KOIRAP ENVIRONMENTAL AND SOCIAL CODE OF PRACTICE (ESCOP)

Prior to Commencement of Work

General

- All relevant permits and certificates required under national laws shall be obtained and copies held by the Contractor prior to any works commencing (Building, Environment Permits etc.).

Community Consultation

- The contractor shall undertake joint contractor and community consultation (induction) at least seven (7) calendar days in advance of the commencement of any work with each affected community. Community consultation shall include:
  - confirmation of any site constraints and community requirements such as limits to access, timing of works.
  - provide information including the full scope of work and work program.
  - awareness training and information on the potential impacts of the work including the workforce and related health and safety issues (machinery risks, infectious diseases etc).
  - provide details of the Grievance Mechanism and how to lodge a grievance.
- The contractor shall erect signs at each end of the work site with construction information and contractor's contact details including contact phone numbers and email address.

Temporary Occupation of Land Arrangements

- Prior to work commencing , the contractor shall secure written landowner consent for any temporary storage of materials and equipment or other use as may be required to undertake the work.
- The contractor shall negotiate with the landowners for any temporary land use required outside of the road reserve.
- Prior to the use of land and/or facilities, the contractor will undertake a pre-construction condition assessment, including taking photographs, to document the existing conditions and to ensure the site is returned to the same condition post works.

Aggregate and Sand Requirements

- Only aggregate and sand sourced from a licensed and approved quarry supplier operating in accordance with national law, good international industry practice, and the World Bank Environmental and Social Framework (ESF) shall be used for any work.
- The contractor shall provide evidence of the relevant permits and maintain copies of these permits on site at all times while works are being undertaken.

Public Health and Safety, Nuisance

- All work, storage and other sites shall be suitably marked and where appropriate fenced prior to work starting.
- Signage shall be erected at all active work sites.
- Where access is temporarily affected, the contractor shall notify the affected parties at least seven (7) calendar days in advance of the commencement of any work of the disruption
- The location of any underground services and other structures shall be determined to be established where there is any risk that any excavation work may interfere with these services (e.g., water, electricity, etc.). All digging to locate an underground service should be carefully carried out by hand approaching the service from the side. Mechanical excavating equipment should never be used to locate services.

Workers Health and Safety

- The contractor shall provide induction training and issue personal protective equipment (PPE – at a minimum, goggles and/or safety glasses, ear plugs, respirators, safety harnesses if working at height, gloves, safety shoes (steel caps), high vis reflective shirts and pants, hard hats, and sunscreen) to all workers prior to starting work, including the preparation of and establishment of all work and other sites.
- The contractor shall comply with all national laws, good practice regulations and good international industry practices with respect to workers' safety, including but not limited to the Occupational Health and Safety section of the World Bank Environmental, Health and Safety Guidelines on Construction and Decommissioning.
- The contractor shall assign an Occupational Health and Safety Officer at the site. The officer will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorised to enter and/or work on the site.
- The contractor shall undertake training (prepared by MCIA-PMU) to meet standards for the proper operation and use of equipment. The Island Councils (E&S Focal Point) will confirm this training has been undertaken prior to commencement of works.
- The contractor shall conduct other trainings including but not limited to:
  - how to prepare site specific safety plans that is compliant with the World Bank Environmental, Health and Safety Guidelines on Construction and Decommissioning.
  - preparation of health and safety documentation including incident reporting requirements.
  - lifting and materials handling techniques in construction and renovation projects.
  - use of temporary fall prevention devices; and
  - use of control zones and safety monitoring systems to warn workers of their proximity to fall hazard zones.
- The contractor shall prepare and implement an emergency response plan to cover risk and emergency (e.g., injuries, fire, storm surge, cyclone, disease outbreak).
- The contractor shall record relevant personal details of all workers including but not limited to next of kin and emergency contact details.
- The contractor shall adhere to the requirements of all legislation including employment and public health.
- The contractor shall ensure that all workers are informed of their legal rights and entitlements.
- The contractor shall not use child labour (under the age of 18 years) and/or use trafficked or forced labour.
- The Contractor shall comply with and uphold the Code of Conduct in relation to all matters concerning Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH).
- The contractor shall not discriminate based on gender, race, age, employment, or occupation.
- The contractor shall establish a record keeping and document management system for environmental, health and safety risk management including but not limited to all community meetings, compliance and non-compliance, records and performance requirements.
- All workers have access to the Grievance Mechanism under the project. Grievances can be submitted to koirapgrievances@gmail.com and/or by telephone etc. The detailed Grievance Mechanism can be found on the KOIRAP page (https://www.koirap.com.ki/index.php/env-social-safeguards/downloads).

During Works

Vegetation – clearance and removal, erosion protection

- Vegetation clearance will be kept to a minimum and erosion, drainage, and sediment control measures put in place prior to work commencing.
- No earth works shall be undertaken during periods of heavy rainfall.
- All cleared ground shall have temporary erosion, drainage and sediment control measures in place.
- Areas of exposed soil shall be minimised and grass-seeded and/or re-vegetated and stabilised after completion of earthworks.

- Topsoil shall be stockpiled and covered during storage.
- Cleared vegetation shall be mulched and stockpiled for later re-use.
- All materials storage or stockpiles, temporary or for the project duration shall have temporary erosion, drainage and sediment control measures in place. Drainage at all works sites will be designed and constructed to ensure no damage to land or property from ongoing discharges. Despite mitigation measures, if there is damage to land or property, these will be compensated by the contractor.
- Prior to mobilisation and demobilisation, all vehicles, machinery and construction equipment shall be pressure washed to remove soil and vegetative materials and thoroughly checked prior to being brought onto the relevant island to prevent any movement of invasive or alien (non-local) species (both plants and animals) to the island. Particular attention shall be paid to wheel arches and undercarriage of vehicles and machinery.

Vegetation Removal and Economic Loss

- The project where possible, should avoid removing any trees that provide the owner with an economic benefit, for example, fruit bearing trees.
- If there is no way to avoid cutting down the tree, then the contractor should consult with the owner of the tree and provide them with options consistent with the World Bank Environmental and Social Standard Five (5).
- Where a tree may require removal, the contractor will conduct a brief assessment of the tree/s being removed and assess the potential economic loss to the owner and how the owner will be impacted in terms of how much value the owner makes from the tree over a one (1) to five (5) year period. Tree/s through the sale of the fruit etc.
- Where economic loss will occur, the contractor should assess a range of options including, but not limited to:
  - the contractor provides the owner with replacement trees at a rate of five trees per each one removed.
  - the contractor compensates the owner for the economic loss of tree/s at a rate provided by MELAD where replacement plants are not provided.
  - where there is the likelihood of major economic loss, the owner is compensated not only for tree loss but also economic loss to be negotiated with the contractor, PMU, MELAD, Owner, and MCIA.

Site Management

- The contractor shall establish a waste management separation system and dedicated waste storage areas required at all work sites.
- Waste management shall at a minimum, meet all legislated requirements and for materials that cannot be disposed of locally segregated and store for removal from the island and disposed of at designated landfill.
- Burning of any plastics or general rubbish is prohibited.
- Fuels and other chemicals shall be contained in fully covered bunded area of a size that can contain at least 110% of the volume of the largest container.
- At all times, the contractor shall keep all work sites are kept tidy, waste materials suitably sorted, grass cut etc
- The contractor shall ensure that pollution control materials including, but not limited to, spill kits are on site, and workers trained in their use, to ensure there is no discharge into any water courses, coastal areas or fuel and chemical storage area.
- The contractor shall ensure all equipment is serviced and issued with warrant of fitness (as required). Any machinery deemed to be polluting the air shall be replaced (or fixed) on instruction by the PMU and/or Island Councils.

Public Health and Safety, Nuisance

- The contractor shall establish and ensure that vehicular and pedestrian access along the road and to adjacent properties is maintained throughout works unless there is an essential reason to close access during specific work.
- The contractor shall erect and ensure signage and barriers are in place at all sites.
- The contractor shall erect and ensure temporary signage and barriers (fences) are to be used to prevent the public especially children from entering the sites.

- The contractor shall ensure all activities are limited to daylight hours only Monday through Saturday or as agreed directly with the surrounding community and chiefs.
- The contractor shall ensure that no activities occur between 1800 and 0700 Monday through Saturday or on Sundays or public holidays and the times agreed with surrounding communities.
- The contractor's health and safety plan shall include, but not be limited to, outreach and awareness activities for communities on prevention of spread of communicable diseases.

Dust Suppression

- Dust suppression equipment shall be available for all sites.
- Masks shall be available for workers during dust generating activities.
- The contractor shall manage and restrict the speed of vehicles on unsealed roads, particularly when passing through settlements.
- The contractor shall ensure that the transportation of construction materials are covered during transit.
- The contractor shall ensure that no vehicle is overloaded and any vehicle exceeding the designed load limit and/or is not covered properly shall be refused entry to the sites or material shall be refused delivery.
- The contractor shall ensure all stockpiles containing materials (e.g., sand and topsoil) are covered when not actively being used. Wetting of stockpiles is allowed keeping in mind freshwater constraints and therefore should be kept to a minimum.
- The contractor shall identify and locate waste storage sites, stockpile sites and equipment at least 100 metres away from any residential settlements, water bodies, streams or rivers, to minimise impacts on the environment and nearby population.

Emergency Prevention and Management:

- The contractor shall establish a site emergency response plan to be posted in prominent positions in all work areas and on all equipment. The procedure shall provide clear directions concerning:
  - how to respond with safety and environment related emergencies on site;
  - locations of first aid kits and fire containment equipment; and
  - list of all emergency contacts.
- The contractor shall where practicable, schedule work outside of the cyclone season. The contractor shall ensure that resources are in place to support any emergency evacuation and response required, in the event an extreme weather event.
- The contractor shall ensure that any evacuation will include but not be limited to a safe shut-down of machines, power to the site, and securing of all premises.

Traffic Management Plan:

- The contractor shall implement a Traffic Management Plan, to ensure smooth traffic flow and safety for workers, passing vehicles and pedestrian and the local population.
- The contractor shall prohibit the use of engine breaking close to and through communities and inhabited areas.
- The contractor shall regulate working hours for the haul vehicle/trucks to those times listed under Public Health and Safety, Nuisance.
- The contractor shall erect signs and other appropriate safety features to indicate when works are being undertaken.
- The contractor shall ensure that full due diligence and care is implemented during works to ensure that any disruptions to pedestrian access and school vehicle traffic are minimized and that access to villages either side of the causeways is always maintained.
- The contractor shall ensure that Island Councils and village officials are consulted if access to a village will or is likely to be disrupted for any short periods of time and temporary access arrangements are implemented.
- The contractor shall ensure that construction vehicles only use local access roads, or negotiate access with landowners, rather than drive across vegetation or agricultural land.
- Where local roads are used and are in any way damaged, the contractor shall reinstate the roads to their original condition, after the completion of work.

- The contractor shall ensure that all roads will be kept free of debris, spoil, and any other material at all times.
- The contractor shall ensure provision is made for the adequate protection of the general public in proximity of the work sites, including providing advance notice of the commencement of works (at least seven (7) calendar days), installing safety barriers if required, and signage or marking of the work areas during all works.

Worker's Health and Safety

- The contractor shall ensure that all workers, at no cost to the worker, shall be provided with PPE including but not limited to safety glasses with side shields, face shields, hard hats, hi-vis vests and safety shoes with non-slip soles. The Occupational Health and Safety Officer at the site shall ensure the PPE is used.
- The contractor will provide first aid facilities at work sites and potable water supplies, toilets and hand washing facilities.
- The contractor will comply with relevant Australian guidelines etc with respect to asbestos removal and this will only be undertaken by qualified and trained persons.
- The contractor shall take all preventive measures to prevent accidents, including but not limited to:
  - implementing good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths.
  - not locating electrical cords and ropes in common areas and marked corridors to ensure no entanglement.
  - planning and segregating the location of vehicle traffic, machine operation, walking areas, and controlling vehicle traffic through the use of one-way traffic routes, including the establishment of speed limits, and on-site trained flag people wearing high-visibility vests or outer clothing covering to direct traffic.
  - ensuring moving equipment has audible reversing alarms and/or use spotters.
  - use temporary fall protection measures in scaffolds and out edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged.
  - that the handling and disposal of asbestos containing material or other toxic substances shall be performed and disposed in accordance with the Asbestos Protocol prepared for KOIRAP (Annex 8 of Environmental and Social Management Framework).
  - no asbestos containing material will be used for any works.

Water Quality and Pollution Control

- The contractor shall implement erosion, drainage and sediment control measures to ensure sediment doesn't enter waterways or coastal marine area.
- The contractor shall ensure all liquids including fuel, oil etc are contained within a bunded area.
- The contractor shall ensure any stockpile locations are at least 30 meters away from any waterways.
- The contractor ensure that no concrete residue is released in waterways (any concrete washing must be undertaken at least 100 meters from any waterways or marine environment).
- The contractor shall ensure no washing of plant or equipment or dumping of any types of wastes in any waterway.

Hazardous Substances

- The contractor shall develop and implement a Hazardous Substances Register for all hazardous substances/materials that might be used on site. This register shall be updated regularly.
- The contractor shall ensure all hazardous substances and chemicals are clearly marked and labelled and stored, handled and disposed of in accordance with the material safety data sheet (MSDS).
- The contractor shall ensure that the storage of all hazardous substances and chemicals (including fuel) in located in bunded and covered areas and at least 100 metres from watercourses and/or the coast and any habitations.
- The contractor shall ensure that the site has adequate spill kits readily available and clearly labelled.
- The contractor shall ensure train workers in their use of spill kits, their application and spill clean-up procedures.

- The contractor shall ensure prior to any works that a hazardous building assessment is conducted to assess the presence of asbestos that might need to be removed or isolated. The contractor will apply the Asbestos Protocol as contained in Annex 8 of Environmental and Social Management Framework. Asbestos can only be handled by fully trained and certified individuals in the management of asbestos.
- The contractor shall develop and implement a management plan for the collection and properly disposal of a small amount of maintenance materials such as oily rags, oil filters, used oil, etc.
- The contractor shall ensure that it does not dispose of used oils on the ground and/or within 100 metres water courses as the residue can contaminate soil and groundwater (including drinking water aquifer). Disposal of used oil, and other materials such as used spill kit materials is only disposed at a licensed disposal location.

Waste Management

- The contractor shall develop and implement a Waste Management Plan as required by the work that ensures that the contractor manages and minimises all wastes throughout the work daily, and ensure all worksites are maintained in a tidy condition with grass cut.
- The contractor shall ensure that at no time is there any illegal dumping of wastes.
- The contractor shall ensure that at all work sites, waste shall be separated into different waste types for appropriate disposal.
- The contractor shall ensure that there is no dumping of any waste and that the burning of inorganic wastes or hydrocarbons (plastic, oils etc.) is strictly prohibited.

Incident Reporting

- The contractor shall notify the Island Councils (E&S Focal Point) of any health and safety incident and/or accident related to KOIRAP activities which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.
- In the case of incident and/or accident, the contractor shall provide sufficient detail indicating what occurred, what immediate measures were taken and/or that are planned to be taken to address the incident and/or accident, and any information provided by any contractor and supervising entity as appropriate.
- The contractor will prepare a report on the incident and/or accident and propose any measures to prevent its recurrence in the future.
- The contractor's report will be submitted by Island Councils to MCIA-PMU and the Island Councils to MCIA-PMU can, at their own discretion, see more information from the contractor and/or request the contractor to appear in person to answer relevant questions
- Any incident shall be reported to the local E&S focal point within 30 minutes of the incident and/or accident. The KOIRAP E&S officer must be notified within six (6) hours of the incident/accident. Minor incidents will be reported to the World Bank in the six-monthly reports and major incidents will be reported to the World Bank within 48 hours of occurring.
- When preparing the report, the contractor's report should include but not limited to:
  - date and location of incident and/or accident.
  - detailed summary of events.
  - cause of incident and/or accident.
  - immediate action taken.
  - corrective action.
  - recommendations for further improvement.
  - monitoring of the implementation of corrective actions.
- The contractor shall submit an initial report within 48 hours of the incident and/or accident occurring and a full report within seven (7) days of the incident and/or accident occurring.

Specific Subproject Activities

Buildings: Rehabilitation or Minor Extension of Existing Facilities

- The contractor shall provide adequate drainage around any buildings in proximity to the work to avoid the pooling of water that could give rise to insect disease vectors and unsanitary conditions.
- When designing upgrade works for buildings, the architects/designers should maximise natural light and ventilation systems to reduce artificial light needs. For example, use large opening windows with external flyscreens.
- If not part of the existing building, when designing upgrade works for buildings, the architects/designers should include in the design, sanitary facilities such as toilets with a septic tank, and basins for hand-washing.
- When designing upgrade works for buildings, the architects/designers should include safety features such as fire detection and alarm, fire suppression and control, and first aid. These should be installed only by a qualified tradesperson.

Rural Roads: Rehabilitation or Maintenance within Existing Alignment

- When designing upgrade works for roads, the design engineer should incorporate batter protection and stabilisation to reduce drainage issues and ensure erosion and sediment control features including but not limited to:
  - plant locally available, fast-growing grass on batters prone to erosion. These grasses will help stabilise the batter and reduce the movement of sediment during rain events. Locally available species possessing the properties of good growth, dense ground cover and deep root shall be used.
  - design and construct interceptor ditch, particularly in areas of high intensity rainfall and where batters are exposed. The ditch should be designed to intercept and carry surface run-off away from erodible areas and batters thus reducing the potential surface erosion.
  - For steep batters, the design engineer should incorporate terracing with rock gabions and/or rocks (riprap) as appropriate for greater stability and reduce sediment movement

Small Bridges

- When designing small bridges, the design engineer should consider erosion and sediment control protection measures: The main method of batter and erosion and erosion control protection is the installation of rock gabions (gravity walls that support embankments or slopes which have a potential to slip) and ordinary stone pitching.
- If the design engineer proposes to construct rock gabions, the following shall be considered:
  - the maximum batter slope should be 1:2 with a preference for greater batter slope depending on the site terrain.
  - the filling of the gabions should be from strong and competent rock which is laid very closely packed to maximise the weight.
  - bracing wire should be used to prevent the gabion bulging out. The bracing wire should be placed at each third of the gabion height.
  - the gabions should be firmly anchored into the ground by founding the gabions below the expected scour depth level.
  - in cases where stone pitching is not provided, the top layer should be covered by soil to encourage the growth of grass and the stabilisation of the batter.
- If the design engineer proposes to construct stone pitching, this should only use used to provide erosion protection measure in those cases where the erosion potential is deemed minimal.

Culverts

- For all culverts, the design engineer should place large stones at the outlet of the culvert to prevent erosion.
- For all culverts, the design engineer should ensure that the water of the adjacent road sections can flow freely into the roadside ditch.
- For all culverts, the design engineer should design a sand trap upstream of the culvert to prevent accumulation at culvert inlets (sand traps will have to be cleaned periodically).

Water Supply: Construction or Rehabilitation of Rainwater Harvesting

- When installing rainwater storage reservoirs, the contractor should ensure that pipework is connected to roof gutter system, with all faucets and piping intact.
- The contractor should install first flush diverters to allow for any dust built up on catchment areas to be released so as it does not enter the reservoir
- If distribution pipes are attached into the storage reservoir, the contractor should install the distribution pipes at least 10cm above the storage/tank bottom for better use of the storage capacity.
- The contractor should ensure that the cover is fitted tightly onto the top of the storage reservoir to avoid overheating and growth of algae (from direct sunlight), and to prevent insects, solid debris and leaves from entering the storage tank.
- The contractor should install a ventilation pipe with fly screen in the cover to help aerate the tank/reservoir to ensure good water quality.
- The contractor shall install gutter guard on all roof catchment to limit any debris and vegetation building up in the gutters.
- The contractor should install a reservoir tank overflow so that in time of heavy rain, excess water can drain away. The overflow should be designed to prevent backflow and stop vermin/rodents/insects entering the system. The design should allow the main storage tank to overflow at least twice a year to remove build-up of floating debris on the top of the stored water and maintain good water quality.

Water Supply: Infiltration Galleries

- The contractor should prevent water from entering the excavation through the use of cut off trenches.
- The contractor should ensure that the initial pumping rate does not exceed the soil infiltration rate to prevent surface ponding.
- The contractor should minimise the area stripped and the amount of vegetation removed.
- The contractor should ensure that wash water from cement and concrete does not enter the natural environment.
- The contractor shall adhere to all good international industry practice guidelines governing the use and storage of oil and construction chemicals on site. If required, the contractor shall only allow small volumes of potentially harmful substances on site and these shall not be stored close to watercourses. The contractor shall ensure that all storage is within a secondary containment system on an impermeable material/surface to avoid leaching. The contractor shall ensure that the storage area shall be at least 100 metres away from any high-risk areas such as a well or spring and located above the flood water level. The contractor shall ensure that provisions such as sand are put in place and stored close to the hazardous substances in the event of a spill.

Water Supply: Pipelines water sources

- The contractor shall ensure that PVC water transmission and distribution piping is buried underground (coverage 50cm minimum) to protect the pipe against external damage (e.g., passing vehicles, solar UV radiation, etc.).
- The contractor shall ensure that pipes laid in as straight line as possible, over a constantly falling slope.
- When conditions do not allow piping to be buried (i.e., pipe is used above ground), the contractor shall use copper/brass/metal pipe that is supported/braced so as excessive movement does not lead to leaks and breaks.
- The contractor shall ensure that outlet pipes and fittings from water storage/basin are PVC pipe fitting so as they are not exposed to solar UV/sunlight. Brass/metal piping and fittings should be used

Sanitation Facility

- A safe sanitation system is defined as a system that separates human excreta from human contact at all steps of the sanitation service chain from toilet capture and containment through emptying, transport, treatment (in-situ or off-site) and final disposal. Sanitation interventions should be coordinated with water and hygiene measures to maximise the health benefits of sanitation.
- The contractor shall ensure that
  - all toilets shall have a septic tank to provide primary treatment of faecal waste.
  - toilet design shall include provision of culturally- and context-appropriate facilities for cleansing, handwashing and menstrual hygiene management.

- the toilet superstructure is designed and constructed to prevent the intrusion of rainwater, stormwater runoff, animals and insects.
- the toilet slab and pan or pedestal shall be constructed using durable material that can be easily cleaned
- PVC pipe is used to connect pour-flush toilet to a septic tank that shall be buried underground or covered over (with cement) for protection and to prevent exposure to sunlight.
- brass/metal pipe is used for the gas vent pipe on septic tanks. At no time should the contractor use PVC pipe due to its inability to withstand long-term exposure to sunlight.
- septic tanks shall have a vent pipe to prevent the build-up of gas inside the chamber and shall have a 'manhole' that provides access inside the tank if needed.
- a toilet should be at least 20 meters from any water sources (well, spring, river):
- the septic tanks have at a minimum, two (2) chambers with the first chamber for settling of sludge, and the second chamber for aerobic treatment.
- there is any discharge of septic tank effluent to an open drain or other surface water. All effluents shall be treated before final disposal. The contractor shall use an underground leach field, a vegetated leach field, or a pit for soaking away depending on the specific site.

Solid Waste Disposal

- The contractor shall ensure that all solid waste depots/disposal is located on hard-standing areas that prevent waste entering surface and/or groundwater.
- The contractor shall ensure that waste depots/storage/disposal is contained, sealed and/or roofed/covered to prevent stormwater contamination. Wastes need to be emptied regularly as per the Specific Subproject Maintenance section below.

Specific Subproject Maintenance

Infiltration Galleries

- The Island Council shall at least twice/year inspect the facility. Particular attention shall be paid to the catchment area of gallery, especially with shallow galleries.
- The Island Council shall at least twice/year conduct water quality testing; once in the wet season and once in the dry season.
- The Island Council shall undertake a water sustainability assessment that includes water usage, aquifer replenishment and salinisation be monitored. The water sustainability assessment shall be conducted annually by MIA-PMU to ensure volumes do not exceed the sustainable yields/annum

Rain Water Harvesting

- The Island Council shall clean roof gutters, gutter guard and roofs on a quarterly basis and especially before the beginning of the rainy season.
- The Island Council shall clean bucket style and enclosed rain heads regularly by removing leaves and debris from catchment area and brushing or hosing off screen as required to prevent blockages and decomposing vegetation. It is imperative that no wash water is released into the reservoir.
- The Island Council shall trim back overhanging branches and vegetation as required.
- The Island Council shall every six months, clean the tank overflow screens and/or flap valves to ensure optimal functioning; ensure there are no holes that mosquitoes could enter; ensure there are no obstructions blocking your tank outlets.
- The Island Council shall annually, undertake water quality testing of all stored rainwater.
- The Island Council shall annually, remove accumulated sediment and/or sludge from base of all rainwater tanks and repair any cracks, holes or gaps.
- The Island Council shall visually check all components of the rain water harvesting system when it is raining to ensure gutters are not overflowing, downpipes are not blocked or leaking, and rainwater is flowing to the tank.

Solar Pumps

- The Island Council shall ensure a notice board is installed that provides instructions on the solar pump use and where necessary, replace the notice board to ensure the community is fully aware of the operation and use of water from the solar pump, well and tank.
- The Island Council shall ensure that there is a dedicated person on site monitoring the pump when the solar pump is operating and shall ensure that the solar pump does not pump for more than one hour/day and no more than 5000 litres of water is extracted/day.
- The Island Council shall ensure that only 40 litres of water/household is provided per day.
- The Island Council shall weekly, check and clean the area around the solar pump and ensure all equipment is operating effectively including cleaning the solar panel for the pump.
- The Island Council shall undertake quarterly water quality monitoring and testing of the well and tank water to ensure the water is suitable for drinking.
- The Island Council shall yearly, clean the well, solar pump and tank and fittings and where necessary, replace any parts and fittings to ensure there is not a breakdown which may result in the loss of water.
- The Island Council shall annually, change the well lid, bleach clean fittings and flush and clean fully.

Toilet

- The Island Council shall weekly and/or as required more frequently, inspect and clean the toilets and ensure all toilets are functioning correctly.

Containment – storage/treatment

- The Island Council shall where groundwater is used as a drinking-water source, undertake a quarterly risk assessment to ensure that there is sufficient vertical and horizontal distance between the base of a permeable container, soak pit or leach field and the local water table and/or drinking-water source (allowing at least 15 metres horizontal distance and 1.5 metre vertical distance between permeable containers and drinking-water sources is suggested as a rule of thumb).

Treatment:

- Regardless of the source (i.e., wastewater from sewer-based technologies or faecal sludge from on-site sanitation) both the liquid and solid fractions require treatment before end use/disposal.
- The treatment facility should be designed and operated according to the specific end use/disposal objective and operated using a risk assessment and management approach to identify, manage and monitor risk throughout the system.

Roads

- The Island Council shall on a regular basis, check the local road surfaces for cracks, potholes or any other damage and repair potholes: dig out bigger area, fill with granular material and compact well.
- The Island Council shall on a regular basis, check road surfaces for standing water after rains.
- The Island Council shall on a regular basis, check road shoulders for overgrown vegetation and trim vegetation as required.
- The Island Council shall on a regular basis, check that road shoulders have not settled but slope to top of drain.

Culverts

- The Island Council shall on a regular basis, keep the culvert inlets free from sand and gravel and ensure that water can flow through the culvert.
- The Island Council shall on a regular basis, check culvert, including inlet & outlet for sediment and debris and remove as necessary.
- The Island Council shall on a regular basis, check culvert inlets and outlets for erosion and scouring and/or culvert headwalls for damage and/or any other damage and report any issues to the MCIA-PMU.
- The Island Council shall on a regular basis, check ditches for erosion, overgrown vegetation, debris, sediment or blockage and report any issues to the MCIA-PMU