



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

Bgy. Sta. Monica, Puerto Princesa City, Palawan

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DENR MIMAROPA
RECORDS SECTION
RECEIVED

MAR 10 2023

March 2, 2023
INCOMING ☒ OUTGOING ☐
BY: Rhca
TIME: 10:10 DATE NO. 2023-544

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA
1515 DENR By the Bay Bldg., Roxas Boulevard,
Barangay 668, Ermita, Manila

THRU : The OIC, ARD for Technical Services

FROM : The Provincial Environment and
Natural Resources Officer

SUBJECT : **ACCOMPLISHMENT REPORT ON WATER QUALITY
MONITORING WITHIN PROCLAIMED NIPAS PROTECTED
AREA UNDER MARINE PROTECTED AREA
STRENGTHENING AND NETWORKING OF EL NIDO-
TAYTAY MANAGED RESOURCE PROTECTED AREA
(ENTMRPA) FOR FEBRUARY CY 2023**

Respectfully forwarded is the Memorandum dated February 22, 2023 of CENRO Taytay, Palawan regarding on the above subject as an activity per WFP of El Nido-Taytay Managed Resource Protected Area (ENTMRPA) for the month of February CY 2023.

This shall form as part of the **Means of Verification (MoV)** on the target activities for the year 2023.

For information and record.

For the PENRO

Rhca
RONIE B. GANDEZA
DMO IV/OIC-CHIEF TSD
In-Charge, Office of the PENRO



DENR-PALAWAN
PENRO-RECORDS
RELEASED

By: Rhca
Date: 06 MAR 2023 CN 2023-544



Republic of the Philippines
Department of Environment and Natural Resources
Region IV- MIMAROPA
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
by the National Highway, Poblacion, Taytay, Palawan 5312
Contact No.: 09265059335 (Globe) / 09121713889 (Smart)
Email address: cenrotaytay@denr.gov.ph

**DENR PENRO
PALAWAN RECORDS
RECEIVED**

February 22, 2023

MEMORANDUM

BY: 
DATE: 12-15-2023 CN 23-1672

FOR : The Provincial Environment and Natural Resources Officer- Palawan
FROM : The Community Environment and Natural Resources Officer
SUBJECT : **ACCOMPLISHMENT REPORT ON ACTIVITY PER WFP
El Nido-Taytay Managed Resource Protected Area (ENTMRPA)**

| | | | | |
|---|--|------------|--------------|-----------------------|
| Activity: Water Quality Monitoring within Legislated NIPAS PAs | | | | |
| Performance Indicator: Number of PAs monitored on water quality parameters | | | | |
| Frequency of submission: Monthly monitoring of forty-eight (48) stations and quarterly report | | | | |
| Current submission: Memo report of Assistant Protected Area Superintendent/PMF Jenuel P. Casel dated February 17, 2023 (CN 1209 in the eDATS) submitting the accomplishment report on WQMA monitoring within proclaimed NIPAS protected area for the month of February CY 2023 for Protected Area Management Office of El Nido-Taytay Managed Resource Protected Area (ENTMRPA). | | | | |
| Attachment: 1. Memo report of Park Ranger Steven John B. Andao dated February 17, 2023 pertaining to the conducted WQMA monitoring, accordingly there is a seven (7) additional sites monitored by PAMO which is not included in the forty-eight (48) monitoring stations established by the PEMU-Palawan. 2. Photo documentation 3. Water Quality Monitoring field data form | | | | |
| Gender & Development (GaD) data | Male = 2 | Female = 0 | LGBTQ+ = 0 | Prefer not to say = 0 |
| Age Grouping | 60 and above | 18-59 | 17 and below | TOTAL |
| | 0 | 2 | 0 | 2 |
| Environmental Management System (EMS Compliance) | ✓ Compliant to 5S organization techniques (SORT – keep only necessary items, SET IN ORDER – arrange items to promote efficient workflow, SHINE – clean the work area so it is neat and tidy, STANDARDIZE – set standards for a consistently organized workplace and SUSTAIN – maintain and review standard) | | | |


Explanation: The Water Quality Monitoring of forty-eight (48) stations as indicated in the Work and Financial Plan CY 2023 of ENTMRPA is accordingly to be conducted and funded by the EMB. The activity made by the PAMO is outside the forty-eight (48) stations. It is also hereby informed/iterated that ENTMRPA is not yet a legislated PA.

This shall form as part of the **Means of Verification (MoV)** on the activity. Please confirm your receipt hereof. Thank you.

**DENR CENRO
TAYTAY, PALAWAN
RELEASED**


CONRADO M. CORPUZ

Copy furnished:
PAMO-ENTMRPA

BY: 
DATE: FEB 22 2023 CN 810



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

Community Environment and Natural Resources
EL NIDO-TAYTAY MANAGED RESOURCE PROTECTED AREA

Calle Real, Barangay Masagana, El Nido, Palawan, 5313

Contact No. LANDLINE (0917-1103-262)

Email: denrpao_elnidopal@yahoo.com / entmrpa@gmail.com

FEB 17 2023

MEMORANDUM

FOR : The Community Environment and Natural Resources Officer
Taytay, Palawan

FROM : The Protected Area Superintendent
El Nido-Taytay Managed Resource Protected Area

**DENR CENRO
TAYTAY, PALAWAN
RECEIVED**

BY: *Sute*
DATE: 2-21-23 CH 1209

SUBJECT : ACCOMPLISHMENT REPORT ON WATER QUALITY MONITORING WITHIN PROCLAIMED NIPAS PROTECTED AREA UNDER MARINE PROTECTED AREA STRENGTHENING AND NETWORKING OF EL NIDO-TAYTAY MANAGED RESOURCE PROTECTED AREA (ENTMRPA) FOR FEBRUARY CY 2023

Respectfully forwarded is the memorandum dated February 17, 2022 from Park Ranger Steven John B. Andao pertaining to the accomplished activity under the Water Quality Monitoring within proclaimed National Integrated Protected Areas System (NIPAS) Protected Area under Marine Protected Area Strengthening and Networking of El Nido-Taytay Managed Resource Protected Area (ENTMRPA) for month of February 2023.

Seven (7) additional sites were monitored by this office particularly Mitri Cadlao Island, Lamoro, Lalutaya Island, Tres Marias, Turtle Island, Popolkan Island and Depeldet Island which are which are not in the established target monitoring sites of Provincial Environmental Management Unit (PEMU)-Palawan, thus, the said areas were selected to be monitored monthly. Primary water quality parameters were recorded thru HORIBA Water Quality checker (U-5000G) such as Dissolved Oxygen, pH and Temperature. Other parameters were also recorded such as the Conductivity, Turbidity, Salinity, Total Dissolved Solid. Fecal coliform was not monitor since there are no accessible accredited laboratory for the said parameter.

This served as our **Means of Verification** for month of February 2023. Attached herewith are Attached herewith are the geotagged photos for reference.

For information and record.

For the PASu.

JENUEL P. CASEL

PMF/Asst. Protected Area Superintendent

**DENR - PAO
ENTMRPA
El Nido, Palawan**

RELEASED

By: *Jnd*
Date: 02-17-23
C.N.: 0157



February 17, 2023

MEMORANDUM

FOR : The Protected Area Superintendent
El Nido-Taytay Managed Resource Protected Area

FROM : The Park Ranger
El Nido-Taytay Managed Resource Protected Area

SUBJECT : REPORT ON WATER QUALITY MONITORING WITHIN
PROCLAIMED NIPAS PROTECTED AREA UNDER MARINE
PROTECTED AREA STRENGTHENING AND NETWORKING
OF EL NIDO-TAYTAY MANAGED RESOURCE PROTECTED
AREA (ENTMRPA) FOR MONTH OF FEBRUARY CY 2023



This pertains to the target activity on Water Quality Monitoring within Proclaimed NIPAS Protected Area Under Marine Protected Area Strengthening And Networking of El Nido-Taytay Managed Resource Protected Area (ENTMRPA) for the month of February 2023. Please be informed on February 17, 2023, the undersigned together with Forest Protection Officer Jovan P. Villanueva conducted water quality monitoring within the jurisdiction of ENTMRPA particularly in Mitri Cadlao Island, Lamoro , Lalutaya Island, Tres Marias, Turtle Island, Popolkan Island and Depeldet Island which are not included in the established target monitoring sites of Provincial Environmental Management Unit (PEMU)-Palawan, thus, the said areas were selected to be monitored by this office monthly.

Here under are the parameters recorded on-site by the monitoring team thru HORIBA Water Quality checker (U-5000G) and processed thru U-50 Data Collection Software, to wit:

Primary Parameters

Table 1.

| SITES | Date | Dissolved Oxygen(mg/L) | Water Body Classification (Class SA or Class SB (6 minimum)) |
|-------------------------------|-----------|------------------------|--|
| 1. Mitri* | 2/17/2023 | 5.86 | Fail |
| 2. Lamoro ¹ | | 4.64 | Fail |
| 3. Lalutaya* | | 6.01 | Pass |
| 4. Tres Marias* | | 7.97 | Pass |
| 5. Turtle Island ² | | 5.6 | Fail |
| 6. Popolkan ³ | | 7.78 | Pass |
| 7. Depeldet* | | 5.17 | Fail |

Note: Water Body Classification and Water Parameters are based on DENR Administrative Order 2016-08 Table 2 and Table 3.

Legend :

*-Locally Managed Marine Area

1-Outfall

2-Marine Turtle Sanctuary

3-Diving Site

Table 1 shows that sites 3, 4 and 6 (Lalutaya, Tress Marias and Popolkan) passed the required/desired Dissolved Oxygen (DO) for protected waters and recreational waters while sites 1, 2, 5 and 7 (Mitri, Lamoro, Turtle Island and Depeldet) failed.

Table 2

| SITES | Date | pH | Water Body Classification, Class SA or SB (7-8.5) |
|-------------------------------|------------|------|---|
| 1. Mitri* | 20/17/2023 | 8.04 | Pass |
| 2. Lamoro ¹ | | 8 | Pass |
| 3. Lalutaya* | | 8.05 | Pass |
| 4. Tres Marias* | | 8.15 | Pass |
| 5. Turtle Island ² | | 8.13 | Pass |
| 6. Popolkan ³ | | 8.13 | Pass |
| 7. Depeldet* | | 8.13 | Pass |

Note: Water Body Classification and Water Parameters are based on DENR Administrative Order 2016-08 Table 2 and Table 3.

Legend :
 *-Locally Managed Marine Area
 1-Outfall
 2-Marine Turtle Sanctuary
 3-Diving Site

Table shows that all sites passed the desired pH for Protected and Recreational waters.

Table 3

| SITES | Date | Temperature(°c) | Water Body Classification, Class SA or SB (26-30) |
|-------------------------------|-----------|-----------------|---|
| 1. Mitri* | 2/17/2023 | 29.88 | Pass |
| 2. Lamoro ¹ | | 29.12 | Pass |
| 3. Lalutaya* | | 29.47 | Pass |
| 4. Tres Marias* | | 29.57 | Pass |
| 5. Turtle Island ² | | 29.35 | Pass |
| 6. Popolkan ³ | | 29.42 | Pass |
| 7. Depeldet* | | 29.36 | Pass |

Note: Water Body Classification and Water Parameters are based on DENR Administrative Order 2016-08 Table 2 and Table 3.

Legend :
 *-Locally Managed Marine Area
 1-Outfall
 2-Marine Turtle Sanctuary
 3-Diving Site

Table 3 shows that all sites passed the desired temperature for Protected and Recreational waters which is not less than twenty-six (26) degrees celsius or not greater than thirty (30) degrees celsius. However, based on the notes in table 3 (Water Quality Guidelines for Primary Parameter) of DENR Administrative Order (DAO) 2016-08 stated as follow: “(b) The natural background temperature as determined by EMB shall prevail if the temperature is lower or higher than the WQG; provided that the maximum increase is only up to 10 percent and that it will not cause any risk to human health and the environment.”

[Handwritten signature]

Other Parameters
Table 4

| SITES | Date | Conductivity (mS/cm) | Turbidity (NTU) | Salinity(ppt) | Total Dissolve Solid(g/L) |
|-------------------------------|-----------|-------------------------|--------------------|---------------|---------------------------------|
| 1. Mitri* | 2/17/2023 | 40.8 | 0 | 26.11 | 24.9 |
| 2. Lamoro ¹ | | 40.2 | 80.5 | 25.67 | 24.5 |
| 3. Lalutaya* | | 41.8 | 0 | 26.82 | 25.5 |
| 4. Tres Marias* | | 41.4 | 0 | 26.49 | 25.2 |
| 5. Turtle Island ² | | 41.1 | 0 | 26.31 | 25.1 |
| 6. Popolkan ³ | | 40.8 | 0 | 26.07 | 24.9 |
| 7. Depeldet* | | 41.5 | 0 | 26.62 | 25.3 |

Note: Water Body Classification and Water Parameters are based on DENR Administrative Order 2016-08 Table 2 and Table 3.

Legend :

*-Locally Managed Marine Area

1-Outfall

2-Marine Turtle Sanctuary

3-Diving Site

Table 4 shows the recorded conductivity, turbidity, salinity and total dissolved solid. These parameters are not directly affecting the water quality unless there are significant or drastic changes.

Please be also informed that data for fecal coliforms was not included due to inaccessibility of accredited laboratory for proper analysis of the said parameter.

This served as our **Means of Verification** for month of February 2023. Attached herewith are the geotagged photos and field data for reference.

For information and record.


STEVEN JOHN B. ANDAO



PHOTO DOCUMENTATION



Photos showing Park Ranger Andao using the HORIBA water quality checker

CERTIFICATION

This is to certify that the above photos were true and correct and taken during the Water Quality Monitoring activity of ENTMRPA for the month of February 2023.


STEVEN JOHN B. ANDAO
Park Ranger

WATER QUALITY MONITORING FIELD DATA FORM

Name of Waterbody: El Nido-Bacuit Bay
Date of Sampling: February 17, 2023

Sampling Team: ENTMRPA-PAMO

| Parameter | Sampling Station | | | | | | |
|---|---------------------|------------------------------------|---------------------|---|------------------------------------|---------------------|---------------------|
| | 1. Mitri | 2. Lamoro | 3. Lalutaya | 4. Tres Marias | 5. Turtle Island | 6. Popolkan | 7. Depelde |
| GPS Coordinates | 11.2248N, 114.3639E | 11.2245N, 114.4183E | 11.3521N, 114.4116E | 11.1372N, 114.3082E | 11.0885N, 114.3072E | 11.1762N, 114.3105E | 11.1924N, 114.3506E |
| Time of Sampling | 10:10 AM | 10:26 AM | 11:06 AM | 12:04 PM | 12:21 PM | 12:37 PM | 1:00 PM |
| Cloud Cover (%) | 50% | 60% | 40% | 60% | 60% | 80% | 60% |
| Weather Condition | Fair | Fair | Fair | Fair | Fair | Fair | Fair |
| Visual Color of Water | Clear | Brownish/Murky | Clear | Clear | Clear | Clear | Clear |
| Other Observations | | Sand dragging near the river mouth | | Fish coral near the sampling site. | Fish coral near the sampling site. | | |
| In situ Analysis (Multiparameter Checker) | | | | | | | |
| pH | 8.04 | 8 | 8.06 | 8.15 | 8.13 | 8.13 | 8.13 |
| Temperature (°C) | 29.88 | 29.12 | 29.17 | 29.57°C | 29.35 | 29.42 | 29.36 |
| Dissolved Oxygen (mg/L) | 5.86 | 4.64 | 6.01 | 7.94 | 5.6 | 7.78 | 5.14 |
| Conductivity (µS/cm) | 40.8 | 40.2 | 41.8 | 41.4 | 41.1 | 40.8 | 41.5 |
| Turbidity (NTU) | 0 | 80.5 | 0 | 0 | 0 | 0 | 0 |
| Salinity (ppt) | 26.11 | 26.67 | 26.82 | 26.49 | 26.31 | 24.9 | 26.62 |
| Total Dissolved Solid (g/L) | 24.9 | 24.5 | 25.5 | 25.2 | 25.1 | 24.7 | 26.3 |
| Oxidation Potential or ORP (mV) | 124 | 186 | 158 | 163 | 179 | 173 | 163 |
| Transparency (cm) | NA | NA | NA | NA | NA | NA | NA |

Remarks:

On-site analysed by: Steyen John B. Amoko