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To: tpbpd/PLAND <tpbpd@pland.gov.hk>
Cc: [redacted]
Subject: Response to Comments - Planning Application No. A/SK-HC/354 on Review
Attachment: 20251103 Response to WSD Comments of 30.10.2025.doc

Dear Sir/Madam,

With reference to the comments by WSD as referred by Miss CHAN of PlanD on 30/10/2025, please note our response at Appendix I.

Thank you for your kind attention.

YEUNG Siu Fung

Appendix I

Planning Application No. A/SK-HC/354

Response to Departmental Comments as at 30.10.2025 in respect of the Application for a Temporary Private Garden on Lot 429 S. B (Part) in DD 244 and the adjoining Government land (House No. 450 Ho Chung New Village, Sai Kung, N.T.) on Review

Comments from Chief Engineer/Construction, Water Supplies Department

Thank you for WSD's comments of 30.10.2025.

Please note below our response.

1.The operation and management of a greywater recycling system involve several key components and best practices to ensure safe and sustainable reuse of greywater.

(a). Operation:
- Collection from sinks and channels of waste water from cultivation bed through specialized plumbing and sand trap, ensuring separation from blackwater.
- Storage in tanks designed to prevent corrosion, inhibit bacterial growth, and sometimes include aeration and sensors for water quality.
- Treatment involves filtration to remove large particles and disinfection (such as UV or chlorination) to eliminate pathogens and contaminants.
- Control units monitor system performance, alert users of consumable replenishments.

(b). Management:
- Regular maintenance programmes including monthly filter inspection and cleaning, quarterly system checks, and annual professional servicing.
- Use of biodegradable and plant-friendly soaps to minimize harmful chemical buildup.
- Prevention of cross-contamination by keeping potable and non-potable water systems separate with no interconnections.
- Labeling and signage for greywater system components to ensure safety and compliance.
- Continuous monitoring of water quality and system operation, with contingency plans for failure scenarios.

(c).Regarding the treated effluent quality compliance as per the "Technical Memorandum on Effluent Standards" issued under section 21 of the Water Pollution Control Ordinance, treated greywater must meet quality standards set in Table 3 and Para. 8.4. These standards typically include limits for parameters such as biochemical oxygen demand, suspended solids, fecal coliforms, and other pollutants to ensure environmental and public health safety.

Specifically:

- Treated greywater must be safe for designated non-potable uses such as toilet flushing, irrigation, washing, or cooling tower makeup.
- The effluent should not contain harmful agents that cause infectious diseases or endanger public health.
- Sampling and monitoring regimes must be followed to maintain compliance with the standards.
- Storage of raw greywater should be minimal, ideally less than 24 hours, to reduce health risks.

Overall, sustainable operation requires qualified operators, proper treatment, secure distribution, regular performance monitoring, and adherence to Hong Kong's effluent standards as prescribed in the Technical Memorandum. This ensures the recycled greywater quality aligns with regulatory safety and environmental protection guidelines in Hong Kong.

2. A comprehensive water quality monitoring programme proposal for baseline monitoring that accounts for seasonal variations should be designed with clear objectives, selection of appropriate test parameters, well-chosen sampling points, defined sampling frequency, and an adequate sampling period covering both dry and wet seasons.

Proposing a Water Quality Monitoring Programme Set Clear Objectives and Goals: Define specific, measurable, attainable, relevant, and time-bound (SMART) objectives, such as establishing a baseline water quality profile to assess seasonal variations and detect contamination trends. Engage stakeholders to align goals with community and regulatory needs.

Research Existing Data: Gather data from previous studies, regulatory standards, and local environmental conditions to inform programme design.

Design Monitoring Plan: Specify parameters, sampling points, frequency, and duration that reflect the identified objectives and local hydrological context.

Test Parameters Selection Include physicochemical parameters such as pH, temperature, dissolved oxygen, salinity, turbidity, nutrients (nitrate, phosphate), biochemical oxygen demand (BOD), chemical oxygen demand (COD), and contaminants of concern (heavy metals, microbial indicators like E. coli). Determine parameters based on water body type (surface, marine, groundwater) and potential pollution sources.

Sampling Points Select multiple strategic sampling locations comprising:Impact sites near pollution sources. Sensitive receptor points such as downstream or ecologically important sites. Control sites located upstream or unaffected areas to serve as baseline references. For water bodies with depth variation, samples should be collected at multiple depths (surface, mid-depth, bottom) depending on water depth to capture vertical variability.

Sampling Frequency and Period-

Frequency should capture temporal variability including both dry and wet seasons. For baseline monitoring:Conduct sampling at least monthly, with increased frequency (e.g., bi-weekly or weekly) during transitional periods between dry and wet seasons to capture rapid changes. Include sampling during specific hydrological events (e.g., rains, floods) if runoff impacts are of concern. Sampling should span multiple years (preferably 3 or more) to enable detection of trends and average out inter-annual variability.

Sampling Duration and Seasonal Coverage Plan for a minimum of one full year of monitoring covering all seasons initially to establish the baseline.

Ensure sampling includes:Dry season (low-flow, low precipitation).Wet season (high-flow, precipitation-driven events). Adjust and continue long-term maintenance monitoring for data consistency and adaptive management.

This programme design ensures the collection of representative, high-quality data to characterize water quality fluctuations influenced by seasonal changes, supports regulatory compliance, and informs management actions.

3. Conclusion

Due to the time constraint, we have only consulted a local qualified water quality expert who opines that the description at Paragraph 2 is a general guideline to be followed. A systematic report can only be prepared after actual field study.

The Applicant promises to seek assistance from qualified water quality professionals to provide full control report and measures to be put up for scrutiny by WSD should this Application for a private garden is approved by the TPB.

…….End…….