



GUAM ENVIRONMENTAL PROTECTION AGENCY • AHENSIAN PRUTEKSIÓN LINA'LA' GUÅHAN
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ECONOMIC IMPACT STATEMENT FOR THE WATER DIVISION'S ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM REGULATIONS AS PROPOSED BY THE GUAM ENVIRONMENTAL PROTECTION AGENCY

The Guam Environmental Protection Agency (Guam EPA) seeks to propose rules and regulations for onsite wastewater treatment and disposal facilities. In accordance with the duties outlined in 10 GCA Ch. 45 §45106, the Guam Environmental Protection Agency is “authorized and directed to adopt, amend and repeal rules and regulations implementing and consistent with the powers and duties vested in the Agency pursuant to §45105.” In accordance with and 10 GCA Ch 48 §48125, “GEPA shall establish fees for permits, inspections, and related services by regulation.”

The promulgation of these proposed rules and regulations seeks to administratively satisfy the following:

- Compliance with the United States Environmental Protection Agency's (USEPA) Clean Water Act and the Guam Environmental Protection Agency Act
- Support growth and development to address Guam while simultaneously protecting the sole source of drinking water in the Northern Lens Aquifer; and
- Complete the issuance of regulations and permit requirements for Type 4 [toilet] facilities and holding tanks in accordance with 10 GCA 48 Sec 48125, enacted on July 18, 2024.

At this present time, Guam does not have local rules or regulations for the application, review, or permitting of Type 4, or nitrogen-reducing, toilet facilities or holding tanks. While Guam EPA has federal funding through FY 2025, these funds are limited with regards to their mandates to conduct septic system permitting and construction inspections. Further, it is anticipated that Guam EPA will lose 95% of this funding in FY2026.

As such, and in the spirit of the Agency's compliance with transparency and open governance, Guam EPA hereby provides the following statements for consideration under requirements of 5 GCA §9301(f) (1-6).

(1) The purpose and the need for the rule or regulation; an assessment of the risk and the cost of the imposed rules or regulation. In addition, government agencies proposing a new rule or regulation must include with the assessment, the justification for the new rule or regulation.

Studies by the University of Guam's Water and Environmental Research Institute of the Western Pacific (WERI) between 2002 and 2020 demonstrate a trending increase in nitrate concentrations at least partially attributable to the management of sewage, establishing septic systems as one of the main threats to the Northern Guam Lens Aquifer (NGLA), which supplies approximately eighty percent (80%) of Guam's drinking water.

The purpose of these regulations is to, broaden the types of allowable wastewater treatment systems allowable by Guam EPA, help to address Guam's current housing shortage, support housing security, and to leverage advances in technology to prevent additional risk and contamination to



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the NGLA. Further justification for the proposal of these regulations stem from duties and authorities directed to the Guam EPA by the Government of Guam as noted above.

Guam EPA has conducted a thorough review and comparison to related regulations, and has determined that these proposed new and amended rules and regulations for onsite wastewater treatment and disposal systems is unlikely to create a serious inconsistency or interference with any other actions planned or undertaken by other instrumentalities of the Government of Guam.

The risks related to the adoption and implementation of these regulations include probably increased construction and operating costs to individual homeowners; delays in construction completion related to shipping of nitrogen-reducing systems or holding tanks; increased mandates to the staff of Guam EPA as they relate to review, inspection, and other permitting.

Potential risks of not adopting and implementing these regulations as proposed include continued deterioration to the water quality of the NGLA and recreational waters in and surrounding Guam, which could result in increased public utility costs in order to provide potable water to the island, additional risk to the public health of every individual in Guam, and risk to the ecosystems in and around Guam.

(2) The financial impact of the proposed rule or regulation upon those persons or corporation entities directly affected by the proposed rule or regulation, and upon the people and the economy of Guam.

The proposed regulations potentially increase the cost of some residential and commercial construction or lot improvement inside the GPZ, as well as the cost of permitting to waste haulers; however, they also make possible the construction of ADUs and other dwellings in places that were not previously possible. Guam EPA's estimates are that 50-60 lots previously unable to be permitted would now be possibly permitted. Further, in addressing the current housing shortage for Guam, these proposed regulations both potentially decrease overall costs to home and business owners and offer the opportunity for economic expansion across Guam. While some of the added types of allowable systems are more financially expensive than some of the currently allowable systems, some of the additional options are more affordable to buy or construct, less expensive to operate and maintain, and offer options to homeowners whose systems have previously failed due to high groundwater.

While the additions and amendments proposed do not change the scope of the existing regulations, they add relevant standards to better guide designers and construction staff, which may well decrease the time spent in design, review, construction, inspection, and remediation. The amendments also make possible the potential for electronic submission of building plans, generating a substantial savings in printing fees for applicants.

Lastly, while some of the proposed regulations may increase construction and operating costs for some owners, they will decrease threats to the aquifer, to public health, and ultimately avoid the need for utility-scale treatment, which could have far greater cost to the entire population of Guam. The overall cost-benefit analysis shows a benefit for the utility rate-payers and tax payers, who would otherwise absorb the costs of utility-scale treatment while suffering greater risk to their health.

Overall, though some wastewater systems may have higher financial costs to buy and install or construct, the regulations proposed result in construction and maintenance that will ultimately



create septic systems that are less likely to fail or breakdown, leading to a longer life and less likely need for untimely replacement, which can be incredibly expensive and destructive to a homeowner and property. This may well result in reduced costs to owners over the life of their system. Additionally, the proposed regulations will allow construction that was previously not possible, increasing overall opportunity for economic growth as well as housing support and stability.

Any potential increase or decrease in the price or availability of any good or service on Guam directly or indirectly attributable to the proposed rule or regulation.

The Agency does not anticipate any increase or decrease in the overall cost of living, nor does it anticipate any specific increase or decrease in the price or availability of any goods or services on Guam, as a result of these proposed rules and regulations.

There could be a decrease in availability of specific types of available systems, however, this would likely look more like an increase in the demand for systems, and a potential delay in immediately available stock. The majority of the proposed systems can be constructed in place with many materials readily available and regularly used in Guam.

There is a potential for an increase in demand for certified waste haulers and their services, and which may limit immediate availability of said service to the community. Alternatively, this could offer economic opportunity to currently registered haulers, or to new businesses wishing to provide the service; thereby creating competition for the service, decreasing cost to the community, while bolstering the business.

(3) Any direct or indirect impact upon employment on Guam or any increase or decrease in the availability of a particular job or jobs in general, attributable to the proposed rule or regulation.

There is a potential for an increase in demand for certified waste haulers and their services, and which could offer economic opportunity to currently registered haulers, or to new businesses wishing to provide the service, and potentially create jobs.

There is a necessary increase in permitting review and inspection requirements, which will increase demand on the already overburdened staff of Guam EPA, as well as for fellow government agencies that also review and approve building permits. This could result in additional employment opportunities with Guam EPA, though salary deficits are still a cause of disparate hiring for the Agency.

For example, in FY 2024, Guam EPA Water Pollution Control (WPC) Program Engineers and Inspectors conducted 136 construction plan reviews and approvals, 45 inspections prior to backfilling sites, and 158 site inspections just for wastewater systems. They conducted 10 inspections for wastewater pumping facilities, and also responded to 18 complaints regarding wastewater systems. Estimating that initial reviews and inspections require a total of approximately 6-7 man-hours of work per residential property, and estimating approximately 160-170 applications for residential permitting based on previous years' average applications, we expect 960-1190 man-hours of work for residential toilet facility application review, inspection, and permitting over the next year. That's equivalent to 24-29 weeks of work for one person on only one type of inspection that Guam EPA WPC conducts.



(4) Any increase or decrease in the cost of doing business as an enterprise or industry on Guam, or any increase or decrease in doing business in general, attributable to the proposed rule or regulation.

In addition to what we have noted above, Guam EPA does not anticipate any significant increase or decrease in the cost of doing business as an enterprise or industry of Guam or in general.

As proposed, initial permit reviews, inspections, and operating permits (when required) for residential conventional soil absorption systems, holding tanks, and/or Type-4 toilet facilities would be less than \$500 per lot for an individual system. Operating permit renewals would take place at annual or 2 year increments, pending the type of system being operated.

(5) Any adverse or beneficial economic impact which is attributable to the proposed rule or regulation.

Other than as noted above, Guam EPA does not estimate other adverse or beneficial economic impacts as a result of these proposed regulations. Though there could be an increase in demand on construction companies could result in increased construction costs, it is possible that the ability to provide additional housing units as a result of previously sites unable to be permitted could decrease the cost of living by adding inventory to the housing or rental markets.

Overall, Guam EPA estimates total annual fees for application review, inspection, and operating permits to be less than \$100,000 per year through FY 2033, based on our evaluation of average annual permit requests and denials over FY 2022 and 2023. Our estimates also account for lots previously denied or ineligible that would be available for construction because of the proposed regulations. Additional detail about our estimates is attached to this economic impact statement.



				Year:	1	2	3	4	5	6	7	8	9	10
Application Review:		x fee	= total annual fee impact in dollars		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Average annual number of conventional systems installed (FY2022-23)	108	\$ 275	\$ 29,700		\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700	\$ 29,700
Average annual number of parental lots (future Type 4 - FY2022-23)	41	\$ 300	\$ 12,300		\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300	\$ 12,300
Estimated annual number of decedent lots (based on permits denied FY2022-23 plus 50%)	12	\$ 300	\$ 3,600		\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600	\$ 3,600
Estimated annual number of new holding tanks - residential	2	\$ 300	\$ 600		\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600
Estimated annual number of new holding tanks - other building types	1	\$ 300	\$ 300		\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300
Estimated annual number of extra Type 4 permits (due to setback reductions)	4	\$ 300	\$ 1,200		\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
Estimated annual number of "other" (mound) permits (for homes with failed septic systems)	1	\$ 1,000	\$ 1,000		\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Estimated first year registrations of existing holding tanks - single family residential/duplex	10	\$ 1,000	\$ 10,000		\$ 10,000					\$ -				
Estimated first year registrations of existing holding tanks - commercial, government, multi-residential	10	\$ 2,000	\$ 20,000		\$ 20,000					\$ -				
Estimated annual hauler registrations*	3	\$ 250	\$ 750		\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750
Renewals:														
Estimated annual increase in renewals for Type 4 operating permits (starts at +2 years)	59	\$ 100	\$ 5,900				\$ 5,900	\$ 11,800	\$ 17,700	\$ 23,600	\$ 29,500	\$ 35,400	\$ 41,300	\$ 47,200
Estimated annual increase in mound operating permit renewals (starts at +2 years)	1	\$ 100					\$ 100	\$ 200	\$ 300	\$ 400	\$ 500	\$ 600	\$ 700	\$ 800
Estimated annual renewal cost for holding tanks residential (baseline, +1 years)	12	\$ 100	\$ 1,200				\$ 1,200	\$ 1,600	\$ 2,000	\$ 2,200	\$ 2,400	\$ 2,600	\$ 2,800	\$ 3,000
Estimated annual renewal cost for holding tanks other buidling types (baseline, +1 years)	11	\$ 250	\$ 2,750				\$ 2,750	\$ 3,250	\$ 3,500	\$ 3,750	\$ 4,000	\$ 4,250	\$ 4,500	\$ 4,750
					FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
* assumes one truck per hauler				TOTAL ANNUAL FEES:	\$ 79,450	\$ 53,400	\$ 60,300	\$ 66,750	\$ 73,200	\$ 79,650	\$ 86,100	\$ 92,550	\$ 99,000	\$ 105,450

Application review & Inspection - residential -		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex for Type 4)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100	0.10	\$ 10.00	0.35	\$ 35.00	0.10	\$ 10.00	2.50	\$ 250.00	QA, brief review, log, verify NSF-245 certificaion, review installer certification, make final edits to permit
Engineer Supervisor	\$60	1.00	\$ 60.00	2.20	\$ 132.00	1.25	\$ 75.00	3.00	\$ 180.00	QA, technical supervision of Engineer I or II, review proposals for leaching field reduction, draft permit approval letter, review installer certification, log
Engineer III	\$55		\$ -	0.88	\$ 48.13		\$ -	4.00	\$ 220.00	
Engineer II or I	\$46	2.00	\$ 92.00	3.50	\$ 161.00	3.00	\$ 138.00	8.00	\$ 368.00	Review application, verify NSF Certification, verify installer qualifications and final installer certificaion, communicate with applicant as necessary, determine correct component sizing (including leaching field reduction proposals) & communicate to supervisor, draft operating permit, attend inspections (est. 1 out of every 2)
Environmental Inspector Supervisor	\$45	0.63	\$ 28.13	3.50	\$ 157.50	1.25	\$ 56.25	3.50	\$ 157.50	Attend one out of every 2 inspections
Environmental Inspector I or II	\$33	2.50	\$ 82.50	3.50	\$ 115.50	2.50	\$ 82.50	3.50	\$ 115.50	Perform initial ocular inspection (1 hour), perform final type 4 system inspection (1.5 hours)
TOTALS			\$ 272.63		\$ 649.13		\$ 361.75		\$ 1,291.00	
Application review & Inspection - other building types		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex for Type 4)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100	1.50	\$ 150.00	2.50	\$ 250.00	1.50	\$ 150.00	6.00	\$ 600.00	QA, thorough review, log, verify NSF-245 certificaion, review installer certification, make final edits to permit
Engineer Supervisor	\$60	3.00	\$ 180.00	4.00	\$ 240.00	4.00	\$ 240.00	8.00	\$ 480.00	QA, technical supervision of Engineer I or II, review proposals for leaching field reduction, draft permit approval letter, review installer certification, log
Engineer III	\$55	3.00	\$ 165.00	6.00	\$ 330.00	6.00	\$ 330.00	8.00	\$ 440.00	Review application, review other applicable regualtions (e.g. WQS), research treatment methods and sizing calculations, mentor and assist Engineer I or II, assist with drafting comment letters and operating permit, attend one out of every 2 inspections
Engineer II or I	\$46	8.00	\$ 368.00	8.00	\$ 368.00	8.00	\$ 368.00	8.00	\$ 368.00	Review application, verify NSF Certification, verify installer qualifications and final installer certificaion, communicate with applicant as necessary, determine correct component sizing (including leaching field reduction proposals) & communicate to supervisor, draft operating permit, attend every inspection
Environmental Inspector Supervisor	\$45	0.63	\$ 28.13	3.50	\$ 157.50	1.25	\$ 56.25	3.50	\$ 157.50	Attend every inspection
Environmental Inspector I or II	\$33	2.50	\$ 82.50	3.50	\$ 115.50	2.50	\$ 82.50	3.50	\$ 115.50	Perform initial ocular inspection (1 hour), perform final type 4 system inspection (1.5 hours)
TOTALS			\$ 973.63		\$ 1,461.00		\$ 1,226.75		\$ 2,161.00	

Application review fees, residential - per hour, Additional		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex for Type 4)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100	0.08	\$ 8.00	0.50	\$ 50.00	0.25	\$ 25.00	0.70	\$ 70.00	QA, thorough review, log, verify NSF-245 certificaion, review installer certification, make final edits to permit
Engineer Supervisor	\$60	1.00	\$ 60.00	1.00	\$ 60.00	1.00	\$ 60.00	1.00	\$ 60.00	QA, technical supervision of Engineer I or II, review proposals for leaching field reduction, draft permit approval letter, review installer certification, log
Engineer III	\$55		\$ -		\$ -	0.10	\$ 5.50	0.80	\$ 44.00	Review application, review other applicable regualtions (e.g. WQS), research treatment methods and sizing calculations, mentor and assist Engineer I or II, assist with drafting comment letters and operating permit, attend one out of every 2 inspections
Engineer II or I	\$46	1.00	\$ 46.00	1.00	\$ 46.00	1.00	\$ 46.00	1.00	\$ 46.00	Review application, verify NSF Certification, verify installer qualifications and final installer certificaion, communicate with applicant as necessary, determine correct component sizing (including leaching field reduction proposals) & communicate to supervisor, draft operating permit, attend every inspection
Environmental Inspector Supervisor	\$45		\$ -		\$ -		\$ -		\$ -	
Environmental Inspector I or II	\$33		\$ -		\$ -		\$ -		\$ -	
TOTALS			\$ 114.00		\$ 156.00		\$ 136.50		\$ 220.00	

Application review fees, other building types - per hour, Additional		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex for Type 4)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100	0.40	\$ 40.00	0.75	\$ 75.00	0.50	\$ 50.00	0.80	\$ 80.00	QA, thorough review, log, verify NSF-245 certificaion, review installer certification, make final edits to permit
Engineer Supervisor	\$60	1.00	\$ 60.00	1.00	\$ 60.00	1.00	\$ 60.00	1.00	\$ 60.00	QA, technical supervision of Engineer I or II, review proposals for leaching field reduction, draft permit approval letter, review installer certification, log
Engineer III	\$55	0.25	\$ 13.75		\$ -	0.60	\$ 33.00	0.80	\$ 44.00	Review application, review other applicable regualtions (e.g. WQS), research treatment methods and sizing calculations, mentor and assist Engineer I or II, assist with drafting comment letters and operating permit, attend one out of every 2 inspections
Engineer II or I	\$46	1.00	\$ 46.00	1.00	\$ 46.00	1.00	\$ 46.00	1.00	\$ 46.00	Review application, verify NSF Certification, verify installer qualifications and final installer certificaion, communicate with applicant as necessary, determine correct component sizing (including leaching field reduction proposals) & communicate to supervisor, draft operating permit, attend every inspection
Environmental Inspector Supervisor	\$45		\$ -		\$ -		\$ -		\$ -	
Environmental Inspector I or II	\$33		\$ -		\$ -		\$ -		\$ -	
TOTALS			\$ 159.75		\$ 181.00		\$ 189.00		\$ 230.00	

Additional Inspection Fees		Conventional soil		Holding Tanks		Type 4 and Mound		Other system types		
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	Job tasks (ex. Holding Tanks)
Chief Engineer	\$100	0.03	\$ 3.00	0.10	\$ 10.00	0.07	\$ 7.00	0.10	\$ 10.00	QA, more thorough review, log, verify eligibility, review holding tank O&M estimate, O&M Contract, make final edits to permit
Engineer Supervisor	\$60	0.10	\$ 6.00	0.30	\$ 18.00	0.15	\$ 9.00	0.30	\$ 18.00	QA, technical supervision of Engineer I or II, draft permit approval letter, review holding tank O&M contract, log, attend one out of every 5 inspections
Engineer III	\$55		\$ -	0.10	\$ 5.50	0.05	\$ 2.75	0.50	\$ 27.50	Attend one out of every 4 inspections
Engineer II or I	\$46	0.25	\$ 11.50	0.50	\$ 23.00	0.50	\$ 23.00	0.50	\$ 23.00	Review application, verify eligibility, communicate with applicant as necessary, determine correct component sizing & communicate to supervisor, draft operating permit, attend inspections (est. 1 out of every 2)
Environmental Inspector Supervisor	\$45	0.25	\$ 11.25	1.00	\$ 45.00	0.50	\$ 22.50	1.00	\$ 45.00	Attend every inspection
Environmental Inspector I or II	\$33	1.00	\$ 33.00	1.00	\$ 33.00	1.00	\$ 33.00	1.00	\$ 33.00	Perform initial ocular inspection (1 hour), perform final holding tank inspection and leak test (2.5 hours)
TOTALS			\$ 64.75		\$ 134.50		\$ 97.25		\$ 156.50	

Operating Permit Initial - residential		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex. Other System Types)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100		\$ -	0.10	\$ 10.00	0.08	\$ 8.00	0.10	\$ 10.00	QA, brief review, log, review O&M vendor report & certification, O&M Contract, make final edits to renewal letter
Engineer Supervisor	\$60		\$ -	1.00	\$ 60.00	0.75	\$ 45.00	0.75	\$ 45.00	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer III	\$55		\$ -		\$ -		\$ -	0.50	\$ 27.50	Mentor and provide technical assistance to Engineer I or II, attend inspections as needed (estimated 1 out of every 4)
Engineer II or I	\$46		\$ -	2.00	\$ 92.00	2.00	\$ 92.00	2.00	\$ 92.00	Monitor tracking database and communicate with permit holders on an annual basis, Review O&M vendor report & certification, review O&M contract, draft renewal letter, communicate with Supervisor, inspect if indicated by records (est. 1 out of every 10)
Environmental Inspector Supervisor	\$45		\$ -	0.17	\$ 7.65	0.03	\$ 1.35	0.03	\$ 1.35	Attend one out of every 4 inspections
Environmental Inspector I or II	\$33		\$ -	0.63	\$ 20.63	0.10	\$ 3.30	0.10	\$ 3.30	Inspect as directed by Engineer I or II, estimated 1 out of every 15 renewals (1.5 hours each)
TOTALS			\$ -		\$ 190.28		\$ 149.65		\$ 179.15	
Operating Permit Initial - other building types		Conventional soil		Holding Tanks		Type 4 and Mound		Other system types		Job tasks (ex. Other System Types)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100		\$ -	0.20	\$ 20.00	0.15	\$ 15.00	0.75	\$ 75.00	QA, brief review, log, review O&M vendor report & certification, O&M Contract, make final edits to renewal letter
Engineer Supervisor	\$60		\$ -	1.50	\$ 90.00	0.90	\$ 54.00	0.90	\$ 54.00	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer III	\$55		\$ -		\$ -		\$ -	0.90	\$ 49.50	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer II or I	\$46		\$ -	3.50	\$ 161.00	4.00	\$ 184.00	5.00	\$ 230.00	Monitor tracking database and communicate with permit holders on an annual basis, Review O&M vendor report & certification, review O&M contract, draft renewal letter, communicate with Supervisor, inspect every facility
Environmental Inspector Supervisor	\$45		\$ -	0.21	\$ 9.45	0.08	\$ 3.60	0.63	\$ 28.35	Attend one out of every 4 inspections
Environmental Inspector I or II	\$33		\$ -	0.83	\$ 27.39	0.30	\$ 9.90	2.50	\$ 82.50	Inspect as directed by Engineer I or II, estimated every renewal (2.5 hours each)
TOTALS			\$ -		\$ 307.84		\$ 266.50		\$ 519.35	

Operating Permit Renewal - residential		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex. Other System Types)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100		\$ -	0.10	\$ 10.00	0.08	\$ 8.00	0.10	\$ 10.00	QA, brief review, log, review O&M vendor report & certification, O&M Contract, make final edits to renewal letter
Engineer Supervisor	\$60		\$ -	0.50	\$ 30.00	0.75	\$ 45.00	0.50	\$ 30.00	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer III	\$55		\$ -		\$ -		\$ -	0.50	\$ 27.50	Mentor and provide technical assistance to Engineer I or II, attend inspections as needed (estimated 1 out of every 4)
Engineer II or I	\$46		\$ -	1.00	\$ 46.00	1.25	\$ 57.50	1.25	\$ 57.50	Monitor tracking database and communicate with permit holders on an annual basis, Review O&M vendor report & certification, review O&M contract, draft renewal letter, communicate with Supervisor, inspect if indicated by records (est. 1 out of every 10)
Environmental Inspector Supervisor	\$45		\$ -	0.17	\$ 7.65	0.03	\$ 1.35	0.03	\$ 1.35	Attend one out of every 4 inspections
Environmental Inspector I or II	\$33		\$ -	0.63	\$ 20.63	0.10	\$ 3.30	0.10	\$ 3.30	Inspect as directed by Engineer I or II, estimated 1 out of every 15 renewals (1.5 hours each)
TOTALS			\$ -		\$ 114.28		\$ 115.15		\$ 129.65	
Operating Permit Renewal - other building types		Conventional soil absorption systems		Holding Tanks		Type 4 and Mound Facilities		Other system types		Job tasks (ex. Other System Types)
	Hourly cost	hours	cost	hours	cost	hours	cost	hours	cost	
Chief Engineer	\$100		\$ -	0.20	\$ 20.00	0.15	\$ 15.00	0.75	\$ 75.00	QA, brief review, log, review O&M vendor report & certification, O&M Contract, make final edits to renewal letter
Engineer Supervisor	\$60		\$ -	1.00	\$ 60.00	0.75	\$ 45.00	0.50	\$ 30.00	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer III	\$55		\$ -		\$ -		\$ -	0.50	\$ 27.50	QA, technical supervision of Engineer I or II, review permit renewal letter, review O&M vendor report & certification, O&M contract, log in tracking database
Engineer II or I	\$46		\$ -	2.00	\$ 92.00	3.00	\$ 138.00	3.00	\$ 138.00	Monitor tracking database and communicate with permit holders on an annual basis, Review O&M vendor report & certification, review O&M contract, draft renewal letter, communicate with Supervisor, inspect every facility
Environmental Inspector Supervisor	\$45		\$ -	0.25	\$ 11.25	0.08	\$ 3.60	0.50	\$ 22.50	Attend one out of every 4 inspections
Environmental Inspector I or II	\$33		\$ -	0.75	\$ 24.75	0.30	\$ 9.90	1.50	\$ 49.50	Inspect as directed by Engineer I or II, estimated every renewal
TOTALS			\$ -		\$ 208.00		\$ 211.50		\$ 342.50	

Hauler Registration				
	Hourly cost	hours	cost	Job tasks
Chief Engineer	\$100	0.08	\$ -	QA, brief review, log,
Engineer Supervisor	\$60	0.10	\$ 6.00	QA, technical supervision of Engineer III, log
Engineer III	\$55	3.00	\$ 126.00	Review application, review previous records, communicate with applicant, review registration letter and documentation, lead inspection of hauler's trucks and facility, mentor Engineer I or II, communicate with Supervisor
Engineer II or I	\$46	4.00	\$ 156.00	Review application, review previous records, communicate with applicant, draft registration letter and documentation, inspect hauler's trucks and facility, communicate with Engineer III and Supervisor
Environmental Inspector Supervisor	\$45		\$ -	
Environmental Inspector I or II	\$33		\$ -	
TOTALS			\$ 288.00	