



GUAM ENVIRONMENTAL PROTECTION AGENCY

AHENSIAŃ PRUTEKSION LINA'LA GUAHAN

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JUN 18 2015

Ms. Nancy Woo
Director Water Division
USEPA, Region 9
75 Hawthorne Street, WRT-5
San Francisco, CA 94105

ATTN: Ms. Becky Mitschele, NPDES Permits Office

RE: Section 401 Water Quality Certification (401WQC 15-07) for NPDES (Renewal) for Guam Waterworks Authority (GWA), Baza Gardens Sewage Treatment Plant (STP), Baza Gardens Street, Talofofu, GU, 96915 NPDES GU0020095

Dear Ms. Mitschele,

The Guam Environmental Protection Agency (Guam EPA) has reviewed the above subject application for a National Pollution Discharge Elimination System (NPDES) permit for Baza Gardens Sewage Treatment Plant, to discharge effluent into Togcha River through the Togcha River Exfiltration Trench through Outfall No.001, located at 12° 22' 16" N and 114° 44' 49" E. The facility provides secondary treatment of wastewater using an activated sludge package treatment system. The wastewater influent enters the headworks and passes through an aerated grit chamber followed by a comminutor. If the flow exceeds the comminutor capacity, a channel equipped with a manually-cleaned bar rack allows de-gritted wastewater to bypass the comminutor. Once the wastewater enters the aeration section, it is aerated and mixed with return activated sludge. The mixed liquor from the aeration tank flows into the secondary clarifier and then into the chlorine contact tank. However, chlorination currently is not practiced at the STP. The activated sludge is stabilized in the aerobic digester before being pumped into a tanker truck and hauled to the Hagatna (Agana) STP or the Northern District STP. Final dewatered cake disposal is at the Layon Landfill. Inspections in 2012 documented the treatment units in poor condition and as functioning improperly. These observations may explain why the facility exceeded its effluent limits for nutrients and bacteria.

The Guam Water Quality classification for the Togcha River is "S-3" (Low Quality) based on the *Guam Water Quality Standards 2001 Revisions*. The Togcha River empties into the Togcha Bay. Designated water use activities includes the use for commercial, agricultural, and industrial activities. Aesthetic enjoyment and limited body contact recreation are acceptable in this zone, as well as maintenance of aquatic life. There are no known impairments for Togcha River. However, a downstream waterbody, Togcha Bay (and neighboring beaches), are impaired for *Enterococci* bacteria.

Guam EPA endorses the attached USEPA Region IX NPDES Permit GU0020095, which establishes environmentally protective effluent limits and monitoring requirements on the discharger to ensure that all applicable Guam Water Quality Standards are met for the Baza Gardens STP. USEPA has classified this discharge as a "minor discharger".

As reported in the Baza Gardens Wastewater System Evaluation, the sampled effluent, as recorded in the monthly DMRs, did not meet effluent limits at least once a month in 40 of the 60 month period [October 2008 to July 2013]. The most commonly exceeded parameters were *E. coli* (*Escherichia coli*) and nutrients (i.e. phosphorous and nitrogen). (Lekven and Constantinescu 2014).

Section 401 Water Quality Monitoring:

Guam EPA is concerned about GWA's non-compliance with the monitoring and reporting requirements of the regulations.

Therefore, the Guam EPA is issuing a "**PROVISIONAL**" (for verification of monitoring compliance for the first three years of this permit renewal cycle) of Section 401 Water Quality Certification for the NPDES Permit GU0020095 (Renewal) to discharge until all original permit conditions and the following new conditions are met.

Water Quality Monitoring is required in the NPDES Permit to ensure existing designated uses and the level of water quality necessary to protect the existing uses be maintained. Water Quality Monitoring will follow parameters and frequency identified in the NPDES Permit. Additionally, any sustained or significant water quality discharge exceedance shall require increase frequency in monitoring and reporting to Guam EPA. These increases will be based on parameter, frequency and concentration of exceedance.

Water Quality Certification conditions may be added, amended, or changed and/or Water Quality Certification suspended or revoked to ensure discharge is in compliance with Guam Water Quality Standards. Water Quality Certification conditions are as follows:

Section 401 Water Quality Certification Conditions:

1. GWA's Water Quality Monitoring shall adhere to the significant changes from previous permit incorporated in NPDES Permit GU0020095 for Baza Gardens STP Outfall No. 1.
 - (a) Guam EPA does not agree with the removal of the in-stream monitoring requirements for the receiving waters because STP will not be fully decommissioned. Since the Baza Gardens STP will not be completely decommissioned but converted to a preliminary treatment system for transferring the collected wastewater nearly 8 miles to the new Agat-Santa Rita WWTP. Guam EPA mandates in-stream monitoring of receiving waters continue due to the inclusion of an overflow control system for emergency scenarios which allows the conveyance of wastewater to be discharged into Togcha River.
2. Guam EPA concurs with the rationale for numeric effluent limits and monitoring typical pollutants evaluated by USEPA. These pollutants are expected to be present in the effluent and that USEPA has selected the most stringent of applicable technology-based or water quality-based effluent limitations that GWA must follow.
3. Guam EPA strongly recommends that GWA incorporate into its planning design GEPA's mandatory requirement to connect to public sewer if public sewer is within 200 feet away for buildings, 22 GAR 5-§25104, and 22GAR 5-§25109, along the proposed 8 mile sewer line project.
4. GWA shall take immediate corrective actions or engineering measures to address significant non-compliance with water quality standards and/or environmental protection requirements. Notification must be made to Guam EPA within 24 hours.
5. GWA shall identify methodology or practices that could help in removal of nutrients (nitrates and phosphorus), in which report data's shows constantly exceeding the Guam Standards for the whole permit cycle.
6. The Togcha River Exfiltration Trench or rock infiltrator has been compromised. GWA must restore the rock infiltrator to its original state for it to function correctly where the velocity of the effluent is reduced and diffused into the receiving waters.

7. Best Management Practices (BMPs) or other Operational Procedure Documents/Standard Operational Procedures (SOPs) must be submitted and made readily available to Guam EPA inspectors for facility inspections to ensure water quality standards are not adversely impacted by facility activities and outfall discharge.
 - a. Guam EPA Certified Waste Water Treatment Plant Operators must be trained on the new proposed waste water treatment processes and pass proficiency tests associated with the new waste water treatment methodologies and operational standards and guidelines.
 - b. The sludge disposal should be described in the BMP's and SOP's for the facility and disposed appropriately based on the initial sludge testing analysis. If testing results are below action levels/standards, no further sludge analysis will be required.

As the certifying entity on Guam for the Federal Clean Water Act Section 401 Water Quality Certification (WQC) and with the authority as outlined in Title 22, Division 2, Chapter 5 of the Guam Administrative Rules and Regulations, Guam EPA hereby issues a "PROVISIONAL" CWA Section 401 WQC to the Guam Waterworks Authority under Baza Gardens STP's NPDES Permit #GU0020095.

Sections 208(e), 301, 302, 303, 306, and 307 of the CWA and with the Guam Water Quality Standards, as amended in 2001 (Guam EPA, 2001)

This 401 WQC shall be suspended and/or revoked if above permit conditions are not adhered to or when significant and sustained water quality degradation occurs as a result of the permitted activity as determined by this Agency.

Sincerely,



ERIC M. PALACIOS

Administrator

Attachment: Section 401 Water Quality Certificate

CC: ACOE, Guam Office

USEPA, Region 9, Mr. Becky Mitschele

Guam Waterworks Authority

Bureau of Statistics & Plans, GCMP

Dept. of Agriculture, DAWR



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GUAM ENVIRONMENTAL PROTECTION AGENCY "PROVISIONAL"

Section 401 Water Quality Certification, 401 WQC 15-07:

Section 401 Water Quality Certification for Discharge: **For renewal of NPDES GU0020095 for Guam Waterworks Authority, Baza Gardens Sewage Treatment Plant, Baza Gardens Street, Talofof, GU, 96915.** The Guam Environmental Protection Agency hereby issues a "PROVISIONAL" (for first three years of this permit renewal cycle) Section 401 Water Quality Certification, in accordance with the Clean Water Act, Public Law 95-127 and the Guam Water Quality Standards 2001 Revisions (GWQS), pursuant to the Guam Water Pollution Control Act, Chapter 47, Title 10 GCA. These discharge limits are authorized under Guam's anti-degradation policy GWQS 5101.B. This "PROVISIONAL" Section 401 Water Quality Certification permit is subject to compliance to all permit conditions stipulated above. The issuance of Water Quality Certification does not exempt or waive any other local and federal requirements or allow the applicant to injure or damage surrounding properties. No person shall willfully deface, alter, forge, counterfeit, or falsify this certification.

ERIC M. PALACIOS
Administrator

Date: 06/18/15