01.01.2019

To, The CEO, Mahabaleshwar Giristhan Nagar Parishad, Tal. Mahabaleshwar, Dist. Satara

Subject : Inspection of Sewage Treatment Plant (4.0 MLD & 1.50 MLD) at Mahabaleshwar MC

Dear Madam,

At the onset, let me thank you for your kind cooperation in facilitating my visit. This is with reference to the Inspection of Sewage Treatment Plants (STP) at Mahabaleshwar Municipal Council. I along with Mr. Bhadake, Engineer, Mahabaleshwar MC and subject expert Shri. Ketan Dantale, Director, Aquamate Consultants Pvt. Ltd., conducted a site visit of both the STPs at Mahabaleshwar on 27.12.2018.

Following are our observations and suggestions regarding effective functioning of STPs and better environment protection.

A. 4.00 MLD Sewage Treatment plant at Mahabaleshwar

Observations and specific suggestions :

- (i) Plant is installed on Sequential Batch Reactor (SBR) technology.
- 4.00 MLD plant at present is not in operation since four months as Electrical power break down. Repairing is under process. T
- (iii) One of floating blower is not in operation, needs to be repaired.
- (iv) Bar screen chamber needs to be cleaned properly.
- (v) Dis-infection dosing system is not in place. Dis-infection dosing system needs to be in place as per Maharashtra State Pollution Control Board guidelines.
- (vi) Sludge handling unit (Decanter) is not in operation.
- (vii) Success of sewage treatment plant is based on efficiency of operation. Operation & maintenance of plant needs to be closely monitored forever.

B. 1.50 MLD Sewage Treatment plant at Mahabaleshwar

Observations and specific suggestions :

- (i) Plant is installed on Moving Bed Bio Reactor (MBBR) technology.
- (ii) 1.50 MLD plant is under operation.
- a. Bar Screen chamber to be cleaned properly & it is needed to avoid plastic items / unexpected debris to enter to aeration tank.
- b. Dis-infection dosing system is not in place. Dis-infection dosing system needs to be in place as per Maharashtra State Pollution Control Board guidelines.
- (iii) Sludge handling unit (Centrifuge) is not in operation.
- (iv) Success of sewage treatment plant is based on efficiency of operation.
- (v) Operation & maintenance of plant to be closely monitored forever.

General Suggestions :

(i) It is observed that it very difficult to check water quality analysis of inlet & outlet water at Sewage treatment plant at Panchgani. Samples need to be sent to Satara for checking. I reiterate the suggestion given in HLMC meeting to set up basic lab to analyze parameters like BOD (Bio-Chemical Oxygen Demand), COD (Chemical Oxygen Demand), TSS (Total Suspended Solids), pH etc.

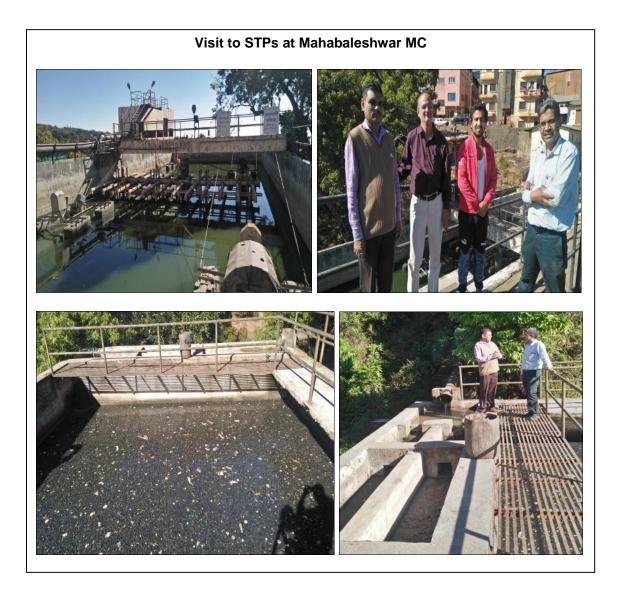
(ii) On successful operation of Sewage treatment plants, outlet water can be used for Municipal gardens, Road Cleaning, Supply to Construction curing of Nagar Parishad construction project or private project.

I am also providing herewith the contact details of the subject expert (Shri. Ketan Dantale, Director, Aquamate Consultants Pvt. Ltd., Pune. Phone : 9823057410, 9225508858 Email : <u>ketan@aquaconsultants.in</u>). Please feel free to get in touch in case you need any inputs.

I hope and wish that necessary steps will be undertaken immediately incorporating above suggestions for better environmental health and protection of this pristine ESZ.

Thanking you, Yours sincerely,

-Sd Dr. Ankur Patwardhan Chairman, HLMC



01.01.2019

To, The CEO, Panchgani Giristhan Nagar Parishad, Tal. Mahabaleshwar, Dist. Satara - 412805

Subject : Inspection of Sewage Treatment Plant (0.65 MLD & 0.35 MLD) at Panchgani MC Ref : Your letter no. जा. क्र. f - /-/ - f

Dear Madam,

At the onset, let me thank you for your kind cooperation in facilitating my visit. This is with reference to the Inspection of Sewage Treatment Plants (STP) at Panchgani Municipal Council. I along with Mr. Nikhil Pawar, Engineer Panchgani MC and subject expert Shri. Ketan Dantale, Director, Aquamate Consultants Pvt. Ltd., conducted a site visit of both the STPs at Panchgani on 27.12.2018.

Following are our observations and suggestions regarding effective functioning of STPs and better environment protection.

A. 0.65 MLD (Siddharth Nagar) and 0.35 MLD (Shivaji Nagar) STPs at Panchgani MC

Observations :

- Existing old plant with primary & secondary treatment with aerobic cum unaerobic process was not in use. This plant is under modification & upgradation with Moving Bed Bio Reactor (MBBR) technology.
- (ii) Opted technology upgradation is under implementation. New Air blowers are introduced. Civil work is modified so as to suite MBBR technology.
- (iii) Available civil infrastructure & modification is to suite STP technology.
- (iv) New Tube settler unit & sludge drying beds are to be added in scheme, work for the same is in the process.

Specific Suggestions :

- (i) It is suggested to provide adequate precaution at Bar Screen to avoid, plastic debris/ unexpected substances entering to Collection tank.
- (ii) Advance MBBR media to be selected & used for better results.
- (iii) It is suggested to take Hydraulic test of Filtration Unit.
- (iv) Filtration units to be painted from inside to prevent corrosion.

- (v) Activated Carbon to be used with IV900 Grade.
- (vi) Due to heavy monsoon conditions it is suggested to cover sludge drying beds to prevent excess water entering to beds.
- (vii) Dis-infection dosing system is not in place. Dis-infection dosing system to be in place as per Maharashtra State Pollution Control Board guidelines.
- (viii) Outlet parameters to be adhere to Consent to Operate received from Maharashtra State Pollution control Board.
- (ix) Success of sewage treatment plant is based on efficiency of operation. Opertion & maintenance of plant to be closely monitored forever.

General Suggestions :

(i) It is observed that it very difficult to check water quality analysis of inlet & outlet water at Sewage treatment plant at Panchgani. Samples need to be sent to Satara for checking. I reiterate the suggestion given in HLMC meeting to set up basic lab to analyze parameters like BOD (Bio-Chemical Oxygen Demand), COD (Chemical Oxygen Demand), TSS (Total Suspended Solids), pH etc.

(ii) On successful operation of Sewage treatment plants, outlet water can be used for Municipal gardens, Road Cleaning, Supply to Construction curing of Nagar Parishad construction project or private project.

I am also providing herewith the contact details of the subject expert (Shri. Ketan Dantale, Director, Aquamate Consultants Pvt. Ltd., Pune. Phone : 9823057410, 9225508858, Email : <u>ketan@aquaconsultants.in</u>). Please feel free to get in touch in case you need any inputs.

I also got an opportunity to interact with Smt. Karadkar, President, Panchgani MC and discuss the same with her. She has assured that necessary steps will be taken.

I hope and wish that necessary steps will be undertaken immediately incorporating above suggestions for better environmental health and protection of this pristine ESZ.

Thanking you,

Yours sincerely,

-Sd Dr. Ankur Patwardhan Chairman, HLMC

