

# Guidelines for Planning a Marina Development

July 2001



These Guidelines do not constitute professional advice from the Marine Institute for marina development nor do they in any way create a legally binding obligation upon the Marine Institute or form in any way a legal document or a legal basis for same. Professional advisors should be retained at all times for all aspects of marina development.

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The MAYA project is a project executed within the scope of the Interreg II C programme in the NWMA region, with the support of the European Union.


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**TABLE OF CONTENTS**

<b>1.</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>2.</b>	<b>PLANNING GUIDELINES FOR MARINA DEVELOPMENTS</b>	<b>2</b>
	Planning procedure	
	Preparatory and Feasibility Studies	
	Development Proposal and Pre-planning Scoping	
	Environmental Impact Assessment	
	Foreshore Leases or Foreshore Permission	
<b>3.</b>	<b>TECHNICAL GUIDELINES FOR MARINA DEVELOPMENT</b>	<b>9</b>
	Location	
	Size	
	Storm Protection	
	Berthing Arrangement	
	Pontoon Locating System	
	Water Depth	
	Pontoon Materials	
	Pontoon Services	
	Safety Equipment	
	Navigation Aids	
	Access to Berths	
	Marina Administration	
	Marina Shore Facilities	
	<b>APPENDIX 1 – FORESHORE ACTS 1933 - 1998 – GENERAL GUIDANCE NOTES</b>	<b>13</b>
	<b>APPENDIX 2 – PROCEDURES FOR DEALING WITH FORESHORES LEASES AND LICENCES</b>	<b>14</b>
	<b>APPENDIX 3 – PLANNING PROCEDURE</b>	<b>15</b>
	<b>APPENDIX 4 – ENVIRONMENTAL IMPACT STATEMENT SCOPING</b>	<b>16</b>



## 1. INTRODUCTION



Marine Leisure and boating is an increasingly popular activity in Irish coastal waters. An ESRI (1996) survey indicated that many more people could be encouraged to participate in coastal boating and watersports if facilities were improved. These facilities can range from simple structures such as slipways and floating pontoons to large scale marina complexes. In response to the growing demand for better facilities, funding will be provided under the National Development Plan 2000-2006 for the upgrading or enhancement of coastal facilities and the development of new facilities. This funding will be administered by the Department of the Marine and Natural Resources.

The Marine Institute is the national agency charged with responsibility for co-ordinating marine research in Ireland. During 2000-2001 the Marine Institute participated in an Interreg IIc Project MAYA – Marinas and Yachting in the North West Metropolitan area. A key objective of this European project was to develop common standards for marina development. As part of this project, the Institute commissioned Brady Shipman Martin, Kirk McClure Morton and Fitzpatrick Associates to assess planning, technical and safety issues relevant to marina development.

The resulting publication, *Guidelines for Planning a Marina Development* illustrates the steps to be taken when preparing an application for Planning Permission and a Foreshore Lease/Permission for a coastal marina development. The guidelines highlight that the development of marine leisure infrastructure is a process which requires careful planning. Consultation, particularly at an early stage, with both the Department of the Marine and Natural Resources and the relevant Local Authority on key issues such as planning policy, navigation, safety, and conservation designations can greatly enhance the prospect of achieving a successful marina development.

**2. PLANNING GUIDELINES FOR MARINA DEVELOPMENTS**

2.1 Marine leisure developments can range from the provision, usually by a Local Authority, of simple public infrastructure/facilities such as slipways or floating pontoons to development of sophisticated marina complexes that may include hotel, residential and retail components. The decision to seek development of a marine facility may be motivated by public demand or, in the case of private development, by the prospect of profit. In any event, whatever the scale and motivation, development in the marine/freshwater/terrestrial margins requires the interaction of public and private interests in what can be a complex process. Most marine leisure/marina type developments, depending on scale, will include elements of the following process:-

- Pre-planning and organisation.
- Concept development – consultation with the Local Authorities, Department of the Marine and Natural Resources, Dúchas and, where appropriate, the local Port or Harbour Authority.
- Design and technical feasibility analysis.
- Obtaining planning permission.
- Obtaining a Foreshore Lease or Foreshore Permission .<sup>1</sup>
- Possible requirement for an Environmental Impact Assessment (depending on scale).

2.2 For the private developer, the critical factors most likely to hinder development are:

- Poor or ill advised choice of site.
- Ill conceived project, not properly researched.
- Failure to consult the relevant statutory authorities and interests.
- The attachment of otherwise avoidable conditions to the Foreshore Lease/Permission due to lack of pre-planning consultation with the Department of the Marine and Natural Resources.
- Failure to understand the market or to

meet market standards.

- Conflict with local interests, sectoral interests, third parties, development plans or strategies.
- Failure to achieve planning permission or Foreshore Lease or Foreshore Permission.

Most of these obstacles can, however, be avoided by careful planning and project management.

2.3 During the 'pre-planning/organisation' stage the intending developer, whether public or private or a partnership of both, will be obliged to address a number of key questions. For example:

- What is the scope, scale and objective of the project?
- Where can the project be situated, what are it's needs in terms of access, location, etc?
- Is the chosen site suitable for the scale and scope of development planned?
- Is there scope for future expansion of the development?
- Are there alternative sites available?
- Is there a plan or strategy in existence that would/should guide location and scale?
- Will the Local Authority/community/others be supportive of the project?
- If local or sectoral opposition is anticipated how might it be assuaged?
- What is the market/need/demand for the planned developments?
- Is the project likely to attract finance – is it an economic proposition?
- What is the competition like?
- What permissions or licenses are needed for such a development?
- What technical expertise is needed to develop the project concept and guide it through to implementation?
- Is the site in proximity to a designated environmentally sensitive area?

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2    1    A development on privately owned foreshore requires Foreshore Permission from the Minister for the Marine and Natural Resources

2.4 These questions may, of course, be re-stated as issues. If the developer is a Port or Local Authority, many of these issues will have been resolved through the Development Plan process in which a strategy for the development of marine/freshwater leisure will have been considered as part of the resource management review. In the case of a private or community development initiative, the situation may not be as clear-cut. Development initiatives often begin with a site that happens to be in the ownership or control of the individual or community. The site may or may not be suited to the purpose intended.

2.5 All of this points to the need, at the very outset, for the developer to:

- Consult (informally) the Department of the Marine and Natural Resources, the relevant Local Authority and the local Port/Harbour Authority who will have the knowledge and expertise to advise on siting and other technical issues and will help with the interpretation of Development Plans and Local Area Plans. They may already have studied many of the issues the developer is now addressing for the first time.
- The statutory plans for the area indicate where (spatially) different uses and activities will be permitted to take place and will also indicate specific objectives for particular locations within the jurisdiction. Some of these (access roads, infrastructure, coastal protection, etc.) may relate directly to marine/water leisure development and could have a critical bearing on the project. Consult all current development plans for the area in question, seeking both support and information.
- Consult the appropriate sectoral development strategies and plans (tourism, marine, fishing, and urban renewal) for guidance. These generally relate to national and regional development and may not necessarily deal with the spatial distribution of local infrastructure/ facilities. They will, however, be concerned with matters of

policy, priority, implementation and finance and can be a valuable source of information and guidance.

- In future, proposed marina developments will also have to take cognisance of the City/County Development Boards (CDBs). These bodies, which are made up of representatives of Local Government, local development agencies, the state agencies and the social partners in the city/county, have recently been set up on a statutory basis. They are responsible for developing a strategy for economic, social and cultural development for their area, which will provide a broad framework within which all other agencies will operate. The strategy will guide economic development at local level and will operate in tandem with the County Development Plan. Plans for tourism/leisure/recreation development will also be affected by the strategy.

2.6 Following this informal consultative phase, the project concept can be reviewed and preliminary development studies commenced. Alternatively it may be necessary to rethink the scope and scale of the project or to conduct a new site search.

2.7 A considerable amount of relevant information is readily available at both national and local level. By accessing this information at the beginning, serious mistakes can be avoided and time and money saved on the project. Getting the project in scale and harmony with local capacities and local community aspirations is a vital first step in the process.

2.8

**Development of a marina or berthing facility will require both Planning Permission from the Local Authority and a Foreshore Lease / Permission from the Department of the Marine and Natural Resources.**

### Planning Procedure

- 2.9 Planning permission must be obtained from the relevant planning authority before commencing development<sup>2</sup>. It is important to be aware that the planning process for all types of development can be lengthy. A planning authority must determine a planning application within eight weeks of receipt of the application, but the authority can extend the time period either by mutual agreement with the applicant or (when justified) by requesting additional information. The decision of a planning authority can be appealed by the applicant or by third parties to An Bord Pleanála within a further four weeks. An Bord Pleanála then have a further twelve weeks to determine the appeal. However there is a need to be aware that this time period can also be extended.
- 2.10 To ensure that the planning authority can make its decision within two months and, in order to reduce the likelihood of requests for additional information, it is important that, whenever possible, the project/proposal is discussed with the Local Authority prior to lodging the planning application. This will ensure that all relevant planning issues are identified at the outset. Clearly any issues raised by the Local Authority need to be dealt with in the planning submission. Sufficient time must be allowed for the full planning process.
- 2.11 In advance of lodging a formal planning application, it would also be important to consult formally with the Department of the Marine and Natural Resources, the relevant Port Authority and with fishing and other marine interests present in the area.
- 2.12 Flow chart Appendix 3 - Planning Procedure, illustrates the basic steps which will need to be undertaken in preparing a planning application for a marina development. The scenario described assumes that the developer has already identified a site for the proposed development.

### Preparatory and Feasibility Studies

- 2.13 Most substantial developments will require that a series of sub-studies be undertaken in order to prove the practicality of the project. These should also contain the necessary information to support the design of the development and the documentation for the necessary planning permissions and licenses. The requirement will vary from one project to another, however any major project might typically include:
- Context study
  - Site investigation and analysis
  - Technical studies
  - Economic Appraisal
- 2.14 These various studies are complementary and can usually be undertaken in parallel, however, in planning a development programme it is important to allow sufficient resources in terms of time and funding for their preparation. The scope of these investigations will depend upon the nature and scale of the development.
- 2.15 **Context studies** will usually include description and analysis of the physical and social environment of the proposed project. The Context Study will also establish the planning context for the project and confirm the steps and documentation needed to progress the development to implementation stage. In this investigation the significance of any relevant Government policies, programmes and/or guidelines need to be considered. Other key documents will include the relevant Local Authority Development Plan and any Local Action Plans or special sectoral studies. For example, tourism or aquaculture or any plans likely to affect the development of the area and/or provide support or act as a constraint on the proposal.
- 2.16 The County Development Plan, which is reviewed every 6 years, is the basic policy document of the Local Authority. The Plan sets out any objectives which the Local Authority have in relation to marine/coastal development and will provide information on any special



environmental designations, zoning and land use in the area. It is essential to establish if the proposed site is zoned and if so, what type of development it is zoned for. The type of uses and activities permitted on the proposed development site will obviously influence the scope of the overall development proposal and the likelihood of the project achieving a planning permission. This is particularly the case where the proposed marine project forms just one element of a development, for example, a mixed use development consisting of a hotel/residential units and a marina.

- 2.17 Development Plan standards relating for example to plot ratio, car-parking and building height/design will also affect what can be facilitated on the site.

**What if your site is not deemed suitable?**

If the site is not zoned for the proposed use the developer may consider a number of options for example:

- Look (perhaps with the assistance of the Local Authority) for an alternative site.
- Alter the scope of the proposal to more closely reflect the land use zoning or existing designations.
- Seek the re-zoning of the land to provide for the proposed use (a lengthy process)
- Lodge the Planning Application and request that permission be granted by way of a 'material contravention' procedure. (This is a somewhat complex procedure in its own right requiring that three-quarters of all of the County Councillors vote in favour of granting Planning Permission for the development.)

It is important to remember that each of these options carries its own time penalty.

- 2.18 Development Plans also contain certain landscape and nature conservation designations, such as Special Area of Conservation (SAC), Special Protection Area (SPA) and Natural Heritage Area (NHA). It is unlikely that any development which adversely

affects these designations will be permitted on the site. If the site does contain a nature conservation designation, consultation with Dúchas, The Heritage Service, will be required to establish what they consider to be an appropriate development on the site. Each of the previously mentioned designations will influence the development proposal, if they are present.

- 2.19 The infrastructural needs of the project and the infrastructural capacity (water, road access, sewer, power, communications) of the area to accommodate any planned development will need to be examined and the means of connecting to these services considered.

- 2.20 **Site investigation and analysis** concern the details of the physical and environmental characteristics of the subject site and might include, for example, topographical/marine survey, hydrology, assessment of ground conditions (soil testing), vegetation cover, fish and fisheries/ aquaculture, archaeology (marine and terrestrial) and landscape/seascape evaluation.

- 2.21 **Technical studies** will be required to address such issues as water depth, tidal conditions, weather patterns, the need for dredging, navigation requirements, the need for storm protection, construction standards and access. (See section 3 – Technical Guidelines for Marina Developments.)

- 2.22 A technical (feasibility) study may be required as an integral part of the process to identify the most suitable site for marine development. Alternatively, a site may have already been identified for reasons other than technical, in which case, a study would be required to confirm technical feasibility.

- 2.23 A technical feasibility study will typically comprise the following elements:-

- Topographic survey to provide details of the (adjacent) land
- Hydrographic survey to provide information on water depths and impacts

on navigation

- Trial pit and borehole site investigation to provide information for foundations to structures and dredging operations.
- Tide, wave, wind and current review.
- Computer modelling to provide design information on existing regimes
- Investigation of shore based facilities
- Conceptual/outline designs.

2.24 **Economic Appraisal.** A complete economic appraisal of projects is usually necessary to firstly determine whether the project is feasible, and secondly to establish what the optimum scale of development is (e.g. the number of berths and level of ancillary facilities). The Economic Appraisal will have a number of elements:

- A thorough examination of the socio-economic profile of the marina's catchment area is necessary to gauge the likely level of local demand for resident berths, which is typically crucial to the ongoing viability of most marina developments. Elements of this analysis would include an examination of population levels and trends within defined catchment areas (e.g. 1-20 miles, 1-40 miles), a review of economic growth and income levels, and analysis of trends in employment growth and unemployment.
- It will also be necessary to review the market for marina-based activities in the area. This might require primary and secondary research to determine the levels of marine leisure activity among local residents, the location of this activity, or the propensity to take up marina activities if more facilities are provided. Information on visitor activity at other marinas in the area would also be pertinent, including analysis of future prospects in key visitor markets. In particular, it would be important to show the extent to which the project would provide additional visitor activity (e.g. by expanding the coastal network of

facilities) rather than displacing activity at other marinas.

- Activity projections will need to be developed, including projections for direct and indirect revenues/economic impact, based on the socio-economic and market analysis. The benefits would also need to be weighed up against the costs incurred in developing the project, and should provide guidance as to the optimum scale of development.

2.25 A typical economic appraisal will examine the pattern and functioning of existing/proposed marine facilities in the area, market conditions, the socio-economic profile of the area, existing and potential participation in marine activities, cash flow, potential financing arrangements, returns on investment and phasing. This, together with the analysis of market demand will help identify the 'gap' in the market and will assist in establishing the scope, size and type of facility that is required and that is most likely to succeed.

### **Development Proposal and Pre-Planning Scoping**

2.26 Once the various feasibility studies have been completed it will be possible to prepare a preliminary development proposal or 'concept development plan' for the site. It is at this stage that formal pre-planning discussions are entered into with the Local Authority. The situation with regard to Planning Permission is itself an important aspect of feasibility. This will allow the Local Authority to communicate any concerns relating to the proposal and, as noted above, these will need to be addressed in detail in the formal Planning Application. These discussions also give the developer an early indication of what the views of the Local Authority are on the development.

2.27 During these pre-planning discussions the Department of the Marine and Natural Resources and the Local Authority the developer should seek to clarify whether or not an Environmental Impact Assessment will be required. If it is required, the scope will also

have to be clarified. Certain marine developments have EIA as a mandatory requirement (see below).

### Environmental Impact Assessment

2.28 Following the pre-planning consultations it may be necessary to amend the proposal or even, in certain circumstances, to consider abandoning the proposal outright. If the developer intends to continue with the development, the next stage will be the preparation of the documentation for the formal planning application. This documentation may include preparation of an Environmental Impact Assessment. The Local Authority and/or the Minister for the Marine and Natural Resources may request an environmental impact statement if deemed necessary, notwithstanding the statutory mandatory requirements.

Currently the following marine related projects carry a mandatory requirement for an EIS:-

- Sea water marinas with 300 or more berths
- Freshwater marinas with 500 or more berths
- New or extended harbours and port installations where the area or additional area of water enclosed would be 20ha+ or which would involve the reclamation of 5ha+ of land or the construction of quays exceeding 500 metres in length.

2.29 If an EIS is required, (and this might be determined at the first meeting with the Local Authority or Department of the Marine and Natural Resources) it is advisable for the developer to 'scope' the process with the Department of the Marine and Natural Resources/Local Authority, before commencing with the work of preparing the document. Scoping of an EIS is not mandatory, it is at the discretion of the developer, but it is advised (by the Environmental Protection Agency) in the interests of all parties.

2.30 Scoping is usually an informal process in which the developer submits his scoping document to the relevant state agency. This document will set out the headings under which the EIA will be prepared and the key issues that will be addressed. The Department of the Marine and Natural Resources/Local Authority is, in turn, obliged to respond to this either by accepting the proposal as set out, or with a request for further information.

2.31 In the event of disagreement there is a formal procedure laid down whereby, within three weeks of receipt of the scoping document from the developer, the Department of the Marine and Natural Resources/Local Authority must notify all relevant parties and call for submissions on the scoping document within the following one month period. Following this the Department of the Marine and Natural Resources/Local Authority must make a formal response to the developer concerning the scope of the EIA.

2.32 Once the scope is agreed, the preparation of an EIS may proceed, this usually follows the steps outlined in Appendix 4 - Environmental Impact Statement Scoping. This will include the commissioning and co-ordination of a number of specialist reports. Typically these will cover the impacts relating to:

- Flora and fauna
- Hydrology
- Air quality
- Dust
- Noise and vibration
- Material assets
- Landscape and visual appraisal
- Cultural heritage.
- Marine and terrestrial archaeology

2.33 Once the EIS has been prepared and the design documentation is completed the Planning Application can be lodged with the relevant Local Authority.

**Foreshore Leases or Foreshore Permission**

2.34 For any marine related development a Foreshore Lease / Permission must be obtained from the Department of the Marine and Natural Resources as well as Planning Permission from the planning authority. Planning permission regulates development on land but most development on the foreshore is not regulated by the Planning Acts because the land beyond the high water mark is almost always outside the jurisdiction of the Planning Authority. Foreshore is defined in the Foreshore Act 1933 as *'the bed and the shore below the line of high water of ordinary or medium tides, of the sea and of every tidal river and tidal estuary and of every channel, creek, and bay of the sea or any such river or estuary and extends to the twelve nautical mile territorial limit. The seashore means the foreshore and every beach, bank and cliff contiguous thereto and includes all sands and rock contiguous to the foreshore.'*

2.35 The State owns almost all of the Irish foreshore and the Minister for the Marine and Natural Resources can control developments and other activities on the State foreshore. This is done by way of Foreshore Licences/Leases.

2.36 Permission must be obtained from the Minister for the Marine and Natural Resources for the erection of any building, pier, wall or other structure on the foreshore, irrespective of whether it is state owned or privately owned. It is difficult to obtain authorisation from the Minister for any development on the foreshore until any Planning Permission and any other mandatory authorisations required for the same development have been obtained.

2.37 Applications for a Foreshore Lease/Permission are submitted to the Coastal Zone Administration Division of the Department of the Marine and Natural Resources in Dublin (See Appendix I - Foreshore Acts 1933 to 1998 – General Guidance Notes, Department of the Marine and Natural Resources). The following are the principal requirements of an application:-

- Map showing precise area below Mean High Water.
- Plans, elevations and sectional drawings in sufficient detail to allow technical assessment of the proposal
- Details of the applicant's legal advisors
- Publication of intent to develop in the Press. The wording of the notice must be approved by the Department, which will advise on the publications in which it should appear.
- Consultation with the Department at the scoping stage of any Environmental Impact Study
- The Foreshore Lease/Permission will be subject to any planning conditions being imposed.

Appendix 2 outlines procedures for dealing with applications for Foreshore Leases/Permission.

## SECTION 3

### 3. TECHNICAL GUIDELINES FOR MARINA DEVELOPMENTS

- 3.1 The marina as we know it today is the result of an evolutionary process which has taken place since the 1960's. Technical improvements have been driven by the requirement for cost effective, convenient and reliable pontoon berthing systems and the increasing need for efficient use of land and water space, having due regard to environmental considerations.
- 3.2 The present day marina as defined by the Yacht Harbour Association is "a facility for the berthing of pleasure craft providing direct walkway access to each boat, and adequate depth of water at all times, car parking, toilet facilities, services and other amenities".
- 3.3 The term marina has been applied to many pontoon berthing facilities around the country not all of which can fulfil the above criteria. Frequently, the size of the marina determines the range and quality of facilities provided. The number of berths in a marina can be as few as 25 in the smaller developments and up to over 1,000 in the larger developments. A successful marina must have sufficient berths to be economically viable, sufficient berths to satisfy the demand from the catchment population and sufficient additional berths available at all times for visiting boats.
- 3.4 Berth holders expectations will differ and in some locations, the provision of all amenities may not be appropriate, in more affluent areas, a complete range of facilities may be expected.

#### Location

- 3.5 Marinas are normally located in areas where boating activity is already present or where there is substantiated demand for such facility. The marina site should have an adequate catchment population for financial viability, drawing from a suitable socio-economic area. It should be readily accessible by land and sea so that resident berth holders and visiting

yachtsmen will find it convenient. Those marinas located adjacent to urban areas will have the greatest chance of success as the marina and the town will potentially benefit from each other's activity.

- 3.6 In recent years the potential for property development overlooking a marina has been realized and in many cases has been the determining factor in the choice of location.
- 3.7 Another factor to consider with regard to the location and scope of marina facilities is the possible re-use /refurbishment or extension of existing marine infrastructure. There are many under-used and sometimes derelict facilities in the smaller ports and inlets scattered around the coastline which might well provide a framework for new development. In such areas there may also be opportunities to integrate with local interests (e.g. fishing, tourism, community) to develop facilities that serve local needs and that may not be justified on purely economic grounds. The Marine Leisure Measure of the National Development Plan 2000-2006 encourages integrated development in fishery ports and harbours.
- 3.8 The Marine Institute has also published **A Development Strategy for Marine Leisure Infrastructure (2001)**. This report identifies indicative locations where marine leisure infrastructure may be developed, taking into consideration criteria such as "sea to land" and "land to sea" access requirements, scale of development and local demand for leisure boating facilities.

#### Size

- 3.9 There is no ideal size for a marina. The number of berths will be influenced by factors including catchment population, proximity to cruising routes, existing boating activity and physical constraints on available area.
- 3.10 Frequently marinas increase in popularity over time and the opportunity for expansion should be considered. A phased development is usually appropriate so that expenditure is balanced

with demand. A well placed marina will seldom be short of customers.

### Storm Protection

- 3.11 Wave heights within a marina should not exceed 300mm. In most cases therefore it will be necessary to attenuate the storm waves approaching the site. Depending on incident wave height and wave length it is likely that either a floating or more usually a fixed breakwater will be required. Breakwater design should be based on a 1 in 50 year storm.
- 3.12 Wave heights in excess of 300mm at the pontoons will increase wear and tear on the floating elements, will result in abrasion between vessel and pontoon and will create an uncomfortable berth.

### Berthing Arrangement

- 3.13 The berthing arrangement will reflect the size and shape of the marina enclosure and the distribution of boat size to be accommodated. The system of walkways and finger berths is accepted as providing the most efficient layout. It is the design of finger sizes, finger spacing and walkway spacing which has to be tailored to meet the requirements of each marina.
- 3.14 Generally marinas should cater for the full range of popular boat sizes and it is the distribution of these sizes which should be determined at the outset. Once pontoon berths have been installed there is only limited scope for adjusting the layout without major disruption to the anchoring system and services installation. Marina developers should investigate the trend in boat size distribution in the development area and compare with other establishments in similar socio-economic/boating activity areas.
- 3.15 The published information on marina design and construction will guide the designer in a recommended layout. Local factors should then be considered in arriving at the final design.

### Pontoon Locating System

- 3.16 Two systems are available to the marina designer: Piles and Mooring Chain. The piled system should be adopted whenever possible. Once installed the system will be almost maintenance free and have a life span under normal conditions of at least 50 years. The piles will permit vertical movement only in the pontoons and this simplifies access bridge details, reduces stresses on pontoons and their connections and allows best use to be made of available water space.
- 3.17 Where difficult ground conditions are met which would result in costly piling the designer may be forced to adopt the system of mooring chain and anchor blocks. Although this system is frequently used, its main disadvantages are high maintenance, increased stresses on pontoons, lateral movement due to wind and tide and possible fouling of deep drafted vessels. The moored system is best suited to areas with maximum shelter and little or no variation in water level.

### Water Depth

- 3.18 The marina designer will take account of boat draft in addition to length and beam. Marinas should cater for large and small motor boats as well as large and small keel boats.
- 3.19 The requirement for water depth will therefore be related to boat size and type distribution. The cost of dredging can be a significant element of the development costs and it may therefore be more economic to create areas of differing depths throughout the marina. Pontoon berths are generally arranged so that boat sizes are grouped and dredging can be designed to suit. The disposal of dredging material will require special attention. Material may be disposed of at a designated site at sea or at land. In either case a licence will be required from the Department of the Marine and Natural Resources.
- 3.20 A minimum water depth of 2.7m to 3.0m will cater for the vast majority of leisure craft using

marinas. Where provision has to be made for exceptionally deep drafted boats, specific berths can be provided with deep pockets. A requirement for periodic maintenance dredging should be expected. The frequency of maintenance dredging will be related to matters such as wind, tidal current, the sediment load of adjacent waters and marina entrance configuration.

- 3.21 Frequently it is the approaches to the marina which restrict the water depths and, unless costly capital and maintenance dredging outside the marina is carried out, access may result in some tidal restriction. Existing water depths may therefore be a significant consideration in the choice of marina location.

### **Pontoon Materials**

- 3.22 The marina designer has a choice of materials from which the various elements can be manufactured. Typically, a marina pontoon structure has three main components: deck, supporting structure and floatation units. The recommended material for the deck is either hardwood, treated redwood, or concrete. The pontoon structure should be galvanised steel, marine grade aluminium or timber (hardwood or treated redwood). Floatation units should be high density expanded polystyrene encased in concrete or polyethylene tanks. In the case of heavy duty pontoons the deck, structure and floats may be an integral unit.
- 3.23 Generally a designer will choose from a range of proprietary systems rather than specifying purpose made products and therefore the choice of materials may to a degree be dictated by pontoon suppliers.
- 3.24 When selecting pontoon equipment, the long term maintenance costs, as well as initial capital cost, should be considered.

### **Pontoon Services**

- 3.25 Pontoon services such as water, lighting and power, should be provided to all berths in a modern marina.
- 3.26 Pontoon lighting should be provided by regularly placed service bollards. This should be low intensity but adequate to define the walkways at night time. Electrical power should be available to each berth and this can be supplied from the service bollards. The question of metering electrical supply is a marina management issue. Some may make a separate charge whilst others may incorporate the cost in berth rental.
- 3.27 Potable water is generally not required at each berth. Regularly placed water stanchions with hose is the normal provision. However, the developer may consider that individual water supplies should be provided on berths aimed specifically at the top end of the market.
- 3.28 The mobile phone has largely replaced the need for telephone connection points on the berths and connection to landlines is no longer considered to be necessary. However, a convenient land line should be available for emergency calls. This would be particularly important in remote locations where a good mobile signal strength is not available.

### **Safety Equipment**

- 3.29 There is always the possibility of fire, personal injury or man overboard situations in the marina environment. Marinas should therefore provide equipment to deal with these situations.
- 3.30 Emergency cabinets on the pontoon walkways should be provided at regular intervals. Typically these cabinets should contain fire extinguishers, first-aid materials and a lifebuoy with line. Emergency ladders for the recovery of personnel from the water, should be provided at regular intervals along marina walkways.

### Navigation Aids

- 3.31 Marina entrance, fairways and any hazards should be marked using leading lights, sectored lights, perches and marker buoys as appropriate in accordance with IALA (International Association of Lighthouse Authorities) convention.

### Access to Berths

- 3.32 Marina security is an important consideration in marina design. Whilst a totally enclosed site, with no public access is not desirable, a degree of control to the pontoons is essential. Ideally there should be only be one point of entry and exit from the berths. A well designed security gate with CCTV need not be obtrusive yet can be effective in restricting access to authorised personnel only. On larger marinas with administration buildings, access to the pontoons can be via the building itself.
- 3.33 Public access along the boundaries of the marina is to be encouraged and in these areas security is achieved by the water barrier between pontoon and land.
- 3.34 Access bridges on large marinas should be sufficiently wide to accommodate the two way passage of personnel with trolleys. In sites where there is a significant tidal variation it is seldom practicable to provide access bridges suitable for unassisted disabled access. Gradients may be quite steep at low water but should not exceed 1 in 4.

### Marina Administration

- 3.35 All but the smallest of marinas should have a building to house administration and berth holders facilities. Berth holders expect their marina to be operated efficiently with staff available to sort out problems and provide information. Berth holders facilities should include toilets, showers, laundering and basic food stuffs where appropriate.

### Marina Shore Facilities

- 3.36 The most popular marinas will have a range of shore facilities to cater for the needs of resident berth holders and visitors. The following facilities should be considered by the developer:-
- Berth holders carparking at the rate of at least 0.5 spaces per berth.
  - Boat dock and hoist for repairs, maintenance and winter storage.
  - Winter boat storage with power and water for maintenance and repairs.
  - Pontoon berthing specifically for the supply of marina fuels.
  - A pump-out facility for the disposal of sewage and grey water to either the Local Authority sewer or to a dedicated sewage treatment package.
  - Central point refuse disposal convenient for but not adjacent to the berths.
  - Other facilities which are often franchised include boat sales and charter, boat repairs, chandlery, retail food and drink, pubs and restaurants.

### Conclusion

The development of a good network of coastal facilities has the potential to increase marine tourism and recreational activity as well as offer improved amenity and leisure benefits. These guidelines highlight the basic procedures which need to be followed for a coastal marina development. The information provided is intended to supplement professional advice which will be necessary for the implementation of a marina development project. A well planned project should ultimately lead to a marine leisure facility, designed to meet the highest safety and quality standards, in harmony with the principles of sustainable development.



## APPENDIX 1

**FORESHORE ACTS 1933 TO 1998 - GENERAL GUIDANCE NOTES**

The Foreshore Acts require that before the commencement of any works (including the erection of any structures) on State-owned foreshore a licence or lease must be obtained from the Minister for the Marine and Natural Resources. Foreshore is the land and seabed between the high water of ordinary or medium tides (shown HWM on Ordnance Survey Maps) and the twelve-mile limit (twelve nautical miles is approximately 22.24 kilometres).

Applicants for lease or licence are urged to consult the Department well in advance of finalising their proposals. An application for a lease or licence must be accompanied by 10 copies of each of the following documents and sent to:

Coastal Zone Administration Division,  
Department of the Marine and Natural Resources,  
Leeson Lane,  
Dublin

1. Ordnance Survey Map of 25" scale (latest edition) showing the precise area and the hectareage involved below the line of high water of medium tides clearly marked on the Map in distinctive colour.
2. Plan, elevation and sectional drawing showing clearly the nature of the proposed works and lines and levels of high and low water of Spring tides.
3. Longitudinal section showing clearly how such works will be laid in relation to the surface of the seabed and having delineated on it the lines and levels of high and low water of Spring tides.
4. Name and address of legal advisor. Applicants are strongly advised to seek legal assistance, prior to agreeing to accept a Foreshore Lease/Licence, as they will be entering into a legal contract.

Where the application is bulky or comprises information shown in colours or is greater than A3 in size, additional copies may be requested to facilitate examination by the Department's specialist advisors.

Applicants are required to publish notice of their proposals in newspapers circulating in the area. The Department will prepare the notice and specify the newspapers in which it should be published. A three-week period is allowed for representations and objections to be made to the Minister. The applicant is allowed an opportunity to comment on these before

the final report is made to the Minister. The report will detail the proposal, the process that has been gone through, objection and commentary on them, recommend whether or not to grant a lease or licence and if so under what conditions.

Certain developments are subject to the European Communities (Environmental Impact Assessment) Regulations, 1989 to 1999. An application for any development above the relevant threshold in the Regulations must include an Environmental Impact Statement (EIS). Applicants are encouraged to seek the Department's opinion at the scoping stage of the EIS. An appraisal of the environmental effects of a development below the threshold must be submitted by the applicant to allow the Minister to decide whether it is likely to have significant effects on the environment. Where the decision is "yes" an EIS is mandatory. The public consultation period for an application requiring EIS is one month and copy of the EIS must also be provided by the applicant to the consultative bodies' name in the Foreshore (Environmental Impact Assessment) Regulations, 1990 [SI NO 220 OF 1990].

Attention is also directed to the Local Government (Planning Development) Acts and Regulations thereunder which provide that permission must be sought and obtain from the Local Planning Authority, i.e. County Council, Corporation, etc., before undertaking any development which is not exempted from planning control. Any lease, licence or permission which might be given under the Foreshore Acts would be without prejudice to the powers of the Local Planning Authority. Applicants should, therefore, consult with the Local Planning Authority regarding their proposal.

Applicants seeking permission to lay an outfall or discharge pipe on the foreshore should also apply to the Local Authority or the Environmental Protection Agency for a licence under the Local Government (Water Pollution) Acts.

A development on privately-owned foreshore also requires the prior permission of the Minister under the Foreshore Acts.

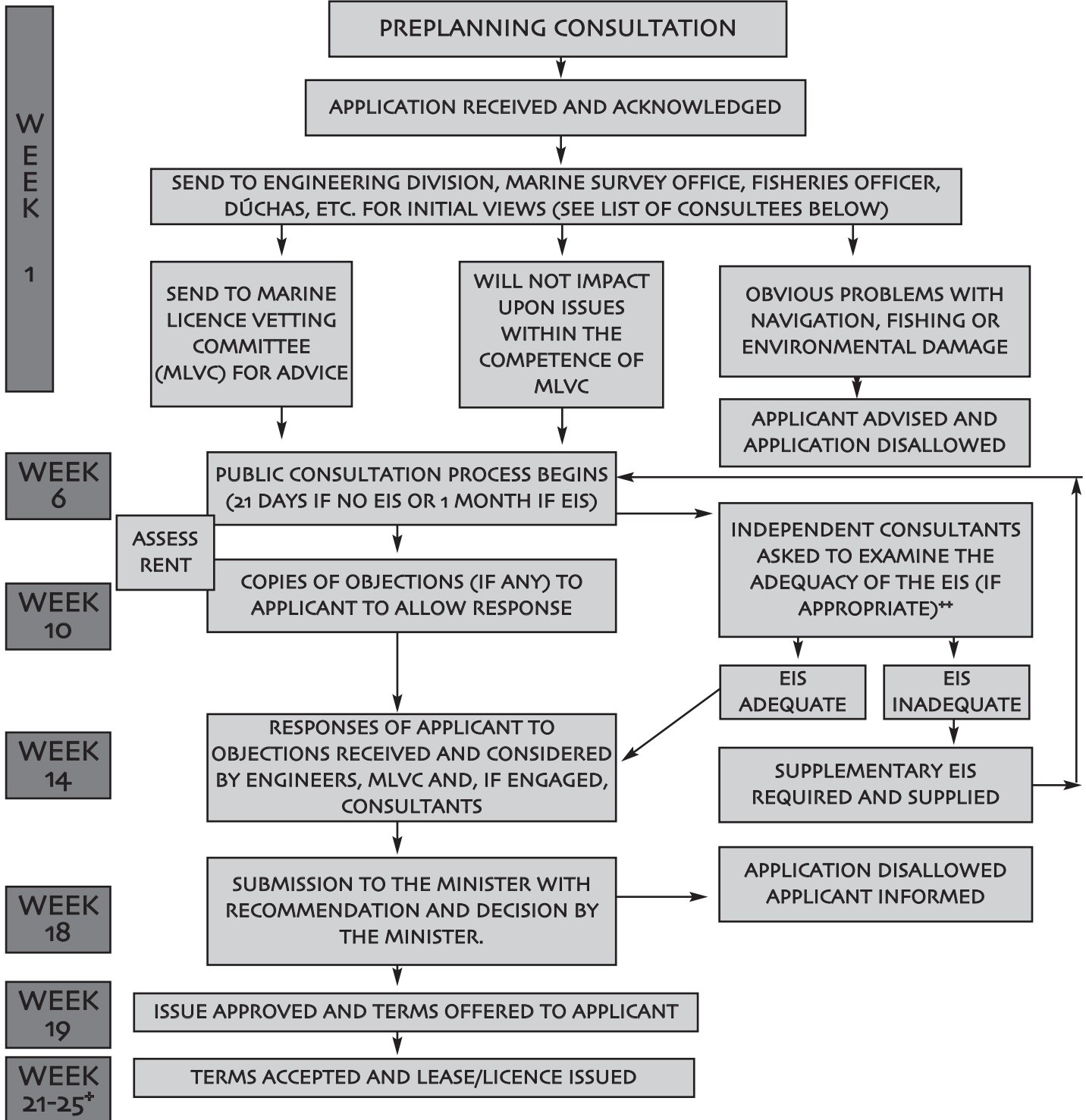
The Department of the Marine and Natural Resources (Coastal Zone Administration Division) will be pleased to assist with any enquiries.

Telephone: (01) 6199261

email: [contact@marine.irlgov.ie](mailto:contact@marine.irlgov.ie)

**APPENDIX 2 – PROCEDURES FOR DEALING WITH APPLICATIONS FOR FORESHORE LEASES AND LICENCES**

(BEST TIMESCALES ARE SHOWN AS INDICATIVE ONLY)



The following is a list of the Department's Specialist Advisors, who are consulted in relation to projects:

- Department of the Marine & Natural Resources, Engineering Division
- Department of the Marine & Natural Resources, Sea Fisheries Control Division
- Marine Survey Office
- Dúchas, The Heritage Service
- Marine Licence Vetting Committee
- Oceanographer (Marine Institute),

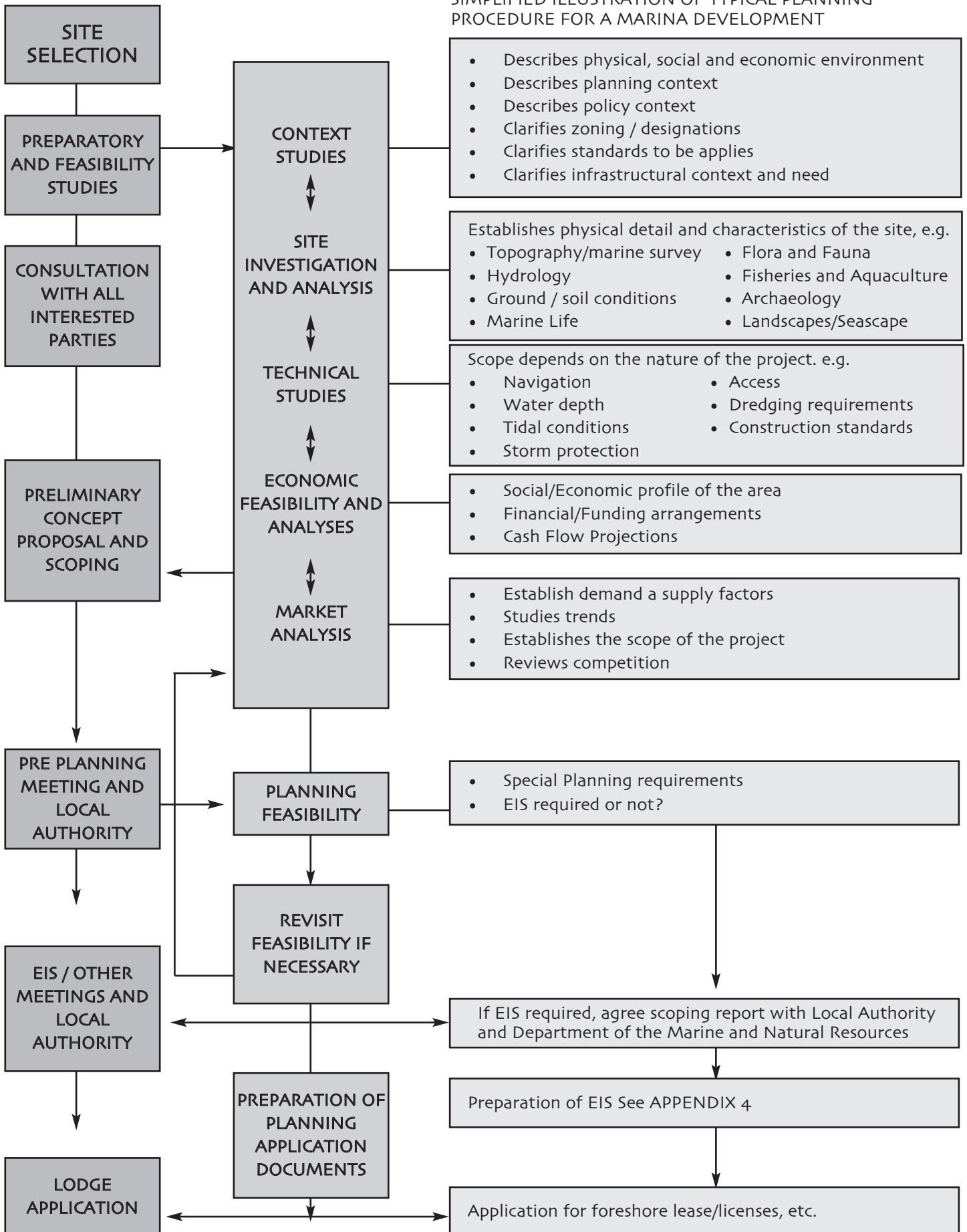
- Senior Chemist (Marine Institute)
- Biologist (Marine Institute)
- Marine Survey Office
- Senior Sea Fisheries Officer
- Biologist, Central Fisheries Board
- Engineer, Grade II

\* The longer period is required for engrossment of Leases

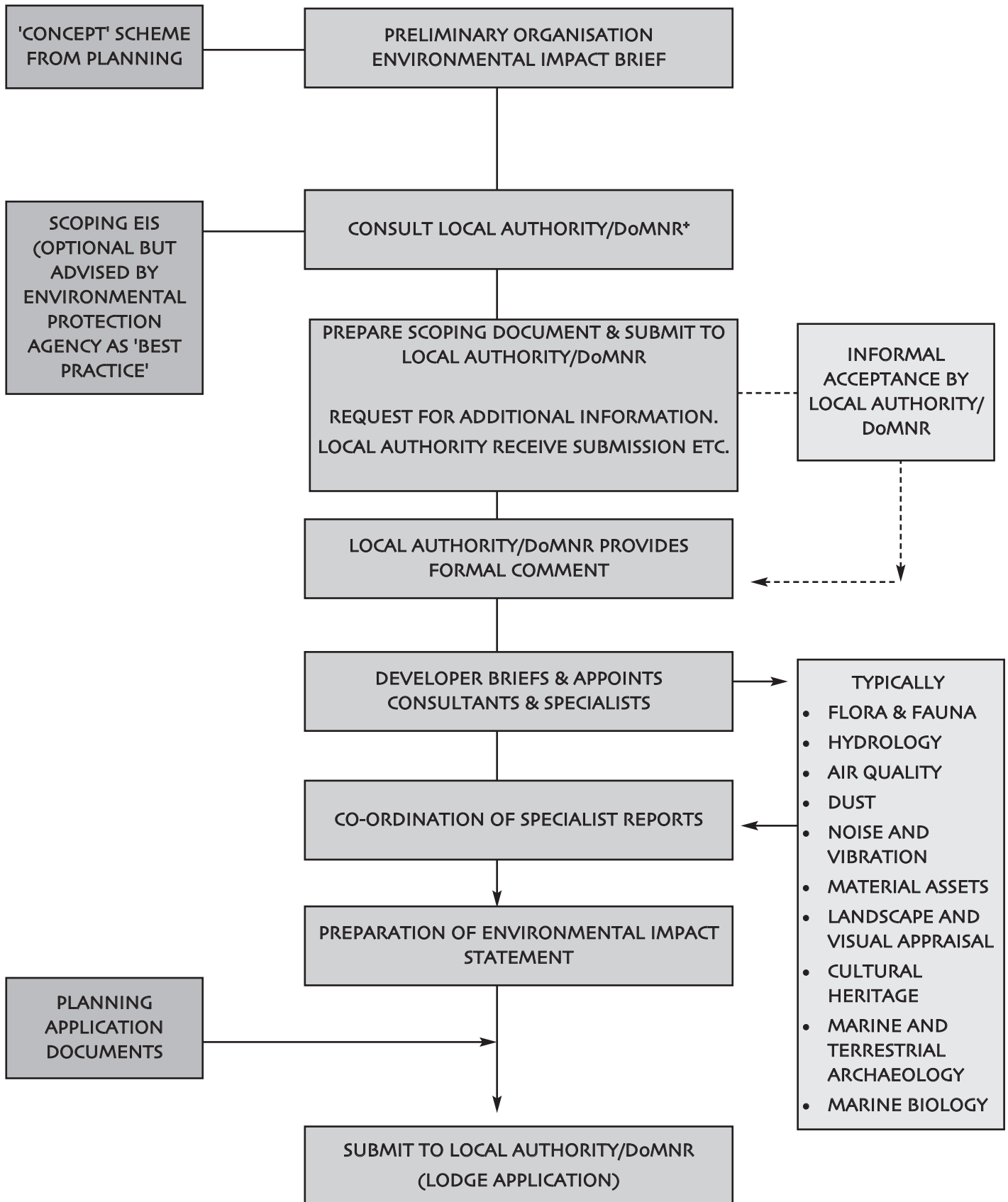
\*\* THIS SECTION OF THE PROCESS, IF USED, MAY ADD 2-3 MONTHS TO THE TIMETABLE

## APPENDIX 3 PLANNING PROCEDURE

SIMPLIFIED ILLUSTRATION OF TYPICAL PLANNING PROCEDURE FOR A MARINA DEVELOPMENT



**APPENDIX 4: ENVIRONMENTAL IMPACT STATEMENT SCOPING  
ENVIRONMENTAL IMPACT STATEMENT REQUIRED**



\*DoMNR: Department of the Marine and Natural Resources