## New Projects

- Identification for the person applying for the Authorisation (National ID Card, Passport).
- Proof of Land Ownership.
- A “No-Objection” Letter for the operation from the relevant Local Authority (NDC, RDC, or Town Council).
- N.B. The Approved Site Plan by the NDC, RDC, or Town Council would be accepted as “no-objection”.
- “No Objection” from the Village Council and Ministry of Indigenous Peoples’ Affairs if the project falls within Amerindian titled lands.
- Permission from the Central Planning & Housing Authority.
- Map showing surrounding land uses, location of proposed water intake and proposed discharge structures.
- Draft Site Plan (approved by the Local Authority) showing the layout of the Operation (submit a final version after all necessary adjustments have been made).
- Summary of Project giving an overview of operations.

## Existing Projects

- Identification for the person applying for the Authorisation (National ID Card, Passport).
- Proof of Land Ownership.
- A “No-Objection” Letter for the operation from the relevant Local Authority (NDC, RDC, or Town Council).
- N.B. The Approved Site Plan by the NDC, RDC, or Town Council would be accepted as “no-objection”.
- Permission from the Central Planning & Housing Authority.
- Map showing surrounding land uses, location of any existing discharge structures.
- Site Plan showing the layout of the Operation.
- Summary of Project giving an overview of operations.
- Business Registration/Certificate of Incorporation (if applicable).
- Indication of whether or not a Permit or Licence from any other Government entity is required or have been obtained.
• Practice good housekeeping in pens and other facilities to prevent the breeding of pests.

• Improve drainage to control mosquitoes.

• Assess whether or not the use of pesticides are necessary and the impact they have on the environment.

• Choose the pesticide that has the least negative impact.

**How do I get an Environmental Authorisation?**

When applying for an Environmental Authorisation for a Poultry Rearing operation, the following documents need to be presented.
population.

- Wash and disinfect equipment, e.g., crates, clothing, before entering livestock zones.

- Vehicles that go from farm to farm should have special precautions such as limiting their operation to special areas, spraying of tires and treating parking areas with disinfectants.

- Have a veterinarian carry out regular checks on the animals for parasites and other disease vectors. Any sick birds should be kept away from the healthy ones and systems for the proper removal and disposal of dead birds should be put in place.

- Where possible, establish all-in and all-out systems with only one age group farm. On farms with multiple-aged birds, workers should always work with the youngest first before moving on the older birds. Workers should be trained on how to apply animal health products.

- No slaughtering should be done on site, unless approved by the Environmental Health Officer of the NDC/RDC.

**Managing hazardous materials and waste**

Pesticides need to be managed carefully to prevent pollution and health hazards.

- Ensure there are systems to keep out pests, e.g., plug holes, seal gaps around doors and windows, use traps, barriers, etc.

- Control pests by using natural predators.
Dust emissions

- Areas where dust will be created, e.g., feed grinding, should have systems in place to collect dust.
- Wet frequently used dirt/earthen roads to control dust.
- When wire mesh is used for construction pens, the sides exposed to neighbouring residences should be blocked to prevent dust from affecting residents.

Preventing diseases

Diseases can enter a facility through new animals, on equipment or people and can weaken or kill birds. Poultry manure and carcasses also contain pathogens which can affect humans. To reduce the incidence of disease, the followings tips should be considered.

- Store feed properly to prevent wild birds such as sparrows, crows, etc., from interacting with it.
- Quarantine new animals before they mix with the existing
Importance of Poultry Rearing Guidelines

The poultry industry plays an important role in the lives of Guyanese. It provides food, employment and income, especially for low-income families. However, poultry rearing can be harmful to the environment and human health. It can result in odour nuisance, and water and land pollution which can lead to skin, eye and ear infections in humans. Additionally, waterborne diseases such as diarrhoea can be caused by polluted water.

Do I need an Environmental Authorisation?

If you are thinking of setting up a poultry rearing operation with more than 500 fowls then you need to apply to the Environmental Protection Agency (EPA) for an Environmental Authorisation. (see pg. 10)

Things to consider before setting up a Poultry Rearing Operation

Location

The most suitable place for poultry rearing facilities is agricultural areas where there are existing farmlands. In a residential area, the poultry rearing operation should be at least 50 metres (164 feet) from the property line.

- Maintain a good drainage system around the holding house. Drains for rain water should be diverted to avoid the contamination of rain water.
- Wastewater from the cleaning of holding pens must be treated before being released into the environment. Wastewater can be treated in one of the following ways:
  - Sedimentation using clarifiers or settling ponds, e.g., black tanks or constructed lagoons.
  - Bio-digesters to treat the sludge and produce biogas.
  - Dewatering of residuals and using wastewater treatment residuals in compost or as fertiliser.

Controlling air emissions

Air emissions from poultry rearing include ammonia, odours, and dust. Ways to reduce the impacts of air emissions from poultry operations are outlined below.

Reducing ammonia emissions

Apply chemicals to litter weekly to reduce conversion of nitrogen to ammonia. Using aluminium sulphate (alum) is recommended. Alum can be applied to poultry litter when changed, at a rate equivalent to 5-10% the weight of manure. Where possible, manure can also be used in compost to reduce odour emissions.
disease prevention.

- Collect carcasses regularly to prevent decay.
- Disease-free carcasses may be used for animal feed or in compost.
- Dispose of carcasses by burial on property owned by you or at a site approved by the relevant authorities, e.g., NDC.

- The burial area should be at least 100 metres away from houses and water resources. The area should be stable, clay soil and burial should be deep enough to avoid disruption by animals such as dogs, vultures, etc. When burying carcasses, use lime to eliminate odours and assist in making the carcass decompose faster.
- If carcasses are to be burned, this should only be done in permitted facilities operating under national and/or international standards.
- Persons handling carcasses should be properly equipped with protective clothing such as gloves, long boots, respirator, apron and other safety gear.

**Managing wastewater**

Wastewater from poultry rearing has the potential to contaminate surface and groundwater and runoff can come from poultry housing, feeding, and watering.

- Reduce spilling of water by preventing overflow of watering devices.
- Install plants that can act as filters to absorb and trap sediments around surrounding trenches or pond, e.g., vetiver grass.
- The operation should be located on land that is high and drains easily, with easy access to water and fuel. Bridges and entrances should not pose a traffic hazard and must not obstruct the free flow of water.

**Housing**

- The pen should be one storey, designed for proper ventilation and allowing workers to perform their task easily.
- Broiler houses should be made of materials that are easy to maintain, wash and disinfect. Recommended materials include:

  ⇒ **Floors**: Concrete

  ⇒ **Walls**: Clay bricks, hollow blocks, lumber, round wood, staves, mesh or wattle. Walls should be boarded up to 0.30 m (1 ft) from the floor and continued to the roof with mesh or other suitable material for ventilation.

  ⇒ **Roof**: Any waterproof material can be used, e.g., aluminium sheets, galvanized sheets, troolie palm, shingle. An overhang of 0.90 m (3 ft) is ideal.

There should be an effective drainage system around pens where all washings run to the exit drains. Pens should be washed and
disinfected every time the litter bedding is changed.

Managing solid waste

A variety of solid waste is created by poultry rearing including waste feed, poultry waste, carcasses, sediments and sludge. To control these, the following practices should be put in place.

Waste feed

- Store feed in a specific area that is dry, well ventilated and meshed to avoid pests. Install storage racks 15-30 cm above the ground to prevent absorption of moisture and contamination.
- Ensure that feed is stored and transported in a proper manner to reduce wastage.
- Consider mixing waste feed with other materials that can be used as fertilisers, or as a part of compost.

Poultry waste

The main types of poultry waste generated are manure and bedding. The following measures can be put in place to effectively manage these.

- Instead of flushing with water, remove animal waste and bedding by scraping to ensure that it is kept as dry as possible when being removed. After scraping, use high-pressure, low-flow nozzles to wash the area.
- Collected manure can be used as fertiliser on agricultural land.

However, it is not recommended to use manure from sick birds.

- Manure to be disposed of should be stored in stacking sheds, roofed storage areas or in ponds that are located away from water bodies, floodplains, wellheads or other sensitive environments until it is ready to be disposed.
- The place where manure will be stored should be constructed to prevent contamination of surface and groundwater, e.g., concrete floors, fixed roof or plastic sheeting to cover the facility, roof gutters to collect and divert clean rainwater.

Other solid wastes

Other wastes such as cardboard boxes, feathers, cleaning containers, etc., should be disposed of at an approved site or can be used in compost and reused as organic manure. Storage containers used before removal should be emptied and washed as regularly as possible to avoid the build up of pests and odour.

Handling condemned poultry carcasses

Condemned poultry carcasses need to be properly managed and quickly disposed of in order to prevent the spread of diseases and odours and to avoid the attraction of organisms that can spread disease.

- Reduce death through proper animal care and