

Environmental Impact Assessment Guidelines Volume 1



Rules and Procedures for Conducting and Reviewing EIAs

Version 5

November 2004

**Environmental Protection Agency/Environmental Assessment
Board**

(Last update after approval by Cabinet on recommendations from the EPA Board of Directors, to amend the EPA Act 196 and EIA Rules and Procedures)

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Acronyms and Abbreviations

EA	Environmental Assessment
EAB	Environmental Assessment Board
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP Act	Environmental Protection Act, 1996
EPA	Environmental Protection Agency
GFC	Guyana Forestry Commission
GGMC	Guyana Geology and Mines Commission
MoA	Ministry of Agriculture
NGO	Non Governmental Organisation

Summary

This manual is a result of the joint effort of the Environmental Protection Agency (EPA) and the Environmental Assessment Board (EAB). The intention is to provide to the EPA, EAB, sector agencies, private sector, NGOs, members of the public and consultants a set of approved guidelines for the conduct and review of Environmental Impact Assessments (EIA) in Guyana.

The need to have clear guidance on what constitutes a good EIA has been evident since the establishment of the EPA and the subsequent review of EIAs by the EPA and EAB for new projects. EIAs are a good means of identifying and planning for the avoidance or minimization of environmental impacts that may arise from the development and exploitation of resources. Although not the only form of environmental protection, EIAs are meant to foster sensible, sustainable development.

As each project is different, EIAs will be customized to reflect issues that are relevant and specific to the project. While not exhaustive, the guidelines contained in this document and subsequent volumes are meant to compliment those in Section IV of the Environmental Protection Act, 1996 (EP Act) and any other sectoral EIA guidelines which may be produced by the EPA from time to time. These guidelines are meant to be applied consistently to projects requiring EIAs and allows for transparent decision-making.

The manual of EPA's Environmental Impact Assessment Guidelines consists of a series of volumes ranging from Rules and Procedures for Conducting and Reviewing EIAs, to Generic EIA guidelines and Sector Specific EIA guidelines.

As our understanding and awareness of the environment improve, these guidelines will be updated to reflect new ideas or issues.

1.0 The EIA Process and Review

1.1 The EIA Process - Introduction

The aim of the EIA process is to provide stakeholders with information about the likely environmental impacts of a project. In some cases the outcome of the EIA process may require a developer to alter or in extreme cases abandon the project. The experience of EIAs in other countries shows that although an EIA can result in delays and added costs, these can be out-weighed by the overall benefits achieved by improved public consultation and early identification and forestalling of likely problems in the implementation stage of the project. Public participation can be used by the developer to provide the public with accurate information about the project, and to allow for the identification of areas of concern or controversy. By considering and responding to the public (in particular people living in the area or interest groups with particular skills and knowledge) the developer will be able to improve the project. Modifying a project early in the process is usually easier and cheaper than trying to do it later. Responding properly to criticism and comments from the public can improve a developer's image as well as make a project more cost-effective and less environmentally damaging. In preparation of the EIA report for projects which are not sector specific, consultants should follow the Generic EIA guidelines, found in Volume 2 as well as the review format found in Appendix 2. A list of available Sectoral EIA guidelines consisting of specific issues for different sectors can be found at the back of this document.

1.2 The Role of the EPA

The Environmental Protection Act, No. 11 of 1996, establishes the requirement for Environmental Impact Assessment (EIA). Part IV of the Act requires all developers of any project listed in the fourth schedule or other project that may significantly affect the environment to apply to the EPA for an Environmental Permit. The application form, which must be accompanied by the prescribed fee, must include a description of the project as well as information regarding the location, size and duration of the project,

and potential environmental effects. The EPA and the relevant sector agencies will review the application and assess whether or not the project should be exempted from the EIA process. Once a decision has been made, the EPA will publish a notice to the public, at the developer's expense, in at least one daily newspaper informing them of the EPA's position, thereby allowing public review of the decision. Appeals against the EPA's decision may be made to the Environmental Assessment Board (EAB) within thirty (30) days of the publication of the notice (see Figure 2).

If an EIA is required, the developer will be requested to select qualified persons to undertake the EIA. The EPA has a registry of consultants of varying expertise, from which the EIA team can be compiled, subject to the EPA's approval. Once the team of consultants has been approved, and before the EIA study begins, the Agency will at the developer's cost publish in at least one daily newspaper a notice of the project inviting public submissions on issues or areas of concern that should be addressed in the EIA. Copies of the project summary must be made available to members of the public through the EPA, sector agency and developer. Submissions will be taken into consideration whilst setting the Terms of Reference for the EIA scope of work. [*EP Act, Part IV, sect. 11(6,7,8)*].

The Terms of Reference for the EIA scope of work will determine the nature and extent to which the consultants will examine issues of importance which emerge during the scoping exercises. The consultants will conduct scoping of the project during active public consultations, facilitated by the EPA, with the attendance of the EAB.. The scoping exercises will identify what possible impacts there may be from the project and from alternatives considered. Scoping should be used to identify the important environmental components likely to be affected and the issues of conflict between the various stakeholders. The consultants will also take into account submissions made by the public, including any additional issues raised which may not have been considered. The Terms of Reference for the EIA scope of work must be approved by the EPA prior to the commencement of the EIA study.

The EPA encourages regular meetings between itself, the consultants and the developer during the EIA study and preparation so as to ensure that the Terms of Reference are adhered to and the EIA submitted is acceptable. The developer must submit, as a minimum, 8 copies of the EIA which must include the Environmental Impact Statement (EIS). The EIS, although discussed as a separate document in the Act, is considered by EPA to be an integral component of the EIA. The EIS will contain a summary of the information presented in the environmental assessment and supporting appendices. The EIA has three components: an environmental baseline study; an environmental assessment and an EIS (see Section 2.0). Essential elements included in these components are the project description, identification of the likely impacts and proposed mitigation and monitoring of significant impacts. Depending on the scope of the project, the content of these documents could be submitted as one report or a series of reports and appendices.

Once the EIA study has been completed and the report prepared, the developer will submit the EIA to the EPA. During the conduct of the EIA, developers are advised to submit reports for review by the EPA and relevant sector agency as this will aid acceptance of the EIA by the EPA. The EPA will publish, at the expense of the developer, a notice in at least one daily newspaper notifying the public of the submission of the EIA. The public will have 60 days from the publication date of the notice to make submissions to the EPA and /or the EAB [*EP Act, Part IV, sect.11(10)*]. The EPA, along with the sector agency, will review the EIA. Whilst reviewing the EIA, the sector agency will also ensure that the EIA is in line with any plans, guidelines, regulations or codes of practice developed by the sector agency. Copies of the EIA and the findings of the review by EPA and sector agency will be passed to the EAB for review and recommendation. The EAB will recommend to the EPA whether the EIA is acceptable and the conditions to be attached to the Environmental Permit, should it be granted [*EP Act, Part IV, sect.18(2)*]. Should there be a need for additional information before a decision is made, the developer will be requested to submit such information. An addendum to the EIA should then be prepared by the developer (through the consultants), and must address the comments of the EPA, the sector agency, the public

and the EAB. It is essential that the consultants clearly indicate how each comment has been addressed. The addendum must be so constructed to supersede the relevant sections in the EIA if necessary.

The EPA will take into account the EAB's recommendations, the sectoral agency's recommendations, the public's comments and the EPA's own review, and decide whether or not the project should be approved [*EP Act, Part IV, sect 12(1)*]. For approved projects, the EPA will issue an Environmental Permit with the terms and conditions necessary to effectively manage the environment and, in accordance with the prescribed fee. Should an Environmental Permit not be granted, the developer may file an appeal within fourteen (14) days with the Environmental Appeals Tribunal (EAT).

1.3 The Role of Sector Agencies

As shown in Figures 2 and 3 and as highlighted above, the role of the sector agencies in the EIA process is extremely important. As the sector agencies have the expertise in their respective sector, the EPA will collaborate with these bodies to ensure that proper decisions are made. Part of the Memorandum of Understandings (MoU) with key agencies and the EPA allows for the establishment of working committees to screen applications for Environmental Permits and to review EIAs. The EPA and sector agencies will work together to approve the EIA team and finalise the terms of reference for the EIA. When the EIA is submitted the sector agency will participate in the review process and will recommend to the EPA what conditions should be attached to the Environmental Permit. The role of the sector agencies does not end with the issuance of an Environmental Permit, but continues through project implementation, operation and post closure. The EPA will depend on the sector agencies to monitor compliance of the permitted project in accordance with the conditions of the permit and the Environmental Management Plan.

1.4 The Role of the EAB

The Environmental Assessment Board (EAB) is a body which provides an independent contribution to the development and finalisation of the EIA and makes recommendations which uphold the principles of the EP Act in the context of the interests of the developer, the public and the regulatory agencies.

In order to carry out its functions in EIA development, the EAB is involved in the development of the EIA from the point of EIA scoping to establishing conditions for the issuance of an Environmental Permit. This is illustrated in Figure 3.

1.5 Functions of the Environmental Assessment Board

The functions of the Environmental Assessment Board are:-

1. To conduct hearings into all appeals submitted to the EAB against a decision of the EPA to exempt a project from the requirement for an EIA.
2. To conduct hearings into EIAs as may be necessary.
3. To recommend to the EPA whether an EIA should be accepted, amended or rejected.
4. To recommend to the EPA whether an environmental permit should be issued.
5. To recommend to the EPA what terms and conditions, if any, should be included in the environmental permit.
6. To ensure a participatory and consultative approach to EIA development by being present to hear the contributions of the public and regulatory agencies in the scoping exercises which are facilitated by the EPA to develop the scope of work and Terms of Reference for the EIA.

EAB's Review of EIA

All hearings by the EAB are open to the public.

The EAB is required to meet in within seven (7) days following the sixty (60) days EIA review period to deliberate on the EIA and render a decision. Such decisions are to be categorised as:

1. Acceptance of the EIA submitted
2. Acceptance of the EIA with minor changes
3. Non-acceptance as submitted with substantially revised resubmission

The EAB shall meet and render a decision within thirty (30) days of a resubmitted EIA.

1.6 The Role of the Environmental Appeals Tribunal

The EAT is a superior court of record and will have in addition to the jurisdiction and powers conferred by the EP Act, all the powers inherent in such a court. The Tribunal will have the power to enforce its own orders and judgements and the same power to punish contempts as the High Court of Justice. The EAT have the jurisdiction to hear and determine appeals against:

- the refusal of an Environmental Permit under Part IV, section 13 of the EP Act;
- the requirement of an Environmental Permit;
- the cancellation or suspension of an Environmental Permit.

1.7 Public Involvement in the EIA Process

The participation of the public in the EIA process is an important factor in achieving sustainable development and economic growth of the country. The aim of involving the public in the EIA process is to ensure that the input of the people is included in the

project planning process and throughout the life of the project. It is always a good practice for new companies to communicate with and listen to the concerns of the public thereby establishing a relationship with the public or community. Integration of the public in the project cycle improves the project viability and enhances the socio-economic benefits. The key objectives of public involvement in the EIA process according to Pooley¹, 1994 are to:

- give local people a voice in project planning;
- obtain local knowledge , information and ideas;
- provide information to the people on planned activities to stimulate local interest and involvement in the project;
- ensure early detection of environmental and social impacts arising from the project;
- initiate and establish mechanisms and procedures to enable local people to participate in all phases of the project.

Projects in which minimal or no public involvement occurs will be most likely to suffer from frequent delays, poorer quality and little benefits to the country.

As shown in Figures 2 and 3, the EP Act allows for public involvement during the decision-making stages in the environmental permitting process.

¹ Pooley, Mike Guidelines for Environmental Impact Assessment (2nd Draft Discussion Document). IDB/UNDP Institutional Strengthening Programme for the EPA; 1994

Figure 1 Environmental Permitting and the Project Cycle

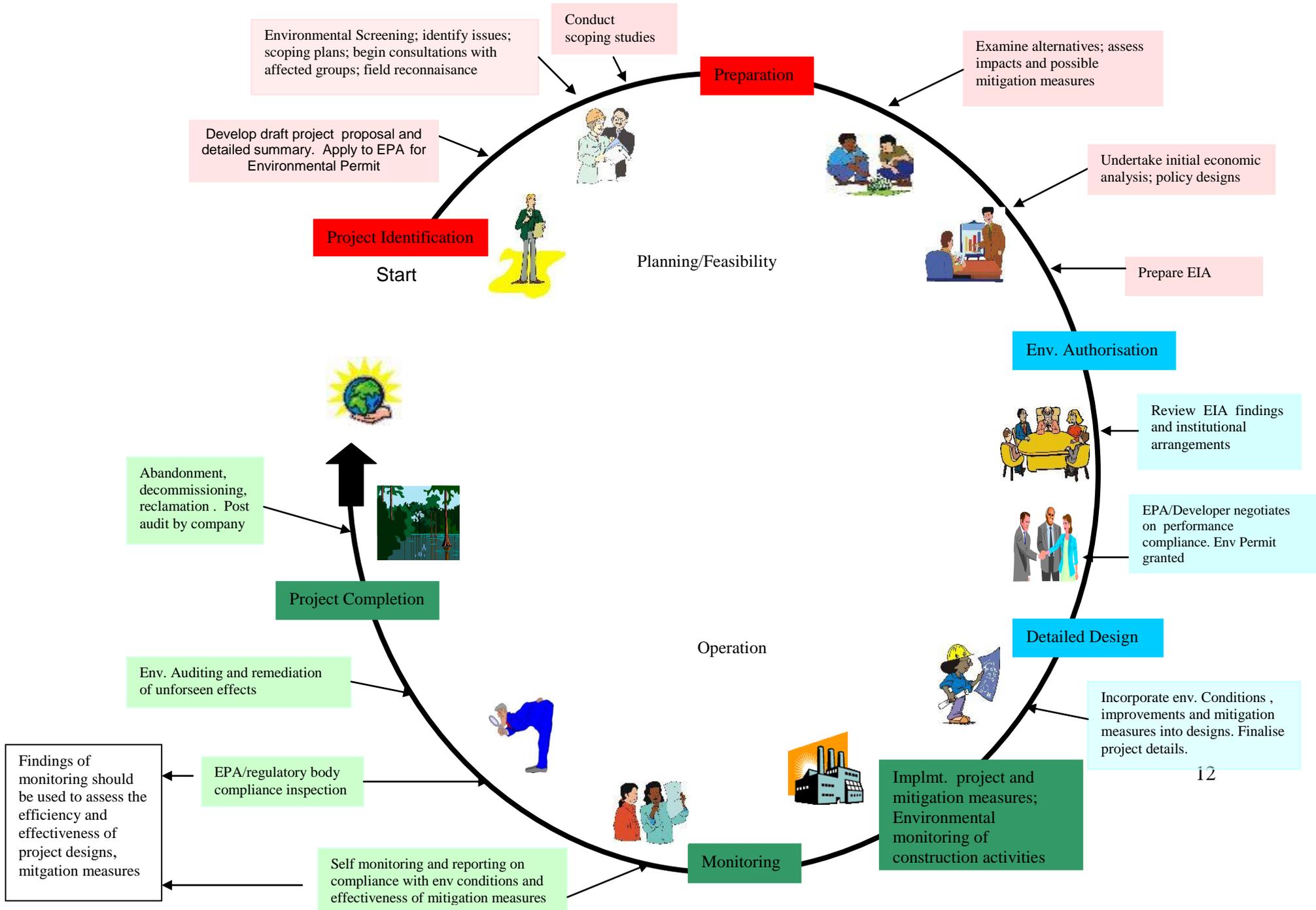


Figure 2

Preparatory Stages in Obtaining an Environmental Permit – EIA not required

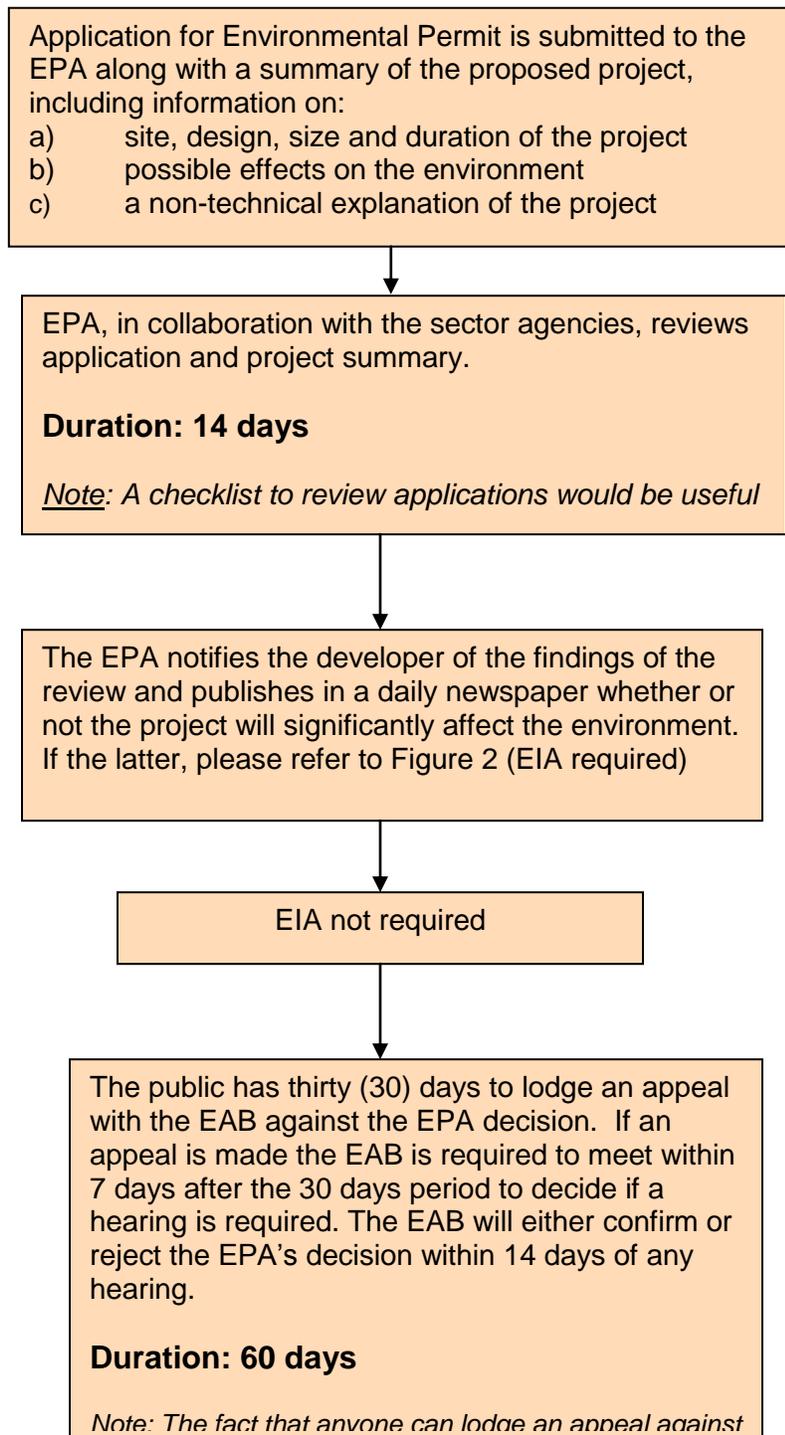
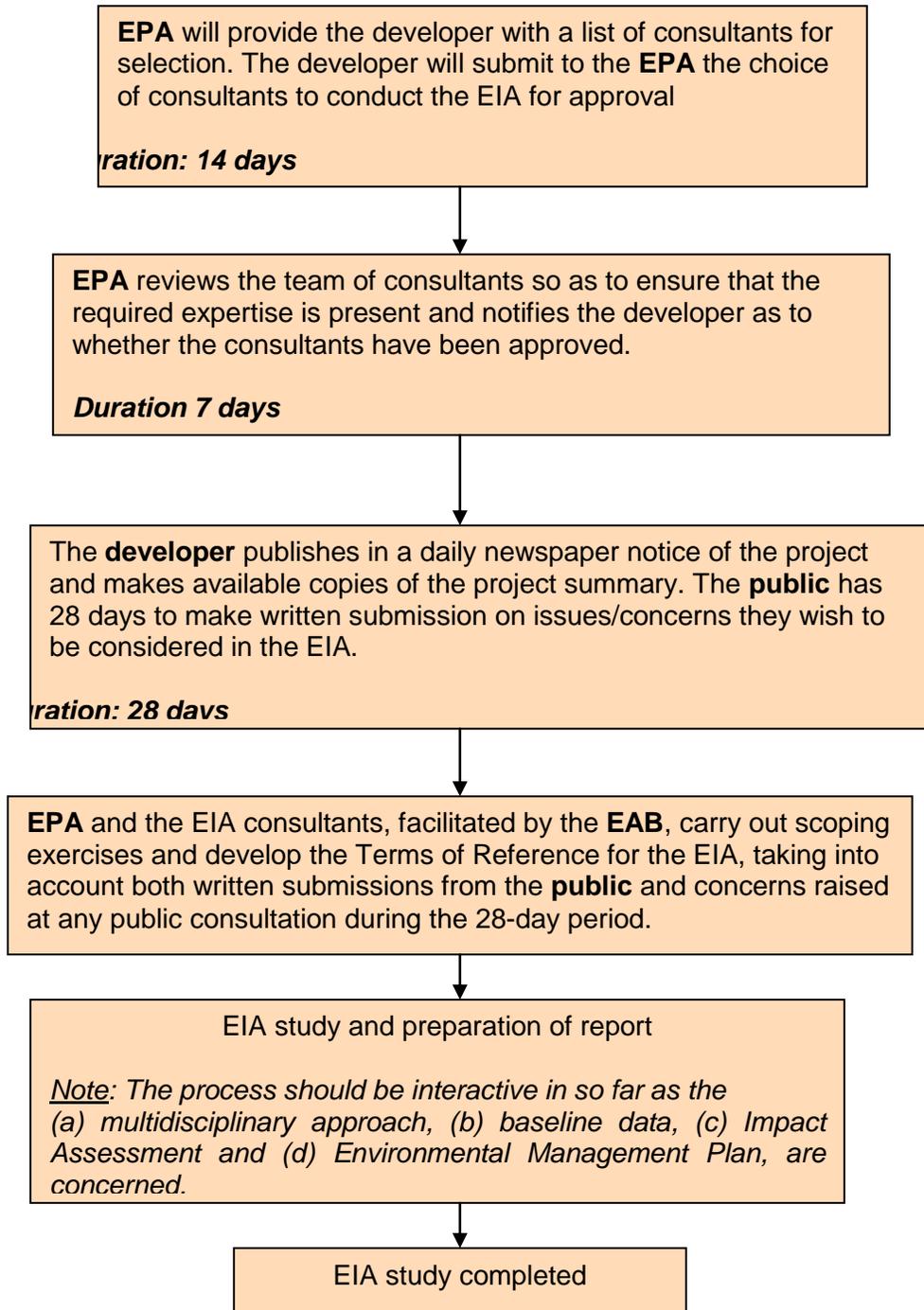
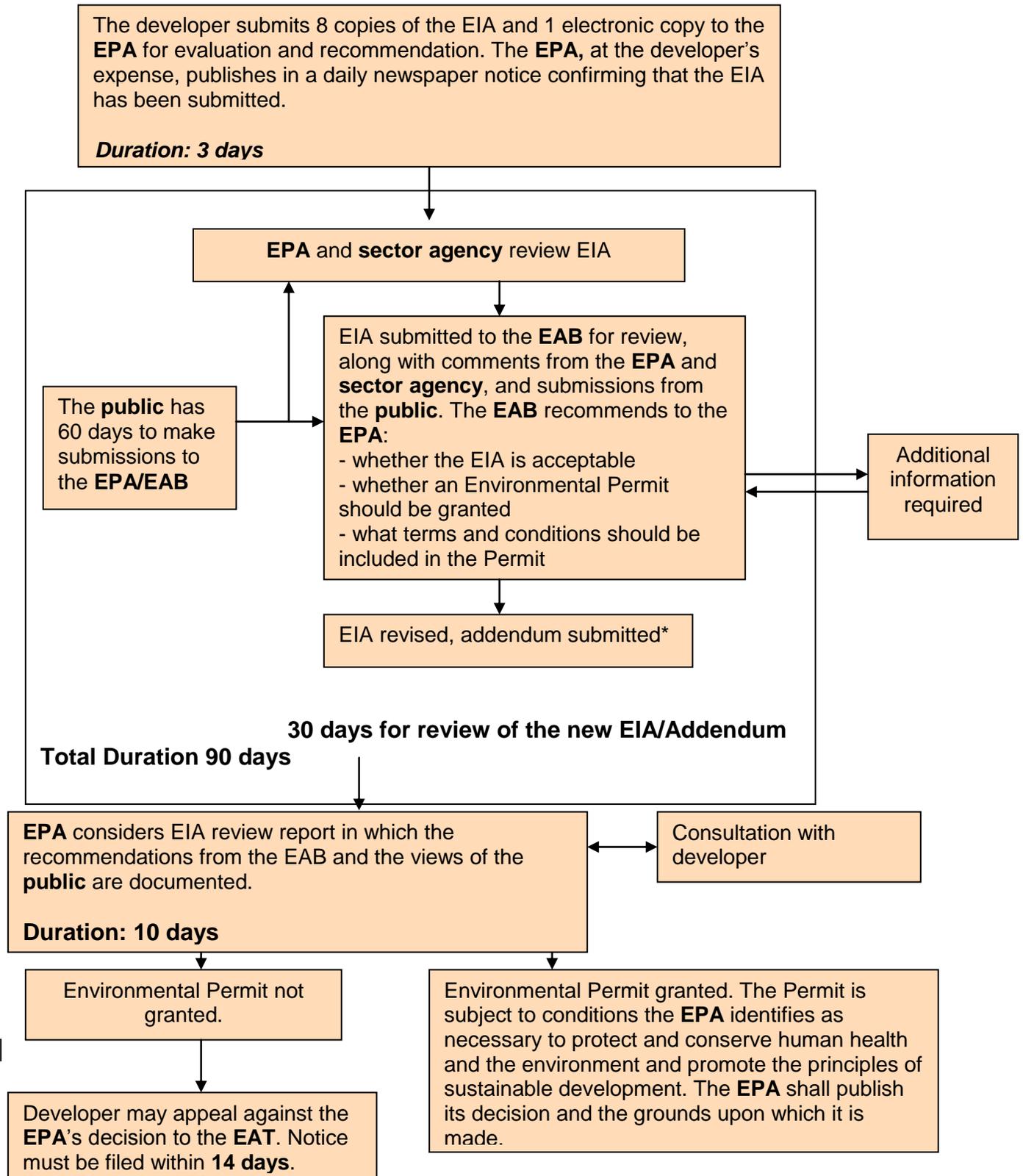


Figure 3
Stages in Obtaining an Environmental Permit - EIA Required





*Depending on the significance of the information requested, the EIA may need to be re-submitted either as a revised document or as an addendum to the EIA.

2.0 Components of an EIA

The EIA will comprise three (3) components: **Environmental Baseline Study; Environmental Assessment; and Environmental Impact Statement.** The Environmental Impact Assessment may be submitted in the three components stated above or could be submitted as one document depending on the size and nature of the proposed project.

The Environmental Baseline Study will record the present quality of the environment within the area of influence before project implementation. This data will then be analysed in the environmental assessment and will be used to predict and quantify impacts.

The Environmental Assessment is basically the identification and assessment of impacts of the proposed project and of its alternatives. The EA will also consider mitigation measures to offset negative impacts and will assess the impact of implementing these measures on the environment.

The Environmental Impact Statement is a summary of the findings of the Environmental Baseline Study and the Environmental Assessment and includes an **Environmental Management Plan.** For large EIAs, the EIS will be the document which decision makers and the public will use. The Environmental Baseline Study, the Environmental Assessment and the Environmental Management Plan will then serve as reference documents to the EIS.

Minimum requirements of an EIA:

Notwithstanding the above, it should be noted that the essential components of an EIA are therefore:

1. Project description/background
2. Assessment of Likely impacts
3. Proposed mitigation of significant impacts
4. Proposed monitoring of likely impacts

3.0 Rules and Procedures of the Environmental Assessment Board

3.1 Rules of Procedure

Under paragraph 6(1) of the Third Schedule of the Environmental Protection Act 1996, the EAB may determine its own procedural rules. Those procedural rules are subject to the approval of the Minister who is currently the President.

Hearings before the EAB are intended to be inquisitorial where the various parties are able to present scientific and technical evidence and information, to alert the EAB to risks and trends which may not yet be scientifically certain and to enable the EAB to make the best decision it can, on the available information. It is not intended that parties are represented by lawyers, since the information to be presented is technical rather than legal, but their right to be represented by lawyers, is nevertheless preserved by the Act.

As a public body with a statutory duty to conduct hearings, the EAB is bound to observe the principles of natural justice, as developed by the English common law (and applied in Guyana, until Independence in 1966) and by the courts of Guyana since Independence. There are two key elements of natural justice:-

- (i) the right to a fair hearing; and
- (ii) freedom from bias in the adjudicator.

In recent developments the common law has added a general requirement for fairness. This means that, not only must the EAB follow the procedure prescribed by statute; the EAB must also ensure that it acts fairly to all persons involved in the hearing. Otherwise there may be procedural grounds for challenging the decision of the EAB.

Under Section 28 of the EP Act 1996, any person who is not satisfied with a decision of the EAB may appeal against that decision to the EAT. It is important that the decision itself is set out so that the EAT is able to deal efficiently with the appeal and unnecessary duplication of the work can be avoided.

These rules are therefore formulated to ensure that:-

- (1) - the procedure of the EAB complies with:
 - the requirements of the Environmental Protection Act.
 - the common law requirements of natural justice.
 - the common law requirements for fairness.

- (2) if a decision of the EAB is challenged on substantive grounds, the EAT is able to hear the appeal without having to duplicate work by the EAB.

The Act does not draw a distinction between the EIA as a process and the EIS as the documentation of the information and impacts obtained in the process. It refers to the submission of both an EIA and an EIS. The EPA has defined the two, as found in Section 2.0.

A key component of the procedural rules is the mechanism for ensuring that the correct procedure has been followed under the Act and that the EIA has covered all the matters required by law. The use of tables and checklists makes this a comprehensive and transparent exercise, and assists in ensuring an objective review process.

Membership

Any member of the EAB who fails to attend three consecutive meetings of the EAB shall be deemed to have resigned and the Minister may, upon recommendation of the other members of the EAB, appoint a suitably qualified person to replace the member who has resigned.

3.2 Procedures for Review

1. Compliance requirements.

The EPA shall submit to the EAB at least 5 copies of the EIA, which will include:-

- (i) Environmental Impact Statement (EIS)
- (ii) Environmental Assessment (EA)
- (iii) The Environmental Baseline Study
- (iv) The decision of the EPA under Section 11(2) if any.

The developer shall submit to the EAB, through the EPA, five copies of:-

- (1) The terms and scope of the EIA as set by the EPA and a confirmatory copy of the terms of reference for the consultant(s) carrying out the EIA / EIS.
- (2) The decision of the EPA approving the appointment of the consultant(s) under Section 11(4) of the Act.

- (3) The project summary submitted to the EPA under Section 11(1) of the Act.
- (4) Extracts from the newspaper of the notices published under Section 11(6) and Section 11(10) of the Act

The EAB shall not begin the review of an EIA / EIS unless it is reasonably satisfied that the developer and the EPA have complied with the procedural requirements of the Act.

2. Conflict of interest

Any member of the EAB who has an interest directly or indirectly in any EIA will inform the EAB of that interest at the first meeting or if he does not attend the meeting at the first opportunity thereafter.

A person who has an interest in the EIA will not take part in the review of the EIA and a replacement may be appointed for that review. Members of the EAB taking part in the review of the EIA may not be in the developer's employ for a minimum of two (2) years after the review of the EIA by the EAB is concluded.

Indirect or direct interest includes

- taking part in the preparation of the EIA.
- being directly related to the developer.
- owning any shares in the developer other than shares held in a public company by way of investment and which do not amount to a significant holding.
- having professional interest in the development of the project, other than in the area of environmental management.

3. Undue Influence

Any member of the EAB who receives any communication from any developer, any representative of the developer, any government agency or any other person whatsoever with a view to influencing that member of the EAB, shall immediately notify the other members of the EAB who shall decide what action to take.

4. Impartiality

When an EIA is before the EAB for review, members of the EAB will not discuss the EIA with anyone, other than in the meetings and public hearings called for that purpose under these rules.

5. Review of the EIA / EIS

- (1) When the EAB receives the EIA the Chairman will call a meeting at which the EAB will review the documents and decide on the procedure to be used.
- (2) The EAB may obtain secretarial and administrative support from the EPA, but any person providing such support must not take any part in the review process nor offer any opinion or advice on the EIA being reviewed to any person.
- (3) The EAB will assess the EIA using the Review Checklist found in Appendix 2.
- (4) The EAB will hold meetings for the review of the EIA as the need arises and will notify members of the public by notice in a national newspaper. These meetings are open for the public to attend.
- (5) The EAB will hold statutory meetings once monthly.

6. Public Hearings

The EAB may conduct public hearings as may be necessary to recommend to the EPA whether the EIA should be accepted, amended or rejected.

The EAB will give members of the public not less than 14 days notice of the hearing. The notice will state the time, date and place of the hearing, and in general terms, the subject matter of the hearing so as to enable members of the public to obtain a fair assessment of the issues to be covered.

Each hearing will be chaired by the Chairman of the EAB, and in his absence by the Vice-Chairman.

At the hearing, members of the public may make submissions or comments in accordance with the terms of reference for the hearing, or where no terms of

reference have been specified, on any matter raised in the EIA or any other issue which may be relevant or of concern as a result of the project.

To facilitate participation by the public, the EAB may accept evidence or information from any person irrespective of whether that evidence or information would be admissible in a court of law.

The EAB will try to ensure that each person has a reasonable opportunity to be heard and that the hearing is not dominated by any person or group. The EAB will also try to ensure that a good cross-section of those attending are able to ask questions and make comments.

After the public hearing the EAB will prepare a report on the issues raised.

3.3 Procedures for Appeals

1. Appeals under Section 11(3)(a).

1.1 Any person who may be affected by a decision of the EPA to exempt a project from the requirement for an EIA may lodge an appeal with the EAB within thirty (30) days of the date of publication of the EPA's decision.

1.2 The appeal must be in writing and must set out the reasons why the person appealing believes that an EIA is necessary. A copy of the appeal must be sent to the EPA and the developer.

1.3 The EAB shall fix a date for hearing the appeal and shall give not less than 14 days notice in writing to the developer, the appellant and the EPA of the date fixed for the hearing.

1.4 The EAB is required to meet at the end of the fourteen (14) days period of notification for a public hearing.

1.5 The EAB shall also publish a notice in at least one daily national Newspaper giving members of the public not less than fourteen (14) days notice of the date of the appeal.

1.6 The EAB shall meet no later than seven (7) days after the end of the thirty (30) days period to determine if hearing(s) into the appeal(s) is required.

1.7 The EAB shall render a decision within seven (7) days of a public hearing.

2. Hearings

2.1 At the hearing of the appeal, the person appealing may make oral representations or a written submission to the EAB stating -

- (i) the reasons why the decision of the EPA is wrong;
- (ii) the risk of damage to the person appealing or to his property or that of any other person;
- (iii) the risk of damage to the environment;
- (vi) that the project may significantly affect the environment.

2.2 The EPA shall have a right to reply and to explain the grounds on which its decision is based, but no new evidence or facts shall be relied on to justify the decision of the EPA.

2.3 The EAB may ask the developer for clarification of the project.

3. Matters to be raised.

3.1 The person appealing against the decision of the EPA shall not be required to show that the project **will** significantly affect the environment, but only that upon the evidence submitted to the EPA, the project **may** significantly affect the environment.

3.2 Members of the public may be permitted to make submissions to the EAB showing why they may be affected adversely by the project or why there may be significant effects on the environment.

4. Decision.

4.1 The EAB shall within fourteen (14) days of the close of the hearings publish its decision either confirming the decision of the EPA or setting aside the decision of the EPA.

- 4.2 The EAB shall set out the reasons for its decision.
- 4.3 The decision of the EAB shall be a public document and shall be available to members of the public.
- 3.4 The EAB will charge a fee for copies of its decision but the fee will not be more than the reasonable cost of photocopying.

Appendix 1 List of Available EPA Reference Materials

The following reference materials are available at the EPA's Office at the reasonable cost of photocopying:

- Environmental Protection Act. 1996
- Environmental Regulations 2000 (Authorisation, Air, Noise, Water & Hazardous Waste)
- Application form for Environmental Permit
- List of projects that may require EIAs
- Register of consultants in the business of undertaking EIAs
- Environmental Impact Assessment Guidelines Volume 2 - Generic
- Environmental Impact Assessment Guidelines Volume 3 - Mining
- Environmental Impact Assessment Guidelines Volume 4 – Electricity Generation
- Environmental Impact Assessment Guidelines Volume 5 - Forestry
- Draft Electricity Generation Regulations
- Base Document for Guidelines on Industrial Effluent Quality
- National Biodiversity Action Plan
- Rules of Procedure of the Environmental Appeals Tribunal

Appendix 2 EIA Review Checklist

Item Evaluated	Comments/Recommendations	Rating
<p>1. Adherence to the TOR <i>Adherence to the TOR must be verified simply by checking that all items and information requested in the TOR have been presented, regardless of the content or quality of such information.</i></p>		
<p>2. Multidisciplinary Team <i>The accuracy of the EIA depends on the qualifications of the multidisciplinary team not only regarding the EIA process and methods but also regarding their knowledge of the several stages of the specific type of project. Therefore, individual CVs should be submitted as part of the EIA Annexes. Signatures of each member of the team must be affixed.</i></p>		
<p>3. Inter-disciplinary achievement <i>An EIA must present information regarding the interactions and integration between the physical, biological and socio-economic aspects of the environment in that particular area of the study.</i></p>		
<p>4. Executive Summary <i>The Executive Summary, also referred to as the non-technical summary, should provide a brief description of the project and information regarding the potential impacts of the project, arranged in order of significance, along with the proposed mitigation/compensatory measures for each impact. The summary should end with the consultants' recommendations.</i></p>		
<p>5. Project Description <i>The process of environmental impact assessment depends on the full understanding of the project proposal and accurate identification of the project actions. If actions are unclear, sufficiently detailed impacts are not likely to be identified with the accuracy and specificity needed to enable the development of appropriate mitigation measures.</i></p> <p>5.01 Is the project proposal fully understood? 5.02 Are all phases identified (e.g. planning, construction, operation and decommissioning)? 5.03 Is the geographical area for each phase identified? 5.04 Are the land use requirements for each phase identified? 5.05 Is there an inventory of the nature and quantity of materials used in the production process? 5.06 Are there inventories of the type and quantity of products, by-products and effluents expected to be produced by the project? 5.07 Is there an inventory of the type and quantity of residues? 5.08 Are the levels of emissions expected detailed with respect to</p>		

<ul style="list-style-type: none"> - Noise? - Vibration? - Light? - Heat? - Radiation? - Gases? - Liquids? <p>Are the types and levels of any other emissions included?</p> <p>5.09 Has information on employment been provided?</p>		
OVERALL RATING FOR SECTION 5		
<p>6 Identification and description of alternatives <i>The assessment of sound alternatives is necessary to validate the EIA process. Therefore reasonable alternatives have to be fully and comprehensively considered. As a minimum, one of the following alternatives must be considered: location, project layout, technology, scheduling, project scale.</i></p> <p>6.01 Did the developer consider alternatives? 6.02 Was the “no-project” scenario considered? 6.03 Were the environmental factors adequately presented for each alternative? 6.04 Is the final choice adequate?</p>		
OVERALL RATING FOR SECTION 6		
<p>7 Definition and justification of physical boundaries (direct and indirect area of influence) <i>Inconsistency in identifying the correct areas of influence will inevitably lead to inconsistency in the baseline data and the impact analysis. The indirect area of influence is the area likely to be affected by indirect, secondary and/or long term impacts.</i></p>		
<p>8 Analysis of the legal aspects involved <i>The analysis of the legal framework involves more than a list of legal Acts. It involves assessing the consequences for the project of enforcing all the environmental legislation and regulations regarding the proposed site and sectoral requirements related to the proposed activity.</i></p>		
<p>9 Identification of other existing planned activities or projects in the area of influence <i>This information is of utmost importance to ensure that land-use and other types of conflicts do not arise later during the project implementation.</i></p> <p>9.01 Has the compatibility between the proposal and the identified existing activities been analysed?</p>		

9.02 Are the activities compatible?		
9.03 Does the inventory of existing activities match what is observed?		
OVERALL RATING FOR SECTION 9		
10 Adequacy and completeness of relevant baseline data <i>Baseline data must be specific and relevant to the area of influence. General and superficial information does not allow for the use of adequate impact prediction techniques.</i>		
10.01 Is the information presented specific and relevant?		
10.02 Were difficulties in attaining information (if any) documented?		
10.03 Have the impact indicators identified been adequately covered (see Section 13)		
OVERALL RATING FOR SECTION 10		
11 Appropriateness of EA Methods <i>The use of appropriate EA methods is necessary to ensure reliability of the results of the EIA study. Each type of EA method has different strengths and vulnerabilities regarding its appropriateness to perform each step of the EIA study. Some EA methods are unable to provide the means of identification of cause-effect relations, others do not enable the identification of indirect, secondary and/or long-term impacts. Scientific and technical accuracy of the EIA methods used must therefore be evaluated to ensure the reliability of the conclusions drawn from the impact assessment.</i>		
12. Impact Assessment		
12.1 Physical Impacts - Have all the identified impacts on air, water, soil, noise, landscape and natural resources been checked against the relevant impacts defined in the TOR? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified?		
OVERALL RATING FOR PHYSICAL IMPACT ASSESSMENT		
12.2 Biological Impacts - Have all the identified impacts on flora, fauna, rare / endangered species, sensitive ecosystems, species habitats and ecological balance been		

<p>checked against the relevant impacts in the TOR.</p> <ul style="list-style-type: none"> - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified? 		
OVERALL RATING FOR BIOLOGICAL IMPACT ASSESSMENT		
<p>12.3 Social and Health Impacts</p> <ul style="list-style-type: none"> -Have all the identified impacts on the social and health context been checked against the relevant impacts defined in the TOR? - Are impacts identified with respect to human health, demographic and household characteristics, employment opportunities, size and distinguishing characteristics of resident population, the provision of social services and infrastructure? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified? - To what extent does the project protect/improve human health? - To what extent does the project protect/improve human living conditions? 		
OVERALL RATING FOR SOCIAL AND HEALTH IMPACT ASSESSMENT		
<p>12.4 Cultural, Historical and/or Archeological Impacts</p> <ul style="list-style-type: none"> -Have all the identified impacts related to cultural, historical and/or archeological sites and heritage been checked against the relevant impacts defined in the TOR? - Are impacts identified with respect to cultural heritage? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? 		

<ul style="list-style-type: none"> - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified? 		
OVERALL RATING FOR CULTURAL IMPACT ASSESSMENT		
<p>12.5 Economic Impacts</p> <ul style="list-style-type: none"> -Have all the identified impacts on the economy (local, regional, national) been checked against the relevant impacts defined in the TOR? - Are impacts identified with respect to economic assets and activities? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified? - Are impacts identified with respect to income generation for the community and at the National Level? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Have the social implications of the impacts been assessed? - Have cause/effect relations been properly identified? 		
OVERALL RATING FOR ECONOMIC IMPACT ASSESSMENT		
<p>12.6 Other impacts</p> <ul style="list-style-type: none"> - Have all other impacts been checked against the relevant impacts defined in the TOR? - Are impacts identified with respect to _____? - Are impacts characterised (positive/negative, direct/indirect, primary/secondary, short/medium/long term, reversible/irreversible, temporary/permanent, local/regional/national/strategic, avoidable/unavoidable? - Have the magnitudes been estimated? - Have the impacts been assigned a significance? - Has the social distribution of the impacts been identified? - Have cause/effect relations been properly identified? 		

OVERALL RATING FOR SECTION 12		
<p>13 Cumulative Impacts There may be cases where an activity/project will contribute to a cumulative impact on the environment although individually it may not have a significant environmental impact. This may be as a result of the presence of similar activities within the vicinity of the project.</p> <p>13.01 Have cumulative impacts been adequately identified and characterised? 13.02 Have the magnitudes been estimated? 13.03 Have the impacts been assigned a significance? 13.04 Has the social distribution of the impacts been identified? 13.05 Have cause/effect relations been properly identified?</p>		
<p>14 Impact Indicators <i>Impact indicators are the parameters used to estimate the magnitude of the impacts.</i></p> <p>14.01 Were the impact indicators used adequate for all the impacts identified?</p>		
<p>Prediction Techniques <i>Impact prediction techniques are necessary to enable the estimation of the magnitude of the impacts. Without the use of adequate impact prediction techniques, accurate impact analysis is not possible.</i></p> <p>15.01 Have the impact prediction techniques used been described? 15.02 Are they adequate?</p>		
OVERALL RATING OF FOR SECTION 15		
<p>16 Magnitude of Impacts <i>Magnitude is the estimate of the <u>absolute</u> measure/value/dimension of the difference between the environmental situation of a given parameter before and after the project is implemented. In the majority of cases – physical, biological and economic impacts – it must be expressed in quantitative values. The estimation of the magnitude of each relevant impact is one of the most important steps in impact analysis. It ensures the accuracy of the EIA and allows for the identification of appropriate and cost-effective mitigation measures.</i></p> <p>Have the magnitude of all the relevant impacts been adequately estimated (refer to impact indicators – Section 14)?</p>		
OVERALL RATING FOR SECTION 16		
<p>17.0 Importance/Significance of Impacts <i>(usual methods involve objective criteria regarding the ecological and social relevance of the project)</i></p> <p>17.01 Is the <u>relative</u> importance/significance of each impact with regard to the environmental factor affected, and with regard to the other impacts given? 17.02 Is the significance based on objective criteria in order to minimise subjectivity of judgements?</p>		
OVERALL RATING FOR SECTION 17		
18 Social Distribution of Impacts		

<p><i>Identifies which social groups will be affected by the positive and the negative impacts. These groups are often not the same. The balance between positive and negative impacts cannot be done without the correct identification of the social distribution of the impacts, because it would not have scientific and technical relevance.</i></p>		
<p>19 Stakeholder Participation 19.01 Are the results of stakeholder participation, such as the results of interviews, hearings etc. clearly documented? 19.02 Have questionnaires used been included? 19.03 Are the extent and method of stakeholder participation adequate? 19.04 Are the conclusions drawn valid, based on available data?</p>		
<p>20 Analysis and Selection of Best Alternative <i>Selection must be based on criteria derived from the impact assessment, and appropriate analysis and decision-making methods must be used.</i></p>		
<p>21 Environmental Management Plan (EMP) <i>An EMP is sometimes called an Impact Management Plan. It is a necessary step to ensure that the developer is effectively committed to the implementation of the mitigation measures. It is also a useful corporate management tool.</i> Does the EMP, as a <u>minimum</u>, present</p> <ul style="list-style-type: none"> - The set of mitigation, remedial or compensatory measures? - A detailed description of each one, with indication and criteria for their effectiveness? - Detailed budgets for each one? - Timetables for implementation? - Assignment of responsibilities, including an Environmental Manager? - The Environmental Policy 		
<p>OVERALL RATING FOR SECTION 21</p>		
<p>22 Monitoring <i>Monitoring is a necessary step to ensure cost-effectiveness of the EMP. It is usually addressed under the EMP (see Section 20)</i> Does the monitoring plan, as a <u>minimum</u>, address</p> <ul style="list-style-type: none"> - What is going to be monitored (impact indicators)? - Where will samples be taken? - How the samples will be analysed (method/technique)? - Criteria used to evaluate the results? - Financial and human resources required? 		
<p>OVERALL RATING FOR SECTION 22</p>		
<p>23 Implementation Plan for the Mitigation Measures and the Environmental Management Plan <i>Implementation mechanisms must be in place to ensure effective implementation of the mitigation measures and all other recommendations that</i></p>		

<i>might arise from the EIA study. It usually involves the assignment of a person responsible for environmental management and an approved timetable for implementation of measures.</i>		
24 OVERALL EVALUATION OF THE EIA REPORT (use the same criteria below, do not use the average of the individual ratings)		

Criteria for Rating

1. Poorly performed; inadequate; large amount of complementary work needs to be done; existing work needs to be redone.
2. Not totally well performed; not completely adequate; significant complementary work needs to be done.
3. Well performed; adequate; small amount or no complementary work needs to be done.

Note:

Overall evaluation cannot be rated more than the rating assigned to items 3, 4, 9, 11, 13, 20 and 21. If 1 or 2 < 2, then reject.

Appendix 3 Standard Decision Form of the Environmental Assessment Board

The EAB recommends that the EIA is -

accepted

rejected

amended

The EAB recommends that an environmental permit should be issued -

without conditions

with conditions

The EAB recommends that the following conditions are inserted in the environmental permit:

[These are only examples of possible conditions - the EAB will decide what conditions are appropriate for it to recommend in each case]

1. Technical conditions specific to the project 2. The developer shall provide the following financial assurance

2.1 [amount] [form e.g. cash, letter of credit] in respect of appropriate measures to be taken upon closure or cessation of the project or any activity, undertaking, thing or site covered by the environmental permit

2.2 [amount] [form e.g. cash, letter of credit] in respect of any other condition

3. The developer shall file with the EPA by [date] of each year of the project the following information:

3.1 the results of the monitoring programme;

- 3.2 a statement showing the difference between predicted impacts and actual impacts.
- 4 The EPA shall have the right to carry out such tests as it deems necessary to monitor the impact of the project and the developer shall provide the EPA with reasonable access to its facilities and reasonable assistance.
5. Provisions for external review
6. Emergency response plan
7. Environmental audit (components; data to be publicly available; independent verification)
8. The environmental monitoring programme shall be as set out in Appendix I of this decision. [*attach the requirements for the monitoring programme. This may be the programme submitted by the developer or a programme the EAB considers to be more appropriate*]

The following conditions are implied into every permit by the Act:

- (a) the EPA shall have the right to cancel or suspend the environmental permit if any of the terms or conditions of the environmental permit are breached;(b) the developer shall have an obligation to use the best available technology;
- (c) the developer shall have an obligation to comply with any directions by the EPA where compliance with such directions are necessary for the implementation of any obligations of Guyana under any treaty or international law relating to environmental protection; and
- (d) the developer shall have an obligation to restore and rehabilitate the environment.