Green Villa Certification Questionaire

Checklist of requirements for Green Villa status

Date of Application

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<th>Month</th>
<th>Day</th>
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Villa Name

Applicant/Owner Name

Villa Address

Villa Manager

Applicant Contact Telephone

Applicant Email Address

1.0 Green Villa Operations and Maintenance 9 Points

Green Goal: Villa has established and Posted Signage (made available to guests) on Green Operation and Maintenance Policy stating that this green villa does not use toxic products or services that are detrimental to human health, prevents pollution of the natural environment, does not generate excessive land fill waste, and promotes water and energy conservation.
1.1 Villa has posted an IGLA provided sign stating that the villa uses biodegradable kitchen, bath and home cleaning products and does not use toxic home cleaning products. Villa provides guest with VINP brochure on "reef safe" sunscreens.

- Yes
- No

1.2 Villa provides re-usable shopping bags to prevent the use of over 500,000 single use, disposable plastic grocery bags sent to the landfill annually on St. John.

- Yes
- No

1.3 Villa provides filtered, drinkable tap water and/or a bulk water dispenser that eliminates the need for and use of single use, disposable plastic water bottles.

- Yes
- No

1.4 Villa supplies re-usable, water bottles for beach or outdoor activities and To-Go cups for hot drinks.

- Yes
- No

1.5 All paper products provided for guests (including paper towels, toilet paper, and tissues) must be of recycled materials. Cloth napkins should be provided and paper plates are discouraged.

- Yes
- No

1.6 Villa provides a home kitchen composting area with posted written instructions for guests

- Yes
- No

1.7 Villa provides natural insect repellant and does not provide toxic aerosol sprays.

- Yes
- No

1.8 Villa provides a separate bin for aluminum can recycling with a notice of the location of the nearest can depository.

- Yes
- No

1.9 Villa has continuing program to educate the caretakers, maids, pool, landscaping & other maintenance personnel with the use of proper green techniques, products, etc.

- Yes
2.0 Green Villa Water Management: 9 Pts

Green Goal: A Water Management & Conservation Plan for the building has been developed and made available to guests to minimize environmental pollution, encourage water conservation and provide 100% retention and recycling of water used.

2.1 Use of an ecologically balanced On Site Sewage Disposal System ‘OSDS’ (where not connected to a municipal sewer system). Mechanical treatment system or rock/plant filter, subsurface flow constructed wetland. Villa does not have a traditional septic system with leachfield. TRADITIONAL SEPTIC SYSTEM CAN CAUSE NON-POINT SOURCE POLLUTION WHEN NOT MAINTAINED PROPERLY

☐ Yes
☐ No

2.2 Gray water collection system to collect rainwater from surfaced areas, (driveways, parking areas, decks, porches and patios) for reuse on the property (landscape irrigation system).

☐ Yes
☐ No

2.3 Water conserving toilets installed throughout entire villa (1.6 GPM per flush, maximum)

☐ Yes
☐ No

2.4 Low flow shower heads installed throughout entire villa.

☐ Yes
☐ No

2.5 Only Energy Star dishwasher (or no dishwasher) is installed & labeled

☐ Yes
☐ No

2.6 Only Energy Star washing machine is installed & labeled.

☐ Yes
☐ No

2.7 Villa has front loading washer and dryer

☐ Yes
☐ No
2.8 Post for Guest Use: Water Conservation Suggestions in Kitchen & Bathrooms: (Graphics as provided by IGLA)

Helpful Hints to Conserve: Take short showers: Turn on water and get wet, then turn off the water. Lather up with soap and shampoo. Turn on water for a short rinse Reduce laundry water use by hanging up and reusing bath towels. Fill sink with water to wash face and shave. Don't leave water running in sink while brushing teeth. Run dishwasher with a full load of dishes. Don't rinse dishes in running water before placing in dishwasher (scrape scraps off into garbage if required before washing). Owners should be required to provide appropriate dish washing detergents for guest use.

If a washer is provided: Wash full loads of laundry, in cold water, without bleach (which is toxic to garden plants). Consider returning home with dirty laundry, where water is less dear. Owners should be required to provide appropriate washing detergents for guest use. "Live like a local". Consider using the "in this land of sun and fun, we don't flush for number one" rule, which you will see posted in many restaurant rest rooms. Don't use the toilet bowl as a waste receptacle. Place Kleenex, personal wipes, etc. in waste paper baskets. Promptly report any unusual water loss to management (running toilets, leaking faucets, etc.). Turn off water supply valve near source if you can.

- Yes
- No

2.9 Villa has a water usage monitor and signage to inform guest of water use limits.

- Yes
- No

Total of 9 Points Section 2.0

3.0 Green Villa Energy Conservation & Management: 11 points

Green Goals: Villa has an energy system in use that maximizes energy conservation techniques, renewable energy and minimizes the use of electricity generated by burning fossil fuels.

3.1 Solar hot water heating or on demand systems (tankless electric or gas point of use heaters).

- Yes
- No

3.2 Hot water plumbing lines are insulated.

- Yes
- No

3.3 Renewable energy systems used. Photovoltaic (PV, solar) and/or wind energy systems.

- Yes
- No

3.4 Clothes drying yard or area provided, with clotheslines for solar drying.

- Yes
3.5 Induction electric range w/ convection oven or gas stove, with electric ignition is used instead of electric stove. (Gas stoves with pilot lights do not qualify for use in this checklist)

☐ Yes
☐ No

3.6 Low voltage or solar (landscape/parking area) external lighting is used.

☐ Yes
☐ No

3.7 75% of lighting fixtures are energy efficient: (LED or Compact fluorescent).

☐ Yes
☐ No

3.8 Energy Star refrigerator is installed.

☐ Yes
☐ No

3.9 Energy Star ceiling fans are used.

☐ Yes
☐ No

3.10 Building design and orientation does not require air-conditioning.

☐ Yes
☐ No

3.11 Post IGLA Guest Use: Energy Conservation Suggestions: (Graphics as provided by IGLA)

St. John has the highest cost of electricity in the US (on average, 5x what you pay at home), and remember it all comes from the burning of oil!

☐ Yes - 1 point
☐ No points

☐ Only turn on hot tub jets when using the spa. Leave cover on hot tub to retain heat when not in use. You may run it for a few hours before entering in the evening to warm up the water. Turn off and cover after leaving the tub for the evening and the water will still be hot in the morning. The spa uses the majority of electricity in the house while running and heating the water, and is probably the major contributor to total electrical use in the house. Leave the jets off when not in use. Don’t leave the spa light on when not in spa.

☐ “Live like a Local” Consider opening doors and using ceiling fans instead of air conditioning to keep cool. Please, please close windows and doors when using air-conditioners!

☐ Keep refrigerator and freezer doors closed as much as possible. Leave temp controls on 5, (average).

☐ If provided: Washers & Dryers: Use the clothes dryer for full loads. Clean the lint filter before
each load. Make sure the washer is set to energy efficient settings. Consider taking home your remaining dirty laundry when you leave.

- Turn off lights and ceiling fans when not in use.
- Turn off TV and other electronics when not in use.

**Total of 11 Points Section 3.0**

### 4.0 Green Villa Air Conditioned Buildings: 5 Points

Green Goal: Air conditioning systems are the single largest consumer of electricity in a building. Building areas with air conditioning systems need special energy conservation systems. Air Conditioned Buildings should be Energy Star

[Compliant](www.energystar.gov/index.cfm?c=new_homes.nh_features) and more importantly should meet the standards of the 2012 International Energy Conservation Code, which has been adopted for all new construction and energy system retrofits in the Virgin Islands.

**4.1** Villa has signs posted to request that guests turn off air conditioning when leaving the residence and minimize wasteful practices such as leaving doors and windows open when AC units are running. Consider adding time clock or motion sensor to control this without guest involvement

- Yes
- No

**4.2** Air Conditioned building spaces are sealed and the roof is well insulated to R30. (Jalousie louver windows in conditioned spaces are not allowable for inclusion in the checkpoint)

- Yes
- No

**4.3** Centrally Air Conditioned Buildings (including Great Rooms) have an Energy Star approved energy efficient AC system.

[www.energystar.gov/index.cfm?c=cac.pr_central_ac](http://www.energystar.gov/index.cfm?c=cac.pr_central_ac)

- Yes
- No

**4.4** Air-conditioned building windows and doors are Energy Star approved or equivalent ENERGY STAR Qualified Windows, Doors and Skylights Eligibility


- Yes
- No
4.5 Villa has an energy i-system (infrared sensor) which requires people be in the room to run the A/C. Such a system might also be able to set limits on A/C settings.

☐ Yes
☐ No

Total of 5 Points Section 4.0

5.0 Green Villa Swimming Pools 5 Points

Green Goals: Large, uncovered pools evaporate a remarkable amount of water every day. Pools with electric heaters use a tremendous amount of electricity every day. Special energy and water conservation techniques should be installed to maximize reduction.

5.1 Villa has no pool

☐ Yes
☐ No

5.2 Villa has Pool but pool is:
One Point, check appropriate box.

☐ Pool is not heated
☐ Pool has a solar thermal heating system or an AC heat pump transfer system.

5.3 Swimming Pool Area:
One point, check appropriate box

☐ Pool area does not exceed 400 square feet
☐ Or if larger than 400 square feet has a vapor barrier pool cover installed.

5.4 Pool has a high efficiency Inversion Pool Pump (Pentair or equivalent)

☐ Yes
☐ No

5.5 Villa has a solar swimming pool pump, a solar grid-tie net meter system to offset the AC pool pump, or a programmable, variable speed energy efficient AC pool pump.

☐ Yes
☐ No

Total Points Section 5.0

6.0 Green Villa Physical Site Conditions: 6 Points

Green Goal: Villa's physical site design and layout provides minimum site disturbance and maximum environmental protection.
6.1 A native/natural vegetation greenbelt is retained along public or estate roadway.
- Yes
- No

6.2 Surfaced (concrete, pavers or gravel) onsite driveway and parking areas to minimize erosion from storm water runoff.
- Yes
- No

6.3 Permeable surface parking areas used to filter and re-introduce storm water runoff back into the ground.
- Yes
- No

6.4 Storm Water drainage measures implemented on site to minimize site run off (both point and non-point source pollution of the local environment) by retaining storm water on the property through the use of berms, swales, terracing and settlement terraces.
- Yes
- No

6.5 Storm water runoff is collected from surfaced areas (parking & driveways) and stored for gray water landscape irrigation.
- Yes
- No

6.6 Permanent compost areas established on site for landscape trimmings and organic kitchen waste.
- Yes
- No

Total of 6 Points Section 6.0

7.0 Building Exterior Envelope, Structure and Site Location: 4 Points

Green Goals:  A: The building has been designed and positioned on the site to be responsive to tropical architectural design considerations, including trade winds and sun paths, minimizing the use of mechanical cooling and ventilation systems. B: The building is designed and constructed to provide a safe and healthy human habitat.

7.1 Building design incorporates “passive solar design features”. Masonry walls facing south, southeast or southwest are shaded with natural vegetation, porches, galleries, trellises or other design features to minimize heat gain on the walls and within the structure from the sun during the day.
7.2 Non air conditioned spaces have either an insulated roof or a radiant barrier installed in the roof substrate.

- Yes
- No

7.3 Low on NO-VOC paints, primers and wall coverings used as specified by greenseal.org/standards/paints.htm.

- Yes
- No

7.4 Tropical vernacular (particular to a region) architectural design elements such as hip roofs, porches and galleries to shade the walls.

- Yes
- No

Total of 4 Points Section 7.0

8.0 Light Pollution 3 Points

Green Goal: The exterior lighting system minimizes the amount of ambient light visible from outside the property.

8.1 No use of outwardly shining (spot) lights on buildings, patios and decks, except for emergency security lighting.

- Yes
- No

8.2 Use downward facing light fixtures on walls, decks, pools and patios.

- Yes
- No

8.3 Use low voltage ground level fixtures for driveways, paths and landscape lighting.

- Yes
- No

Total of 3 Points Section 8.0
9.0 Landscaping, Green Belts & Native/Natural Vegetation: 6 Points

Green Goals: Preserving the site's natural vegetation is the simplest and most cost effective form of landscaping. Native vegetation is already well established on site and will survive in our extreme environment without constant irrigation. A considerate and effective landscape water conservation plan has been developed for the property.

9.1 Use of locally grown native plants within the landscape plan that are appropriate for the local micro-climate.
  □ Yes
  □ No

9.2 Use of non-invasive plants within the landscape plan.
IGLA provides a list of native plants for use.
  □ Yes
  □ No

9.3 Imported tropicals used in landscaping are concentrated around buildings with drip irrigation and where the most environmental disruption has taken place during construction. As landscaping progresses outward from the habitable spaces it transitions from exotic to native.
  □ Yes
  □ No

9.4 Natural and organic fertilizers, pesticides and herbicides are used in landscape maintenance and are OMRI listed (Organic Materials Review Institute). Villa does not use toxic chemical herbicides, such as “Roundup”.
  □ Yes
  □ No

9.5 Fruit trees are planted on the property.
  □ Yes
  □ No

9.6 An organic vegetable garden is on the property.
  □ Yes
  □ No

Total of 6 Points Section 9.0

Total Points for Sections 1.0 through 9.0