



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Provincial Environment and Natural Resources Office

July 22, 2022

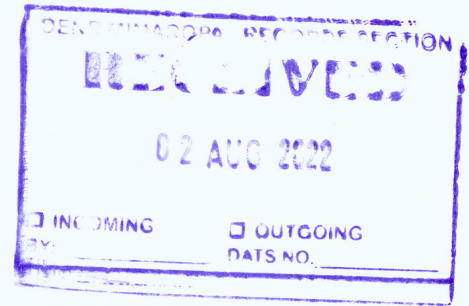
MEMORANDUM

FOR : Regional Executive Director
MIMAROPA Region

THRU : The ARD for Technical Services
DENR MIMAROPA

FROM : In-Charge, Office of the PENRO
Oriental Mindoro

SUBJECT : **SUBMISSION OF MONTHLY REPORT ON DATA
GENERATED FROM THE SCIENCE-BASED REAL-TIME
WATERSHED MONITORING INSTRUMENTS FOR THE
MONTH OF JULY 2022**



Forwarding is the monitored and analyzed data generated from the Automated Water Level Station (AWLS) of Mag-Asawang Tubig River Watershed located at Abaton Madlang Bridge, Parang Calapan City. There are no data to be analyze on the other instruments because the instruments are under calibration by PAGASA in Quezon City. It is expected that the instrument will be released on August 15, 2022.

Attached is the narrative report for your reference.

For information and record.


ALMA E. GIBE



TSD-CDS/aem



July 22, 2022

MEMORANDUM

FOR : Regional Executive Director
MIMAROPA Region

TRHU : The In-Charge, Office of the PENRO
Oriental Mindoro

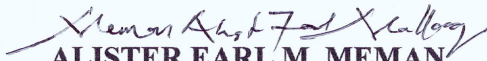
FROM : The Database Manager IT Specialist
CDS Personnel, PENRO Oriental Mindoro

SUBJECT : **SUBMISSION OF MONTHLY REPORT ON DATA
GENERATED FROM THE SCIENCE-BASED REAL-TIME
WATERSHED MONITORING INSTRUMENTS FOR THE
MONTH OF JULY 2022**

This is to submit the monitored and analyzed data generated from the Automated Water Level Station (AWLS) of Mag-Asawang Tubig River Watershed located at Abaton Madlang Bridge, Parang Calapan City. There are no data to be analyzed on the other instrumentation because the instruments are under calibration by PAGASA in Quezon City. It is expected that the instruments will be released on August 15, 2022 by said Office.

At present, only the AWLS in Calapan City has data while the three (3) AWS instruments are under calibration. The procurement of data logger is in process for the normal functioning of GWMS in Mindoro State University (MinSU).

For information and record.


ALISTER EARL M. MEMAN

**MONTHLY REPORT ON DATA GENERATED FROM THE SCIENCE-BASED REAL-
TIME WATERSHED MONITORING INSTRUMENTS
JULY 2022**

I. INTRODUCTION

Mag-Asawang Tubig Watershed (Victoria, Oriental Mindoro)

The Mag-asawang Tubig Watershed (MTRW) is one of the major watersheds in Oriental Mindoro, 12,533 hectares of which is proposed for rehabilitation in the 2013-2019 PDPFP. It is a critical watershed because of its role in food production, supplying irrigation to 40,000 hectares of rice fields in the flood plains of Mag-asawang Tubig and Bucayao Rivers. These two major rivers are connected via Panggalaan River, which branches out from Mag-asawang Tubig and joins Bucayao River flowing through Calapan City before it discharges to Calapan Bay.

The watershed is also expected to support the proposed hydroelectric power plant which is another vital support mechanism for the development and progress of the province and the whole island.

The Municipality of Victoria is 34 kilometers-about half an hour travel from Calapan City, the provincial capital of Oriental Mindoro, Victoria is bounded on the north by the Municipality of Naujan, on the southeast by the Municipality of Socorro, and on the southwest by the Municipality of Sablayan, one of the Municipalities of Occidental Mindoro. The town's geographical location is approximately 130° 11' latitude and 121° 17' longitude.

Status of Watershed Instruments Installed

At present, a total of three (3) Automated Weather Station (AWS) were installed into two (2) sites along Mag-Asawang Tubig River Watershed and one (1) in Bongabong Watershed.

In addition, two (2) instruments, the Automated Water Level Station (AWLS) and the Ground Water Monitoring Station (GWMS) were also installed along Mag-Asawang Tubig River Watershed. The GWMS was installed in the compound of Mindoro State University (MinSU) and the AWLS was installed at the Delta of the said watershed which is in Sitio Abaton, Parang, Calapan City.

Out of the five instruments, only one (1) AWLS in Calapan City is functional/ the GWMS in the MinSU is under repair due to the malfunctioning of its data logger. The remaining three (3) AWS are on the process of calibration by DOST-PAGASA and due for release in August 15, 2022.

For the meantime while waiting for the release of the AWS, the process of procurement of data logger for the GWMS is under process. It is expected that by September, all these instruments are back to the normal functioning.

II. DATA ANALYSIS

A. Mag-Asawang Tubig River Watershed (MATRW)

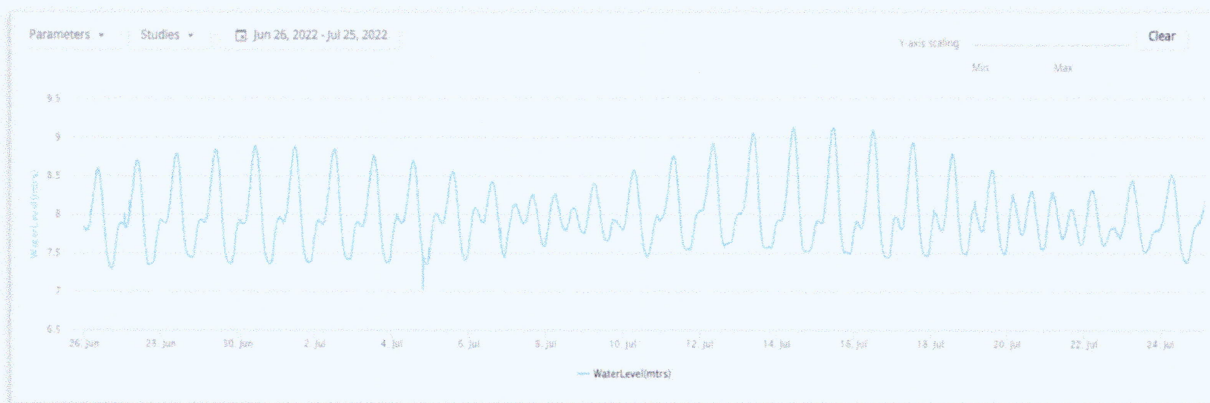


Figure 1. Monthly Streamflow level (m) in Abaton Bridge, Mag-Asawang Tubig River Watershed for June 26-July 25, 2022

The stream flow level averages to 7.98 m for period of June 26- July 25, 2022. The water level rose to a maximum of 9.13 m on July 14 and 22 while the lowest was detected on June 22 with 7.03 m.

Table 1. Summary of data from Automated Water Level Station (AWLS), Abaton Madlang Bridge, Parang Calapan City, Mag-Asawang Tubig River Watershed for June 2022.

Watershed Monitoring Instrument Parameter	Number of Instruments Installed	Period Covered	Average	Maximum	Minimum
Streamflow Level (m)	1	June 26- July 22, 2022	Water Level (mtrs): 7.98 System Battery(volts): 12.58	Water Level (mtrs): 9.13 System Battery(volts): 13.51	Water Level(mtrs): 7.03 System Battery(volts): 12.18

Table 2. Summary of data from Automated Weather Station (AWS), Barangay Alcate, Victoria, Oriental Mindoro (DA Compund), Mag-Asawang Tubig River Watershed

Watershed Monitoring Instrument Parameter	Number of Instruments Installed	Period Covered	Average	Maximum	Minimum
Rainfall	1	no data available	no data available	no data available	no data available
Air Temperature	1	no data available	no data available	no data available	no data available
Relative Humidity	1	no data available	no data available	no data available	no data available
Wind Velocity	1	no data available	no data available	no data available	no data available
Wind Direction	1	no data available	no data available	no data available	no data available
Solar Radiation	1	no data available	no data available	no data available	no data available
Streamflow Level (m)	0	no data available	no data available	no data available	no data available
Streamflow Temp (c)	0	no data available	no data available	no data available	no data available
Groundwater Level (m)	2	no data available	no data available	no data available	no data available
Soil Moisture	2	no data available	no data available	no data available	no data available
Conductivity	2	no data available	no data available	no data available	no data available

NOTE: Average values are computed arithmetic average for all instruments installed in the watershed (e.g., average of rainfall from all AWS installed in the watershed). Maximum and minimum values are the maximum and minimum values observed in the watershed from all instruments.

*Data is being requested at National Irrigation Administrator for Streamflow Level (m) and Streamflow Temp (c).

Table 3. Summary of data from Automated Weather Station (AWS), Macatoc Elementary School, School, Victoria, Oriental Mindoro, Mag-Asawang Tubig River Watershed

Watershed Monitoring Instrument Parameter	Number of Instruments Installed	Period Covered	Average	Maximum	Minimum
Rainfall	1	no data available	no data available	no data available	no data available
Air Temperature	1	no data available	no data available	no data available	no data available
Relative Humidity	1	no data available	no data available	no data available	no data available
Wind Velocity	1	no data available	no data available	no data available	no data available
Wind Direction	1	no data available	no data available	no data available	no data available
Solar Radiation	1	no data available	no data available	no data available	no data available
Streamflow Level (m)	0	no data available	no data available	no data available	no data available
Streamflow Temp (c)	0	no data available	no data available	no data available	no data available
Groundwater Level (m)	2	no data available	no data available	no data available	no data available
Soil Moisture	2	no data available	no data available	no data available	no data available
Conductivity	2	no data available	no data available	no data available	no data available

NOTE: Average values are computed arithmetic average for all instruments installed in the watershed (e.g., average of rainfall from all AWS installed in the watershed). Maximum and minimum values are the maximum and minimum values observed in the watershed from all instruments.

*Data is being requested at National Irrigation Administrator for Streamflow Level (m) and Streamflow Temp (c).

Table 4. Summary of data from Ground Water Monitoring Station (GWMS), Barangay Alcate, Victoria, Oriental Mindoro (MinSU Compound) Mag-Asawang Tubig River Watershed

Watershed Monitoring Instrument Parameter	Number of Instruments Installed	Period Covered	Average	Maximum	Minimum
Rainfall	0	no data available	no data available	no data available	no data available
Air Temperature	0	no data available	no data available	no data available	no data available
Relative Humidity	0	no data available	no data available	no data available	no data available
Wind Velocity	0	no data available	no data available	no data available	no data available
Wind Direction	0	no data available	no data available	no data available	no data available
Solar Radiation	0	no data available	no data available	no data available	no data available
Streamflow Level (m)	0	no data available	no data available	no data available	no data available
Streamflow Temp (c)	0	no data available	no data available	no data available	no data available
Groundwater Level (m)	2	no data available	no data available	no data available	no data available
Soil Moisture	0	no data available	no data available	no data available	no data available
Conductivity	2	no data available	no data available	no data available	no data available

NOTE: Average values are computed arithmetic average for all instruments installed in the watershed (e.g., average of rainfall from all AWS installed in the watershed). Maximum and minimum values are the maximum and minimum values observed in the watershed from all instruments.

B. Bongabong River Watershed (BRW)

Table 5. Summary of data from Automated Weather Station (AWS), DENR CENRO Roxas Barangay Hagan, Bongabong, Oriental Mindoro (Ranger Station), Bongabong River Watershed

Watershed Monitoring Instrument Parameter	Number of Instruments Installed	Period Covered	Average	Maximum	Minimum
Rainfall	1	no data available	no data available	no data available	no data available
Air Temperature	1	no data available	no data available	no data available	no data available
Relative Humidity	1	no data available	no data available	no data available	no data available
Wind Velocity	1	no data available	no data available	no data available	no data available
Wind Direction	1	no data available	no data available	no data available	no data available
Solar Radiation	1	no data available	no data available	no data available	no data available
Streamflow Level (m)	0	no data available	no data available	no data available	no data available
Streamflow Temp (c)	0	no data available	no data available	no data available	no data available
Groundwater Level (m)	2	no data available	no data available	no data available	no data available
Soil Moisture	2	no data available	no data available	no data available	no data available
Conductivity	2	no data available	no data available	no data available	no data available

NOTE: Average values are computed arithmetic average for all instruments installed in the watershed (e.g., average of rainfall from all AWS installed in the watershed). Maximum and minimum values are the maximum and minimum values observed in the watershed from all instruments.


*Data is being requested at National Irrigation Administrator for Streamflow Level (m) and Streamflow Temp (c).

A continuous monitoring is done using the Hydrosphere platform for the Automatic Water Level Station located at Abaton-Madlang Bridge, Parang, Calapan City, Oriental Mindoro, Mag-Asawang Tubig River Watershed. The fencing around the instrument has rusted, thus application of WD-40 oil was done to prevent the rust in the instrument and fence.

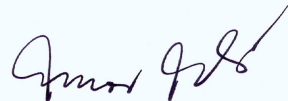
Recommendations

The calibration of the instruments that was transported to Manila will be expected for pick-up on August 15, 2022, thus this will be mounted back to its proper location and be installed for continuity of the program because the importance of these instruments is vital to the community.

Prepared by:


Alister Earl M. Meman
Database Manager IT Specialist

Noted by:


AMOR D. ASI
Chief, Conservation and Development Section



Conduct of Monitoring and Inspection for Automatic Water Level Station Instrumentation, located at Abaton-Madlang Bridge, Parang, Calapan City, Oriental Mindoro, Mag-Asawang Tubig River Watershed.