



HDC WAIMARAMA BEACH DOMAIN RGF EFFLUENT MANAGEMENT SYSTEM BY EMS LTD



WHO WE ARE

- 38 years practical experience.
- Desire to seek a better way and continual improvement.
- Rational, sustainable and commercially focused solutions.
- Committed to a clean and healthy future.

WHAT WE DO

- Full service
 - Design
 - Installation
 - Ongoing support
- Assist with, and ensure regulatory paperwork and compliance

WHAT WE OFFER

- Tailor made system unique to your needs.
- Locally sourced products and recycled glass in keeping with the 3r's (reduce, recycle and reuse).
- Team of hardworking skilled technicians who live and breath the EMS way.
- History of successful solutions delivered to other large scale clients (Mr Apple RSE Villages, Schools – Te Aute & Hukarere Colleges, local Papakāinga developments, NCC & HDC projects).

WHAT WE OFFER

These previous successful installations position us well to confidently deliver a tailored solution for you our valued client. The EMS RGF at Waimarama beach is:

- Specifically designed to serve the HB and Waimarama Community.
- It is cost effective to install and operate into the future.
- It has telemetry control functionality to enable:
 - High level alarm notification, daily flows, peak flows, automatic adjustments to manage season variations.

STANDARDS COMPLIANCE

The Tanks

- All tanks are fibre reinforced.
- Constructed to comply with structural building code AS/NZS:1546 & AS/NZS:1547 2012.
- Have been specifically sized and constructed for this project.



RECYCLED GLASS HOUSING

Installation in progress

- EMS Team always ensure quality installation.
- They are qualified drainlayers and HBRC approved designers and installers.
- Precast concrete walls levelled and sealed ready for fibre re-enforced concrete base.



QUALITY ASSURANCE

Inspection

- Tanks inspected by Josh the digger operator to make sure everything is safe to backfill.
- The tanks are buried out of site out of mind so quality checks are doubly important.



PLACING FILTRATION MEDIA & GLASS

RGF Construction:

- EMS team construct the walls and base to house the recycled glass filter material.
- This is where the wastewater is treated to a very high standard prior to discharge to land.

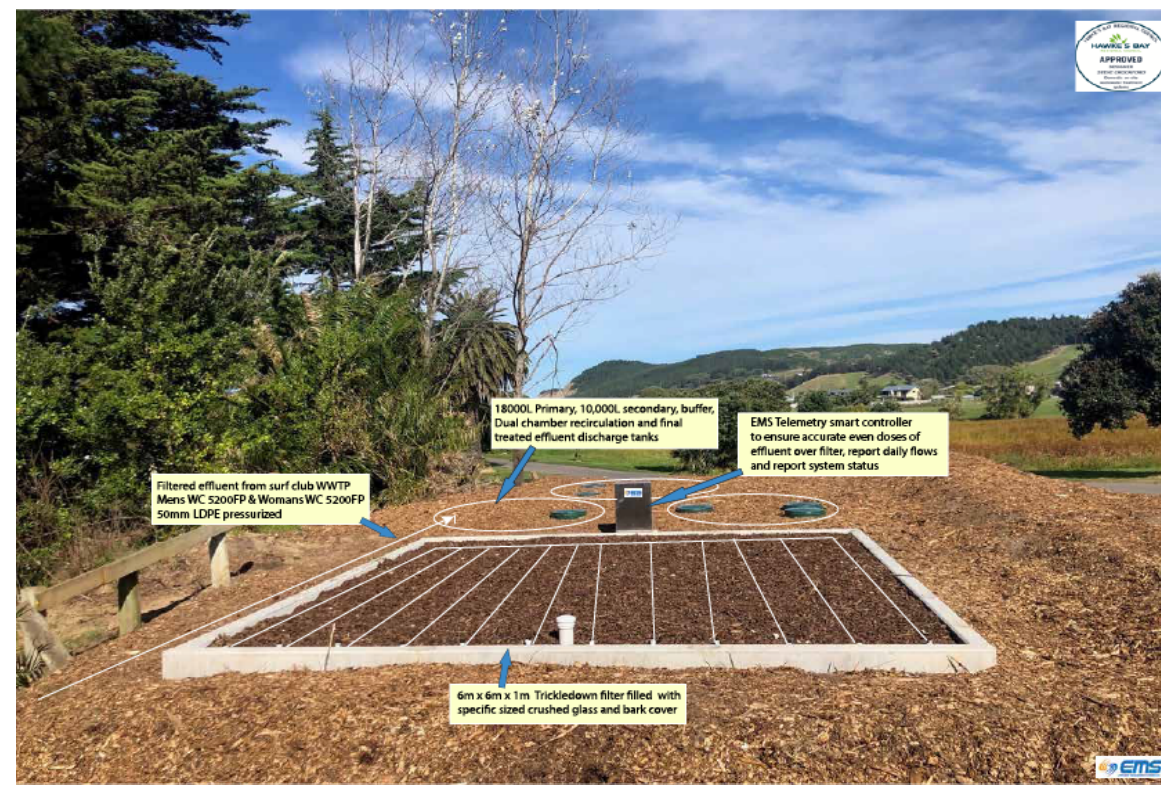


EVEN DISTRIBUTION IS CRITICAL

Treated Effluent Distribution:
Under each black spray cap is a nozzle that when pressurised will ensure even distribution of the effluent across 23 tonne of recycled glass filtration and graded stone media.



RGF SYSTEM COMPLETE

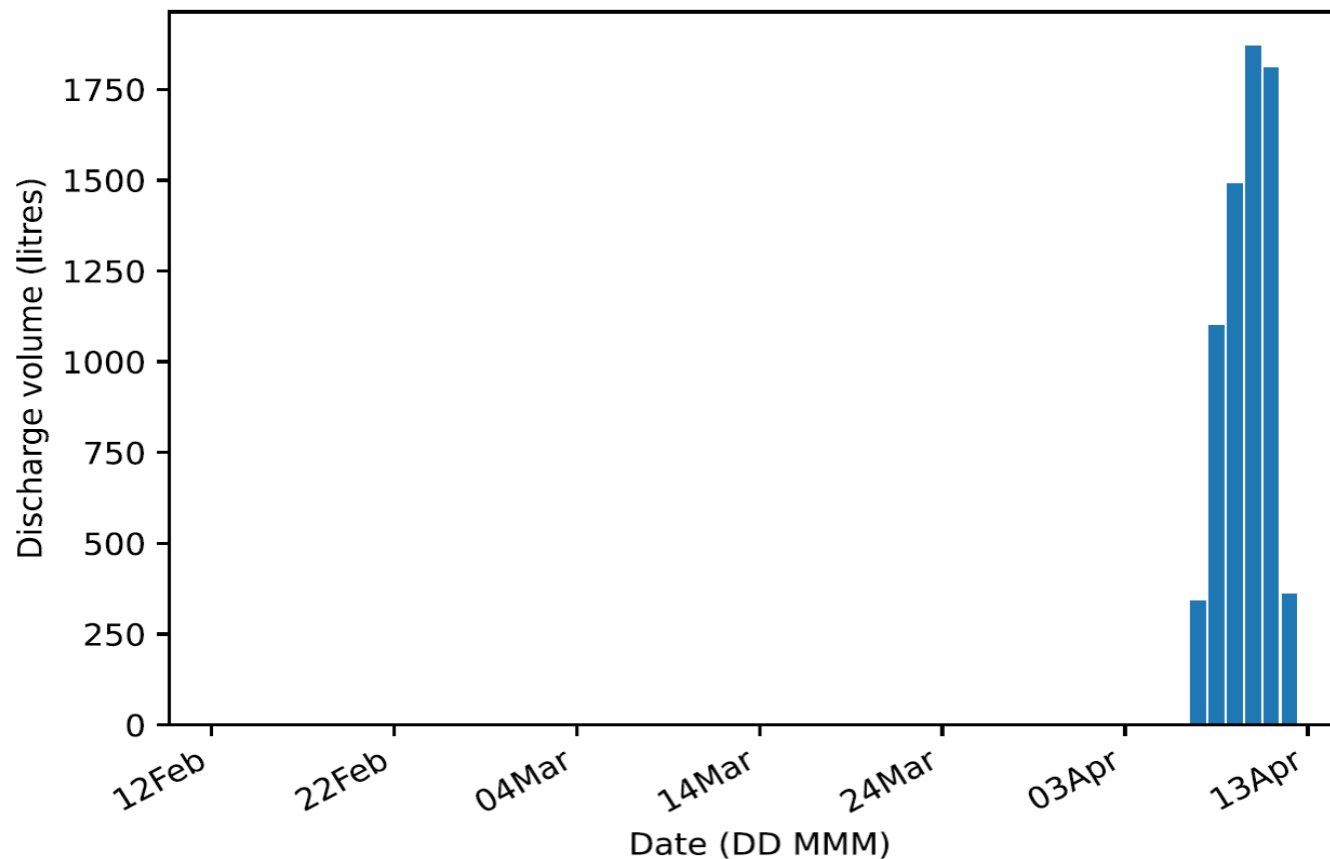


TREATED EFFLUENT APPLICATION



RGF IS COMMISSIONED AND OPERATIONAL

The graph describes real time volume of treated effluent discharge to land.

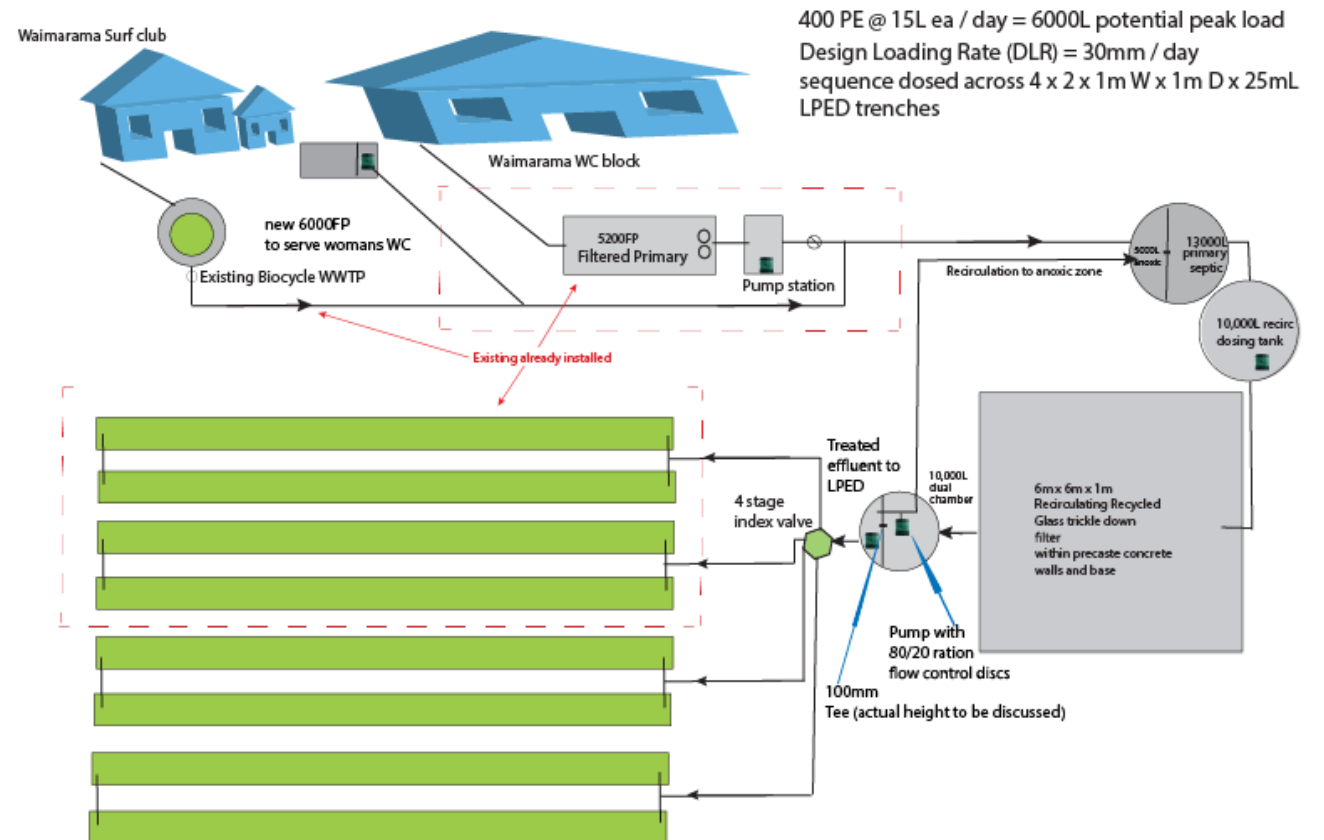


Technical Application: Conceptual.

Conceptual drawing of the upgrades Completed at Waimarama Domain.

- Include treated wastewater from the surf club
- New 6000L dual chamber septic system for the womans amenities.
- New 5200L dual chamber septic system for the mens amenities.
- New RGF WWTP so serve the entire complex.
- New automatically sequence dosed LPED treated effluent application area.
- Telemetry alerts on the main WWTP.

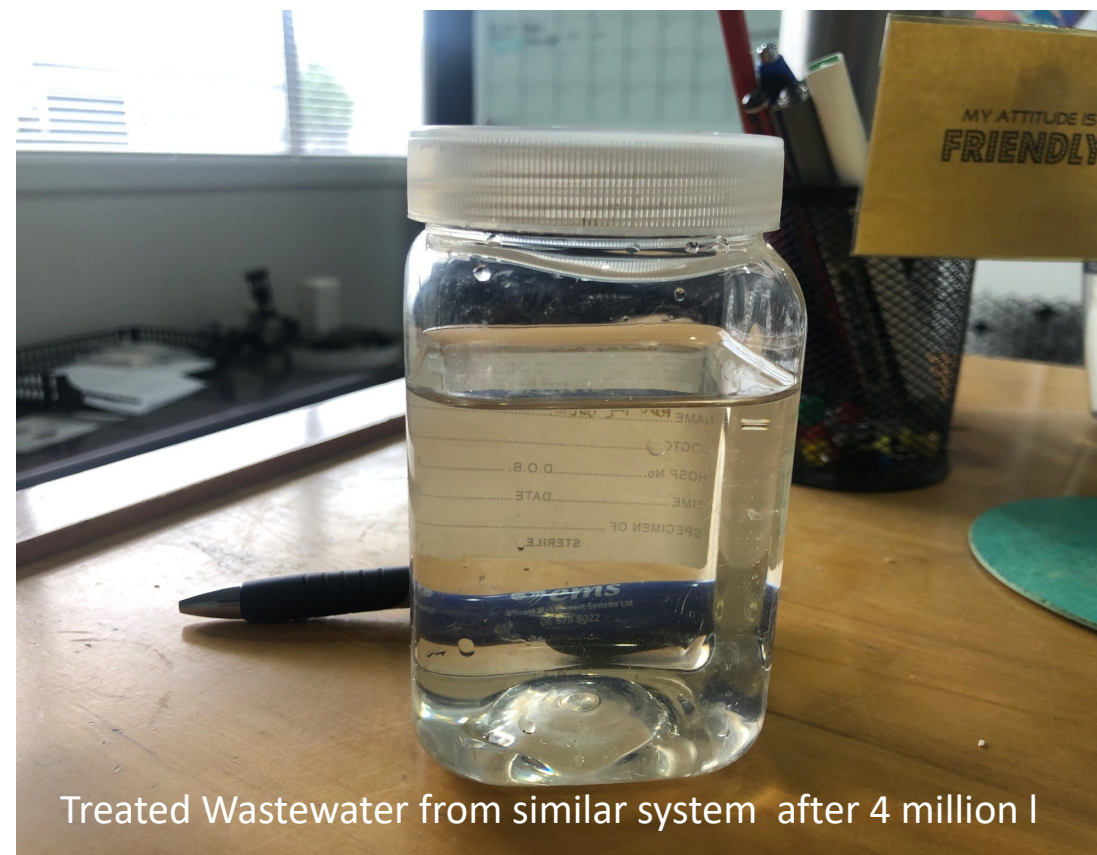
Waimarama Domain + Surf Club Effluent Management System upgrade concept 2018 Updated 07 07 2022



WHY USE THIS TYPE OF SYSTEM?

- This type of system is tailored for seasonal use.
- The wastewater is treated to a very high standard to ensure minimal environmental effect.
- The treated wastewater can now be considered an asset to irrigate plants and shrubs.
- Designed to be unobtrusive and yet highly functional.
- Ongoing operation costs are much lower than systems that require 24/7 power.
- RGFs can handle both large and low flow situations.
- They are silent and discreet. *"The best septic system is the one you don't know is there"*.
- RGFs do not smell, *provided they are well maintained*.
- Stay within compliance boundaries.
- Recycles recycled material so excellent environmental credentials.

WHY USE THIS TYPE OF SYSTEM?



FUTURE STATE

- System can be remotely monitored.
- System status can be emailed to nominated HDC representative.
- In order to achieve compliance, the system will require 6-monthly services by EMS technicians or a suitably trained HDC representative.
- Remote monitoring ensures a good understanding of the system and provides regulatory compliance information.
- RGF's can be modulated to grow with actual use requirements.

WHY USE EMS

- Very experienced team.
- 24/7 support.
- Local company.
- Reliability.
- Able to design build & install then provide ongoing support.
- Excellent relationship with Territorial and Regional Authorities.

