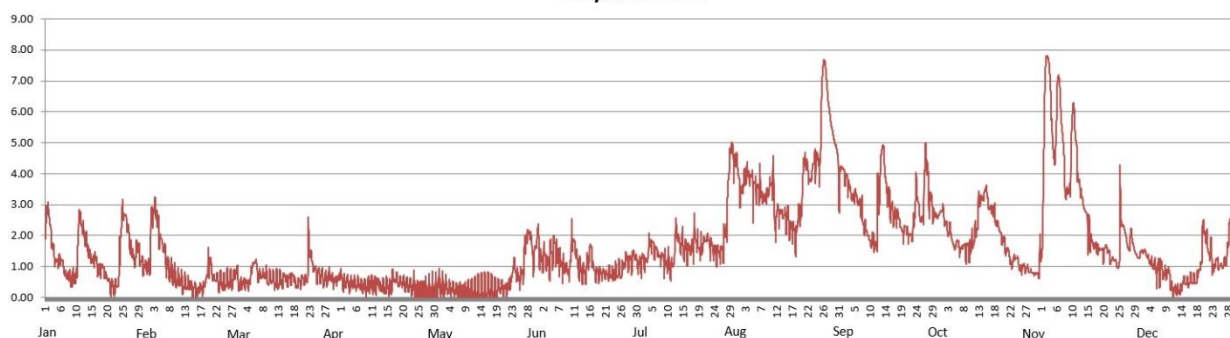


Water Level in meters (Daily Average)

2017		Station: Arayat										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.59	1.00	0.38	0.64	0.39	1.22	1.09	3.37	4.15	2.81	2.91	1.45
2	2.47	2.15	0.45	0.43	0.31	1.33	1.21	3.75	3.87	2.55	7.43	1.50
3	1.60	2.88	0.43	0.45	0.37	1.17	1.16	4.10	3.55	2.15	7.28	1.31
4	1.16	2.40	0.51	0.43	0.29	1.43	1.70	3.92	3.25	2.06	5.15	1.12
5	1.17	2.14	0.75	0.44	0.28	1.56	1.71	3.74	3.27	1.85	5.21	1.07
6	1.09	1.51	1.05	0.44	0.21	1.45	1.56	3.48	3.06	1.78	6.89	0.88
7	0.71	1.06	0.68	0.36	0.23	1.08	1.33	3.50	2.56	1.53	5.27	0.89
8	0.69	0.82	0.71	0.35	0.18	0.98	1.30	3.21	2.22	1.66	3.55	0.77
9	0.58	0.67	0.72	0.35	0.17	0.85	1.08	3.30	1.92	1.55	3.47	0.79
10	0.72	0.54	0.58	0.43	0.17	1.41	1.03	3.65	1.84	1.62	5.62	0.51
11	2.41	0.56	0.62	0.40	0.17	1.73	1.07	3.19	1.69	1.91	5.19	0.22
12	2.29	0.41	0.53	0.46	0.20	1.17	1.92	2.71	3.37	2.35	3.78	0.22
13	1.89	0.39	0.52	0.33	0.23	0.93	1.84	2.72	4.76	3.20	3.22	0.23
14	1.47	0.37	0.51	0.30	0.24	0.80	1.71	2.67	3.93	3.31	2.79	0.51
15	1.19	0.26	0.62	0.37	0.26	1.03	1.55	2.62	3.24	3.33	2.13	0.45
16	1.22	0.16	0.60	0.29	0.27	1.50	1.55	2.25	2.79	2.91	1.82	0.54
17	0.94	0.31	0.65	0.64	0.27	0.95	1.59	2.16	2.59	2.82	1.67	0.55
18	0.94	0.33	0.46	0.55	0.24	0.79	2.01	2.26	2.60	2.43	1.59	0.61
19	0.74	0.80	0.50	0.51	0.34	0.76	1.62	2.70	2.14	2.09	1.53	0.99
20	0.52	1.02	0.57	0.47	0.31	0.80	1.64	4.11	2.23	1.86	1.55	2.12
21	0.33	0.63	0.58	0.40	0.26	0.75	1.86	4.22	2.02	1.51	1.48	1.85
22	0.31	0.57	1.40	0.36	0.40	0.77	1.81	3.78	2.03	1.23	1.20	1.54
23	0.78	0.51	1.26	0.37	0.71	0.79	1.66	4.31	2.99	1.19	1.18	0.93
24	2.46	0.42	0.89	0.23	0.94	0.80	1.44	4.49	3.05	1.28	1.20	1.18
25	2.63	0.55	0.74	0.25	0.63	0.83	1.51	4.70	2.54	0.96	2.76	1.00
26	2.15	0.52	0.67	0.23	0.78	1.03	1.49	7.37	4.10	0.98	2.16	1.04
27	1.55	0.57	0.59	0.18	1.58	1.22	1.99	7.05	3.75	0.93	1.64	1.36
28	1.24	0.83	0.68	0.24	2.03	1.17	3.55	5.96	3.16	0.85	1.96	2.21
29	1.52		0.62	0.25	1.75	1.33	4.87	5.28	2.68	0.78	1.55	1.61
30	1.15		0.52	0.30	1.42	1.21	4.37	4.82	2.62	0.78	1.31	1.29
31	0.99		0.60		1.84		4.14	3.75		1.22		1.04

Max WL observed	3.18	3.24	2.60	0.95	2.38	2.53	5.01	7.68	5.00	3.64	7.81	2.55
Day of Max WL	25	3	22	1	31	11	29	27	27	23	3	29

Arayat WL 2017

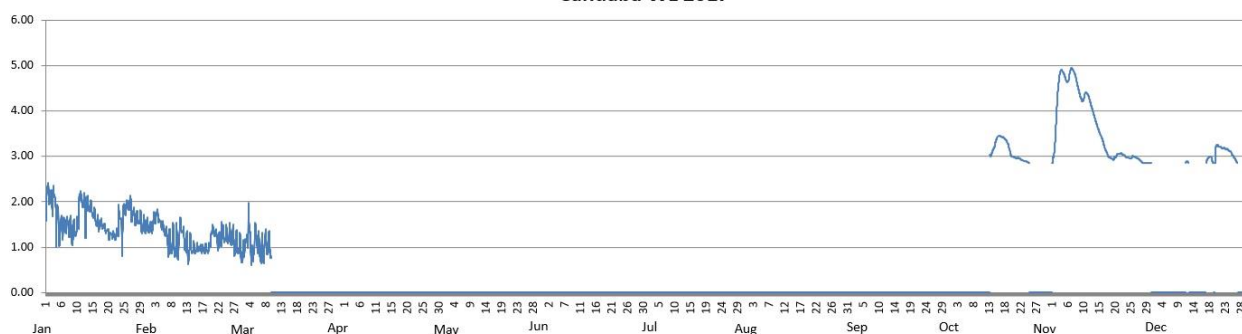


Water Level in meters (Daily Average)

2017		Station: Candaba										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.16	1.41	0.85								3.04	
2	2.09	1.53	1.10								4.06	
3	2.04	1.69	1.39								4.82	
4	1.70	1.58	0.82								4.82	
5	1.55	1.51	1.05								4.74	
6	1.47	1.28	1.00								4.85	
7	1.50	1.06	0.88								4.88	
8	1.43	1.10	1.07								4.64	
9	1.31	1.03	1.02								4.34	
10	1.42	1.27	0.78								4.26	
11	1.99	1.33									4.38	2.88
12	2.01	1.05									4.21	2.87
13	1.79	0.95								3.04	3.96	
14	1.87	0.96								3.20	3.72	
15	1.74	0.95								3.41	3.51	
16	1.58	0.97								3.45	3.31	
17	1.48	0.95								3.40	3.09	2.90
18	1.47	0.95								3.30	2.97	2.98
19	1.37	1.00								3.07	2.95	2.91
20	1.28	1.37								2.98	3.02	3.17
21	1.26	1.28								2.96	3.06	3.22
22	1.28	1.10								2.94	3.04	3.18
23	1.65	1.30								2.90	2.99	3.17
24	1.59	1.24								2.88	2.96	3.13
25	1.87	1.24								2.86	3.00	3.04
26	1.94	1.19									2.97	2.92
27	1.73	1.02									2.92	2.85
28	1.60	1.02									2.87	
29	1.61										2.85	
30	1.46										2.85	
31	1.45											

Max WL observed	2.42	1.83	1.98							3.46	4.95	3.25
Day of Max WL	2	4	3							16	7	21

Candaba WL 2017



Water Level in meters (Daily Average)

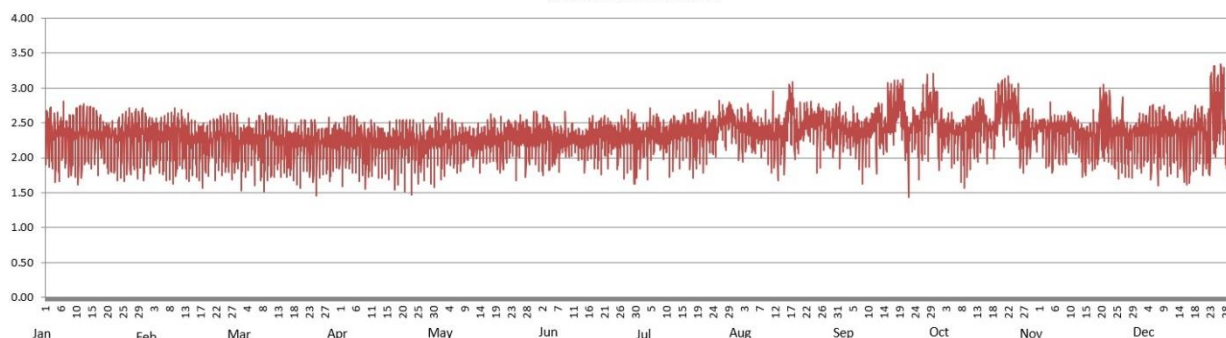
2017

Station: **Sasmuan**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.38	2.32	2.20	2.22	2.25	2.28	2.26	2.39	2.38	2.37	2.47	2.38
2	2.37	2.24	2.18	2.23	2.25	2.27	2.25	2.38	2.38	2.37	2.43	2.32
3	2.27	2.26	2.21	2.25	2.28	2.33	2.27	2.41	2.35	2.36	2.39	2.32
4	2.26	2.22	2.30	2.23	2.27	2.25	2.31	2.40	2.35	2.38	2.46	2.32
5	2.27	2.22	2.25	2.25	2.26	2.25	2.32	2.38	2.37	2.38	2.41	2.32
6	2.31	2.22	2.25	2.26	2.23	2.27	2.31	2.37	2.38	2.31	2.41	2.38
7	2.28	2.30	2.26	2.23	2.24	2.24	2.36	2.32	2.31	2.36	2.33	2.34
8	2.26	2.23	2.23	2.20	2.23	2.25	2.28	2.34	2.34	2.29	2.33	2.40
9	2.28	2.26	2.25	2.19	2.24	2.32	2.33	2.40	2.32	2.35	2.35	2.38
10	2.35	2.30	2.26	2.23	2.22	2.27	2.28	2.33	2.35	2.38	2.48	2.34
11	2.35	2.32	2.23	2.24	2.23	2.30	2.40	2.30	2.49	2.46	2.40	2.26
12	2.38	2.24	2.22	2.21	2.22	2.27	2.34	2.34	2.54	2.45	2.36	2.31
13	2.32	2.24	2.21	2.21	2.22	2.26	2.34	2.28	2.46	2.49	2.33	2.26
14	2.35	2.18	2.22	2.20	2.23	2.21	2.37	2.32	2.41	2.59	2.26	2.31
15	2.34	2.23	2.18	2.18	2.25	2.28	2.36	2.37	2.45	2.47	2.29	2.28
16	2.32	2.20	2.18	2.18	2.23	2.31	2.37	2.73	2.66	2.41	2.30	2.31
17	2.33	2.21	2.17	2.19	2.27	2.31	2.32	2.65	2.67	2.41	2.29	2.31
18	2.30	2.21	2.17	2.22	2.25	2.25	2.30	2.32	2.74	2.53	2.30	2.42
19	2.27	2.18	2.18	2.24	2.24	2.27	2.27	2.37	2.79	2.67	2.59	2.39
20	2.19	2.23	2.21	2.18	2.22	2.30	2.35	2.41	2.60	2.83	2.59	2.36
21	2.24	2.26	2.25	2.25	2.28	2.30	2.37	2.50	2.30	2.69	2.55	2.27
22	2.20	2.25	2.19	2.22	2.30	2.32	2.35	2.50	2.32	2.80	2.49	2.30
23	2.27	2.28	2.23	2.23	2.28	2.30	2.36	2.52	2.49	2.71	2.34	2.59
24	2.26	2.24	2.22	2.20	2.31	2.29	2.38	2.50	2.40	2.67	2.33	2.74
25	2.30	2.27	2.21	2.20	2.28	2.27	2.39	2.50	2.40	2.57	2.26	2.74
26	2.34	2.26	2.21	2.21	2.34	2.32	2.54	2.50	2.58	2.31	2.35	2.83
27	2.31	2.22	2.20	2.21	2.26	2.29	2.56	2.45	2.72	2.37	2.30	2.61
28	2.32	2.24	2.19	2.22	2.29	2.32	2.53	2.40	2.64	2.38	2.26	2.24
29	2.31		2.18	2.20	2.27	2.33	2.60	2.41	2.74	2.34	2.29	2.27
30	2.38		2.24	2.24	2.30	2.32	2.48	2.45	2.77	2.41	2.33	2.26
31	2.27		2.24		2.32		2.43	2.50		2.38		2.23

Max WL observed	2.81	2.71	2.69	2.60	2.67	2.69	2.82	3.09	3.21	3.17	3.05	3.34
Day of Max WL	6	9	9	4	30	28	26	17	29	22	20	26

Sasmuan WL 2017

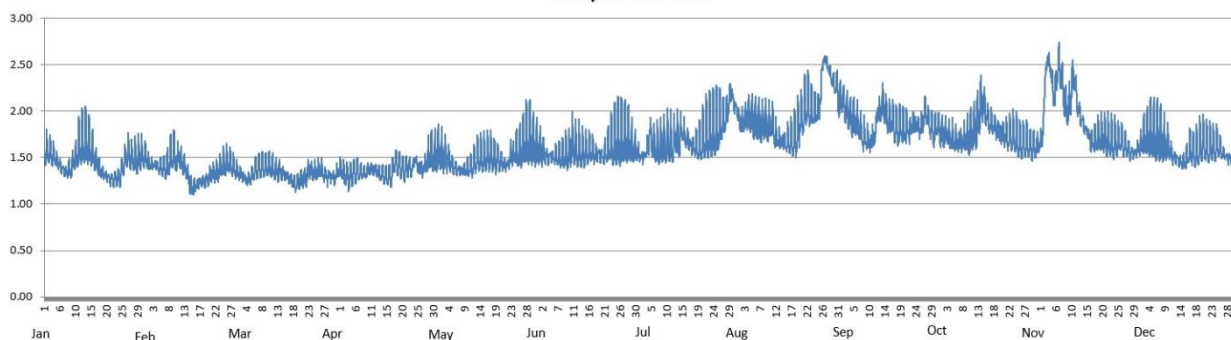


Water Level in meters (Daily Average)

2017		Station: Sulipan										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.55	1.47	1.33	1.37	1.54	1.57	1.54	1.87	2.11	1.77	1.73	1.63
2	1.55	1.42	1.31	1.32	1.53	1.57	1.51	1.89	2.01	1.74	2.29	1.68
3	1.52	1.42	1.27	1.30	1.51	1.52	1.54	1.93	1.94	1.75	2.54	1.70
4	1.49	1.41	1.26	1.30	1.48	1.51	1.67	1.93	1.88	1.71	2.34	1.72
5	1.46	1.40	1.28	1.32	1.45	1.50	1.66	1.90	1.88	1.71	2.27	1.72
6	1.39	1.39	1.37	1.35	1.39	1.50	1.60	1.86	1.83	1.69	2.49	1.70
7	1.36	1.41	1.38	1.33	1.37	1.50	1.60	1.84	1.76	1.70	2.32	1.68
8	1.36	1.47	1.40	1.33	1.36	1.51	1.61	1.85	1.73	1.70	2.08	1.64
9	1.41	1.52	1.39	1.35	1.36	1.52	1.63	1.84	1.70	1.70	2.03	1.62
10	1.49	1.47	1.40	1.38	1.38	1.57	1.65	1.86	1.70	1.71	2.22	1.58
11	1.58	1.48	1.39	1.37	1.39	1.63	1.63	1.84	1.76	1.80	2.30	1.51
12	1.64	1.41	1.36	1.36	1.44	1.59	1.69	1.72	2.00	1.83	2.04	1.50
13	1.64	1.35	1.35	1.32	1.49	1.58	1.69	1.69	2.04	1.99	1.92	1.47
14	1.60	1.23	1.34	1.30	1.49	1.55	1.77	1.68	2.00	2.06	1.82	1.45
15	1.55	1.17	1.31	1.29	1.51	1.56	1.74	1.67	1.91	1.96	1.77	1.48
16	1.47	1.20	1.29	1.29	1.52	1.58	1.69	1.66	1.89	1.86	1.68	1.57
17	1.41	1.23	1.25	1.37	1.52	1.56	1.63	1.67	1.81	1.84	1.68	1.55
18	1.34	1.25	1.21	1.44	1.49	1.53	1.61	1.71	1.79	1.81	1.71	1.56
19	1.31	1.26	1.24	1.41	1.48	1.53	1.60	1.86	1.82	1.78	1.72	1.61
20	1.29	1.30	1.27	1.38	1.45	1.51	1.64	1.92	1.80	1.76	1.71	1.65
21	1.27	1.33	1.29	1.39	1.43	1.55	1.70	2.04	1.82	1.74	1.68	1.63
22	1.27	1.33	1.34	1.39	1.43	1.59	1.73	2.03	1.80	1.72	1.68	1.60
23	1.28	1.37	1.35	1.39	1.49	1.61	1.75	2.01	1.86	1.72	1.67	1.62
24	1.32	1.41	1.34	1.46	1.52	1.64	1.78	2.00	1.84	1.71	1.65	1.60
25	1.45	1.42	1.35	1.39	1.54	1.66	1.82	2.05	1.83	1.65	1.68	1.62
26	1.53	1.44	1.37	1.37	1.56	1.68	1.87	2.44	1.95	1.65	1.62	1.55
27	1.50	1.40	1.31	1.42	1.62	1.67	1.91	2.55	1.95	1.65	1.60	1.52
28	1.49	1.36	1.29	1.49	1.66	1.65	2.01	2.45	1.83	1.62	1.55	1.49
29	1.47		1.29	1.50	1.67	1.61	2.19	2.33	1.77	1.61	1.55	1.50
30	1.50		1.29	1.50	1.61	1.58	2.09	2.27	1.83	1.60	1.58	1.52
31	1.50		1.34		1.60		2.00	2.13		1.63		1.57

Max WL observed	2.05	1.80	1.57	1.82	2.12	2.16	2.30	2.60	2.31	2.39	2.74	2.15
Day of Max WL	14	10	11	30	28	25	29	27	1	14	7	5

Sulipan WL 2017



Water Level in meters (Daily Average)

2017		Station: Mexico										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.31	0.00	0.11	0.00
2	0.00	0.01	0.00	0.00	0.12	0.00	0.00	0.03	0.23	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.16	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.10	0.02	0.00	0.00
5	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.00	0.07	0.01	0.00	0.00
6	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.03	0.00	0.00	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	0.12	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01
10	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.25	0.02	0.02	0.01	0.06
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
12	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.44	0.11	0.00	0.00
13	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.03
14	0.00	0.00	0.05	0.00	0.00	0.00	0.03	0.00	0.00	0.31	0.00	0.04
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.05
16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.06	0.00	0.00	0.05
17	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.08
18	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.06	0.00	0.00	0.00	0.08
19	0.00	0.02	0.00	0.00	0.09	0.00	0.00	0.27	0.00	0.00	0.00	0.00
20	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00
21	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.42	0.09	0.00	0.00	0.00
22	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.38	0.07	0.00	0.02	0.00
23	0.00	0.10	0.04	0.05	0.09	0.00	0.07	0.57	0.47	0.00	0.00	0.00
24	0.00	0.09	0.03	0.19	0.00	0.00	0.00	0.47	0.07	0.00	0.00	0.00
25	0.00	0.11	0.03	0.12	0.00	0.00	0.00	0.60	0.03	0.00	0.00	0.00
26	0.00	0.10	0.00	0.11	0.00	0.00	0.07	0.96	0.04	0.00	0.01	0.00
27	0.00	0.03	0.00	0.20	0.00	0.00	0.14	0.69	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.22	0.00	0.00	0.16	0.57	0.00	0.00	0.00	0.04
29	0.00		0.00	0.15	0.00	0.00	0.30	0.49	0.00	0.00	0.00	0.08
30	0.00		0.00	0.12	0.00	0.00	0.17	0.52	0.00	0.00	0.00	0.08
31	0.00		0.00		0.00		0.03	0.39		0.00		0.09

Max WL observed	0.00	0.15	0.09	0.43	0.85	0.33	0.46	1.74	1.29	0.66	0.59	0.11
Day of Max WL		26	13	28	4	11	28	20	23	14	1	19

Mexico WL 2017

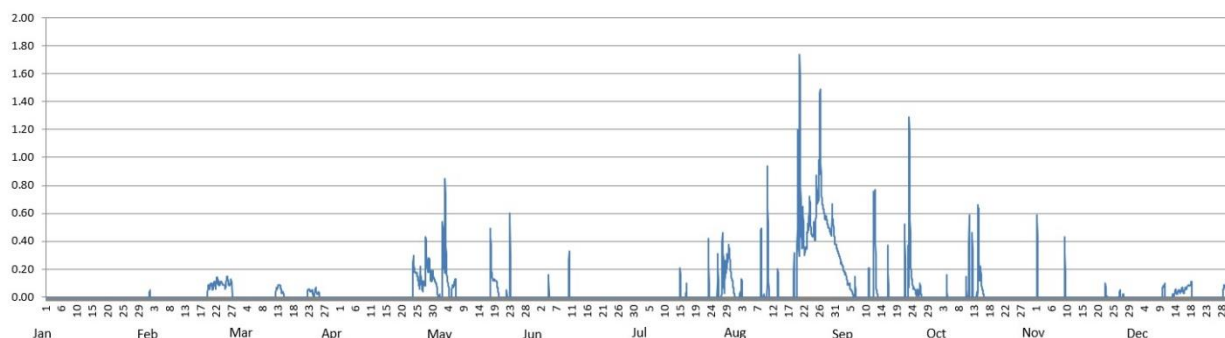


Table 2.0

Maximum WL recorded per station for the year 2017

Station	January	February	March	April	May	June	July	August	September	October	November	December
Sapang Buho	1.11	1.42	1.04	0.51	1.06	0.83	1.49	3.33	2.00	0.83	4.07	0.51
Zaragoza	1.03	1.53	0.53	0.44	1.81	1.72	2.48	2.96	2.66	3.06	2.76	0.63
Mayapyap												
Penaranda	0.67	0.24	0.79	0.00	0.28	0.49	0.59	1.39	1.29	0.43	2.79	0.66
San Isidro	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	0.13	3.91	0.00	0.00
Arayat	3.18	3.24	2.60	0.95	2.38	2.53	5.01	7.68	5.00	3.64	7.81	2.55
Candaba	2.42	1.83	1.98							3.46	4.95	3.25
Sasmuan	2.81	2.71	2.69	2.60	2.67	2.69	2.82	3.09	3.21	3.17	3.05	3.34
Sulipan	2.05	1.80	1.57	1.82	2.12	2.16	2.30	2.60	2.31	2.39	2.74	2.15
Mexico	0.00	0.15	0.09	0.43	0.85	0.33	0.46	1.74	1.29	0.66	0.59	0.11



C. ANNEX

Table A-1.

Maximum Rainfall for a given sliding time period during the year 2017																
Sliding time period (minimum time period of 1 hour)	Rainfall Stations															
	Munoz	Sapang Buho	Gabalidon	Zaragoza	Peñaranda	Calaanan	Palali	San Isidro	Arayat	Candaba	Sibul Spring	Sasmuan	Sulipan	Mexico	Porac	San Rafael
1 hr	53	35	44	36	64	40	37	49	52	62	41	54	53	49	53	71
2 hrs	82	48	74	43	66	70	53	93	64	70	55	67	55	63	88	71
3 hrs	86	53	90	47	74	86	71	106	71	70	70	72	55	65	90	71
4 hrs	87	54	97	74	89	90	86	109	75	73	82	72	56	68	91	71
5 hrs	87	58	103	77	92	103	94	112	76	76	89	73	61	72	91	71
6 hrs	91	58	108	77	95	106	95	112	77	79	94	74	61	72	91	71
7 hrs	106	60	112	80	109	108	96	117	77	80	95	74	61	72	91	71
8 hrs	113	70	118	87	125	108	97	120	77	80	96	74	65	72	91	71
9 hrs	115	70	125	90	136	108	98	123	77	80	96	74	66	72	93	71
10 hrs	118	70	129	90	139	110	98	123	77	80	96	74	66	72	96	73
11 hrs	118	70	131	90	139	119	99	123	77	80	99	82	68	72	98	81
12 hrs	118	70	137	90	139	124	102	126	77	80	99	83	72	72	100	82
18 hrs	122	70	176	90	151	126	108	131	77	80	99	83	75	78	108	82
24 hrs	134	98	241	91	152	142	134	131	79	120	99	100	81	126	121	82
48 hrs (2 days)	161	111	263	96	167	164	151	168	150	126	113	136	107	169	160	113
72 hrs (3 days)	169	120	291	119	172	180	162	186	204	142	113	155	119	181	192	129
96 hrs (4 days)	181	151	385	120	187	224	194	203	211	145	115	175	136	189	275	133
120 hrs (5 days)	212	155	411	138	192	238	208	204	260	147	129	202	139	228	288	139
144 hrs (6 days)	284	160	430	162	197	260	222	205	261	148	141	204	140	257	289	155
240 hrs (10 days)	308	219	585	202	229	368	291	275	315	188	172	267	178	335	407	193
480 hrs (20 days)	364	290	620	343	315	400	325	309	374	296	248	421	275	374	503	316
Meteorological day (8 am to 8 am)	123	70	190	90	152	126	111	131	77	80	99	100	71	83	108	77
Max monthly total	297	348	627	455	410	474	345	375	407	348	323	569	404	488	580	383

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 adjacent months. Likewise, the 24-hour unrestricted sliding time period will be much larger than the meteorological day (fixed 8am to 8am) total.

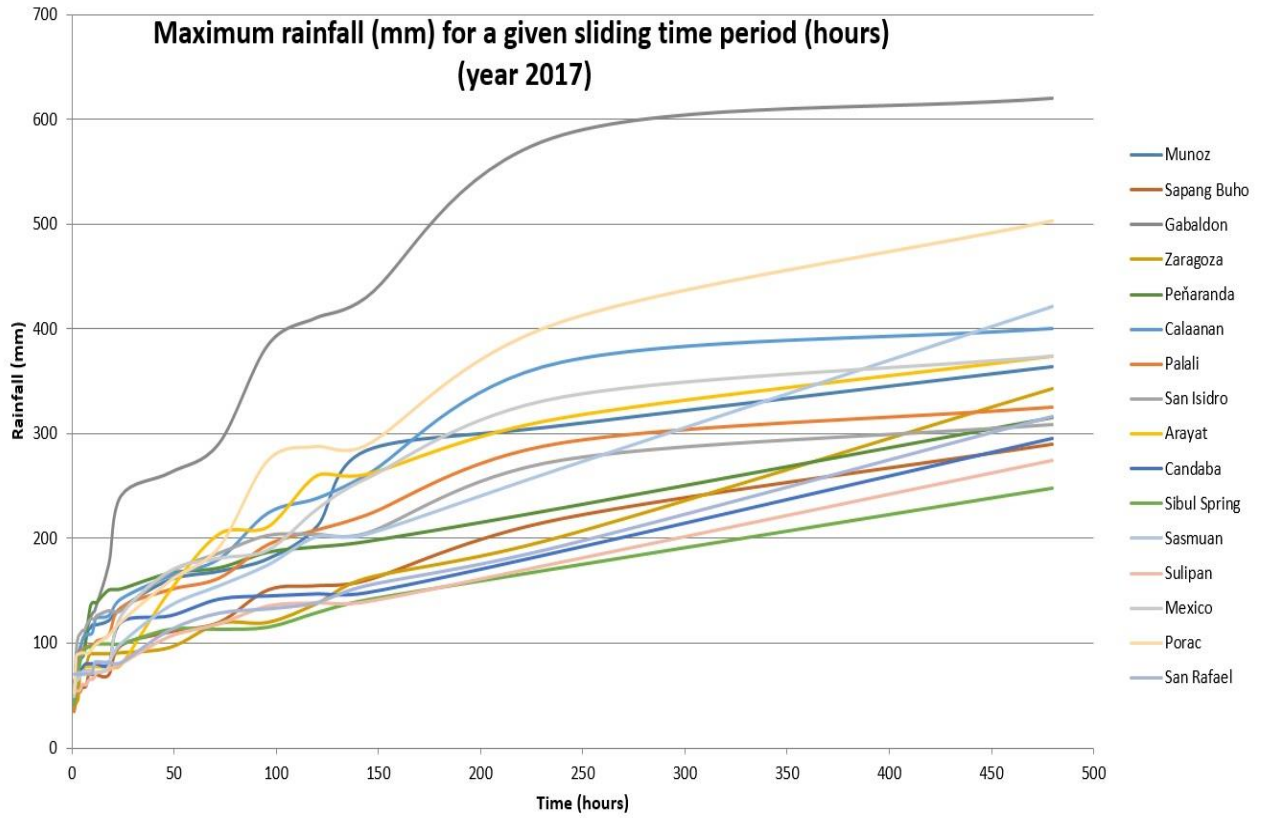


Figure AA-1. The sliding time period per station graph.

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 new 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 in 2017

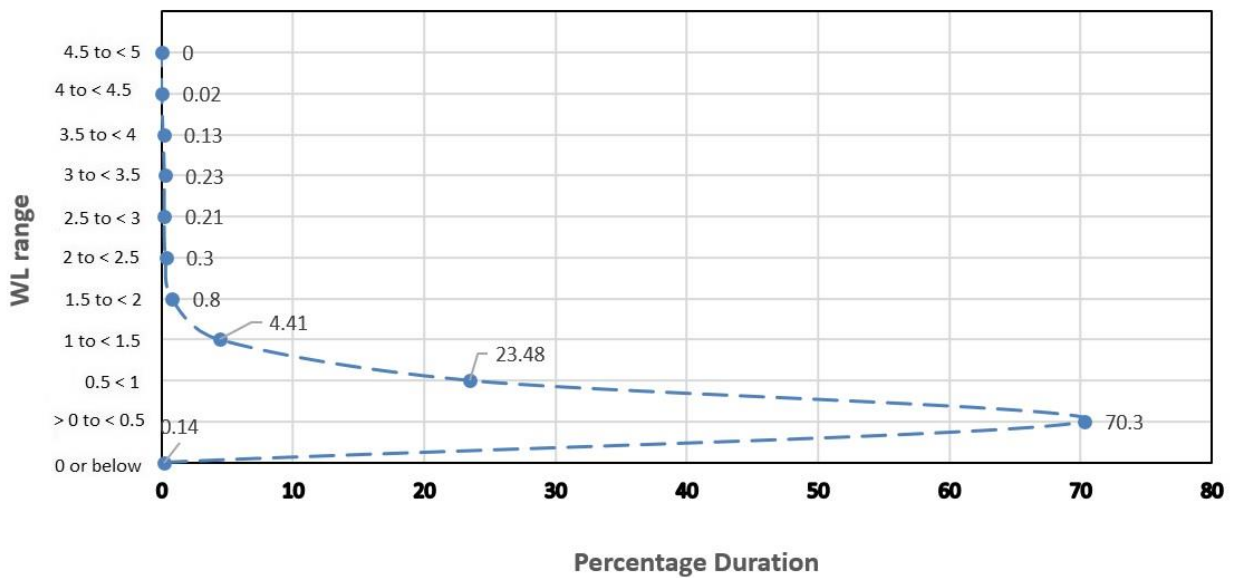


Figure AA-2. Sapang Buho WL percent duration curve (2017)

Zaragoza WL % duration in 2017

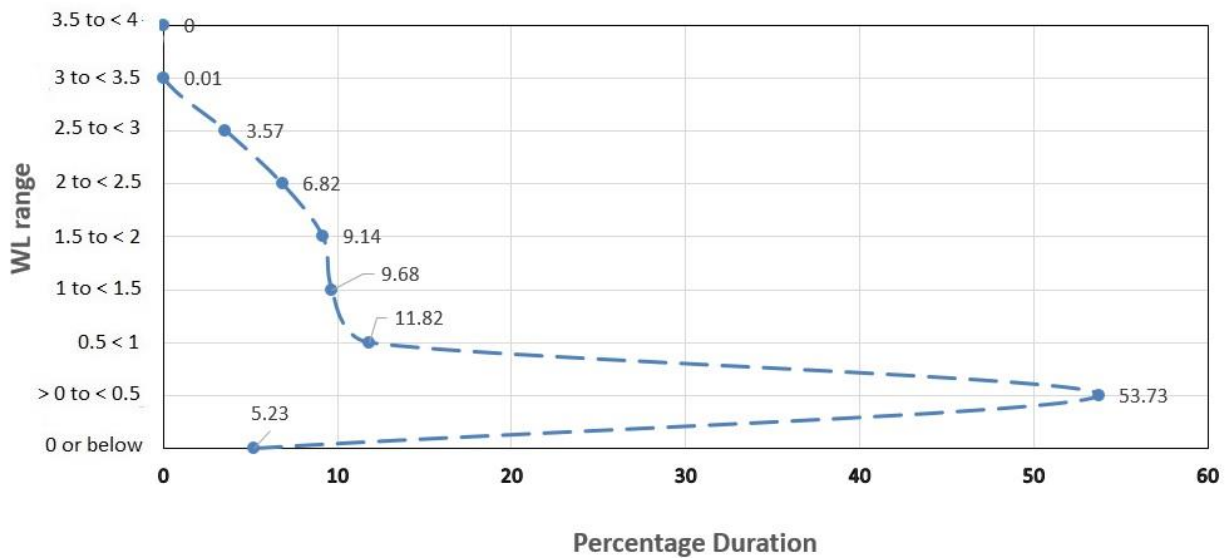


Figure AA-3. Zaragoza WL percent duration curve (2017)

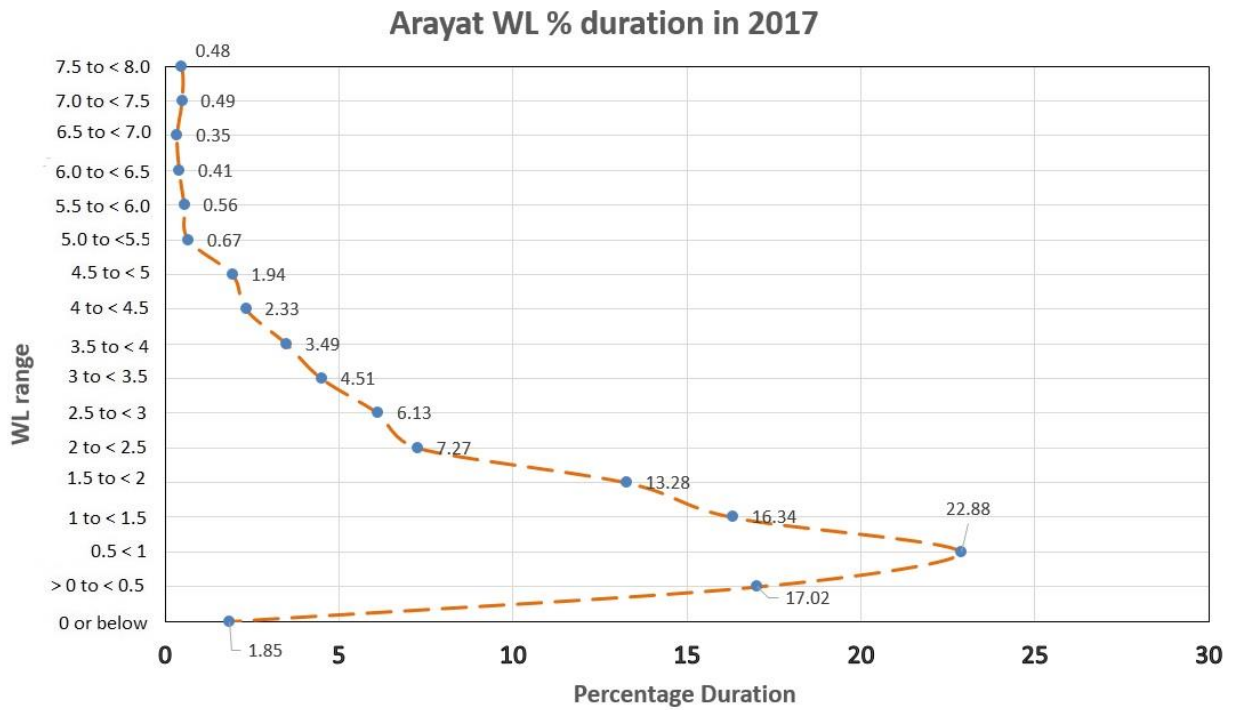


Figure AA-4. Arayat WL percent duration curve (2017)

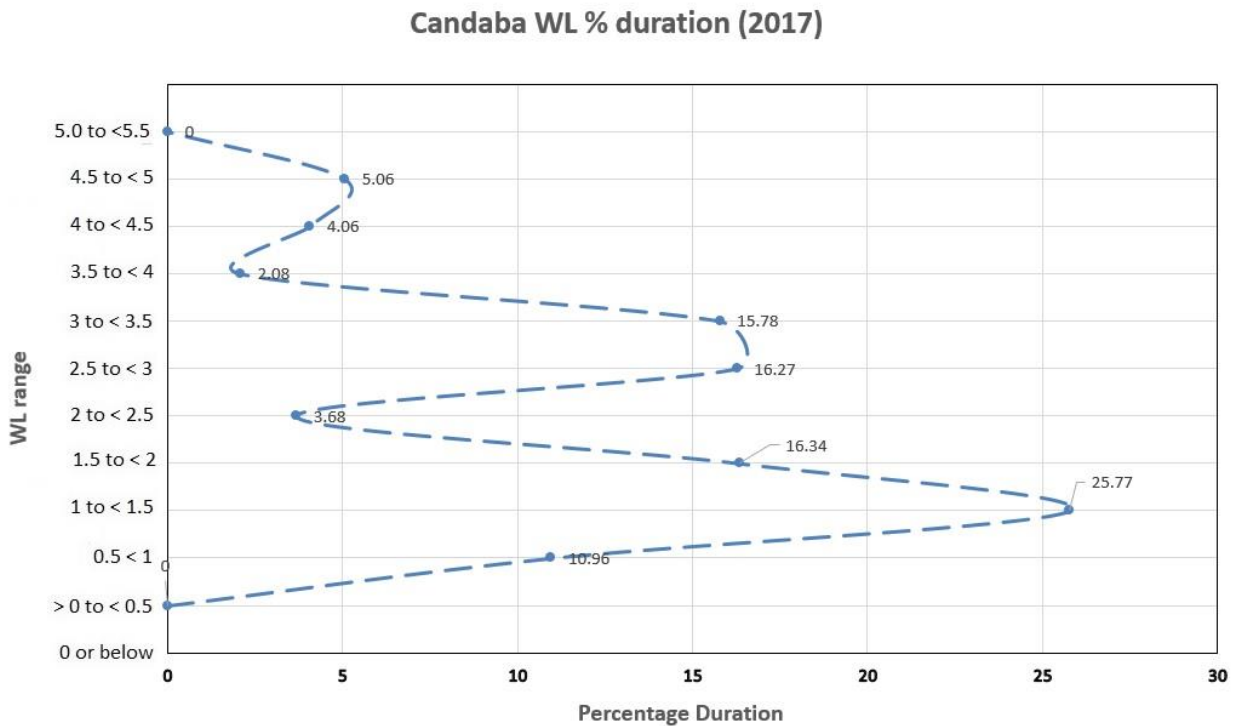


Figure AA-5. Candaba WL percent duration curve (2017)

Sasmuan WL % duration in 2017

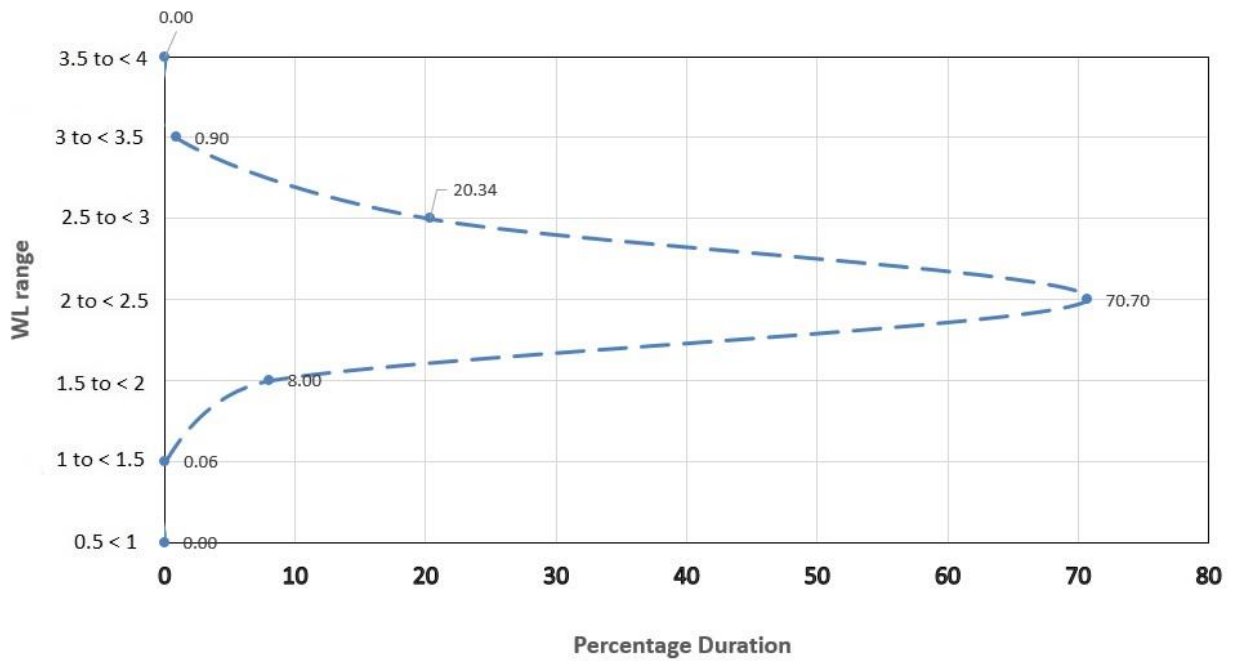


Figure AA-6. Sasmuan WL percent duration curve (2017)

Sulipan WL % duration in 2017

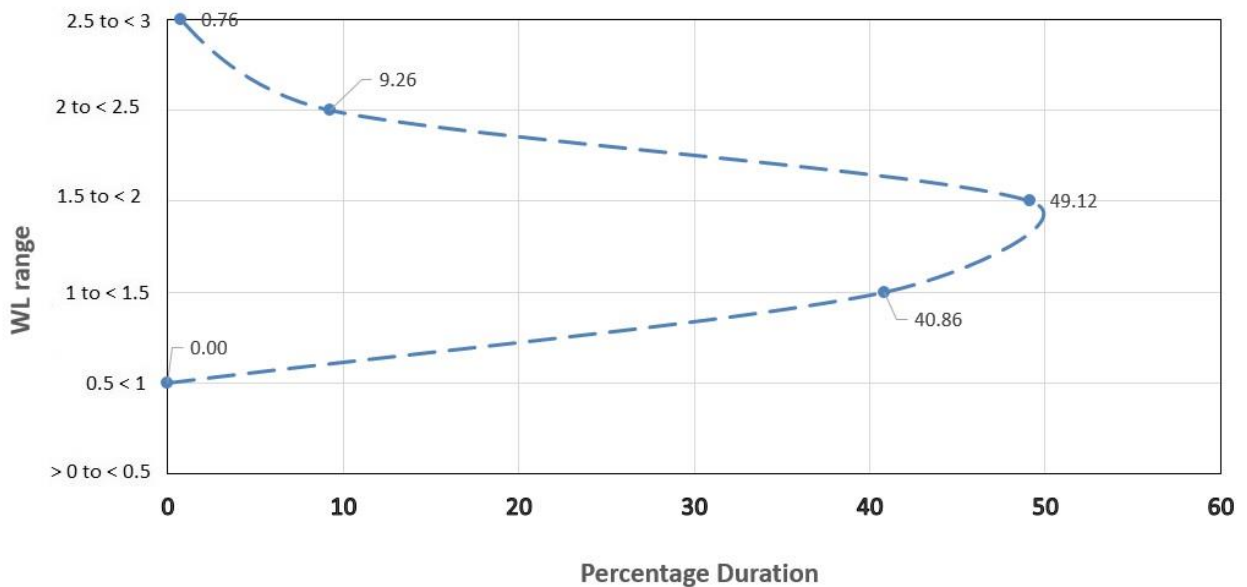
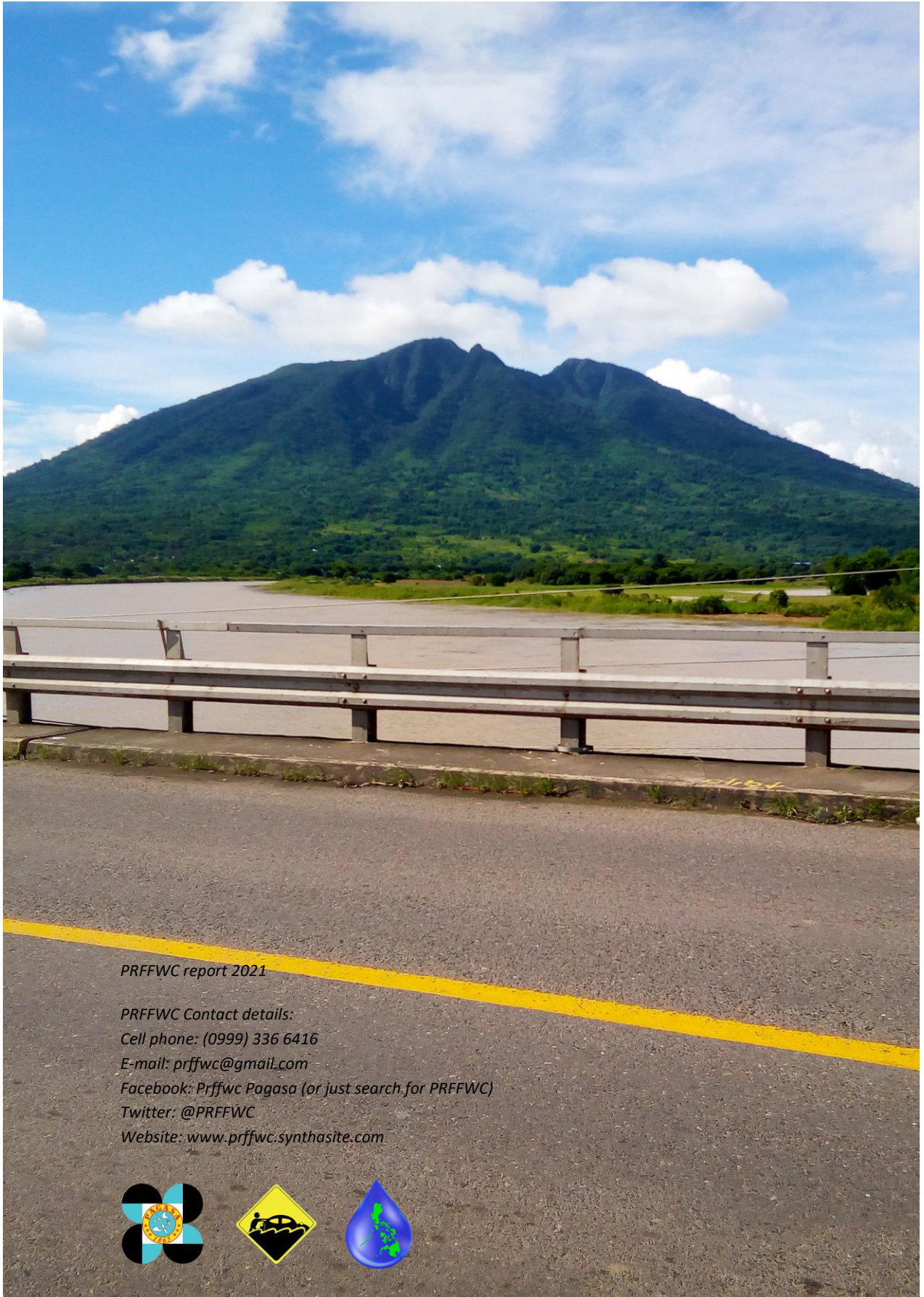


Figure AA-7. Sulipan WL percent duration curve (2017)

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



PRFFWC report 2021

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