

# Environmental Screening Form "B" for Recreational Docks & Jetties

## Tourism Development Centers

### Guidelines

TDA

EEAA

RSSTI

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## Preface

Law No. 4/1994 for the Environment states that an Environmental Impact Assessment (EIA) study should be carried out for certain establishments or projects to safeguard the environment and achieve sustainable development. A flexible system has been devised and adopted for the management of the EIA by the Egyptian Environmental Affairs Agency (EEAA) and the Tourism Development Authority (TDA).

These guidelines present the EIA practitioner and other stakeholders with an integrated approach for analyzing the different environmental impacts of tourism center developments. They outline EIA general principles and useful best practices. They do not establish new requirements but provide new procedural steps that can facilitate as well as accelerate EIA submittal, review and approval.

These guidelines are designed to help complete Environmental Screening Form 'B' for Recreational Jetties and Marine Walkways located within TDA tourism centers that are likely to be included in the Grey list. This form is provided as a pro-active tool that encourages the adoption of an Integrated Environmental Impact Assessment (IEIA) approach in tourism centers in tandem with the existing EIA procedures of Law No. 4/1994.

As you undertake an EIA, the EEAA and the TDA are proud to provide you with a new tool that helps improve the standards of your EIA while ensuring the process is flexible and trouble-free.

EEAA and TDA wish to thank the United States Agency for International Development (USAID) for the support provided through the Red Sea Sustainable Tourism Initiative (RSSTI) Project, implemented by PA Government Services, as part of the Egyptian Environmental Policy Program (EEPP).

Tourism Development Authority (TDA)

Ministry of Tourism

Egyptian Environmental Affairs Agency (EEAA)

Ministry of State for Environmental Affairs

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For more information contact the Egyptian Environmental Affairs Agency (EEAA), or the Tourism Development Authority (TDA), or the Red Sea Sustainable Tourism Initiative (RSSTI) on the above contact information or by e-mail at [rssti@rssti.com](mailto:rssti@rssti.com).

## Acronyms & Abbreviations

BMP, BP	Best Management Practice, Best Practice
cm	centimeter
d	day
Decree 80	Ministry of Tourism Decree No. 80 of 1989 E
EEAA	Egyptian Environmental Affairs Agency
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report. Usually refers to an Environmental Impact Assessment study undertaken for an individual project.
EMP	Environmental Monitoring Plan. Post-EIA monitoring plan as provided in the EIAR.
HAT	High Astronomical Tide
IDC	Integrated Development Company/Center
IEAR	Integrated Environmental Impact Assessment Report. Undertaken for the tourism center as a whole and submitted by the Master Developer. Also referred to as the center's Environmental Impact Assessment Report.
IEIA	Integrated Environmental Impact Assessment. A process by which environmental impacts of a tourism center are assessed using an integrated approach that takes into consideration integrated area planning and center-wide cumulative impacts including infrastructure.
IEMP	Integrated Environmental Monitoring Plan. Post-EIA monitoring plan for the tourism center as a whole, as provided by the Master Developer in the <a href="#">IEAR</a> . kg kilogram
km	kilometer
kW	kilowatts
l	liter
LAT	Low Astronomical Tide
Law 4	Law No. 4 of 1994 for the Environment
m, m <sup>2</sup> , m <sup>3</sup>	meter, square meter, cubic meter
m <sup>3</sup> /d	cubic meter per day
mm	millimeter MW Megawatts N North
ppm	part per million
S	South
TC, TDC	Tourism Center, Tourism Development Center
TDA	Tourism Development Authority

t, ton ton (metric)

W West

## **1. Introduction**

The Environmental Impact Assessment (EIA) system adopted in Egypt uses a listing approach that screens projects into three categories of EIA, according to the severity of possible environmental impacts. The three categories are White, Grey, and Black. This guidance deals solely with Grey-list projects pertaining to recreational jetties and marine walkways located within tourism centers being implemented through Egypt's Tourism Development Authority (TDA). For an individual jetty and marine walkway project located in a Tourism Development Center (TDC), this document supersedes the generic Guidelines for Environmental Screening Form 'B', which was previously published by the Egyptian Environmental Affairs Agency (EEAA), entitled, "Guidelines for Egyptian Environmental Impact Assessment," which describes the general background and procedures for EIAs as provided for under Law 4 of 1994 for the Environment, and its Executive Regulations issued by Prime Minister's Decree No. 338 of 1995 (see also further reading and references).

The EIA studies, undertaken for integrated tourism development areas and referred to as Integrated Environmental Impact Assessments (IEIA), are becoming an accepted instrument for incorporating environmental issues in the formulation of TDCs and Integrated Development Center (IDC) developments. This document, entitled "Guidelines for Environmental Screening Form 'B' for Jetties and Walkways within Tourism Development Centers," provide bestpractice EIA guidelines for TDA's tourism centers and their component marine infrastructure and coastal access projects.

Note:

For general guidance on EIAs, refer to the booklet published by the Egyptian Environmental Affairs Agency (EEAA)

1 . Introduction

## **2. What is this Form 'B' used for?**

This document is intended to serve two primary functions. First, as worksheet to aid the applicant in jetty and marine walkway planning, design, construction, and maintenance. *Second*, as a Screening Form to aid the environmental regulatory agency and the competent administrative agency, namely EEAA and TDA, respectively, in the approval of construction and operation of a jetty or walkway (see glossary for definitions of words and terms specific to this document). Proponents of jetty and walkway projects within a tourism center can likely use the attached Form without having to complete a full-fledged EIA study.

In addition to fulfilling the use and legal requirements set forth in this Form, the applicant shall comply with the legal requirements of Law No. 102/1983 (and in particular Articles 1 and 2); Law 4 for the Environment and its Executive Regulations, EEAA, Egypt, 1994/5; the Environmental Guidelines for Development in the Coastal Areas, EEAA, Egypt, 1996; Guidelines for Egyptian Environmental Impact Assessment, EEAA, Egypt, 1996; Guidelines for Environmental Screening Form 'B' for Individual Hotels and Resorts within Tourism Development Centers, EEAA/TDA, Egypt, 2001; and Environmental Impact Assessment Guidelines for Marine and Coral Reef Monitoring for Red Sea Tourism Development Projects, EEAA/TDA, Egypt, 2003 (see further reading and references). The principles and spirit of these government documents and guidelines shall apply where specific regulations and guidelines for resort, jetty or walkway projects are not set out in this Form.

Form '13' for Recreational Jetties and Marine Walkways can be used for approving individual jetty or walkway projects located in a delineated and approved "front area" within a tourism center, as follows:

- a) If the center's IEAR has been approved, this Form 'B' submittal, if approved, will be equivalent to a scoped EIA for the jetty or walkway. In this case, if the jetty or walkway is associated with or enclosed within a center's individual resort, an approved resort EIA is not necessary. Note: an applicant seeking approval for a resort that encloses a jetty or walkway can submit two forms concurrently to approve both the resort and the jetty or walkway. This Form can be submitted to approve the jetty or walkway in combination with submitting the Environmental Screening Form 'B' for Individual Hotels and Resorts to approve the resort (see "Guidelines for Environmental Screening Form 'B' for Individual Hotels and Resorts within Tourism Development Centers" for further information).
- b) If the jetty or walkway is associated with or enclosed within a center's individual resort, and this resort has an approved EIA, this Form 'B' submittal, if approved, will be



2. **What is this Form 'B' used for? (cont.)**

equivalent to a scoped EIA for a jetty or walkway. In this case, a center's approved IEAR is not necessary. If the tourism center has no approved IEAR, a resort within the center or several that choose to install a jetty or walkway for interim or permanent use are required to complete an EIA per resort in addition to completing a Form 'B' for the jetty or walkway.

Implementation of the approval of this Form is conditional on all related approvals being obtained by the applicant, whether the jetty or walkway is designated for use by a single resort or is to be shared by adjoining developments or the tourism center as a whole. No construction may begin until all such related approvals have been obtained.

Providing that the jetty and its resource needs are generally compatible with those outlined in the associated resort EIA or center IEIA, the Form by itself should suffice. It must be understood that this Form 'B' relates only to the activities and impacts of an individual jetty or walkway. The relevant EIA approval per resort or center must be noted and attached to this Form 'B' submittal, as noted above.

3. *What is this Form '8' used for?*

*Environmental Screening Form 'B' for Recreational Jetties and Marine Walkways in Tourism Centers* **3. What are the procedural steps for using this Form V?**

Once the jetty or walkway project proponent has determined that the project falls in the Grey-list category (advice is available from the TDA or the EEAA), he can request an Environmental Screening Form 'B' from the TDA and complete it for submittal.

The proponent should then forward the completed Form 'B' (and any attachments) with a letter of intent to undertake a specific project to the TDA. The TDA registers the documents and checks whether the selected category is correct and whether the information submitted complies with the required information and with the general plan of the resort or center where the project is located.

After TDA reviews the documents, it formally submits the applicant's documents to the EEAA for review and evaluation. The submitted Form 'B' is evaluated for consistency with the general plan of the resort, the resort's approved EIA or form, and if necessary, with the center's approved Integrated Environmental Impact Assessment Report (IEIAR), and for the project's environmental effects and its relation to design thresholds as set by the developer.

The documents are registered by the EEAA together with its opinions and proposals in the EIA register at the EEAA.

The TDA officially notifies the developer by registered letter with acknowledgement of receipt of the result of the evaluation by the EEAA. The result can be:

- a) An approval of the project, including possible measures to be taken to ensure the protection of the environment.
- b) Disapproval of the project.
- c) A formal request to the developer to complete a Scoped EIA study for certain impacts/processes of the project in accordance with the Terms of Reference prepared by the EEAA.
  - d) A request for additional information.

The TDA forwards a copy of the decision to the EEAA, which registers it in the EIA register. The TDA will ensure implementation of the decision. The developer can appeal the result mentioned in a) or b) to the Permanent Appeals Committee in writing within 30 days of receipt of the decision.

so

The EEAA evaluates the documents and submits its opinions and any recommendations to the TDA in a formal decision letter within 60 days of the EEAA's official receipt of the completed documents. Failure to do so shall be considered an approval of the submittal.

#### **4. What applications can this Form 'B' be used for?**

It should be noted that the EIA report or form submitted for a resort and an IEAR submitted for a center, where a jetty or walkway is located, should address resort or center-wide elements, respectively. This should include marine and terrestrial flora and fauna within the general vicinity of the jetty, as well as meteorological and oceanographic conditions, special areas requiring protection, general geologic and natural hazard assessment, geomorphology and drainage, socioeconomic considerations, and analysis of cumulative impacts. For example, bathymetric mapping, marine surveys and underwater habitat assessment in the shore area where the jetty is located are preferably carried out for general baseline assessment at the resort or center level, and therefore ideally would not be solely conducted for jetty siting purposes or/and for using this Form. However, if such surveys have not been conducted, as part of a wider EIA at the resort or center level, the applicant must undertake them, as outlined within the guidelines of this Form, and attach them to its submittal.

For the resort (or center), the EIA (or IEAR) would address the various land elements, uses and densities, the location and capacity of infrastructure facilities and utilities, resource usage, and construction and operational impacts. In addition, it should detail an environmental monitoring plan (EMP) at the resort (or center) level, addressing primarily resort (or center) facilities and commonly shared resources. At the individual jetty project level, Form 'B' should include an EMP for the individual jetty and its facilities, and be reflective of any overlap with the resort (or center's) EMP, referred to in the case of the center as the Integrated EMP (or IEMP).

The user of this Form must demonstrate that the jetty or walkway construction activities and the effects of these activities shall be confined to the immediate area of the proposed jetty, with negligible disruption to the intertidal and subtidal zones. Jetties approved using this Form shall not:

- a) Obstruct or affect adversely aquatic navigation.
- b) Cause permanent or long-term changes to water quality or aquatic habitat.
- c) Alter coastal processes of natural current flow or water mixing patterns in the sea.

The provision of the Environmental Screening Form 'B' for Recreational Jetties and Marine Walkways within tourism centers is proposed for use only under the following conditions:

- 4.1 Recreational jetties designed, constructed, and used by vessels no greater in length than 30 m, the jetties used only to facilitate the loading and unloading of crew, passengers, and cargo, and the mooring of boats servicing the

#### **4. What applications can this Form 'B' be used for? (cont.)**

resort. The jetty shall not be used as a marina to store or moor boats not associated with attached resort use. The off-loading of watercraft sewage is not permitted at such recreational jetties, nor is the fuelling of watercraft. If either of these two activities is proposed, the applicant must submit a Scoped EIA or another Form specifically developed for this purpose (see Section 6 of the guidelines "Scoped EIA").

- 4.2 All types of dredging are prohibited except for allowable excavation. Allowable excavation is defined as the limited and minimal disruption of submerged lands necessary to install jetty anchorage, footings, and embedded walkways; or permanent boat mooring devices (piles or embedded bottom anchors). Allowable excavation does not include any disruption of submerged lands like deepening of a marina or berthing area, swimming area, or boat or mooring area beyond the immediate area of the above listed exceptions to dredging (see glossary for definitions of words and terms specific to dredging and excavation). Therefore this Form can only be used when minor excavation is required to facilitate a small part of jetty construction, particularly the installation of piles for pipe jetties or the installation of a jetty/walkway to shore connection, or when approved by EEAA, and only then in areas where it does not detract from, encroach on, damage, or destroy submerged flora and fauna.
- 4.3 Only one jetty of approved size, shape and construction will be permitted per land plot or resort, and each plot shall have a 100 m or greater frontage on the water (in accordance with the minimum resort requirements of Decree 80, Ministry of Tourism, Egypt, 1989). Preference will be given to projects, which demonstratively minimize any environmental impact by adjoining developments to share the use and responsibility of a single jetty.
- 4.4 Any proposed jetty that restricts the free flow of water beneath the structure (e.g., solid concrete piers) will not be approved. Walkways as described in the Form (and defined in the glossary section of these guidelines) are exempt from this ruling. Only open-type jetties listed in the Form (and defined in the glossary section of these guidelines) will be considered for jetty construction. Where an addition is being proposed to an existing solid fill structure (e.g., solid concrete pier), the applicant must provide evidence that the existing jetty is structurally sound and poses no continued or ongoing disruption to the beach,

6 s What applications can this Form 'B' be used for?

#### **4. What applications can this Form 'B' be used for? (cont.)**

shore, or submerged lands. Also, such existing structures cannot be removed to facilitate the construction of a new jetty unless the applicant provides evidence that the structure is not sound and/or poses a threat to the shore environment. No jetty shall extend into a navigation area or restrict the traditional navigational patterns of boats.

- 4.5 Filling is not permitted under any circumstances (see glossary for definitions of words and terms specific to filling). The placing of any substance (fill) on submerged lands for the purpose of diminishing water depths or extending the uplands seaward is prohibited and punishable by law.

Other applications of this Form 'B' may be granted with approval from the EEAA and the TDA.

## **5.**

### **Development requirements and guiding standards for using this Form 'B'**

For approving recreational jetties and marine walkways using this Form, the following design requirements and guiding standards apply (see the end of this section for illustrations). If the proposed jetty or walkway does not meet these conditions, the Form cannot be used, and the applicant must submit a Scoped EIA (see section 6 "Scoped EIA").

- 5.1 Water depth at end of jetty - the minimum acceptable water depth (measured at LAT at the jetty's end point) is 1.5 m (see Fig. 3a).
  - 5.2 Jetty length - in the case of a reef flat, the maximum portion of the jetty allowed to protrude beyond the reef crest is 5 m, or equivalent length at 4 m water depth (i.e., when jetty is used for vessel access), whichever is the smaller (see Fig. 3a)
  - 5.3 Jetty width (rectangular) - no jetty shall exceed 4 m or go below 0.9 m in width along its length. Width is measured from edge to edge of the entire structure, including piles, but not including ladders, fenders, and similar jetty accessories. The width of pipe portion of jetty is a minimum of 0.9 m or the depth of water at HAT, whichever is the greater, but not to exceed 4 m (see Fig. 3b).
  - 5.4 Jetty width (non-rectangular shapes) - for jetties that vary from the basic rectangle, such as T-shaped jetties and L-shaped jetties, the width of any ancillary sections shall be measured perpendicular to those sections, and not where the sections intersect the main jetty rectangle. The width of the ancillary section must be included in calculating total jetty length. The length of the ancillary sections shall not exceed 6 m. For other shapes, such as arced jetties, the applicant must show that the width and length do not contravene any of the above criteria (see Fig. 3c).
  - 5.5 Walkway length and area - the length of walkway cannot be installed beyond the bounds of intertidal and reef flats. The total area of a walkway shall not exceed 5% (five percent) of the total area of the reef flat fronting the resort's length of shoreline (see glossary for definition of shoreline length, see also Fig. 1).
  - 5.6 Walkway width - minimum 1 m, maximum 2.4 m (see Fig. 4).
  - 5.7 Freeboard of floating jetties/walkways - maximum 0.4 m.
  - 5.8 Pedestrian access - a jetty or walkway shall provide for continued pedestrian access along the beach and shoreline.
  - 5.9 Jetty design - all jetties and walkways and their components must be designed to handle the potential stresses and loads placed on the structure by the external elements (e.g., wind, waves, and
- 8** © *Development requirements and guiding standards for using this Form 'B'*

## 5.

### **Development requirements and guiding standards for using this Form 'B' (cont.)**

- currents), the live deck load (e.g., pedestrians, machinery, cargo in transit to or from watercraft), and the stresses and loads placed on the structure from moored watercraft. In addition to meeting or exceeding such load requirements, the jetty shall also comply in all respects with relevant design requirements as stated in relevant Egyptian design codes.
- 5.10 Soil conditions - the applicant must present acceptable evidence that soil conditions are satisfactory for the proposed jetty. Soil boring is required primarily for pile jetties, although other jetties may also demand the submission of a soil boring test report.
- 5.11 Jetty extensions - any addition to an existing jetty must not exceed the standards set in total, existing jetty and proposed addition combined, and the addition must adhere to all current regulations set herewith for the construction of a jetty.
- 5.14 Pile spacing - the longitudinal spacing of piles is minimum 3 m, and the transversable spacing of piles is maximum 4 m (see Fig. 3).
- 5.15 Type of pile installation - to minimize disturbance to the reef in reef flat areas, only bored or drilled piles are allowed. Driven or hammered piles are not allowed.
- 5.16 Anchorage - for floating and piled jetties, anchorage in the form of piles, spuds, bottom anchors, or a permanent structure (such as a pile jetty) is required for structural stability and securing the jetty in place.
- 5.17 Bracing - piles driven into soft soils and/or with long exposed portions should have bracing added between the supports. For structural requirements, a pipe jetty should be equipped with leg braces under most soil condition.
- 5.18 Jetty fenders - tires, new or recycled, are not permitted for use as fenders.
- 5.12 Allowable excavation - allowable excavation for embedding footings or drilling piles must be performed during low tide (see glossary for definitions of words and terms specific to excavation).
- 5.19 Construction - for concrete construction, mixing is allowed only in the uplands side of the HAT. During construction, the use of generators is not permitted on the jetty or within the intertidal zone.
- 5.13 Pile size - the maximum cross section is 40 cm diameter or equivalent cross-section for other pile shapes.
- 5.20 Hand rails - for safety reasons, walkways must have a railing installed on one side.

.e

9. *Development requirements and guiding standards for using this Form '8'*

## **5. Development requirements and guiding standards for using this Form '13' (illustrations)**

The following figures illustrate guiding standards and requirements pertaining to the use of this Form, particularly information on locality, coastal profile, and jetty/walkway size and dimensions:

- Fig. 1: Information requirements on jetty/walkway location, refer to Form Section 1.2.
- Fig. 2: Typical coastal/reef flat profile
- Fig. 3: Jetty requirements, refer to Form Section 4.1 (piled), Section 4.2 (floating), and Section 4.3 (pipe).
- Fig. 4: Submerged walkway requirements, refer to Form Section 4.5.



*Environmental Screening Form 'B' for Recreational Jetties and Marine Walkways in Tourism Centers* **5.**

**Development requirements and standards for using this Form'B'  
(illustrations) (cont.)**

M I WY,  
LENGTH OF 5FICKELINE BETWEEN TDA COORDINATES

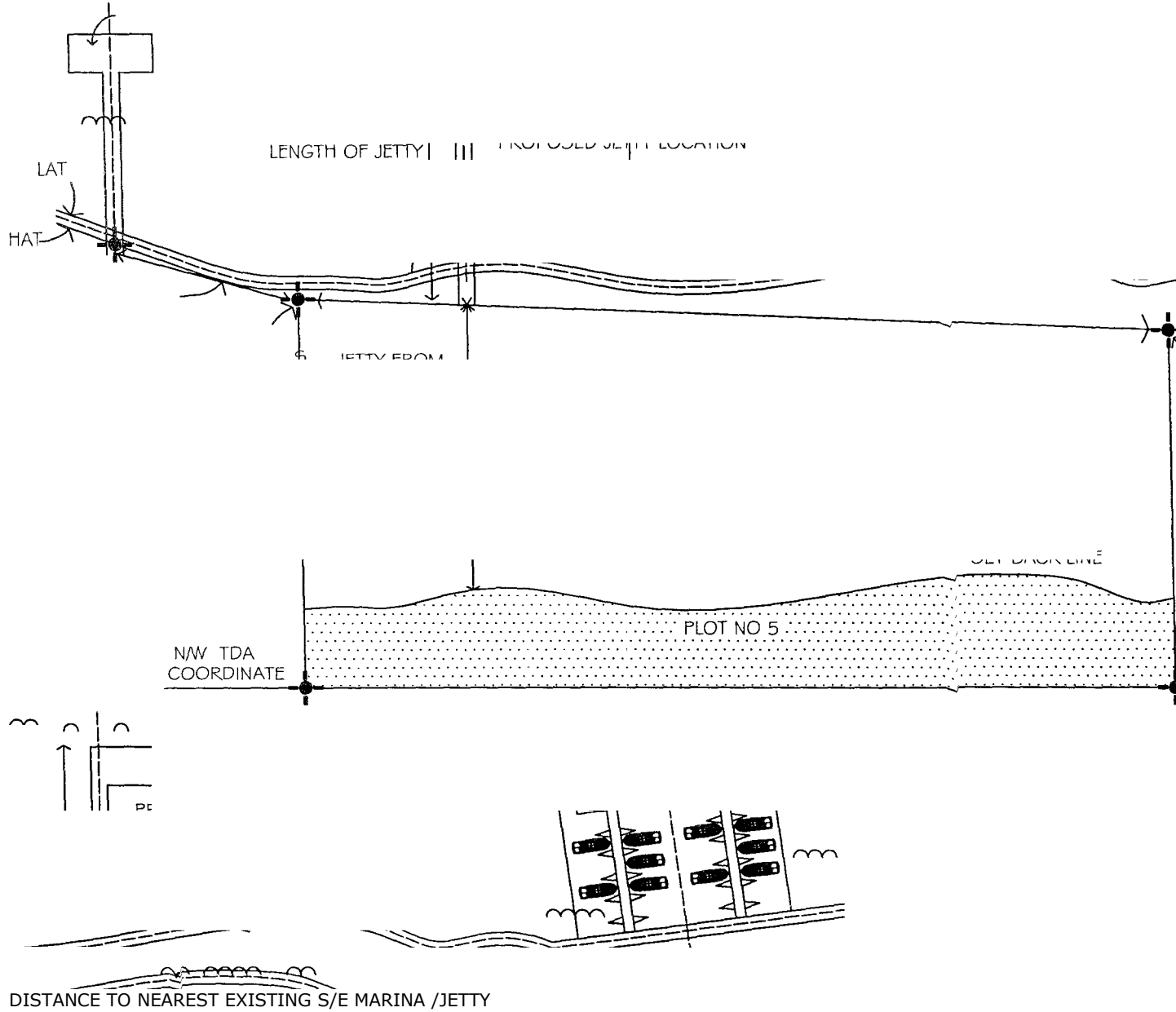


FIG. I LOCATION OF JETTY

## **6. Scoped EIA**

In the instance where this Form is submitted and rejected or it cannot be used (e.g., the proposed jetty or walkway does not meet the standards and requirements set in Section 5), the project proponent is requested to conduct a Scoped EIA based on specific Terms of Reference (ToRs). Upon submittal of the completed study to the TDA, the TDA registers the study and checks whether the information included in the submitted documents complies with the required information according to the ToRs, and the general conditions of the resort or center where the project is located.

ensure the protection of the environment.

b) Disapproval of the project.

The TDA forwards a copy of the decision to the EEAA, which registers it in the EIA register. The TDA will ensure implementation of the decision. The developer can appeal the result mentioned in a) or b) to the Permanent Appeals Committee in writing within 30 days of receipt of the decision.

If the TDA finds the Scoped EIA satisfactory, it formally submits the applicant's documents to the EEAA for review and evaluation. The EEAA evaluates the study and submits its opinion and any recommendations to the TDA in a formal decision letter within

60 days of the EEAA's receipt of the completed documents. Failure to do so shall be considered an approval of the submittal by EEAA. The documents are registered by the EEAA together with its opinions and proposals in the EIA register at the EEAA.

The TDA notifies the developer by registered letter with an acknowledgement of receipt about the final result of the evaluation. The result can be either:

a) An approval of the project including possible measures to be taken to

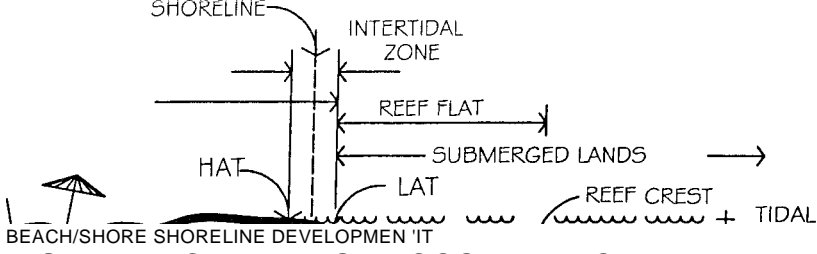
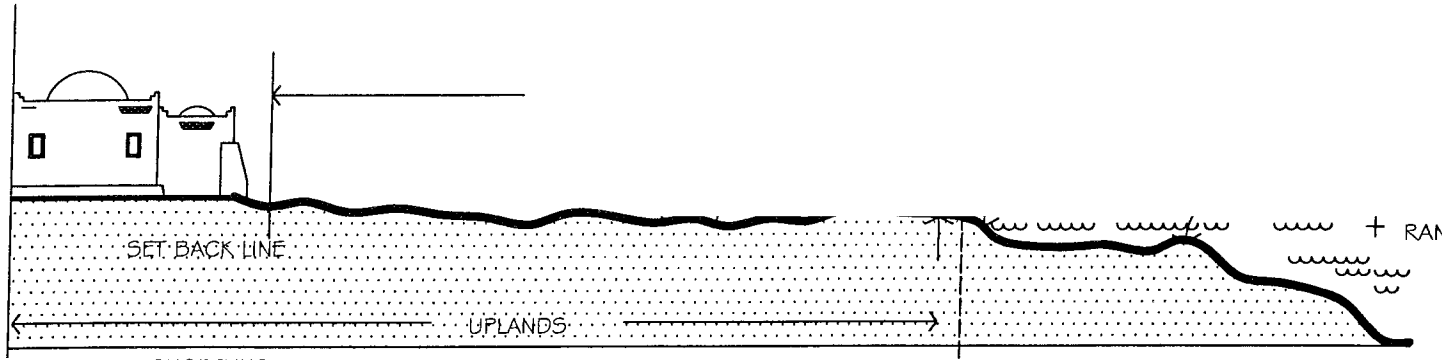


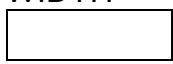
FIG. 2 TYPICAL RED SEA COSTAL PROFILE

FIG. 3 SIZE OF JETTY

LENGTH:

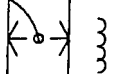
FIG. 3-A

WIDTH-



MAX 4 M

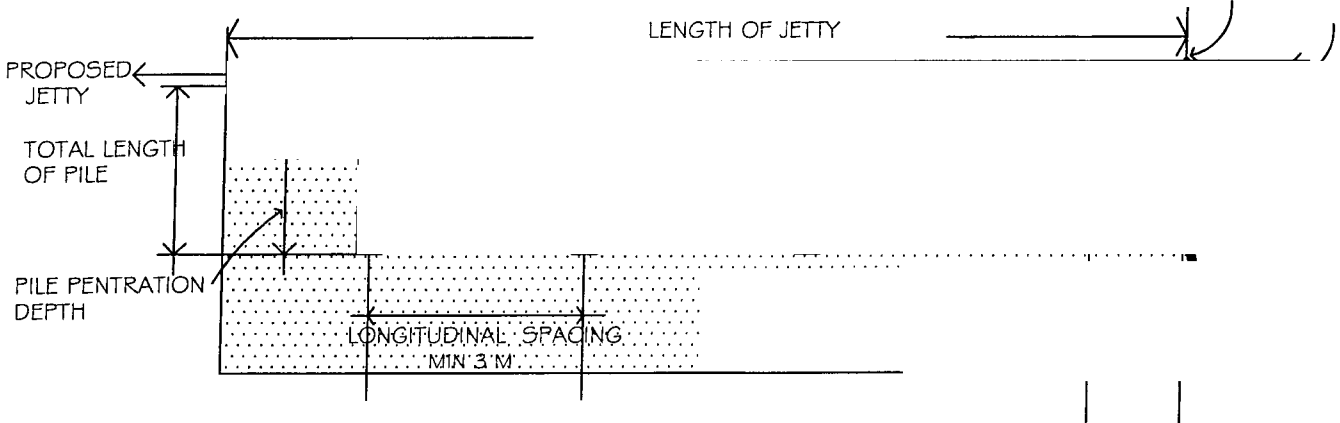
MIN 1.5 M (FLOATING) MIN 0.9 M (OTHER TYPES)

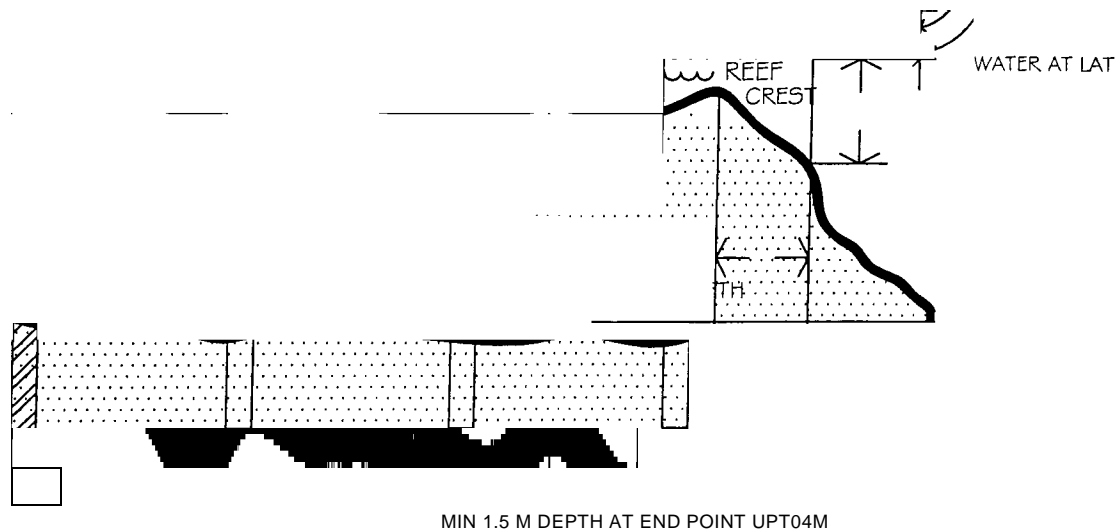


MAR 6M

JETTY END POINT

FREE BOARD TIDAL RANGE / WATER AT HAT





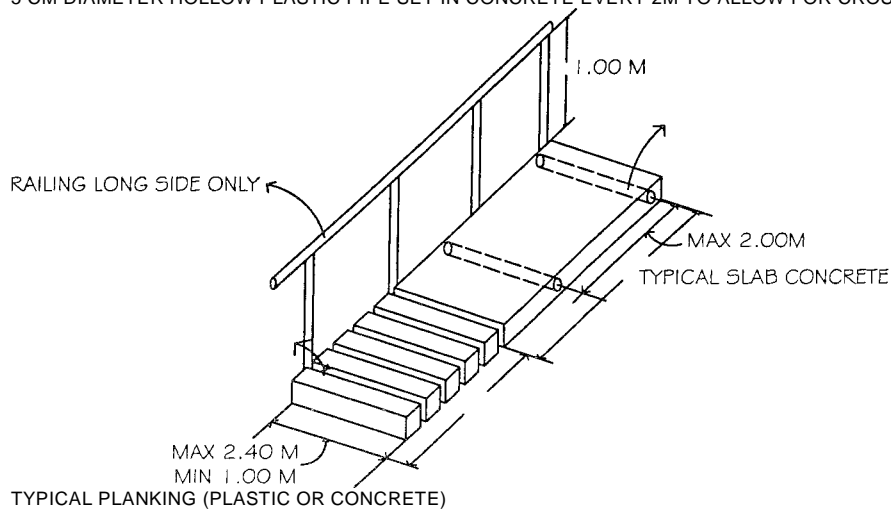
3  
3  
M.A.-  
6M

1'1G. 3-B

FIG. 3-C

FIG. 4 TYPICAL SUBMERGED WALKWAY RESTING ON REEF FLAT (TWO VERSIONS)

10 MM MINIMUM SPACING BETWEEN PLANKING TO ALLOW FOR CROSSFLOW OF WATER.  
5 CM DIAMETER HOLLOW PLASTIC PIPE SET IN CONCRETE EVERY 2M TO ALLOW FOR CROSSFLOW OF WATER



*Environmental Screening Form 'B' for Recreational Jetties and Marine Walkways in Tourism Centers*

## 6. Scoped EIA

In the instance where this Form is submitted and rejected or it cannot be used (e.g., the proposed jetty or walkway does not meet the standards and requirements set in Section 5), the project proponent is requested to conduct a Scoped EIA based on specific Terms of Reference (ToRs). Upon submittal of the completed study to

the TDA, the TDA registers the study and checks whether the information included in the submitted documents complies with the required information according to the ToRs, and the general conditions of the resort or center where the project is located.

ensure the protection of the environment.

b) Disapproval of the project.

The TDA forwards a copy of the decision to the EEAA, which registers it in the EIA register. The TDA will ensure implementation of the decision. The developer can appeal the result mentioned in a) or b) to the Permanent Appeals Committee in writing within 30 days of receipt of the decision.

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60 days of the EEAA's receipt of the completed documents. Failure to do so shall be considered an approval of the submittal by EEAA. The documents are registered by the EEAA together with its opinions and proposals in the EIA register at the EEAA.

The TDA notifies the developer by registered letter with an acknowledgement of receipt about the final result of the evaluation. The result can be either:

a) An approval of the project including possible measures to be taken to

## **7. How to fill out this Form 'B'?**

In order to assure that the Form 'B' application for your project is being handled appropriately, please read and follow the steps below. You may select one of two options for completing the form. It's your choice!

- a) Make a photocopy of the blank form provided with these guidelines, fill it in, and submit it directly to TDA.
- b) Fill out an electronic version of the form using the Electronic Form 'B' (eForm'B'). This is a software version compatible with most computers. Print out the completed form, get the appropriate signatures, add the required attachments, and submit it. This is the preferred option. The eForm 'B' computer program is provided on the companion CD-ROM (NOTE: contact us if CD-ROM is not attached to this document). Read the following instructions to submit the application using eForm 'B'.

TDA and EEAA are pleased to present eForm B - the Electronic Environmental Screening Form 'B'. eForm B allows you to fill out a form and check it for completeness on your computer. This will help you avoid errors and answer any questions you may have while filling out the new form through extensive help features and a "Form Template" to help guide your way. This electronic application is designed to process your application faster so that you will have your project approval as soon as possible.

eForm gives step-by-step instructions for completing a form properly. It also provides access to a wide variety of information about EIA procedures and practice. While the different sections of the form may appear straightforward and easy to fill out, you are strongly advised to read the HELP instructions carefully PRIOR to actually completing it.

After inserting the CD in your CD drive, locate the 'setup.exe' file and double-click on it to start the installation process. Once the installation is complete and your computer has been set up, double-click on the [eForm 'B] icon on your desktop to start filling in your form application. eForm is bilingual (Arabic/English) and works only if you use MICROSOFT WINDOWS (Version 98, or XP).

Using eForm 'B' you can complete your form, check it for completeness, revise it if necessary, and then print out the complete form for official submittal. Once you print it, make sure that the last two pages, which contain the list of required attachments and official signature and stamp, are complete.

Note:

In addition to the attached blank forms that can be completed manually, eForm can also be used to print additional copies of the form in either English or Arabic.

## **8. Guidance notes on completing this Form 'B'**

The form is made up of 13 sections. Each section is made up of a series of questions and entry information requirements, as described below. With the exception of the Optional Notes section (Form Section 12), all the form sections are mandatory. In some sections of the form, and only where indicated, the applicant may be allowed to disregard some entry requirements. For example, if piles would be used to support the jetty (piled jetty), information pertaining to anchorage would be unnecessary.

7.1 *General Information* (see Form Section 1) - this section includes information concerning project name (or resort where the project is located), owner, contacts, project designer and contractor information, project location, geographical coordinates, and status of the tourism center IEIA and the resort EIA where the project is located.

conditions, environmental and archaeological factors, and main site characteristics such as submerged land bathymetry, uplands topography, soil conditions, and water quality.

7.4 *Jetty and Walkway Specifics* (see Form Section 4) - this section includes information concerning the type(s) of jetty proposed including piled, floating, and piped jetties; and covering specifics related to materials used, jetty dimensions and size, freeboard, pile details (for piled jetties), description of anchorage (for floating and piped jetties), bracing details (for piped and piled jetties), footing details (for piped jetties), as well as similar information pertaining to walkway specifics such as type, materials, dimensions, provision for water flow, and anchorage details.

7.2 *Project Description* (see Form Section 2) - this section includes information concerning the project, proposed activities, and a description of facilities and utilities.

7.3 *Project Site Data* (see Form Section 3) - this section includes information concerning the physical, geomorphological and ecological characteristics of the project site, including description of the shoreline and beach area

7.5 *Jetty and Walkway Peripherals* (see Form Section 5) - this section includes information concerning the anchorage and boat mooring installed, the connections between the shore and structure and between the jetty components, as well as the provision of shoreline pedestrian access.

7.6 *Alternatives* (see Form Section 6) - this section includes information concerning the project alternatives



**8. Guidance notes on completing this Form `B' (cont.)**

7.7

7.8

7.9

considered for site suitability, location selection, type, materials used, and layout and design.

*Construction Phase* (see Form Section 7) - this section includes information concerning the project construction phase and activities particularly time schedule; number of construction workers and accommodation arrangement; method of construction and materials used; location, amount, and disposal of garbage, solid, construction and wastes and sewage; and source and amount of water and energy used during construction.

*Operational Phase* (see Form Section 8) - this section includes information concerning the project operational phase and activities; amount and source of water used; description of electric power requirements, lighting and communications installations, and solid waste generation amount and disposal during operation; as well as schedule and methods of maintenance.

*Mitigation Measures* (see Form Section 9) - this section includes information concerning the mitigation measures during the construction and operation phases, primarily measures taken to alleviate any disruption or potential harm to the marine environment,

7.10

7.11

minimize disruption of submerged lands, control noise pollution and air emissions, minimize visual pollution and electrical use, as well as minimize impacts on coastal processes and water quality.

*Monitoring Plan and Best Practices* (see Form Section 10) - this section includes information concerning the proposed environmental monitoring and management plan (EMP) during both construction and operation, primarily the monitoring of shoreline changes, water quality, impacts on marine flora and fauna, storm water management; health and safety issues, and also the Best-Practices (BPs) considered in order to monitor environmental practices (e.g., resource conservation and waste reduction).

*Attachments* (see Form Section 11) - this section includes a list of the required attachments. It is divided into three sub-sections: main attachments which must be submitted, additional attachments which are required at EEAA's and TDA's discretion, and other attachments provided at the Applicant's choice. The main attachments required are the general location map of the project site, layout and elevation drawings of the proposed jetty or walkway, topographic map, and a general layout of the proposed project,

## **8. Guidance notes on completing this Form 'B' (Cont.)**

with panoramic photographs of the project site and the shore area showing the location of the proposed map. The additional attachments must be provided as required and as deemed necessary by EEAA and TDA, and in accordance with the following conditions:

- a) Detailed marine survey map and report- must be submitted if the location proposed was not approved under an EIA study for the Center (IEIA) or the resort where the jetty or walkway is located (see note below).  
same time. Approving the jetty Form will be conditional upon the approval of the resort Form.
- d) Soil report - a report on soil conditions of submerged lands, and results of soil boring - soil boring may be required primarily for pile jetties, although other jetties may also demand soil boring. If the applicant presents acceptable evidence that soil conditions are satisfactory for the proposed jetty, soil boring and testing results may not be required.
- b) IEIA study approval letter - the EEAA/TDA approval/decision letter of the Center's EIA study - must be submitted if the resort where the jetty or walkway is located does not have an approved EIA.
- e) Structural design report - at EEAA's or TDA's discretion, an engineer's report may be required to verify that the design is structurally sound (this also applies to the piles and anchorage systems.)
- c) Resort EIA or Form 'B' approval letter - the EEAA,<sup>1</sup>TDA approval/decision letter of the Resort EIA study or the resort Form 'B' where the jetty or walkway is located - if the Applicant is using the Form 'B' for resorts (see Guidelines for Environmental Screening Form 'B' for Individual Hotels and Resorts within Tourism Development Centers), he must submit both forms for the resort and the jetty at the
  - fl Other attachments may include approval/decision letters previously acquired (original project approval in case of extension) or a list of any important references or reports used.

7.12 Optional Notes (see Form Section 12) - this section is provided for any additional or optional notes the applicant wishes to provide.

7.13 Certification (see Form Section 13) - this Section is provided for the  
16 e *Guidance notes on completing this Form 'S'*

**8. Guidance notes on completing this Form'B' (cont.)**

applicant to certify the information provided in the form prior to its official submittal. It is also inclusive of a design statement that the jetty/walkway design complies with Egyptian design codes and standards. This Section consists of a name listing of the designer, the consultants who prepared the Form, the distinguished name of the certificate issuer (the signer) or the authorized person, and an issuer-specific signature, with title and position, passport or ID number. This section must be endorsed by the signature of the authorized person and stamped with the official stamp of the applicant/project owner.

**Note:**

For information on undertaking bathymetric, marine and underwater surveys, refer to the Environmental Impact Assessment Guidelines for Marine and Coral Reef Monitoring for Red Sea Tourism Development Projects, EEAA/TDA, Egypt 2003 (see further reading and references).

## **9. Case studies**

Three case studies on using Form 'B' for Recreational Jetties and Marine Walkways have been developed in association with the guidelines. They provide three real examples for using the Form. The first and second case studies provide two exemplary cases of a floating jetty and a submerged walkway, respectively. Both are located within a resort that has been previously approved using Form 'B' for Resorts (see the Guidelines for Environmental Screening Form 'B' for Individual Hotels and Resorts within Tourism Development Centers, EEAA/TDA, Egypt, 2001). The third case study provides an exemplary case of a piled jetty located within a tourism center that has an approved IEAR. The resort in which the jetty is located has no approved EIA project. Applicants are discouraged from copying in any form or part (e.g., text, maps, drawings) from the case studies into their Form application. If plagiarism is suspected, the EEAA/TDA will reject the Form submittal in its entirety.

Note:

A copy of the case studies can be obtained from the EEAA or the TDA

These case studies illustrate the conditions, format and typical detail required for completing a Form 'B' for a jetty or walkway, including various types and supporting systems such as piled, floating and submerged decks. It must be noted that the information that needs to be input into a Form varies from site to site, jetty to jetty, resort to resort, and center to center, and depends upon various factors including site and jetty/walkway specifics. These examples are provided only for guidance on how to complete the form; it is not all-inclusive and should not be regarded as being complete, or exclusively representative of your jetty or walkway project. The information provided in the examples may be significantly unsuitable for your

**185 Case studies**

## 10. List of definitions

The following terms and definitions, as used in the guidelines and Form, have the following meanings:

*Anchorage*- the method of securing an inanimate, water-based object to submerged lands. The object may be floating (e.g., watercraft, mooring buoy, floating jetty), or resting on submerged lands (e.g., pipe jetty).

*Applicant*-the individual and/or corporation applying for approval to construct a jetty/walkway.

*Bathymetry* - the measurement of depth in the sea in order to delineate the submarine topography.

*Beach* (also shore) - a gently sloping zone of unconsolidated material along a shore, extending water ward from the LAT to the line where there is a distinct change in material or in physiographic form of the shoreline area, or the line of permanent vegetation. For the purpose of using this Form, the beach width can be estimated as the distance from the LAT to the setback line (see Fig. 2).

*Boat mooring* - a temporary or permanently fixed or floating anchorage in water for the purpose of anchoring a boat.

*Buoy* - a floating object anchored or attached to the bottom of the sea, to provide boating information like marking navigation channels or prohibited areas on the water or for mooring watercraft.

*Connecting brackets* - the brackets used to connect separate sections of jetty (e.g., the brackets connecting one floating section to another, a ramp to a jetty or shore connection, etc.)

*Coral rock* (also reef limestone) - a limestone containing the remains of sedentary organisms, such as corals and sponges, and sediment- binding organic constituents.

*Craft* (also vessel) - every kind of water vessel, capable of being used as means of transportation on the water.

*Deck* - the upper platform of the jetty that serves as a floor for pedestrians, and in some cases, vehicular traffic.

*Draft* - the depth of water a waterborne body (e.g., boat, floating jetty) draws, measured by body depth below the water line.

*Dredging* - the rearrangement or removal of submerged lands.

*Allowable excavation* - the limited and minimal disruption of submerged lands necessary to install: i) jetty anchorage (e.g., piles, spuds, embedded bottom anchors), jetty footings, and embedded walkways, ii) and permanent boat mooring devices (e.g., piles, embedded bottom anchors). Allowable excavation does not include any disruption of submerged lands (e.g., deepening of a harbor, swimming area, or boat mooring area) beyond the immediate area of the above listed exceptions to dredging.

*EIA* - Environmental Impact Assessment, a project environmental review process regulated under Law 4/1994 for the Environment, and its Executive Regulations.

## 10. List of definitions (cont.)

End point- the point of the jetty or walkway sitting furthest out from MHWM into the water.

Erosion - a process by which particulate material such as sand disintegrates by hydrodynamic forces due to changes in the littoral processes along a shoreline.

being part of the shoreline, commonly found along the Red Sea coastline.

Intertidal flat -a broad, marshy or barren area of unconsolidated sediment forming a coastal flatland that is alternately covered and uncovered by seawater according to the level of the tides.

Fender- a cushion, placed between boats, or between a boat and a jetty, to prevent damage.

Filling - the placing of any substance (fill) on submerged lands for the purpose of diminishing water depths or extending the uplands seaward. Jetties, as approved under the terms and conditions of this Form, are not considered fill. Filling is not permitted under any circumstance.

Form 'B'-an environmental screening Form that corresponds to projects categorized under Law 4/1994 for the Environment as Grey List projects, which may or may not result in substantial environmental impact.

Freeboard - in the context of jetties, it is the minimum vertical distance between the surface of the water and the lowest point on the top surface of the jetty's deck. For fixed height jetties (e.g., pile, pipe), freeboard can be expressed as the height of the structure above the HAT intended to prevent overflow. Also at any given time, the vertical distance between the water level and the top surface of the structure, therefore often expressed as a range corresponding to the tidal range.

Fringing reef- an organic reef that grows directly against coastal bedrock and

Jetty- a permanent structure built from the shore towards deeper water, extending beyond the LAT to facilitate access to the water and watercraft.

Jetty, floating - a jetty that relies on flotation to keep its deck above water. It is the only type of jetty that maintains a consistent freeboard measurement.

Jetty, piled - a jetty where the deck is held up by legs/supports, the legs/supports penetrating deep into the soil to provide added strength and stability.

Jetty, pipe - a jetty where the deck is held up by legs/supports that rest on the soil rather than penetrate it (whether uplands or submerged lands). Typically, a pipe jetty is installed in a sheltered marine environment, such as a shallow Sharm, Marsa, bay, or lagoon.

Jetty, walkway- a jetty (or pontoon) where the deck is a narrow floating structure that allows pedestrian access to deeper water or watercraft. Typically, a floating jetty is installed in a sheltered marine environment and is fastened to a piled jetty or to the seabed by spuds.

Marsa (or back bay)- a smaller bay separated from the sea by long and narrow reef islands or flat lying parallel to the shore, with narrow passes in-

## 10. **List of definitions**

The following terms and definitions, as used in the guidelines and Form, have the following meanings:

*Anchorage*- the method of securing an inanimate, water-based object to submerged lands. The object may be floating (e.g., watercraft, mooring buoy, floating jetty), or resting on submerged lands (e.g., pipe jetty).

*Applicant*-the individual and/or corporation applying for approval to construct a jetty/walkway.

*Bathymetry* - the measurement of depth in the sea in order to delineate the submarine topography.

*Beach* (also shore) - a gently sloping zone of unconsolidated material along a shore, extending water ward from the LAT to the line where there is a distinct change in material or in physiographic form of the shoreline area, or the line of permanent vegetation. For the purpose of using this Form, the beach width can be estimated as the distance from the LAT to the setback line (see Fig. 2).

*Boat mooring* - a temporary or permanently fixed or floating anchorage in water for the purpose of anchoring a boat.

*Buoy* - a floating object anchored or attached to the bottom of the sea, to provide boating information like marking navigation channels or prohibited areas on the water or for mooring watercraft.

*Connecting brackets* - the brackets used to connect separate sections of jetty (e.g., the brackets connecting one floating section to another, a ramp to a jetty or shore connection, etc.)

*Coral rock* (also reef limestone) - a limestone containing the remains of sedentary organisms, such as corals and sponges, and sediment- binding organic constituents.

*Craft* (also vessel) - every kind of water vessel, capable of being used as means of transportation on the water.

*Deck* - the upper platform of the jetty that serves as a floor for pedestrians, and in some cases, vehicular traffic.

*Draft* - the depth of water a waterborne body (e.g., boat, floating jetty) draws, measured by body depth below the water line.

*Dredging* - the rearrangement or removal of submerged lands.

*Allowable excavation* -the limited and minimal disruption of submerged lands necessary to install: i) jetty anchorage (e.g., piles, spuds, embedded bottom anchors), jetty footings, and embedded walkways, ii) and permanent boat mooring devices (e.g., piles, embedded bottom anchors). Allowable excavation does not include any disruption of submerged lands (e.g., deepening of a harbor, swimming area, or boat mooring area) beyond the immediate area of the above listed exceptions to dredging.

*EIA*- Environmental Impact Assessment, a project environmental review process regulated under Law 4/1994 for the Environment, and its Executive Regulations.

## 10. List of definitions (cont.)

between, usually forming a natural harbor in the form of a semi-enclosed inlet through the reef flat. Examples are Marsa Abu Arika and Marsa Shagra.

*HAT*- High Astronomical Tide. The highest water level on the natural shoreline reached by the sea when the sea is at its maximum recorded height, and in accordance with Law 4/1994 for the Environment (see Fig. 2).

*LAT* - Low Astronomical Tide. The lowest water level on the natural shoreline reached by the sea when the sea is at its minimum recorded height, and in accordance with Law 4/1994 for the Environment (see Fig. 2).

*Latitude* - the distance north or south of the equator, measured and expressed in degrees.

*Longitude* - the distance east or west of the meridian at Greenwich, measured and expressed in degrees.

*Mooring* - an arrangement for securing a boat to mooring buoy or a jetty.

*Open bay*- a large to medium, semiconfined body of water, typically more broad along the shoreline than deep. This wide, unrestricted sandy inlet is exposed to tides and surf. Usually major wadi is connected directly into the upper portion of the bay, and there are no reef flats to restrict flow. Examples from the Red Sea that are characteristic of this type of bay include Abu Soma (Soma Bay) and Abu Makadi (Makadi Bay).

*Pile*- a wood, metal or concrete pole that penetrates the sea bottom. Craft may be made fast to a pile, or more commonly it is used to support a jetty or a float.

*Plot*- in the context of this document, an established or proposed land lot or site situated on the Red Sea coast.

*Recreational jetty* - a jetty used by a resort for commercial recreational purposes (e.g., mooring dive boats).

*Reefcrest*-the upper, leading edge of a reef facing open water.

*Reef flat* -the relatively flat area of a fringing reef lying between the reef crest and the shoreline, typically reaching hundreds of meters wide and found more or less continuously along the Red Sea coast.

*Sebkha* (also sabkha or sabka) - an extensive, smooth, salt flat, or salt encrusted plain in a coastal area, typically found on the Red Sea Coast.

*Sedimentation* - a process by which particulate material such as sand accumulates in layers to form sedimentary deposits in suspension in seawater.

*Set-backline*-the permissible set back measured from the HAT at which point development may begin, as defined in Law 4/1994 for the Environment (see Fig. 1).

*Sharm* - a partially enclosed direct wadi outlet connection to the sea, creating a Vshaped channel mouth. Examples are Sharm el-Nakari and Sharm el-Bahari on the Red Sea Coast.

*Shore* - see *Beach* (see Fig. 2).



10. **List of definitions (cont.)**

Shore connection (or structure) - the means by which beach access to the jetty/walkway is provided, such as a ramp, platform, or other similar device. In some situations, as with most piled jetties, the jetty itself provides the necessary connection. It also refers to a permanent structure built on the uplands or beach area to provide access, and sometimes anchorage, to a jetty (e.g., deck, platform).

Shore development - any development or construction carried out between the setback line and the LAT, or onto submerged lands, such as a jetty (see Fig. 2).

Shoreline-the intersection between the mean high water line and the shore, lying within the intertidal zone (see Fig. 2).

Shoreline length - the length of shoreline between the north and south boundaries of a plot. Within the context of this Form, it is measured as a straight line between the north and south boundaries of a plot measured at HAT, in meters (see Fig. 1).

Shore structure - see Shore Connection.

Spuds - spuds are similar to pipe jetty legs except that spuds do not keep a jetty's deck in a set vertical position above water, only in lateral position, thus allowing a floating jetty's deck to freely move up and down along the length of the spud in response to fluctuations in water levels.

Submerged flora and fauna - all aquatic plants (flora) and animals (fauna) located on submerged land, including but not limited the flora and fauna inhabiting reef flats. On the Red Sea coast, such growth is typically characterized by corals with limited growth on the inner, relatively shallow reef flat, while the outer reef crest and steep outer slope contain abundant coral growth. Seagrass beds are found on the inner shallow reef flats.

Submerged lands - all land and reef located under a body of water, including but not restricted to the land under the Red Sea and adjacent lagoons (whether natural or man-made) (see Fig. 2).

Tidal range - in the context of jetties, it is the maximum difference between the high and low sea water levels at the jetty location, expressed by the difference between HAT and LAT (see Fig. 2).

Uplands - all land located above the HAT (see Fig. 2).

Wadi - a coastal seaward draining channel or watershed typically found on the Red Sea Coast, and allows water to flow to the sea during the flooding seasons, resulting in alluvial plains, or deltas where the waters reach the sea. Examples are Wadi el-Gimal and Wadi Zarayeb.

Walkway, floating - a floating structure across a shallow reef or tidal flat that allows pedestrian access to deeper water and is no watercraft mooring. Typically, it is installed in a sheltered marine environment with seabed anchors.

Walkway, submerged - a narrow submerged structure rested on (or embedded into) a shallow reef or tidal flat that allows pedestrian access to deeper water, and is not used for mooring watercraft.

## 11. Further reading and references

Further reading of the following select documents is recommended.

*National laws, decrees, guidelines and Internet references:*

- 0 Law No. 102/1983\*
- Law No. 4/1994 for the Environment and its Executive Regulations, EEAA, 1994/5\*  
Environmental Management Guidelines for Coastal Hotels and Resorts, TDA, Egypt, 2001/3\*  
Egyptian Environmental Affairs Agency, Egypt ([www.eeaa.aov.eg](http://www.eeaa.aov.eg))
- Red Sea Sustainable Tourism Initiative, Egypt ([eia.rssti-pa.net](http://eia.rssti-pa.net))

*Other references:*

- Decree 80, Ministry of Tourism, Egypt, 1989\*
- Environmental Guidelines for Development in the Coastal Areas, EEAA, Egypt, 1996\*
- Guidelines for Egyptian Environmental Impact Assessment, EEAA, Egypt, 1996\*
- Floating Ports: Design and Construction Practices, Gregory Tsinker, Gulf Professional Publishing, MA, USA, 1986
- Marinas and Small Craft Harbors, Tobiasson and Kollmeyer, Van Nostrand Reinhold, New York, NY, USA, 1991
- Environmental Impact Assessment Guidelines for Coastal Development Projects in the Red Sea, GEF Project, TDA/EEAA/Red Sea Governorate, Egypt, 1998\*
- Environmental Impact Assessment Guidelines for Development of Ports, Harbors and Marinas, EEAA, Egypt, 1999\*
- Guidelines for Environmental Screening Form 'B' for Individual Hotels and Resorts within Tourism Development Centers, EEAA/TDA, Egypt, 2001 \*
- Environmental Impact Assessment Guidelines for Marine and Coral Reef Monitoring for Red Sea Tourism Development Projects, EEAATDA, Egypt, 2003\*
- Handbook of Port and Harbor Engineering: Geotechnical and Structural Aspects, Kluwer Academic Publishers, Netherlands, 1996
- Survey Manual for Tropical Marine Resources, 2nd Edition. Australian Institute of Marine Science, Townsville, 1997
- The Dock Manual, Max Burns, Storey Books, Pownal, VT, USA, 1999.
- The Complete Book of Anchoring and Mooring, 2nd Ed., Earl Hinz, Cornell Maritime, USA, 2001
- Shoreline Management Guidelines, Karsten Mangor and Ahmed Hassan, DHI Water and Environment/PA Consulting Group, Denmark/Egypt, 2003\*

\*Copies available from EEAA or TDA.

1. GENERAL\_INFORMATION

1.1 Applicant Name of Resort Name of Owner  
Contact Person and Position Telephone  
Fax E-mail Address

1.1.1 Designer/Engineer Name of firm  
Contact Person and Position Telephone  
Fax E-mail Address

1.1.2 Contractor Name of firm  
Contact Person and Position Telephone  
Fax E-mail Address

Project location a) Region  
b/ Tourism Development Sector c/ Tourism  
Development Center

Geographical location of resort a) Latitude  
b/ Longitude

1.2.2 TDA land plot coordinates for corners (if more than four, give all coordinates in  
clockwise order starting with N shoreline corner)  
Seaside Yes/No -

a) (north shoreline corner) b) - Seaside Yes/No - c) - Seaside Yes/No - d) - Seaside Yes/No -  
1.2.3

Location of jetty/walkway (refer to Guidelines Fig. 1)

- a) Length of shoreline, (straight line between N and S shoreline boundaries of  
resort, measured at HAT) in meters.
- b) Distance of jetty/walkway from N shoreline boundary, along length of shoreline, measured  
at HAT (in meters).
- c) Distance of jetty/walkway from the setback line (in meters).
- d) Angle of orientation to shoreline (measured clockwise from the shoreline in degrees, 90  
degrees being perpendicular to shoreline)

1.3 Status of related EIA approvals

1.3.1 EIA of Tourism Development Center where jetty is located a) Submitted  
Yes/No  
a) If yes, approved Yes/No

b) If yes, specify approval date

c) If yes, was the jetty location also approved Yes/No

1.3.2 EIA of Resort where jetty is located a) Submitted Yes/No  
b) If yes, approved Yes/No

c) If yes, specify approval date

d) If yes, was the jetty location also approved Yes/No

## 2 PROJECT DESCRIPTION

2.1 Activities on the jetty/walkway (see guidelines for restrictions)

a) Watercraft mooring Yes/No

i) Maximum number of crafts -

ii) Maximum length of craft (in meters, maximum 30

b) Loading and unloading Yes/No

m)

c) Walkway for swimmers Yes/No

d) Sitting/sunbathing area Yes/No

e) Water sports

i) snorkeling Yes/No ii) diving Yes/No iii) swimming Yes/No iv) Non-commercial fishing Yes/No

f) Other (specify)

g) Number of people using jetty/walkway i) maximum -

ii) estimated average per day (person/d)

h) Vehicular access Yes/No i) purpose

ii) type of vehicle iii) size of vehicle iv) weight of vehicle -

i) Gazebos/shaded areas

i) area covered (in m2s) ii) location on jetty -

2.2 Utilities and Services on the jetty/walkway

a) Fresh/potable water Yes/No

b) Non-potable water Yes/No

c) Electricity Yes/No

d) Food Yes/No

- 3 PROJECT SITE DATA
- 3.1 Area of shoreline development (choose one)  
 a) Open sea (identify) Yes/No - b) Open Bay (identify) Yes/No - c) Marsa (identify) Yes/No -  
 d) Sharm (identify) Yes/No -  
 e) Other (identify, such as tidal lagoon, artificial inland lake, etc)
- 3.2 Prevailing sea conditions at end point of jetty/walkway (rough, moderate, calm)
- 3.3 Beach/shore details (see Guidelines Fig. 2)  
 a) Mean beach width (distance between the set-back line and LAT, in meters) b) Description of shore/uplands (rocky, muddy, spits and bars, dunes, etc.) d) Describe any prominent features (natural or man-made) -
- 3.4 Describe and give proximity to nearest existing jetty, walkway, or marina (specify type and distance in meters)  
 a) S/E neighbor/plot: type , distance  
 b) N/W neighbor/plot: type , distance
- 3.5 Environmental and archaeological factors Describe and give proximity to jetty (in meters) a) Fragile ecosystems (e.g., reef, marsh, sebkha) -  
 b) Archaeological and historical sites -  
 c) Protected areas -  
 d) Terrestrial flora and fauna -  
 e) Aquatic flora and fauna (include marine survey results with attachments, do not include survey if jetty location was approved in the center's IEIA or the resort's EIA).  
 f) Natural hazards (e.g., wadi or flood plains) -
- 3.6 Characteristics of the site  
 a) Depths of water (bathymetry) (show all measurements on a bathymetric map, to be included with attachments)  
 i) Depth at end point of jetty at LAT -  
 ii) Maximum tidal range (difference between HAT and LAT) -  
 b) Topography of uplands  
 Show all measurements on a topographical map to be included with attachments.
- c) Soil conditions of submerged lands (include results of soil boring with attachments.)  
 d) Water quality (e.g. measurements in ppm) i)  
 Water turbidity (ppm) -  
 ii) Suspended solids (ppm) -

#### 4 JETTY AND WALKWAY SPECIFICS

4.1 State type(s) of jetty or walkway to be installed, as applicable (more than 1 type can be installed per jetty/walkway), and then go to the appropriate type(s) section(s) below (only open-type structures are permissible, see guidelines for restrictions).

a) Pile Yes/No

b) Floating Yes/No c) Pipe

Yes/No

d) Walkway Yes/No e) Other

Yes/No

#### 4.2 Pile

4.2.1 Materials (list) a) Frame -

b) Deck - c) Piles -

4.2.2 Freeboard (meters)

4.2.3 Proposed size of jetty (in meters)

a) Total length of jetty including shore connections -

b) Total length of pile jetty portion -

c) Width of pile portion of jetty (minimum 0.9 m, maximum 4 m)

d) Shape of jetty (e.g., rectangle, L-shape, T-shape, arced)

4.2.4 Pile details

a) Number of piles

b) Pile cross section (maximum 40 cm diameter or area equivalent cross-section). i)

Circular (diameter in cm) -

ii) Square (size in cm) -

iii) Other (specify, dimensions in cm) -

c) Longitudinal spacing of piles (in meters, minimum 3 m), if not constant specify minimum

d) Transversable spacing of piles (in meters, maximum 4 m), if not constant specify maximum -

e) Pile length, if not constant, specify maximum: i)

Exposed portion of pile (in meters) - ii) Penetration

depth of piles (in meters) - iii) Total length (i+ii) -

f) Method of installing piles i) Driven

Yes/No -

ii) Bored Yes/No - iii) Other

(specify) -

g) Bracing (give details, including materials and method of attaching to piles)

4.3 Floating (refer to Section 4.5 of the Form for floating walkways, this Section deals with floating jetties)

4.3.1 Materials (list) a) Frame -

b) Deck -

c) Flotation -

d) Connecting brackets

4.3.2 Freeboard (in meters, maximum 0.4 m) s

4.3.2 Draft (in meters) \_

4.3.3 Proposed size of jetty (in meters)

- a) Total length of jetty including shore connections
- b) Total length of all floating sections -
- c) Number of individual floating sections -
- d) Length of each individual section -
- e) Width of floating portion of jetty (minimum 1.8 m, maximum 4 m)
- f) Shape of jetty (e.g., rectangle, L-shape, T-shape, arced)

#### 4.3.4 Anchorage

Is the jetty secured or anchored in some manner to submerged lands? Yes/No If yes, see Form Section 5.1

4.4 Pipe (not recommended unless in sheltered areas and hard substrata or for use as a jetty to shore connection, see guidelines for restrictions)

4.4.1 Materials (list) a) Frame -

b) Deck - c) Legs - d) Leg braces (if applicable)

-

e) Connecting brackets (if applicable)

4.4.2 Freeboard (meters)

4.4.3 Proposed size of jetty (in meters)

a) Total length of jetty including shore connections - b) Total length of all pipe sections -

c) Number of individual pipe sections - d) Length of each individual section -

e) Width of pipe portion of jetty (minimum 0.9 m or the depth of water at HAT, whichever is the greater, maximum 4 m) -

f) Shape of jetty (e.g., rectangle, L-shape, T-shape, arced)

4.4.4 Connecting leg braces (if applicable)

Give details, including materials and method of attaching to pipe legs

4.4.5 Leg supports/footings a) Embedded

Yes/No -

i) average footing/embedded depth under seabed (cm) - b) Soil type under footing -

c) Method of attaching to pipe legs/supports - d) Footing materials (specify) -

e) Proposed length and width of each footing (in meters) - f) Area of each footing (in m<sup>2</sup>s) -

g) Thickness of each footing (in millimeters) -

h) Combined total area of all footings contacting submerged lands (in m<sup>2</sup>s)

4.4.6 Anchorage



Is the jetty secured or anchored in some manner to submerged lands? Yes/No If yes, see Section 5.1

#### 4.5 Walkway

##### 4.5.1 Walkway type

a) Floating Yes/No -

i) Draft (in meters) - b)

Submerged

i) Resting on submerged lands Yes/No - ii)

Embedded into submerged lands Yes/No

c) Other (describe) Yes/No

4.5.2 Materials (list)

4.5.3 Water flow (see Guidelines Fig. 4)

a) Provisions to allow for water flow

4.5.4 Anchorage

Is the walkway secured or anchored in some manner to submerged lands? Yes/No If yes, see Form Section 5.1.

4.5.5 Proposed size of walkway (in meters) a)

Length of walkway -

b) Width of walkway (minimum 1 m, maximum 2.4 m) - c)

Area of walkway (in m<sup>2</sup>s) -

d) Percentage of reef flat covered by walkway % (maximum 5%).

e) Freeboard (specify a -ve value if walkway deck is submerged, e.g., -0.3m means that deck is 0.3 m below water at HAT while 0.3 m means that deck is 0.3 m above water at HAT) -

f) If floating walkway, specify the depth of water below bottom of floatation during LAT (in meters)

i) Beginning of walkway ii)

End of walkway

g) Shape of jetty (e.g., rectangle, L-shape, T-shape, arced)

4.6 Other type of jetty

Typically some combination of the above listed types, please specify and describe. (go to the specific sections that cover the various portions of the jetty for further details.) If the jetty is not described in sections 4.1 to 4.4, supply adequate engineering drawings of the proposed jetty.

4.6.1 Description of jetty type and design

4.6.2 Materials (list)

4.6.3 Freeboard (in meters)

4.6.4 Proposed size of jetty (in meters) a) length -

b) Width (minimum 0.9 m, maximum 4 m) -

c) Shape of jetty (e.g., rectangle, L-shape, T-shape, arced)

4.6.5 Anchorage

Is the jetty secured or anchored in some manner to submerged lands? Yes/No If yes, see Section 5.1.

## 5 JETTY AND WALKWAY PERIPHERALS

5.1 Jetty or walkway anchorage (complete as applicable, more than 1 type of anchorage can be used, give adequate anchorage details on engineering drawings for proposed jetty)

5.1.1 Bottom anchors (specify type, number, placement, and description)\_

- 5.1.3 Embedded anchors (specify type, number, placement, and description)
- 5.1.4 Spuds or piles (refer to Section 4.2 of the Form for details on piles used as main supports in piled jetties, this Section deals with spuds or piles used for anchorage in non-piled jetties or walkways)
  - a) Type pile (p)/spud (s) b) Number -
  - c) Material - d) Cross section
    - i) Circular (diameter in cm) - ii) Square (size in cm) -
    - iii) Other (specify, dimensions in cm) -
  - e) longitudinal spacing (in meters, minimum 3 m) \_ f) transversable spacing (in meters, maximum 4 m) e) Length, if not constant, specify maximum: i) Exposed portion (in meters) - ii) Penetration depth (in meters) - iii) Total length (i+ii) -
  - h) Method of installation i) Driven Yes/No - ii) Bored Yes/No - iii) Other (specify) -
- 5.1.4 Other (specify type, number, placement, and description)
- 5.2 Boat Mooring (specify type, number, placement, and description)
  - 5.2.1 To jetty/walkway
    - a) Type of mooring device (name and describe) i) Material -
    - ii) Size and quantity -
    - b) Fenders (name and describe) - i) Material -
    - ii) Size and quantity -
  - 5.2.2 To mooring pile (see Guidelines for details on acceptable pile installation) a) Number of mooring piles -
  - b) Water depth at pile (in meters, at LAT) - c) Materials -
  - d) Pile length (range in meters) -
  - e) Exposed portion of pile (in meters) - f) Penetration depth of pile (in meters) - g) Distance from jetty (indicate position(s) on plan engineering drawing for proposed jetty) -
  - h) Distance from nearest edge of reef crest
- 5.3 Shore Connection
 

Give a detailed description of the proposed method of connecting the jetty or walkway to the shoreline, give adequate details on engineering drawings for proposed jetty/walkway.

  - 5.3.1 Shore structure Yes/No a) Size (in meters) i) Length ~ ii) Width -
  - b) Describe structure
  - 5.3.2 Is there a connection between different types of jetties? Yes/No a) Describe nature of connection -

5.4 Provision for Shoreline Pedestrian Access Give details.

## 6 PROJECT ALTERNATIVES (ENVIRONMENTAL MERITS\_ OF PROPOSED JETTY/WALKWAY

6.1 Site suitability

6.2 Jetty location within the site - 6.3 Jetty type

6.4 Materials used

6.5 Jetty shape

6.6 Jetty orientation to the uplands

6.7 Other (specify)

## 7 CONSTRUCTION PHASE

7.1 Schedule

a) Proposed construction start date \_

b) Expected duration of construction

7.2 Work Force

a) Number of workers -

b) Type and location of workers' accommodation

7.2.1 Sewage disposal during construction

a) Expected type and amount of sewage

b) Method of disposing of sewage -

c) Destination of sewage -

7.2.2 Garbage disposal during construction

a) Expected type and amount of garbage

b) Method of disposing of garbage -

c) Destination of garbage -

7.3 Construction Details

7.3.1 Methods of construction a) Concrete

i) Precast Yes/No

If yes, specify method of transport to the site - ii) Onsite  
concrete mixing Yes/No  
iii) Off-site mixing Yes/No

If Yes, specify method of transport to the site -

b) Equipment used (specify type, capacity, and number of each) -

c) Amount of allowable excavation to be removed and method of disposal of  
excavated material (show location(s) of excavation, if any, on the general layout)

#### 7.3.2 Construction waste disposal

- a) Expected type and amount of waste per day (in kg/d) b)
- Method of disposing of waste -
- c) Destination of waste -

#### 7.4 Materials

List and describe construction materials not already mentioned in preceding sections (e.g., concrete forms, pile grouting. etc) and any required disposition of those materials after construction

#### 7.5 Utilities

- m) Water source and amount used per day (m<sup>3</sup>/d) -
- n) Electricity source and amount used per day (in kilowatt hours) o)
- Fuel type, source and amount used per day (litre/d) - i) Fuel storage during construction -

### 8 OPERATIONAL PHASE

#### 8.1 Water use

- a) Fresh water Yes/No -
- b) If yes, state purpose (e.g., washing, fire fighting, potable water for drinking) -
- c) Source, and conveyance system (tank or piped directly from resort water supply) -
- d) Estimated average quantity used per day (in m<sup>3</sup>/d) -

#### 8.2 Energy use

- a) Electricity Yes/No -
  - I) If yes, state purpose (e.g., lighting, connection to boat), source, connection/conduit, cable/wiring, and estimated average quantity used per day (in kilowatt hours) -

#### 8.3 lighting Yes/No

If yes, state number of lights and construction of lighting fixtures (noting design features to cope with weather, corrosion, and abuse), and the rated power of the fixtures

#### 8.4 Communications Yes/No -

If yes, state type (e.g., telephone, public address system) and number

#### 8.5 Solid waste

- a) Expected type and amount of waste per day (kg/d)
- b) Method of disposing of waste -

c) Destination of waste -

8.6 Jetty maintenance (State schedule and nature of maintenance)

8.7 Proposed methods of maintaining a non-slip surface on walkway

9 MITIGATION MEASURES

For Both the Construction and Operational Phases Describe:

a) Measures being taken to alleviate any disruption or potential harm to the environmental and archaeological factors (as described in Form Section 3.5)

b) Methods of controlling air emissions and related pollution

- c) Methods of controlling noise pollution -
- d) Methods of minimizing visual pollution -
- e) If electricity is part of the proposed jetty, state methods of minimizing electrical use
  - f) If lighting is part of the proposed jetty, state methods of minimizing visual pollution -
  - g) Methods of minimizing disruption of submerged lands from the installation of jetty of anchorage -
  - h) Measures to minimize impacts on coastal processes (erosion and sedimentation, if any
  - i) Measures to minimize impact on coastal water quality (e.g. turbidity and suspended sediments downstream and upstream of the jetty location) j) Design/construction measures to minimize shading of submerged lands -
  - k) Measures to minimize degradation or corrosion to jetty structure
  - L) Health, safety, and emergency measures
    - i) Fire fighting (e.g. fire distinguishers) - ii) Injuries (e.g. swimmers, divers) -
    - iii) Other (specify) -
  - m) Avoidance measures of oil spills from craft - n) Other

## 10 MONITORING PLAN AND BEST PRACTICES (BPS)

(Note: Change is measured against the base measurements taken in Form Section 3, and in accordance with Environmental Impact Assessment Guidelines for Marine and Coral Reef Monitoring for Red Sea Tourism Development Projects, EEAA/TDA, Egypt 2003).

- 10.1 Proposed method (and frequency) to monitor shoreline accretion, erosion, and any change of the geography of submerged lands from the base measurements
- 10.2 Proposed method (and frequency) to monitor the ongoing health of marine flora and fauna
- 10.3 Proposed method (and frequency) to monitor the ongoing water quality in the jetty area and any change \_
- 10.4 Health and safety
- 10.5 Other monitoring and best practice measures

## 11 ATTACHMENTS

List and attach the following, as required.

- 11.1 Main attachments



11.1.1 General location map of the project site showing the vicinity of the jetty/walkway location (placed on the Egyptian Surveying Authority quadrangle map and indicating site Surveying Authority coordinates).

11.1.2 General layout showing the proposed jetty/walkway location with reference to the site and showing the TDA local coordinates of the plot, location of jetty/walkway

with respect to plot boundaries and existing structures and set-back (as shown in Guidelines Fig. 1), depths of water (bathymetric survey map), topography of uplands (topographic map), and the location(s) of allowable excavation, if any. Note: provide as many drawings as necessary to satisfy these requirements.

11.1.3 Engineering plan, elevation and cross section drawings of the proposed jetty/walkway showing dimensions and size of proposed jetty/walkway including structural members such as piles, braces, deck, shoreline connection, anchorage arrangement and details, and physical setting and surroundings including reef flat conditions, tidal conditions and water depths. Note: provide as many drawings as necessary to satisfy these requirements.

11.1.4 Panoramic photographs of the project site and the shoreline area showing the location of the proposed jetty/walkway

## 11.2 Additional attachments

11.2.1 Detailed marine survey map and report - must be submitted if the location proposed was not approved under an EIA study for the Center or the resort where the jetty/walkway is located, and in accordance with Environmental Impact Assessment Guidelines for Marine and Coral Reef Monitoring for Red Sea Tourism Development Projects, EEAA/TDA, Egypt 2003.

11.2.2 TDA Approval Letter of the Center's IEAR study (must be submitted if the resort where the jetty/walkway is located does not have an approved EIA).

11.2.3 TDA Approval Letter of the resort EIA study or resort Form 'B' where the jetty/walkway is located. If the Applicant plans to use the Form 'B' for resorts to get EIA approval for the resort, he may submit the Form for the resort and this Form for the jetty/walkway in tandem. The approval of the jetty Form will be conditional upon the resort Form approval.

11.2.4 Soil conditions of submerged lands and results of soil boring.

## 11.3 Other attachments

List and attach the following, as deemed necessary by the Applicant, EEAA or TDA.

## 12 OPTIONAL NOTES

This section is provided for any additional optional notes the Applicant wishes to provide

## 13 CERTIFICATION AND SIGNATURE

I, the Applicant, hereby certify under penalty of law that all the information given in this application concerning the design of a recreational jetty/walkway, and all the related design information is accurate and a true reflection of the location, use, and design of the proposed jetty/walkway and related data. I further certify that the design of all jetty/walkway components including piles and anchorage systems meet Egyptian construction code standards for strength and accepted use, and complies with all relevant design guidelines and stipulations issued by Egyptian authorities or/and acceptable international standards.

This jetty or walkway was designed by:

Name of design firm or designer Telephone

Fax E-mail

Address

Contact Person and Position

I, the Applicant, hereby also certify under penalty of law that all the information given in this application for the installation and operation of a recreational jetty/walkway, and all the related attachments, is accurate and a true reflection of the location, use, and design of the proposed jetty/walkway and related data. I further certify that any errors, corrections, or changes to the information supplied will be submitted promptly to the EEAA for review, otherwise I agree that any approval of this application becomes void.

This Form was prepared by, if prepared by EIA consultant(s) or firm, then provide name(s):

Name(s) of EIA Consultant name or firm

Certified by (name of person in charge or the authorized person) Title and position (title and position of the authorized person) \_ Passport or ID number

Date Signature