

Renewable Energy Sector Development Project

Terms of Reference

Consultant Services

Preparation of Drafting Instructions

for

Environmental and Social Impact Assessment (ESIA) Regulations under the Physical Planning & Development Act

1. BACKGROUND

The Government of Saint Lucia (GOSL) has secured funding through the World Bank to implement the Renewable Energy Sector Development Project (RESDP). The development objective of the RESDP is to inform the GOSL on the viability of its geothermal resource for electricity generation and strengthen the enabling environment to scale-up clean energy investments with the private sector. The Project is being implemented by a Project Implementation Unit (PIU) in the Department of Infrastructure, Ports and Transport (DIPT) of the Ministry of Infrastructure, Ports, Transport, Physical Development and Urban Renewal.

The RESDP is being implemented between July 2022 and December 2026 and consists of two components:

- **Component 1** - Includes an Exploration Drilling Program comprising all activities related to geothermal exploration drilling to assess and estimate whether the resource is sufficient for development of a geothermal power plant.
- **Component 2** - Includes a Technical Assistance (TA) program aimed at: (i) increasing the GOSL's capacity to implement the Project (ii) strengthening Saint Lucia's regulatory framework for renewable energy integration and (iii) supporting a reduction in the employment gender gap in the energy sector.

Under Component 2 (ii), the regulatory framework must be established to enable geothermal energy development near the boundaries of the Piton Management Area (PMA), that is, in the PMA Green Buffer Zone (GBZ). The PMA does not include the PMA GBZ. The PMA is a

UNESCO World Heritage Site (WHS). Component 2 (ii) also includes the strengthening of the Environmental Impact Assessment (EIA) Regulations, under the Physical Planning and Development Act (the ACT), Chapter 5.12. Details of the PMA can be found at

[Pitons Management Area - UNESCO World Heritage Centre](https://whc.unesco.org/en/list/1161#:~:text=The%20Pitons%20Management%20Area%20%28PMA%29%20in%20the%20Southwest,are%20the%20major%20iconic%20landmark%20of%20the%20island)

(<https://whc.unesco.org/en/list/1161#:~:text=The%20Pitons%20Management%20Area%20%28PMA%29%20in%20the%20Southwest,are%20the%20major%20iconic%20landmark%20of%20the%20island>).

1.1 Legal and Regulatory Framework – Policy Setting

In 2005, the GOSL enacted the ACT, Cap. 5.12. Section 22 of the ACT establishes the need for Environmental Impact Assessments (EIAs) and the development of regulations to govern the said ACT. To date, EIA regulations have been drafted but not formalized or enacted.

2. OBJECTIVES OF THE ASSIGNMENT

The objectives of this consultancy are:

- (i) to review and make recommendations to amend the draft Environmental Impact Assessment (EIA) regulations¹ in accordance with international good practice and
- (ii) to prepare drafting instructions to enable the Attorney General's Chambers to draft Environmental and Social Impact Assessment (ESIA) regulations to govern the ACT. The regulatory support is necessary for environmental protection and permissible socioeconomic development in the GBZ, including the conditions under which geothermal exploration and development would be permitted in this area.

3. SCOPE OF SERVICES

3.1 General Scope Services

The Consultant shall:

- Provide the final drafting instructions for the ACT and draft regulations to the Legislative Drafting Unit of the Attorney General's Chambers;

¹ The current draft EIA regulations, once amended will be relabeled, "Environmental and Social Impact Assessment (ESIA)" regulations, The change in nomenclature is in line with current global trend. This may facilitate attracting of funds from global entities, as they all have a preference for ESIs rather than EIAs.

- Review, consult with public and private stakeholders (face-to-face and remote) and analyze issues that need to be dealt with by changes to the ACT including the draft regulations; and
- For each issue, make a recommendation as to the policy proposed, the changes required in the ACT, and the proposed inclusions in the regulations. The policy changes proposed would form the basis of the drafting instructions and should be approved by the Department of Physical Development and Urban Renewal and the Cabinet before the drafting instructions are sent to AG's Chambers for drafting.

The approved drafting instructions will be sent by DIPT to the Legislative Drafting Unit of the AG's Chamber's for drafting of the amendments to the ACT and the draft regulations.

3.2 Specific Scope of Services

To achieve these objectives, the Consultant shall propose recommendations to amend the relevant section(s) of the ACT, Chapter 5.12. The proposed amendments will form the basis of drafting instructions for the ACT and draft regulations and shall consider:

- Measures and guidelines that will facilitate the application of the regulations to any development within the PMA GBZ;
- Proposed amendments to the ACT that are deemed necessary for the effective and efficient application of the regulations for the GBZ;

As such, the Consultant is expected to undertake the following:

- Review the ACT to ensure that the development of ESIA Regulations under Section 56 of the ACT, complies with the general provisions of the ACT;
- Review the Limits of Acceptable Change (LAC) Study Documents and all other impact studies, including the Hyder Report, as they relate to the PMA GBZ with due consideration to developing regulations that permit geothermal development in the GBZ while conserving the PMA's OUV and WHS status. The consultant must be cognizant of the fact that the Hyder Report Policy Areas 6 to 8, comprising the buffer area, provides recommendations which must be revised and updated in the current policy and development context of St. Lucia;

- Review the draft ESIA regulations to ensure compliance with the general provisions of the ACT;
- Prepare and present an Issues Paper reflecting all findings and recommended drafting instructions;

The Consultant will be expected to organize two (2) rounds of consultations/workshops to include Government and non-governmental organizations, using a hybrid approach (face-to-face and virtual). The Consultant shall utilize various forms of technology and modalities suitable for delivering the contents to and receiving feedback from the various stakeholders. The hybrid consultative approach may, in addition to group sessions, include but not be limited to the use of Webex, Zoom, Teams and Skype, as well as social media (Facebook, WhatsApp, YouTube), and traditional channels of communication (TV, radio, surveys and e-mail).

As an integral part of disclosure requirements, the documents and any other information should be disclosed to the public online and/or otherwise for comments over a two-week period prior to the consultations/workshops.

In addition, the consultant shall:

- Undergo one round of public consultations to present and obtain feedback on the recommended amendments at two locations, (i) Castries (ii) Soufriere, face-to-face and virtual. Undergo a second round of public consultations to present the revised amendments at each of the two locations identified above. Stakeholders to be consulted must include the Drafting Unit of the AG's Chambers. The public consultation exercise should target identified stakeholders, interested persons, community leaders and civil society organizations including local NGOs in the project area of influence.
- Utilize various forms of technology and modalities including but not limited to "Power Point Presentation", suitable for delivering the contents of the documents to the various stakeholders.
- Deliver the contents using a modality that will reach the target audience.
- Prepare a first version of the drafting instructions for the amendments to the ACT and ESIA regulations based on all feedback received, consistent with the guide on Public Policy Development for Effective Legislation from the Legislative Drafting Unit of the AG's Chambers.

- Propose recommendations, including clear operational instructions and roadmap on how the Implementing Agency should implement the proposed changes to the legislation, taking into consideration the existing arrangements.
- Obtain feedback and prepare final drafting instructions for the ACT and ESIA regulations based on feedback received.

4. WORKING ARRANGEMENTS

A Project Management Team (PMT) will monitor and supervise the Consultant's work including assessment of overall quality. The Team will comprise the Permanent Secretaries (or their representatives) in the Department of Physical Development and Urban Renewal and the Department of Infrastructure, Ports and Transport, and will include the following members or their representatives:

- **The Project Manager, Project Implementation Unit;**
- **The Chief Physical Planning Officer;**
- **The Chief Energy and Public Utilities Officer;**
- **The PMA Manager;**
- **A Technical Officer, Department of Physical Development and Urban Renewal;**
- **A Legal Officer.**

The PMT will provide technical guidance to the Consultant. The Consultant shall meet with the PMT for an inception meeting to initiate the consultancy. The Consultant shall report directly to the Permanent Secretary, Department of Physical Development and Urban Renewal or his designated representative.

5. LEVEL OF EFFORT AND DURATION

The level of effort for the consulting services will be 75 person-days, spread over a period of eleven (11) calendar months.

6. DELIVERABLES AND TIMEFRAME

The Consultant will be expected to submit the following deliverables within the timeframe specified below:

Deliverable #1 –Inception Report. Following a review of all documents provided, the Consultant will submit a Draft Inception Report outlining the work plan, method for stakeholder consultations and a timeframe for execution of the consultancy. The Inception Report shall be presented to the PMT.

Deliverable #2 – Issues Paper and Recommended Amendment(s) to the ACT and draft ESIA regulations. The first draft of the recommended amendment(s) to the ACT and the first draft of the drafting instructions for the updated ESIA regulations will be submitted to the PMT for review and comments.

Deliverable #3 – Results of Public Consultations and Presentation of Revised Amendments to the ACT and draft ESIA regulations.

A Presentation is to be made to the PMT outlining the findings based on the two rounds of public consultations and the recommended revised amendments and drafting instructions based on the consultation findings. A summary of the consultations should be annexed to the Consultant's report.

Deliverable #4 – Presentation of Drafting Instructions for amendments to the ACT and ESIA regulations.

The revised Drafting Instructions will be presented to the Drafting Unit of the AG's Chambers. Feedback will be collected and used to further refine the drafting instructions.

Deliverable #5 –Final Drafting Instructions for the Regulations and Final Report

The final drafting instructions for amendments to the ACT and ESIA regulations shall be submitted to the PMT. The final draft is to incorporate all recommendations and comments from the two National Stakeholder Consultations and all presentations. A final report shall be presented containing a summary of all activities undertaken in developing the final drafting instructions.

Table 1. Time Schedule

Deliverables	Submission Format	Deadline	Payment Schedule (percentage of contract price)
<i>Deliverable #1 – Inception Report</i>	Electronic copy in both MS Word and Adobe PDF formats.	Contract Effectiveness + 15 days	10%
<i>Deliverable #2 –Issues Paper and Recommended Amendments Report</i>	Electronic copy in both MS Word and Adobe PDF formats.	Contract Effectiveness + 66 days	20%
<i>Deliverable #3 – Public Consultations and Revised Recommended Amendments Report</i>	Electronic copy in both MS Word and Adobe PDF formats.	Contract Effectiveness + 132 days	25%
<i>Deliverable #4 –Presentation of Recommended Drafting Instructions for amendments to the ACT and draft ESIA regulations; Report on Presentation to Drafting Unit</i>	Electronic copy in both MS Word and Adobe PDF formats.	Contract Effectiveness + 165 days	20%
<i>Deliverable Package #5 – Final Drafting Instructions and Final Report</i>	Electronic copy in both MS Word and Adobe PDF formats.	Contract Effectiveness + 176 days	25%

7. CONSULTANT'S QUALIFICATIONS AND EXPERIENCE

A firm with the following minimum requirements:

- a. At least 5 years of experience operating as a Law Firm within St. Lucia;
- b. Demonstrated experience with the drafting of Laws of Saint Lucia and the process for enacting legislation.
- c. Demonstrated experience of operating within CARICOM and/or the OECS Member States and working with International Institutions, including Multilateral Development Banks (MDBs), International Environmental NGOs, on similar assignments.

Lead Consultant:

- a. Masters Degree in Law and at least ten (10) years experience in Legislative Drafting;
- b. Experience in laws/legislation related to the Environment or Natural Resources, and Social Development issues.
- c. At least ten (10) years' experience in drafting policy and laws for a Government in CARICOM or OECS Member States.

Other Key Staff required for undertaking the assignment are as follows:

An Environmental & a Social Assessment Specialist:

- a. Master's degree in a relevant Environmental and/or Social Management or Engineering fields;
- b. At least five (5) years professional experience in the assessment of the environmental and social impacts of infrastructure projects;
- c. Demonstrated experience working on projects at a World Heritage Site in the Caribbean and familiarity with World Heritage guidelines on environmental and social assessment.

A ANNEX 1 – THE PITON MANAGEMENT AREA (PMA) – BACKGROUND DETAILS

B INTRODUCTION

The Pitons Management Area (PMA) World Heritage Site (WHS) located in the south western region of the island of Saint Lucia, West Indies, was included on the list of World Heritage Sites (June 2004), thereby esteeming it as a site of “Undisputable Universal Value” with “geomorphology, climate, natural history and human history which have all combined to create a landscape of exceptional beauty and quality with high scenic, cultural and symbolic values and with great potential for sustainable development and the provision of social and economic benefits”. The two specific criteria which formed the basis for its Nomination were the Superlative Beauty of the ‘Pitons against the backdrop of green tropical vegetation and a varying topography combined with a marine foreground’ and that the PMA contained Unique Illustrations of Volcanic History of an andesitic composite volcano associated with crustal plate subduction (World Heritage Nomination Package of 2004).

In 2007 the Government of Saint Lucia (GOSL) identified the Soufriere region including the PMA as a priority for the preparation of an Integrated Development Plan. The purpose of the plan was to provide measures to address the considerable pressures for development in the Soufriere region and the PMA in particular. The World Heritage Committee (WHC) had raised concerns about the impact of development on the World Heritage status of the PMA, hence the decision to commission the Hyder Report study. Whilst the Soufriere Integrated Development Plan, more commonly known as the Hyder Report 2008, identified specific Policy Areas and the accompanying levels of development or non-development which they could support, it did not provide the specific parameters needed. Consequently, three (3) years after submission of the final Hyder Report documents, the WHC again raised concerns about the rapid pace of development in the PMA, specifically those of a touristic nature occurring in sensitive zones.

In responding to the State of Conservation (SOC) Report for the PMA submitted in 2011; identified as Decision **WHC 35 COM**, the WHC underscored the need for the conduct of a Limits of Acceptable Change (LAC) Study, as well as a review of land use plans and development control guidelines for the PMA. Against this background, the GOSL

commissioned a LAC Study in 2013 that would establish a definitive framework for maintaining the integrity and Outstanding Universal Value (OUV) of the site. The LAC Study Documents had to be definitive in stating the following:

- i. The nature and scope of developments permissible
- ii. The exact areas where development is permissible
- iii. The specific footprints for permissible developments

The Landmark Practice (TLP), a reputable environmental consulting firm from the United Kingdom, was commissioned by the GOSL to conduct the LAC Study for the PMA in March 2013. TLP submitted a first draft of their Report on August 13, 2013 and after public discussion and commentary, a final report was submitted on December 22, 2013.

A copy of this Report represented by the following documents is attached as Appendices 2 through 4:

- I. A Final Report including the Executive summary
- II. A Booklet containing Figures referenced in the Report; and
- III. A Design Guide and Limits of Acceptable Change for the PMA

In summary, the LAC Study Documents determined that Limits of Acceptable Change should be set for three 3 key elements of the PMA that are vulnerable to changes due to human activity in the PMA.

- i. Exceptional natural beauty and the positive landscape characteristics that contribute to it
- ii. Unique flora and fauna, most notably on Gros Piton and Petit Piton
- iii. Marine zone ecosystem

It further defined the Parameters for Permissible Development, Development Control; and Monitoring in each Policy Area

Completion of the LAC Study Documents did not signal the end of the process. The next important requirement was for ensuring that the LAC Study Documents was used as a tool for managing development within the PMA and effectively implemented. This required that the following key actions be taken:

- i. Formal adoption of the LAC Study Documents by the Government of Saint Lucia for effective implementation; and
- ii. Integration of the LAC Study Documents Recommendations into the legal and regulatory frameworks for managing development applications within the PMA.

The LAC Study Documents were not intended to replace the Hyder Report but rather strengthened it and provided more specific guidelines for the management of development within the PMA. The Hyder Report also addressed issues outside of the immediate boundaries of the PMA and GBZ. Consequently, the Regulations to be developed are to address activities within the PMA and GBZ, and will focus on the relevant sections of the Hyder Report and the LAC Study Documents.

ANNEX 2 – GUIDANCE NOTES (Extracted from LAC Study (PA 1-5) 2013 and Hyder Report (Buffer Areas))

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Section 1 IMPLEMENTATION TOOLS

C PARAMETERS FOR PERMISSIBLE DEVELOPMENT

1.0 Policy Areas

The PMA has been subdivided into 5 Policy Areas, with there being specific development guidelines for each Policy Area.

1.1 Policy Area (PA) 1

PA1 includes Gros Piton, Petite Region, Ridge, all land along the slopes above 650 feet right up to and including the skyline ridge. The following are of highest importance within this zone: the protection of the visual character of the zone as seen from the land and sea (including Important and Outstanding Views down from the Pitons and ridges); the maintenance of vegetation cover and protection of the geological landscape.

1.1.a Development Guidelines

There is to be essentially no development in Policy Area 1.

- PA1(A) No development permitted with exception of works to improve existing trails at Gros Piton including minor signage and interpretation.
- PA1(B) Existing informal Recreational trails on Petit Piton to be extinguished to avoid ecosystem disturbance; access to be permitted for scientific purposes only.
- PA1(C) Small scale development in the L'Îvrogne river valley, set back from the beach to be considered if it meets the full LAC Study for the PMA. Development to be restricted to local needs and/or conservation purposes. Possible initiatives could be schemes that provide opportunities for local employment, for accommodation (but only for local people) and/or for historic feature conservation. This would allow for the replacement of existing *ad hoc* beach facilities with sustainably managed low key beach facilities set back from beach and in according with the LAC Study.

1.2 Policy Area (PA) 2

PA2 includes the Sulphur Springs.

1.1.b Development Guidelines

There is to be limited development in Policy Area 2. This area is to remain accessible but undisturbed by built environment.

- PA2(A) The existing natural setting of the Sulphur springs is to be preserved and enhanced. No new development is to be visible from the main viewing area. The surrounding ridge lines are to remain free from development. (Include map in appendix)
- PA2(B) Actions to enhance setting and visitor experience through improvement of existing facilities are to conform to the LAC Study.

1.3 *Policy Area (PA) 3*

PA3 includes Jalousie and Beausejour.

1.1.c Development Guidelines

All development in Policy Area 3 is limited and restricted by size and design.

- PA3(A) Development is permissible if it is to be fully compliant with LAC Study for the PMA and including the following:
- PA3(B) No development is to be built on plots with average gradient is greater than 1:3 unless it be demonstrated that there will be no adverse effects to the PMA and in particular the Important and Outstanding Views.
- PA3(C) Maximum area of development within any major development site within any single land ownership is to be 20%. Loss of vegetation and land disturbed by the earthworks are to be considered part of this 20%. For avoidance of doubt, any access roads, paths or change of use from plantation to garden, etc. must be considered to be development and therefore be part of the 20% allowable development. For the purposes of calculations, the area is seen as that in plan and does not take into account the angle of slope. Remaining 80% of the single land ownership area is to be retained as either natural forest or plantation and ornamental planting is to be limited to immediate curtilages of buildings. Ornamental planting is to be limited to the immediate curtilages of the buildings.
- PA3(D) Development ridge height is to be no higher than the foreground tree canopy.
- PA3(E) Clearance of natural forest is not permitted.

- PA3(F) The dominant vegetation type of any new planting is to be mixed plantation. Extensive areas of monoculture are not permitted.
- PA3(G) No development to take place in sensitive watersheds.
- PA3(H) An EIAⁱ must be presented for any proposed development exceeding 372m² (4000 ft²) as ground floor area.

1.4 Policy Area (PA) 4

PA4 includes settled areas and plantations: Lenfond, UnionVale, Chateau Belair, St. Remy, Fond Doux, Fond Lloyd, Hermitage, Plat Pays, Malgretoute, Stonefield, Coubaril, Calvaire, Sapphire, Belfond, and Bois D'Inde.

1.1.d Development Guidelines

Policy Area 4 should be protected from further development and infrastructure with the only permissible development being for essential infrastructure, local residential, community and agricultural needs, processing of local agricultural produce, small scale workshops, craft industries, and sustainable eco-friendly tourism initiatives and leisure purposes. Community and local residential developments should be located within or adjacent to existing settlements and maintain the scale and vernacular qualities of the traditional settlements.

This area is not appropriate for large scale development. Villa development should be avoided and residential buildings should be limited to a maximum footprint of 1800 square feet. Tourism and leisure developments should be modest in scale, sustainable and confined to existing settlements and plantations.

- PA4(A) For development to be permissible, it must be fully compliant with LAC Study for PMA.
- PA4(B) Development not permitted on plots with average gradient of 1:3 or greater. Re-grading of natural slopes steeper than 1:3 to achieve a slope of 1:3 or less is not permitted. Development of steeper slopes would have to be accompanied by demonstration that there will be no adverse effects to the PMA and in particular the Important and Outstanding Views.
- PA4(C) Any proposed development along the Soufriere-Vieux Fort highway is to be sufficiently set back from the road and screened by trees to not affect the green and natural character of the road. If requested by DCA, the developer will undertake tree planting to screen the development from the highway. Temporary

development in the form of stalls or stands for the sale of produce, refreshments or souvenirs shall be permitted in appropriate locations. Permanent signage of appropriate nature shall be permitted subject to approval by the DCA.

- PA4(D) Development ridge heights are to be no higher than the foreground tree canopy
- PA4(E) Clearance of natural forest is not permitted.
- PA4(F) Dominant vegetation type of any new planting is to be mixed plantation; extensive areas of monoculture are not permitted
- PA4(G) No development is to take place within sensitive watersheds. (These need to be identified)
- PA4(H) An Environmental Impact Assessment must be presented for any proposed development exceeding 372m² (4000 ft²).

1.5 Policy Area (PA) 5

PA5 includes the marine zone.

1.1.e Development Guidelines

This area is protected absolutely from built development and infrastructure unless the said development is required to protect the Marine Zone such as for enhancing navigation, safety, marine research, buoyage and minor signage/interpretation.

2.0 Buffer Areas ²

These are areas which lie outside and within the PMA but which contribute to the character of the site. External buffer zones are not subjected to the stringent guidelines of the LAC Study Documents but the relevant authorities should pay heed to the guidelines as part of the strategy toward the sustainable development of the area and bearing in mind the contribution of these buffer regions to the value of the PMA.

However, internal buffer zones must be subjected to the stringent guidelines of the LAC Study Documents and be regulated to address boundaries between policy areas/zones where development is permitted in one zone and not in another (e.g. Policy Areas 1 and 4 Petit Piton

² This text has been taken verbatim from the original text. It should be read to confirm that the Buffer Zone lies outside of the PMA, and that the Buffer Zone contributes to the character of the PMA. Buffer Zones do not need to be subject to the same strict guidelines as the PMA, except for the 150ft immediately adjacent to the PMA boundary at Policy Area 1 (Petit Piton) and 4 (Malgretoute). Recommendations for development guidelines applicable to the different parts of the Buffer Zone are described in the next sections.

and Malgrétoute Area). The enforcement of a reasonable Buffer Zone of 100'-150' should be regulated.

1.6 *Buffer Area (PA) 6*

PA6 includes the Town of Soufriere.

2.1.a Development Guidelines

The urban regeneration of the town should enable it to achieve the economic, environmental and social goals appropriate to its important roles as a town on the southwest coast and also as a gateway to the Pitons. Conservation of key aspects of the historic character and built environment of the town should be taken into consideration in actions toward with growth and change.

1.7 *Buffer Area (PA) 7*

PA7 includes the wider rural area outside the PMA Boundary. This is the wider area outside the PMA which defines the geological and visual context of the WHS and is considered a 'buffer zone' for protecting the WHS. It includes Ravine Claire, St. Phillip, Fond St. Jacques, Belle Plaine, Ravineau, Boin d'Inde and Delcer.

2.1.b Development Guidelines

Development should be limited to modest village growth for community, residential, employment and tourism use. This should be within or adjacent to existing settlements with the steeper and more visible slopes protected from development. Buildings should be limited to two storeys and footprints should not exceed 2000 square feet.

1.8 *Buffer Area (PA) 8*

PA8 includes the Coastal and Marine Resources.

2.1.c Development Guidelines

There should be integrated water shed and coastal management with emphasis on water resources and wastewater management. Ambient monitoring environmental programmes are to be utilised for Environmental Impact Assessment. Cost effective and appropriate reception, storage and treatment strategies for domestic wastewater are required. All risks of pollution and sediment accumulation are to be minimised through environmental monitoring,

watershed and coastal management and subjecting of developments to an Environmental Impact Assessment.

D DEVELOPMENT CONTROL

1.0 Development Guidelines

1.9 Submissions

Applications for developments within the PMA are to be submitted to the DCA.

Applications are approved only if, in the judgement of the DCA, they complied with the LAC Study.

The LAC Study Documents is an instrument to be used for ensuring that the developments within the PMA do not harm the OUV of the PMA

1.10 Environmental Statements ⁱⁱ

Environmental Statements are to accompany any potential development to help identify the level, if any, of adverse visual impacts on the twenty carefully selected sensitive receptor sites that provide a unique vantage point from which to appreciate the features which contribute to the PMA.

Environmental Statements must include details assessments of the visual impacts of the proposed development within the PMA.

In cases where a development is positioned within an Important and Outstanding View, the developer is to provide a verifiable photomontage (or series of photomontages) to allow the DCA to make a judgement on whether it is acceptable in accordance with the LAC Study Documents.

In cases where a development is likely to appear in more than one Important and Outstanding View, a photomontage is to be prepared for each.

Developments are to result in a barely perceptible change to one or more of the Important and Outstanding Views; visual change is to not be readily apparent; the development shall not be prominent or catch the eye and be difficult to discern even in a variety of light conditions and time of day.

1.11 Protection of the Character of the Main Highway

At the time of submitting the application to the DCA, the developer must demonstrate that the development will result in either no change in a Protected Important View or a barely perceptible change. All entities wishing to apply for consent to develop within the PMA are to seek the advice of the DCA to ascertain the type of information that is to be submitted with an application.

New developments should be either not visible from the main highway or barely visible. Developments must be sensitively positioned and designed so that they do not adversely affect the character of the road corridor.

For larger developments that are likely to have potentially greater visual impacts, accurate visualisations of the proposed development based on photographs taken from the Relevant Protected Important and Outstanding Views or from the Highway must be submitted with the application.

During the dry season, the screening ability of the forest is significantly reduced and this must be factored into any assessment.

The DCA is to assess and determine whether a development is likely to be too visible and exceed the LAC Study Documents.

Developers are to look at the specific location and context of proposed developments and produce sensitive designs that do not exceed the LAC Study Documents.

1.12 Design Considerations

Roofs

- Bright colours such as blue, red and orange and bright reflective roofing materials and colours should be avoided. Cedar shingles should be used with care as they can be very light and reflective.
- Roofs should be painted in muted, fairly dark greens as colour inevitably lightens and fades in the sun.
- Large roof overhangs are preferable. Roof pitches away from the angle of view are preferred.

Materials

- Natural materials with good texture tend to blend into the forest setting better than light colour rendered cement walls or light gloss painted woodwork.
- Stonework should be locally sourced stone.
- Facades should be broken up with a variety of materials such as stone, timber glass and with over hangs and slatted timbers to create light and shade.
- Plants can be used to disguise buildings. The preference is native, mainly green plants such as ferns rather than floriferous ornamentals that draw the eye and can be visually inappropriate.

Colours

- Materials that weather naturally such as wood and stone are preferred. Treatments should be recessive dark greens, greys and browns as they lighten over time due to the effects of weathering and sunlight.
- Any development within the PMA should be subservient to hidden within the landscape.

Lighting

- A largely unlit area is the desirable characteristic to be maintained within the PMA.
- Developments should minimise light pollution using four main strategies, namely:
 1. Minimising the number of light sources and sized of windows; extensive areas of glass should be avoided
 2. Minimising the strength and direction of the light sources. Fixtures with low lux levels and external fixtures close to the ground and point downward are preferred.
 3. Minimising the time that lights are on by using timers or motion sensing switches
 4. Screening of the light sources with walls, fences and/or vegetation.

1.13 Development on Steep Slopes

- Development on slopes steeper than 1:3 is prohibited as they result in the need for large retaining walls and scarring earthworks.
- Development on slopes achieved through the use of a beam and column frame to raise the main floor off the ground should have the lower level of the frame enclosed with materials such as stone, wooden slats or lattice work.
- Roof apexes of buildings should be lower than the canopy of trees downslope.

- Where there is little tree cover, developments may be acceptable if there is sufficient tree cover in front of the building using species which will attain a height greater than the building.

1.14 Beaches

- Views of the Pitons are characterised by rainforests sweeping down to the sea and developments in around the beaches should preserve this character.
- Beaches should be set back in the forest so they are not prominent from the shoreline and barely visible from the bay.
- To avoid issues with sedimentation, replenishment of the natural beach should be avoided and where necessary, new sand can be imported and placed behind the beach and away from the inter tidal zone.
- Structures built on the natural beach should be made from natural materials and primarily wood with grass thatched roofs. If damaged during extreme weather, these can be quickly cleared away or repaired.
- Timber and grass or palm leaf beach umbrellas are preferable to multi-coloured or white textile canopies.
- Where boat landing facilities are required, moveable floating jetties should be considered rather than fixed structures.
- Wherever possible, public access must be maintained, not just access to the beach but along the beach and beach areas themselves.
- Coastal development setbacks should be heeded, particularly taking into consideration climate change, beach management, access and conservation of biodiversity. The setbacks should be increased by 10m over that recommended in the 1997 UNESCO Report (CSI Repot No. 4), but be re-evaluated as there would be changes in the requirements.
- A setback of 15m is recommended from volcanic or limestone cliff edges. A setback of 30m is recommended from low (normally limestone) rocky shores.

1.15 Agriculture

- Within the PMA, both the primary forest and the secondary plantation contain a mix of species and this is beneficial to the landscape character of the PMA that is mixed canopy and must be retained.

- No areas of primary forest must be cleared to establish secondary forests/plantations
- No large areas of secondary mixed fruit plantations must be cleared to establish a monoculture of crops such as bananas. Cocoa plantations are acceptable if under shade canopy of a variety of tree species.

1.16 Sustainability

- In order to avoid highly vulnerable areas, consideration is to be given to where the development is located.
- Developments should have access to an independent water supply and secondary supplies can be provided by rainwater harvesting or boreholes.
- Renewable energy should be incorporated where possible and must not result in unacceptable visual impact.
- Persons within the area should be encouraged to grow and source food locally
- Developments should be built to the highest environmental standards as adopted by the Government of Saint Lucia, in terms of treatment of effluent, noise pollution and energy efficiency.
- If a viable bore for generation of geothermal energy is achieved then the plant and machinery required to generate electricity may also be acceptable as it need not be large or intrusive, but should be subject to an Environmental Impact Assessment. The impact of any electricity lines and pylons to export the electricity would need to be assessed as, even if outside the PMA, it may adversely affect views of the PMA if not appropriately located.
- Sustainability (economic, social, environmental) guidelines raised in the Hyder Report should be heeded.

2.0 Design Statement

A Design Statement should accompany documentation for proposed developments. These provide justification for the design and the likely impacts of the development on the natural and built environment. It must cover all aspects of the design and not simply the appearance of the building, structure or space. The application should include information on the construction materials, energy inputs/outputs among other factors, as prescribes/requested by the Chief Physical Planner.

3.0 Development Control Guidelines

- a) The existing legislative framework, governmental institutions and organisations are sufficient to protect and manage the PMA if procedures are set in place, correctly applied and adhered to. The exceedance of approved developments of the LAC Study Documents is the result of lack of adequate rigour in applying the procedures.
- b) Granting of approval in principle poses potential dangers. This gives a deceptive green light to a developer when the site may be totally inappropriate for the development in question. A comprehensive screening process should be undertaken by the aspired developer with the DCA prior to land purchase within the PMA. This would avoid unnecessary purchase of inappropriate sites or cause awkward situations where approvals in principle cannot be revoked.
- c) The ACT (revised as at 31 Dec 2005) along with the prerequisite to carry out Environmental Impact Assessments for major developments within the PMA should, in theory, have prevented approval being granted for any development likely to have substantial impact on the OUV of the PMA even in the absence of the LAC Study Documents.

E MONITORING

Section 1 Important and Outstanding Views

Developments should be undertaken in such a manner that the Important and Outstanding Views are not deteriorated, but remain as are or even more vegetated. There are 20 Important and Outstanding Views as stated within the LAC Regulations and these are included within the Appendix for Reference

It is difficult to convey what is a 'barely perceptible change; and it is potentially open to interpretation by developers, but ultimately it is a judgement call by the planning authority.

It is important that seasonal change in foliage be factored in when assessing the visual impact a development may have on the Important and Outstanding Views.

The planning authority is to be given sufficient, accurate, verifiable visual information for making their decisions.

Developers undertaking construction work adjacent to the coast should be asked to contribute to the cost of:

- Weekly measurement of turbidity at a number of stations along the coastline, adjacent to, and downstream from the development;
- Continuous measurement of sedimentation rate, based on a rotation of sediment traps (i.e. settlement tubes) following the methods already in use in the SMMA and the Canaries Anse la Raye Marine Management Area.
- Establishment of permanent photo-quadrats in the Fishing Priority Area and
- The Marine Reserve to be photographed every 6 – 8 weeks at least during the construction phase of the development, and possibly post-construction (depending on the results). The quadrat photography should be analysed using the point-count method described above. This is a very efficient method that provides a rapid assessment of changes on community composition, such as relative cover of live coral and other benthic species, as well as survival and mortality of individual colonies.
- It is also important to monitor changes in water quality and it is recommended that a recreational water quality monitoring program is set up.

Section 2 DESIRED CONDITION OF THE PMA FOR LAC STUDY DOCUMENTS COMPLIANCE; LIMITS OF ACCEPTABLE CHANGE

Change within the PMA must not weaken or harm the attributes that give the PMA its World Heritage status. Changes should help the PMA attain and maintain the desired condition.

Preservation of the Outstanding Universal Value is dependent upon the maintenance of certain desired conditions. These are:

A Scenic Quality

B Social and Economic

C Infrastructure

D Flora and Fauna

E Marine Environment

F Geology

G Education and Interpretation

F SCENIC QUALITY

1. Aesthetic quality to not change substantially from its current condition at the time of the LAC Study Documents of 2013.
2. Key components of the scenery to be retained are:
 - a. Superb volcanic topography
 - b. Dense tropical vegetation
 - c. Contrast of dense tropical vegetation with the deep blue sea
 - d. Very little visible development
3. Development should not affect the current scenic character and quality or the diversity and unique aspects of the PMA ecosystems.
4. Some changes are beyond the control of the Government of Saint Lucia (GoSL). These include extreme weather events, climate change, and geological events.
5. The extent of greenery and limited visibility of existing development should be maintained and if possible where development is currently visible, measures should be taken to reduce it.
6. Lack of development along the main highway through the PMA should be maintained, flanked in green.

7. Mixed tree cover is to be maintained and not replaced with monoculture. Forests should not be significantly cleared or thinned.
8. New developments should incorporate a specific range of materials and colours complimentary within the landscape and be encouraged to repaint buildings to more subdued colours.
9. There is to be no significant change to the views due to human activity.
10. Development can be encouraged to take place in Policy Areas 3 and 4 as long as it does not significantly affect the current scenic character and quality (nor diversity and unique aspects of the ecosystems within the PMA). The development can be allowed without further restrictions as long as it conforms to a set of rules to avoid damage to the scenic qualities.
11. Owners of existing buildings which are very noticeable within the landscape should be encouraged to repaint the buildings in more subdued colours.

G SOCIAL AND ECONOMIC

1. There should be balance between amount of tourism development and preservation of scenic qualities of PMA.
2. Synergies between agriculture and tourism are to be encouraged.
3. Conversion of natural rainforests to plantations should be discouraged.
4. Residential accommodation could be encouraged for locals, in the less sensitive parts of the PMA.
5. There should be unhindered access to beaches within the PMA and use by local people should be welcomed.
6. No permanent structures should be built on beaches; only timber and thatched.
7. The beach at Anse l'Ivrogne should not be leased but should remain with unhindered access to all.
8. The SRDF should continue to develop as a provider of employment within the PMA, maximising revenue opportunities from tourism. A proportion of the proceeds should be used to develop further local business opportunities and bring social and economic benefit to local people both within the PMA and the Soufriere region.
9. The management facilities at the Sulphur Springs should be allowed to evolve to ensure that a high quality visitor experience is maintained and enhanced but not at the expense of the natural setting of the springs.

10. The less sensitive parts of the PMA can accommodate a greater amount of residential accommodation for local people only if it does not adversely affect the special qualities of the PMA.
11. Water supply needs to be improved.
12. Developers should be asked to either contribute to the upgrading of the main infrastructure or reduce their demand through rainwater harvesting and re-use of grey water. Rainwater harvesting is also beneficial as it can provide an emergency supply of water if the main system fails due to extreme weather events.
13. No infrastructure for fishing should be built on the coastline within the PMA. Fishing, either from boats or off the beaches should remain permissible in the SMMA zones where fishing is permitted as long as it remains sustainable fishing.
14. Activities within the PMA should not adversely affect the fishing practices within permissible areas, either through inappropriate discharges from the land or excessive restriction of currently permissible access.
15. Increased levels of tourism will increase the potential for conflict between fishing and recreational activities and this will have to be monitored by the PMA Office and SMMA.

H INFRASTRUCTURE

1. The existing road network should not be expanded but the existing road network should be managed to a high standard and all bridge crossings should be maintained and open to traffic.
2. Electrical infrastructure may be difficult to improve though it is visually detrimental to the scenic quality of the PMA. It is therefore 'acceptable' within the desired condition.
3. Should there be need to install new apparatus, thought should be given to its location and whether it is optimally located to minimise visual impact.
4. No additional tall communication masts should be erected within the PMA and existing masts should be removed once they are deemed redundant.
5. Wherever possible services such as water should be installed and maintained underground.
6. Water demand should be minimised through rainwater harvesting and reuse of grey water.
7. Waste water should be treated to international standards to the island at the time.

8. Old systems built to operate at historically lower standards should be periodically upgraded to meet current standards and immediately should they be proven to be causing significant adverse effects to riverine and marine environments.
9. No infrastructure for fishing should be built on the coastline within the PMA. Activities within the PMA should not adversely affect fishing practices within permissible areas, either through inappropriate discharges from the land or excessive restriction of currently w
10. Effect of increased levels of tourism on increased conflicts between fishing and recreational activities should be monitored by the PMA Office and the Soufriere Marine Management Authority.
11. There should be no significant change to topography caused by human activity such as earthworks (such as mining and quarrying) or the creation of large platforms for buildings or roads.
12. On steep ground, substantial regrading of slopes should be avoided; the slope should be retained instead.

I FLORA AND FAUNA

1. The natural flora and fauna on the Pitons must be preserved together with the natural rainforest found on the steeper slopes elsewhere within the PMA.
2. Conversion of mixed plantations to monocultures of species such as bananas and coconut should be avoided; the ecological diversity and aesthetics of the PMA should be maintained.
3. There is approximately 100% tree cover within the PMA with the exception of the rock areas and the Sulphur Springs and this should be maintained as it contributes to the outstanding scenic beauty of the PMA.
4. Ornamental and garden landscape should be avoided as they are considered detrimental to the scenic quality, landscape, character and ecology of the PMA.
5. The existing flora and fauna on the Pitons and adjacent ridges should be maintained as a biodiverse, virtually pristine ecosystem with particular emphasis on preserving endemics.
6. The No-Build Policy Area must be preserved and the natural bridge between the pitons must be maintained so as to avoid the individual pitons becoming ecological islands surrounded by development.

7. Tree cover is to be retained as intact as possible. All developments must be carefully integrated into the forest or plantation.
8. Developments which will result in the loss of the primary natural forests should not be permitted.
9. Pockets of primary forests found within areas of secondary forests such as within ravines must be protected from development.
10. As many trees as possible should be retained to maintain as far as possible the continuity of the canopy and screening effect.
11. Rare trees, particularly any endemics must be retained and preference given to retraining large trees and evergreen trees.
12. Trees to be lost and trees to be retained should be marked on a plan and tagged on the site for assessment by DCA.
13. Trees to be retained are to be identified with any planning consent and a condition placed on the developer/owner that the trees not be felled either during construction or during the lifetime of the occupation (unless the tree needs to be felled because it has or is dying of natural causes and has become unsafe)
14. The ridges of rooflines are not to protrude above the canopy of the surrounding trees.
15. For coastal developers, windows can be created below the tree canopy for views out from the properties.
16. Trees should be retained as close to buildings as possible so the canopies overhang the roofs.
17. Roofing materials and colours which blend into the forest.
18. Trees should be planted in close proximity to buildings so they eventually overhang the roofs.
19. Trees should be retained or planted close to roads, access tracks and parking areas to minimise their visibility.
20. As many of the existing suitable plantation trees should be retained within the site and buildings built carefully under them. Gaps in the canopy should be filled by planting of suitable trees as close as possible to the buildings so that the canopy ultimately overhangs the roofs.
21. The species of trees chosen should provide primarily leaf cover throughout the year. Trees which lose their leaves in the dry season should be avoided. There must be sufficient space between buildings in which to plant trees, typically a minimum of 5m but ideally 10 to 12m.

22. Greatest threat to flora and fauna is the conversion of natural and semi-natural habitat into more managed ornamental and amenity landscape, typically associated with villas and tourism development. This not only causes loss or displacement of species but can act as a barrier to the spread of natural species and the spread of invasive species into natural areas.
23. Where individual developments may have a minor adverse impact, several developments can have a cumulative impact of major significance.

J MARINE ENVIRONMENT

1. There should be no detrimental impact on the marine environment arising from changes within the terrestrial part of the PMA.
2. Threats such as pressure from tourism, construction and infrastructure, particularly with respect to drainage and effluent, must be controlled by maintaining appropriate land use.
3. The SMMA in collaboration with the PMA is to seek funding to implement a baseline assessment of the water quality in the riverine and marine ecosystems with a view to establishing a permanent water monitoring system for the rivers and the marine environment adjacent to the PMA. With a set of baseline data and the identification of existing and potential sources of threats, a set of standards can be drawn up. A strategy for achieving the necessary standards and mechanisms to implement and monitor the strategies and their effectiveness should be also undertaken.

K GEOLOGY

1. The geology of the PMA must remain intact.
2. Quarrying, mining and any large scale earth moving or filling operations must be prohibited other than those required to maintain the existing road network and carry out remedial works such as the clearance of landslides.
3. Watercourses must not be dammed or diverted and the source of the various hot water streams must not be diverted or interfered with.
4. Should a suitable source of heat for energy generation be obtained in the GBZ, a further Environmental Impact Assessment must be undertaken to determine whether a permanent geothermal plant will have an adverse effect on the PMA.

L INFORMATION AND INTERPRETATION

Information and interpretation should be available at all important and accessible geological features within the PMA. There should be a central interpretation facility which would allow an overview of the whole area and introduce visitors to the features.

Section 3 RISK

1. The more development there is in the PMA, the greater the risk to the OUV of the PMA, and greater so if the developments fall within one of the Important and Outstanding Views.
2. Developments deemed to have high risk are considered to exceed the LAC Study Documents; in instances, risk can be reduced by taking out insurances, bonds, building to specific design codes or locating the development in an area that is less likely to be damaged by extreme events.
3. Risk analyses should be carried out by the DCA and PMA Office for all major developments planned within the PMA.
4. Developments should not be given consent if the risk is deemed too high and mitigation is not possible.
5. The risk analysis is carried out for all major developments planned within the PMA
6. Developments should not be given consent if the risk is deemed too high and mitigation is not possible.
7. An incomplete development is likely to exceed the LAC Study Documents compared with a scheme that has been completed with the environmental mitigation put in place.
8. If a hurricane causes extensive damage to build structures within the PMA, such as a hotel development, the damaged structures may reduce the scenic qualities of the PMA and may take an indeterminate time to repair. The more development there is in the PMA, the greater the risk and the risk increases further if the development is prominent within an Important and Outstanding View.
9. Risk of any development causing damage to the outstanding qualities of the PMA due to unforeseen circumstances must be assessed.
10. If the first few units of a development are built and exceed the LAC Study Documents, construction on further units is halted until a design is achieved which does not exceed the LAC Study Documents.

ⁱ All instances of Environmental Impact Assessment or EIA will be updated to ESIA.

ⁱⁱ In line with UNESCO and ESIA requirements.