Annex I - Dominica

The Commonwealth of Dominica, located in the eastern Caribbean Sea, is an island nation known for its natural beauty, including mountainous rainforests, rivers and hot springs. The country covers a land area of approximately 750 square kilometres (290 square miles) and has a population of around 71,293, based on the 2011 census, chiefly living along the coast and in and around the capital, Roseau, on the south-western coast. In total **5,237 kg of obsolete pesticides, 8,620 L of AFFF, 31 mercury-added measuring devices and 102,026 Kg of Waste Electrical and Electronic Equipment (WEEE)** have been endorsed for consideration for disposal.

Note: Most of the AFFF is still in operational use and its removal is conditional on the stations being resupplied with fluorine-free alternatives.

Table 1 - Summary of the on-the-Ground Identified Stockpiles, by Site (DM-XX) [1]

Site Ref.	Site Name	GPS Coordinates	Type of Waste	Quantity (l/kg)
DM-01	Fond Cole Sanitary Landfill (Roseau Garbage Dumpsite)	15°18'43.5"N 61°22'47.3"W	Obsolete pesticides	227
DM-01	Fond Cole Sanitary Landfill (Roseau Garbage Dumpsite)	15°18'43.5"N 61°22'47.3"W	WEEE	32,000
DM-02	Pesticide storage facility of the Division of Agriculture, Goodwill	15°18'22.1"N 61°23'21.0"W	Obsolete pesticides	5,010
DM-03	Kubuli Factory, Loubiere	15°16'31.4"N 61°21'43.4"W	PCB	0

[1] The stockpiles in the colour "purple" have been nationally prioritized for disposal. The remaining stockpiles in the colour "black" are to be considered for disposal once the prioritised stockpiles have been accounted for.

Site Ref.	Site Name	GPS Coordinates	Type of Waste	Quantity (l/kg)
DM-04	Dominica Fire and Ambulance Service, Roseau Station	15°18'00.9"N 61°23'05.6"W	AFFF	76
DM-05	Dominica Fire and Ambulance Service, Melville Hall Station	15°32'46.8"N 61°17'55.0"W	AFFF	5,713
DM-06	Dominica Fire and Ambulance Service, Canefield Station	15°20'24.5"N 61°23'29.7"W	AFFF	2,793
DM-07	Dominica Fire and Ambulance Service, Grand Bay Station	NA	AFFF	38
DM-08	FLOW Dominica, E-waste storage	15°19'48.5"N 61°23'16.7"W	WEEE	70,000
DM-09	Meteorological Office	NA	MAPs	31 pc
DM-10	Digicel Dominica	NA	WEEE	26

DM-01 Fond Cole Sanitary Landfill (Roseau Garbage Dumpsite), Dominica Solid Waste Management Corporation (15°18'43.5"N 61°22'47.3"W)

The Fond Cole Sanitary Landfill, commonly known as the Roseau Garbage Dumpsite, is the only municipal disposal site in Dominica; it has been in operation since 2002 and its design life expired in 2015, but it remains in use. The site is owned by the Ministry of Health, Wellness and Social Services and operated by the Dominica Solid Waste Management Corporation. Waste electrical and electronic equipment – televisions, printers, computers and related products – is separated into a shed of approximately 16 x 5 m with a wooden frame, galvanised zinc walls and roof and re-used wooden pallets, which is at full capacity; the store was measured at 160 m³ which, at a conservative specific weight of 200 kg/m³, gives some 32,000 kg of WEEE. A 20' container at the site holds obsolete pesticides brought in by the Pesticide Control Board after the 2017 hurricane: Fyfanon ULV Mosquito (malathion 96.5 %) in polyethylene canisters, several of which are leaking through insufficiently closed lids or small holes at the top, together with two jute bags of mosquito nets most likely impregnated with insecticide. The landfill also receives refrigerators, washing machines, scrap metal and tyres, and accepts hazardous waste streams such as batteries, paints, factory sludges and mercury-added products; apart from the concentrated stocks described above, these are mixed with the general waste and are not part of the disposal campaign. The site is partially fenced with gates and is reached over good quality asphalt suitable for trucks, but the buildings are in poor condition and the storage areas have no floor.

Comments from the Independent Supervisor: 227 kg is the endorsed figure and reconciles with the factsheet's Annex 2: 11 canisters x 19 l = 209 l of Fyfanon ULV Mosquito, plus 2 l remaining in a twelfth leaking canister, plus 2 jute bags of mosquito nets at 8 kg = 16 kg. Note that section 4.3 of the

National Assessment Report describes the stock as "around 200 kg of liquid Fyfanon ULV Mosquito (Malathion 96.5%) stored in 12 polyethylene canisters", i.e. it excludes the impregnated mosquito nets; the 227 kg endorsed figure includes them.

Table 2 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Fyfanon ULV Mosquito (malathion 96.5 %), insecticide, liquid	Moderate; some cans leaking	11	Canister / can – PE (19 l)	209
Obsolete pesticides	Fyfanon ULV Mosquito (malathion 96.5 %), insecticide, liquid; about 10 % of product left in the container, which has been leaking	Moderate	1	Canister / can – PE (19 l)	2
Obsolete pesticides	Mosquito nets in bags of plastic jute, most likely impregnated with insecticide; exact weight unknown	Good	2	Bag – jute (8 kg)	16
Total obsolete pesticides					**227**

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
WEEE (additional waste)	Televisions, printers, computers and related products in a separated shed of approx. 16 x 5 m; 160 m³ at a specific weight of 200 kg/m³	Store at full capacity; no segregation of products	–	Loose and on wooden pallets	32,000
Total WEEE					**32,000**

Table 3 – Site conditions

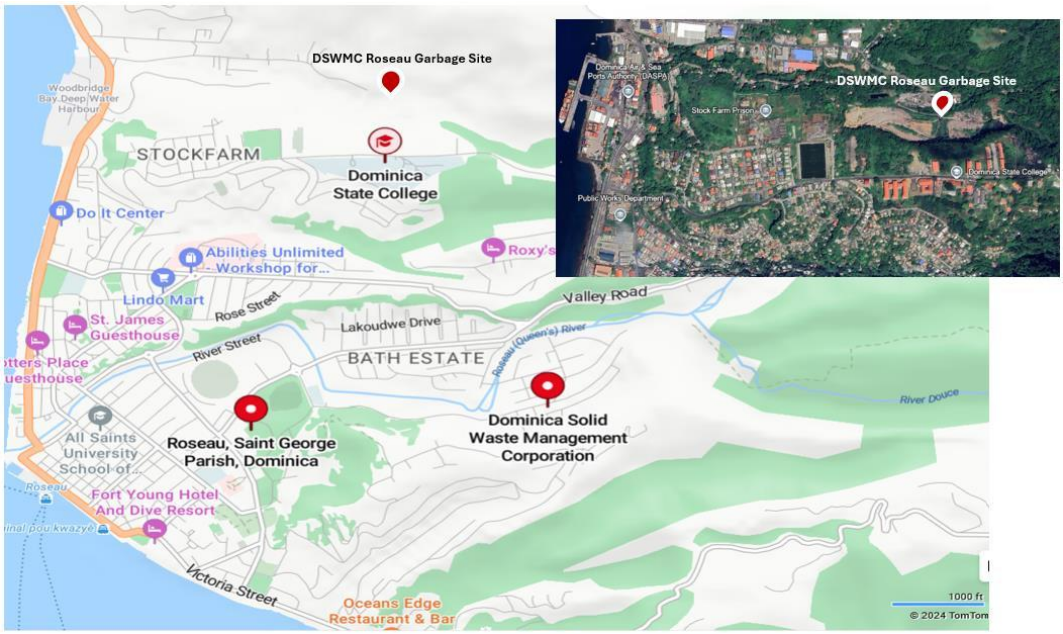
Site conditions	
Status of stored waste	Some of the cans with malathion are leaking
Building conditions	Poor, needs large upgrade
Floor conditions	None (no floor in the storage areas)
Site control	Yes, (partially) fenced with gates
Accessibility	Good quality asphalt, suitable for trucks

Table 4 – Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Earthquakes, landslides, hurricanes, floods
Proximity to a chemical factory, flammable materials storage or other industrial hazard	Yes, within 100 m
Proximity to residential area	Yes, within 500 m
Proximity of public facilities within 500 m	School; elderly home
Proximity of groundwater wells within 250 m	No
Proximity of open water within 500 m	Yes, river within 500 m

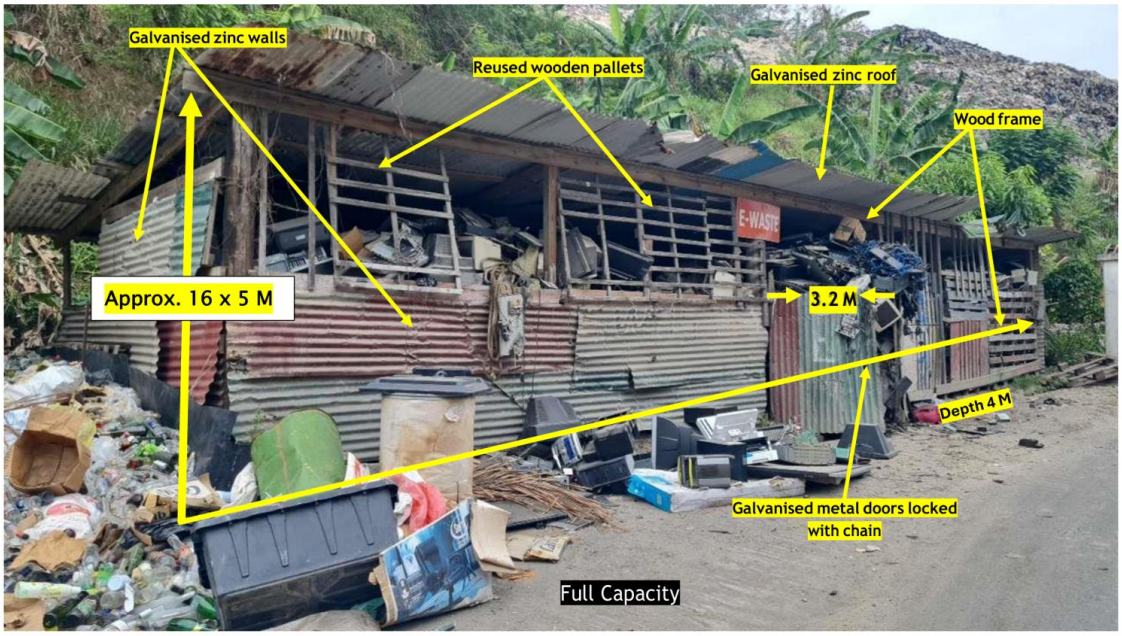
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 m	No
Location within Recreational Area or National Park	No

Figure 1. Map with Geographical Setting of the site



Site Layout

E-Waste Storage Facility



Landfill and Dumpsite

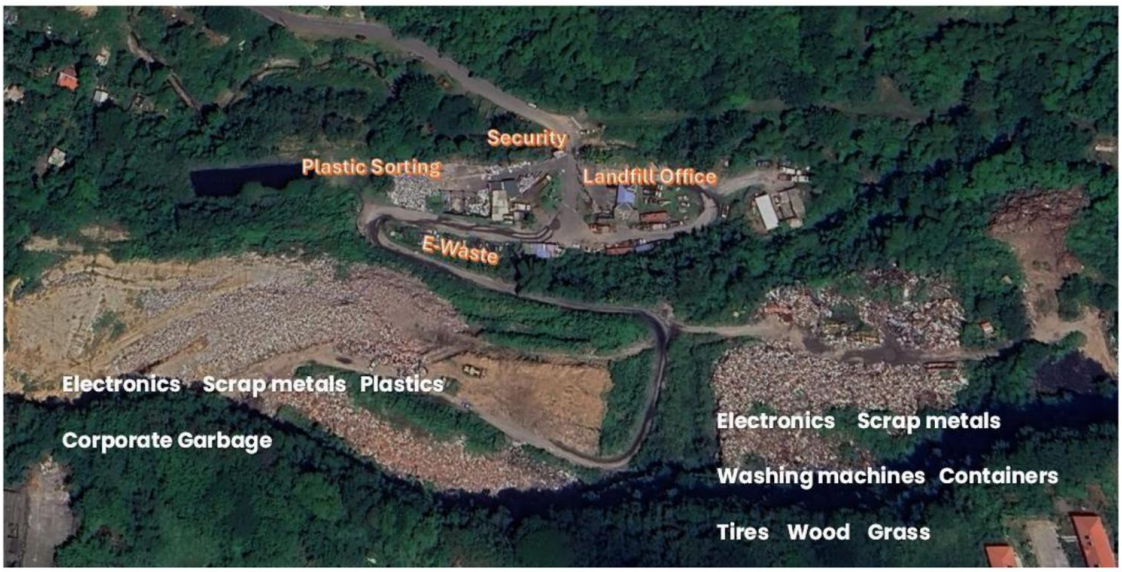


Photo report of the site




FYFANON ULV MOSQUITO
CAUTION



DM-02 Interim Pesticide Storage, Division of Agriculture, Ministry of Agriculture, Fisheries, Blue and Green Economy, Goodwill, Roseau (15°18'22.1"N 61°23'21.0"W)

The interim pesticide storage of the Division of Agriculture is a single 20' metal container standing next to the Vanoulst House, the Division of Agriculture building of the Ministry of Agriculture, Fisheries, Blue and Green Economy, on Charles Avenue in Goodwill, Roseau. It has been in use since 2022 and holds obsolete, expired and confiscated pesticides collected by the Pesticide Control Board from importers, retailers and farmers' cooperatives across the island, together with fertilisers and plant enhancers and with non-hazardous material – PVC pipes, floor mortar, cement and doors – that has become contaminated by the chemicals stored alongside it. Almost the whole stockpile by weight consists of Zenden mosquito coils. The container is disorganised and filled to capacity, has no ventilation and no windows for natural light, and the high internal temperature intensifies the strong odour of the chemicals, indicating degradation and volatility of the substances; no containment measures or safety protocols are in place for the materials stored within it. Some boxes are leaking, in particular a stack of O-Sil which is leaking and badly damaged. The container is locked as a security measure but is not guarded around the clock, and its location is unsuitable: it stands in close proximity to food stalls, a bank, a pack house, a galvanising works and the Goodwill Secondary construction site, and within 500 m of the sea, a hospital, schools, a church, a playing field and playgrounds.

Comments from the Independent Supervisor: Regarding the composition of this stockpile: (i) 4,338 kg – some 87 % of the total – is Zenden mosquito coils (mepeflurin/dimefluthrin 0.08 %), a solid waste in cardboard boxes rather than a liquid pesticide, which materially affects the packing, transport and destruction pricing; and (ii) approximately 258 kg is fertiliser and plant enhancer rather than pesticide.

Table 5 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Zenden mosquito coils (mepeflurin / dimefluthrin 0.08 %), insecticide, solid	Good	331 / 176	Cardboard box (13 kg) / single box (0.2 kg)	4,338.2
Obsolete pesticides	Fungicides – Mancozeb, Bankit (azoxystrobin), Tilt (propiconazole), Braco 720 (chlorothalonil), Serenade ASO (Bacillus subtilis)	Good	–	Cardboard boxes, plastic bottles	201.7
Obsolete pesticides	Herbicides – Diuron, Serenade, glyphosate, Volley (fenpropimorph), Fast, Stedfast (thiamethoxam)	Good to moderate	–	Cardboard boxes, plastic bottles	135.4
Obsolete pesticides	Insecticides – Neem X and D-Neemo (neem extract, azadirachtin), Vydait (mancozeb)	Good to slightly poor	–	Cardboard boxes, plastic bottles	78.2
Obsolete pesticides	Fertilisers and plant enhancers – Wholesome, Strike, Activator, Inno Care, Aquachill, Calbo, I Surge, I Boost, Build Up, Vitazyme, O-Phos, O-Sil, Ultralac	Good to poor; O-Sil leaking and badly damaged	–	Cardboard boxes / plastic bottles (0.06–0.5 l)	258.1
Total					**5,011.6**

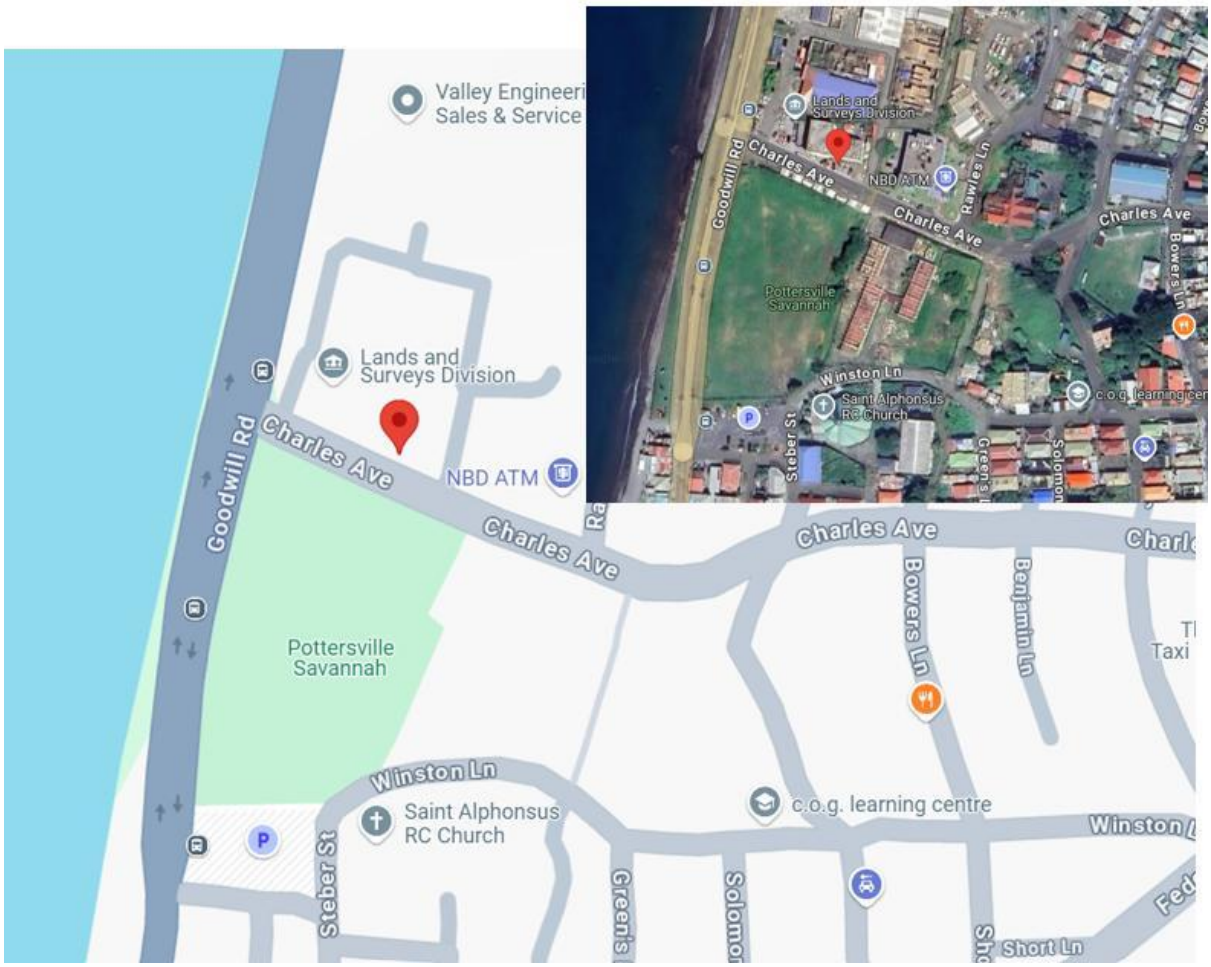
Table 6 - Site conditions

Site conditions	
Status of stored waste	No signs of spills, leaking boxes present though
Building conditions	No building; storage in a 20' metal container
Floor conditions	None
Site control	No
Accessibility	Gravel road, suitable for trucks

Table 7 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, within 500 m
Proximity of public facilities within 500 m	Hospital, school, bank, supermarket, playing field, church, hardware store, playground
Proximity of groundwater wells within 250 m	No
Proximity of open water within 500 m	Yes, sea within 500 m
Proximity of crops or pastures within 250 m	No
Proximity of Food or Feedstuff Storage within 250 m	Yes
Location within Recreational Area or National Park	Yes, playgrounds

Figure 2. Map with Geographical Setting of the site



Site Layout

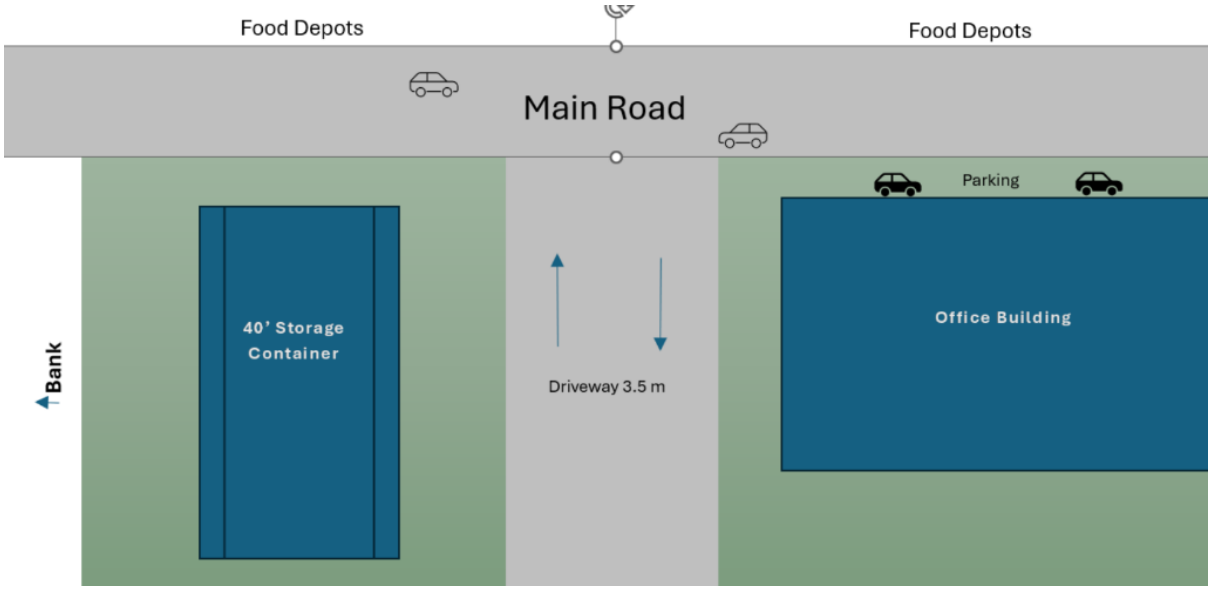
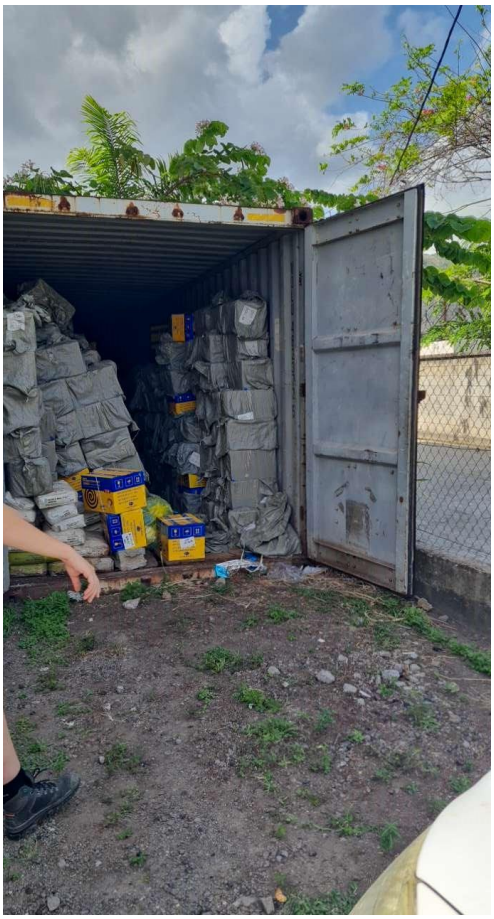


Photo report of the site







DM-04 Dominica Fire and Ambulance Service, Roseau Fire Station (15°18'00.9"N 61°23'05.6"W)

The Roseau Fire Station of the Dominica Fire and Ambulance Service has been in operation since 1964 and deals with fires and emergencies within the parish of Saint George from the centre of the capital. The station holds no bulk stock of fire-fighting foam – the greater part of the national stock is at the Canefield and Melville Hall stations – and the only PFAS-containing AFFF found on site was a small supply of Buckeye Platinum 3 % AFFF carried on the appliances, in four PE jerry cans of 19 l each. The building is in good condition with a concrete floor of good quality and is reached over good quality asphalt suitable for trucks, but the site is not fenced. The station lacked hazardous-materials suits at the time of the visit.

Table 8 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
AFFF	Buckeye Platinum 3 % AFFF, stored on the trucks	Moderate	4	PE jerry can (19 l / 5 gallons)	76

Table 9 - Site conditions

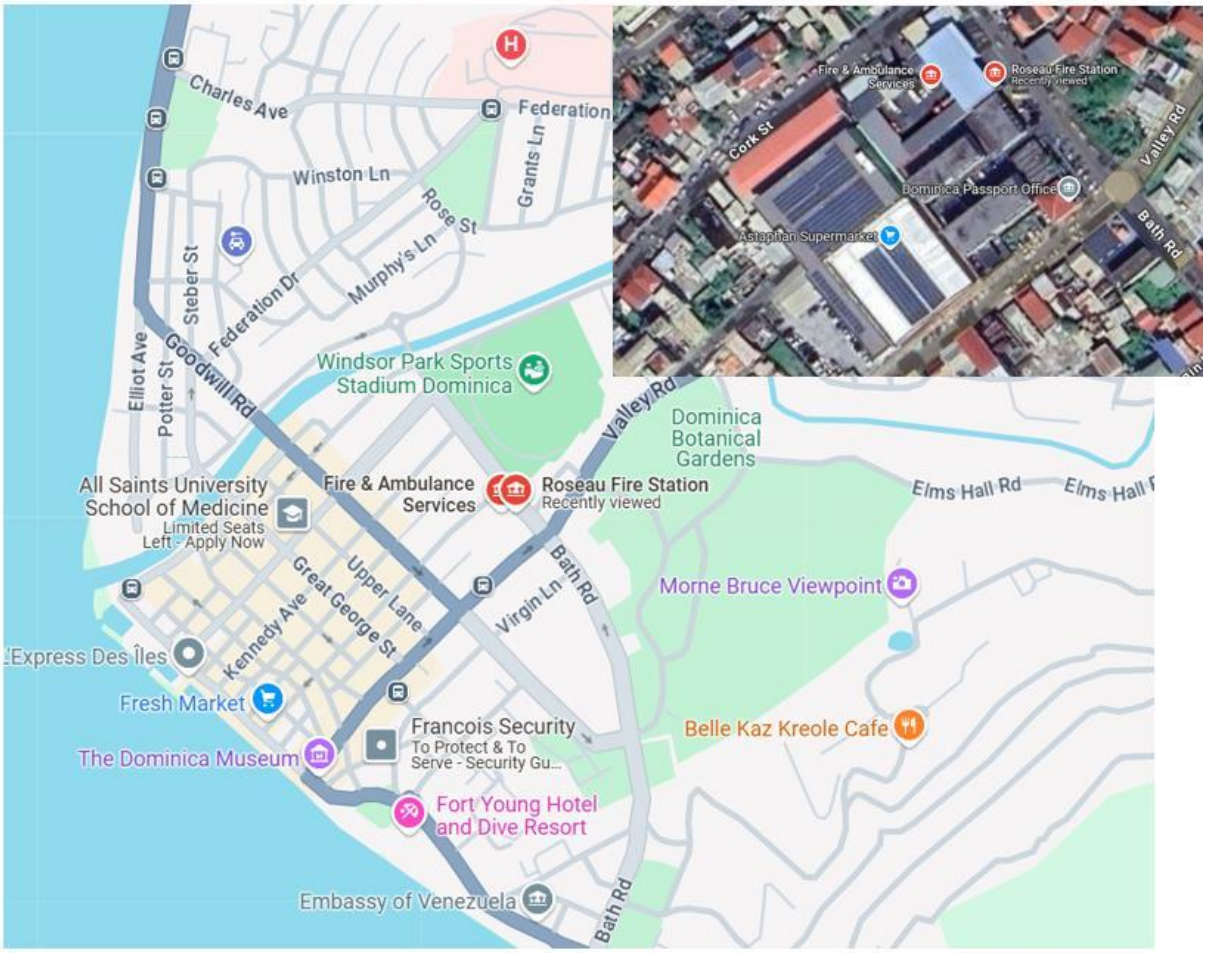
Site conditions	
Status of stored waste	Limited signs of spills
Building conditions	Good, no major signs of damage
Floor conditions	Concrete floor in good condition
Site control	No
Accessibility	Good quality asphalt, suitable for trucks

Table 10 - Site Geographical Setting

Site Geographical Setting

Potential natural disasters	Hurricanes, floods
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, in the city centre of the country
Proximity of public facilities within 500 m	School, food outlets, stadium
Proximity of groundwater wells within 250 m	No
Proximity of open water within 500 m	Yes, river within 500 m
Proximity of crops or pastures within 250 m	No
Proximity of Food or Feedstuff Storage within 250 m	No
Location within Recreational Area or National Park	Yes, stadium

Figure 3. Map with Geographical Setting of the site



Site Layout



Photo report of the site


BUCKEYE PLATIN
3%

DM-05 Dominica Fire and Ambulance Service, Melville Hall Station, Marigot (15°32'46.8"N 61°17'55.0"W)

The Melville Hall station of the Dominica Fire and Ambulance Service, on the Douglas–Charles Airport access road at Marigot, has been in operation since 1958 and holds by far the largest stock of PFAS-containing AFFF in the country. The foam is kept in a concrete storeroom with four windows, two doors, lights and a concrete floor, stacked directly on the floor together with mixed goods – camp cots, mattresses, ladders, tyres, rafts, fire extinguishers and oxygen cylinders. The main stock is Buckeye Platinum PLUS C-6 3 % AFFF in 221 PE jerry cans of 19 l, in good condition; in addition, eight plastic drums of 190 l hold an unidentified 6 % foam which is no longer in its original packaging. No signs of spills were observed. The site is partially fenced with gates and is reached over good quality asphalt suitable for trucks.

Table 11 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
AFFF	Buckeye Platinum PLUS C-6 3 % AFFF, alcohol resistant	Good	221	PE jerry can (19 l / 5 gallons)	4,199
AFFF	Unidentified fire-fighting foam, 6 %, not in original packaging	Moderate	8	Plastic drum (190 l / 50 gallons)	1,514
Total					**5,713**

Table 12 - Site conditions

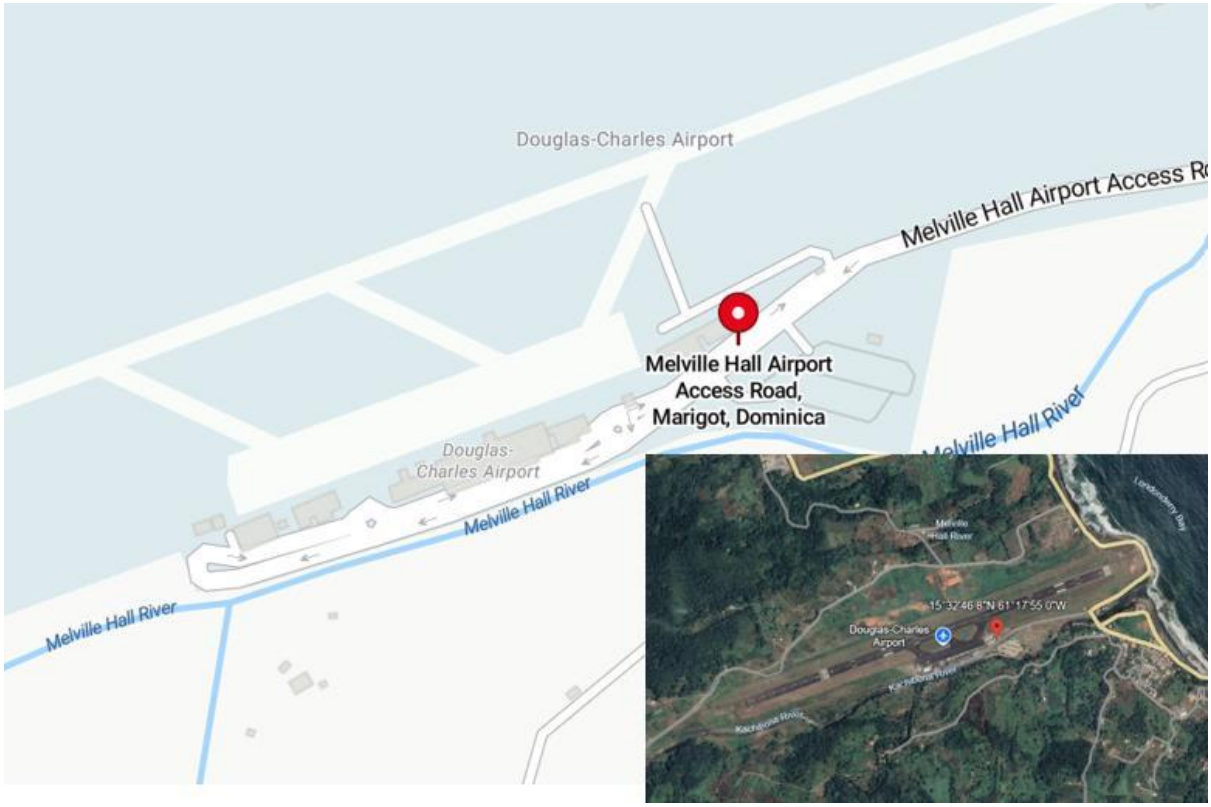
Site conditions	
Status of stored waste	No signs of spills
Building conditions	Good, no major signs of damage

Floor conditions	Concrete floor in good condition
Site control	Yes, (partially) fenced with gates
Accessibility	Good quality asphalt, suitable for trucks

Table 13 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Floods, hurricanes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	Yes, within 100 m
Proximity to residential area	No
Proximity of public facilities within 500 m	None
Proximity of groundwater wells within 250 m	Yes
Proximity of open water within 500 m	Yes, river within 500 m
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 m	No
Location within Recreational Area or National Park	No

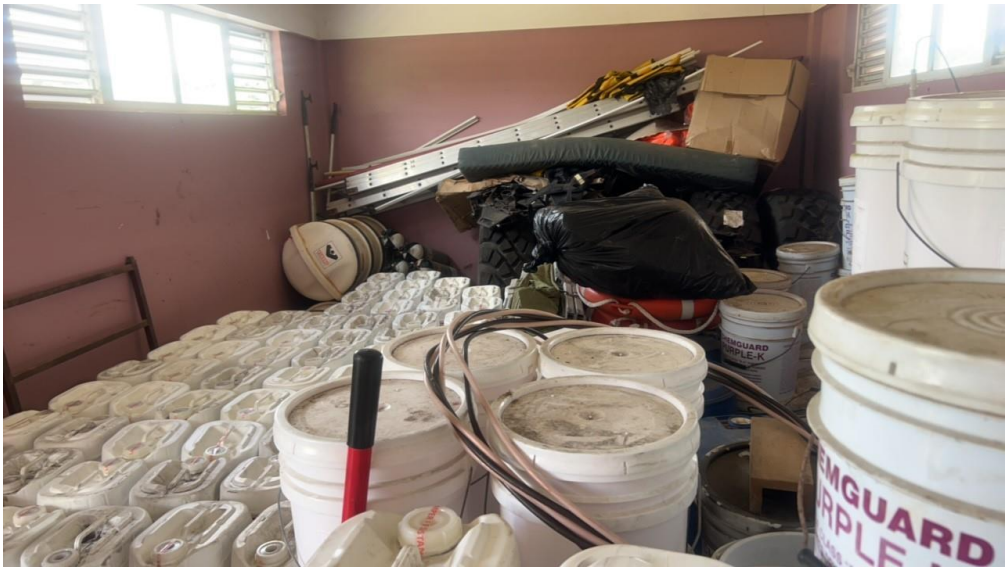
Figure 4. Map with Geographical Setting of the site



Site Layout



Photo report of the site





DM-06 Dominica Fire and Ambulance Service, Canefield Airport Station (15°20'24.5"N 61°23'29.7"W)

The Canefield station of the Dominica Fire and Ambulance Service, at Canefield Airport, has been in operation since 1982 and is the country's second largest holder of PFAS-containing AFFF. The foam is stored on wooden pallets in a store with concrete floors, walls and two doors and no proper windows, only openings in the wall; the roof above the stock leaks, so that rainwater falls onto it when it rains. The main stock is Buckeye Platinum 3 % AFFF in 146 PE jerry cans of 19 l, in good condition. A separate shed holds expired Lorcon Fluoroprotein 6 % foam and other expired AFFF in poor condition; this shed is severely compromised and the foam is stored together with mixed goods, including potassium bicarbonate and scrap metal, that are rusting. The site is partially fenced with gates and is reached over good quality asphalt suitable for trucks.

Table 14 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
AFFF	Buckeye Platinum 3 % AFFF, alcohol resistant (stack 560)	Good	146	PE jerry can (19 l / 5 gallons)	2,774
AFFF	Lorcon Fluoroprotein 6 % and other expired AFFF (stack 554)	Poor; stored with mixed goods that are rusting	1	PE jerry can (19 l / 5 gallons)	19
Total					**2,793**

Table 15 - Site conditions

Site conditions

Status of stored waste	Limited signs of spills
Building conditions	Good, no major signs of damage; leaking roof above the stock
Floor conditions	Concrete floor in good condition
Site control	Yes, (partially) fenced with gates
Accessibility	Good quality asphalt, suitable for trucks

Table 16 – Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	Yes, within 100 m
Proximity to residential area	Yes, within 500 m
Proximity of public facilities within 500 m	School, health centre
Proximity of groundwater wells within 250 m	No
Proximity of open water within 500 m	Yes, sea within 500 m
Proximity of crops or pastures within 250 m	No
Proximity of Food or Feedstuff Storage within 250 m	No
Location within Recreational Area or National Park	No

Figure 5. Map with Geographical Setting of the site

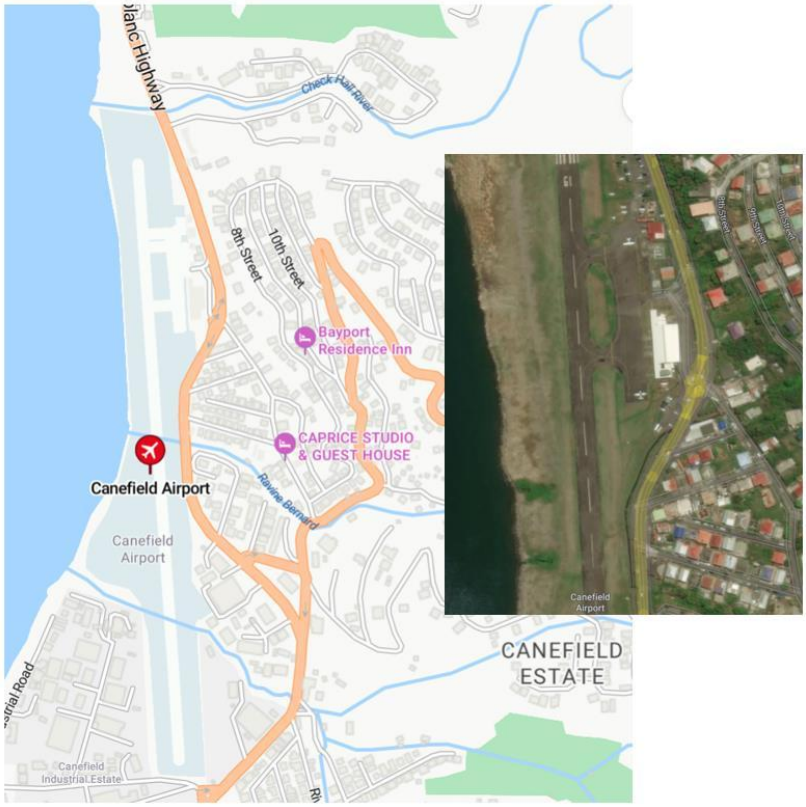


Photo report of the site



DM-07 Dominica Fire and Ambulance Service, Grand Bay Station

A stockpile of 38 l of PFAS-containing AFFF – Buckeye Platinum 3 % AFFF in two PE jerry cans of 19 l, held in poor storage conditions – is recorded at the Grand Bay station of the Dominica Fire and Ambulance Service. No inventory factsheet is available; the quantity was reported by the Dominica Fire and Ambulance Service in April 2024 and no GPS coordinates were recorded.

Table 17 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
AFFF	Buckeye Platinum 3 % AFFF; quantity reported by the site owner	Poor; packaging status unknown	2	PE jerry can (19 l / 5 gallons)	38

DM-08 FLOW Dominica, E-waste Storage Facility, River Estate Road, Canefield (15°19'48.5"N 61°23'16.7"W)

FLOW Dominica operates its telecommunications site on River Estate Road at Canefield, where numerous generators and transmitters are in service; activities on the site started in 1968. Two main buildings house at least four storerooms of waste electrical and electronic equipment, and a 30' container on the site holds further servers and electronic boards, the roof of the container being in poor condition. The WEEE consists mainly of electronic boards, telephones, modems, batteries, printers, televisions, monitors, amplifiers, servers and transformers; one separate room of some 14 x 26 ft holds 14 boxes of modems and 20 boxes of telephones. Part of the waste is segregated in dedicated e-waste rooms and part is mixed in a room with materials still in use. Some rooms are in good condition with organised shelving while others are dilapidated; no leakage was observed, the site is fenced with gates and is reached by asphalt road. The stockpile was measured at 185.53 m³ which, at a specific weight of 375 kg/m³, gives approximately 69,574 kg, of which the company estimates 80 % to be IT and telecommunications equipment and 20 % consumer equipment. FLOW stores the material in individual rooms and ships it for processing once enough has accumulated to fill a 40 ft container.

Table 18 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
WEEE (additional waste)	Electronic boards, telephones, modems, batteries, printers, televisions, monitors, amplifiers, servers and transformers in four storerooms and a 30' container; 185.53 m³ at a specific weight of 375 kg/m³	Poor; some rooms dilapidated, container roof in poor condition	–	Loose, in boxes and on shelves	69,574[2]

Table 19 – Site conditions

Site conditions	
Status of stored waste	No signs of spills
Building conditions	Poor, needs large upgrade
Floor conditions	Concrete floor in moderate or poor condition
Site control	Yes, (partially) fenced with gates
Accessibility	Poor quality asphalt, suitable for trucks

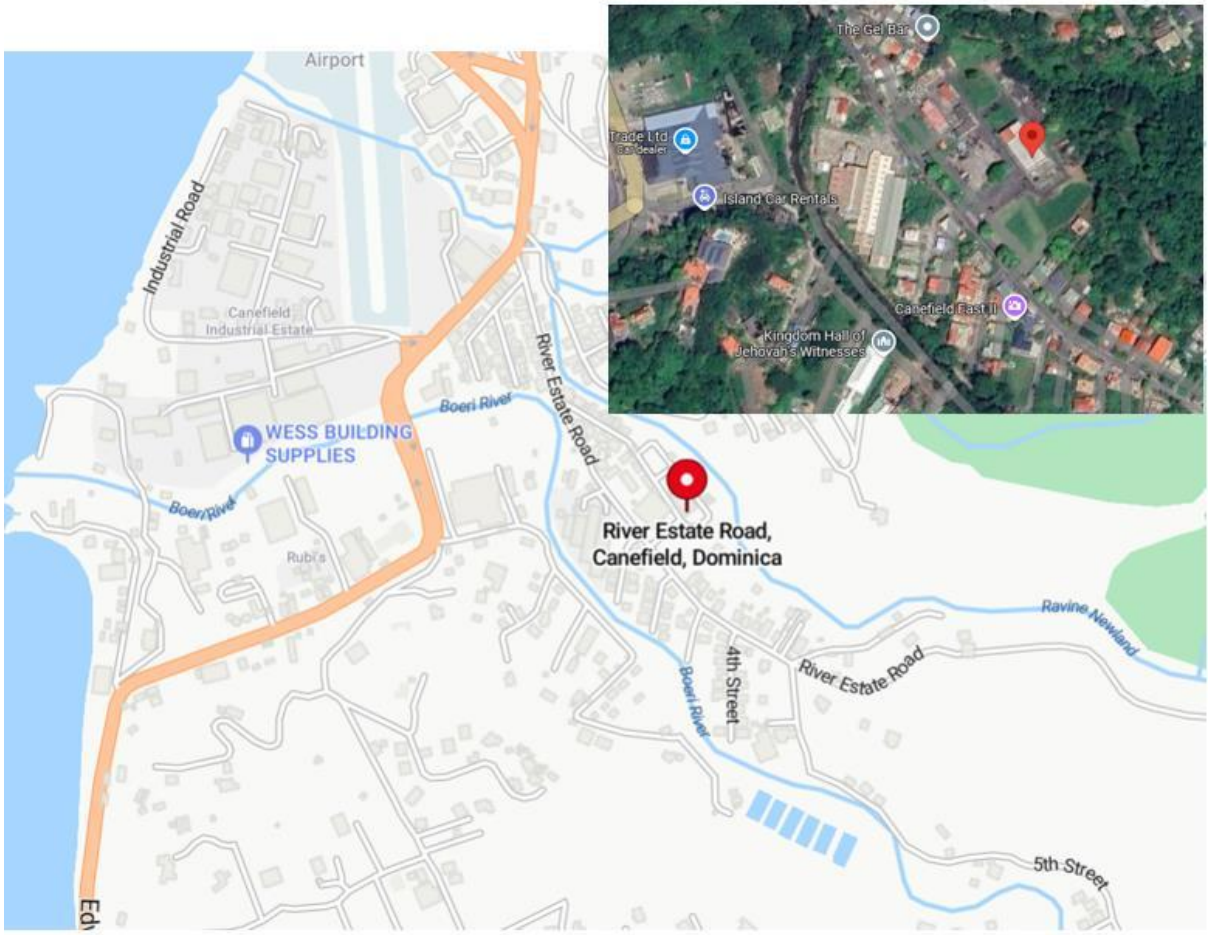
Table 20 – Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Floods, hurricanes
Proximity to a chemical factory, flammable materials storage or other	No

[2] The quantity is a volume-based estimate.

industrial hazard	
Proximity to residential area	Yes, within 500 m
Proximity of public facilities within 500 m	School, hospital
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, river within 500 m
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 m	No
Location within Recreational Area or National Park	No

Figure 6. Map with Geographical Setting of the site



Site Layout



Photo report of the site








FLOW
FEATURES

DM-09 Meteorological Office

The Meteorological Office holds a small stock of mercury-added measuring devices: twenty-nine (29) mercury thermometers, of which six are still in use, and two (2) mercury barometers. No inventory factsheet is available; the data were provided by the Meteorological Office in April 2024 and no GPS coordinates were recorded. The typical mercury content is reported as 0.61–2.25 mg per thermometer and 40–2,200 mg per barometer, and the endorsed national inventory records a total mercury content of 0.000124 kg for the site.

Table 21 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
MAPs	Mercury thermometers; six of the units are still in use	Not assessed	29	Loose	29 pc[3]
MAPs	Mercury barometers	Not assessed	2	Loose	2 pc
Total					**31 pc**

[3] Note that six (6) of the twenty-nine (29) thermometers are still in use and will need to be replaced before they can be released.

DM-10 Digicel Dominica

Digicel Dominica sorts the waste electrical and electronic equipment arising from its operations and ships it to a regional storage facility for recycling. A small residual stockpile of some 26 kg was reported in April 2024, consisting of tablets and batteries held at warehouse locations. No inventory factsheet is available; no GPS coordinates were recorded.

Table 22 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
WEEE	Tablets; 0.1306 m³ at a specific weight of 200 kg/m³	Not assessed	–	Stored at warehouse locations	26.1
WEEE	Batteries; 0.006 m³ at a specific weight of 18 kg/m³	Not assessed	–	Stored at warehouse locations	0.1
Total					**26.2**[4]

[4] The quantity is a volume-based estimate.