



**CALAPAN RIVER WATER QUALITY MANAGEMENT AREA
GOVERNING BOARD**



**MINUTES OF THIRD QUARTER GOVERNING BOARD MEETING OF
CALAPAN RIVER WATER QUALITY MANAGEMENT AREA (CRWQMA)
CY 2022**

Venue: Casa Marco Suite Hotel and Restaurant and Video Conference via Microsoft Teams
Time: 9:45am – 03:54pm
Date: 06 September 2022

Attendees:

- | | | |
|------------------------------------|---|--|
| 1. Edeliza G. Manzo | - | PG – ENRO |
| 2. Corazon D. Bonsol | - | PG – ENRO |
| 3. Elizabeth L. Abogado | - | City ENRO, LGU – Calapan City |
| 4. Lawrenz Jayson C. Liwag | - | City ENRO, LGU – Calapan City |
| 5. Engr. Eric Aves | - | DA Regional Field Office |
| 6. Engr. Timojen A. Sacar | - | DPWH MIMAROPA |
| 7. Princess Lalaine A. Walath | - | DPWH MIMAROPA |
| 8. Engr. Nillete Fidel | - | DOH MIMAROPA CHD |
| 9. Fely Joy Dinglasan | - | DTI |
| 10. Ivy Joan Cananea | - | DHSUD MIMAROPA |
| 11. Laurino Darao | - | BFAR MIMAROPA |
| 12. Charmaine M. Bejasa | - | NEDA MIMAROPA |
| 13. Elynah Mistiola | - | NIA MIMAROPA |
| 14. Engr. Larry Rivera | - | Calapan Waterworks Corp. (CWWC) |
| 15. Engr. Kaye Balmes | - | Calapan Waterworks Corp. (CWWC) |
| 16. Sargie Nolly Runas | - | Calapan Waterworks Corp. (CWWC) |
| 17. Evalyn Francisco | - | Calapan Waterworks Corp. (CWWC) |
| 18. Yolanda R. Manato | - | Hospital of Holy Cross (Business sector) |
| 19. Dr. Marius M. Agua | - | Calapan River Initiative (CRI) (NGO) |
| 20. Engr. Tom Villaroman | - | Jolliville Management Group Inc. (Guest) |
| 21. Ruscién G. Derije | - | Jolliville Management Group Inc. (Guest) |
| 22. Engr. Pablito M. Estroque, Jr. | - | EMB MIMAROPA |
| 23. Ederlita U. Labre | - | EMB MIMAROPA |
| 24. Carlotta Levinia R. Jugno | - | EMB MIMAROPA |
| 25. Maevelyn Kathryn D. Tupasi | - | EMB MIMAROPA |
| 26. Jane T. Dumenden | - | EMB MIMAROPA |
| 27. Adz Hazen M. Dimapilis | - | EMB MIMAROPA |
| 28. Engr. Ma. Kimberly B. Evora | - | EMB MIMAROPA |

Representatives from the following agency members were unable to attend the meeting:

1. National Water Resources Board (NWRB)
2. Department of Environment and Natural Resources (DENR)
3. Department of Science and Technology (DOST)
4. Department of Interior and Local Government (DILG)
5. Business Sector:
 - Sta. Maria Village Hospital
6. Non-Government Organization (NGO):
 - Calapan Women Aksyon Agad Movement Inc. (CWAAMI)
 - Leaf Multi-Sectoral Federation of Oriental Mindoro, Inc.
7. Academe:
 - St. Anthony College
 - Mindoro State University



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CRWQMA Members : 19 members
Number of Members Present : 14 members
Number of Members Absent : 5 members

Call to Order

Mr. Adz Hazen M. Dimapilis started the meeting with a short prayer at around 09:45am followed by the acknowledgement of governing board members and other attendees. Ms. Maevelyn Kathryn D. Tupasi, EMB MIMAROPA and Secretariat of CR WQMA, chaired the meeting and recognized the presence of the members. The quorum was declared wherein 14 members out of 19 members present in the meeting, and the meeting officially started.

A. Presentation and Approval of the Agenda

Agenda for the meeting were presented by Ms. Jane T. Dumenden as follows:

1. Review and approval of previous minutes
2. Updated on the Issues and Concerns Arising During the Previous Meeting
3. Presentation of CY 2024 Work and Financial Plan for CRWQMA
4. Presentation of Board Resolution for the Approval of CY 2024 Work and Financial Plan for CRWQMA
5. Presentation on the chosen wastewater treatment of Calapan Waterworks Corp. in Calapan City
6. Updates on the water Quality of Calapan River and Masipit Creek
7. Revisit of Calapan River WQMA Ten-Year Action Plan
8. Other Matters:
 - Total Pollution Load on Calapan River

The chairperson asked if there are other matters that the board wants to include in the presented provisional agenda. Since there were no other comments from the board, Engr. Larry Rivera of Calapan Waterworks Corp. (CWWC) moved the approval the presented agenda and seconded by Ms. Elizabeth Abogado of City ENRO – LGU Calapan City.

B. Presentation of the Minutes of the Previous Meeting

Mr. Dimapilis presented the review of the minutes of 4th Quarter Governing Board Meeting for CY 2021. Minor correction was addressed at minutes on the presentation where on the year started of CWWC instead of “1997” to “2007”.

Since there were no corrections, Ms. Tupasi request for the approval of the previous minutes wherein Engr. Rivera moved the approval of the presented minutes and seconded by Ms. Ivy Joan Cananea of DSHUD.

C. Presentation of CY 2024 Work and Financial Plan (WFP) for CRWQMA

Ms. Tupasi presented the CY 2024 Work and Financial Plan for CRWQMA based on the National Workshop on the Utilization of Area Water Quality Management Fund. She added that the fund came from the collected wastewater discharge fees from the establishments within the 19 barangays in CR WQMA from 2019 to February 2022 with a total of Php 149,813.46 and will be used as supplemental for CY 2024. The said funds will be used for the purchased of bokashi balls, dye tracers, PPEs, and monitoring jacket with white reflector. Ms. Abogado asked if the budget will be used on this year since they will have a throwing of bokashi balls activity in Calapan River located at Mangrove Eco Park at OMNHS together with the students which can be in collaboration activity with the EMB. Ms. Tupasi stated that the budget will be additional fund on CY 2024. She



added that it takes time to purchase bokashi balls based on the guidelines. In addition, Ms. Tupasi stated that it requires the approval of board resolution in withdrawing the said funds.

D. Presentation of Board Resolution for the Approval of CY 2024 Work and Financial Plan for CRWQMA

While waiting for the comments on the presented CY 2024 WFP, Ms. Tupasi presented the drafted Board Resolution no. 2022-01 or the “Mobilization of the Fund Committee on the Calapan River Water Quality Management Area (CR WQMA)”. She stressed that the Fund Committee of CR WQMA composed of NEDA, NWRB, PG – ENRO, City Government of Calapan, DTI, and EMB based on the Governing Rules of Calapan River WQMA, will take charge on the utilization of Area Water Quality Management Fund and National Water Quality Management Fund. She added that an account was already opened at the Landbank of the Philippines – Intramuros wherein the funds will be withdrawn. She also informed the members that the Fund Committee will prepare an Annual Work and Financial Plan before the end of December each year.

Ms. Abogado asked specific personnel or Office to be the Administrative and Finance Division (AFD). Ms. Tupasi stated that since there were no elected/appointed members of AFD of the governing board, the Finance and Administrative Division (FAD) of EMB MIMAROPA Region shall be the interim AFD of the CR WQMA Governing Board. The said statement was included at the drafted resolution.

After the corrections, Ms. Cananea of DHSUD moved the approval of the Board Resolution 2022-01 and seconded by Mr. Laurino Darao of BFAR.

Ms. Tupasi also presented the drafted Board Resolution no. 2022-02 or the “Resolution Approving the Work and Financial Plan of Calapan River Water Quality Management area (CR WQMA) for CY 2024”. She stressed on the utilization of fund for CY 2024 as part of the requirements in withdrawing the said fund. Since there was no correction, Mr. Rivera from CWWC moved the approval of Board Resolution No. 2022-02 and seconded by Ms. Abogado from City ENRO.

E. Presentation on the chosen wastewater treatment of Calapan Waterworks Corp. in Calapan City

Engr. Tom Villaroman of Jolliville Management Group Inc. and Consultant of Calapan Waterworks Corp. presented the Sanitation (Septage) Services Development Project for Calapan City. During the presentation, Engr. Villaroman highlighted the following:

- The Septage Collection Services Covered Area were the 62 barangays of Calapan City (39 barangays served by CWWC, and 29 barangays unserved by the CWWC).
- Projected Septage Volume Collection from served and unserved barangays of CWWC in Calapan City in 2024 would be 36 cu. m./day and by year 2038, 15 years from 2024, would be 78 cu. m./day.
- Technology Options Considered for Septage Treatment and Disposal are the following: 1) Conventional Activated Sludge (CAS), 2) Membrane Bio-Reactor Process (MBR), and 3) Sequential Batch Reactor (SBR) Process. He added that the common treatment facility used in the Philippines is the SBR since it was simple technology, and easy to operate. He stated that the bio-solids from the treatment can be used for agriculture as fertilizer or to be used in Sanitary Landfill (SLF).
- Engr. Villaroman stated that the project will focus on the Sequencing Batch Reactor (SBR) Process as the recommended for treatment of septage. He also presented the blueprint or the Septage Treatment Plant Layout, and the recommended site requirement Septage Treatment Plant (*see attached Fig. 1 and 2*).
- Desludging operation was the option of the proposed project using vacuum trucks to the clustered collecting tanks (*see attached Fig. 3*).



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- Recommended Design Capacity of Septage Treatment Plant would be the following: 1) Phase 1: 10 years (2023-2032) with 68.2 cu.m./day, and Phase 2: 5 years (2033-2037) with 16.5 cu. m./day. 2) Without phasing: 15 years (2023-2037) with 84.7 cu. m./day.

After the presentation, questions were raised by members of the board.

- Dr. Marius M. Agua from CRI asked the position of the consultant and role of the company. Engr. Villaroman stated that he was guide on the water utility group, and assistance vice president of the Jolliville Management Group Inc. He added that the role of the firm is to supervise the construction of the proposed treatment facility.
- Dr. Agua also asked why the consultant directly choose the SBR as STP in Calapan City. Engr. Villaroman answered that they conducted benchmarking on the STPs in Manila and the common treatment facility used was SBR. However, they were still open for other option of technology wherein their focus is the effectivity and least cost.
Engr. Evora from EMB MIMAROPA asked if the treatment facility will cater only the household. Engr. Villaroman stated that they will cater also non-residentials. But they will check the type of wastewater from non-residentials to ensure that the collected wastewater would not downgrade the biological process of the STP.
- Engr. Evora asked also what creek the discharge point of the STP would be. Engr. Villaroman stated that there was no identified and for approval of LGU – Calapan City if identified.
- Engr. Nillete Fidel from DOH asked the final disposal of treated sludge. Engr. Villaroman answered that the treated sludge can be used for backfilling in SLF or for fertilizer used in agriculture.
- Dr. Agua asked who will fund the construction of STP. Engr. Villaroman suggested that it could be shared funding by the LGU and CWWC since both parties will benefit. However, it was on the decision of the concerned parties.
- Engr. Fidel also asked if there are policies from DA regarding on the use of treated sludge from agriculture purpose. Engr. Eric Aves from DA stated that he was not yet aware on the policies regarding on the use of treated sludge. Engr. Aves commits to sent policies regarding on the used of treated wastewater and sludge.
- Engr. Pablito M. Estorque, Jr. of EMB MIMAROPA asked the cost of wastewater per cubic meter per capita on consumers. Engr. Villaroman answered they did not yet discuss with the CWWC.
- Ms. Tupasi asked the difference between their study to the feasibility study (FS) from EMB. Engr. Villaroman answered the following: 1) The recommendation of the FS was the treatment of total wastewater while their study focus on septage. 2) The FS aims for the construction of sewerage treatment facility with bigger cost while their study focusses on septage from domestic.
- Engr. Fidel informed the body that the septic tanks of the household were old design which is bottomless. She also added that it would be greatly help if the LGU will strictly implement the standard design of septic tank through issuance of building permit.
- Ms. Princess Lalaine A. Walath from DPWH asked if there were identified laboratories to check the treated wastewater. Engr. Villaroman stated that the CWWC will be responsible for in identifying the laboratory. Ms. Walath asked on the on the control of chlorine together with the sludge. Engr. Villaroman stated that the chlorine will be included at the last part wherein the sludge was removed.
- Dr. Agua asked EMB if the Office has experience in monitoring STP in MIMAROPA. Ms. Tupasi stated that the Office was equipped diverse engineers and other natural sciences, and already inspected STP including the El Nido Sewage and Solid Waste Treatment Plant in El Nido, Palawan, and Sabang, and San Isidro STP in Puerto Galera.
- Dr. Agua asked City ENRO the status of Environmental Code of Calapan City and the monitoring on the STP. Ms. Abogado stated that the Environmental Code was approved last December 15, 2021, while regarding on the monitoring of STP, the LGU will be in



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partnership with EMB. She also added that in Implementing Rules and Regulations (IRR) of Environmental Code includes the implementation of STPs.

After the open forum, Engr. Villaroman added that they were still on the technical feasibility study. Their next stage will be the detailed design of the STP with the chosen contractors. Ms. Tupasi stated that after the presentation of the chosen STP, the following were still need to address:

- Tarif on the collection of wastewater from consumers;
- Effectivity of the STPs through compliance with the General Effluent Standard (GES);
- Timeline of the STP.

Engr. Villaroman was looking forward in the creation of Technical Working Group Committee in making the project a reality that focuses on the drafting of ordinances and other matters regarding on the STP in coordination with CWWC, LGU, and other concerned stakeholders.

D. Presentation of Water Quality Status

- Ms. Dumenden presented the water quality status of Calapan River and Masipit Creek with the focus on its BOD and *fecal coliform*. Based on the data shown the BOD and *fecal coliform* is still high in all stations of Calapan River. Ms. Abogado stressed that CWWC has a big role in reducing the presence of *fecal coliform* through the construction of STP. She also stated that one contributor of pollution at the waterbody are the informal settlers located along Brgy. Camilmil to Brgy. Sto. Niño. Ms. Tupasi added that the way back 2016 during the river characterization, Market area is the main contributor of pollution in Calapan River and when the STP of Market stops, the presence of *fecal coliform* increases. Ms. Abogado commits to check the operation of STP of Market. Ms. Cananea stated that DHSUD can support and provided assistance on the relocation of informal settlers once there was an available lot provided by the LGU.

E. Revisit of Calapan River WQMA Ten-Year Action Plan

Ms. Tupasi suggest board that the revisit of the action plan may focus on the mitigation of Climate Change since it was the main objective of the new DENR secretary and include the easement along the river in coordination with CENRO. Ms. Abogado request for the CENRO to present the result of the Task Force conducted last 2019 regarding on easement and land tenure. The revisit of the Action Plan will be an assignment on each board members and be discussed on the next board meeting.

F. Total Pollution Load (TPL) on Calapan River

Engr. Evora presented the Total Pollution Load (TPL) on Calapan River. She stated that the computation of the pollution load was based on EMB Memorandum Circular 2020-15 or the “Guidelines on the Total Pollution Load Estimates for Freshwater Bodies in relation to its assimilative capacity”. During the presentation, Engr. Evora highlighted the following:

- The results of the Total Pollution Load will identify if the Calapan River will be attainable or non-attainable. Moreover, it will open other sampling station including Bayanan which is part of the watershed area but not included at the Calapan River WQMA that resulted in the redesignation of Calapan River WQMA. She added that the focus of the MC was on the reduction BOD load.
- A pollution reduction will be projected per year and can be recompute once the validation and update of the TPL every five (5) years. She added that based on MC, the proposed present reduction was 30%.
- TPL shows that barangays like Biga, Puting tubig, Malad, Bayanan I and II, was not included at the WQMA that contributes to the pollution loading at Calapan River.



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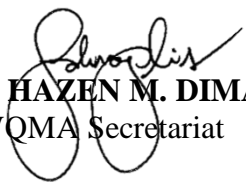
- Computation of TPL includes household/domestic, industrial/commercial, surface runoff, solid waste, and backyard livestock and poultry. Brgy. Guinobatan, Sapul, and Sta. Isabel highly contributes to the BOD load in Calapan River.
- Aside from BOD, other parameters were included at the TPL, to wit: Phosphate, Nitrate, Total Suspended Solids, and *fecal coliform*.
- Updating of the TPL was still on-going.

G. Adjournment


The meeting was adjourned at 04:15 PM with the following agreements:

Concerned CR WQMA Member	Agreements
CR WQMA Governing Board members	Revisit of Calapan River WQMA Ten-Year Action Plan
DENR – PENRO OrMin/CENRO Socorro	Presentation on the results of Task Force Calapan River last 2019 regarding on easement and land tenure
Calapan Water Works Corporation	Creation of Technical working Group Timeline on the STP
Department of Agriculture	Provide copy of policy regarding on the disposal of treated wastewater and sludge

Prepared by:


ADZ HAZEN M. DIMAPILIS
CRWQMA Secretariat

Reviewed by:


JANE T. DUMENDEN
CRWQMA Secretariat
Head, Ambient Water

Attested by:


MAEVELYN KATHRYN D. TUPASI
CRWQMA Secretariat
OIC, AMTSS

Noted by:


ENGR. PABLITO M. ESTORQUE JR.
Chief, EMED



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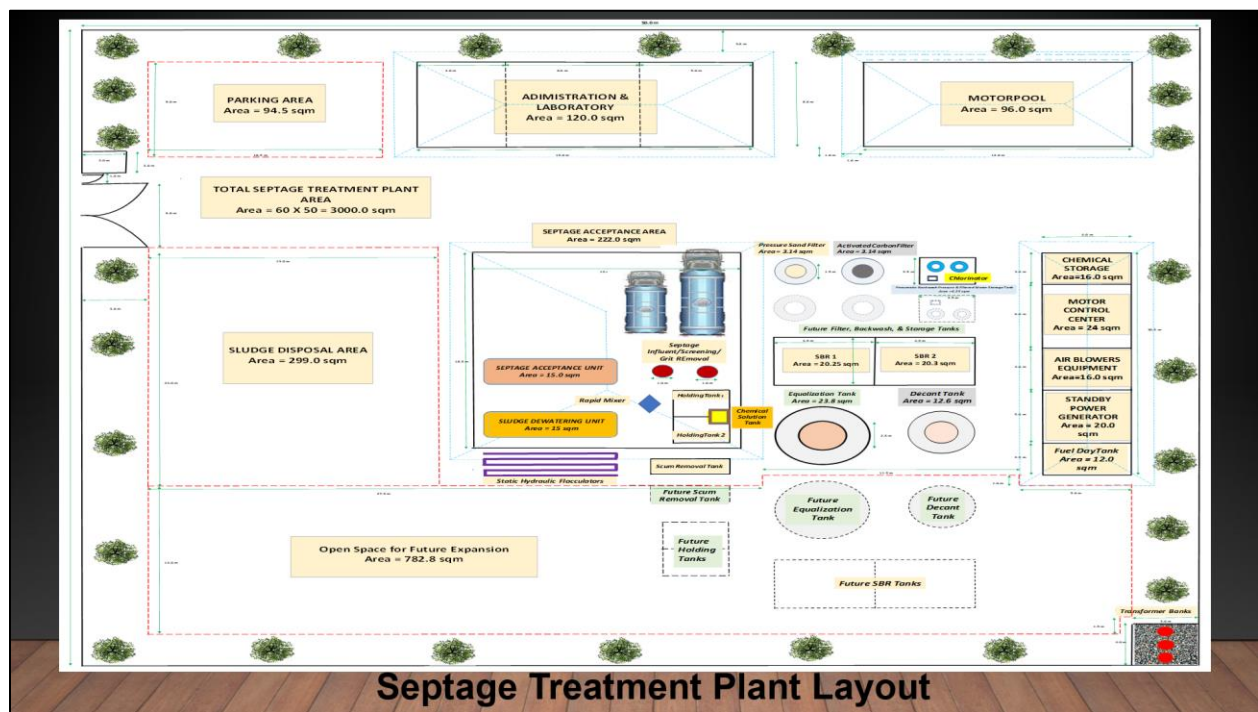


Figure 1. Proposed Septage Treatment Plant Layout

Recommended Septage Treatment Plant Site Requirement

Parameters	Proposed Location
Terrain	Flat terrain
Availability of power supply	Yes
Land	Available public land/Within the fair market value if its a private property
Drainage or receiving water bodies	Creek draining to Calapan River
Area capacity and space availability	At least 3000 sq. meters
Accessibility/ Hauling distance from proposed Service Area	Within 8 kms. radius
Current land use	As approved by LGU
Occurrence of flooding	None
Proximity to sensitive water sources	None
Right-of-way	Available
Main access road width	Approximately 6.0 m
Access road pavement	Concrete paved
Traffic situation	No traffic congestion

Figure 2. Recommended Septage Treatment Plant Site Requirements

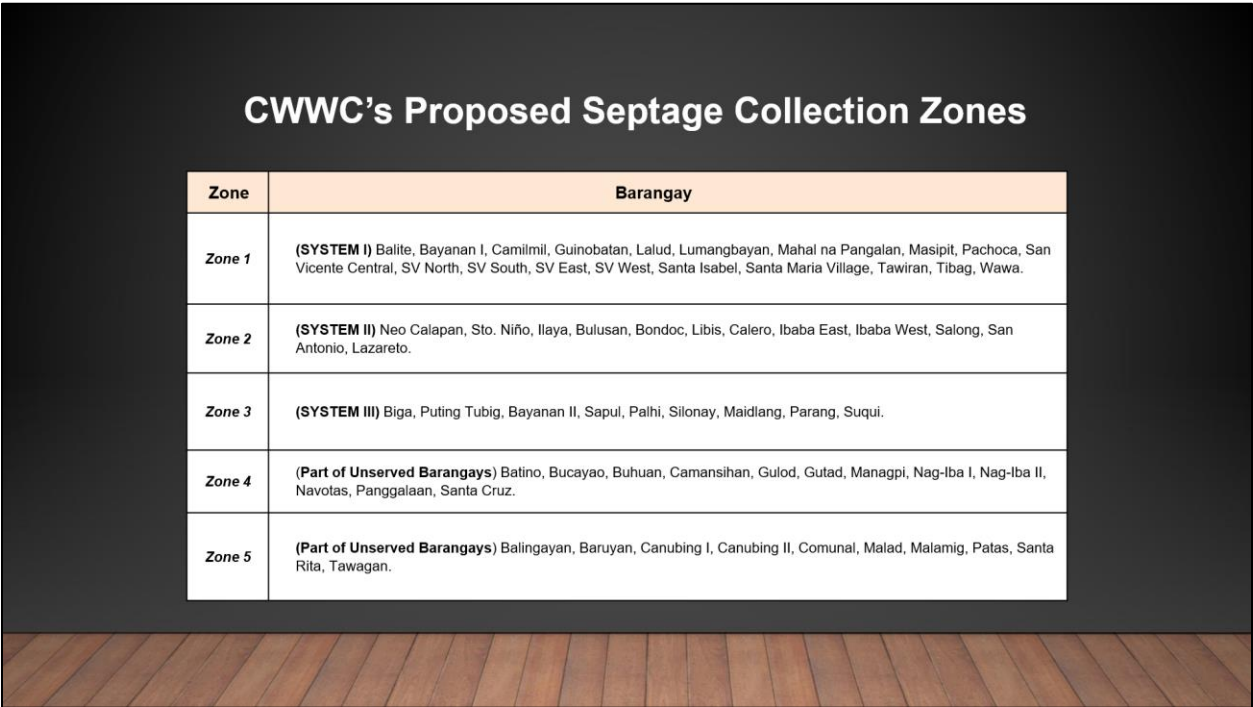


Figure 3. CWWC's Proposed Septage Collection Zones



Figure 4. Engr. Rivera explaining the proposed STP in Calapan City



Figure 5. Engr. Estorque asking question to the board member



Figure 6. 3rd Quarter 2022 Calapan River WQMA Governing Board Meeting